

# Lower Windsor Township, PA Comprehensive Plan

---

## Plan Document



---

---

# Lower Windsor Township, PA Comprehensive Plan

---

---

## Plan Document

July 2023

### Board of Supervisors

Donald Schock, Chair  
George Yakubowski, Vice Chair  
Phil Rohrbaugh, Supervisor

### Planning Commission

Julia Parrish, Chair  
Hollis Bedell, Vice Chair  
Kelly Skiptunas, Secretary  
Marzena Wolnikowski, Member  
Rachel Sollenberger, Member  
John Bowser, Member

### Township Manager

Sande Cunningham

### Township Zoning Officer

Monica Love

### Township Secretary-Treasurer

Linda J. Zimmerman

### Township Engineer

John A. Klinedinst, C.S. Davidson, Inc.  
Jessica M. Fieldhouse, AICP

### Township Solicitor

Andrew Herrold, MPL Law Firm

### Police Chief

James Thomas

# CONTENTS

## **PART I: COMMUNITY PROFILE**

1. Community Vision, Goals, & Objectives
2. Regional Relationship
3. Existing Community Character & Land Use
4. Natural Features
5. Population Characteristics & Trends
6. Housing Characteristics & Trends
7. Public Utilities
8. Community Facilities
9. Transportation Facilities

## **PART II: COMMUNITY PLAN**

10. Regional Planning
11. Future Community Character & Land Use Plan
12. Housing Plan
13. Public Utilities Plan
14. Community Facilities Plan
15. Transportation Plan
16. Implementation

## **APPENDICES**

1. Community Survey
2. Soil Characteristics
3. Farmland Preservation Strategy

## **EXHIBITS**

- Exhibit 2.1: Regional Setting
- Exhibit 3.1: Existing Land Use
- Exhibit 3.2: Surrounding Land Use
- Exhibit 3.3: Land Conservation Comparison
- Exhibit 4.1: Geology & Structural Geologic Features
- Exhibit 4.2: Prime Agricultural Soils
- Exhibit 4.3: Floodplains and Wetlands
- Exhibit 4.4: Slopes 25% and Higher
- Exhibit 4.5: Hydric Soils

---

---

# CONTENTS

## EXHIBITS (continued)

- Exhibit 4.6: Slopes 0% to 15%
- Exhibit 4.7: Slopes 15% to 25%
- Exhibit 4.8: Streams and Ridge Lines
- Exhibit 4.9: Watersheds
- Exhibit 4.10: Ranking of Bedrock Aquifers
- Exhibit 4.11: Topography
- Exhibit 4.12: Slope
- Exhibit 4.13: Soil Classification
- Exhibit 4.14: Soils Suitable for Conventional In-Ground Systems and Elevated Sand Mounds
- Exhibit 4.15: Soils Suitable for Elevated Sand Mounds
- Exhibit 4.16: Soils Unsuitable for On-Lot Sewage Systems Soils
- Exhibit 4.17: Agricultural Capacity
- Exhibit 7.1: Soil Limitations for On-Lot Sewage Disposal
- Exhibit 7.2: Public Utilities
- Exhibit 8.1: Community Facilities
- Exhibit 8.2: Eastern York School District
- Exhibit 8.3: Fire Emergency and Support Facilities
- Exhibit 9.1: Average Daily Traffic
- Exhibit 9.2: Road Jurisdiction
- Exhibit 9.3: Functional Classification
- Exhibit 9.4: Existing Roadway Conditions
- Exhibit 11.1: Future Land use
- Exhibit 11.2: Farm and Natural Land Trust & York County Agricultural Land Preservation Board Easements
- Exhibit 11.3: Agricultural Security Areas & Clean and Green Properties
- Exhibit 11.4: Parcels of 1 Acre or less within the Agricultural Future Land Use

## **PART I: COMMUNITY PROFILE**

---

# 1. COMMUNITY VISION, GOALS, & OBJECTIVES

## PURPOSE & INTENT OF THIS COMPREHENSIVE PLAN

This Comprehensive Plan is a policy guide created with the intent of guiding elected and appointed officials with decision-making over the next ten (10) to twenty (20) years.

A hopeful document, it intends to identify existing conditions within the community and provide a series of statements and objectives related to maintaining and improving the Township in the following areas:

- Existing Land Uses and Future Growth
- Housing Conditions and Stock
- Natural Features
- Community Facilities
- Transportation
- Public Utilities

Additionally, this Comprehensive Plan represents an update to the Township's 2002 Comprehensive Plan. The update had the following goals:

- Ascertain the relevance of the previous plan's vision and goal statements; and,
- Update the Community Profile and

Community Plan, as necessary, to reflect changes in population growth and physical development.

Determining the relevance of the Township's 2002 Vision and Goals was done by conducting a Community Survey and Needs Assessment.

## COMMUNITY SURVEY & NEEDS ASSESSMENT

The Survey intended to collect information regarding resident and property owner priorities in the areas of future land use and development, housing, transportation, and community facilities and services.

The Community Survey was available in both digital and hard copy formats. Surveys were available for download on the Township's website and for pick up at the Township building, local post offices, and other locations throughout the Township. A copy of the Survey and a complete summary of citizen responses are included in [Appendix 1](#).

Farmland Preservation remains one of the Township's top three (3) most significant concerns, the other two (2) were the final disposition of the Modern Landfill and taxes.

When asked why they have chosen to live within the Township:

- Eighty-five percent (85%) of respondents stated it was because of the Township's safe environment.
- Eighty-two percent (82%) of respondents stated it was because of the Township's natural beauty.
- Seventy-five percent (75%) of respondents stated it was because of the Township's rural character and overall cleanliness.

These responses highlight the importance of maintaining the Township's rural character and preserving and protecting its natural environments and ecosystems.

Additionally, when asked what land use activities should be encouraged by the Township, the following land uses garnered the highest response rates:

- Natural Resource Conservation (85%)
- Scenic View Preservation (82%)
- Prime Agricultural Land (81%)
- Open Space Conservation (80%)

Based on this input, needs relating to farmland, open space, and natural features include:

- Protection of prime agricultural soils, groundwater resources, floodplains, and wetlands through measures to minimize use or protect the quality

of these resources.

- Conservation of streams and creek valleys, woodlands, scenic areas, and areas containing steep slopes.
- Designation of areas for growth and development separate from agricultural areas. These areas should be in character with the existing development of the Township.
- Preservation of open countryside and scenic views and vistas in the designated agricultural area.

Overall concerns regarding access to public sewer and water have decreased but their provision remains an issue for approximately twenty-three percent (23%) of respondents (15% cited concerns over well water quality and 8% cited concerns for their on-lot disposal system), compared to twenty-six percent (26%) in 2002.

The community survey also pointed to a growing dissatisfaction with the ad hoc nature of trash hauling.

Based on this input, the following needs related to the provision of public water, wastewater treatment, and trash collection were identified:

- Public water and sewer should be limited to the areas of the Township designated for growth.
- Public water should be limited where possible to areas suffering from insufficient or contaminated groundwater supplies.
- The Township's solid waste management policy should be reviewed concerning the level of service, sustainability, and environmental impacts.

When asked, most survey respondents felt that the provision of utilities was adequate. The following areas of concern were identified by residents as needing an increase in the level of service:

- Internet Connectivity
- Recycling
- Information Sharing

Based on this input, the Township should:

- Coordinate with York County as opportunities arise to increase access to broadband and recycling services.
- Develop a diverse platform for communicating information to Township residents and property owners.

Employment opportunities are limited in Lower

Windsor Township. The survey showed that twenty-six percent (26%) of respondents felt this area needed more attention, up from twenty-three percent (23%) in 2002. Therefore, new non-residential uses should focus on meeting the community's employment needs.

Similarly, when asked what type of businesses should be encouraged the following uses garnered the highest response rates:

- Farmers Market (70%)
- Service Businesses, i.e. pharmacy or restaurant (62%)
- Recreation (53%)
- Riverfront Recreation (51%)

Conversely, the majority of residents thought the Township should not increase or even encourage further development of the following types of land uses:

- Residential Development
  - Single Family Development (55%)
  - Multi-Family Development (87%)
  - Townhouses (87%)
  - Mobile Home Parks (92%)
  - Affordable Housing (56%)
  - Short-term Rentals (59%)
- Light Industrial (56%)
- Heavy Industrial (82%)



- Large Scale Solar (60%)
- Wind Farm (59%)
- Professional and Business Office (52%)
- Retail (56%)

That being said, a majority of the respondents (52%) supported the development of additional housing targeted specifically to allow seniors to age in place.

Based on this input, needs relating to land use include:

- Guiding residential and non-residential development to the most appropriate locations in the Township, while preserving the Township's rural character.
- Continue to provide a mechanism to implement the Comprehensive Plan's land use goals and objectives.
- Prevent the random location of uses that affect the long-term public health, safety, and welfare of the community.

Roadway and transportation improvements were also of concern to residents. Based on this input, the Township should:

- Limit the location, density, and intensity of

development based on the Functional Classification of Roadways. See Chapter 9, Transportation.

- Develop a dialog with both PennDOT and York County to demonstrate the need for specific transportation improvement projects and the impact these projects have on achieving the Township's Comprehensive Plan's goals.

Lastly, the final disposition of the Modern Landfill was of significant concern to survey respondents. Based on this input, the Township should:

- Carefully monitor the status of-the aging landfill, which is nearing capacity, with considerations given to both the Comprehensive Plan and the Zoning Ordinance.

The needs and preferences derived from the survey are further reflected and incorporated in the following community vision, goals, and objectives.

### **COMMUNITY VISION**

One of the primary goals of the 2022 Community Survey was to ascertain the continued relevance of the 2002 Comprehensive Plan Vision Statement which was intended to capture Lower Windsor's vision for the future preservation, development, and enhancement of the community:

***Lower Windsor's rich heritage as a safe, family-oriented, small town and farming community shall be our primary guide for directing future growth and development in the Township. Our citizens and leaders will work together to preserve and enhance the Township's traditional "town and country" character, even as we welcome the new residents and private investment needed to maintain and grow a healthy, viable, and prosperous community.***

Based upon survey responses, ninety-five percent (95%) of respondents strongly agreed or agreed with the 2002 Vision Statement, as written.

**COMMUNITY GOALS & OBJECTIVES**

As part of a good planning program, a series of goals and objectives must be formulated to clearly state desirable and acceptable policies for both anticipated development within the community and the provision of community services. These policy statements establish a sound basis for recommendations and decisions affecting the orderly development of the Township, thereby improving the overall quality of life and the environment.

In developing these policies, a detailed analysis of existing conditions and trends has been completed. The findings of this analysis and the survey of residents' wishes are important considerations in

formulating these policies. Once established, these goals and objectives form the basis for the Comprehensive Plan; when put into practice they set the pattern for future development and change in the Township.

The community development policies provide a basis for Plan formulation. They serve as the necessary and logical link between existing conditions and those that are desired. This process is illustrated in the following manner:

<u>Basic Studies</u>	<u>Community Goals &amp; Objectives</u>	<u>Plans</u>	<u>Implementation</u>
What exists?	What do we want?	This is our strategy.	Our Plan is official. We will use our legal powers to carry it out.
What changes are anticipated?	How can we guide anticipated change to achieve it?	This is how we will achieve what we want.	

As the chart indicates, Plans are the real or practical manifestations of community development policies and should reflect such policies as much as possible. However, since the control that a community has over its development can be fairly limited, and since all things that might be embodied in public policy may not be achieved, it is imperative that the

community's goals and objectives be realistic and sound.

Although the primary purpose of developing policy statements is to set the direction for the Comprehensive Plan, other benefits may be achieved through the use of such policy statements. Included among these benefits are the following:

- Goals and objectives facilitate public understanding and public participation in the planning process and are thus written in general terms to allow for easy interpretation by the public.
- Goals and objectives help elected officials guide the planning process by providing a common framework for evaluating specific proposals and making decisions about the Township's future.
- Goals and objectives serve as a coordinating device by which public and private agencies can operate within the same basic framework.
- Goals and objectives can provide an element of stability and consistency in the planning program. This is possible if all development decisions are based upon this single set of established policies as a frame of reference.

- Goals and objectives are useful guides to the governing bodies responsible for the adoption and administration of land use regulations. Due to the inherent flexibility of such land use regulations, the goals and objectives establish a uniform point of reference to determine whether land use decisions are in harmony with the Comprehensive Plan.

The community goals and objectives which follow are organized according to each land use category.

### **Agricultural Development**

A significant percentage of the land area of Lower Windsor Township is devoted to agricultural uses, as is the land area of the surrounding townships. As such, agriculture forms a critical segment of the local economy. Thus, it is recommended that the following policies guide the continuing development of Lower Windsor Township:

- Prime agricultural soils should be reserved and preserved wherever possible for agricultural purposes, thus maintaining the agricultural economy of the area and enhancing its rural character.
- Nonagricultural development should be planned to not fragment prime agricultural areas.

---

## Residential Development

Historically, Lower Windsor Township has developed as both a rural community with single-family homes and a community with slightly higher residential densities in village centers. To preserve the pleasant, rural atmosphere in the Township and also provide for continuing residential diversity, several policies should be implemented. New residential development should provide:

- A variety of housing types (most notably, senior housing) in compact neighborhoods in areas where it is feasible to provide public utilities and community facilities.
- Development that is designed to complement the physical environment in such a way as to make the best use of available space and to take advantage of natural amenities.
- Single-family conversions to either multi-family or commercial uses should be done only in a manner that has no harmful effects on the community.
- Protection from potentially blighting influences such as junkyards and heavy industry through land use controls and the use of open space buffers and landscape screening.

- Preservation of the countryside and open space in the Township by limiting residential development in environmentally sensitive areas (for example, steeply sloped lands, prime agricultural soils, floodplains, groundwater supply areas, wetlands, and areas that are potentially hazardous for on-site sewage disposal).

## Commercial Development

Establishing and sustaining a proper level of convenient commercial services for Lower Windsor Township is a prime factor in maintaining an attractive and pleasant living environment. While the Township may approach a status of self-sufficiency through the provision of consumable convenience goods, Lower Windsor will probably continue to be dependent upon nearby urban centers for goods and services of a more specialized and competitive nature. Commercial activities that would add to the convenience of Township residents and add vitality to the community should be encouraged. Therefore, the following policies are recommended:

- Commercial establishments within designated development areas are encouraged, provided they are well located to serve particular residential areas.

- Compact commercial areas should exist harmoniously with residential development and should not detract from the quality or aesthetics of the immediate environment.
- Large-scale commercial development, such as shopping centers, is encouraged only in areas compatible with and capable of accommodating such uses.
- All commercial establishments should be readily accessible from major thoroughfares and adequate off-street parking should be provided.

### **Industrial Development**

Heavy industries that are poorly located and have nuisance effects such as noise, odor, and increased traffic can adversely affect adjacent properties and general living conditions. Any additional industrial development in the Township should reflect the following issues to minimize possible harmful effects:

- The inclusion of industrial sites in the Township will be encouraged only in those specific instances in which industrial activity will not negatively impact the environmental and social integrity of the community.

- Potential sites must be suitable in terms of topography, area, accessibility, and availability of utilities.

### **Public Utilities & Community Facilities**

Lower Windsor Township and other public agencies provide specific facilities and services that promote the health, safety, and well-being of its residents. These facilities and services include a variety of elements: police and fire protection, schools, recreation areas, sewer and water services, municipal buildings, and equipment. By providing these facilities and services at an adequate level, the Township can increase its overall attractiveness. To maintain the existing level of community facilities and public utilities as well as encourage their improvement as the Township grows, the following policies are recommended:

- The planning and development of community facilities should be coordinated with the expected growth of the Township to encourage efficient and effective use of such facilities.
- Land to be utilized for the construction of community facilities and utilities should be acquired and reserved for such use by the Township as early as possible to avoid rising costs of land acquisition.

- The Township should promote sufficient educational, cultural, and recreational opportunities for the entire community.
- Development or extension of public facilities or utilities should consider regional (neighboring municipalities) partnerships in the interest of greater economics, mutual benefit, and service.
- The development or extension of public utilities should be predicated upon the need to solve existing problems and the desire to achieve orderly growth through the implementation of the Future Land Use Plan.
- The Township's solid waste management policy should be reviewed according to issues of quality of service, sustainability, and environmental impacts.

### **Conservation & Open Space Preservation**

The common theme throughout the Community Goals and Objectives section is that of maintaining the rural character of the Township and protecting and preserving natural environmental features; while, also providing for the commercial, industrial, and residential needs of the Township residents. One of the best ways to ensure that this will be accomplished is through the adoption of strict conservation policies and programs of open space

preservation. The following are policy statements regarding conservation and open space:

- Open space should be reserved and preserved and located to provide strategic breaks in development, thus ensuring a balanced and harmonious land development pattern.
- Open spaces should be used as an effective buffer to separate adjacent incompatible land uses.
- Undevelopable or marginal land should remain as open space.
- Open spaces along watercourses, streams, and drainage ways should be preserved as a means of minimizing future flood damages.
- Natural features such as woodlands, streams, hills, and scenic vistas should be preserved and protected from haphazard development.
- Increased surveillance and enforcement activities to reduce or eliminate illegal dumping.

### **Transportation & Accessibility**

Lower Windsor Township is comprised of various land uses, all of which create interacting patterns requiring the movement of both people and

materials. Presently, the vast majority of such movement does and will continue to take place via the use of cars or trucks. Thus, the Township's thoroughfare system is of critical importance. However, the development of multi-modal transportation networks is critical to the community's health and quality of life. Basic policy guidelines concerning transportation are as follows:

- Initiate discussions with state and county regulatory agencies regarding transportation improvements.
- Existing roads should be upgraded to meet minimum functional and design standards.
- New roads should be well coordinated with existing streets and should also meet the minimum standards.
- A program of continuous road maintenance should be integrated with a transportation planning program.
- Measures, such as wayfinding, directional, speed limit, and traffic control signage should be used to regulate and control the flow of traffic.
- Design trails, greenways, and public transportation facilities as the opportunity arises.

- Location, density, and intensity of new development should correspond to the Township Functional Classification System, as identified in Chapter 9, Transportation.

### **Historic Preservation**

The cultural resources of the Township should be preserved as a living part of community life to create a sense of local heritage.

### **Environmental Security**

Residents of any locale are interested in having a feeling of environmental security in which they know that everything is being done to maintain environmental safety. The Comprehensive Plan helps provide this environmental security by promoting the implementation of proper land use controls. By using the following policy as a basis for developing these land use controls, environmental security should be achieved:

- Wherever and whenever development occurs, the quality of the environment of Lower Windsor Township should be maintained or advanced, but certainly not degraded, to provide the environmental security which the citizens so rightfully deserve.

### Cooperation

It is common knowledge that people working together can do much more than people working individually. This is true in almost all aspects of life, including efforts to make a community a better place in which to live. Both public and private interest groups who desire to attain this goal should work together. Whether groups include real estate developers, industrial firms, school districts, or Township government officials, they should cooperate rather than compete. To achieve community-wide cooperation, the following policy advancing the cause of cooperation over competition should be urged in the development of Lower Windsor Township:

- Cooperation between both private and public interest groups must be advocated to ensure stability and the effective functioning of the Township as a whole.

### IMPLEMENTATION

The policies identified can be readily implemented through the elements of the Comprehensive Plan. They can be further implemented through land use and development controls, such as subdivision, land division, and zoning regulations, which can be

formulated as part of the total community planning process.

Local officials should educate the public through conversation and public meetings as to how the Township is intended to develop. Through education, residents will also become aware of how the Township is intended to develop and hopefully become concerned and interested in helping the Township to carry out its plan of development in both the physical and non-physical aspects.

The previously stated policies for the growth and development of Lower Windsor Township, however, should not be considered permanent. They should be periodically reviewed as the community develops. As conditions affecting Lower Windsor change, the community goals and objectives may likewise have to be modified or expanded to address new issues and problems.



---

## 2. REGIONAL RELATIONSHIP

### LOCATION

As shown in [Exhibit 2.1](#), Lower Windsor is a rural Township located in eastern York County, bordered by Hellam Township to the north, Windsor Township to the west, Chanceford Township to the south, and the Susquehanna River (Manor Township, Lancaster County) to the east. The Boroughs of East Prospect and Yorkana are located within the borders of the Township, along with the unincorporated villages of Craley, Bittersville, Martinsville, Delroy, and Long Level. Nearby communities include the Boroughs of Hallam, Red Lion, Windsor, and Wrightsville, along with Springettsbury Township. The Township has a total land area of twenty-five (25) square miles. Based on the 2020 United States Census, the Township's population is 7,519.

### REGIONAL INFLUENCES

Most existing development in Lower Windsor Township is of a low-density residential nature and is scattered throughout the municipality. As a result, Township residents travel to other municipalities for most employment, shopping, and cultural functions. Thus, many factors that will influence future development in Lower Windsor Township have their origins in other areas. For this reason, it is necessary

to recognize the relationship of the Township to the Region of which it is a part.

Lower Windsor Township is situated near U.S. Route 30, which is the main east-west artery between urban developments in York and Lancaster Counties, centered around the cities of York and Lancaster. As a result, residents look to both areas for cultural, economic, social, and political services not available in the Township. The Greater York Area, which includes the City of York and the developed portions of surrounding municipalities, is the dominant community exerting influence on the Township.

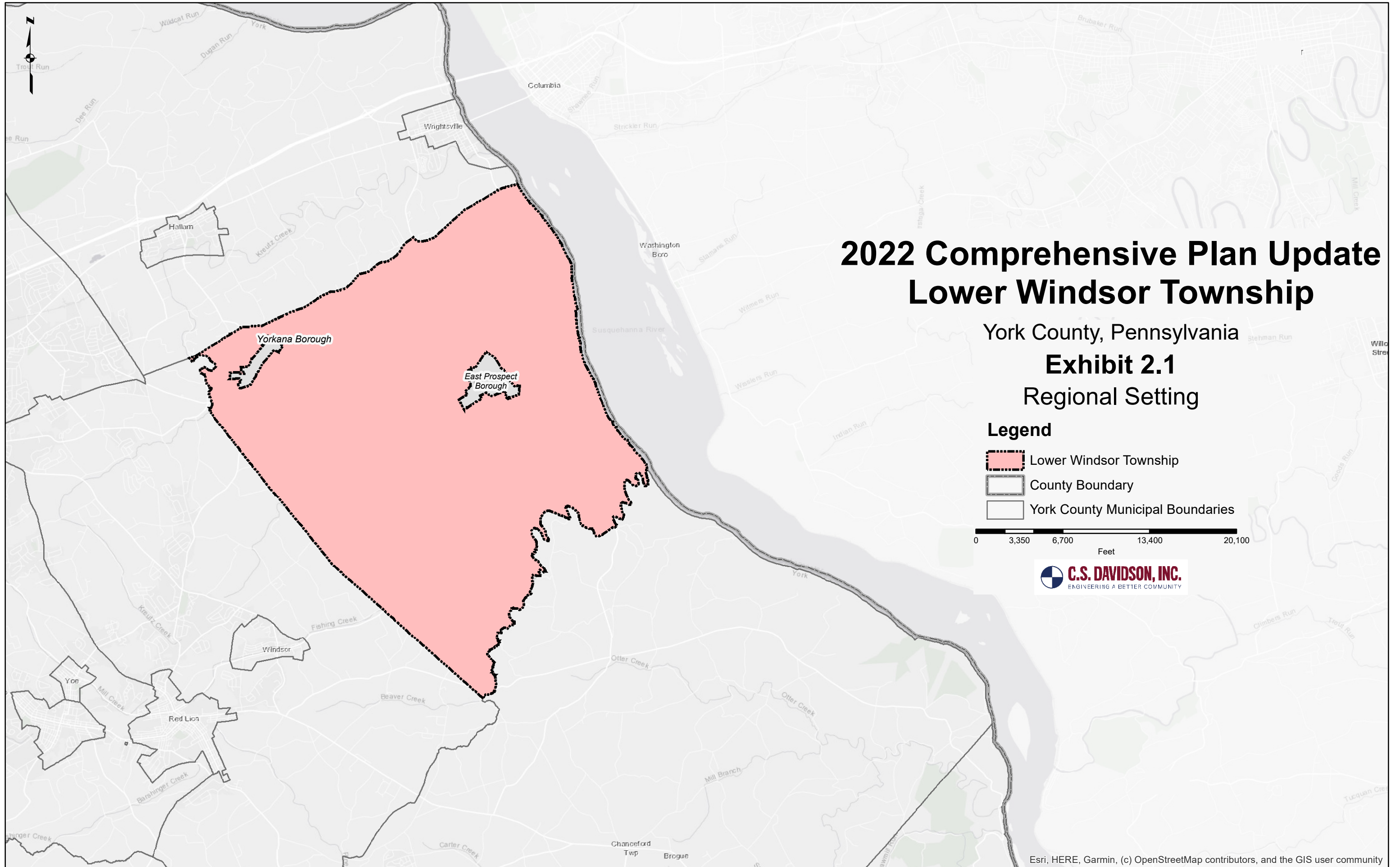
Although to a lesser extent, highway accessibility to other communities in the Region will also influence the growth and development of Lower Windsor Township. For example, State Route 624, which traverses the southern portion of the Township, provides direct access to the Borough of Red Lion, which is a moderate-sized community with growing suburban areas. State Route 624 traverses the eastern section of the Township as well and provides access to the Borough of Wrightsville and State Route 462. Route 462, which parallels U.S. Route 30, is another direct route to the urbanized areas of York and Lancaster. Wrightsville Borough is also accessible to Township residents via State Route 2011, better known as Cool Creek Road. In addition, State Route 2011 provides a direct link to

U.S. Route 30.

State Route 124 provides linkages with East Prospect and Yorkana Boroughs, plus serves as a direct route to the York Urbanized Area and Interstate 83.

Interstate 83 then provides linkages to the cities of Baltimore and Harrisburg, which offer a larger array of shopping, cultural, and social activities and facilities. The frequency of trips to these larger cities is limited though because of the travel distances involved.

Past influences on growth within the Township have primarily been from a westerly direction. This trend is expected to continue, although new growth influences from Lancaster County to the east have developed in recent years. Lower Windsor Township is expected to maintain its rural character for the foreseeable future as it does not have the necessary public facilities to support urban-style growth.





# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 2.1

### Regional Setting

#### Legend

-  Lower Windsor Township
-  County Boundary
-  York County Municipal Boundaries



### 3. EXISTING COMMUNITY CHARACTER & LAND USE

A comprehensive analysis of existing community character and land use patterns provides a variety of data points that serve as a basis for future land use planning. The pattern that exists at any point in time represents a composite of the past and present activities of the local citizens. The land uses reflect where people live, work, shop, and conduct other activities. Because of this relationship between land use and human activities, land use has become a continually changing and evolving phenomenon. This is reflected in the significant changes and differences in the various types and intensities of land use in the community. The catalysts for these land use shifts are the technological and societal changes, plus the pressures of natural population growth and expansion. These factors all played a role in the development of the Township's 2022 Future Land Use Plan, shown in [Exhibit 11.1](#).

The 2022 update of Chapter 3, herein, will provide an analysis of the changes in community character and land use allocations between 2002 and 2022.

### HISTORICAL DEVELOPMENT

Lower Windsor Township received its first major influx of European settlers in approximately 1736. Previous to that year, all settlement was to be kept east of the Susquehanna River, but the Indian Treaty of 1736 extended Lancaster County's boundary westward indefinitely. Families of German descent from Lancaster and Chester counties immediately set out across the river via Wright's Ferry to find new land. These families tended to settle in the Conojehelia Valley (an old Indian name that is now referred to as the Canadochly) that extends across the entire Township in an east-west direction. This valley offered the settlers excellent lands for farming such crops as wheat, corn, oats, rye, potatoes, and hay.

The area was officially organized as Lower Windsor Township in 1838. It was formerly a part of Windsor Township for a period of eighty (80) years.

The first religious services were held in the log houses of the pioneer settlers. However, in 1763, Lutheran and Reformed residents joined together to erect a log church. In June 1764, the structure was dedicated and stood for thirty-six (36) years. A second church was built in 1799, and a third in 1867. English preaching was introduced in 1835. Other churches were gradually constructed throughout the Township.

Tobacco growing was introduced into the Township in 1837. Lower Windsor became the “banner” Township in the County for the production of tobacco, as the quality of the crop was equal in quality to that grown in nearby Lancaster County. Cigar factories became a major industry, with Craley being the center of the cigar-making industry. This village developed along the Wrightsville-Chanceford Turnpike and many people settled in this area. About one-third (1/3) of the Township’s population was employed in the manufacturing of cigars until the turn of the century. At one time, the area produced 100,000 cigars daily from locally grown tobacco.

Large iron works were also situated in the Township, mostly in the vicinity of East Prospect. Samuel Slaymaker of Lancaster built the first furnace in 1823 at Margarett Furnace. It was put into operation in 1825 and soon prospered into a large business.

A good quality of ore found in the immediate vicinity was used to make pig iron. In 1825, a foundry, known as Woodstock Forge, was built about one and one-half (1 ½) miles east on Cabin Creek. An extensive business began producing such items as ten-plate stoves, iron kettles, skillets, and various kinds of hollow ware.

This foundry had a charcoal furnace and wood was obtained from the surrounding area. About eight thousand (8,000) cords of wood were consumed annually, stripping the Township of valuable woodland. The ironworks were in operation for about nine (9) months per year. Each week, thirty (30) tons of iron were made. This amounted to about one thousand one hundred (1,100) tons per year.

At one time, the furnace property included one thousand nine hundred (1,900) acres of land. However, much of the timber was obtained from the land of other property owners. Several smaller iron ore companies also conducted business in the area.

Logging was also an important industry in the mid-1800s. Oak and hickory logs cut from the forests between Craley and the Susquehanna River were sent by boat up the river to Columbia. The logs were then sold to the railroads. Other industries that flourished in the Township were Anstine’s Fulling Mill and Beard’s Tannery.

### **CURRENT COMMUNITY CHARACTER & DEVELOPMENT PATTERNS**

A detailed assessment of Lower Windsor Township’s community character and development patterns

was conducted in 2002 as part of the Township's Farmland Preservation Strategy, which is included in Appendix 3.

The assessment highlighted the prevailing "town and country" character of the Township and identified five (5) basic development patterns within the community, including:

- *Traditional Towns*, such as Yorkana and East Prospect Boroughs;
- *Traditional Villages*, such as Craley, Long Level, Delroy, Bittersville, and Martinsville;
- *Rural Clusters*, dispersed throughout the Township, such as the areas around Eastern York High School;
- *Farm and Natural Lands*, still predominant across much of the Township; and
- *Landfill/Recycling*, including the Modern Landfill and adjacent land.

The 2017 York County Growth Management Plan (Envision 2040) utilizes a Growth and Rural Areas Concept to manage growth and protect resources. (Page 64-72, York County Growth Management Plan (Envision 2040), YCPC, 2017)

The framework directs development to areas with services and infrastructure to support it, the growth

and rural area concept seeks to protect important agricultural lands and environmentally sensitive areas.

The 2017 plan identified the Traditional Towns of both Yorkana Borough and East Prospect Borough as Secondary Growth Areas. Secondary Growth Areas are mostly associated with medium-sized boroughs and surrounding areas and have, and will continue to have, a concentrated mix of land uses served by public water and/or sewer service.

The remainder of the Township is identified as Rural Area. Rural Areas are envisioned as consisting primarily of agriculture and natural resource areas that serve to protect the abundance of environmentally sensitive resources, such as woodlands, steep slopes, wetlands, floodplains, and prime soils. It is understood that these rural areas will include Agricultural Resource Land, Natural Resource Land, and Rural Centers.

Rural Centers are what the Township's 2002 Farmland Preservation Strategy referred to as Traditional Villages. These areas are generally small in overall size and feature residential densities that are somewhat higher than the surrounding agricultural and natural resource lands.

Exhibit 11.1 Future Land Use Map identifies both Yorkana Borough and East Prospect Borough as secondary growth areas and the villages of Craley, Long Level, Delroy Bittersville, and Martinsville as Rural Centers per the 2017 York County Growth Management Plan.

It is also worth noting that the Township does not currently regulate signage. Many communities choose to regulate signage in their zoning ordinance in an effort to preserve community character.

### **FARMLAND PRESERVATION STRATEGY & ANALYSIS**

In addition to the identification of the community character and development patterns, the 2002 Farmland Preservation Strategy identified the following goals and strategies regarding the establishment of a formal farmland preservation strategy:

- Strategy 1 – Include the farmland preservation strategy in the Comprehensive Plan's Future Land Use element to make a strong policy and planning statement about the Township's desire to retain its agricultural heritage and economy.

The 2022 Community Survey responses support the continuation of strong policy and planning statements regarding the preservation of the Township's agricultural heritage and economy.

- Strategy 2 – In association with other incentive efforts, initiate targeted marketing of Agricultural Security Areas (ASA) and Clean and Green program benefits to non-participating property owners in areas identified as priority locations for farmland preservation.

As a result, there was a more than thirty percent (30%) increase in agricultural parcels enrolled in both the ASA and Clean and Green Programs between 2002 and 2022. See Pages 3-5 for additional details.

- Strategy 3 – Establish partnerships with the York County Agricultural Land Preservation Board and the Farm and Natural Lands Trust to develop a coordinated approach for the use of conservation easements as the primary tool for preserving farmland:
  - Identify priority farmland preservation areas.

- Develop targeted marketing and education campaigns.
- Provide Township funding for easement purchases.

The number of conservation easements has increased by two hundred fifteen (215%). See Pages 3-5 for additional details.

- Strategy 4 – As part of an overall regulatory strategy for the preservation of farmland and community character, revise the Township's Subdivision and Land Development Ordinance to permit the use of innovative design options, including:
  - Traditional Neighborhood Development (TND)
  - Clustering and Flexible Lot Design
  - Conservation Subdivision Design (Growing Greener)

The Township transitioned to Conservation by Design Regulations from the TND Regulations initially adopted as a result of the 2002 Comprehensive Plan.

- Strategy 5 – Initiate consideration of a Zoning Ordinance for the Township that respects and strengthens the traditional development

pattern of the community and includes extensive opportunities for citizen education and participation. Key principles guiding the zoning process should include:

- Limit regulation in agricultural districts primarily to use and density issues.
- Provide flexibility in agricultural districts for farming activities and farm-based businesses.
- Provide options for the transfer of development, traditional neighborhood design, and planned residential development.
- Investigate the feasibility of requiring acre-for-acre agricultural mitigation by applicants for zoning changes which will change the use of agricultural land to any non-agricultural zone or use.

Shortly after the adoption of the 2002 Comprehensive Plan, a Zoning Ordinance and an amended Subdivision and Land Development Ordinance were adopted, implementing strategies 4 and 5. Currently, the Township utilizes the following two (2) regulatory tools to encourage farmland and open space preservation.

- Transfer of Development Rights (TDR)



- Conservation by Design Subdivision Regulations

Use of the Township's TDR Program is increasing which will provide an opportunity for Township staff to monitor program administration of the program, propose modifications, and/ or consider incentives to increase use of the program.

Additionally, the implementation of Strategies 1 through 3 has resulted in the following incentive-based preservation program increases from 2002 to 2022:

- ASA – 30% increase from 4,529 acres to 5,878 acres
- Conservation Easements – 215% increase from 548 acres to 1,730 acres
- Clean and Green – 33% increase from 5,935 acres to 8,836 acres.

Participation in both incentive-based and regulatory-based preservation programs has significantly slowed the development of agricultural land. The Township lost one thousand eight hundred and seven (1,807) acres of farmland to development over the last twenty (20) years. The existing allocation of land uses is discussed in greater detail below.

## EXISTING ALLOCATION OF LAND USES

To analyze the changes in land use allocations between 2002 and 2022 Geographic Information Systems (GIS) data provided by the York County Tax Assessment Office was utilized along with information collected from staff and the Township Planning Commission. The 2002 Land Use Analysis divided existing uses into six (6) general categories: residential, commercial, exempt, farm, industrial, and utility. [Exhibit 3.1](#), Existing Land Use, illustrates the current distribution of these land uses across the Township.

The following is a more detailed description of the six (6) land use categories:

- Residential uses include single-family, two-family, and multi-family dwellings.
- Commercial uses are those that provide income through the exchange of goods and services.
- Industrial uses are those that add value to an item through changes in the state of refinement, such as manufacturing plants, sawmills, foundries, and assembly plants. Terminal and transfer facilities, warehouses, and landfills are also included in this category.
- Institutional uses include those that are under government ownership and control, plus other

public uses such as schools, churches, fire stations, and parks.

- Utility uses include all lands used to provide public utilities.
- Agriculture uses include crop production, woodlands, greenhouses, and animal husbandry.

Exhibit 3.2 shows the existing land use of the areas surrounding Lower Windsor Township.

Tables 3.1 and 3.2 provide a detailed breakdown of the land area devoted to each of these land uses.

As shown, though some of the allocations have changed, the dominant land uses in the Township remain agriculture and residential, respectively.

**TABLE 3.1: EXISTING LAND USE ALLOCATION – 2001**

	Acres**	Percentage
<b>Total Land Area</b>	<b>15,632.7</b>	<b>100.00</b>
Residential*	3,838.0	24.58
Commercial	567.5	3.64
Industrial	321.6	2.06
Agriculture	10,474.0	67.0
Institutional	391.7	2.51
Utility	39.9	0.25

\* Includes apartments

\*\* Not including roadway areas.

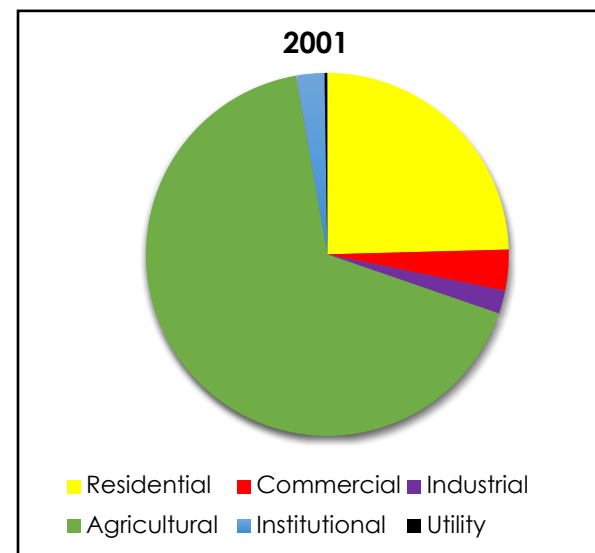
**TABLE 3.2: EXISTING LAND USE ALLOCATION – 2022**

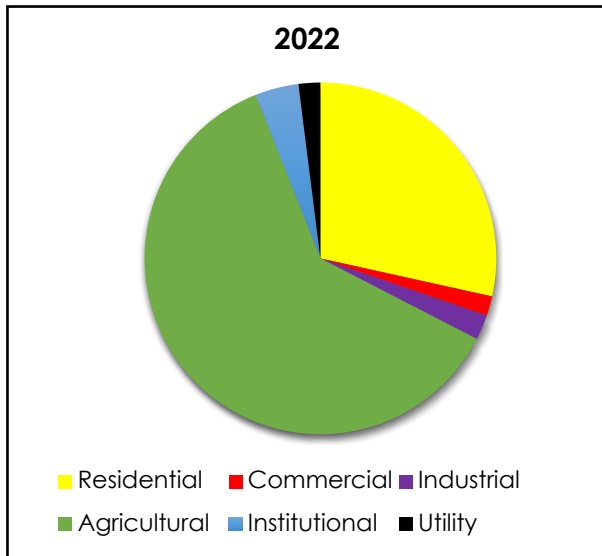
	Acres**	Percentage
<b>Total Land Area</b>	<b>15,725***</b>	<b>100.00</b>
Residential*	4,478	28.5
Commercial	281	1.8
Industrial	361	2.3
Agriculture	9,667	61.5
Institutional	630	4.0
Utility	308	2.0

\* Includes apartments

\*\* Not including roadway areas.

\*\*\* Correction to county parcel data.



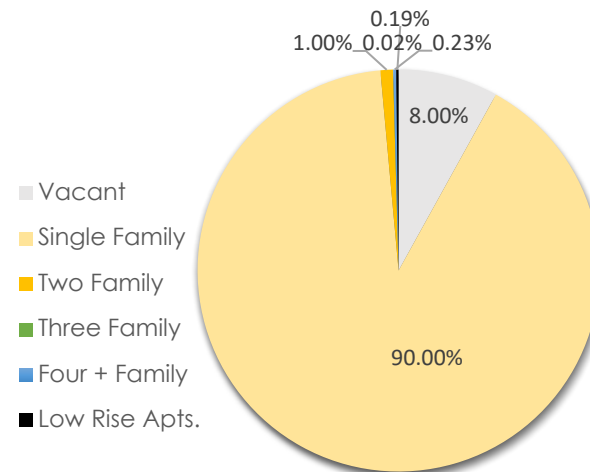


residential areas, for the most part, forming the core areas of residential growth.

The pie chart on the following page details the current breakdown of residential land uses in the Township. As discussed, the majority of the residential land uses are comprised of single-family homes (including mobile homes) at ninety percent (90%) and vacant residential land at eight percent (8%). The remaining two percent (2%) is comprised of two-family and multi-family land uses.

**Residential Uses**

Nearly thirty percent (30%) of the Township's land area is used for residential purposes. The overwhelming residential choice for Lower Windsor Township is the single-family, detached residence and for the most part, is represented by the lowest residential densities. Medium-density residential areas primarily include the various villages throughout the Township, mobile home parks, and suburban-style subdivisions. A very small area of Lower Windsor Township containing apartments is classified in the high-density residential category. Spatially, the residential uses are dispersed throughout the Township with the higher-density



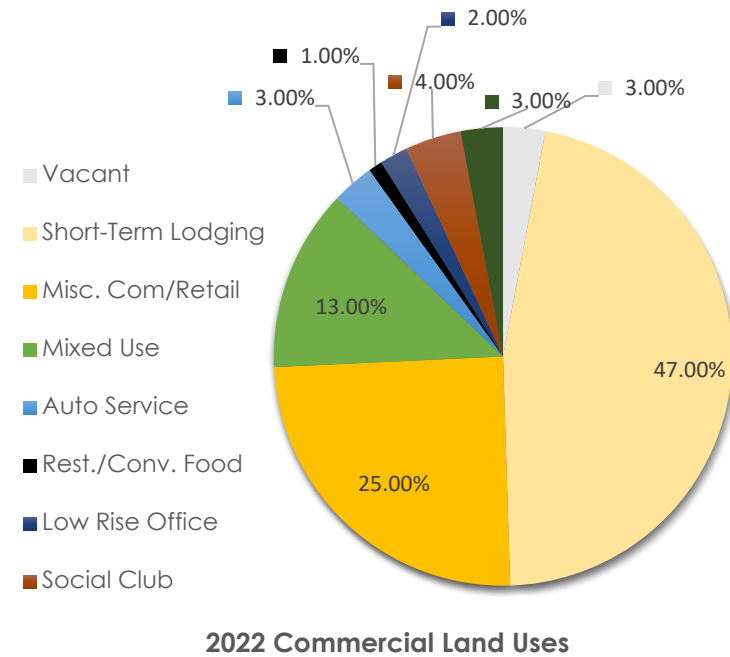
**2022 Residential Land Uses**

**Commercial Uses**

Commercial land uses make up just under two percent (2%) of the total land area of the Township. Activities include professional services and retail businesses, such as auto sales and repair, restaurants, grocery/convenience stores, taxable community facilities, mixed uses, and short-term lodging accommodations in the form of a private medical inpatient facility, cabins, and a small campground.

The following pie chart provides a breakdown of the two hundred and eighty-one (281) acres of commercial land uses in the Township. The majority of the Township’s commercial uses are scattered along the major thoroughfares with concentrations occurring in the Craley area and in the vicinity of Yorkana.

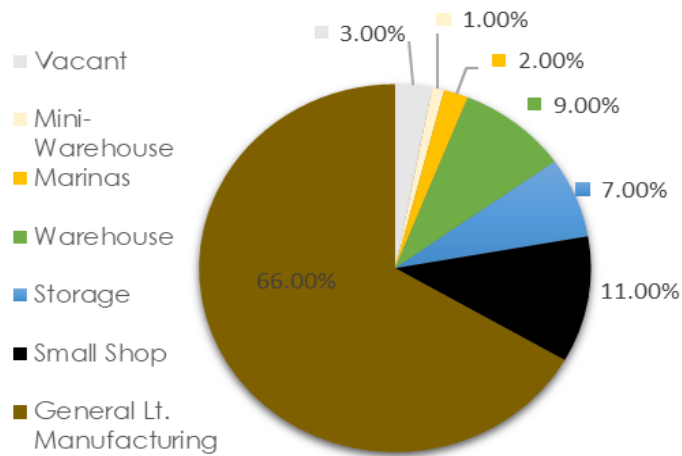
The total land area dedicated to commercial land uses has dropped significantly in the Township from five hundred and sixty-seven (567) acres in 2002 to two hundred and eighty-one (281) acres in 2022. Some of the decrease can be attributed to land uses that have been re-classified from commercial in 2002 to industrial (light industrial) in 2022.



**Industrial Uses**

Industrial land uses utilize just over two percent (2%) of the Township’s land area. The principal industrial use in the Township is Modern Landfill. The remainder of the area devoted to industrial land uses are activities that are typically considered light industrial.

Following is the current breakdown of the one hundred and forty (140) acres of light industrial activities:



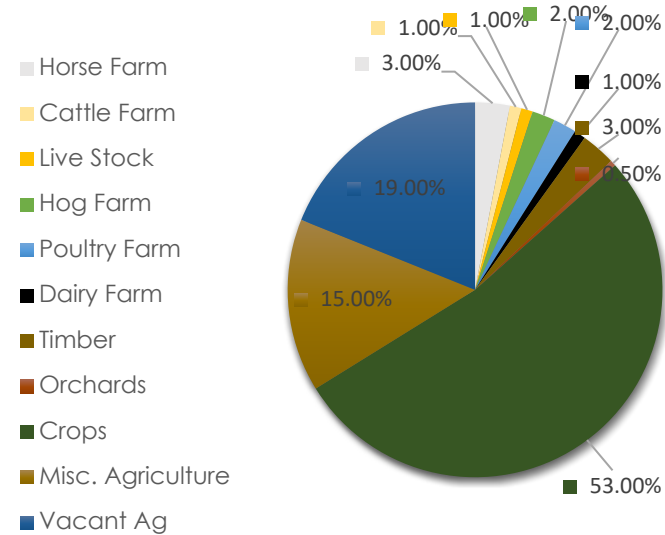
2022 Light Industrial Land Uses

Many of the identified uses were initially categorized as commercial in 2002.

**Agricultural Uses**

Agriculture remains the primary land use in the Township. The chart below provides a breakdown of current agricultural activities.

Much of the Township's farmland is broken up by development and no area of the Township seems of greater significance than any other area.



2022 Agricultural Land Uses

**Agricultural Preservation**

Per [Exhibit 3.3](#), conservation easements increased from five hundred and forty-eight (548) acres to one thousand thirty (1,730) acres between 2002 and 2022. Additionally, Agriculture Security Areas within the Township increased from four thousand five hundred and twenty-nine (4,529) acres in 2002 to five thousand eight hundred and seventy-eight (5,878) acres in 2022, or an increase of thirty percent (30%).

**Institutional Uses**

Institutional land uses occupy four percent (4%) of the Township's land area. Facilities of this nature in Lower Windsor Township include churches, Craley Fire Company, schools, the Lake Clarke Rescue Service, the Township building, and public recreational areas.

The significant increase from two percent (2%) in 2002 to over four percent (4%) in 2022 is likely due to the County's acquisition of Native Lands Park and properties owned by Safe Harbor/Brookfield Energy which may have been reclassified from utility to institutional.

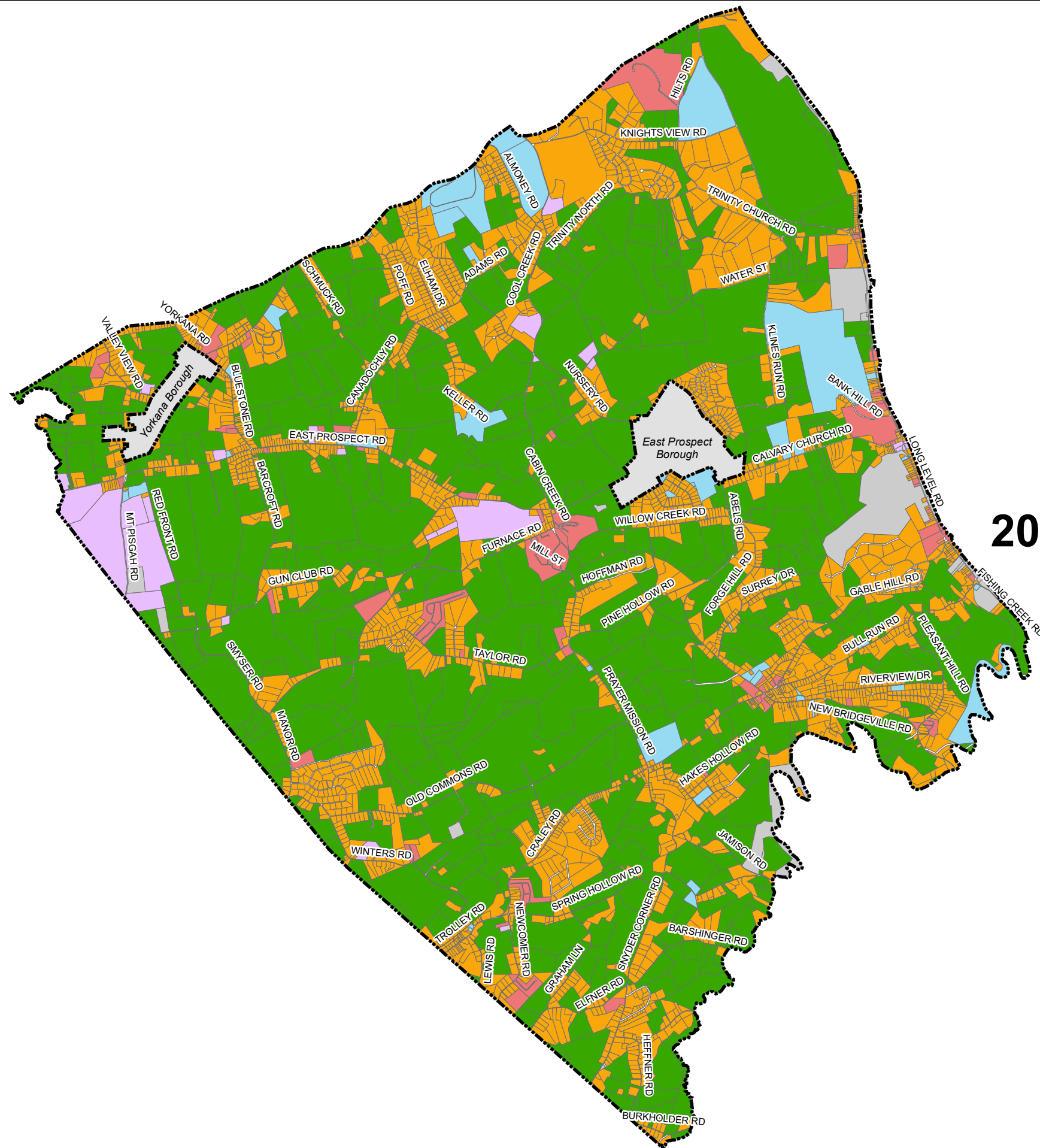
**Utility Uses**

The utility uses occupy two percent (2%) of the land area in the Township.

**SUMMARY**

In conclusion, the overall development pattern in Lower Windsor Township shows a dispersal of development, with a slightly higher concentration in the northern portion. A variety of land uses are intermingled, especially along East Prospect, Mount Pisgah, and Long Level Roads, as well as in the Craley area. Extensive areas of the Township have been retained and preserved for open space and

agricultural uses. Although some of this land may appear prime for development, the impact of such change on the physical environment and character of the Township must be carefully evaluated.



# 2022 Comprehensive Plan Update Lower Windsor Township

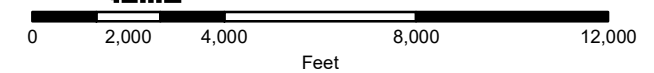
York County, Pennsylvania

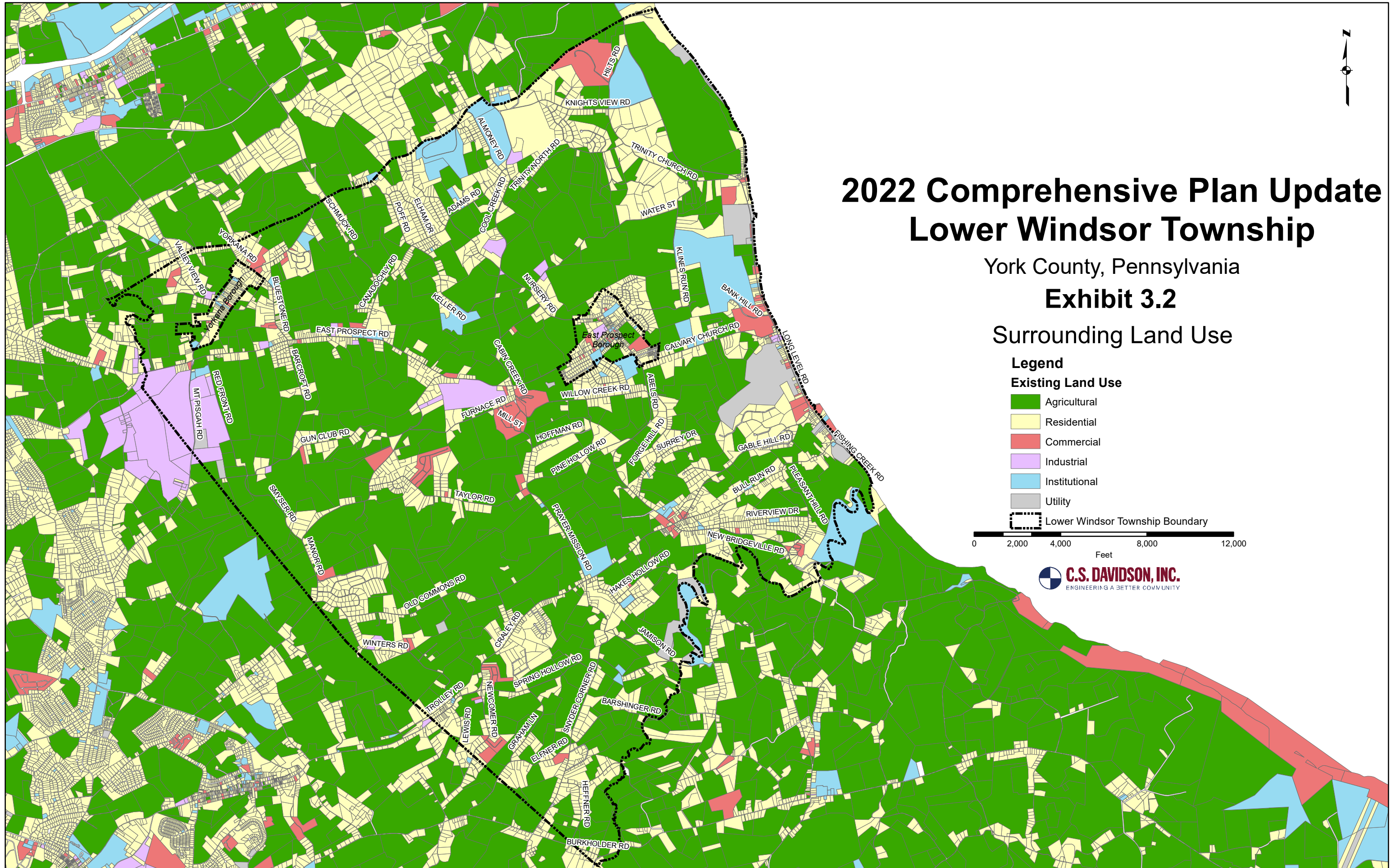
## Exhibit 3.1 Existing Land Use

### Legend

#### Existing Land Use

- Agricultural - 61% (9,667 ac.)
- Residential - 28% (4,350 ac.)
- Commercial - 3% (409 ac.)
- Industrial - 2% (361 ac.)
- Institutional - 4% (630 ac.)
- Utility - 2% (308 ac.)
- Streams
- Lower Windsor Township Boundary





# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 3.2

Surrounding Land Use

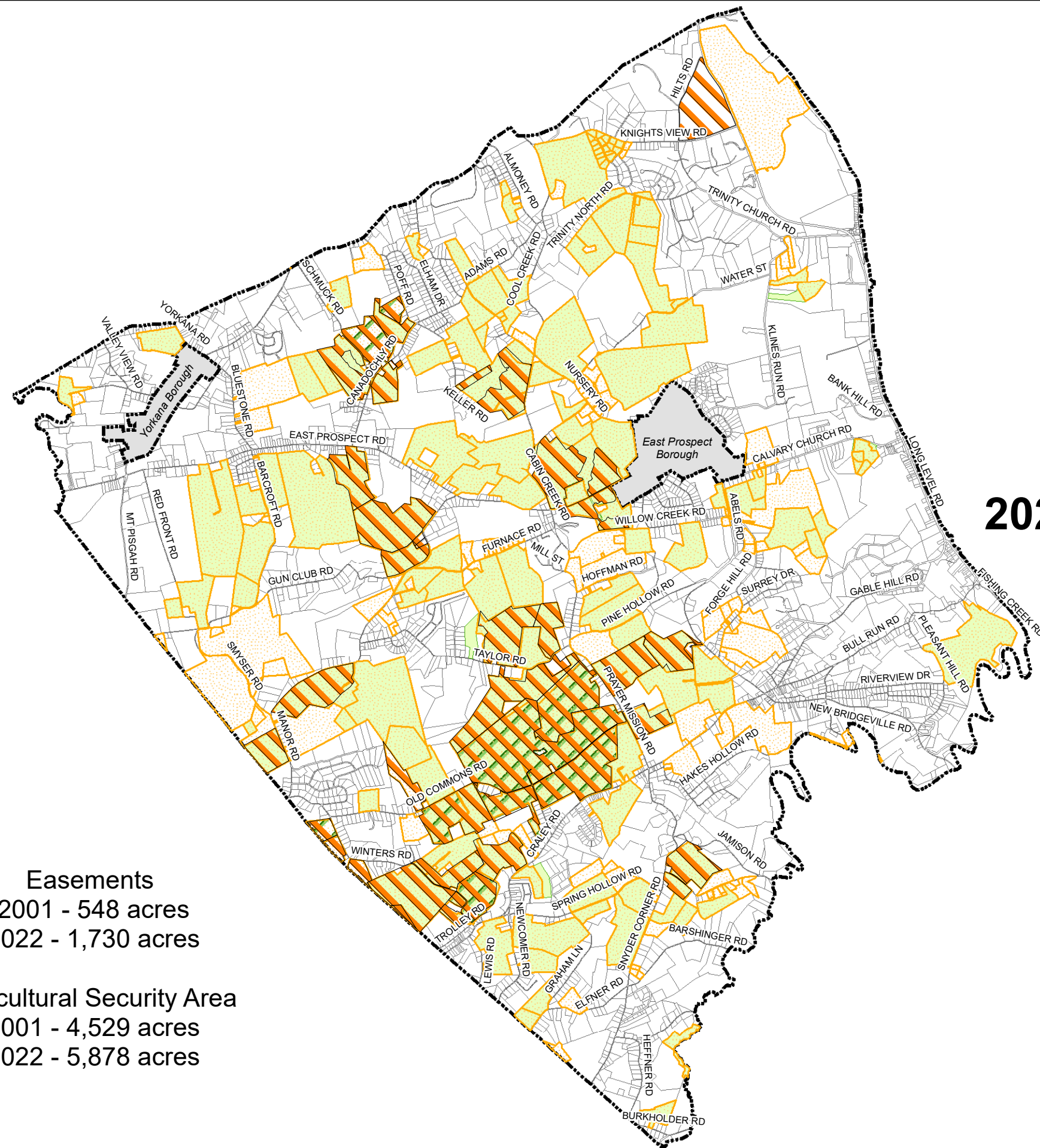
### Legend

#### Existing Land Use

- Agricultural
- Residential
- Commercial
- Industrial
- Institutional
- Utility
- Lower Windsor Township Boundary







# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 3.3 2001 Land Conservation & 2022 Land Conservation Comparison

### Legend

-  2022 Conservation Easements
-  2022 Agricultural Security Areas
-  2001 Conservation Easements
-  2001 Agricultural Security Areas
-  Lower Windsor Township Boundary
-  Parcels



**Easements**  
2001 - 548 acres  
2022 - 1,730 acres

**Agricultural Security Area**  
2001 - 4,529 acres  
2022 - 5,878 acres

## 4. NATURAL FEATURES

Chapter 4 has been updated to include current land use allocations, where appropriate, and relevant information from the 2018 York County Environmental Resources Inventory, as compiled by the York County Planning Commission.

The natural characteristics of the landscape in the Township have been an important factor in determining its historical pattern of development. Areas of significant physical constraint - floodplains, wetlands, and steep slopes have generally been less likely to be subject to development. These natural determinants continue to be constraints to development. Other factors, such as the presence of soils especially favorable to agriculture or hydric soils or woodlands, have also been influential in determining activities in Lower Windsor Township.

As part of the examination of existing conditions in the Township, an inventory and analysis of various environmental factors was completed. These factors are critical components in any consideration of future alternatives for growth and development. It is also important to note that some of these factors may impose constraints on development while others suggest development opportunities. An environmental factor can represent both an opportunity and a constraint.

Several analysis maps have been prepared that delineate these resources:

- Geology and Structural Geologic Features, Exhibit 4.1.
- Prime Agricultural Soils, Exhibit 4.2.
- Composite Constraints (including floodplains, wetlands, steep slopes, and hydric soils), Exhibits 4.3, 4.4, and 4.5, respectively.
- Suitability for Development, Exhibits 4.6, 4.7, and 4.4.

This series of interrelated maps permits the identification of areas requiring preservation, areas requiring conservation, and areas available for development within the Township. Areas requiring preservation include creeks, streams, floodplains, and other lands that are generally undevelopable due to physical characteristics or statutory regulations. Areas in need of conservation include fragile environmental areas such as wetlands, steep slopes, woodlands, and prime agricultural lands. These valuable resources should be protected or conserved due to the environmentally and economically sensitive nature of these areas and their importance to the community.

For areas not requiring special efforts toward preservation or conservation, there remain other relevant factors that make lands more or less suitable for development. These factors include the availability of water and sewer services (or the prospect of their availability) and road accessibility.

Finally, a composite of these natural features was made and mapped, reflecting the relative suitability of all undeveloped portions of the Township for future development.

### PHYSIOGRAPHY

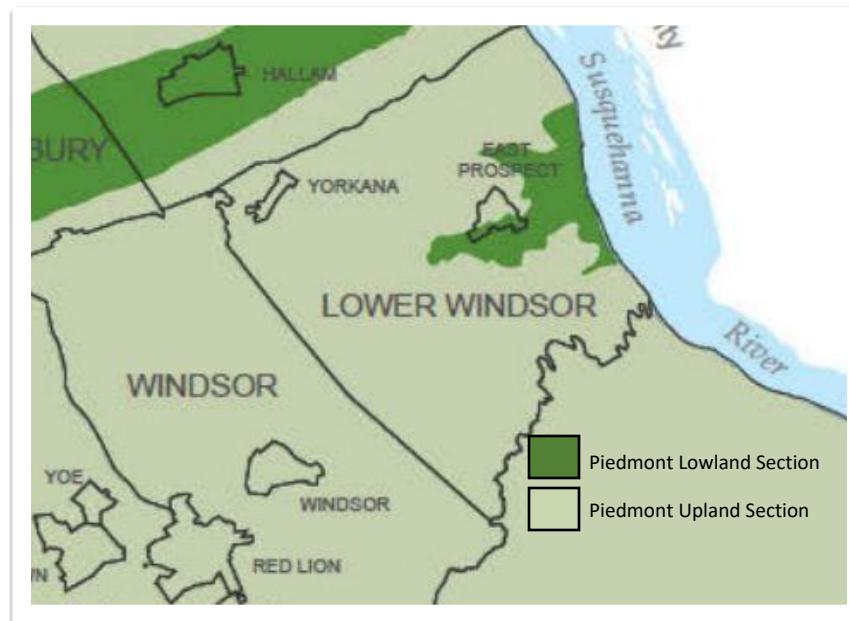
#### Appalachian Highlands

Physiographic regions are areas of similar features defined by various processes affecting the earth's surface. There are nine (9) physiographic regions found within the United States. Lower Windsor Township and York County lie within the Appalachian Highlands Region. This Region is characterized by a rounded/forested landscape with an elevation of six thousand (6,000) feet or less on average. Within the United States, the Appalachian Highlands Region covers a large portion of the northeast and extends as far south as Alabama. The Appalachian Highlands Region is further broken down into provinces based on different landforms. York County lies almost entirely within the Piedmont Province, except for small areas

in the northern portion of the County that are located within the Blue Ridge Province and the Ridge and Valley Province.

Lower Windsor Township lies almost entirely within the Piedmont Upland Section of the Piedmont Province with a small area located within the Piedmont Lowland Section, as shown in the following image.

#### Piedmont Province



The Piedmont Province portion of the County consists of three (3) Sections:

- the Gettysburg-Newark Lowland,
- the Piedmont Lowland, and
- the Piedmont Upland.

The Piedmont Lowland Section runs in a diagonal line from Wrightsville Borough to Hanover Borough. Also known as the Hanover-York Valley, this Section consists of broad, moderately dissected karst valleys separated by broad low hills. The relative flatness of this area surrounded by higher elevations resulted in a concentration of development in and around the Boroughs of Wrightsville, Hallam, Spring Grove, and Hanover, as well as the City of York, to assume an east-west primary orientation along U.S. Route 30 and State Route 116. The area was formed from fluvial erosion and some peri-glacial wasting and has dendritic and karst drainage patterns.

The Piedmont Upland Section is located in the southern third of the County. Within this Section, the northeastern corner, known as the Hellam Hills, and the northwestern corner, known as the Pigeon Hills, are separated from the balance of the Piedmont Upland by the Piedmont Lowland Sections. The Piedmont Upland is characterized by broad, rounded flat-topped hills and shallow valleys. This Section was formed by fluvial erosion and some peri-glacial wasting. The drainage pattern of the area is considered to be dendritic.

## GEOLOGY

Lower Windsor Township falls within an area of relatively complex geology, as shown in [Exhibit 4.1, Geology and Structural Geologic Features](#). A variety of bedrock units underlie the Township, which ranges in age from the late Precambrian Era to the Ordovician Period of the Paleozoic Era (>600 to 450 million years old). These bedrock units were mostly originally sedimentary rocks (shales, sandstones, conglomerates, limestones, and dolomites) that have been metamorphosed to varying degrees. Principal rock types include slate, phyllite, schist, quartzite, conglomerate, meta-limestone, and meta-dolomite, with several intermediate rock types (e.g. slatey limestone, schistose limestone, schistose quartzite).

The underlying geology has several direct and indirect impacts on land use in the Township, the greatest of which is in matters of groundwater availability and quality. The several bedrock units beneath the Township were originally deposited as sedimentary rocks and later metamorphosed to varying degrees by the forces of the earth. Over geologic time, the several bedrock units have been moved some distance from their point of origin and emplaced as large “thrust sheets” – also referred to as fault “slabs” or “blocks” (tens to hundreds of miles in width) - along low-angle thrust faults which occurred during ancient mountain building periods

(hundreds of millions of years ago). These ancient faults are today inactive features, which do not pose the severe risks of active faults, though they may have some importance to groundwater occurrence and movement.

The most significant of these ancient faults, known as the *Martic Overthrust* - or more simply as the *Martic Line* where it outcrops - cut the Township from Long Level on the east towards Freysville to the southwest. The next most significant of these faults is the *Stoner Overthrust*, which just “clips” the extreme northern corner of the Township, northeast of the intersection of Long Level Road and Hilt Road. The structural geologic features (overthrusts, synclines, anticlines) are shown in [Exhibit 4.1](#).

The bedrock units of Lower Windsor Township are broadly divided into (1) those units of the Stoner Overthrust block north of the Martic Line, and (2) those units of the Martic Overthrust block south of the Martic Line. One smaller-scale overthrust fault within the Stoner fault block, the outcrop of which passes through Margaretta Furnace, is known as the Ore Valley Overthrust.

Original bedding in the rocks has been folded, and in many portions of the Township, obliterated by metamorphic recrystallization. In much of the Township, a foliation or cleavage (alignment of flat or elongated mineral grains) in the metamorphosed

rock imparts the appearance of layering, not original bedding.

Faults and fold axes within the Township have a general northeast-southwest trend. This faulting and folding of the rock mass along a northeast-southwest structural trend have caused bedrock units across the Township to outcrop in belts with a general northeast-southwest trend. Erosion of these folded and faulted units has in turn caused more resistant bedrock units to rise as ridges and hills and less resistant units to form valleys. This differential erosion of more and less resistant units along their northeast-southwest folded and faulted belts has given rise to a general northeast-southwest topographic grain across the Township.

The basic bedrock geology of the Township and mining history as discussed herein are derived largely from the mapping and descriptions of Stose and Jonas (1939).

Bedrock units in the Stoner Overthrust block in the northwestern approximate two-thirds (2/3) of the Township (north of the Martic Line), and the Martic Overthrust block in the southeastern approximate one-third of the Township (south of the Martic Line) are of a similar range in age but is dramatically different in character. Included in the bedrock units north of the Martic Line are carbonates (limestones and dolomites metamorphosed to *meta-limestones*

or *meta-dolomites*, or collectively *meta-carbonates*). The rocks north of the Martic Line have also been subjected to a low grade of metamorphism. Bedrock units to the south of the Martic line include no carbonates and these rocks have been subjected to a higher “regional” grade of metamorphism. The more highly metamorphosed rocks south of the Martic Line are generally referred to as “crystallines.”

The oldest bedrock unit north of the Martic Line, which is exposed in the core of three (3) anticlines, is the Chickies Formation which is predominantly a black slate with quartzite interlayers but includes thicker, lighter-colored quartzite intervals and a basal conglomerate member, the Hellam Conglomerate. The Chickies Formation, due largely to its resistant quartzite and conglomerate members, is a prominent ridge former in the Township.

The most expansive belt of the Chickies Formation in the Township is in the core of the Mount Pisgah Anticline, which follows the northwestern border of the Township and forms a broad ridge between the York-Wrightsville Valley to the northwest and the East Prospect Valley to the southeast. The Chickies Formation also forms smaller ridges in the cores of two (2) smaller anticlines: the Holtz Anticline near the intersection of Manor Road and Smyser Road and

an unnamed anticline that falls along Gun Club Road.

The Harpers Formation, which consists of gray-green phyllite and quartzite phyllite, is the next youngest formation above the Chickies Formation north of the Martic Line. The largest belt of Harpers Formation occurs on the southeastern flank of the Mount Pisgah Anticline, from the area of Yorkana on the southwest through Trinity Church on the northeast. Smaller belts of the Harpers Formation outcrop on the flanks of the two (2) anticlines in the west-central portion of the Township, in the area of Gun Club Road, Smyser Road, and Manor Road. One of these belts of Harpers Formation extends to the east, generally between Furnace Road and Willow Creek Road on the north and Taylor Road and Pine Hollow Road on the south. This belt of the Harpers Formation occurs on the south side of the Ore Valley Overthrust Fault, which passes through Margaretta Furnace.

The East Prospect Valley to the southeast of the Mount Pisgah Anticline is coincident with a broad downfold in the rocks known as the East Prospect Syncline. The Antietam Formation, which consists of phyletic quartzite, occurs above the Harpers Formation in a large irregular belt within the East Prospect Syncline, from the area of Modern Landfill on the southwest, through the northern portion of East Prospect, through the area of Trinity Church Road, to

the Susquehanna River. The Antietam Formation also occurs as a belt around the core of another smaller unnamed syncline, generally in the area of Taylor Road and Pine Hollow Road, in the central portion of the Township, just north of the Martic Line.

Some of the lowest terrains in the Township are formed by two (2) meta-carbonate units and a somewhat related shale unit: (a) the Vintage Formation; (b) the Kinzer Shale; and (c) the Conestoga Formation.

The Vintage Formation, which consists largely of impure meta-dolomite with some meta-limestone, occurs on the northern flank of the East Prospect Syncline in an irregular, narrow belt near Water Street and Trinity Church Road. Along the narrow irregular outcrop belt of the Vintage Formation in the same area is a parallel narrow belt of the next younger unit, the dark-gray Kinzer "Shale" of the Kinzer Formation. Based on exposures along Trinity Church Road, the Kinzer "Shale" in this area has been metamorphosed and is largely a slate with some grading to a phyllite. The Kinzer Shale may contain some calcareous interbeds. A small outcrop area of the Kinzer Shale also occurs just north of the Stoner Overthrust, in the extreme northern corner of the Township.

A small belt of the Vintage Formation also occurs just north of Taylor Road on the northern flank of a

small unnamed syncline in this area. Another small area of the Vintage Formation outcrops along the axis of the East Prospect Syncline, just north of the Ore Valley Overthrust Fault, between Farmall Lane and Manor Road.

The most laterally extensive meta-carbonate unit in the Township is the youngest north of the Martic Line, the Conestoga Formation. The Conestoga Formation consists of schistose or phyletic stone. It occurs in a broad area in the center of the East Prospect Syncline, to the south, southwest, southeast, east, and northeast of East Prospect. Four (4) smaller outcrop belts of Conestoga Formation occur, (1) one in the vicinity of Farmall Lane and Furnace Road; (2) one which crosses Barcroft Road along the axis of the East Prospect Syncline west of East Prospect; (3) one in the valley bottom near Modern Landfill; and (4) one in the center of a small unnamed syncline along Taylor and Pine Hollow Roads.

The Marburg Schist, a bluish-gray to silvery green, fine-grained schist, covers most of the area within the Township south of the Martic Line. The outcrop area of the Marburg Schist comprises approximately one-third of the Township. Just south of the Martic Line, small belts of slate and quartzite, found in the upper portion of the Marburg Schist, occur within the Yoe Syncline near Old Commons Road.

The outcrop area of the Marburg Schist forms a broad dissected upland to the southeast of the East Prospect Valley.

A small area of schists of the Wissahickon Formation occurs at the extreme southern corner of the Township. This small area of Wissahickon Schist within the Township has been divided into two units (WAS3 & WAS4) based on mineral assemblages and grain size.

### Mineral Resources

Although there is currently no active mineral extraction (mining) in the Township, there was historical mineral extraction in the Township from several small pits, and there are bedrock and residual soil deposits in the Township that may have some value for future mineral extraction. However, given several factors, including trends in the mineral industry, proximity to markets, and quality of deposits, potentially economically extractable mineral resources in the Township are probably quite limited.

During the mid-1800s, a low grade of iron ore known as *limonite* was extracted at numerous small pits in the Township. This low-grade residual or weathering-related ore formed over the Conestoga Formation meta-limestone near its contact with the Antietam Formation (phyletic quartzite). These small limonite

deposits have not been economically viable to mine since the late 1800s. Limonite was mined in a belt of small pits from the area of Margaretta Furnace to the western side of East Prospect, in a belt of small pits along Taylor Road and Pine Hollow Road, and a single small pit southwest of Delroy.

Historically, slate was mined from the Chickies Formation Slate in the extreme western corner of the Township in small pits along Kreutz Creek. Slate occurs within several units in the Township, including the Chickies Formation, the Kinzer "Shale" and the Marburg Schist; but, like the limonite iron ore mined historically, the slate deposits of the Township are probably not currently economically viable even for manufacture of roofing granules. Current slate production in the Region is from larger, generally higher-quality deposits (for example, Penn-Argyl Slate Belt of Lehigh-Northampton Counties; Barnes, 1997).

Building stone of various types (schist, quartzite, meta-limestone) was previously mined from small pits or banks in many places in the Township, although such localized mining, like iron ore and slate production, effectively stopped years ago.

Meta-limestone was mined from the Conestoga Formation in small pits south of East Prospect either for lime production or for crushed stone.



The two (2) currently active mines in York County closest to the Township, within formations that are also present within the Township, are the Glen-Gery Corporation pit on the southeast side of York, from which residual clay and/or phyllite are extracted from the Harpers Formation for brick manufacture, and the York Silica Sand, Inc. quarry near Wrightsville, just north of the Township, from which quartzite of the Antietam Formation is mined for coarse and fine aggregate and anti-skid (Barnes, 1997).

Based on current mineral production in the Region, proximity to markets, and likely future trends, the mineral deposits in the Township that may have some current or future economic value include phyllite and residual clays developed over phyllite or meta-carbonates, or possibly over other units, for brick or other ceramic manufacture (O'Neil et. al., 1965) and the quartzites and possibly the meta-carbonate units which might have some value for production of construction materials (crushed stone – fine and coarse aggregate). Foliation or cleavage within the meta-carbonates would, however, probably limit their suitability for the production of construction materials. Some schists or phyllites in the Township might also have value for crushing or grinding to produce fillers. Statewide, clay production for brick and ceramic production has declined since 1960 (Berkheiser & Barnes, 1999), so future extensive extraction of clay or phyllite in the

Township for manufacture of bricks or ceramics is not likely.

Based on the above range in potentially extractable types of minerals, the units with the greatest mineral-resource potential in the Township are those north of the Martic Line, including the Harpers Formation, Chickies Formation, Antietam Formation, Conestoga Formation, and Vintage Formation. Large-scale future mining in the Township is not likely given current trends and the quality of the mineral deposits, though some limited future mining is certainly possible.

### **Land Use Problems Other Than Ground Water Issues Related To Geology**

Excluding groundwater problems and obvious problems that are reflections of the basic topography, hydrology, and geology of the Township, such as steep slopes and floodplains, the geology of Lower Windsor Township and York County presents several other geologic hazards including earthquakes, landslides, radon, and sinkholes.

#### Earthquakes

There is a potential for minor earthquakes within the Township. The southeastern portion of Pennsylvania is the most seismically active portion of the state

(Gordon & Dewey, 1999); and the Township falls just on the western side of the known Lancaster Earthquake Zone, where numerous earthquakes of low to moderate intensity (Modified Mercalli IV to VII Intensities) were recorded between 1724 and 1994. The largest recorded earthquake in or near the Township, with an intensity of VI on the Modified Mercalli Scale, occurred in 1889 with an epicenter near Mount Pisgah (N40.00° W76.55°). An earthquake with an intensity of V occurred in 1978 with an epicenter near East Prospect (N39.97° W76.51°). Damage from earthquakes of such intensity would be slight.

The 2018 York County Hazard Mitigation Plan identified the following earthquake vulnerability.

**TABLE 4.1: EARTHQUAKE VULNERABILITY**

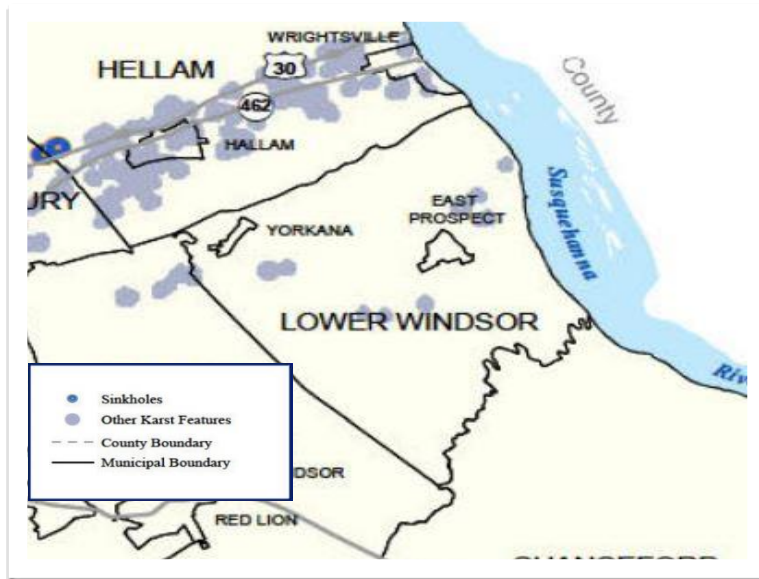
Municipality	Dwelling Units (YCPC 2017)	Estimated Population (YCPC / DOA 2017)	Other Structures (YCPC 2017)	Critical Facilities (YCPC 2017)	Total Exposure (DOA 2017)
SLIGHT RISK ZONE					
Lower Windsor Township	3,070	7,921	2,427	21	\$576,573,373
Source: 2018 York County Hazard Mitigation Plan					

Sinkholes

Approximately fifteen percent (15%) of the land area of the Township, or twenty-three (23%) of that portion north of the Martic Line, is underlain by the solution-prone meta-carbonates of the Conestoga and Vintage Formations, and the Kinzer Shale, which could include some carbonates. These meta-carbonate areas have moderate relief and have not formed an extensive karst terrain, typical of many carbonate outcrop belts in the state. The generally impure nature of these meta-carbonates may be the reason for the general lack of karst features (sinkholes, disappearing streams, caves, etc.). The 2018 York County Planning Commission’s Environmental Resource Inventory reported some Karst Topography Features, but no actual sinkholes were identified. This information also corresponds to information provided by Township employees familiar with the area.

Development or construction within the meta-carbonates should consider that there is some potential, although probably low, of sinkhole formation. Sinkholes can be both naturally occurring features and features induced by human activity. Land uses or activities that could induce new sinkholes in the Township’s meta-carbonate terrain included concentration of stormwater and artificial lowering of the water table, particularly in

valley bottoms, through large pumping wells or dewatering at quarries (Newton, 1987).



Source: 2018 Environmental Resources Inventory, YCPC

The 2018 York County Hazard Mitigation Plan identified the following subsidence, and sinkhole vulnerability.

TABLE 4.2: SINKHOLE VULNERABILITY

Municipality	Dwelling Units (YCPC 2017)	Estimated Population (YCPC 2017)	Other Structures (YCPC 2017)	Critical Facilities (YCPC 2017)	Bridges (BMS 2017)	Miles of Railroad (YCPC 2017)	Miles of Roadway (EMA 2017)	Total Exposure (DOA 2017)
Lower Windsor Township	402	1,037	314	5	19	0	15.8	\$76,360,768

Source: 2018 York County Hazard Mitigation Plan

Landslides

According to the USGS, a landslide is the downward slope movement of rock, soil, or debris. The term landslide includes a wide range of ground movements, such as rock falls, deep failure of slopes, and shallow debris flows. The primary reason for landslides is identified as gravity acting on an over-natural and/or human factor, which includes rock and soil characteristics, existing slope steepness and orientation, precipitation, stream or lake erosion, slope modification, increased load on the slope, earthquakes, and a change in drainage

patterns. Their effects mainly include distress and damage to property, structures, facilities, and utilities; traffic delays and detours; and maintenance requirements. Injuries and fatalities are fairly rare and usually result from rock falls onto highways and soil falls during excavations.

Lower Windsor Township is located in a portion of the County that is considered to have a low incidence of landslides.

The 2018 York County Hazard Mitigation Plan identified the following landslide vulnerability.

**TABLE 4.3: LANDSLIDE VULNERABILITY**

Municipality	Dwelling Units (YCPC 2017)	Estimated Population (YCPC 2017)	Other Structures (YCPC 2017)	Critical Facilities (YCPC 2017)	Total Exposure (DOA 2017)
Lower Windsor Township	194	501	93	1	\$24,193,031

Source: 2018 York County Hazard Mitigation Plan

Radon

Radon is an airborne noble gas that naturally occurs from the radioactive decay of uranium into radium. The radium further breaks down into a gas referred to as radon. Sources of radon include soil and rock beneath homes, well water, and building materials. In its natural form as a gas, radon is tasteless, odorless, colorless, and considered extremely toxic. Radon is a proven carcinogen and its effect on humans is the development of lung cancer. According to EPA, about twenty-one thousand (21,000) lung cancer deaths each year in the U.S. are related to radon; it is the second leading cause of lung cancer after smoking and number one among nonsmokers.

Both DEP and EPA provide radon-testing results by zip code. The data below provides radon test data for the basement level of dwellings submitted to DEP from the certified radon laboratories and testers for the past twenty-six (26) years. It should be noted that this data represents radon concentration measurements conducted under “closed-house” conditions. This type of data would, in general, show higher results compared to a measurement made over an entire year, under “normal living” conditions. The zip code-based information does not indicate an individual’s exposure or necessarily imply that the radon levels will apply throughout the zip code area, but they are a good indicator of

what has been recorded and can generally be expected. Some zip codes do not provide radon information to due to there being less than 30 test results or no test results to provide an accurate data sampling.

**TABLE 4.4: LOWER WINDSOR TOWNSHIP BASEMENT RADON TEST RESULTS BY ZIP CODE (JANUARY 1990 – DECEMBER 2016)**

Zip Code	Total # Radon Readings	Highest Radon Readings	Average Radon Reading
17356	991	228.0	17.7
17368	192	241.3	23.4
17366	151	237.5	22.4
17406	540	409.5	15.6

Source: 2018 York County Hazard Mitigation Plan

Currently, the EPA determines that an average radon mitigation system costs approximately one thousand two hundred dollars (\$1,200). PA DEP estimates that forty percent (40%) of Pennsylvania homes have elevated radon levels above the recommended 4 pCi/L limits. Using this methodology, radon loss is factored in by assuming forty percent (40%) of homes would be affected by radon at a mitigation average cost of one thousand two hundred dollars (\$1,200).

The 2018 York County Hazard Mitigation Plan identified the following radon vulnerability.

**TABLE 4.5: RADON VULNERABILITY**

Municipality	Total Dwelling Units (YCPC 2017)	Affected Dwelling Units (YCPC 2017)	Estimated Population in Affected DU (YCPC 2017)	Cost to Mitigate x \$1,200 (PA DEP)
Lower Windsor Township	3,070	1,228	3,168	\$1,473,600

Source: 2018 York County Hazard Mitigation Plan

**HYDROLOGIC FEATURES**

The hydrologic features of the land have, in the past and for a large part in the present, acted as land use controls. Considering that water supports all life, is distributed unevenly, and is limited in amount, the hydrologic features of the landscape take on great importance. The amount of water available, recharge areas, floodplains, and wetlands all can affect where development takes place. The following is a breakdown of the hydrologic conditions found in Lower Windsor Township grouped by surface water and groundwater.

---

## Surface Water

The eastern boundary of the Township is formed by the Susquehanna River, and several generally northeast-flowing streams tributary to the Susquehanna drain the Township. To the south of the Martic Line, the principal streams are Fishing Creek and Beaver Creek. Most of the East Prospect Valley and the northern portion of the area south of the Martic Line are drained by Cabin Creek and its tributaries. Southeast-flowing Canadochly Creek drains the northeastern portion of the East Prospect Valley and there are other small unnamed streams at the northeastern corner of the Township which are tributaries to the Susquehanna River. Generally, northeast-flowing Kreutz Creek, which cuts to the north across the Mount Pisgah Anticline into the York-Wrightsville Valley at the western corner of the Township, drains northwestern portions of the Township. Streams are found in [Exhibit 4.8](#).

According to USGS, a stream is "... a body of flowing water ... containing water at least part of the year, and ... flowing in a natural channel, and a river is "a natural stream of water of considerable volume, larger than a brook or creek.

Streams are designated as either Cold Water Fisheries (CWF), Exceptional Value Waters (EV), Warm Water Fisheries (WWF), or Trout Stocking Fisheries (TSF). These designations denote water uses

that are to be protected with that stream. Classifications can vary within the same stream, depending on the stream reach, and are occasionally reevaluated and changed by the Pennsylvania Environmental Quality Board.

Cold Water Fisheries (CWF) provide for the sustainment of fish, flora, and fauna that are indigenous to cold water habitats. Beaver Creek in Lower Windsor Township is designated as a CWF.

Fishing Creek in Lower Windsor Township is designated as a Trout Stocking Fishery. TSF streams provide for the maintenance of stocked trout from February 15 to July 31 and, in addition, the maintenance and propagation of warm water fish, flora, and fauna.

Exceptional Value Waters (EV) apply to streams that meet requirements based on location, recreational value, biological factors, designation as a wilderness trout stream, or being a surface water of exceptional ecological significance. There are no EV streams identified in Lower Windsor Township.

Warm Water Fisheries (WWF) provide for the sustainment of fish, flora, and fauna that are indigenous to warm water habitats. Six (6) streams and the Susquehanna River are designated as WWF. The River is located in Lancaster County but provides recreation, power generation, wildlife

habitat, and drinking water to Lower Windsor Township and York County residents.

- Beaver Creek (at Craley) – CWF
- Bull Run (at Long Level) - WWF
- Cabin Creek (at Long Level) – WWF
- Canadochly Creek (at Long Level) - WWF
- Cook Creek (at Long Level) - WWF
- Fishing Creek (at Long Level) – TSF
- Green Branch (at Long Level) - WWF
- Kreutz Creek<sup>1</sup> (at Wrightsville) - WWF
- Susquehanna River (near Peach Bottom) – WWF

## Floodplains

A floodplain is an area of flat land adjacent to a river or stream that consists mostly of sediment which may occasionally be covered by water during times of flooding. In the past, these areas have been attractive for development due to the concentration of flat land and access to water. Development within floodplains poses a threat to life and property, making it important to protect them. The Federal Emergency Management Agency

---

<sup>1</sup> Modern Landfill has had numerous environmental issues associated with leachate exceeding permitted discharge limits and impacting Kreutz Creek. As such, the landfill has been working on a recently completed twenty-million-dollar wastewater treatment plant upgrade project to correct the discharge limit violations, under the supervision of the PA Department of Environmental Protection.

(FEMA) delineates areas within the 100-year flood plain as areas that are considered at risk for flooding at least once every one hundred (100) years (or have a 1% chance of flooding every year).

Municipalities are required to regulate development within the 100-year floodplain to protect human life. Floodplains are not suited for intensive development and make prime areas for open space preservation. Open space in the form of a buffer provides for wildlife habitat and improves fish and plant habitat, as well as the stream itself.

The 100-Year Flood Plain areas shown in [Exhibit 4.3](#) have been identified by FEMA under the National Flood Insurance Program.

The most extensive floodplains occur in lowland areas, where stream gradients are lower and the landscape profiles are wider than on hillsides. Floodplains for the streams tend to be relatively narrow. Floodplain soils are generally found adjacent to the stream network. These soils historically have been eroded, transported, and deposited by flood waters and generally indicate an area susceptible to flooding.

---

## Drainage Areas

When describing surface water, it is important to delineate those areas which are drained by or contribute to the flow of surface waters. Drainage areas can be important indicators of the effects of development and poor land use practices. As development increases within an area, the network of streams can increase in size and velocity with the addition of drainage ditches, the diversion of water to storm sewers, and the decrease of infiltration created by impervious surfaces. Additionally, agricultural practices that drain fields and straighten streams can also add to the amount of runoff and velocity of streams within an area. The result is an increase in flow that can lead to flooding and negative environmental impacts.

Exhibit 4.9, Watersheds, further delineates the significant drainage areas of Lower Windsor Township. The Township is bounded on the east by the Susquehanna River and on the south by Fishing Creek.

The Township is located within eight watersheds: Beaver Creek, Bull Run, Cabin Creek, Canadochly Creek, Fishing Creek, Klimes Run, Kreutz Creek, and the Susquehanna River.

The northeastern part of the Township is drained by Canadochly Creek, Klimes Run, and their tributaries

(Exhibit 4.9), which flow southeastward into the Susquehanna River at Long Level.

Cabin Creek and its tributaries drain the northwestern and central portions of the Township. The two (2) major branches of the creek join just west of East Prospect Borough and from there the stream flows into the Susquehanna River at Long Level, just below Canadochly Creek.

The southern part of the Township is part of the Fishing Creek drainage system. Beaver Creek, which flows eastward into Fishing Creek, is also a major stream system. These streams form the boundary line between Lower Windsor and Chanceford Townships. Fishing Creek then drains into the Susquehanna River at the southern end of Long Level.

The extreme northwest and northeast corners of the Township are in the Kreutz Creek drainage basin. Kreutz Creek flows northeastward along the Township line forming part of the boundary between Lower Windsor and Windsor Townships. Kreutz Creek drains into the Susquehanna River at Wrightsville.

The major ridge lines separating the drainage areas are shown in Exhibit 4.8. Ridge lines determine the direction of the flow of surface water channels.



The location of stream systems and ridge lines is especially significant in planning for water and sewage systems. Water flows downhill from each divide towards the stream below it. To take advantage of gravity, water, and sewer lines should follow these natural drainage patterns, and should not pass over drainage divides. Where feasible, wastewater treatment facilities should be located near the mouth of the drainage area so that wastewater can be collected economically.

The wooded areas of Lower Windsor Township help to absorb rainfall. As more land is developed, however, rapid runoff and flooding become more common. Thus, flood prevention should be considered in planning the amount and location of future growth.

One strategy is to preserve stream valleys in their natural state to reduce the possibility of flooding. Undeveloped stream valleys can be useful as park, woodland, and greenbelt recreation areas. Rapid runoff also interferes with the replenishing of the groundwater, reducing Township water supplies. Sound conservation practices, watershed planning, and flood control measures can help solve existing drainage problems and prevent future problems.

### **Lakes, Reservoirs, and Ponds**

A lake is a body of water surrounded by land and, according to the US Environmental Protection Agency (EPA), is greater than twenty (20) acres. Ponds, while not officially named, carry the same definition as lakes, but are smaller in size. Reservoirs are bodies of water used for the storage and control of water. Beaver Creek Reservoir is located along Beaver Creek just west of Richmond Road. The Cabin Creek Reservoir is located on Gebhart Road in Windsor Township, roughly a half-mile from the Township's western boundary near Manor Road. The Cabin Creek Reservoir is a unique resource in that it has right-of-way extending east to the Susquehanna River. There are ponds located throughout Lower Windsor Township.

### **Wetlands**

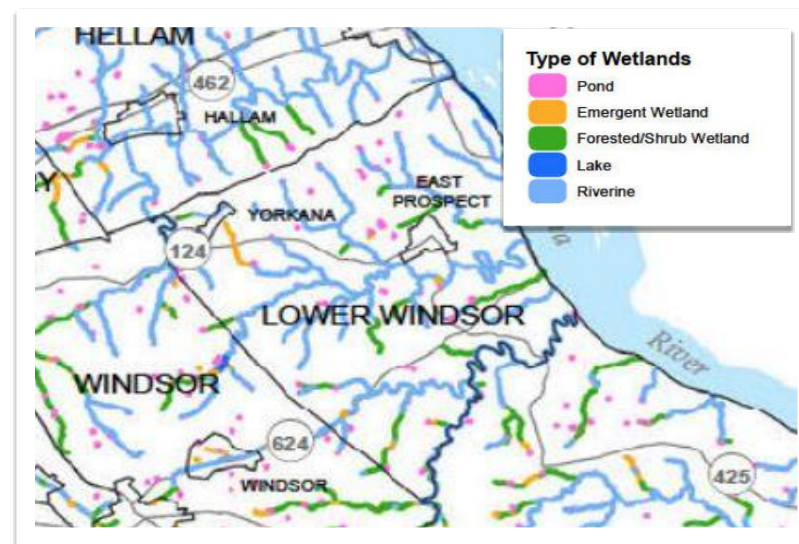
Wetlands are defined by the PA Department of Environmental Protection (DEP) as "areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas." These areas are regulated under the Dam Safety and Encroachment Act (25 PA. Code Chapter 105) which reviews proposed water-related activities against the

protection and conservation of natural resources. Wetlands that were altered before December 23, 1985, for agricultural production are not governed under this Act but can be re-evaluated if abandoned from this purpose for five (5) or more years.

Wetlands are among our most valuable resource areas because they control flooding, improve water quality, and support a wide variety of animal and plant species. Wetlands are characterized generally by high water table, poor drainage, and some degree of surface ponding during the year. Most hydric soils qualify as wetlands if they support predominately hydrophytic vegetation. Wetlands are regulated by the U.S. Army Corps of Engineers and PA DEP. Essentially, no development activity may occur in a wetland area without a permit. The permit process requires an investigation of development alternatives. Mitigation may be required if development is to proceed; the creation of new wetlands may be required to replace those wetlands disturbed or destroyed by development activity.

The U.S. Fish and Wildlife Service Wetlands Mapper provides the most up-to-date information about wetland locations in York County. For ease of viewing, the Wetlands Mapper displays wetlands by type, which groups wetlands into similar

classifications. Wetlands are also delineated in [Exhibit 4.3](#).



Source: 2018 Environmental Resources Inventory, YCPC

Wetlands can be classified into the following five (5) categories shown in [Table 4.6](#).

**TABLE 4.6: WETLANDS**

Wetland Type	Cowardin Classification	General Description	Acres
Freshwater Emergent* Wetland	Palustrine* emergent*	Herbaceous marsh, fen, swale, and wet meadow	1,338
Freshwater Forested / Shrub Wetland	Palustrine* forested and/or shrub	Forested swamp or wetland shrub bog	2,671
Freshwater Pond	Palustrine* unconsolidated bottom, palustrine* aquatic bed	Pong	1,175
Lake	Lacustrine* wetland and deep-water	Lake or reservoir basin	2,725
Riverine*	Riverine* wetland and deep-water	River or stream channel	4,481

\*Emergents – Aquatic plants whose lower parts are underwater but whose upper parts emerge from the water  
 \*Palustrine – Non-tidal wetlands dominated by trees, shrubs, and emergents  
 \*Lacustrine – Deepwater habitat lacking trees, shrubs, and emergents  
 \* Riverine – Wetlands and deep-water habitats contained within a channel  
 Source: U.S. Fish and Wildlife Service Wetlands Mapper

There are two (2) types of wetlands in Lower Windsor Township: Palustrine (swamps and small ponds) and Riverine (perennial or intermittent creeks or streams).

Many of the qualifying palustrine wetlands in the Township are farm ponds, in which surface water is impounded for use in agriculture.

Most hydric soils ([Exhibit 4.5](#)) also qualify as wetlands. A hydric soil is one that in its undrained condition is flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation.

**HYDROGEOLOGY**

PA DEP defines groundwater as “water beneath the surface of the ground within a zone of saturation, whether or not flowing through known and definite channels or percolating through underground geologic formations, and regardless of whether the result of natural and artificial recharge. ...includes water contained in aquifers, artesian and non-artesian basins, underground watercourses, and other bodies of water below the ground.” Water below ground occurs in two (2) zones known as the unsaturated and saturated zones. The unsaturated zone occurs directly below the surface and acts as a filter as water percolates down through the ground to the saturated zone. Water occurring below the ground in the saturated zone where interconnections, voids, and cracks are filled with water is known as groundwater. Groundwater is very

important, for it is the source of potable water from which wells draw.

### **Aquifers**

Aquifers are geologic formations that contain sufficient permeable material to allow for the flow of water. The geologic formations which contain aquifers are either consolidated or unconsolidated. Consolidated aquifers are formed of solid rock, which allows for the flow of water through cracks, fissures, and channels, known as secondary porosity. Unconsolidated aquifers are made of uncemented layers of silt, sand, and gravel that allow for the movement of water between individual particles, known as primary porosity. Another distinction to make about aquifers is whether they are confined or unconfined. Confined aquifers have layers of materials within the saturated zone that restrict the movement of water in and out of that zone, whereas unconfined aquifers have no restrictions on the movement of water into and out of the saturated zone.

The aquifers in Lower Windsor Township are characterized as Piedmont and Blue Ridge Crystalline Rock Aquifers consisting of schist. This type of aquifer is not considered to be a principal aquifer since the rock material is not permeable and water storage mainly takes place within unconsolidated material above the rock and

through fractures in the rock by secondary porosity. Since these aquifers are composed of very small fractures, storage capacity, and yields are relatively low, generally yielding five (5) to twenty-five (25) gallons per minute.

Leachate from Modern Landfill is known to have contaminated nearby aquifers and has required nearby residents to connect to public water. Residents to the Northeast and East of the landfill, where plumes of leachate were found historically, continue to measure quantities of hazardous substances known to be in Modern Landfill's leachate in their wells at levels many times above the current EPA health advisory levels for drinking water.

### **Water Budgets and Well Yield**

The following detailed analysis was included in the 2002 Lower Windsor Township Comprehensive Plan.

Water budgets prepared by the US Geological Survey and the Pennsylvania Topographic and Geologic Survey for the nearby Codorus Creek basin (Lloyd and Growitz, 1977), which is underlain by the same bedrock units and covers similar terrain as Lower Windsor Township, for the period from 1940 to 1970, show an average annual rainfall of about forty-one (41) inches, average annual stream flow of about fourteen (14) inches, and average annual

evapotranspiration (ET), including both ET from the unsaturated zone and ET directly from the groundwater reservoir (groundwater ET), of approximately twenty-seven (27) inches.

In another nearby basin in southern York County, the Muddy Creek basin which is almost entirely within the Wissahickon Formation, seventy percent (70%) of stream flow was estimated to be groundwater discharge or groundwater base flow. With seventy percent (70%) of stream flow equal to groundwater discharge, approximately nine and eight tenths (9.8) inches, or four hundred sixty-seven thousand (467,000) gallons per day per square mile, on average is groundwater discharge. Total recharge includes both this groundwater discharge to stream flow (base flow) and groundwater evapotranspiration (groundwater ET), which was not differentiated from total ET in these water budgets. Consequently, the total average annual groundwater recharge in Lower Windsor Township is at least likely to be 467,000 gpd/mi<sup>2</sup>, and probably closer to 600,000 gpd/mi<sup>2</sup> if the groundwater ET component of total recharge was included.

Detailed water budgets for the Little Conestoga Creek basin in nearby Lancaster County and the Muddy Creek Basin in southern York County showed Specific Yields (effective aquifer porosity within the zone of water table fluctuation) of four-hundredths (0.04) and eight-hundredths (0.08) (4 to 8% by

volume) respectively. The higher number in the Muddy Creek basin, virtually all of which is comprised of the Wissahickon Formation, likely reflects deep weathering in this crystalline-rock terrain. To illustrate the importance of groundwater storage to the water resources of the Township, at a specific yield of six-hundredths (0.06) – the average of the two (2) values from these area water budgets - approximately one hundred twenty-five (125) million gallons of groundwater would be in storage per square mile in the Township within a ten (10) foot zone of water table fluctuation. It is this large groundwater storage that sustains stream and spring base flow and well yields in dry periods. Lower Windsor Township is effectively underlain by a patchwork of many localized aquifers with highly variable properties. The most laterally extensive aquifers are probably the meta-carbonate units.

The various bedrock units across the Township form “fractured rock” aquifers, where groundwater occurs and moves along breaks in the rock such as joints, faults, foliation or cleavage partings, and bedding-plane partings. Certain zones of the meta-carbonate rock units are likely to have enhanced hydraulic conductivity due to the dissolution and enlargement of some of these various partings in the rock mass. In some of the bedrock aquifers, zones of deep weathering are zones where the highest volumes of groundwater are stored. The ranking

order of bedrock aquifer yields is shown in [Exhibit 4.10](#).

Fractured-rock aquifers tend to have highly variable transmissivity (a measure of the ease of groundwater movement). In a recently completed study of an area within the Township in the Marburg Schist (PGC, 2001), bedrock was found to vary by three (3) to four (4) orders of magnitude (highest transmissivity one thousand (1,000) to ten thousand (10,000) times greater than least transmissivity), which is typical of such terrain.

In Piedmont, terrain such as that of the Township, a basic relationship between good yield and topographic position has long been recognized (Heath, 1989). Valley wells typically have the highest yield due probably to increased fracturing beneath valley bottoms and greater saturated thickness, while hilltop or upper slope wells often have the least yield due to the occurrence of fewer open fractures beneath hilltops and due to less saturated aquifer thickness. This relationship of good yield to topographic setting was found in a regional study of southern York County (Lloyd and Growitz, 1977), and the previously mentioned study of some of the Marburg Schist terrain within the Township (PGC, 2001).

Except for some of the meta-carbonate rock areas, bedrock aquifers within the Township are mostly

highly localized “valley slope aquifers” (LeGrand, 1989), which extend from ridge lines or hilltops to nearby valleys containing perennial streams. This pattern of numerous localized aquifers, with relatively short distances of groundwater flow from recharge areas to discharge areas, is very different from areas where “regional aquifers” or “regional flow systems” are present. In aquifers of more regional extent, groundwater typically flows over distances of a few miles to tens of miles from recharge to discharge areas (for example, carbonate aquifers of the Cumberland Valley). Within much of the Township, the more localized valley-slope aquifers probably have groundwater flow distances from recharge to discharge areas of from one thousand (1000) feet to two (2) miles. Because most of the aquifers across the Township are generally localized “valley-slope aquifers”, as opposed to regional aquifers, groundwater-quality problems associated with contaminant sources tend to be localized. A pervasive pattern in the Township, as in much of the Region, is for “strike parallel” flow, where groundwater tends to move preferentially to the northeast or southwest along the strike of the inclined bedding, cleavage, or foliation (Lloyd & Growitz, 1977). This pattern of preferential strike-parallel flow may result in localized valley-slope aquifers which are elongated in extent to the northeast and southwest.

Identifying specific recharge areas within the Township that deserve some degree of special protection is a difficult task, as most areas outside of valley bottoms that contain perennial streams, including valley slopes and hilltops, are recharge areas. Recharge areas therefore likely cover more than eighty percent (80%) of the Township.

In their study of the groundwater resources of central and southern York County, Lloyd and Growitz (1977) assessed the well-yield characteristics of the several bedrock units that underlie the Township. Their ranking of well yield characteristics is summarized in [Table 4.7](#). Specific capacity, as used in this summary, is a measure of the yield of a well divided by the drawdown of the water level at the well necessary to support that yield. This parameter is time-dependent, the longer the pumping period, the lower the specific capacity. Based on this data, the poorest yielding bedrock units (lowest median specific capacities and lowest reported maximum yields) in the Township, in general, is the Marburg Schist south of the Martic Line and the Antietam Formation north of the Martic Line. The units where the highest well yields are likely to be found are the two (2) meta-carbonate units north of the Martic Line: the Conestoga Formation and the Vintage Formation.

Carbonate units typically support the highest well yields due to dissolution enlargement of joints, fractures, and other partings in the rock mass.

A recently completed detailed study of an area within the Marburg Schist within the Township, in an area of numerous reported well-yield problems near the Villages of Bittersville and Martinsville (PGC, 2001), confirmed the low-yielding characteristics of the Marburg Schist. In this study, six (6) of seventeen (17) wells tested for yield during a late-summer, low-water-table period had yields of less than twenty-five hundredths (0.25) GPM, too little for adequate residential supplies. These low-yield wells were scattered throughout the study area and, as expected, were located mostly on upper slopes or hilltops.

**TABLE 4.7: WELL YIELD CHARACTERISTICS**

Unit	Range in Specific Capacity (GPM/FT)	Median Specific Capacity (GPM/FT)	Maximum Reported Well Yield (GPM)
Antietam Fm.	0.037 – 5.3	0.12	40
Marburg Schist	0.035 – 2.15	0.28	70
Chickies Fm.* (Slate & Hellam Conglomerate)	0.04 - 780	0.34	100
Harpers Fm.	0.03 – 3.0	0.39	100
Kinzer Shale (of Kinzer Fm.)	0.06 – 5.3	0.35	111
Vintage Fm.	0.035 – 18	0.16	300
Conestoga Fm.	0.04 - 45	1.3	250
Wissahickon Fm.	0.03 - 50	0.95	150
*Atypical Source: Pennsylvania Topographic and Geologic Survey Water Resources Report 42 (1977)			

The high percentage of shallow-yielding zones and the sparseness of deeper-yielding zones in certain areas within this bedrock unit were responsible for the reported seasonal well-yield failures. Wells dependent largely on shallow yielding zones tend to dramatically lose yield or, in the extreme, “go dry” during seasonal dry periods or droughts as these shallow yielding zones dewater with a falling water table. This pattern of numerous shallow yielding zones but few deep yielding zones (predominantly shallow open fractures) in certain areas, and the resultant problem of seasonal well-yield failures, is

typical of many Piedmont crystalline-rock units such as the Marburg Schist.

In any of the bedrock units of the Township, the largest well yields could be expected in valley bottoms, along fractured zones (fracture traces), and possibly along faults.

**TABLE 4.8: NON-CARBONATE UNITS**

Unit	Median pH	Median Specific Conductance (micromhos/cm)
Wissahickon Fm.	5.9	125
Marburg Schist	6.0	130
Harpers Fm.	6.6	220
Chickies Fm.	5.5	80
Antietam Fm.	6.0	185
Source: Pennsylvania Topographic and Geologic Survey Water Resources Report 42 (1977)		

Based on the work of Lloyd and Growitz (1977), the non-carbonate bedrock units within the Township tend to produce somewhat acidic ground water which has low to moderate dissolved solids (Table 4.8). As is the typical case, the meta-carbonate units, including the Kinzer Shale which might contain some calcareous beds, yield groundwater with a more nearly neutral to slightly alkaline pH (Table 4.9) and higher dissolved solids (though still generally within drinking water limits) than the non-carbonate units.



**TABLE 4.9: META-CARBONATE UNITS INCLUDING KINZER SHALE**

Unit	Median pH	Median Specific Conductance (micromhos/cm)
Conestoga Fm.	7.0	550
Vintage Fm.	7.2	410
Kinzer Shale	6.6	330

Source: Pennsylvania Topographic and Geologic Survey Water Resources Report 42 (1977)

Dissolved metals, such as iron and manganese, are a sporadic problem in groundwater from the non-carbonate units, probably largely as a result of the natural acidity of the groundwater in these units. In the recent detailed study in the Marburg Schist terrain in the Township near Bittersville and Martinsville (PGC, 2001), eighty-nine percent (89%) of sixty-five (65) sampled wells and springs had a pH of less than six (6.0) and over one-third (1/3) of these sampled supplies had pH values of less than five (5.0), suggesting that groundwater in this unit may be more acidic than the more limited data set of Lloyd and Growitz (1977) would indicate. The largest problem related to this naturally acidic groundwater in the Marburg Schist and the other non-carbonate units in the Township (Chickies, Harpers, Antietam, & Wissahickon Fms.) is the tendency of this groundwater to attack metal pipes in distribution systems, including lead soldered joint copper pipes.

As a result, some health-endangering metals like lead might occur in these water supplies at levels greater than accepted drinking water limits. In the recent study of the Marburg Schist terrain within the Township near Bittersville and Martinsville (PGC, 2001), nitrate was found to be the most pervasive health-endangering contaminant introduced by human activity. Nitrate-nitrogen was found to exceed the safe drinking water limit of ten (10) mg/l in twenty-five percent (25%) of the sampled water supplies. The high percentage of upland terrain with well-drained soils in the Township; and the presence of Piedmont-type crystalline and lower-grade metamorphic-rock aquifers, which tend to have high permeability or hydraulic conductivity in the weathered zone, favor thorough nitrification of nitrogenous organic wastes placed at the surface or in the shallow subsurface, with resultant significantly elevated nitrate in groundwater in areas of concentrated application of such waste. In addition to organic waste (sewage effluent, sewage sludge, animal waste such as manure, etc.) other sources of nitrate include residential lawn fertilizers and agricultural crop fertilizers. Based on similar terrain and land uses, this same pattern of numerous “spotty” zones of high nitrate is likely in many other portions of the Township.

High nitrate zones in groundwater were found to correlate to both agriculture and high-density clusters of residences with on-lot sewage drain fields.

Groundwater near barn-yard areas was typically high in nitrate. Those zones where several residences with on-lot sewage drain fields were clustered on relatively small lots (high density) also tended to have some areas of high nitrate in groundwater. The numerous scattered zones of high nitrate found in groundwater in this study are consistent with the numerous scattered potential sources from both residential development and agriculture the tendency for local valley-slope aquifers of limited extent to occur in this Piedmont terrain.

Many other sources of contamination exist within the Township, although most are monitored or regulated under current environmental programs. Included in these are the Modern Landfill near the western corner of the Township and underground storage tanks for petroleum products (for example, gas stations).

In the study near Martinsville and Bittersville, total coliform counts were positive in forty-three percent (43%) of the tested water supplies, while fecal coliform (E. Coliform) was found in only three percent (3%) of the tested water supplies. Many of the total coliform counts may be attributable to marginal construction of these water supplies, such as ungrouted casings. It is not common practice for well drillers to grout or seal well casings in this area.

The meta-carbonate units north of the Martic Line, including the Conestoga Formation, Vintage Formation, and the Kinzer Shale, form potentially the most productive aquifers with the best quality (near neutral to slightly alkaline) groundwater in the Township. Although this meta-carbonate terrain is not typically karst, there is also some potential, although probably low, for sinkholes and related problems in this terrain. As with all of the bedrock units in the Township, the highest-yielding wells in the meta-carbonates are likely in valley bottoms. For instance, in 1967, East Prospect Borough had a well drilled with a reported yield of one hundred (100) gpm in the Conestoga Formation meta-limestone in the Cabin Creek Valley near Margaretta Furnace, southwest of the Borough (Lloyd & Growitz, 1977).

The meta-carbonate outcrop areas within the Township, and in particular valley bottom areas within these outcrop areas, should be carefully considered in planning land use to preserve the quality and accessibility of the meta-carbonate aquifers for potential public water supply demands. In delineating this meta-carbonate zone, the Kinzer Shale outcrop area should be lumped with the outcrop areas of the higher-yielding Conestoga and Vintage Formations. The Kinzer Shale may contain some solution-prone carbonate beds, and the Kinzer Shale overlies the Vintage Formation. Some high-yield wells may be possible within the Kinzer Formation therefore and drilling through the Kinzer

Shale into the underlying Vintage Formation may develop some high-yield wells.

Certain portions of the Township have low-yield bedrock units, which, in certain limited areas, will not support even the low demand for residential wells. Based on Regional studies and recent detailed local studies, the zones where there is an increased likelihood of finding excessively low-yielding wells are hilltops and upper slopes within the Marburg Schist south of the Martic Line and within the Antietam Formation north of the Martic Line. Future residential development of such areas should proceed cautiously to ensure adequate water supplies. In the non-carbonate terrain of the Township (Chickies, Harpers, Antietam, Marburg, and Wissahickon Formations which cover approximately 85% of the Township) naturally acidic groundwater is the primary groundwater quality problem. This naturally acidic groundwater has caused problems with dissolved metals such as lead and copper in residential drinking water systems, as it attacks metal pipes. Treatment (neutralization) or use of plastic pipes in place of solder jointed copper pipes is critical at these residential water supplies that rely on wells and springs which yield acidic groundwater, to prevent ingestion of health-endangering metals like lead.

The most pervasive groundwater contaminant in the Township introduced by human activity is probably

nitrate. Excessive nitrate in groundwater in the Township has been found related to both intensive agricultural activities and dense clusters of residences with on-lot sewage disposal. Nitrate-contaminated zones within groundwater form a “spotty” pattern due likely to the spotty nature of the sources and the occurrence of numerous localized valley-slope aquifers within the bedrock units of the Township. Planning should consider this pattern, particularly when assessing the density of future residential development relying on on-lot sewage disposal. Alternatives to conventional on-lot sewage disposal systems (for example, denitrification systems) should also be considered. Certain lawful activities, such as mining and agriculture, have the potential to affect water supplies, and such impacts should be considered in the planning process. While there currently is no mining in the Township, there is the potential for some future mining based on the nature of mineral deposits. Agriculture, unlike mining, is currently fairly extensive in the Township, and the largest groundwater problem likely to result from agriculture is elevated nitrate.

#### **SOILS AND TOPOGRAPHY**

Soil information is a vital component of any natural resource evaluation because soil characteristics indicate the inherent suitability of an area for development, agriculture, or other land uses.

In general, soils are a very complex mixture of various amounts of weathered rock, minerals, organic matter, water, and air. Through the action of climate, plants, and animals on these geologic materials, soils are formed over long periods.

As such, the soil is essentially a non-renewable resource. Once depleted, it cannot, under natural circumstances, be easily replaced. To prevent the loss of soil, it is necessary, through planning, to promote land use patterns that conform to standard soil conservation practices. To determine the best location for varying land uses, the many different properties of soil must be considered. Soil characteristics contributing to agricultural potential, susceptibility to flooding and groundwater contamination, ability to accommodate on-lot sewage disposal, and ease of building all need to be considered in site selection.

An important influence on development patterns is the "lay of the land" - its hills and valleys, stream channels, and depressions. An area's topography, usually described in terms of elevations and degree of slope, can either permit or prohibit the type and amount of development desired. The location of roadways and buildings, and the planning of public utilities, are affected by topography. Elevations in Lower Windsor Township range from less than three hundred (300) feet to more than eight hundred (800) feet above sea level. The higher

elevations are along ridges formed by the hard-Cambrian rock. Mt. Pisgah, whose summit is eight hundred sixty (860) feet above sea level, is the highest point in the Township. After millions of years of carving away the area's limestone, quartzite, and schist, rivers and streams now flow through the lowest land. Along the Susquehanna River, the elevation drops to about two hundred forty (240) feet. The topography of Lower Windsor Township is shown in [Exhibit 4.11](#).

Along with elevation, there is a corresponding slope condition. The slope of the ground reflects the rate of change in elevation. It is generally expressed as a percentage, being defined as the amount of change in vertical elevation over a horizontal distance of one hundred (100) feet. The various degrees of slope affect the suitability of land for certain types of development. [Exhibit 4.12](#) shows the slope of Lower Windsor Township.

If other factors are favorable, land within a zero to fifteen percent (0% - 15%) slope is generally suitable for all uses. In [Exhibit 4.6](#) it can be seen that land in the zero to fifteen percent (0% - 15%) category is scattered throughout the Township.

Moderate slopes of fifteen to twenty-five percent (15% - 25%) are usually considered suitable for residential and associated uses only. These areas are also scattered throughout the Township. Such

land is too steep for large commercial and industrial buildings and would require expensive grading to be utilized for such uses. These slopes are shown in [Exhibit 4.7](#).

The twenty-five percent (25%) slope category (referenced in [Exhibit 4.4](#)) is generally used only for very low-density residential development. Steep slopes are difficult and costly to develop. Thus, in many instances, especially when the slopes exceed twenty percent (20%), they are suitable only for woodlands, natural preserves, scenic areas, and similar uses.

The steepest slopes, over twenty-five percent (25%) ([Exhibit 4.4](#)), are mostly located along the major streams and ridges. In these areas, construction costs are often prohibitive. Farming is very difficult and causes erosion and stream siltation. The primary value of these slopes is in their use as scenic areas, woodlands, and natural preserves. To achieve maximum benefits, the development of these scenic slopes should be carefully controlled.

There are twenty-seven (27) different soil series located in Lower Windsor Township ([Exhibit 4.13](#)).

[Appendix 2](#) presents detailed information on the characteristics of these soils.

The Township's soils and slopes are divided into three (3) categories concerning suitability for on-lot sewage systems. These categories are:

- Soils and slopes generally suitable for conventional in-ground and elevated sand mound sewage systems ([Exhibits 4.14 and 4.6](#), respectively);
- Soils and slopes generally suitable for only elevated sand mound sewage systems ([Exhibits 4.15 and 4.7](#), respectively); and
- Soils and slopes that are unsuitable for on-lot sewage systems ([Exhibits 4.16 and 4.4](#), respectively).

This classification system has been directly correlated with the criteria and requirements established by PA DEP under Title 25 of the Pennsylvania Code. In addition, it should be noted that the above-referenced marginal suitability classification indicates that either slopes or soil limiting zones may be unsuitable for on-lot sewage systems, and that further on-site investigation is necessary to make such a determination.

Approximately thirty percent (30%) of the Township may be suitable for conventional in-ground and elevated sand mound disposal systems. In addition, another thirty percent (30%) of the Township has soils

and slopes that are generally suitable only for elevated sand mound use and the final thirty-seven percent (37%) of the Township has soils and slopes that are generally unsuitable for any on-lot sewage systems.

### **Prime Agricultural Soils**

The Pennsylvania Municipalities Planning Code (MPC) requires that comprehensive plans include a plan for the protection of prime agricultural land and that municipal zoning ordinances provide for the protection of these areas. The MPC defines prime agricultural land as “land used for agricultural purposes that contains soils of the first, second, and third class as defined by the United States Department of Agriculture Natural Resource and Conservation Services County Soil Survey.” The land capability classes the MPC refers to are based on suitability for most kinds of field crops, considering limitations, risk of damage to the soils, and the way soils respond to management. Under this system, there are eight (8) classes with Class 1 having the fewest limitations and Class 8 being unsuitable for cultivation. The York County Agricultural Land Protection Plan recognizes Class 1 through Class 4 soils as most productive for agricultural purposes in York County and uses these soil classes as part of the soil quality analysis to rank Rural Area Townships. The Lower Windsor Township Comprehensive Plan analyzes the location of soils in Classes I, II, and III.

Areas in Lower Windsor Township classified as Prime Agricultural Soils by the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS), formerly the Soil Conservation Services (USDA SCS), are shown in [Exhibit 4.2](#). Prime agricultural soils are defined as land best suited for producing food, feed, forage, fiber, and oilseed crops, and are also available for these uses. (The land could be cropland, pastureland, rangeland, forestland, or other land, but not built-up land or water). It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed, including water management, according to modern farming methods.

There is considerable prime agricultural land in Lower Windsor Township, although the pattern is fragmented. While more prevalent in the southern part of the Township than in the northern part, various sizes of "patches" of prime agricultural soil are widespread throughout, meaning that issues of conservation of prime agricultural soil are relevant to virtually all parts of the community (see [Exhibit 4.2](#)).

The York County Environmental Resources Inventory identified zero (0) acres of Class I Soils, five thousand four hundred seventy (5,470) acres of Class II Soils, and four thousand eight (4,008) acres of Class III soils for a total of nine thousand four hundred seventy-eight (9,478) acres of Prime Agricultural Soils out of a

total municipal area of sixteen thousand forty-five (16,045) acres or fifty-nine percent (59%) of the Township.

### **Agricultural Capability**

Although the number of acres in farmland has declined in past years, agriculture remains an important part of the Lower Windsor Township economy. In 2002, it was estimated that about ten thousand four hundred seventy-four (10,474) acres, or over sixty-seven percent (67%) of the Township, consists of farmland and other open space. In 2022, agricultural lands comprised sixty-four percent (64%) of the Township's land uses, or nine thousand six hundred sixty-seven (9,667) acres. The best agricultural lands are usually also the best suited for development. The Township did conclude that farmland should be preserved as part of the 2002 Comprehensive Plan and residents recently reaffirmed that importance via responses received during the 2022 Community Survey.

The Agricultural Capability Map ([Exhibit 4.17](#)) attempts to delineate the best lands for farming based on seven (7) classes of soil defined by the U.S. Soil Conservation Service. The seven (7) classes of farmland were simplified for this map by combining them into three (3) categories: good, fair, and poor.

Approximately forty-one percent (41%) of Lower Windsor Township's total land area has been classified as "poor" for rotational farming. These soils are especially prevalent along the steeper slopes adjacent to the stream valleys and drainage channels. The soils in this "poor" category vary in depth, fertility, and moisture capacity, but tend to be stonier than others in the Township. They are not suited to cultivation because of very severe natural limitations. Instead, they can be best used for pasture, woodland, recreation, or scenic areas.

Areas designated as "fair" in agricultural capability consist of the gently to moderately sloping soils scattered throughout the Township. These areas comprise approximately twenty-seven percent (27%) of the Township's land area. The fair soils are deep, moderately deep, shallow, stony, and non-stony with a wide range in natural fertility and moisture-holding capacity. Although these soils have severe natural limitations produced by soil properties, slopes, or erosion, they are rather well adapted to rotational cropland. Their organic matter content can be maintained and the soil structure preserved if a four (4) or five (5) year crop rotation is used, cover crops are grown and residues from row crops are plowed under. Contour strips and diversion terraces should be used to conserve soil and water.

Roughly thirty-two percent (32%) of the Township's soils are classified as "good" for agricultural production. The majority of this category consists of Chester soils (formed from schist or phyllite) found on the gentler slopes of the Township. They generally are deep to moderately deep and well-drained. They also have a wide range of natural fertility and moderate to high moisture-holding capacity. Although there are some natural limitations, "good" soils are generally well-adapted to intensive agricultural use. A three (3) year crop rotation can be used if the organic matter content is maintained, tillage is kept to a minimum and residues from row crops are left. On slopes over two percent (2%), contour strips, cropping, or diversion terraces should be utilized. The productivity of moderately well-drained soils can be improved by installing surface and subsurface drains.

### **Land Cover**

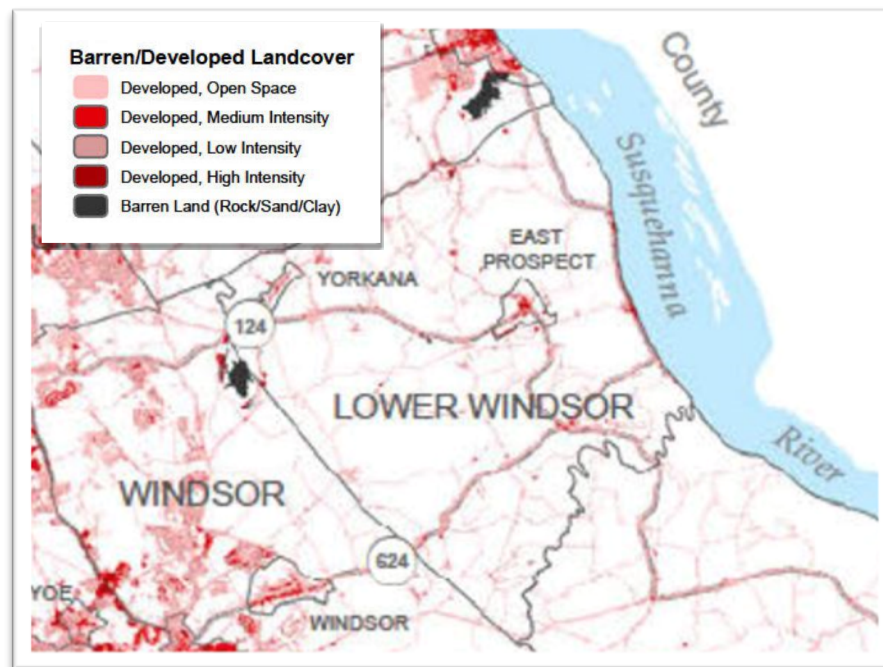
There are eight (8) land cover classes in York County, these classes include barren, developed, forest, herbaceous, planted/cultivated, shrubland, water, and wetlands. Each of the classes is further broken down into varieties of land uses depending on distinguishing features. For purposes of discussion, the classes are combined into four (4) categories, including Barren/Developed, Forested, Vegetated, and Water/Wetlands.

Dense hardwood forests once covered the Township, but land clearing for farming, commercial purposes, and other development has eliminated much of this virgin woodland. Today, the remaining woodlands consist mostly of second and third-growth mixed deciduous forests. These areas generally are associated with the wetter, low-lying areas of the Township along creeks, streams, and steep slopes.



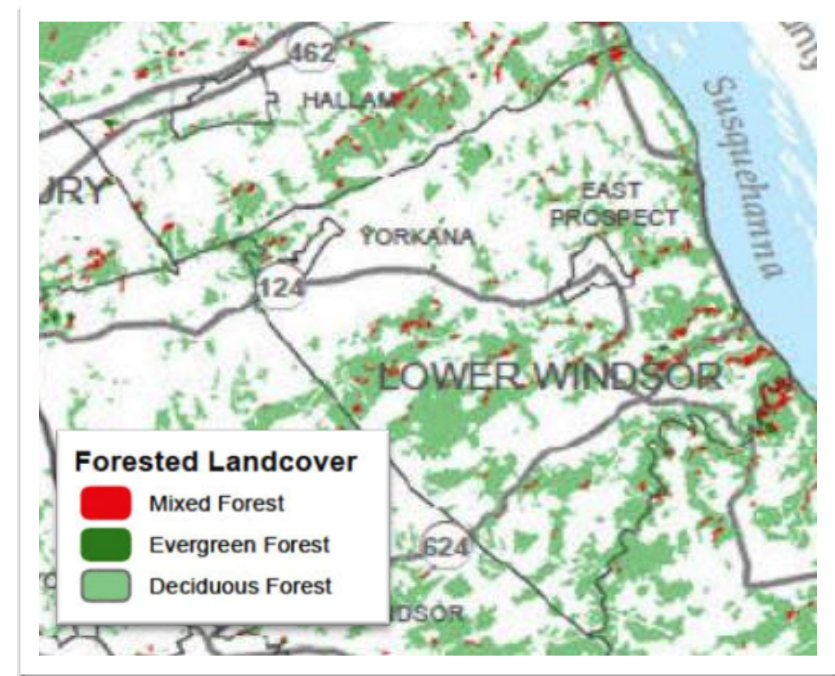
Barren/Developed

Areas of Lower Windsor Township not covered by water, trees, or vegetation are classified as barren/developed. These areas can be naturally occurring, such as bedrock, or the result of construction or mining. Developed areas include open space development and low, medium, and high-intensity development that consist of a mixture of constructed materials and vegetation with impervious surfaces that range from less than twenty percent (20%) to one hundred percent (100%).



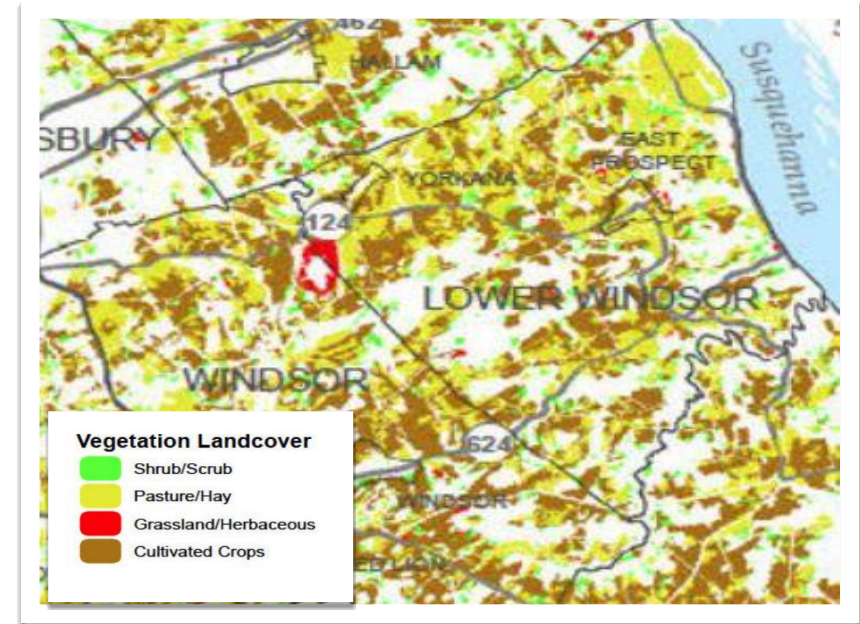
### Forested

Forested areas include deciduous forests, evergreen forests, and mixed forests. Deciduous forests are characterized by trees where seventy-five percent (75%) or more of the species shed foliage in response to changes in the seasons. Evergreen forests include trees where seventy-five percent (75%) or more of the species maintain their leaves throughout the year. Mixed forests include those areas dominated by neither deciduous nor evergreen forests. Forested areas provide many benefits to the environment and human beings. They can be aesthetically pleasing, provide shade, prevent wind damage and erosion, reduce pollution, act as noise barriers, provide animal or bird habitat, and produce oxygen.



### Vegetated

There are four (4) categories of vegetation identified within Lower Windsor Township. These categories include cultivated crops, grassland/herbaceous, pasture/hay, and shrub/scrub. Cultivated crops include areas where greater than twenty percent (20%) of the vegetation is for the production of annual crops, such as corn, soybeans, and vegetables; perennial woody crops such as orchards and vineyards; and all land being actively tilled. Grassland/herbaceous areas consist of greater than eighty percent (80%) of grasses or soft stem plants which are not subject to tilling but may be used for grazing. Pasture/hay includes areas of vegetation where more than twenty percent (20%) of land consists of grasses, legumes, or a mixture thereof planted for livestock grazing or production of seed or hay crops typically on a perennial basis. Shrub/scrub areas consist of vegetated areas having twenty percent (20%) or more shrubs and young or stunted trees as land cover.



---

**MAMMALS, BIRDS, & FISH**

Lower Windsor Township also supports several species of mammals, birds, and fish. While these naturally occurring species are dependent upon the differing environs of the Township for their existence, they also make the Township more attractive to residents who boat, fish, hike, hunt, and watch wildlife. Wildlife plays a huge role environmentally, economically, and socially in the Township and the County. The environments which support these species are fragile and limited. Development, pollution, and overharvesting have led to some species becoming limited or extinct in all or portions of their original habitat. Thus, it is important to recognize these species and their role in the environment.

**Mammals**

Mammals are warm-blooded higher vertebrates that nourish their offspring with milk and have skin more or less covered by hair. According to the Pennsylvania Game Commission, there are currently sixty-six (66) wild mammals in Pennsylvania. In Lower Windsor Township and York County, there is a chance of encountering bats, beavers, black bears, chipmunks, cottontail rabbits, coyotes, foxes, mice, mink, moles, muskrats, opossums, porcupines, raccoons, rats, shrews, skunks, squirrels, voles, weasels, white-tailed deer, and woodchucks.

**Birds**

Birds are warm-blooded vertebrates distinguished by bodies more or less covered by feathers and forelimbs modified as wings. According to the Pennsylvania Game Commission, four hundred fourteen (414) species of wild birds are found in Pennsylvania at different times throughout the year. Approximately two hundred eighty-five (285) of these species occur regularly. In Lower Windsor Township and York County, there is a chance of encountering three hundred nineteen (319) species of birds according to the PA Society for Ornithology. For a current list of birds identified in York County, go to [www.pabirds.org](http://www.pabirds.org) and click on county lists.

**Fish**

Fish are limbless, cold-blooded vertebrate animals with gills and fins that live wholly in water. According to the Pennsylvania Fish and Boat Commission, there are one hundred four (104) species of fish found in the Susquehanna River Watershed, of which York County is a part. Approximately sixty-seven (67) of these species of fish are native to the Susquehanna River Watershed and the remaining thirty-seven (37) species were introduced. A complete listing of fish species can be found at [www.FishandBoat.com](http://www.FishandBoat.com) under Gallery of Pennsylvania Fish.

---

## AIR QUALITY

PA DEP defines air as “a thin band of invisible, odorless, tasteless gases that surrounds the earth, consisting mostly of nitrogen and oxygen.” Air becomes polluted when emissions from mostly man-made sources are added. Since air is not confined to a certain area and is needed to support human life, these emissions affect everyone.

### National Ambient Air Quality Standards

Currently, six (6) types of pollutants are tracked as indicators of air quality. These pollutants include ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead. The Clean Air Act includes National Ambient Air Quality Standards (NAAQS) that set limits for these pollutants to protect public health and welfare. Primary standards apply to public health and secondary standards apply to public welfare, which includes damage to crops, features (buildings, monuments, protective coatings), plants, soil, trees, visibility levels, and water. Areas that have levels of pollutants below the established standards are designated as “attainment” and those that exceed these levels are designated as “nonattainment.”

Each state is required to have a State Implementation Plan (SIP) which identifies how it will meet NAAQS requirements. Besides adopting and

implementing NAAQS standards, Pennsylvania also has set standards for beryllium, fluoride, and hydrogen sulfide. Within York County, air quality is monitored by facilities located at Phineas Davis Elementary School on Hill Street in Spring Garden Township and Clearview Elementary School along Delta Road in Chanceford Township. The Spring Garden Township monitoring station tracks concentrations of three (3) sizes of particulate matter, sulfur dioxide, nitrogen dioxide, ozone, carbon monoxide, and volatile organic compounds (VOC); the Chanceford Township monitoring station tracks only ozone levels. York County in the past has been a nonattainment area for ozone and particulate matter 2.5 under various regulatory standards. The County is currently in attainment of all ambient air quality standards. [Table 4.10](#) summarizes the standards the County has received a nonattainment designation for in the past, the years of nonattainment, and the extent of the designation in the County.

**TABLE 4.10: YORK COUNTY NONATTAINMENT DESIGNATIONS 1979 THROUGH 2016**

Air Quality Standards	Nonattainment Year(s)	Whole or Part of County?
1-Hour Ozone (1979)	1992 – 2004	Whole
8-Hour Ozone (1997)	2004 – 2007	Whole
P.M. -2.5 (1997)	2005 – 2013	Whole
P.M. -2.5 (2006)	2009 – 2013	Whole

Source: US Environmental Protection Agency (EPA)

Air Quality Index

The Air Quality Index (AQI) is a tool used by the U.S. Environmental Protection Agency (EPA) for reporting the potential health effects of daily air quality. The AQI is based on concentration levels of ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. These concentrations are then given a numeric value (0-500) and color code which relates to levels of health concern. These values and color codes, which are updated hourly, are applied to each pollutant and the monitoring site. The value associated with the site or overall AQI is a measure of the highest value for all the individual pollutants. Table 4.11 summarizes the general numeric range, level of health concern, and color code assigned to each pollutant and site.

Table 4.12 is a summary of the AQI for the years 2006 through 2015.

**TABLE 4.11: AIR QUALITY INDEX**

Air Quality Index (AQI) Values	Levels of Health Concern	Colors
When the AQI is in this range:	...air quality conditions are:	...as symbolized by this color:
0 to 50	Good	Green
51 to 100	Moderate	Yellow
101 to 150	Unhealthy for Sensitive Groups	Orange
151 to 200	Unhealthy	Red
201 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

Source: U.S. Environmental Protection Agency (EPA)

TABLE 4.12: AQI 2006 - 2015

	AQI Numeric Value		Health Risk Category by		Number of Days			Number of Days Each Pollutant Registered as a Main Pollutant*						
	Median	Maximum	Good	Moderate	Unhealthy / Sensitive	Unhealthy	Very Unhealthy	Hazardous	Carbon Monoxide	Ground Level Ozone	Nitrogen Dioxide	Particulate Matter -.25	Particulate Matter -10	Sulfur Dioxide
2006	44	157	223	124	17	1	0	0	0	122	108	78	6	51
2007	48	164	198	126	37	4	0	0	0	148	95	79	7	36
2008	43	177	226	108	29	2	0	0	0	154	91	76	5	39
2009	49	127	192	162	11	0	0	0	0	85	27	228	0	25
2010	50	156	184	161	18	2	0	0	0	136	24	201	1	3
2011	54	153	159	193	12	1	0	0	0	102	9	251	1	2
2012	52	166	181	171	13	1	0	0	0	171	6	187	0	2

2013	47	143	223	136	6	0	0	0	0	0	210	2	152	0	1
2014	46	108	232	132	1	0	0	0	0	0	164	7	193	0	1
2015	48	126	200	156	9	0	0	0	0	0	164	10	190	0	1

\*Main Pollutant is the individual pollutant registering the highest concentration  
 Source: U.S. Environmental Protection Agency (EPA)

**Pollen and Mold**

Naturally occurring substances, such as pollen and mold, can also contribute to poor air quality for residents suffering from allergies. The National Allergy Bureau (NAB), a section of the American Academy of Allergy, Asthma, and Immunology, reports pollen and mold spore levels to the media. The NAB, using a national network of reporting stations, calculates pollen and mold spore concentrations by cubic meter and reports those concentrations using the NAB Scale shown in Table 4.13. The concentrations measured by the NAB Scale then can be translated into general symptoms that may be experienced by persons with allergies (Table 4.14). York County’s reporting station is located at 1620 South Queen Street in Spring Garden Township.

TABLE 4.13: NAB SCALE

<b>Mold</b>	<b>Count</b>	0	1 - 6499	6500 - 12999	13000 - 49999	>50000
	<b>Level</b>	Absent	Low	Moderate	High	Very High
<b>Grass</b>	<b>Count</b>	0	1-4	5-19	20-199	>200
	<b>Level</b>	Absent	Low	Moderate	High	Very High
<b>Tree</b>	<b>Count</b>	0	1-14	15-89	90-1499	>1500
	<b>Level</b>	Absent	Low	Moderate	High	Very High
<b>Weed</b>	<b>Count</b>	0	1-9	10-49	50-499	>500
	<b>Level</b>	Absent	Low	Moderate	High	Very High

Source: American Academy of Allergy, Asthma, and Immunology

TABLE 4.14: NAB SCALE-RELATED SYMPTOMS

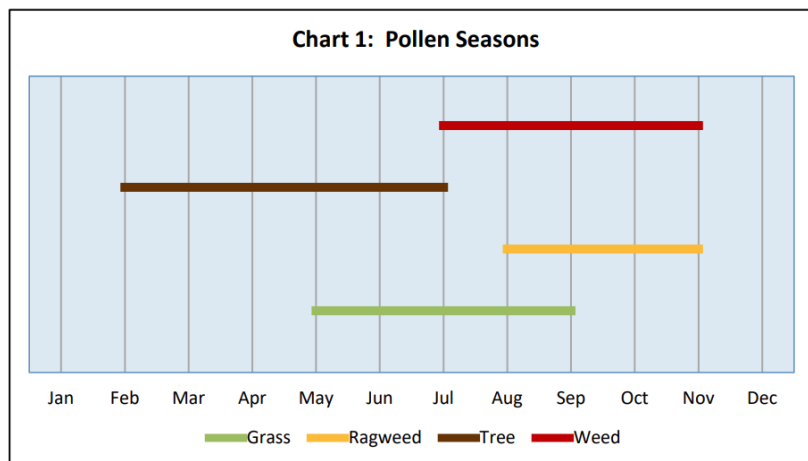
<b>If the count falls within this category:</b>	<b>Allergy sufferers who are allergic to these pollens or molds may experience symptoms of hay fever or asthma.</b>
Absent	No symptoms.
Low	Only individuals extremely sensitive to these pollens and molds will experience symptoms.
Moderate	Many individuals sensitive to these pollens and molds will experience symptoms.
High	Most individuals with any sensitivity to these pollens and molds will experience symptoms.
Very High	Almost all individuals with any sensitivity to these pollens and molds will experience symptoms. Extremely sensitive people could have severe symptoms.

Source: American Academy of Allergy, Asthma, and Immunology

The information available from the reporting stations is dependent upon the climate, which controls growing seasons. Since growing seasons are fairly standard year to year, the NAB can generally predict when to expect certain pollens in the air. [Chart 1](#), below, shows the four (4) main pollens and when they can be expected to occur in York



County throughout the year. Mold, which is not dependent on growing seasons, can occur anytime.



Source: American Academy of Allergy, Asthma, and Immunology

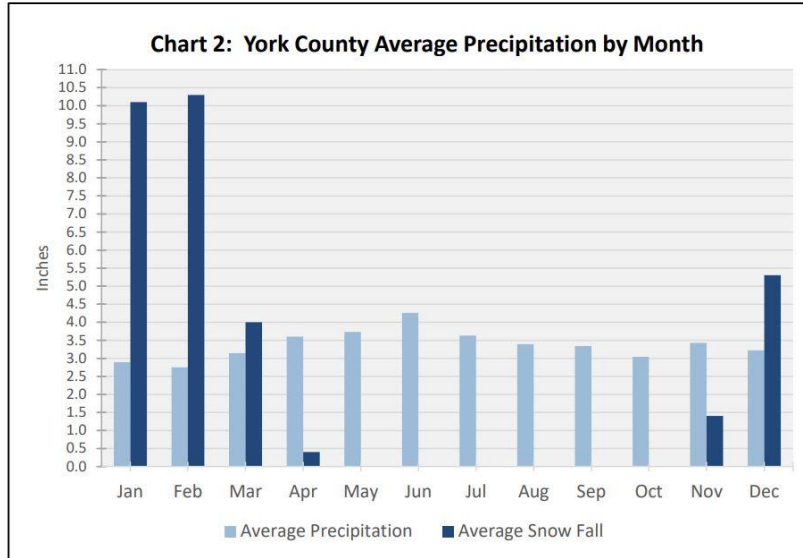
## CLIMATE

York County has a relatively mild and humid climate. This can, in part, be attributed to nearby mountains which protect the area from the more severe weather, which occurs fifty (50) to one hundred (100) miles to the north and west. To a lesser extent, the Atlantic Ocean to the east has a moderating effect on the County's climate. With prevailing winds from the west, the weather disturbances most likely to affect the County are from the interior of the continent. Although day-to-day weather is sometimes affected by coastal storms, the Atlantic Ocean is considered to have only a limited

influence on the total climate. In summer, winds are generally from the southwest, bringing moisture from the Gulf of Mexico into the area. Consequently, humidity is relatively high, which characterizes the County's climate as humid continental. The information that follows is a general summary reflecting conditions found in central York County, as recorded by the Natural Resource Conservation Service (NRCS). However, climate conditions throughout the County do vary.

## Precipitation

The average precipitation for York County is around forty (40) inches per year. June is usually the wettest month with an average precipitation of over four (4) inches and February is the driest month with approximately two and three-quarters (2.75) inches. Precipitation in the form of snow can be expected from November to early April with an average yearly total of thirty-one and six-tenths (31.6) inches of snow. February usually produces the most snow at just over ten (10) inches and April usually provides the least amount of snow with just under half an inch. On average there are twenty-eight (28) days a year with at least one (1) inch of snow on the ground. [Chart 2](#) shows the average precipitation by month.

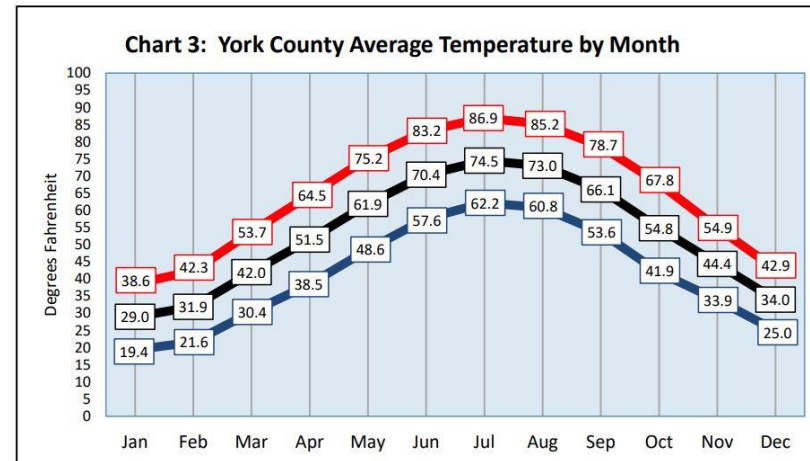


Source: US Department of Agriculture and Natural Resources Conservation Service

### Temperature

The average annual temperature for the County is fifty-eight and eight-tenths degrees Fahrenheit (58.8°F). July is the hottest month with an average temperature of seventy-four and five-tenths degrees Fahrenheit (74.5°F) and January is the coolest month with an average temperature of twenty-nine degrees Fahrenheit (29.0°F). The extreme high and low temperatures for York County can be expected to be around one hundred two degrees Fahrenheit (102.0°F) and negative nineteen degrees Fahrenheit

(-19.0°F), respectively. Chart 3 shows the average maximum and minimum temperatures by month.



Source: US Department of Agriculture and Natural Resources Conservation Service

### Growing Season

The United States Department of Agriculture defines a growing season as the part of the year when soil temperatures at nineteen and seven-tenths (19.7) inches below the surface are higher than forty-one degrees Fahrenheit (41.0°F). This is usually estimated by considering the number of frost-free days, or days where the surface temperature is above thirty-two degrees Fahrenheit (32.0°F). A growing season of about one hundred seventy (170) days prevails throughout the County and usually occurs between

early or mid-April to late October or early November.

### **UNIQUE FEATURES & AREAS**

Within Lower Windsor Township and York County, several natural features and areas are unique due to their rareness, irregularities, aesthetic qualities, or local significance. These qualities distinguish them from other features/areas and should be taken into consideration when reviewing subdivision and land development plans and when preparing/updating Comprehensive Plans at both the County and municipal levels. Below is a brief description of each unique natural feature and area in Lower Windsor Township generated from the York County Natural Areas Inventory (NAI), PA DCNR, and PA DEP listings and publications, news articles, and other sources. The NAI includes a much more in-depth listing of Statewide and locally significant areas recognized due to the presence of natural communities and species.

The unique features and areas contribute to the quality of the Township's landscape. However, due to their fragile nature, they should not be disturbed. Many are located on private property, which requires permission from the property owner to access. Due to potential dangers to people and the fragile nature of cave environments, any attempt to enter the caves listed is strongly discouraged.

Crystal Pit Cave - Located in Lower Windsor Township, this cave was formed in Conestoga limestone near the Susquehanna River.

Mount Pisgah - Located in Lower Windsor Township, Mount Pisgah rises to eight hundred eighty-five (885) feet. A large portion of the area includes Samuel Lewis State Park. Within the Park, there is a panoramic view of the Susquehanna River and surrounding farmland. A portion of the Park was previously an arboretum and many specimen trees still exist.

Devil's Hole Rock Shelter - Located in Windsor Township, this cave formed in Marburg schist associated with the Wissahickon Formation.

Susquehanna River - Forming the eastern border of York County, the Susquehanna River is considered an exceptional natural feature that is an environmental, recreational, and scenic resource.

### **Composite Constraints**

The preceding natural and resource information was combined and synthesized to illustrate the relative level of development constraints affecting various areas of Lower Windsor Township. Areas with very severe constraints are generally precluded from future development due to flooding, while very

steep slopes and wetlands pose severe constraints for most development. These areas may be most suitable for farming, recreational use, and wildlife habitat. Areas with hydric soils, woodlands, slopes between 15 and 25 percent (15% - 25%), or prime agricultural soils have moderate constraints for development. The balance of the Township has only slight development limitations.

Please see the following Exhibits regarding composite constraints:

- Exhibit 4.3 Floodplains and Wetlands
- Exhibit 4.4 Slopes 25% and Higher
- Exhibit 4.5 Hydric Soils

Please see the following Exhibits regarding Suitability for Development:

- Exhibit 4.6 Slopes 0% to 15%
- Exhibit 4.7 Slopes 15% to 25%
- Exhibit 4.8 Stream and Ridge Lines

---

**REFERENCES**

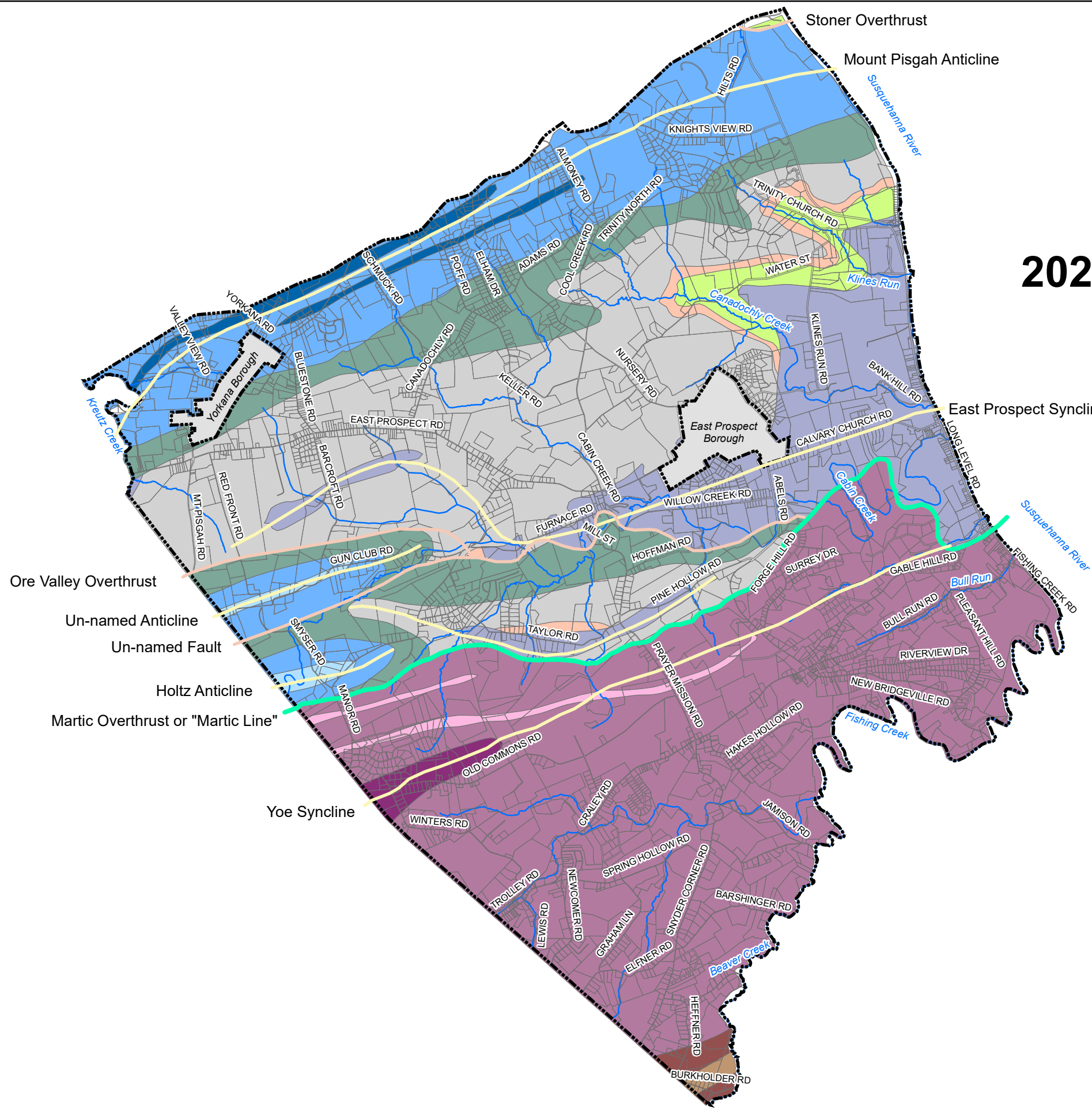
- Stose, G.W., and A.I. Jonas, 1939, *Geology and Mineral Resources of York County, Pennsylvania*, Pennsylvania Topographic and Geologic Survey Bulletin 67, Harrisburg, PA.
- Lloyd, O.B., and D.J. Growitz, 1977, *Ground-Water Resources of Central and Southern York County, Pennsylvania*, Pennsylvania Topographic and Geologic Survey Water Resources Report 42, Harrisburg, PA.
- Barnes, J.C., 1997, *Directory of Non-Fuel Mineral Producers in Pennsylvania*, Pennsylvania Topographic and Geologic Survey Open-File Report 97-04, Harrisburg, PA.
- O'Neill, B.J. Jr., D.M. Lapham, M.G. Jaron, A.A. Socolow, R.D. Thomson, & H.P. Hamlin, 1965, *Properties and Uses of Pennsylvania Shales and Clays*, Pennsylvania Topographic and Geologic Survey Mineral Resources Report M51, Harrisburg, PA.
- Newton, J.G. 1987, *Development of Sinkholes Resulting from Man's Activities in the Eastern United States*, USGS Circular 968, US GPO, Washington, D.C.
- Gordon, D.W., & J.W. Dewey, 1999, Earthquakes (Chapter 53), in *The Geology of Pennsylvania*, Special Publication 1 of the Pennsylvania Geological Survey, Harrisburg, and the Pittsburgh Geological Society, Pittsburgh.
- Potter, N. Jr., 1999, Physiography Southeast of Blue Mountain (Chapter 28), in *The Geology of Pennsylvania*, Special Publication 1 of the Pennsylvania Geological Survey, Harrisburg, and the Pittsburgh Geological Society, Pittsburgh.
- Berkheiser, S.W., Jr., and J.H. Barnes, 1999, Chapter 41B, Mineral Resources, Nonmetals- Clay and Shale, in *The Geology of Pennsylvania*, Special Publication 1 of the Pennsylvania Geological Survey, Harrisburg, and the Pittsburgh Geological Society, Pittsburgh.
- Heath, R.C., 1989, The Piedmont Ground-Water System, in *Ground Water in the Piedmont*, Proceedings of a Conference on Ground Water I the Piedmont of the Eastern United States, C.C. Daniel, III, R.K. White, and P.A. Stone, editors, Clemson University, Clemson, South Carolina, pp. 1-13.
- LeGrand, H.E., 1989, A Conceptual Model of Ground Water Settings in the Piedmont Region, in *Ground Water in the Piedmont*, Proceedings of a Conference on Ground Water I the Piedmont of the Eastern United States, C.C. Daniel, III, R.K. White, and P.A. Stone, editors, Clemson University, Clemson, South Carolina, pp. 1-13.
- Peffer Geotechnical Corporation (PGC), 2001, A Study of Ground-Water-Quality and Well-Yield Characteristics in the area of Martinsville and Bittersville, A study completed and reported in phases for C.S. Davidson, Inc., Engineers and Planners for Lower Windsor Township. Series of 4 reports including Executive Summary completed between April and October 2001.
- York County Planning Commission (YCPC), York County 2018 Hazard Mitigation Plan, February 2019.
- York County Planning Commission (YCPC), York County Environmental Resources Inventory, February 2018.
- York County Planning Commission (YCPC), Natural Areas Inventory, October 2004.

# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.1

### Geology & Structural Geologic Features



#### Legend

##### Geology

##### Conestoga Formation

Oc

##### Kinzer Formation

Cks

##### Vintage Formation

Cv

##### Antietam Formation

Ca

##### Harpers Formation

Chp

##### Chickies Formation

Ccs

Ccq

Ch

##### Marburg Schist

Qt

Sl

Mg

##### Wissahickon Formation

Was3

Was4

##### Structural Features

Overthrust or Fault Line

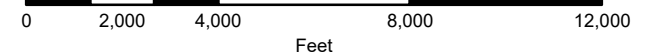
Anticline, Syncline or Fold Line

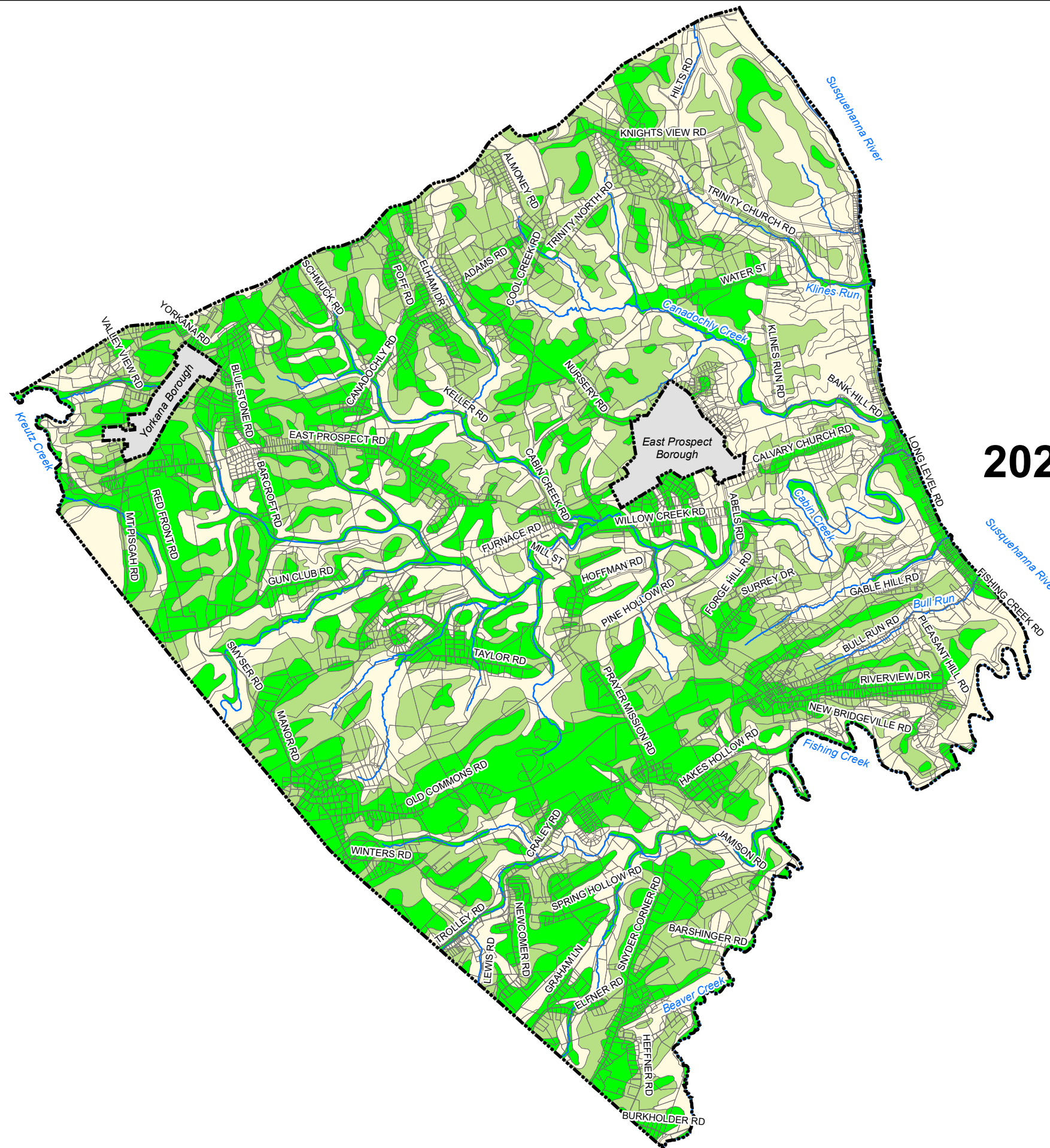
Martic Overthrust or "Martic Line"

Streams

Parcels

Lower Windsor Township





# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

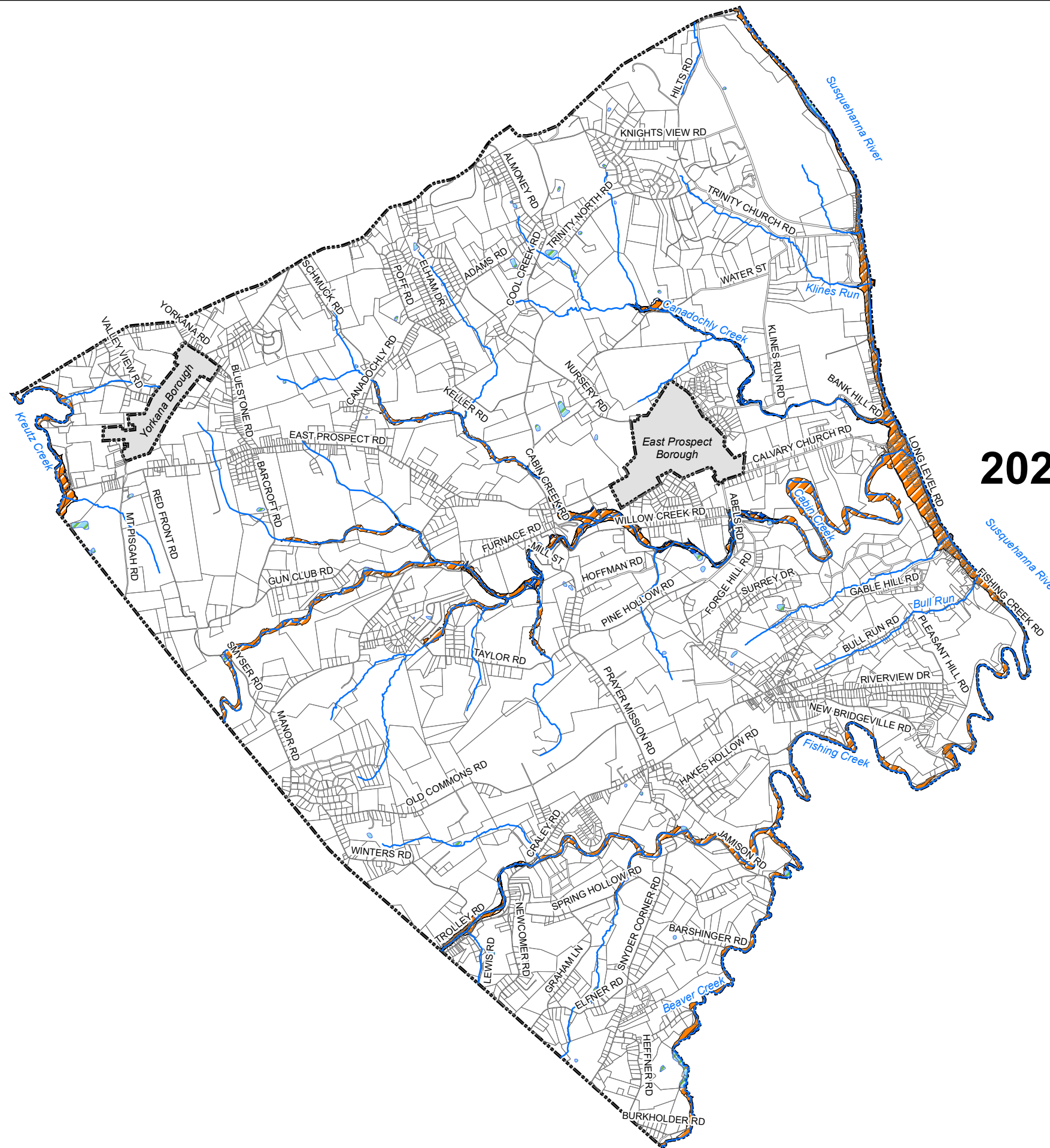
## Exhibit 4.2

Prime Agricultural Soils

### Legend

- |                                                                                                                                                       |                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color: #00FF00; border: 1px solid black;"></span> Class I & II                 | <span style="display:inline-block; width:15px; height:15px; background-color: #90EE90; border: 1px solid black;"></span> Class III |
| Cd                                                                                                                                                    | CeC                                                                                                                                |
| CeB                                                                                                                                                   | CnC                                                                                                                                |
| CkB                                                                                                                                                   | GbC                                                                                                                                |
| Cm                                                                                                                                                    | MOC                                                                                                                                |
| CnB                                                                                                                                                   | PsB                                                                                                                                |
| GbB                                                                                                                                                   |                                                                                                                                    |
| GdA                                                                                                                                                   |                                                                                                                                    |
| GdB                                                                                                                                                   |                                                                                                                                    |
| Lw                                                                                                                                                    |                                                                                                                                    |
| MOB                                                                                                                                                   |                                                                                                                                    |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFFF00; border: 1px solid black;"></span> Non Prime Agricultural Soils |                                                                                                                                    |
| <span style="display:inline-block; width:15px; border-bottom: 1px solid blue;"></span> Streams                                                        |                                                                                                                                    |
| <span style="display:inline-block; width:15px; border-bottom: 1px solid black;"></span> Parcels                                                       |                                                                                                                                    |
| <span style="display:inline-block; width:15px; border-bottom: 1px dashed black;"></span> Lower Windsor Township                                       |                                                                                                                                    |











# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.3

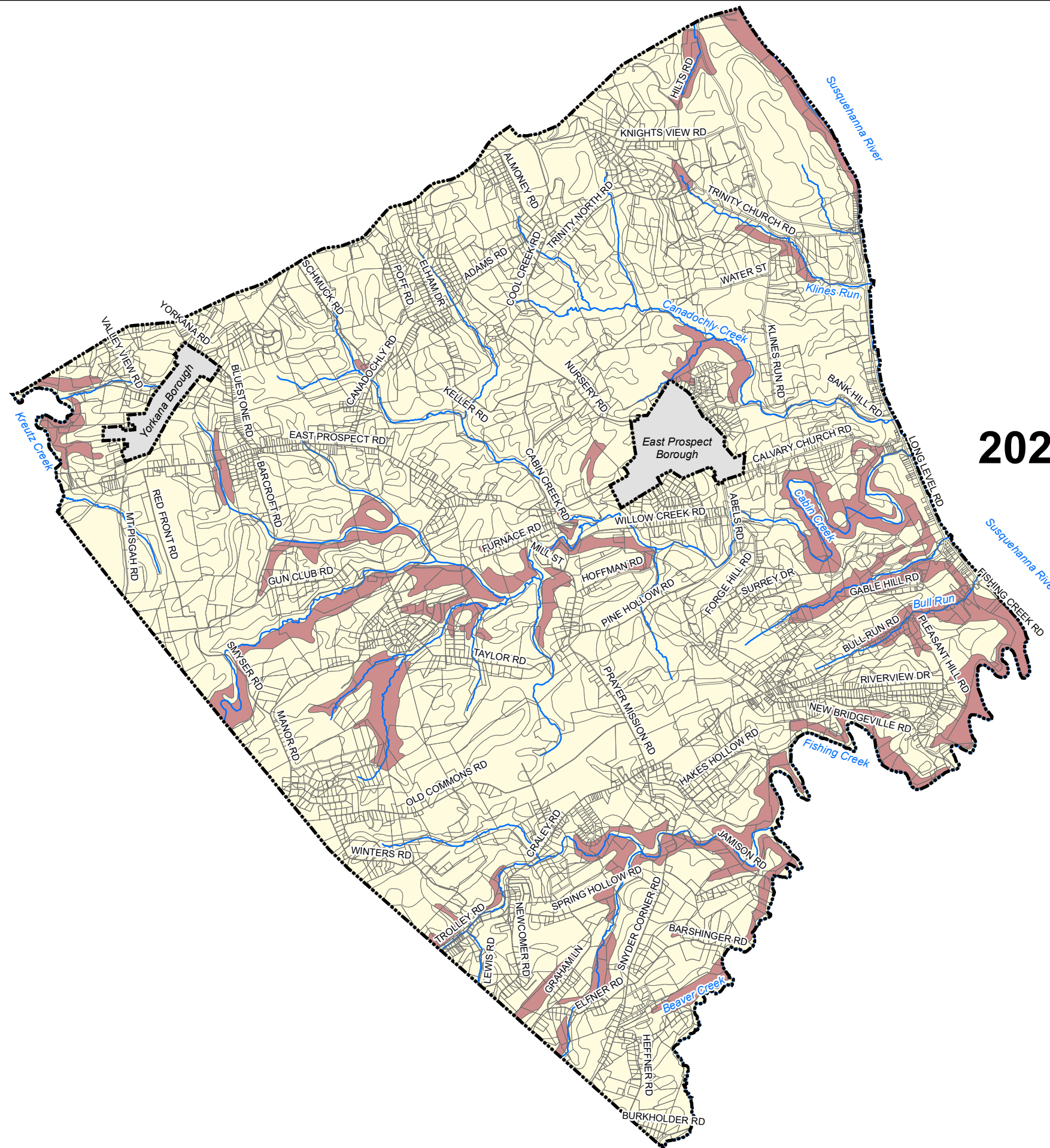
Floodplains & Wetlands

### Legend

-  100 Year Floodplain
-  500 Year Floodplain
-  Wetland
-  Streams
-  Parcels
-  Lower Windsor Township







# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania  
**Exhibit 4.4**  
Slopes 25% and Higher

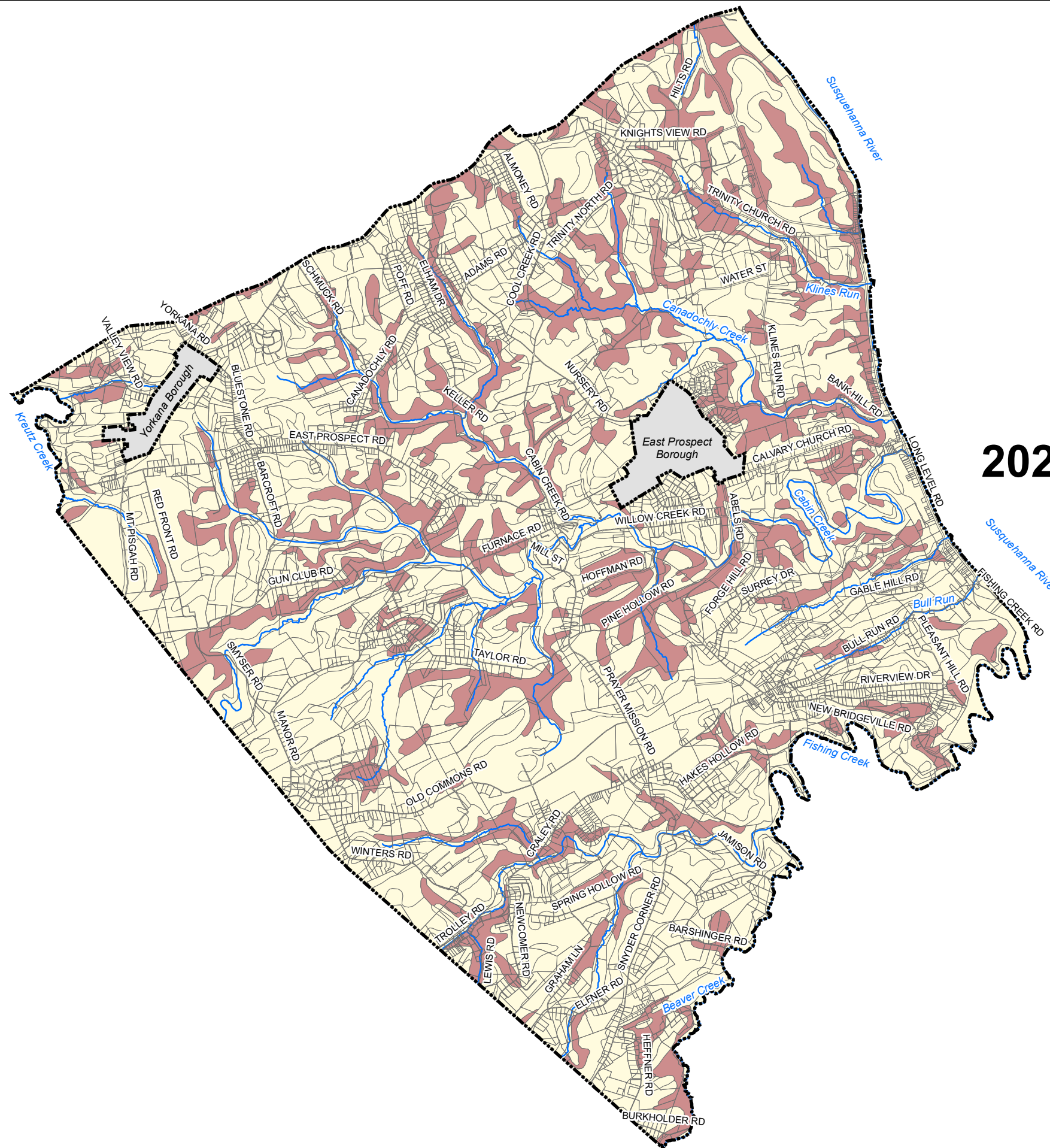
### Legend

- Slopes 0% to 25%
- Slopes 25% and Higher
- Lower Windsor Township
- Parcels
- Streams









# 2022 Comprehensive Plan Update Lower Windsor Township

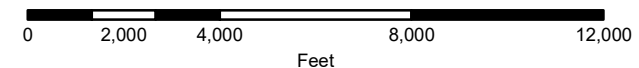
York County, Pennsylvania

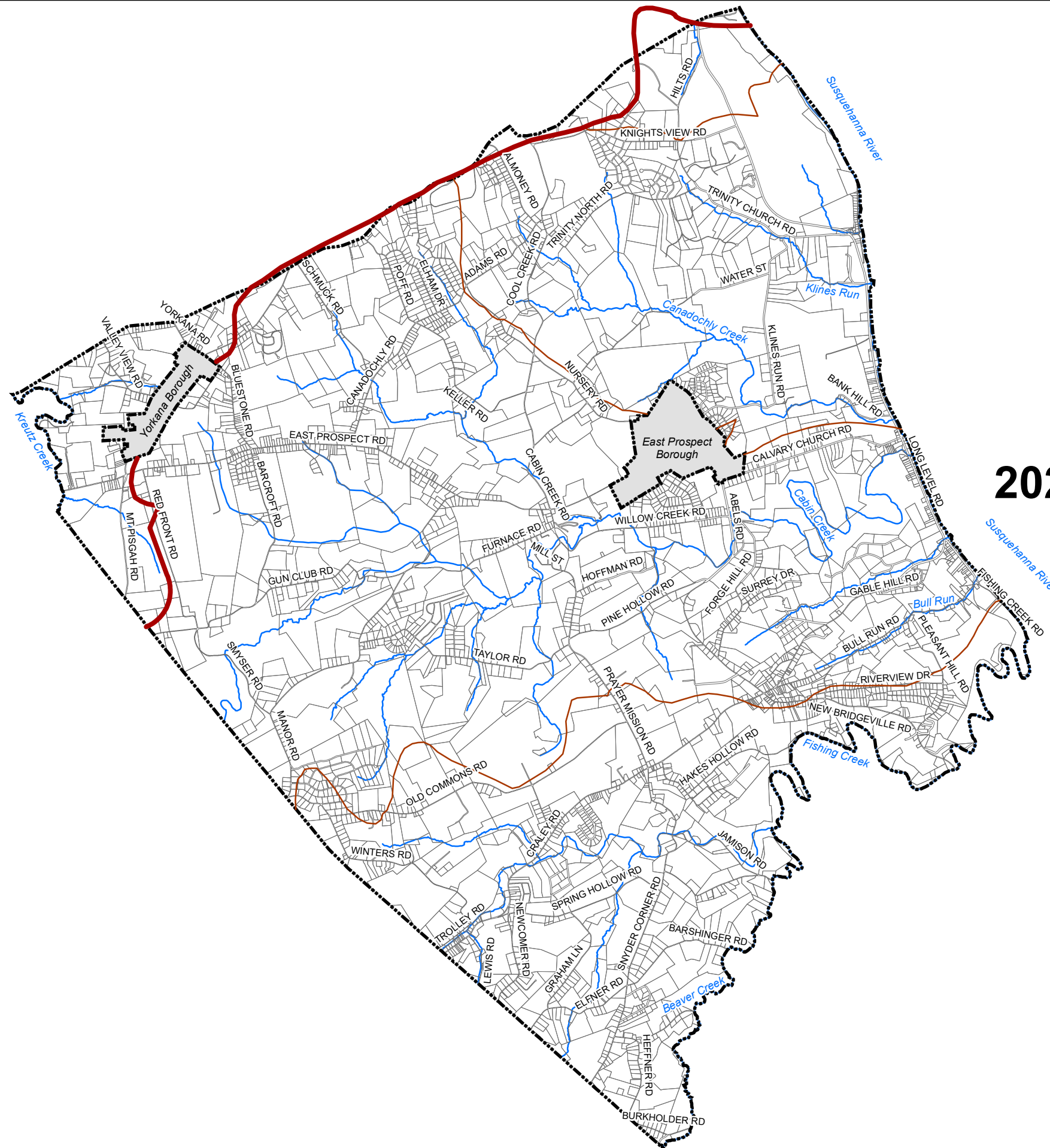
## Exhibit 4.7

Slopes 15% to 25%

### Legend

- Slopes 15% to 25%
- Slopes 0% to 15% and 25% and Higher
- Lower Windsor Township
- Parcels
- Streams










# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.8

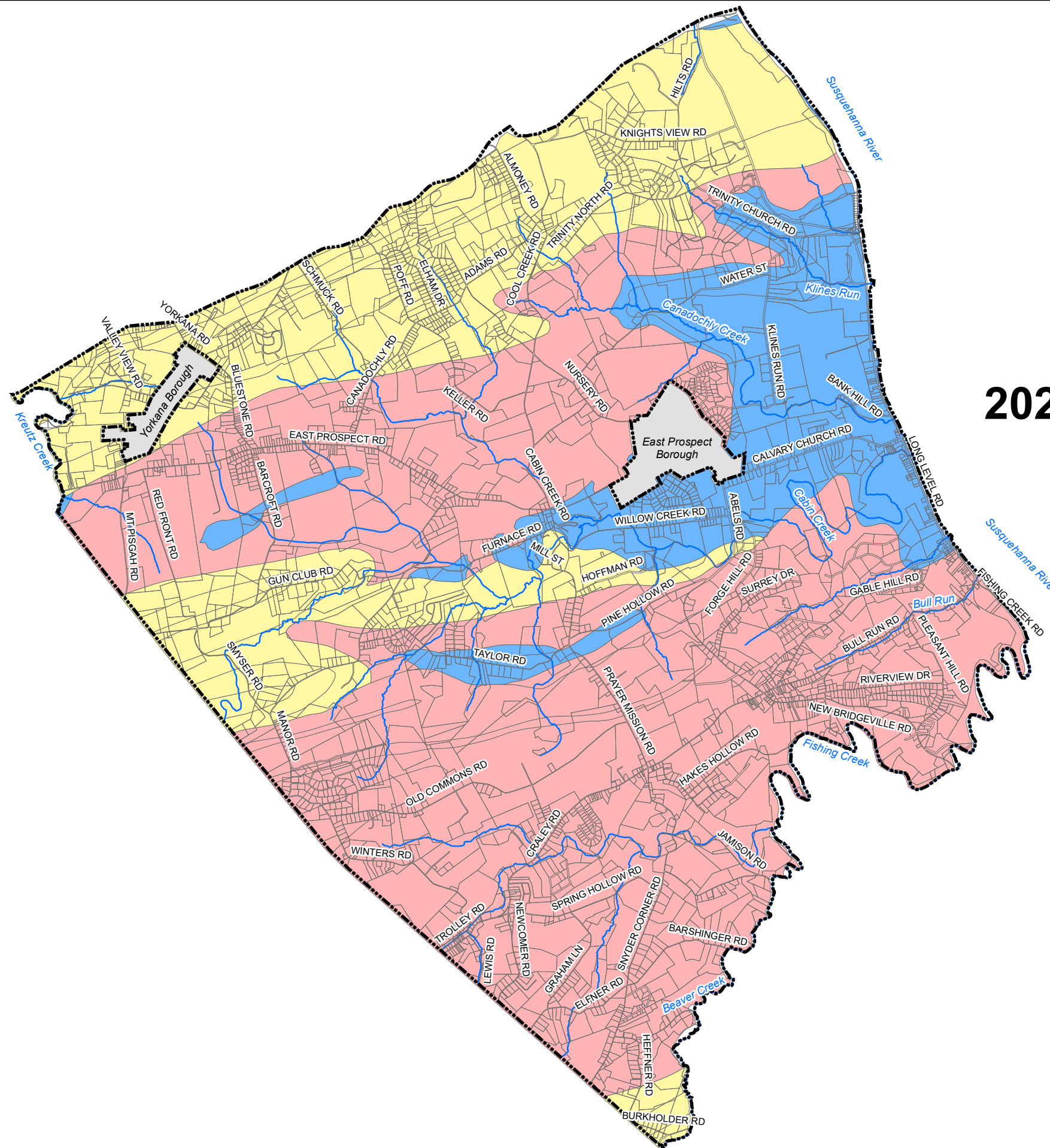
Stream and Ridge Lines

### Legend

-  Major Ridge Lines
-  Minor Ridge Lines
-  Streams
-  Parcels
-  Lower Windsor Township







# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

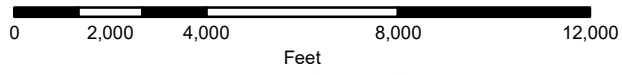
## Exhibit 4.10

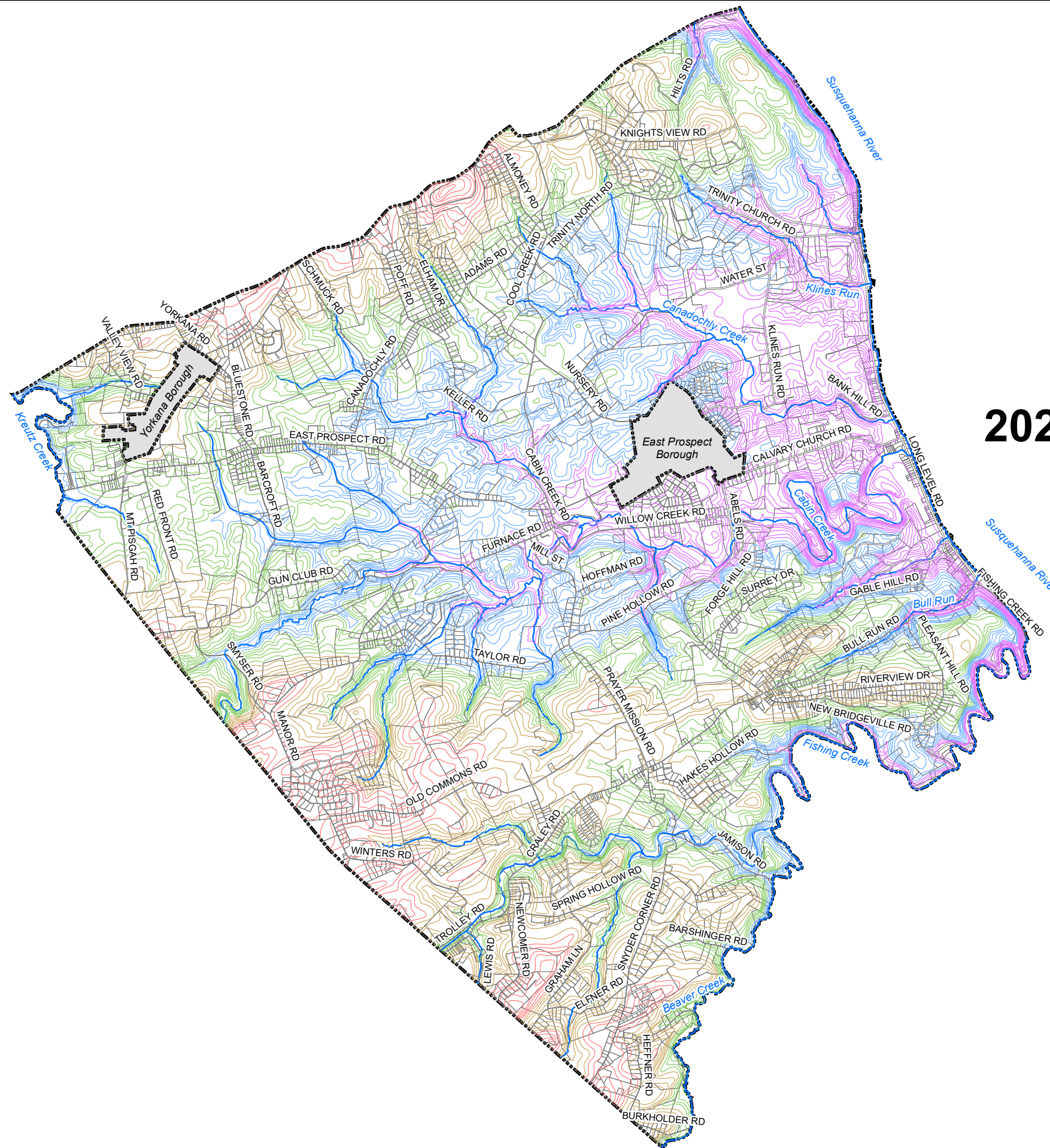
### Ranking of Bedrock Aquifers

#### Legend

#### Aquifers

- Potentially Best or Highest Yielding Aquifer; Meta - Carbonates in Conestoga Formation and Vintage Formation, Including Area Where Vintage Formation is Likely to Occur at Reasonable Depth Below Kinzer Shale
- Potentially Intermediate
- Potentially Poorest or Lowest Yielding Aquifer; Marburg Schist & Antietam Formation
- Streams
- Parcels
- Lower Windsor Township





# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.11

### Topography

#### Legend

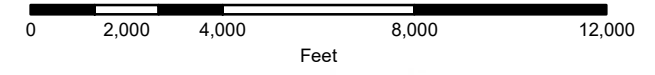
##### Contours

- 0 - 400 ft
- 401 - 500 ft
- 501 - 600 ft
- 601 - 700 ft
- 701 - 900 ft

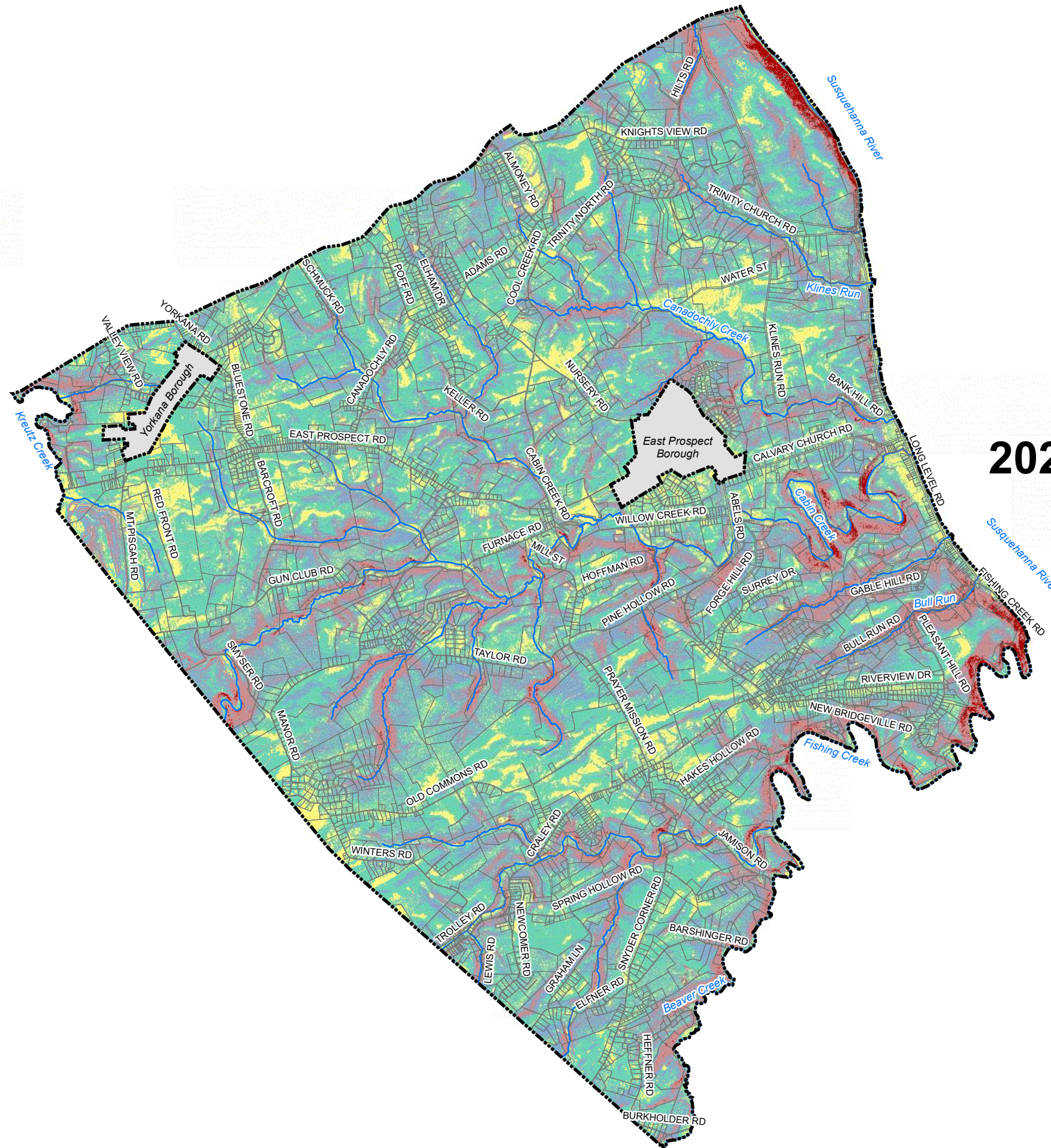
— Streams

Parcels

Lower Windsor Township







# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.12

### Slope

#### Legend

— Streams

#### Slope

0 - 3%

4 - 8%

9 - 15%

16 - 35%

36 - 79%

▭ Parcels

▭ Lower Windsor Township





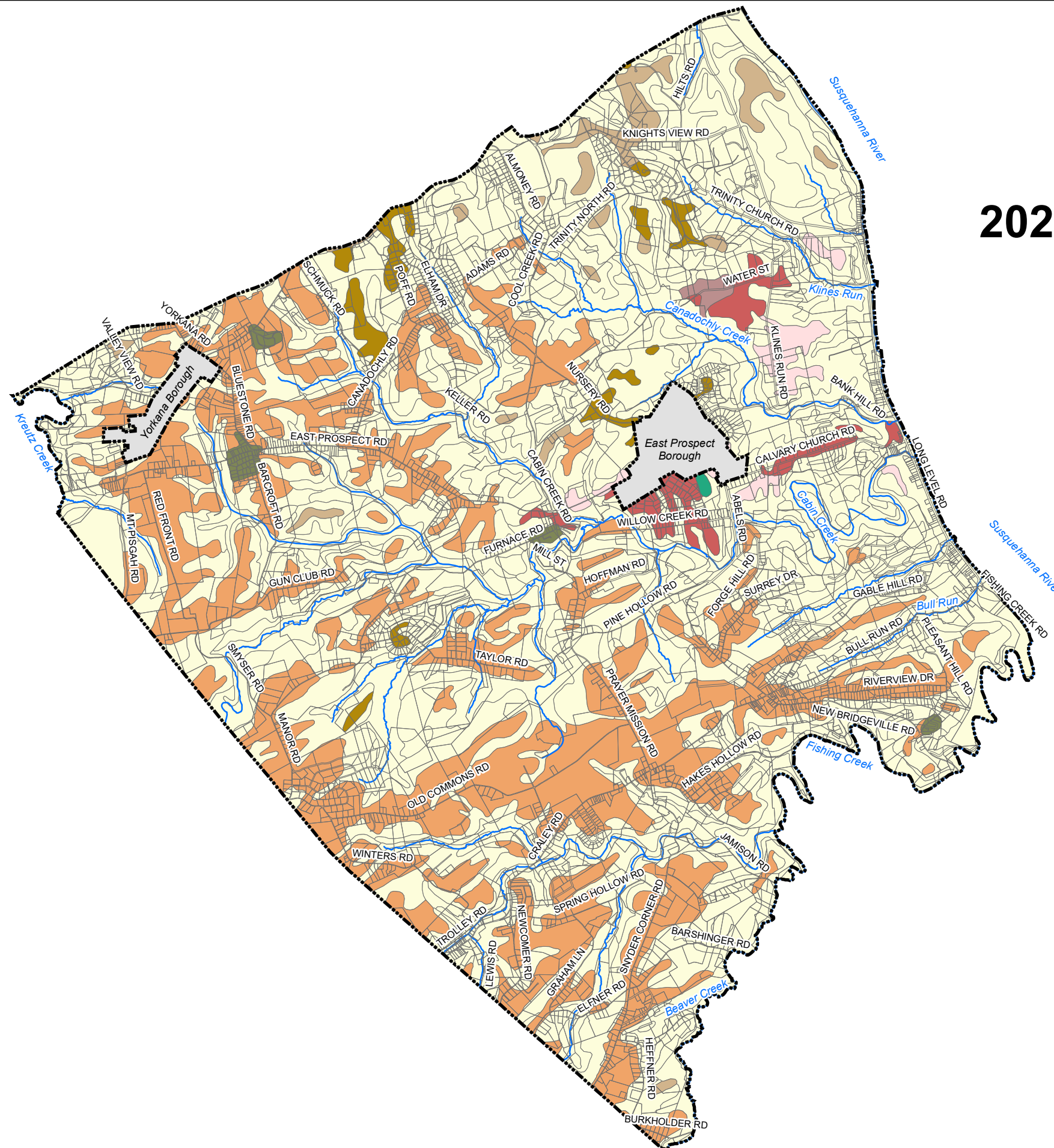


# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.14

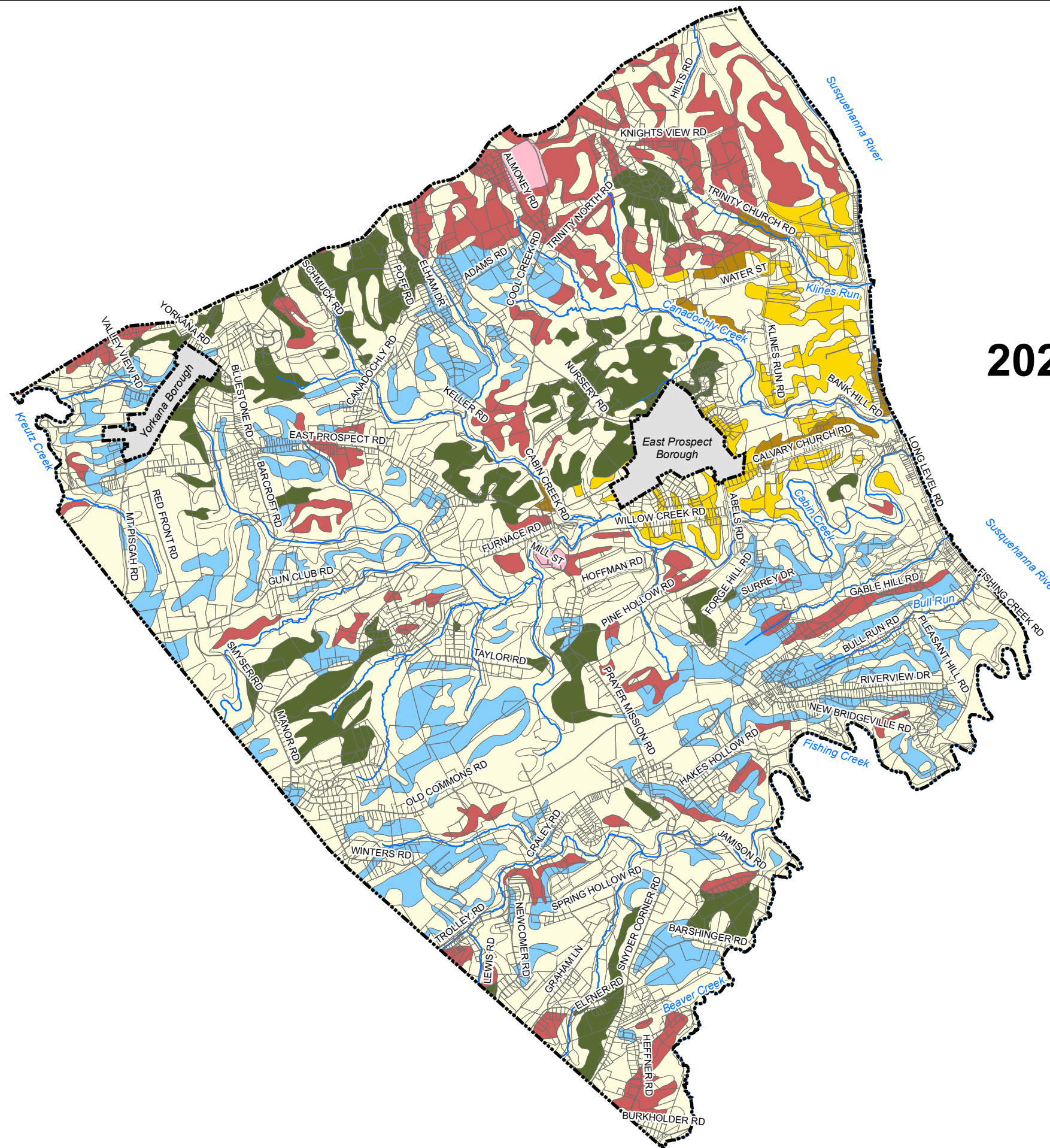
### Soils Suitable for Conventional In-Ground Systems and Elevated Sand Mounds



#### Legend

- Chester Silt Loam**  
CeB
- Clarksburg Silt Loam**  
CkB
- Conestoga Silt Loam**  
CnB
- Glenelg Channery Silt Loam**  
GbB
- Mt. Airy & Manor Channery Loams**  
MOB
- Pequea Silt Loam**  
PsB
- Urban Land - Chester Complex**  
UdB
- Urban Land - Conestoga Complex**  
UeB
- Unsuitable Soil
- Streams
- Parcels
- Lower Windsor Township





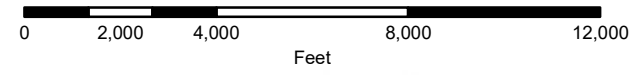
# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.15

### Soils Suitable for Elevated Sand Mounds

- Legend**
- Chester Silt Loam**  
CeC
  - Conestoga Silt Loam**  
CnC
  - Glenelg Channery Silt Loam**  
GbC
  - Mt. Airy & Manor Channery Loams**  
MOC
  - Pequea Silt Loam**  
PsC
  - Urban Land - Mt. Airy Complex**  
UfC
  - Unsuitable Soils
  - Streams
  - Parcels
  - Lower Windsor Township





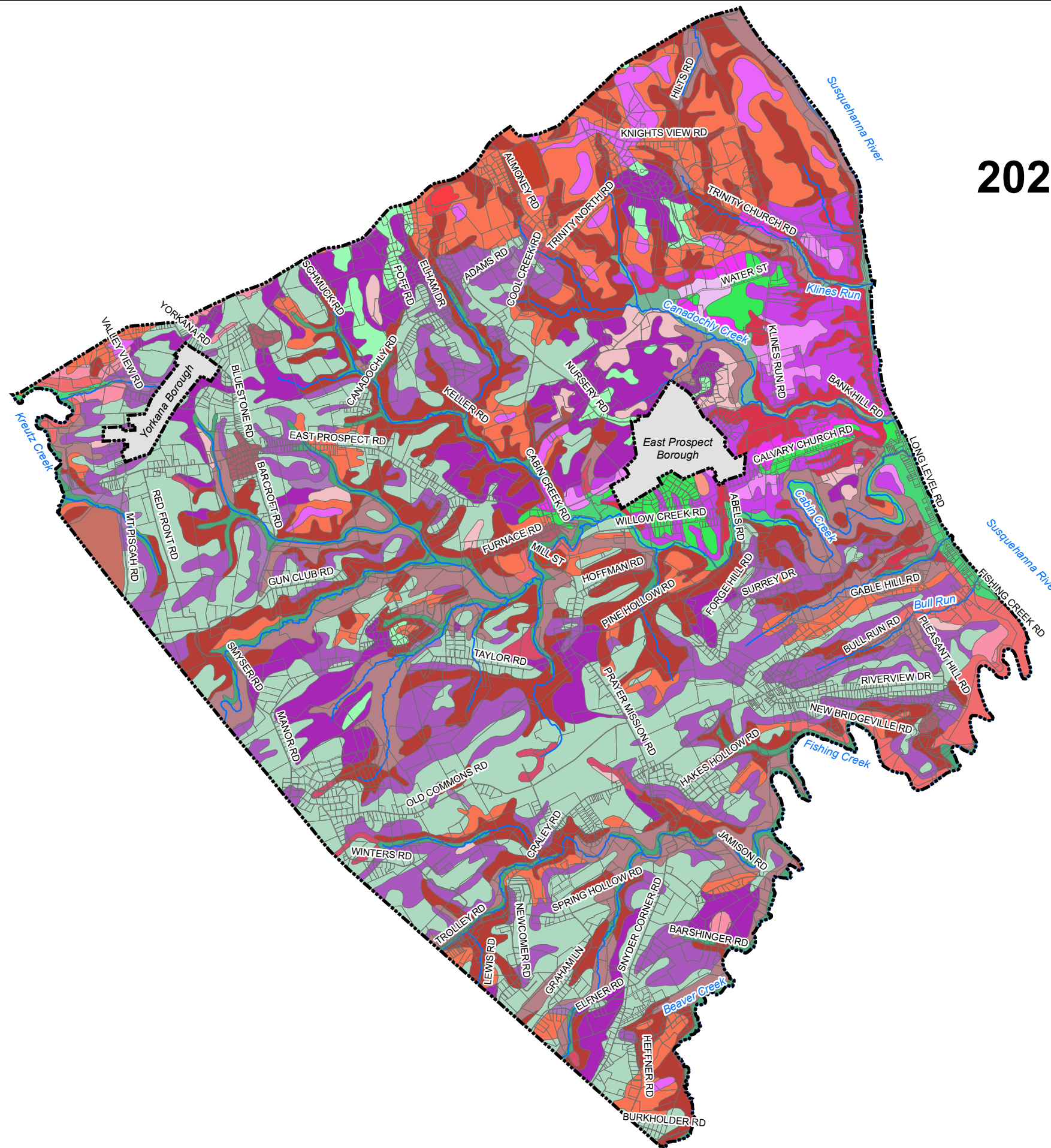


# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 4.17

### Agricultural Capacity



#### Legend

##### Poor

Dumps, Refuse

Dx

Edgemoat Channery Loam

EeD

Gleng Channery Silt Loam

GbD

Glenville Silt Loam

GdA

Mt. Airy & Manor Channery Loams

MOC

MOD

MOE

MPD

MRF

Pequea Silt Loam

PsD

Urban Land - Chester Complex

UdB

Urban Land - Conestoga Complex

UeB

Urban Land - Mt. Airy Complex

UfC

Water

W

Streams

Parcels

Lower Windsor Township

##### Good

Chargin Silt Loam

Cd

Chester Silt Loam

CeB

Codorous Silt Loam

Cm

Conestoga Silt Loam

CnB

Gleng Channery Silt Loam

GbB

Lindside Silt Loam

Lw

##### Fair

Chester Silt Loam

CeC

Clarsburg Silt Loam

CkB

Conestoga Silt Loam

CnC

Flenelg Channery Silt Loam

GbC

Glenville Silt Loam

GdB

Mt. Airy & Manor Channery Loam

MOB

Pequea Silt Loam

PsB

PsC



## 5. POPULATION CHARACTERISTICS & TRENDS

The allocation of municipal resources must consider the population to be served. The overall size of a population is related to the number of services or lands that must be provided. In addition, particular groups within the population have different service needs. This section will review past, current, and expected population characteristics and trends.

### HISTORIC POPULATION GROWTH

The historical growth patterns of a municipality can provide insight into the growth that might be expected in the future. [Table 5.1](#) illustrates the amount and rate of population growth that has occurred since 1960 in Lower Windsor Township. Population change is attributable to a combination of natural increase (or decrease) and net migration. Lower Windsor Township experienced steady growth through the 1960s as the economy diversified and new residents moved into the area. The 1970s saw an explosion of growth in the Township. The slowdown in growth during the decade of the 1980s can likely be attributed largely to the national recession, the slowdown in the building industry, and the rising cost of housing. This slowdown continued through the 1990s, which saw only a five percent

(5%) increase in population. The 1989 Comprehensive Plan predicted a slowing in population growth, attributable to the nature of much of the Township’s remaining open space and the lack of public water and sewer.

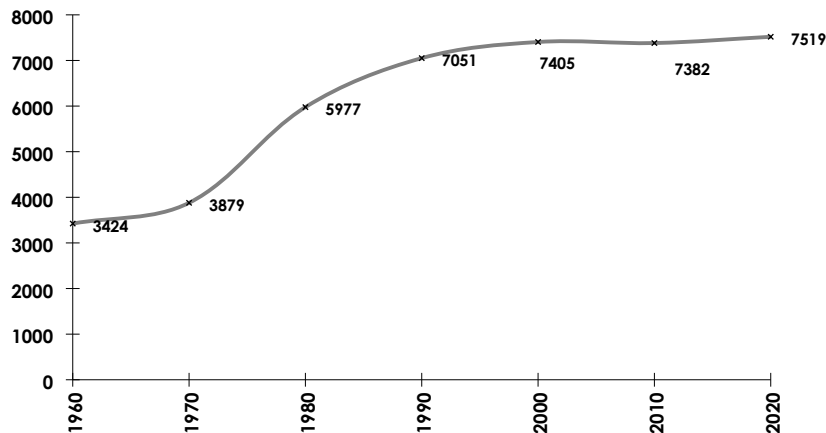
Year	Total Population	Net Change	Percent Change
1960	3,424	-	-
1970	3,879	455	13%
1980	5,977	2,098	54%
1990	7,051	1,074	18%
2000	7,405	354	5%
2010	7,382	(23)	(0.31%)
2020	7,519	137	1.9%

Source: US Census Bureau

As shown in [Table 5.1](#), population growth in the Township continued to slow throughout the 2000s. The slowing of growth, however, was far more significant than was initially predicted in previous

iterations of the Township's Comprehensive Plans. The causes of the growth slowdown are similar to those experienced in the 1980s, namely the 2008 housing market collapse and subsequent recession. However, growth is slowing across the nation as the Country's population ages, and by 2030, all baby boomers will be older than sixty-five (65). Nationally, the US Census Bureau is anticipating that by 2030 net international migration is projected to overtake natural increase, even though levels of migration are projected to remain relatively flat.

The slowing of growth within the Township is even more noticeable when reviewing the information in a line graph, as shown below:



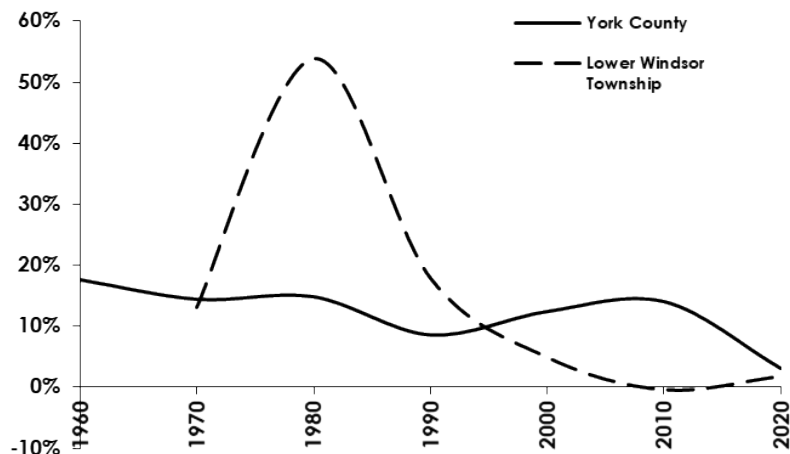
A comparison of Township and York County growth rates provides insight into Regional factors affecting local growth. Table 5.2 compares the percent rate of population growth by decade for Lower Windsor Township with that of York County.

Since 1960, York County's general rate of growth has declined, while Lower Windsor Township's rate of growth rose sharply in the 1970s, dropped down again to below the County's rate of growth in the 2000s, and has remained below the County's growth rate through to 2020. Presently, the growth rates appear to be normalizing around one and one-half percent to three percent (1.5% - 3%).

	1960	1970	1980	1990	2000	2010	2020
Lower Windsor Twp.	-	13%	54%	18%	5%	(0.31%)	2%
York County	18%	14%	15%	9%	12%	14%	3%

Source: US Census Bureau





A comparison of growth in Lower Windsor Township with that in adjacent municipalities can also provide insight into more localized development influences.

York County includes thirty-five (35) Townships, with Lower Windsor Township located at its central southeastern edge. Two of the County's boroughs, Yorkana and East Prospect, are surrounded by Lower Windsor Township.

Table 5.3 displays population data for Lower Windsor Township and adjacent municipalities for recent decades. Exhibit 5.1, Regional Setting, shows the locations of these municipalities.

**TABLE 5.3: POPULATION GROWTH IN ADJACENT MUNICIPALITIES**

Municipality	1980	1990	2000	2010	2020
Yorkana Borough	296	285	239	226	207
Hellam Township	4,507	5,123	5,930	6,053	5,970
<b>Lower Windsor Township</b>	<b>5,977</b>	<b>7,051</b>	<b>7,405</b>	<b>7,451</b>	<b>7,519</b>
Chanceford Township			5,973	6,111	5,936
Windsor Township	8,807	9,424	12,807	16,771	18,107
East Prospect Borough	529	558	678	683	756
<b>Total for Region</b>	<b>20,116</b>	<b>22,441</b>	<b>33,032</b>	<b>37,295</b>	<b>38,495</b>
Total for York County	312,963	339,574	381,751	428,175	447,628

Source: US Census Bureau

According to the 2002 Comprehensive Plan, the Region's population increased throughout the 1960s, twenty-seven percent (27%), and 1970s twenty-two percent (22%), though that growth was beginning a slow decline. Growth began slowing more noticeably in the 1980s, ten percent (10%), with a brief increase to seventeen percent (17%) in the 1990s.

Table 5.3, however, details a Regional growth rate that dropped precipitously between 2000 and 2010 from seventeen percent (17%) to two and one-half percent (2.5%), an increase of just under one thousand five hundred (1,500) people. Growth in the Region did rebound slightly by three and one-half percent (3.5%) between 2010 and 2020 with a gain of one thousand nine hundred eighty-six (1,986) individuals.

The figures in Table 5.3 were also used to calculate the net change in population and rate of growth from 1960 to 2020 for each of the Region's municipalities and the County, as shown in Tables 5.4 and 5.5.

Table 5.4 shows that from 1960 to 2000, Lower Windsor Township grew at the third-fastest rate among neighboring Townships; the Township experienced the fourth-lowest increase in actual numbers of new residents. Conversely,

Springettsbury and Windsor Townships experienced much higher increases in the numbers of new residents, indicating that those Townships are developing more rapidly. This trend corresponds to the urbanization and suburban sprawl of the greater York City area during the past several decades. These Townships are located to the east of York City within the suburbanizing area and reflected the directionality of growth pressure being exerted upon Lower Windsor Township from the west.

Municipality	Population Growth	
	Number	Percent
Yorkana Borough	-12	(4%)
Hellam Township	3,380	133%
<b>Lower Windsor Township</b>	<b>3,981</b>	<b>116%</b>
Windsor Township	8,056	169%
East Prospect Borough	55	8%
Regional Total	27,936	99%
York County	143,415	60%
Source: US Census Bureau		

Table 5.5, below, details the Region's growth from 2000 to 2020. Across the Region, growth has slowed significantly. Rather the opposite from Table 5.4, Lower Windsor Township had the third-slowest growth rate and the third-highest increase in actual numbers of new residents. Growth continues to be directed towards the established growth areas located closer to the City of York, an indication of the success of land use regulations that directed growth towards the County's established growth areas and awareness from rural environments seeking to preserve natural and open space lands and agriculture.

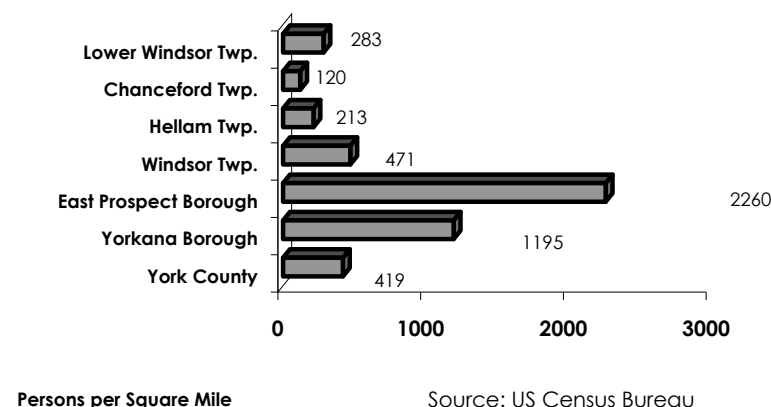
Municipality	Population Growth	
	No.	%
Yorkana Borough	-32	(14%)
Hellam Township	40	0.60%
<b>Lower Windsor Township</b>	<b>160</b>	<b>2.12%</b>
Windsor Township	5,300	39%
East Prospect Borough	78	11.43%
Regional Total	8,531	51.42%
York County	65,877	17%

Source: US Census Bureau

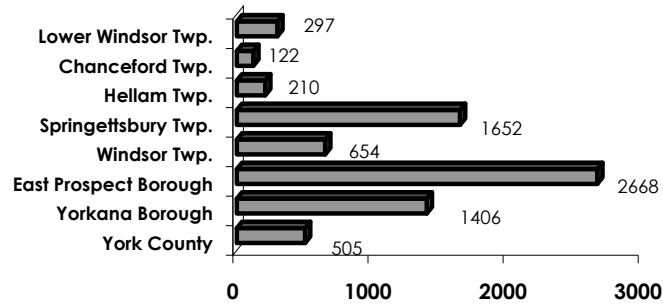
As the population increases, so does density. Tables 5.6 & 5.7 depict relative densities for the Township, adjoining municipalities, and York County. Not surprisingly, the area's boroughs exhibit greater densities than do the Townships and County. Lower Windsor Township has the third-lowest density of all the Townships in the Region, and about half of the density of the County, reflecting its still largely rural character.

Table 5.7, details an increase from two hundred eighty-one (281) persons per square mile in 2000 to two hundred eighty-three (283) persons per square mile in 2020. Nonetheless, the Township remains the third-lowest density within the Region and is slightly more than half of the County's density.

**TABLE 5.6: LOWER WINDSOR TOWNSHIP & ADJOINING MUNICIPALITIES 2000 COMPARABLE DENSITIES**



**TABLE 5.7: LOWER WINDSOR TOWNSHIP & ADJOINING MUNICIPALITIES 2020 COMPARABLE DENSITIES**



Persons per Square Mile

Source: US Census Bureau

**POPULATION PROJECTIONS**

Population projections are important to the future allocation of land use and the delivery of public services. The projections become building blocks for forecasting future land and service needs. Consequently, great care must be exercised to ensure that these figures represent the “best guess” as to how the Township will grow.

It is important to understand that no population projection can accurately forecast all of the factors that might cause a particular rate of growth. Instead, historical trends are analyzed and compared with perceived current trends to see how

accurately they predict recent data; then, the most accurate method is used to predict future conditions.

Calculating future growth according to historic growth trends (2010 through 2020) points to a relatively small population increase, as shown in Table 5.8 below:

<b>TABLE 5.8: POPULATION PROJECTION – HISTORIC GROWTH 2020-2050</b>				
	<b>2020* Actual</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>
CSD Projections**	7,519	7,680	7,680	7,993
DEP Projections	7,519	7,565	7,663	7,731
<i>Average</i>	7,519	7,623	7,672	7,862
<small>*2020 Decennial Census Numbers                      **Utilizing YCPC 2011 Methodology                      Source: CSD, DEP, US Census Bureau</small>				

The CSD Projections utilize a methodology initially developed by the York County Planning Commission in 2011 and rely on 2010 and 2020 Decennial Census Data and American Community Survey Data published between 2010 and 2020 to generate the

projected population numbers for 2030, 2040, and 2050.

Additionally, the Department of Environmental Protection recently released draft population projections for every municipality within the Commonwealth, these projections were also included in Table 5.8. The two (2) projections were then averaged to create a final projection. As shown, according to historic growth trends the Township's population could be expected to increase by four and one-half percent (4.5%) or three hundred forty-three (343) individuals by 2050. With an average household size of two and sixty-nine hundredths (2.69) persons per unit, this equates to ninety (90) additional units by the year 2050.

However, the above analysis does not consider the approved River Ridge Hills Subdivision located along Cool Creek Road or the potential Fields at East Prospect<sup>1</sup> just west and adjacent to East Prospect Borough.

River Ridge Hills is a phased subdivision consisting of three hundred six (306) single-family detached (SFD)

and single-family attached (SFA) or townhouse units. The development has the following phased development schedule:

- 2022 - Phase I – 46 SFD
- 2023 – Phase II – 47 SFD / 11 SFA
- 2024 – Phase III – 12 SFD / 21 SFA
- 2028 – Phase IV – 30 SFD / 19 SFA
- 2032 – Phase V – 35 SFD / 85 SFA

The Fields at East Prospect is expected to submit a six-(6)-unit per acre subdivision in 2024 or 2025, which could yield as many as two hundred forty (240) units.

An additional five hundred forty-six (546) dwelling units with an average household size of two and sixty-nine hundredths (2.69) persons per unit, could result in an additional one thousand four hundred sixty-nine (1,469) persons or an increase of nineteen and nine-tenths percent (19.9%).

At a minimum, the River Ridge Hills development will likely generate as many as eight hundred seventeen (817) new residents between 2023 and 2040.

Table 5.9 combines the average projection from Table 5.8 with the known/anticipated future

---

<sup>1</sup> The Fields at East Prospect development has not been formally submitted, though a 2024 submittal is anticipated. The above unit estimate is based on the following assumption: 57-acres minus 30% for rights-of-way, stormwater, and other site requirements, multiplied by 6 units per acre.

residential development to create a potential future growth scenario for Lower Windsor Township.

<b>TABLE 5.9: ANTICIPATED POPULATION GROWTH 2020-2050</b>				
	<b>2020* Actual</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>
Historic Growth Projections	7,519	+ 104	+ 49	+190
Anticipated Population from New Housing Units		+ 823	+ 646	0
<i>Total Population</i>	<i>7,519</i>	<i>8,446</i>	<i>9,141</i>	<i>9,331</i>
Source: US Census Bureau, Lower Windsor Township				

As shown above, it's anticipated that the Township could increase in population by twelve and three-tenths percent (12.3%) or nine hundred twenty-seven (927) individuals between 2020 and 2030. These numbers assume the full build-out of Phases I through IV of the River Ridge Hills subdivision (186 units), a half-built-out scenario for the Fields at East Prospect (120 units), and the addition of one

hundred four (104) new residents through housing development not associated with either of the two (2) subdivision.

The 2040 estimated population includes the remainder of the River Ridge Hills and Fields at East Prospect Developments and forty-nine (49) individuals from incidental housing development throughout the Township and details an estimated six hundred ninety-five (695) individuals or a population increase of eight and two-tenths percent (8.2%).

The 2050 projected population details a two percent (2%) increase over the 2040 projected population. This assumed growth is based solely on historic population growth trends.

Overall, Lower Windsor Township could anticipate a 2050 population of nine thousand three hundred thirty-one (9,331) which equates to a twenty-four percent (24%) increase from the 2020 population of seven thousand five hundred nineteen (7,519).

**POPULATION DATA**

Different age groups have varying public service needs that must be addressed. Age composition data supplies important input for school and recreation planning analyses, which are used to

determine long-range facility needs and land requirements for school and recreation sites. Age data is also important in defining life cycle stages that are used in studies of activity patterns, household moving behavior, housing, and various kinds of community facilities and services.

For example, the number of children between birth and four (4) years of age helps predict future elementary school classroom space needs and recreation programs geared for preschool-aged children. Those aged five to nineteen (5-19) comprise the school-aged population, which poses planning implications regarding school and recreation facilities and programs. The twenty to twenty-four (20-24) age group represents young adults who are just entering the labor force and who may rely heavily on the rental housing supply. Those aged twenty-five to forty-four (25-44) comprise the young labor force and tend to produce the most children. This group, like those aged twenty to twenty-four (20-24), is also highly mobile. The mature labor force, those aged forty-five to sixty-four (45-64), tends to be more settled and at the height of its earning power. Those sixty-five (65) years and older comprise the senior sector, which is generally characterized by limited purchasing power, increased demand for health and public transit services, and special recreation services.

**TABLE 5.10: POPULATION BY AGE GROUPS**  
**PERCENT OF TOTAL POPULATION**  
**1990 - 2020**

	1990	2000	2010	2020
<b>0-4</b>	8.3	5.9	4.9	4.9
<b>5-9</b>	8.9	7.1	5.9	8.1
<b>10-19</b>	17.9	15.1	12.3	13.5
<b>20-24</b>	9.5	4.7	4.7	4.1
<b>25-34</b>	19.6	12.7	9.9	10.7
<b>35-44</b>	11.7	19.9	17.9	12.8
<b>45-54</b>	8.3	15.2	16.9	12.5
<b>55-64</b>	8.0	9.4	14.6	16.5
<b>65-74</b>	5.5	5.8	7.9	12.7
<b>75+</b>	2.3	4.1	5.1	4.2
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: US Census Bureau

According to Table 5.10, preschool-age children through age four (4) make up five percent (5%) of the Township’s population, while school-age children aged five to nineteen (5-19) comprise an additional twenty-one and six-tenths (21.6%) of the population. Young adults aged twenty to twenty-four (20-24) make up four and one-tenth percent (4.1%) of the population, while the young labor force and childbearing adults aged twenty-five to forty-four (25-44) account for twenty-three and five-tenths percent (23.5%) of the population. Mature

adults aged forty-five to sixty-four (45-64) comprise twenty-nine percent (29%) of the population, while seniors sixty-five (65) and over make up the remaining sixteen and nine-tenths percent (16.9%).

**TABLE 5.11: POPULATION BY GENDER\***  
**2000-2020**

	Lower Windsor Township		York County	
	2000	2020*	2001	2020
<b>Total Persons</b>	7,405	7,519	381,751	456,438
<b>Female</b>	3,697	-	194,084	-
<b>%Female</b>	49.9	48.4	50.8	50.5
<b>Male</b>	3,708	-	187,667	-
<b>% Male</b>	50.1	51.6	49.2	49.5

Source: US Census Bureau  
 \*A breakdown of the population by gender is not yet available using the 2020 Decennial Census Data. Percentages are from the 5-Year American Community Survey estimates, instead.

Comparing the age distribution over time the fastest-growing segments of the Township’s population are mature adults and seniors, indicating a population that is aging faster than it is growing. The segment of the population to lose the most ground was the child-bearing/young workforce adults aged twenty-five to forty-four (25-44) dropping from thirty-three percent (33%) of the Township's total population in 2000 to twenty-three

percent (23%) in 2020. The remainder of the Township’s workforce-aged population are the twenty to twenty-four (20-24) and the forty-five to sixty-four (45-64) aged segments. Young adults aged twenty to twenty-four (20-24) have decreased by one percent (1%) between 2000 and 2020. Mature adults, aged forty-five to sixty-four (45-64) increased from twenty-four and six-tenths percent (24.6%) in 2000 to twenty-nine percent (29%) in 2020. Township youth aged one to nineteen (1-19) decreased from a high of thirty-five percent (35%) in 1990 to twenty-six and five-tenths percent (26.5%) in 2020.

It is also important to review other population data to help understand the demographic makeup of the Township. This data includes race and gender, household statistics, education level, and income, and is shown in [Tables 5.11, 5.12, 5.13, 5.14, and 5.15.](#)

Township population characteristics present few surprises when compared with York County. The Township has a slightly higher percentage of males than females than does the County as a whole.

Racially, according to 2000 Census Data, the Township was extremely homogeneous, with only one and five-tenths percent (1.5%) of the population represented by minorities, a lower rate than the seven and two-tenths percent (7.2%) for the County, but consistent with other rural areas, according to



US Census data. In 2020, the Township remains relatively homogenous, however, minority populations are growing and the Township's population is diversifying with seven and eight-tenths percent (7.8%) represented by minorities. This growth in the Township's minority population is slower than the growth seen at the County level, which increased from seven and two-tenths percent (7.2%) in 2000 to twenty percent (20%) in 2020.

**TABLE 5.12: POPULATION BY RACE  
2000-2020**

	Lower Windsor Township		York County	
	2000	2020	2000	2020
<b>Total Persons</b>	7,405	7,519	381,751	456,438
<b>White</b>	7,300	6,933	354,103	365,353
<b>Black</b>	11	38	14,095	25,768
<b>American Indian, Eskimo &amp; Aleutian</b>	8	17	679	640
<b>Asian &amp; Pacific Islander</b>	9	31	3,389	6,557
<b>Other</b>	29	22	5,297	1,768
<b>Hispanic</b>	84	211	11,296	39,360
<b>Two or more races</b>	-	267	4,381	16,874

Source: US Census Bureau

**TABLE 5.13: EDUCATIONAL DATA  
PERSONS AGED 25-65 BY PERCENT  
2000 vs. 2020**

	Lower Windsor Township		York County	
	2000	2020	2000	2020
<b>H.S. Diploma +</b>	77.2	86	80.7	90
<b>Bachelor's Degree +</b>	11.5	17	18.4	24

Source: US Census Bureau

Educational attainment saw an increase between 2000 and 2020 for both the Township and the County. According to 2020 American Community Survey Data, eight-six percent (86%) of the Township's residents have obtained a high school diploma or higher, this is an increase of nine percent (9%) when compared with data from 2000. The number of residents in the Township with a Bachelor's degree or higher increased from eleven and five-tenths percent (11.5%) in 2000 to seventeen percent (17%) in 2020. Similar increases were also experienced by the County as a whole.

County-wide, in 2000, eighty and seven-tenths percent (80.7%) of the population had a high school diploma or higher, versus ninety percent (90%) in 2020. The number of York County individuals with a

Bachelor's Degree or higher increased also from eighteen and four-tenths percent (18.4%) to twenty-four percent (24%) in 2020.

**TABLE 5.14: HOUSEHOLD STATISTICS  
2000-2020**

	Lower Windsor Township		York County	
	2000	2020	2000	2020
<b>Total Households</b>	2,791	2,811	148,219	172,421
<b>Married Couple</b>	1,776	1,652	86,355	91,588
<b>% of Total</b>	63.6	58.7	58.3	53.1
<b>Female Head of House</b>	190	369	13,410	19,220
<b>% of Total</b>	6.8	13.1	9	11.1
<b>Non-Family Households</b>	151	694	8,161	53,444
<b>% of Total</b>	5.4	24.6	5.5	31

Source: US Census Bureau

In 2000, the Township trended more towards a married couple household orientation than the County as a whole, with sixty-three percent (63%) of all households reported as married couples, as compared with fifty-eight percent (58%) for the County. In 2020, this trend continues, however, this is another area where the Township's population is

diversifying and the number of married couple households decreased to fifty-eight percent (58%) for the Township and to fifty-three percent (53%) for the County.

Median household income for the Township is just slightly lower than that for the County, though that gap increased between 2000 and 2020.

As expected, the household median income increased between 2000 and 2020 for both the Township and the County, by twenty-eight and two-tenths percent (28.2%) and thirty-four percent (34%) respectively.

**TABLE 5.15: HOUSEHOLD INCOMES  
2000-2020**

	Lower Windsor Township		York County	
	2000	2020	2000	2020
<b>Median Household Income</b>	\$45,413	\$63,299	\$45,268	\$68,940

Source: US Census Bureau

## 6. HOUSING CHARACTERISTICS & TRENDS

Chapter 6 provides an analysis of housing characteristics and trends within Lower Windsor Township. The study identifies pertinent changes in housing growth, tenure, and conditions. Additionally, this study includes an affordability analysis of both renter and homeowner housing within the Township.

### HOUSING GROWTH

The total number of housing units in the Township grew by four and five-tenths percent (4.5%) between 2000 and 2020, or by one hundred thirty-eight (138) units. The majority of that growth occurred between 2000 and 2010, most likely before the 2008 economic crisis, which decimated the new housing market. Housing growth continued, nominally, post-2010, at only ten (10) additional units, as of the 2020 Census.

Housing growth will more than likely continue to be relatively slow due to a lack of access to public sewer and the Township's location which is outside of York County's identified growth areas. Additionally, the Township's zoning, land development, and subdivision ordinances limit residential growth in favor of the preservation of

prime farmland and natural areas.

**TABLE 6.1: LOWER WINDSOR HOUSING GROWTH**

2000	2010	2020	2000 – 2010 Growth	2010 – 2020 Growth	2000 – 2020 Growth
3,034 units	3,162 units	3,172 units	4.2% 128 units	0.3% 10 units	4.5% 138 units

Source: US Census Bureau

### HOUSING CHARACTERISTICS

The following discussion hones in on changes to average household size, occupancy, and tenure.

#### Average Household Size

Average household size has been on the decline nationally, as well as in York County, over the last several decades. Lower Windsor Township's average household size remained steady with an increase of only four-hundredths of a percent (0.04%) between 2000 and 2020, ending at two and sixty-nine hundredths (2.69) persons per household. The increase may be attributed to an increase in family households, which have a slightly higher average household size when compared to non-family households.

**Vacancy**

Vacancy rates in the vicinity of two percent (2%) are generally considered adequate to provide sufficient choice in the housing market for the purchase of homes. Vacancy rates in the vicinity of five percent (5%) are considered adequate to provide sufficient choice in the housing market for renters.

Vacancy for both owner-occupied and renter-occupied units is not yet available for the 2020 Census and the 5-Year American Community Survey estimates identify both the owner-occupied and renter vacancy rates as zero percent (0%), which is most likely not accurate.

**TABLE 6.2: VACANCY RATES**

Area	2010 Overall Vacancy Rate	2020 Overall Vacancy Rate
Lower Windsor Township	9.5%	6.7%
York County	5.8%	5.1%

Source: US Census Bureau

Table 6.2 above identifies the overall housing vacancy rate for Lower Windsor Township as of the 2010 and 2020 Census. Though not broken out by

tenure, the overall vacancy rate is still helpful information. As stated above, an overall vacancy rate of seven percent (7%) is indicative of a healthy surplus within the housing market. As shown, the Township's vacancy rate has dropped from an overall nine and five-tenths percent (9.5%) in 2010 to six and seven-tenths percent (6.7%) in 2020, which points toward a tightening housing market and a lack of overall housing choice within the Township.

This is not surprising given the nationwide housing shortage, exacerbated by very slow housing growth post the 2008 housing market collapse.

**TABLE 6.3: HOUSING TENURE**

	Owner-Occupied Housing	Renter-Occupied Housing
<b>Lower Windsor Township</b>		
<b>2000</b>	86.7%	13.3%
<b>2010</b>	85.7%	14.3%
<b>2020</b>	89.5%	10.5%
<b>York County</b>		
<b>2000</b>	76.1%	23.9%
<b>2010</b>	76.9%	23.1%
<b>2020</b>	74.8%	25.2%

Source: US Census Bureau

Table 6.3 above details changes in housing tenure between 2000 and 2020. As shown, owner-occupied housing units have increased their share of the housing market with a two and eight-tenths percent (2.8%) jump from eighty-six and seven-tenths percent (86.7%) in 2000 to eighty-nine and five-tenths percent (89.5%) in 2020.

The tenure change is likely reflective of the Township’s general unavailability of a public sewer, making it more likely that new housing will be owner-occupied single-family dwelling units with an on-lot disposal system as opposed to the construction of multi-family units.

**Local Taxes**

Table 6.4 below details local real estate tax rates.

**TABLE 6.4: 2023 REAL ESTATE TAXES**

	<b>Municipal</b>	<b>School</b>	<b>County</b>
<b>Millage Rates</b>	1.3	25.18	6.9
Source: York County Archives			

Taxes for residents and businesses in Lower Windsor Township are levied by the Commonwealth of Pennsylvania, York County, the Eastern York Area School District, and the local municipality. Other

taxes include Earned Income Tax (EIT) and the PA Personal Income Tax (3.07%). Lower Windsor Township does not levy an Emergency and Municipal Services Tax (EMS) on persons working within the Township.

**HOUSING CONDITIONS**

All residents of a community should be entitled to safe housing. Factors such as kitchen and plumbing facilities, the age of the housing unit, the number of persons per room, and the estimated value of the unit may be considered by a municipality in estimating the extent of substandard housing.

**Plumbing and Kitchen Facilities**

One metric used to assess housing conditions is to identify the number of units lacking plumbing and kitchen facilities. As of the 2020 Census, all two thousand eight hundred eleven (2,811) housing units in Lower Windsor Township had complete plumbing and kitchen facilities.

**Age**

Fifty-two percent (52%) of the Township's housing units were constructed in the period between the 1970s and the 1990s, which means the majority of the Township's housing units are between thirty (30)

and fifty (50) years of age. Less than ten percent (10%) of all housing units were constructed post-2000 and thirty-eight percent (38%) of all housing units were constructed before 1970, with twenty percent (20%) being constructed before 1939. The age of a municipality's housing stock could help point to a need for additional services, such as property maintenance programs and rehabilitation assistance programs.

**Overcrowding**

The number of persons per room in a housing unit is used as an index for overcrowding: a unit with more than one (1.0) persons per room is considered overcrowded. In 2020, only one percent (1.0%) of Lower Windsor Township's owner-occupied units housed 1.01 or more persons per room. This is a slight decrease from 2010 in which one and six-tenths percent (1.6%) of units housed 1.01 or more persons per room.

**VALUE**

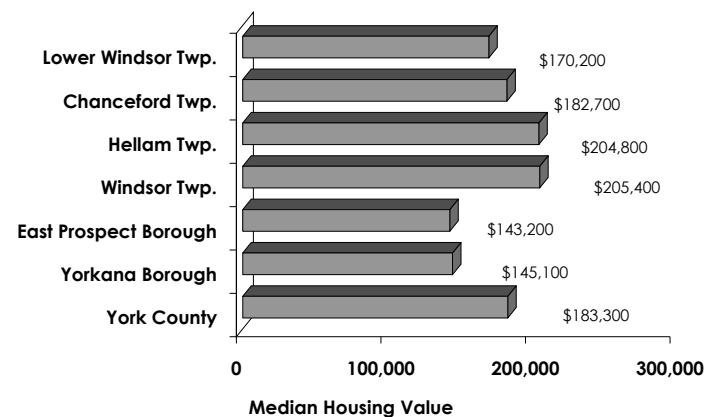
Table 6.5 identifies the median housing values for Lower Windsor Township and surrounding communities.

Lower Windsor Township has the third-lowest median housing value when compared to the median housing values of the surrounding municipalities.

Less than 6.6% of all owner-occupied housing units have a value of fifty thousand dollars (\$50,000) or less, such a value could be indicative of a substandard housing unit.

According to the above conversation, the condition of the Township's housing stock is not a concern.

**TABLE 6.5: 2020 MEDIAN HOUSING VALUES, OWNER OCCUPIED HOUSING**



Source: US Census Bureau

**HOUSING DIVERSITY**

The composition of a community's housing stock indicates the extent to which it is providing a range of housing options. Table 6.6 details the number of existing housing units by type within Lower Windsor Township according to the 2020 Census. These figures may be compared to those for York County as a whole to gain a Regional perspective of the range of available housing types.

**TABLE 6.6: 2020 HOUSING TYPES**

Area	Total Units	SFDs %	SFAs %	MFDs %	MHs %
<b>Lower Windsor Township</b>	2,811	2,281 81.15%	49 1.74%	57 2.03%	424 15.08%
<b>York County</b>	174,425	113,337 64.98%	29,034 16.65%	23,899 13.70%	8,155 4.68%

Source: US Census Bureau

SFD = single-family detached dwellings  
 SFA = single-family attached dwellings  
 MFD = multi-family dwellings  
 MH = mobile homes or other structures

The single-family detached (SFD) dwelling is the most common housing type in Lower Windsor Township, accounting for eighty-one percent (81%) of the Township's total housing stock in 2020, compared with sixty-five percent (65%) for the

County as a whole. Single-family, attached (SFA) dwellings include those units with their lots that share a building wall, such as row houses (more commonly referred to as townhouses). In Lower Windsor Township, there are forty-nine (49) such units, which account for just under two percent (2%) of the Township's total housing stock, compared to seventeen percent (17%) for the County.

Residential development at higher densities includes multi-family dwellings (MFDs), such as duplexes, triplexes, fourplexes, and apartment buildings. MFD housing units account for only two percent (2%) of the Township's housing stock, a significant contrast to the much higher proportion of MFD units in the County at fourteen percent (14%).

While mobile homes (MHs) are normally defined as single-family detached dwellings, for this analysis they are separated to gain further insight into the composition of the Township's housing stock, as they provide a particularly affordable housing option. Just over fifteen percent (15%) of the Township's housing is comprised of mobile homes, three times the percentage of mobile homes in the County.

**Missing Middle Housing**

Missing Middle Housing is a range of multi-unit or clustered housing types, compatible in scale with

single-family homes, that help meet the growing demand for walkable urban living, respond to shifting household demographics, and meet the need for more housing choices at different price points. The majority of these types accommodate four to eight units in a building or on the lot. At the upper end of the spectrum, they can have up to nineteen (19) units per building. These types are labeled “missing” because, even though they play an instrumental role in providing housing choices and affordable options, very few of these housing types have been built in the last thirty (30) to forty (40) years.

The term middle has two (2) meanings. First, and most importantly, it represents the middle scale of buildings between single-family homes and large apartment or condo buildings. The second definition of middle relates to affordability or attainability level; these types of housing units have historically delivered attainable housing choices to middle-income families without subsidies and continue to play a role in providing homes to the middle-income market segment that typically straddles sixty to one hundred ten percent (60% - 110%) average median household income, in new construction, for-sale housing. Missing Middle Housing can deliver a range of affordability but can also respond to the demand for different types of housing at the upper end.

## HOUSING AFFORDABILITY

Every municipality in Pennsylvania has a responsibility to provide for the diverse housing needs of current and future residents of all income levels by planning for a wide mixture of housing types and densities. This responsibility is specified in the Pennsylvania Municipalities Planning Code (MPC) and reflects the “fair share” principles embodied in a history of Pennsylvania exclusionary zoning court decisions (2017 York County Housing & Community Development Plan).

Access to affordable housing is an issue of increasing significance across the nation in all communities, as incomes continue to fail to keep up with the cost of housing. The term “affordable housing” no longer refers to just low-income, subsidized housing projects or mobile home parks. A community's young adults, newly married couples, young families, and elderly are some examples of those often in need of affordable housing opportunities.

### Median Monthly Housing Costs

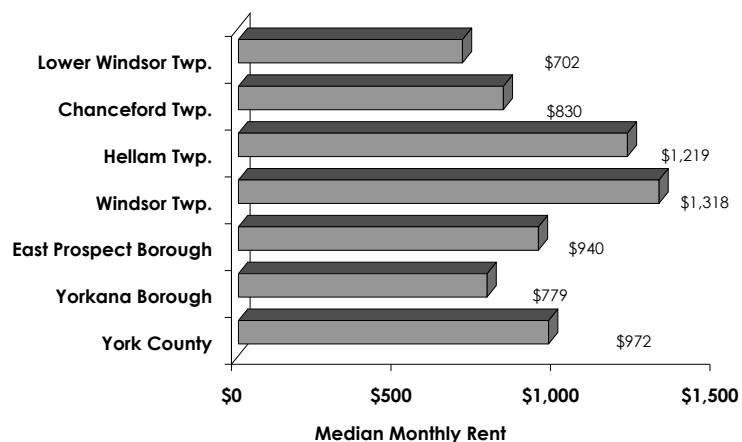
Tables 6.7 and 6.8 identify the median housing costs for owner-occupied and renter-occupied housing units in relationship to the same information for adjoining communities.



Lower Windsor Township has the lowest median monthly rent and owner-occupied housing costs when compared to all adjoining municipalities and the County.

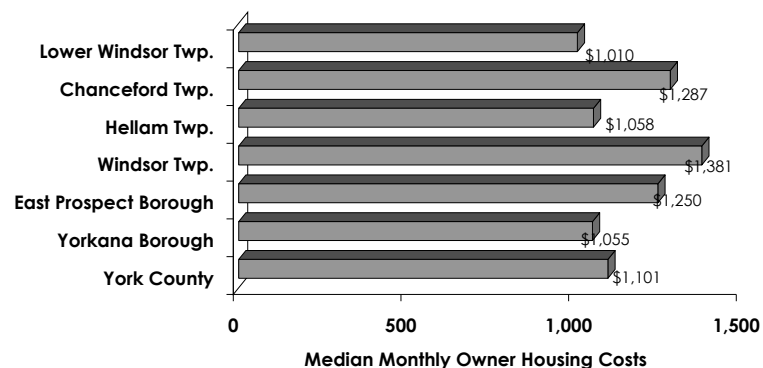
In general, Lower Windsor Township’s housing stock is the most affordable in the Region.

**TABLE 6.7: 2020 MEDIAN MONTHLY RENTS, RENTER-OCCUPIED UNITS**



Source: US Census Bureau

**TABLE 6.8: 2020 MEDIAN MONTHLY HOUSING COSTS, OWNER-OCCUPIED UNITS**



Source: US Census Bureau

**Cost-Burdened Households**

The conventional indicator of housing affordability is the percentage of income spent on housing; housing expenditures that exceed thirty percent (30%) of household income can indicate a housing affordability problem. These households may be *cost-burdened*, meaning their house is not truly affordable to them. People in this situation may be able to pay rent or mortgage each month, but must make cuts to other budget categories to keep a roof over their heads, or may have very little savings. Those whose housing costs exceed thirty-five

percent (35%) of their income are considered severely cost-burdened.

In 2017, the York County Planning Commission published the York County Housing & Community Development Plan. The study showed that the cost of buying an average house in York County rose from one hundred forty-two thousand nine hundred seven dollars (\$142,907) in 2011 to one hundred sixty-nine thousand nine hundred dollars (\$169,900) in 2017, or nineteen percent (19%) in six (6) years. During this same period, the median household income in the County rose only fourteen percent (14%), from (fifty-five thousand five hundred fifty-one dollars (\$55,551) to sixty-three thousand five hundred nineteen dollars (\$63,519). The study concluded that York County families are finding it increasingly difficult to afford housing in the County since housing costs are increasing faster than household incomes.

**TABLE 6.9: MEDIAN HOUSEHOLD AND MEDIAN HOUSING UNIT COST GROWTH 2000 – 2020**

	Median Household Income	Median Cost of Housing Unit
<b>Lower Windsor Township</b>		
<b>2000</b>	\$45,413	\$105,700
<b>2010</b>	\$54,444	\$171,500
<b>% Change</b>	20%	62%
<b>2020</b>	\$63,299	\$171,800
<b>% Change</b>	16%	0.17%
<b>York County</b>		
<b>2000</b>	\$45,268	\$110,500
<b>2010</b>	\$56,368	\$193,100
<b>% Change</b>	24.5%	75%
<b>2020</b>	\$68,940	\$190,600
<b>% Change</b>	22%	(1.29%)
Source: US Census Bureau		

As shown in [Table 6.9](#), housing prices increased drastically between 2000 and 2010 for both the Township and the County, while household incomes had a more moderate increase of twenty percent (20%) and twenty-four and five-tenths percent (24.5%), respectively.

Tables 6.10 and 6.11 detail the number of cost-burdened households during the years 2000 and 2020.

**TABLE 6.10: COST-BURDENED HOUSEHOLDS ACCORDING TO TENURE - 2000**

Percent of Income Paid for Housing	Owner-Occupied Units	Renter-Occupied Units
Less than 20%	58.7%	37.1%
20% to 29%	19.9%	25.3%
30% or more	20.8%	18.2%
Not Computed	0.5%	19%

Source: US Census Bureau

**TABLE 6.11: COST-BURDENED HOUSEHOLDS ACCORDING TO TENURE - 2020**

Percent of Income Paid for Housing	Owner-Occupied Units	Renter-Occupied Units
Less than 20%	53.5%	15.9%
20% to 29%	26.4%	32.1%
30% or more	20.2%	40.9%
Not Computed	N/A	11.1%

Source: US Census Bureau

The housing market has cooled significantly post-2008 and housing values have stabilized. However, home prices remain inflated, which will continue to exacerbate issues surrounding housing affordability and may lead to an increase in the number of cost-burdened households.

As shown, the number of cost-burdened, owner-occupied households held steady at twenty percent (20%). Conversely, the number of renter cost-burdened households more than doubled between 2000 and 2020, pointing to a need for diverse rental options in the Township.

The housing market has cooled significantly post-2008 and housing values have stabilized. However, home prices remain inflated, which will continue to exacerbate issues surrounding housing affordability and may lead to an increase in the number of cost-burdened households.

**Fair Housing**

Many circumstances can limit a person's housing options, leading them to live in unsafe, insecure, or overcrowded situations. Factors including discrimination may be referred to as indicators of potential disadvantages; the following table presents indicators of potential disadvantages identified by York County.

**TABLE 6.12: INDICATORS OF POTENTIAL DISADVANTAGE, YORK COUNTY**

Low Educational Attainment	More than 12% of individuals over 25 years of age have less than a high school diploma
Elderly	More than 16% of individuals are over 65 years
Limited English Proficiency	More than 2% of households do not have someone over the age of 14 years that speaks English well
Low Income	More than 10% have an annual income below the poverty level
Minority Population	More than 12% do not identify as "white only"
Disabilities	More than 13% have a disability
Single Mothers	More than 11% are single, female-headed households
Lack of Vehicle Accessibility	More than 7% have no access to a vehicle
*Percentages reference the County average Source: 2017 York County Housing and Community Development Plan	

**TABLE 6.13: INDICATORS OF POTENTIAL DISADVANTAGE LOWER WINDSOR TOWNSHIP**

Low Educational Attainment	<b>14.7%</b> of individuals over 25 years of age have less than a high school diploma
Elderly	<b>15.3%</b> of individuals are over 65 years
Limited English Proficiency	<b>1.1%</b> of households do not have someone over the age of 14 years that speaks English well
Low Income	<b>8.4%</b> have an annual income below the poverty level
Minority Population	<b>6.2%</b> do not identify as "white only"
Disabilities	<b>12.7%</b> have a disability
Single Mothers	<b>23.7%</b> are single, female-headed households
Lack of Vehicle Accessibility	<b>5.1%</b> have no access to a vehicle
*Percentages reference Township data Source: US Census Bureau	

Table 6.13 very efficiently identifies who in the Township needs a more diverse housing stock. As shown, Lower Windsor Township has the following indicators of potential disadvantage:

- Low Educational Attainment
- Single Mothers

Additionally, the percentage of the elderly and those with disabilities in the Township are nearing the County's baseline of being an indicator of a potential disadvantage.

As opportunities arise for the construction of affordable and Missing Middle Housing, the Township must consider the needs of residents facing potential disadvantages.

### **Reducing the Regulatory Barriers to Affordable Housing**

While the high cost of housing is largely attributable to higher land, construction, and other costs beyond the control of the Township, there are several other barriers to affordable housing over which the Township can exercise some control.

Some of the barriers to more affordable housing include:

- excessively large minimum lot sizes;
- insufficient buildable and fully-serviced land zoned for medium and high-density dwelling units;
- excessive infrastructure requirements, such as wide streets, sidewalks, and curbing in rural areas;
- lack of access to sanitary sewer;

- inflexibility, vagueness, or unpredictability in review procedures; and
- no provision for conversion apartments, accessory apartments, farm worker housing, or elder housing.

### **HOUSING PROJECTIONS**

The need for future housing units can be based on a review of past housing growth and an analysis of approved and pending housing developments.

The following future housing growth scenario is based on the population growth analysis which can be found in Chapter 5 on Pages 5-6 through 5-8.

Additional Anticipated Housing Units:

- 2030 – 345 units
- 2040 – 258 units
- 2050 – 71 units

According to this, the Township should be planning for an additional six hundred seventy-five (675) households by 2050.

### **Future Housing Needs**

The analysis of housing issues indicates that the Township has historically provided for mainly single-family dwellings. While, traditionally, much of the

need for affordable housing in the Township has been met by manufactured homes. High rental costs and high renter vacancy rates, together with recent housing trends, now suggest the need for a slight increase in the proportion of multi-family and single-family attached dwelling units.

**TABLE 6.14: 2012-2022 HOUSING MIX (NEW UNITS)**

SFD	SFA	MFD	MH	Total
442	31	87	62	622
71%	5%	14%	10%	100%

Source: 2002 Lower Windsor Township Comprehensive Plan

**TABLE 6.15: 2021-2030 HOUSING MIX (NEW UNITS)**

SFD	SFA	MFD	MH	Total
540	28	24	82	674
80%	4.2%	3.5%	12.1%	100%

Source: CSD

SFD = single-family detached dwellings  
 SFA = single-family attached dwellings  
 MFD = multi-family dwellings  
 MH = mobile homes

Table 6.14 represents the fair share housing analysis conducted for the Township in the 2002 Comprehensive Plan.

Table 6.15 identifies the revised housing mix according to updated growth and housing projection analyses.

These percentages were obtained by averaging the housing growth (2000, 2010, 2020) by housing type for Lower Windsor Township and three of the surrounding municipalities. These numbers were then averaged together to obtain the percentages used to determine Lower Windsor Township's future housing breakdown.

## 7. PUBLIC UTILITIES

The rate, type, and pattern of development within a community are highly dependent upon the availability and adequacy of public utility systems. These systems, therefore, become an integral part of the community's planning process. The provision of utilities such as water supply, sewage disposal, gas, electricity, telephone, cable, and refuse disposal services are basic needs associated with most types of land use activities. How these services are provided, though, can vary depending on the type, density, and location of the development activity. Some services such as telephone, electric, cable, and gas are provided almost exclusively by utility companies. Some services are available at almost any location in the Township, while others are limited.

Services such as water supply, sewage disposal, and refuse disposal may be provided in several ways. In the more rural areas where development activities are scattered and limited in scope, these services are generally provided on an individual basis. However, in the densely developed urban areas and the rapidly expanding suburban areas, these services cannot be provided on an individual basis in sufficient amounts or in an adequate manner to satisfy development activity needs. In these instances, public or private organizations must be formed to furnish the necessary utility services to meet the needs of the general populace and accompanying development.

## SEWAGE DISPOSAL

Wastewater from residences, commercial establishments, and industries is referred to as sewage. Adequate disposal of sewage is a necessity for the proper development of any municipality and is regulated by the Pennsylvania Department of Environmental Protection under the Clean Streams Law. There are two (2) basic ways in which sewage disposal is accomplished: individual on-site systems; and community or public sewerage systems. Typically, in urban and suburban areas, sewage disposal is by means of a community sewerage system, while individual on-site systems are most common throughout low-density rural areas.

### Community Sewerage System

A community sewerage system can be either publicly or privately owned. It generally consists of a network of mains and interceptors for the collection and transmission of the sewage to a central treatment facility, where the effluent is treated before discharge to a waterway or an absorption field.

Only a small area of the Township has access to a public sewer system. Those areas are:

- East Prospect

Extending out from East Prospect Borough, the homes along Hedgewick Lane and Stonewyck

Road have access to the public sewer system owned and maintained by York Water Company. In addition, the Canadochly Elementary School on Abels Road is connected to the York Water Company public sewer system.

- Cool Creek Road at Knights View Road

The Wrightsville Borough Municipal Authority owns and operates the sewer main and pump station that connects the Eastern York School District Middle and High Schools and the River Ridge Hills development to the municipal authority's public sewer system.

### On-Site Disposal Systems

Currently, most of the Township residents rely on individual on-site disposal systems. This is defined by the Pennsylvania Sewage Facilities Act (Act 537) as a single system of piping, tanks, or other facilities serving one (1) lot and collecting or disposing of sewage in whole or in part into the soil of the property or any waters of the Commonwealth. The most common type of on-site system is the septic tank and drain field. In this process, the sewage is held in a watertight receptacle (septic tank) for a period from a few hours

to a few days where biological action takes place delivering a liquid effluent. This is piped to a disposal field or trenches where it seeps or leaches into the soil. The filtration and absorption through the soil is a natural purifying process that, under proper conditions, can effectively dispose of most types of sewage. A detailed study of the factors affecting the on-site disposal is necessary, since this method is the most widely used means of sewage disposal available to Lower Windsor Township residents and because even with the future development of a municipal system, on-site disposal will still be utilized to some degree in the Township.

Pennsylvania's Natural Resources Conservation Service has developed three (3) soil capability categories that indicate the degree of soil limitations for on-site sewage disposal systems. Exhibit 7.1, Soils Limitations for On-lot Sewage Disposal Systems, delineates the areas of the Township in these categories. The categories were derived based on six (6) limiting factors, including permeability, depth to bedrock, seasonal high-water table, slope, stoniness, and flooding, as used by the Pennsylvania Department of Environmental Protection and shown in Table 7.1. A description of the capability categories follows the table on the next page.



**TABLE 7.1: SOIL LIMITATIONS FOR ON-SITE SEWAGE DISPOSAL SYSTEMS**

Limiting Factors	Degree of Limitation		
	<u>None to Slight</u>	<u>Moderate</u>	<u>Severe</u>
Soil Permeability Rate	More than 1"/hr. <sup>1</sup>	.63 to 1"/hr.	Less than .63"/hr.
Depth to Bedrock <sup>2</sup>	More than 5 ft.	3 ft. to 5 ft.	Less than 3 ft.
Seasonal High Water Table	More than 4 ft. below surface	1 1/2 ft. to 4 ft. below surface	Less than 1 1/2 ft. below the surface
Slope	0-8 percent	8-15 percent	15+ percent <sup>3</sup>
Stoniness	Stony to very stony		Extremely stony to stony
Flooding	None to seldom		Occasional to frequent

<sup>1</sup> Possible Pollution hazard to surface water and groundwater supplies where permeability rates are rapid.

<sup>2</sup> Creviced, shattered, or dissolved passageways in limestone bedrock may not adequately filter effluent and present a pollution problem.

<sup>3</sup> Slopes greater than fifteen percent (15%) have severe limitations because unfiltered effluent may surface on the downhill slope.

*None to Slight* - Percolation rates are satisfactory and filtration adequate. The soils of this group are deep, well-drained, and medium to moderately coarse textured. They normally have sufficient depth to permit the installation of subsurface sewage disposal systems. The texture, structure, and other physical properties of the soils allow for satisfactory percolation rates and act as an adequate filter medium.

*Moderate* - Percolation rates and filtration are variable because of variations within the soil profile and map units. The soils of this group are normally deep to shallow, medium and moderately coarse-textured, and well-drained. The depth, texture, structure, and other physical properties vary within soil profiles and map units. Where the depth of soil is adequate and percolation rates satisfactory, the soils may be suitable for subsurface sewage disposal systems.

*Severe* - Percolation rates are unsatisfactory, the seasonal water table is high, and/or soils are subject to flooding. The soils of this group are deep to shallow, well-drained or poorly drained, medium-textured, and moderately coarse-textured. They also either have seasonally high-water tables, are subject to flooding, or have textural, structural, or other physical properties that make them unsuitable for subsurface sewage disposal systems. Percolation rates may be high or low.

*Hazardous* - Percolation may be satisfactory but lack of adequate filtration may cause pollution of the groundwater. The soils of this group are normally deep, well-drained, and medium-textured, and are developed over cavernous or fissured limestones or other material. The degree of structural development or other physical properties that contribute to inadequate filtration may allow liquid wastes to pollute the groundwater.

Exhibit 7.1 graphically depicts the extent of soil suitability for on-site sewage disposal through Lower Windsor Township. The areas classified as having none to slight limitation comprise approximately thirty-one percent (31%) of the Township. Generally, these soils are suitable for conventional subsurface sewage disposal systems. However, the proper use of the on-site system in these areas is also dependent upon the size of the lot and the density and proximity at which additional development occurs.

The areas of moderate limitation comprise about twenty-two percent (22%) of the Township land area and reflect those instances in which caution should be exercised in the utilization of on-site systems since some limiting factors preclude ideal conditions for septic tank operations. The use of on-site systems in these soils is highly dependent upon a specific evaluation of the individual soil conditions of the site.

Over thirty-five percent (35%) of the Township has severe limitations for on-site sewage disposal. This is a rather significant factor since in these areas the proper usage of septic tank systems is highly unlikely due to severe limiting factors which include shallow soil, the presence of a high or seasonal high-water table, excessive slopes, flooding hazards, or other similar factors. The severe areas are located principally along and adjacent to the drainage channels and waterways throughout the Township.

Approximately twelve percent (12%) of the Township is designated as hazardous for on-lot sewage disposal. The soils in this grouping are generally unsuitable because of a high risk of groundwater contamination. This is primarily the result of very rapid percolation of the sewage effluent through the soil, which thus reaches the groundwater supply before it has been adequately filtered.

The primary value of Exhibit 7.1 is to identify those areas that are favorable for development activity with the use of on-site sewage disposal. Because on-site septic systems are dependent upon several factors, some of which are changeable or not precisely predictable, they should not be considered as the ideal disposal method but rather as an alternative method of disposal when a community collection and treatment system is not available. On-site systems, even when located on large lots, may not function properly if the soils and

related conditions are not suitable. Only if public sewage facilities are not available and only if soil conditions are favorable, building lots are large, and development of the area is sparse, should on-site systems be considered as a method of sewage disposal. Public health officials have stated that permanent reliance on individual on-site systems is possible only for the isolated home site or rural farm. In general, public sewage is considered economically feasible in areas where the population density is two thousand five hundred (2,500) persons per square mile, with a building density of just over one dwelling unit per acre of ground. The population density in Lower Windsor Township is two hundred eighty-three (283) persons per square mile.

The Lower Windsor Township Official Act 537 Sewage Facilities Plan, adopted in January 1994, addresses on-lot system malfunctions in the Township. The Act 537 plan recommended that the Township adopt an on-lot management ordinance for portions of the Township. The Township expanded on-lot management to include the entire Township and prepared an ordinance to that effect, which was adopted in 2002.

## **WATER SUPPLY**

Water is one of our most vital natural resources. An adequate and potable supply is essential to human

activities, and the assurance of such a supply is a key element in the development of any community. There are several methods of providing a water supply: individual on-site wells, a community water system supplied by wells, reservoirs, or other surface water sources, and public systems. Out of economic necessity, water supplies in low-density rural areas are generally provided by individual on-site systems. With the intensification or clustering of development activity in an area, the reliability of individual wells decreases and the need for a community water system becomes more critical. Through a sound planning program, a community can anticipate this need and plan for the orderly establishment and future extension of water supply services.

A community water supply system is an option where groups of users can share a well. A typical community water supply system consists of deep wells, chlorination, and storage facilities, and a distribution system. Community water systems are permitted through the Pennsylvania Department of Environmental Protection.

Presently there are six (6) community water supply systems located within Lower Windsor Township. These are primarily operated by mobile home parks. The current community systems are located at:

- Craley Mobile Home Park

- Deerfield Village Mobile Home Park
- Margareta Mobile Home Park
- Restless Oaks Village Mobile Home Park
- Shalako Mobile Home Park
- Ziegler's Mobile Home Park

Public water service in the Township is provided by the York Water Company, regulated by the Pennsylvania Public Utility Commission. One (1) major transmission line runs along East Prospect Road into East Prospect Borough, and services the entire Borough and Lower Windsor residents along that road, along with distribution extensions into other areas including Canadochly Road and Barcroft Road. The Canadochly Road water main was extended to the Eastern York schools and the River Ridge Hills development at Knights View Road and Cool Creek Road and serves Township residents along the way. Water storage tanks are in use in East Prospect Borough and at the Eastern York High School along Almoney Road. In addition, York Water Company has a tank located adjacent to the Yorkana Mobile Home Park along the Township's northern border. Water service from this tank extends down Mt. Pisgah and Bluestone Roads to East Prospect Road where it joins the main water line. York Water Company also has an emergency raw water intake located at 2052 Long Level Road, pumping through the Township to raw water storage closer to York. Public water service is shown in Exhibit 7.2.

The remaining Township residents use on-site wells for their water supply. The source for these systems is the groundwater supply that is related to geological formations. The geological characteristics of the rock formations underlying Lower Windsor Township are of prime importance insofar as the development of adequate groundwater supplies is concerned. According to the County Water Study, yields of five (5) gallons per minute are considered quite adequate for residential use and the higher yields can generally accommodate a range of commercial and industrial land uses. However, an average yield of one hundred (100) gallons per minute is considered necessary for use as a municipal water supply source. Although it appears that Lower Windsor Township should have an ample water supply for individual wells, some existing residential properties are currently experiencing water quantity problems. The particular problem areas are along Manor and Old Commons Roads in the vicinity of the Windsor Township line and along Massa Drive west of Martinsville.

### **SOLID WASTE DISPOSAL**

Solid waste or refuse collection and disposal generally refer to the useless, unwanted, or discarded solid materials resulting from normal community activities. How this material is disposed of is of importance not only to the health and well-being of the residents of a community but also to its

orderly growth and development. At present refuse disposal in Lower Windsor Township is handled on an individual basis without Township involvement.

The waste haulers offer varying levels of service and have all been impacted by recent labor shortages, which have created service delays. Service delays are most notable during storm clean-up. Additionally, given the "Ad Hoc" nature of the refuse collection, triple-axle trucks are collecting refuse on Township roadways daily, significantly adding to the wear and tear on local Township roadways.

In addition to the present system of providing refuse collection service, refuse could also be collected on a contract basis for the entire municipality. The Township would then collect the fee from the residents and contract with the collector or collectors to provide the service.

There are two (2) sanitary landfills located in York County, with one (1) currently in operation. Modern Landfill is operated by a private company and is located in both Lower Windsor and Windsor Townships. The other landfill was operated by the County of York and is located in Hopewell Township on a site of approximately three hundred acres.

By the 2014 York County Solid Waste Management Plan, Lower Windsor Township requires that all refuse

collected in the Township be taken to the York County Resource Recovery Center in Manchester Township. Modern Landfill, owned and operated by Republic Services, receives waste from outside the County and has a permitted capacity of five thousand (5,000) tons per day. The landfill is expected to reach capacity in 2025 if it does not undergo an expansion. Due to the requirements of the York County Solid Waste Management Plan, Modern Landfill does not (generally) process trash collected in York County.

The York County Municipal Solid Waste Authority's Resource Recovery Center is a waste-to-energy facility, which converts municipal solid waste into a smaller volume of ash and produces electricity. All of York County's residential combustible waste is managed at this facility, along with some commercial waste. Ash from the facility is disposed of at Modern Landfill. Electricity is sold into the PJM (Pennsylvania, New Jersey, Maryland) grid, which is enough to power twenty thousand (20,000) homes. Additionally, by using garbage as a fuel to generate electricity (instead of fossil fuel), the equivalent of more than three hundred seventy-five thousand (375,000) barrels of fuel oil is saved each year.

The Authority recently invested approximately one hundred five million dollars (\$105,000,000) in major Site Improvement Construction projects that lay the foundation for the next thirty (30)-plus years of

responsible municipal solid waste management in York County.

According to the 2014 York County Municipal Solid Waste Management Plan update, the Resource Recovery Center anticipated receiving a total of three hundred thirty-two thousand six hundred sixty-two (332,662) tons of solid waste by 2022, or roughly four (4) pounds, per person, per day. The facility is designed to process one thousand three hundred forty-four (1,344) tons of waste per day. The Plan estimates the Resource Recovery Center's total future capacity as four hundred thirty thousand two hundred four (430,204) tons annually.

## RECYCLING

Recycling is not widely available in the Township. However, residents can recycle the following materials at Modern Landfill and York County Solid Waste Authority's Public Recycling Drop-Off Center at 2685 Blackthorne Court, York PA 17406.

Materials to be recycled:

- Aluminum and Steel Cans
- Plastic Bottles and Jugs
- Clean and Dry Newspaper
- Glass Bottles and Jars
- Dry and Flattened Cardboard
- Cartons

## BROADBAND

Access to broadband internet services is a significant need in the Township. Due to the Township's rural character, topography, and limited cell towers, wireless and broadband service are sporadic, at best.

Business, school, and day-to-day life require high-speed access to the Internet. The sporadic access to high-speed internet was glaringly brought to light during the COVID-19 pandemic when all schooling and office workers had to be conducted remotely due to public health restrictions.

As a result, the York County Commissioners via a study conducted by Lit Communities, LLC is proposing a phased strategy to construct the required "last mile" infrastructure in the hopes that an internet service provider can bring the service to that particular area.

The study recommended prioritizing the buildout of the required infrastructure in York City, Hanover Borough, and Southern York County.

## OTHER UTILITIES

Met-Ed and Pennsylvania Power & Light (PPL) provide electricity to the Township. [Exhibit 7.2](#) shows the location of Met-Ed's high-voltage lines within the

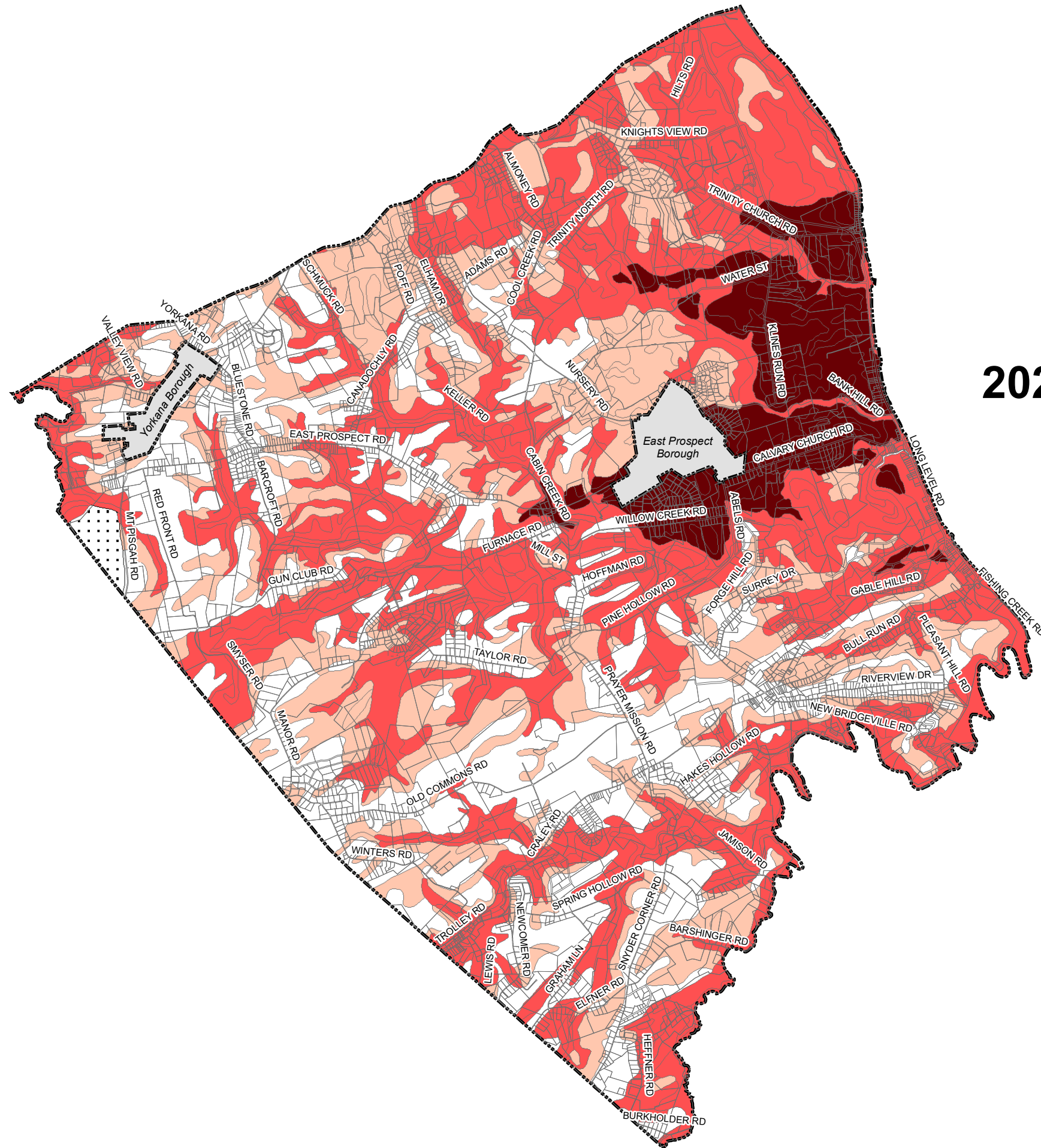
Township. Generally, the service areas of Met-Ed and PPL cover the entire Township.

Residents within the PPL service area have reported intermittent service disruptions caused by downed tree limbs and/or power lines during high wind events. It is anticipated that PPL will be actively removing vegetation and trees surrounding its infrastructure in 2024.

Gas service, provided by the Columbia Gas Company, is generally limited to the area of the Township between Yorkana and East Prospect Boroughs. As indicated in [Exhibit 7.2](#), the primary transmission line, which runs along State Route 124, extends from the western Township line to just below East Prospect Borough and services adjoining customers.

Telephone service is available to all Township residents, with landline service provided by Verizon. The entire Township is included in Verizon's service area.

There are four (4) cell towers within the Township off of East Prospect Road, Hoffman Road, Old Commons Road, and Cool Creek Road.



# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 7.1

### Soil Limitations for On-Lot Sewage Disposal Systems

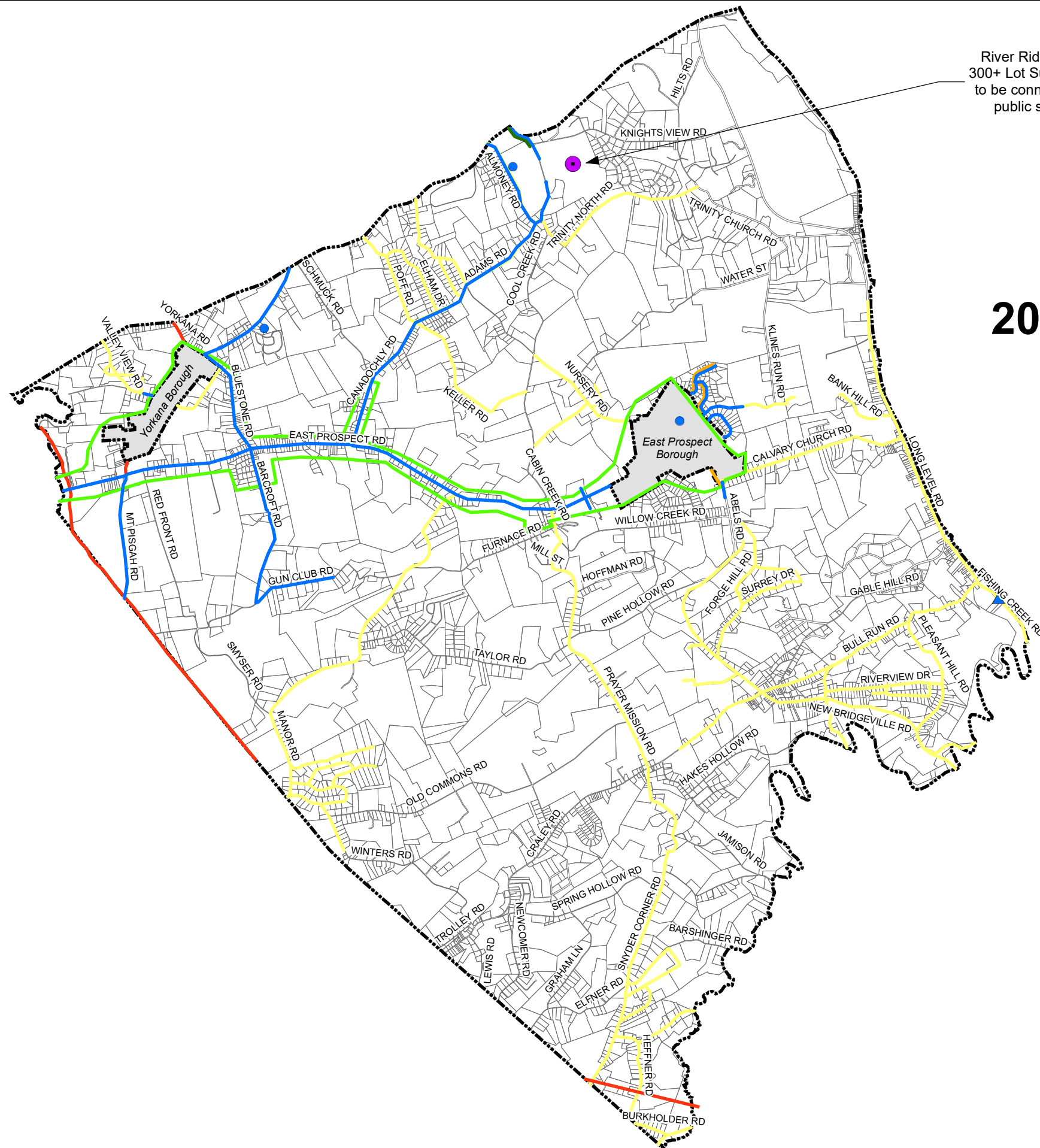
#### Legend

#### Soil Limitations

- Hazardous
- Severe
- Moderate
- None to Slight
- Not Listed  
(DX - Dumps/Refuse and W - Water)
- Parcels
- Lower Windsor Township







River Ridge Hills  
300+ Lot Subdivision  
to be connected to  
public sewer.



# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 7.2 Public Utilities

### Legend

- River Ridge Hills Subdivision
- ▲ York Water Company Raw Water Intake
- Water Tank
- Sewer System Owned by Wrightsville Borough Municipal Authority
- York Water Company
- Columbia Gas Service
- MET-ED Electric Service
- Comcast
- Sewer Systems Owned by York Water Company
- Parcels
- Lower Windsor Township



## 8. COMMUNITY FACILITIES

Community facilities and public services serve as an indicator of the community's livability. Properly maintained community facilities and quality public services serve residents by protecting their welfare and promoting their social, cultural, and physical well-being. Community facilities and public services are key factors in achieving appealing and organized future development.

Generally, community facilities and public services are considered to include public schools, police and fire protection, and recreational facilities. While the quality and quantity of services provided are of prime concern to the existing residents of the community, they are of equal importance to prospective residents and businesses that may be considering locating within the Township.

The purpose of this section is to inventory and analyze the existing community facilities in Lower Windsor Township concerning their adequacy or level of service, which can directly influence development. This data will then be used as the basis for the Township's Community Facilities Plan.

The provision of community facilities and services can often prove to be quite expensive. Therefore, it should be recognized that through coordination among agencies and with adjacent municipalities, the

cooperative provision of community facilities can often be arranged with mutual benefits. This form of coordination is already in existence in the form of the school district, the recreation association, and the ambulance association.

Exhibit 8.1, Community Facilities, depicts the location of the recreation facilities, game, and fishing clubs, boat launching facilities open for public use, area churches and schools, the Township municipal building, the Craley Post Office, the location of several Township cemeteries, and recreation planning districts.

### PARKS, RECREATION & OPEN SPACE

Quality of life is an essential factor in attracting and retaining both citizens and businesses. Parks and recreation opportunities help to define a community's quality of life.

Lower Windsor Township has traditionally employed a Regional approach to providing recreation and has looked to Hellam Township, Hallam Borough, and other surrounding communities, as well as the County and the State to augment the recreation facilities provided at the Township's Rexroth Park. Looking to the future, Lower Windsor Township seeks to maintain the rural characteristics and open space that attract people to the community, while also providing amenities such as parks and open spaces that will retain residents and add to the quality of life for all citizens.

Table 8.1 provides an inventory of the Township's recreational facilities.

**TABLE 8.1: PARKS/RECREATION FACILITIES INVENTORY**

Park	Acreage	Park Type/ Planning District	Characteristics/ Facilities	Comments
Jesse S. Rexroth Memorial Recreation Park	25.45	Community/ Craley	2 baseball fields (1-60', 1-90'), 2 soccer fields on baseball outfields, 2 picnic pavilions, 1 sand volleyball court, playground, 2 basketball courts, storage building, portable toilet, parking	York Knights and Eastern York Recreation Authority concession and two (2) walking trails. Orange Trail – 1 Mile Yellow Trail – 5/8 Mile Blue Trail – 1/4 Mile
Municipal Building – Gymnasium	N.A.	Indoor Facility	1,040 max. occupancy	
Municipal Building – Social Hall	N.A.	Indoor Facility	160 max. occupancy	Senior Center
Willow Creek Farms Park	5.8	Neighborhood/ East Prospect	Open field	Located within a residential subdivision
<b>Total</b>	<b>31.25</b>			
Schools	Rec. Acreage	School Type	Characteristics/ Facilities	Planning District
Canadochly Elementary School	N.A.	Elementary	2 basketball backboards, playground, 2 small ball fields	East Prospect
Eastern York Middle School	N.A.	Intermediate	Gymnasium, softball field	East Prospect
Eastern York High School	N.A.	High	Football stadium, gymnasium, 3 baseball fields	East Prospect
Other Public, Quasi-	Acreage	Ownership	Characteristics/	Planning District

Public, Protected Lands/Parks			Facilities	
Samuel S. Lewis State Park	85.75	State of Pennsylvania	Picnic areas with pavilions, trails, kite flying area, informal ball fields, playground equipment, restrooms, parking, disc golf	East Prospect
Craley Playground	2	Craley Playground Association	1 small basketball court, playground equipment, 1 baseball field (60'), 1 T-ball field, storage sheds  Playground equipment does not meet CPSC standards; parking is on the lawn; cell tower is on site.	Craley
Klines Run Park	55	Safe Harbor	Picnic areas, 1 picnic pavilion, play equipment, disc golf, parking	East Prospect
Cabin Branch Fields and open space (Safe Harbor Recreation Area)	137	Safe Harbor	3 baseball fields (2-60', 1-90'), storage/concession shed, open area, grass parking	East Prospect
Safe Harbor Public Launch	23.13	Safe Harbor	Playground (Tot Lot), swing set, picnic area	Craley
Yorkana Ball Field	7.03	Yorkana Vol. Fire Co.	2 baseball fields (1-T-ball, 1-60'), concession stand	Yorkana
May Ball Field	2.55	Private	1 baseball field (60')	Yorkana
Native Lands	187	York County	Trails	East Prospect
High Point	79	York County	½ Mile ADA Trail Access to Mason-Dixon Trail Meadow Trails Scenic Vistas	East Prospect
<b>Total</b>	<b>312.46</b>			

Other Recreation Amenities	Acreage	Ownership	Characteristics/ Facilities	Planning District
Shanks Mare Outfitters	N.A.	Private	Private rental of kayaks, paddle boards, and other small watercraft	Craley
Lock 2 Recreation Area	N.A.	Private	Public boat launch and picnic area owned and maintained by Brookfield Energy.	Craley
Public Boat Ramp	N.A.	Private	Public boat launch owned and maintained by Brookfield Energy.	East Prospect
Long Level Marina	N.A.	Private	Private rental and storage of boats for use on Lake Clarke; event space.	East Prospect
Lake Clarke Marina	N.A.	Private	Private rental and storage of boats for use on Lake Clarke	East Prospect
Susquehanna River Water Trail	N.A.	Public	The lower section of the paddler trail is 53 miles long and stretches from Harrisburg south to the Broad Creek access in Maryland.	Craley & East Prospect
Captain John Smith Chesapeake National Historic Trail	N.A.	Public	3,000 miles of trail extending from New York to Maryland and the Chesapeake Bay.	Craley & East Prospect
Mason Dixon Trail	N.A.	Public	A 193-mile hiking trail that begins at the Appalachian Trail in south-central Pennsylvania, continues through northeastern Maryland and northern Delaware and re-enters Pennsylvania shortly before ending at Chadds Ford. The trail runs along Long Level Road in Lower Windsor Township.	Craley & East Prospect
The Zimmerman Center				
<b>Total</b>	<b>N.A.</b>			

Additional Quasi-public and Private Recreation Opportunities include:

- The Zimmerman Center for Heritage
- Shank's Mare Outfitters
- Steam-O-Rama
- Susquehanna Yacht Club
- Yorkana Game and Gunning Club
- Windsor Fish & Game
- York Archers
- East Prospect Fish & Game
- Craley Fish & Game
- Coast Guard Auxiliary

In addition to the facilities identified above, the Eastern York Recreation Authority provides administration and management of youth and adult athletic teams within the Eastern York School District.

### **EASTERN YORK RECREATION AUTHORITY (EYRA)**

The Eastern York Recreation Authority (EYRA) manages youth sports within the Eastern York School District's jurisdiction. EYRA was created in 2017 through a partnership between Lower Windsor Township, Hellam Township, and Hallam Borough with funding from DCNR. EYRA has a full-time director and a part-time facility and sports coordinator. EYRA offices are located on Walnut Spring Road in Hellam Township and are shared with the Hellam Township Municipal Building and Police Department.

The Authority's primary responsibilities include:

- Administering youth teams and volunteers for local soccer, baseball, and softball teams
- Field scheduling for youth and adult (Men's Baseball League) sports practices and games
- Field Maintenance, dependent upon location

EYRA schedules field use, as well as youth and adult athletic programs, at the following Lower Windsor Township facilities:

- Rexroth Park
- Cabin Branch Fields
- Lower Windsor Township Gymnasium – winter sports endurance and strength training

The authority coordinates over one hundred fifty (150) volunteers, most of whom are associated with local youth baseball teams. Volunteers are used to assist with field maintenance, concession stand staffing and maintenance, equipment and uniform coordination, and team photos. EYRA utilizes a volunteer coordinator for each of the three (3) following sports: soccer, baseball, and softball.

Participation in youth softball has remained steady and there are currently seven (7) teams. Youth baseball has been growing and now has a total of twenty-three (23) teams ranging in age from T-ball to ninth (9<sup>th</sup>) grade. The vast majority of youth sports participants are students within Eastern York School District and of that,

approximately one thousand three hundred seventy-nine (1,379) youth participants live in Lower Windsor Township.

### **Athletic Field Needs**

EYRA's most pressing need is more field space to schedule youth and adult sports activities and practices. The Authority also noted the following site-specific needs:

- Rexroth Park

The ballfield at the park is large with ninety (90) foot runs, as opposed to the sixty (60) foot runs associated with youth baseball and softball. There are four (4) additional fields at Rexroth Park all with dirt infields which are not ideal for use by all younger youth sports participants. Additionally, some of the fields suffer from drainage issues and become saturated during heavy rain events.

The authority would like to see the installation of more lighting at Rexroth Park to increase evening playtime.

EYRA noted that the sand volleyball court is underutilized and suggested the Township look into replacing the volleyball court with a pickleball court.

Finally, the authority noted the need to resurface the basketball court and replace the netting or identify a suitable alternative.

- Cabin Branch (Craley) Fields

These fields are owned by Brookfield Energy and are open for public use. Brookfield Energy provides trash receptacles, trash removal, and portable restroom facilities.

Additional maintenance needs noted by EYRA included regular annual maintenance of backstops and benches, annual renewal of the DiamondTex surfacing in the infields to ensure safe play, and stormwater management to prevent ponding and wet fields.

### **Programmatic Needs**

EYRA receives frequent requests from adult leagues needing larger fields and for more diverse sports offerings, including lacrosse, ultimate frisbee, and flag football.

EYRA sees a natural expansion in the future towards the provision of passive recreation programming, such as instructional classes, nature and aquatic tours, and stargazing events.

The authority has a long-term goal of establishing a community building with coded access for coaches, staff, and instructors as well as added educational space for hosting and coordinating the programs identified above.

### RECREATION LEVEL OF SERVICE

There are no nationally accepted standards for determining the ideal level of service (LOS) for parks, indoor recreation, athletic fields, trails, and other related facilities. The last set of national guidelines published by the National Recreation and Park Association (NRPA) in 1996 encouraged communities to develop their own LOS standards rather than rely on any national standards.<sup>1</sup>

Instead, there exists a suite of common metrics with which to choose to gauge a municipality's parks and recreation LOS.

The choice of which metrics to use depends upon the character, size, and type of jurisdiction providing those services.

The common metrics used to gauge parks and recreation levels of service include:

- Acres per capita
- Facilities per capita
- Building square footage per capita
- Access distance/time (bike, ped, car, transit)
- Quality of facilities and experience
- Operating expenditures per acre managed
- Operating expenditures per capita
- Revenue per capita
- Revenue as a percentage of operating costs

The metrics most appropriate for the Township to utilize in setting a baseline of parks and recreation level of service are most likely to be: acres per capita, access distance/time, quality of experience, and operating expenditures per capita.

In the 2002 Comprehensive Plan, the Township used Acres Per Capita and the Lower Windsor Township Park Classification System (see appendix) to identify levels of service and potential future recreation needs.

Acres Per Capita are discussed in more detail on the following pages.

### 2002 PARK CLASSIFICATION SYSTEM

<sup>1</sup> David Barth, PHD, AICP. "Alternatives for Determining Parks and Recreation Level of Service" American Planning Association, PAS Memo May/June 2016.



The Lower Windsor Township's Park Classification System was developed using the 1995 NRPA classification categories, benefits, appropriate facilities, and levels of maintenance.

The classification system included the following park types:

- Neighborhood Parks
- Community Parks
- School/ Community Parks
- Sports Complex
- Special Use Facilities
- Greenways and Trails
- Natural Resource Areas and Preserves

According to the Lower Windsor Township Park Classification System:

- Rexroth Park is the Township's only community park based on the facilities offered and its use by the entire community. At twenty-five (25) acres, this park is smaller than the typical thirty to fifty (30-50) acre community park size.
- Willow Creek Farms Park was classified as a neighborhood park. However, park amenities have since been removed and only an open field remains. Regardless of amenities, at five and eight-tenths (5.8) acres in size, this lot meets the recommended five to fifteen (5-15) acres for a neighborhood park

The analysis also made the following conclusions or statements of fact:

- Other protected lands such as Klines Run Park and other Brookfield Energy recreation facilities (Cabin Branch Fields) provide passive recreation opportunities and access to the river to residents of Lower Windsor Township.
- Natural resources and man-made features exist which could be utilized in the development of greenways. Resources include the Susquehanna River, Canadochly Creek, Cabin Creek, Beaver Creek, Fishing Creek, Klines Run, and utility easements.
- The Mason Dixon Trail and the Captain John Smith Chesapeake Bay Trail, both hiking trails, traverse the Township along the Susquehanna River.

There are currently no School/Community, Sports Complex, Special Use Facility, or designated and protected Greenways in the Township.

### **Acres Per Capita**

The "acres of parkland per one thousand (1,000) residents" metric is the most common technique for determining whether a community has enough land dedicated to recreation. This is also known as the "Acreage LOS". There is no standard Acreage LOS; rather, communities use this as a benchmark to maintain this standard over time.

It is important to note that Acreage LOS does not speak toward the equitable distribution of recreation areas. The Township used the “ten (10) acres per one thousand (1,000) residents” metric to gauge LOS when this Plan was first written in 2002.

In addition to the amount of park acreage, the Township also used park type as a Level of Service Metric. Different types of parks provide different recreation opportunities for people who live, work, and visit Lower Windsor Township.

The table on the following page details potential future recreation needs identified in 2002.

TABLE 8.2: ACREAGE LEVEL OF SERVICE (2002)							
Park Type	Existing Park Acreage	Required Acres/ 2000 Population (7,405)	2000 Deficit (-) Excess (+)	Required Acres/ 2012 Forecast Population (8,301)	2012 Deficit (-) Excess (+)	Required Acres/ 2022 Forecast Population (9,197)	2022 Deficit (-) Excess (+)
Community Parks @ 8 Acres/1,000 Population	25.45	59.24	-33.79	66.4	-40.95	73.58	-48.13
Neighborhood Parks @ 2 Acres/1,000 Population	5.8	14.81	-9.01	16.6	-10.8	18.39	-12.59
Totals	31.25	74.05	-42.8	83.0	-51.75	91.97	-60.72

Table 8.2, above, was part of the 2002 Recreation Level of Service analyses and detailed future recreation needs for a Township population that was increasing between ten to twelve percent (10% - 12%) every decade and requiring ten (10) acres per one thousand (1,000) residents.

Table 8.3, on the following page, provides the same information, however, the Township's future growth rate has been changed from over ten percent (10%) to two percent (2%) per decade.

TABLE 8.3: ACREAGE LEVEL OF SERVICE (2020)							
Park Type	Existing Park Acreage	Required Acres/ 2020 Population (7,519)	2020 Deficit (-) Excess (+)	Required Acres/ 2032 Forecast Population (7,669 <sup>2</sup> )	2032 Deficit (-) Excess (+)	Required Acres/ 2042 Forecast Population (7,823)	2042 Deficit (-) Excess (+)
Community Parks @ 8 Acres/1,000 Population	25.45	60.15	-34.7	61.35	-35.9	62.59	-37.14
Neighborhood Parks @ 2 Acres/1,000 Population	5.8	15.04	-9.24	15.34	-9.54	15.64	-9.84
Totals	31.25	75.19	-43.94	76.69	-45.44	78.23	-46.98

<sup>2</sup> A 2% growth rate was applied according to population growth trends, the limited availability of public infrastructure, and existing land use regulations which prioritize preservation of prime agricultural lands, natural resource areas, and open space.

There is also no standard answer for what should and should not be included in the Acreage LOS. According to the tables above, only two (2) Township parks were included in the acreage analysis.

However, because the intent, of this analysis, is to measure a community's supply of recreation land, the recommendation is to include developable, publicly accessible recreation land within the

Were the Township to implement a tiered Acreage LOS, then the following would be suggested when looking at [Table 8.2](#) in this chapter:

- Tier 1 – all facilities identified as Parks and owned by the Township.
- Tier 2 – all other facilities identified as schools or with ownership other than the Township

[Table 8.3](#) identifies an overall deficit of nearly forty-seven (47) acres by the year 2042. However, those facilities identified as other public, quasi-public, and protected lands and parks at over three hundred (300) acres more than cover the anticipated parkland deficit.

However, the Township's Tier 1 facilities do not meet the majority of the overall recreation land needed for the Township's current and future population. Setting the goal of providing at least the majority of the needed parkland may be more realistic.

municipality. A tiered approach may also be taken in that Tier 1 Facilities are those owned, operated, and maintained by the municipality; and, Tier 2 Facilities are those owned, operated, and maintained by others. The differentiation intends to have the Tier 1 facilities meeting the majority, if not all, of the public's parks and recreation needs with the Tier 2 facilities filling in the gaps.

### **Access Distance/Time within a 10-Minute Walk**

The Access LOS is expressed as the distance, or amount of time, a resident or visitor must travel to a park or facility. As with the Acreage LOS, there is no accepted standard, however, the PA Statewide Comprehensive Outdoor Recreation Plan promotes a "Recreation For All" concept.

Recreation for All prioritizes creating greater opportunities for close-to-home recreation, within a ten (10)-minute walk. Additionally, PA's Department of Conservation and Natural Resources (DCNR) has prioritized grant funding for recreation projects that will increase access to local recreation within a ten (10)-minute walk.

According to DCNR's Outdoor Recreation Access in Pennsylvania web map, in Lower Windsor Township approximately one thousand four hundred twenty-three (1,423) individuals have access to recreation

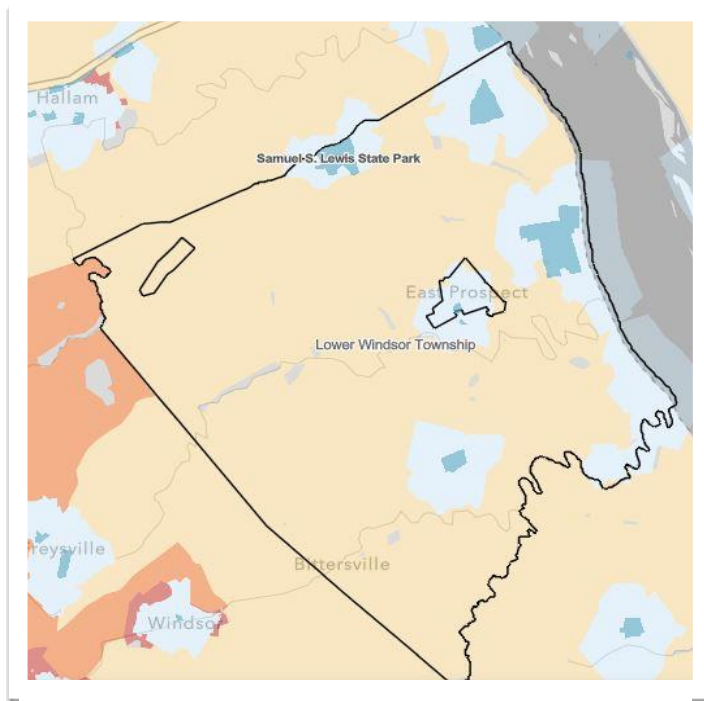
within a ten (10)-minute walk, or about nineteen percent (19%) of the population.

DCNR identified the following Lower Windsor Township recreation areas in its analysis:

- Sam Lewis State Park
- Rexroth Park
- Highpoint
- Klines Run Park

- Native Lands Park
- East Prospect Park & Ballfields
- Susquehanna River

The map on the following page graphically represents the level and areas of need in Lower Windsor Township, per DCNR's web map tool.



Source: DCNR Outdoor Recreation Access in Pennsylvania

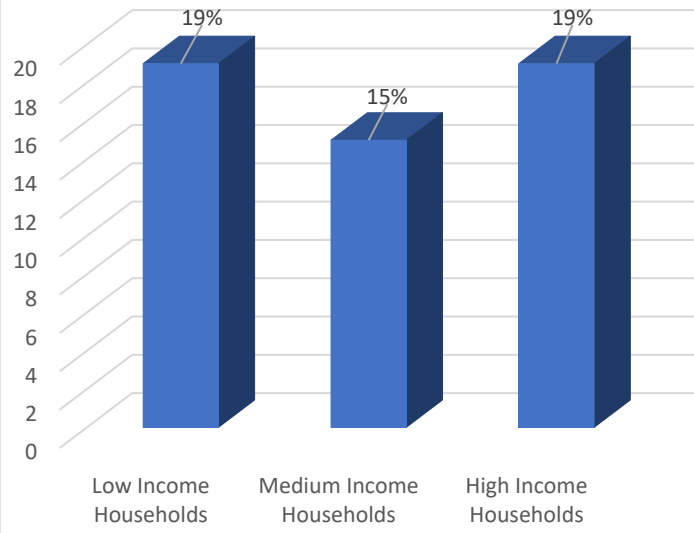


Due to the population per acre and the Township's rural environment, DCNR has not identified Lower Windsor Township as a high-need community. However, the analysis conducted by DCNR helps establish an existing Access LOS benchmark.

The following graphs detail additional information provided by DCNR's web map for Lower Windsor Township's Municipal statistics regarding the residents who live within a 10-Minute Walk to Recreation.

- |                          |     |
|--------------------------|-----|
| • Children               | 20% |
| • Adults                 | 19% |
| • Seniors                | 18% |
| • Low-Income Households  | 19% |
| • Med. Income Households | 15% |
| • High-Income Households | 19% |
| • Whites                 | 19% |
| • Minorities             | 19% |

TABLE 8.4: PERCENT OF POPULATION BY INCOME WITHIN A 10-MINUTE WALK TO RECREATION



### Operating Expenditures per Acre Managed

Operating expenditures include all costs to provide parks and recreation services to the community, including personnel salaries, benefits, utilities, equipment, and materials. Operating expenses vary widely between communities due to differences in parks and recreation facility standards, types of equipment, repair and replacement schedules, types and topography of parkland, degree of maintenance required, levels of use, and other variables.

The Township budgeted just over eight thousand eight hundred dollars (\$8,800) for park maintenance in 2022, which equates to just over two hundred eighty-two dollars (\$282) per acre.

### Quality of Facilities and Experience

Quality LOS standards are used to measure whether parks and recreation facilities are meeting the design and maintenance criteria established by the local community. Even though a community may be meeting its acreage, facilities, and access LOS standards, it may not be meeting residents' needs if it provides poorly designed or maintained facilities.

Very few communities have established Quality LOS standards for their parks and recreation facilities. Again, each community should develop its quality criteria based on community values and priorities. Typical Quality LOS criteria may include the quality of

construction materials, the frequency of maintenance, safety inspections, aesthetics, multimodal access, cleanliness, or others.

The Township has not identified any qualitative or quantitative metrics with which to track facility conditions and user experience. However, a community survey was conducted as part of this Comprehensive Plan update, and relevant resident feedback regarding the provision of recreation services has been provided below.

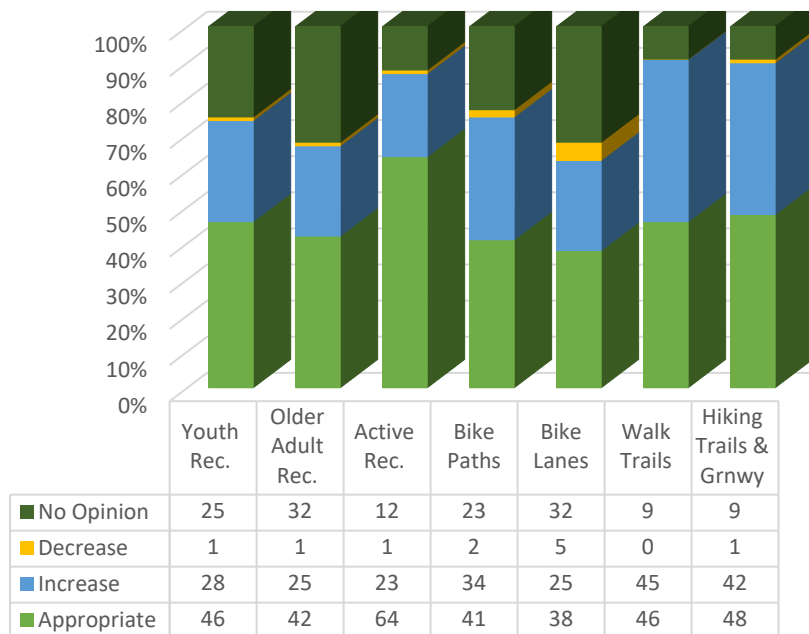
### NEEDS IDENTIFIED BY THE COMMUNITY SURVEY

The 2022 Lower Windsor Township Community Survey asked respondents to gauge the current level of service regarding the following recreation-related municipal services:

- Youth Activities & Programming
- Senior Activities & Programming
- Active Park Facilities (sports fields/courts & playgrounds)
- Passive Recreation Facilities
- Bike Paths & Lanes
- Walking/Hiking Trails & Greenways



TABLE 8.5: 2022 COMMUNITY SURVEY RECREATION - LEVEL OF SERVICE



Source: US Census Bureau

Table 8.5 details the resident responses regarding increasing or decreasing recreation services according to recreation type.

As shown in Table 8.5, in general, the majority of respondents believe the Township's provision of recreation to be appropriate; though, in each of the categories shown, between twenty-three percent (23%) and forty-five percent (45%) of respondents

believed that some increase in the level of service was needed or warranted.

Survey responses showed that residents prioritized increases in access to passive recreation, such as biking and hiking facilities and greenways over additional active recreation facilities (athletic fields and playgrounds) and programming geared towards specific age cohorts.

According to the “no opinion” responses, there is little ambiguity relative to respondent opinions regarding access to active recreation, walking trails, and hiking & greenway trails. This suggests a clear understanding by the respondents regarding the amount of and needs for these recreation opportunities. Conversely, there was a high level of ambiguity when it came to public opinion regarding recreation programming for the youth and older adults, as well as access to biking facilities.

Interestingly, the questions surrounding access to biking facilities garnered the highest level of service decrease responses at two percent (2%) and five percent (5%). The responses could indicate concerns, by some respondents, concerning safety and biking in the Township given its rural nature, which is characterized by hilly topography, narrow winding roads, a lack of street lighting, and high motor vehicle speed.

## PARKLAND DISTRIBUTION

Parks should be easily accessible to residents throughout the community. Existing transportation networks and waterways often are barriers to convenient access in a community. It is important to consider the location of parkland in relationship to these and other barriers, as well as how they serve neighborhood areas.

Exhibit 8.1, Community Facilities also identifies Lower Windsor Township's three (3) recreation planning districts, which are based on the generalized neighborhood areas of the Township. Route 124 is the most heavily traveled road in the Township and would limit access to neighborhood parks but not community parks. As the map illustrates, parkland is not evenly distributed between the planning districts or across the Township as a whole.

### Parkland Distribution Findings

Preliminary findings and conclusions based on the parkland distribution analysis include:

- One (1) community park located in the Craley Planning District serves the entire Township. This location is not centrally located in the Township and is not convenient for Yorkana Planning District residents.
- The Willow Creek Farms Park, a small neighborhood

park with no facilities, is located in the East Prospect Planning District.

- Eastern York School District recreation facilities are located in the East Prospect Planning District and are mostly restricted to student use.
- The Yorkana Planning District is not served by municipal parks, although the Yorkana Ball Field and the May Ball Field are located in this area.
- Samuel S. Lewis State Park, Klines Run, and Native Lands are located in the East Prospect Planning District.

### Recreation Facilities Findings

An analysis of facilities must consider the context of the municipality and the trends and popularity of the sport that the facility serves. Recreation trends and observations in Lower Windsor Township further illustrate the need for additional recreation facilities. Consider the following findings from the public participation process, key stakeholder interviews, and generalized recreation trends:

- Tracking the level of service metrics related to acres per capita, access to recreation, operating expenses per acre, and quality of facilities/user experience will provide the Township with the information needed to evaluate the provision of recreation services over the long term.

The per capita level of service analysis identified that the addition of ten (10) acres of parkland

would at a minimum provide a majority of the needed recreation land within the Tier 1 recreation facilities or those facilities owned and operated by the Township. Currently, the majority of the Township's needed recreation area is being provided by Tier 2 recreation facilities or those owned and operated by someone other than the Township.

- Rexroth Park and Cabin Branch Fields provide the majority of the public's access to athletic fields in the Township. However, existing issues with field sizing, placement, and stormwater management limit the efficiency and use of fields. The development of recreation site master plans will maximize field space and eliminate stormwater management issues.
- Eastern York Recreation Authority reports a need for more athletic field space for baseball, softball, soccer, and lacrosse.
- Girls' softball continues to grow in popularity.
- According to the community survey residents prioritized access to trails, hiking, and greenways over additional athletic field space.
- Non-traditional sports such as skateboarding, disc

golf, and mountain biking require specialty facilities. These sports are widely enjoyed by youth and teens.

- Support facilities, such as restrooms, parking, and landscaping, are important features and add to the function and quality of facilities.

### **Park Conditions**

Each municipal park site, as well as the other parks used by the public, have been assessed for this study. Generally, the parks are in good condition from a maintenance perspective. The findings of the facility inventory for each site have similarities that relate to accessibility and the regulations of the Americans with Disabilities Act (ADA), the safety guidelines of the Consumer Product Safety Commission (CPSC), and recommendations to enhance the user experience through the addition of convenience facilities such as benches, grills, and comfort facilities. Specific findings of site observations and recreation opportunities are reviewed on the following page.

### **Rexroth Park**

---

Park Description:	A developed community park with active recreation and support facilities. This is the main recreation destination in the community serving sports leagues, families, and youth.
Active Recreation Facilities:	Two (2) basketball courts, soccer fields (overlapping baseball field outfields), two (2) baseball fields (one (1) sixty (60)-foot baseline, one (1) ninety (90)-foot baseline), one (1) sand volleyball court, one (1) grass volleyball court, and youth playground, tot lot.
Passive Recreation Facilities:	Two (2) picnic pavilions and a third at the lower end with tables and a grill.
Support Facilities:	Park sign, parking area, concession stand/storage area, storage building, dusk to dawn light, restroom facilities (along the walking path), picnic tables, grills, and benches. There is a heliport on the site.
General Site Observations:	The site is well used by the community and ADA accessibility is provided from the parking lot and connects to the walking trail, playground, pavilions, and basketball courts.
Opportunities:	<p>Continue to develop Rexroth Park as the primary location for recreation in the municipality. Undertake improvements to make the park accessible, improve function and convenience of use, and further maximize recreation use as a community park to include the following:</p> <ul style="list-style-type: none"><li>• Complete a Recreation Site Master Plan to improve the athletic field layout, improve ADA accessibility, add new forms of recreation (Pickle Ball), pollinator habitat, and additional amenities, such as site lighting.</li><li>• Acquire additional contiguous acreage as possible.</li><li>• Re-configure the parking area to provide a sense of arrival, a drop-off at the concession building, paved handicap parking spaces, site wayfinding, and pavement markings.</li><li>• Utilize the additional acreage to develop multi-purpose soccer fields that do not overlap baseball fields.</li><li>• Develop a picnic pavilion near the athletic fields to provide shade for team meetings and family gatherings.</li></ul>

### Willow Creek Farms Park

Park Description:	This park is a small parcel located within a residential subdivision. The park site is moderately sloping and consists of an open lawn area.
Active Recreation Facilities:	None.
Passive Recreation Facilities:	None.
Support Facilities:	Park policy sign.
General Site Observations:	The site has no recreation improvements or improvements of any kind. Residential lots surround the site. There are no trees on the site. An unimproved drive provides access to the lot for maintenance. The site is not ADA-accessible.
Opportunities:	Develop Willow Creek Farms Park as a neighborhood park that focuses on walking paths and native habitats.

## GREENWAYS & TRAILS

Greenways are corridors of protected public and private land established along rivers, stream valleys, ridges, abandoned rail corridors, utility rights-of-way, canals, scenic roads, or other linear features. They link recreational, cultural, and natural features; provide pathways for people and wildlife; protect forests, wetlands, and grasslands; and improve the quality of life for everyone.

The Mason-Dixon Trail serves as a locally known connection between the Appalachian Trail and the Brandywine Trail. Nearly two hundred (200) miles long, the trail owns no land but is permitted to cross many areas of both private and public land.

Creating a network of green corridors throughout Lower Windsor Township is one means of protecting the character and landscape of the Township. Greenways provide an array of direct and indirect benefits that add to the quality of life of a region. Protection of green corridors and open spaces provides numerous economic, social, transportation, recreation, and ecological benefits. Understanding the benefits of greenway creation and protection will promote and sustain the initiative to develop a comprehensive network of greenways throughout Lower Windsor Township. The benefits of greenways include:

### Economic Benefits

- Increase nearby property values.
- Precipitate new and expanded businesses related to greenway and trail use. New businesses will provide employment opportunities and revenues.
- Create tourist destinations that will generate expenditures on food, services, and lodging.
- Reduce damage and financial loss from flooding by providing buffer areas along stream and river corridors.

### Social Benefits

- Provide access to historically and culturally significant features in our communities.
- Provide opportunities to reconnect with the natural environment and urban fabric of our communities.
- Help to preserve the character and aesthetic appeal of a place or landscape.
- Provide significant new public places which can help to connect people and communities.
- Increase quality of life.

- Improve the health and wellness of greenway and trail recreation users.
- Heighten sensitivity to the natural environment by providing for interaction between people and nature.

### **Transportation Benefits**

- Promote non-motorized transportation.
- Provide safe alternative transportation routes for pedestrians and bicyclists which will lessen our dependency on automobiles.
- Provide emergency access via trails to undeveloped areas.
- Reduce roadway congestion through redistribution of users to alternative transportation routes.

### **Ecological Benefits**

- Promote plant and animal species diversity & education.
- Serve as a filtering zone; wetlands absorb pollutants and nutrients and slow surface run-off.
- Provide corridors for wildlife migration and movement.

- Preserve and protect vital wildlife, plant, and aquatic habitats.
- Improve air quality and reduce noise.
- Reduce stormwater damage and promote flood mitigation within protected floodplains.
- Protect natural areas.
- Connect fragmented landscapes.
- Store and convey floodwaters.
- Clean up abandoned corridors.

### **Recreation Benefits**

- Provide areas to jog, walk, bike, ride horses, and boat.
- Serve as sites for passive pursuits such as picnicking, fishing, and enjoying nature.
- Connect existing and planned trails.
- Encourage ecotourism.
- Provide landscapes for environmental education.

- Provide connections between parks and other protected lands.

In response to the overwhelming public benefit of greenways, the Township has adopted conservation by design zoning regulations that provide design standards and protection, as well as maintenance requirements, for the development of greenways in all subdivisions greater than five (5) lots.

**RECREATION & OPEB SPACE AREA REQUIREMENTS**

The Township's Land Use Ordinances utilize the following tools to require the provision of recreation and/or open spaces:

- Conservation by Design Subdivisions
- Mandatory Recreation Dedication
- Fee-in-Lieu of Recreation Dedication

**Conservation by Design (CBD)**

The Township's Conservation by Design (CBD) subdivision process prioritizes collaboration between the Township and the Developer. The process requires a detailed existing conditions analysis which quantifies and qualifies environmentally sensitive areas within the site. The site assessment is then utilized to identify the following, in order of significance:

1. Greenways & Utility Easements
2. General Land Use
3. Street & Trail Design
4. Lot Layout

**Mandatory Recreation Dedication**

Lower Windsor Township currently has a mandatory dedication ordinance that requires developers to dedicate land or recreation or pay a fee-in-lieu to the Township at four hundred ten dollars and thirty-eight cents (\$410.38) per proposed lot or dwelling unit to be constructed.

**Calculating Land Requirements**

One popular method to determine how much open space should be required in a subdivision is through a per-dwelling unit calculation. The Township has established a goal of providing ten (10) acres of parkland per one thousand (1,000) residents. To derive a per unit calculation, the one thousand (1,000)-population figure is divided by the Township's 2020 U.S. Census average household size of two and sixty-nine hundredths (2.69). The following calculations resulted:

$$1,000 / 2.69 \text{ persons per dwelling unit} = 372 \text{ dwellings}$$

Dividing this number by the desired 10 acres per 1,000 residents goal yields this amount of land:

$$10 \text{ acres} / 372 \text{ dwellings} = 0.027 \text{ acres/dwelling (rounded from 0.02688)}$$



Therefore, on a subdivision of fifty (50) homes, this twenty-seven thousandth (0.027)-acre requirement would net one and thirty-five hundredths (1.35) acres of parkland.

### **Fee-in-Lieu of Land Dedication**

As an alternative to the land dedication, the developer may pay a fee to the Township. This approach can only be used in those instances where the developer agrees to this alternative. The Township cannot deny a subdivision plan if the developer refuses an alternative to open space dedication. To convert the open space requirement to a fee, the Township should require the fair market value of the land to be dedicated. Using the above example, for a fifty (50)-unit subdivision, the developer should provide the Board of Supervisors with an appraisal of the required one and thirty-five hundredths (1.35)-acre parcel. Therefore, if the land were appraised at twenty-five thousand dollars (\$25,000) per acre, then the Township would accept a thirty-three thousand seven hundred fifty dollar (\$33,750) fee-in-lieu of the land dedication.

In contrast, a fifty (50)-unit development under the current Lower Windsor Township mandatory dedication ordinance would require a fee-in-lieu of the contribution of two hundred twenty-five dollar (\$225) per dwelling unit, or eleven thousand two hundred fifty dollars (\$11,250). By tying the mandatory dedication fee-in-lieu to the fair market value of an acre of land and the average household size, the municipality may increase contributions to the Township.

### **ORDINANCE PROVISIONS**

Lower Windsor Township should amend the mandatory dedication ordinance to align with the recommendations of this Plan. Specific language should follow the Township's general ordinance format. The ordinance should contain the following provisions:

- The subdivision should be consistent with the Lower Windsor Township Comprehensive Plan and updates concerning the size and distribution of recreation areas.
- The specific size of the residential subdivision for which the ordinance will apply should be noted. Some municipalities require mandatory dedication for every subdivision, regardless of whether it creates two (2) units or one hundred (100), while other municipalities require mandatory dedication for subdivisions over a certain size, such as five (5) new dwelling units. Lower Windsor's ordinance requires mandatory dedication of parkland for every new building lot.
- The type of land the Township will accept is especially critical to ensure that the Township receives open space that is conducive to its established park and open space standards and that the land dedicated can be used for its intended purpose as parkland. The following criteria are recommended for land proposed for open space dedication:

- The land is a minimum of five (5) acres in size, contiguous in shape, and has suitable topography and soil conditions for developing recreational facilities. The five (5) acres relate to the size of a neighborhood park as defined by the Lower Windsor Township Park Classification System. The Township should require a fee-in-lieu for land areas less than five (5) acres.
- The land is configured to include natural features worthy of preservation.
- The land is easily and safely accessible from all areas of the subdivision with direct access to, and the minimum required lot width along a public street. No roadways should traverse the site.
- A maximum of fifteen percent (15%) can consist of floodplains, wetlands, steep slopes, utility easements, rights-of-ways, or other features that render the lot un-developable.
- The land should be accessible to utilities such as sewer, water, and power. The Township should require that the developer extend utilities to the tract.
- The land should not contain any stormwater facilities designed to detain or retain stormwater.
- The land should, where possible, be adjacent to undeveloped tracts, or other dedicated recreation lands to create a single, larger tract.

## SCHOOLS

Lower Windsor Township lies totally within the area served by the Eastern York School District. Also included in this district are Hellam Township and the Boroughs of East Prospect, Hallam, Wrightsville, and Yorkana. Eastern York School District serves Lower Windsor Township residents with one high school, one middle school, and three elementary schools. Of these facilities, the high school, middle school, and one elementary school are located in the Township. The elementary schools serve grades kindergarten through five; while the middle school serves grades six through eight and the high school serves grades nine through twelve. The total number of children enrolled for the 2021-2022 school year was two thousand one hundred seventy-four (2,174) students, which is down twenty percent (20%) from the reported 2000-2001 enrollment of two thousand seven hundred thirty-five (2,735). [Exhibit 8.2](#), Eastern York School District, displays the location of each school within the District.

### Existing School Facilities

The following is an overview of each of the existing public school facilities serving Lower Windsor Township. A summary of these facilities is shown in [Table 26](#).

**Canadochly Elementary School** is located on Abels Road south of East Prospect Borough. The school was constructed in 1955 on a thirty-two (32)-acre site. An addition to the facility was constructed in 1977. The

Canadochly building has classrooms, a cafeteria, a library, a combination gymnasium-auditorium, and an office space. The 2021-2022 student enrollment totaled three hundred sixty-one (361) students, which represents a decrease of nearly thirty-five percent (35%) when compared with the 2000-2001 student enrollment of five hundred fifty-four (554) students. The normal rated capacity of this facility is six hundred fifty (650) students.

**Kreutz Creek Elementary School** is located on the corner of Lee and Meadowbrook Streets in Hellam Township, north of Hallam Borough on a seventeen (17)-acre site. The facility was constructed in 1977 and contains classrooms, office space, a library, and a multi-purpose room. Students in grades kindergarten through five attend this school. The 2021-2022 student enrollment totaled three hundred forty (340) students, which is down over thirty-four percent (34%) from a 2000-2001 student enrollment of five hundred nineteen (519).

The facility's normal rated capacity of 600 students represents a nine percent (9%) increase from a capacity of five hundred fifty (550) students in 2000-2001.

**Wrightsville Elementary School**, originally established in 1936, was relocated in the 1950s to its current location on Chestnut Street in Wrightsville Borough. The school contains a multi-purpose room, library, office space, and classroom space. This facility conducts classes for

grades kindergarten through five and had a 2021-2022 enrollment of three hundred forty-three (343) students, which is an increase of over twenty-seven percent (27%) from an enrollment of two hundred sixty-nine (269) students in 2000-2001. The normal rated capacity of the school is five hundred seventy-five (575), which is a sixty-four percent (64%) increase.

**Eastern York Middle School** is located on Cool Creek Road in Lower Windsor Township. It was constructed in 1995. The middle school has a gymnasium, combination auditorium/cafeteria, library, and three portable classrooms. The current enrollment in grades six through eight is five hundred twenty-three (523) students, a decrease of nearly twenty-two percent (22%) from the 2000-2001 student enrollment of six hundred sixty-nine (669) students. The facility's normal capacity is nine hundred fourteen (914) students, which is an increase of twenty-one percent (21%) from the 2000-2001 capacity.

**Eastern York High School** is located on Cool Creek Road in Lower Windsor Township. The high school was constructed in 1959 on a forty (40)-acre site. Additional classrooms, a shop, and a music room were added in 1978. The high school also has a gymnasium, auditorium, cafeteria, and library. The current enrollment in grades nine (9) through twelve (12) is six hundred forty-eight (648), a seventeen percent (17%) decrease from the 2000-2001 total student enrollment of seven hundred eighty-two (782) students. The normal rated capacity of this facility is one thousand

three hundred seventy-two (1,372) students, a capacity increase of sixty percent (60%) from the 2000-2001 capacity.

**Evaluation of Facilities**

Table 8.6 provides a comparative analysis of Eastern York School District facilities. The optimum capacity serves as a school planning and design standard and provides a framework within which to evaluate the existing facilities. More importantly, this standard should be used as a guideline in planning for the proper location and construction of additional facilities as needed.

<b>TABLE 8.6: SCHOOL FACILITIES IN THE EASTERN YORK SCHOOL DISTRICT</b>		
<b>School</b>	<b>2021 - 22</b>	<b>Capacity</b>
Canadochly Elementary	361	650
Kreutz Elementary	340	600
Wrightsville Elementary	343	575
East York Middle School	523	914
East York High School	648	1,372
Source:		

Overall, the Eastern York School District appears to have adequate facilities and excess capacity. Renovations and expansion identified in the 2002

Comprehensive Plan have been completed which increased capacity in most of the schools. Additionally, student enrollment dropped by nearly twenty-one percent (21%).

**POLICE PROTECTION**

The Township police force presently consists of a chief and nine (9) full-time officers, a full-time civilian administrative position. The police force is equipped with seven (7) vehicles. The Township's police department provides 24-hour coverage to both the Township and East Prospect Borough. York County Control will dispatch neighboring police forces to assist in Lower Windsor Township when they foresee the need for protection beyond what the Township police can provide.

The national average of police employees for communities under ten thousand (10,000) population is three and one-tenth (3.1) policemen per one thousand (1,000) population, up from one and four-tenths (1.4) officers per one thousand (1,000) population in 2000.

There is no national standard for the number of officers required per capita. This is in part because population totals do not fully reflect demands placed on law enforcement agencies or differences across jurisdictions.

The Township's police force is efficient and lean with one and three-tenth (1.3) officers per one thousand

(1,000) population. While lower than the national average, the Lower Windsor Township Police Department partners with entities, such as the Eastern York School District and the County of York, to leverage resources. Financial capability is a larger part of what dictates the relative size of a municipality's police force. Additionally, it is critical to discuss the future needs of law enforcement when reviewing proposed developments that will increase housing units and/or vehicle miles traveled within the Township.

The majority of the Department's calls consist of:

- Person in Distress, emotional or physiological
- Domestic Disturbances
- Drunk and Disorderly Conduct
- Unemployment and Financial Scams
- Illegal Drug Activity
- Suicide

### **FIRE SAFETY & PREVENTION**

Three (3) volunteer fire companies operate within Lower Windsor Township. They are the:

- Craley Volunteer Fire Department (CVFD)
- East Prospect Fire Department (EPFD)
- Yorkana Volunteer Fire Department (YVFD)

The Craley Volunteer Fire Department is the largest of the three (3) organizations with twenty (20) active members of which roughly a dozen (12) members respond to each call. East Prospect Volunteer Fire

Department has a total of ten (10) active members and Yorkana Volunteer Fire Department has roughly six (6) to eight (8) active volunteers. The YVFD recently merged with Southern Area Fire and Emergency Rescue (SAFER) for administrative support purposes. SAFER provides fire protection to Dallastown and Yoe Boroughs. Currently, YVFD is only responding to calls when additional support is needed or "mutual aid". However, it is anticipated that YVFD will begin responding directly to calls in Lower Windsor Township within the next twelve to twenty-four months.

The most pressing need for the volunteer fire companies is funding, each company received funding from Lower Windsor Township, however, the majority of funding is derived from fund drives and fundraisers.

In addition, continued regionalization would also assist in alleviating some of the financial constraints for the departments, but, would likely result in the liquidation of one (1) of the three (3) brick-and-mortar facilities.

Approximate response times are identified in Exhibit 8.3.

Fire safety and prevention services are adequate for the Township's current population size and can sustain some level of population increase within the service area. However, a substantial and sustained population increase could challenge the capacity and resources of the three (3) volunteer companies.

## EMERGENCY MEDICAL SERVICES

UPMC's Life Team took over the operation of the Canadochly Valley Ambulance Club and at that time transitioned from a volunteer company to a twenty-four (24)-hour, paid company. The Lower Windsor Township (LWT) Life Team is a substation of the York Division which also provides services to York City, Manchester Township, and Springettsbury Township.

The LWT substation has one (1) basic life support unit and one (1) intermediate life support unit both with twenty-four (24)-hour coverage. Life-team is a registered 501C3 and receives some funding from East Prospect Borough and Lower Windsor Township, however, the majority of the ambulance company's funding is derived from insurance reimbursements, membership fees, and donations.

Emergency medical services are adequate for the Township's current population size. In fact, as of the writing of this Comprehensive Plan, the substation has below-average call volumes and would be able to absorb the increase in call volumes created by the River Ridge Hills subdivision and the proposed Fields at East Prospect development.

## LAKE CLARKE RESCUE SERVICE

Lake Clarke Rescue was originally established as a boat club in 1955 and gradually broadened into water rescue. It is estimated that there are ninety (90)

members, which includes about thirty-eight (38) members in the active water rescue unit.

The water rescue unit has an organized dive team that has assisted in various drowning and salvage dive work. The Lake Clarke Rescue Team (Rescue 60) is connected to 911 County Control via a siren at the clubhouse which is located on Long Level Road (State Route 624).

In addition to providing a water rescue service, the Lake Clarke Rescue Association coordinates water safety events, acts as a water safety patrol unit, and performs community service jobs. Members also do all necessary maintenance of the navigation way and markers on the lake for the Pennsylvania Fish Commission and U.S. Coast Guard. In conducting marker work, members work closely with the Safe Harbor Water Power Corporation.

Financial support for Lake Clarke Rescue is obtained through membership dues and donations. In addition, social fundraising activities by the Ladies Auxiliary contribute significantly to the support of this service.

## OTHER COMMUNITY FACILITIES

The Township's Administrative Facility is centrally located at 2425 Craley Road, Wrightsville PA. The administrative building is located adjacent to Rexroth Park and houses the Township's police department and administrative offices. The building also includes

an indoor gymnasium and the Susquehanna Area Senior Center located at 2427 Craley Road. The Township's highway department is located at 111 Walnut Valley Court, Wrightsville, PA.

The Craley Post Office, located on State Route 425, New Bridgeville Road, provides some service to Lower Windsor Township residents. In addition, East Prospect, East York, Red Lion, Windsor, and Wrightsville Post Offices provide service to portions of Lower Windsor Township and Red Lion; however, none of these facilities are located within the Township.

There are several religious facilities within the Township. Although Township officials need not be concerned with the provision of religious facilities, they should be aware of their location and capacity as such facilities are often available for use as shelter or evacuation centers during emergencies. The following is a list of churches within the Township:

1. Calvary Bible Church
2. St. Michael the Archangel
3. Canadochly Lutheran Church
4. Canadochly Evangelical and Reformed
5. Water's Edge United Methodist Church
6. East Side Bible Church
7. Salem Martinsville United Methodist Church
8. Prayer Mission Church
9. Springville Gospel

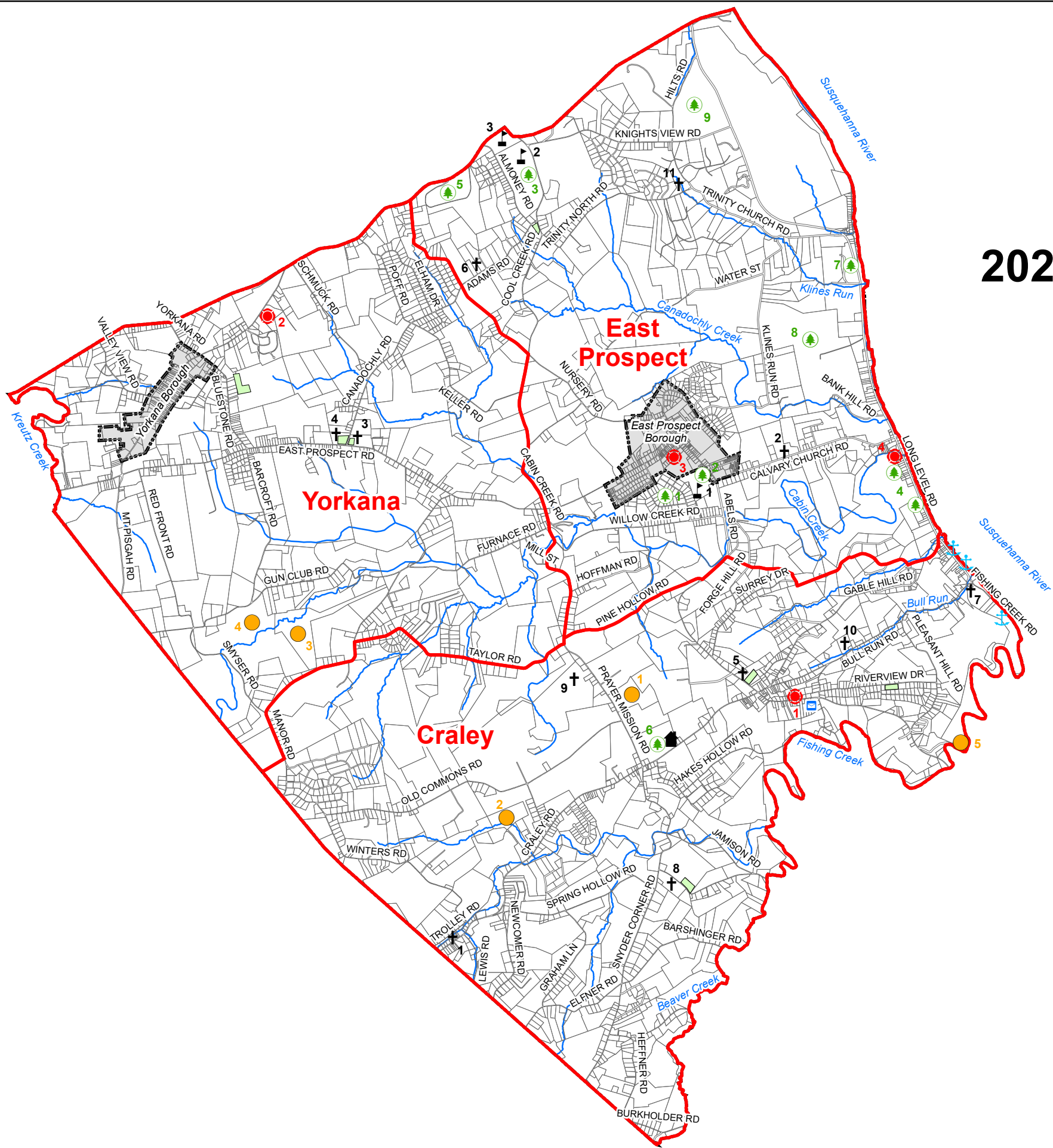


# 2022 Comprehensive Plan Update Lower Windsor Township

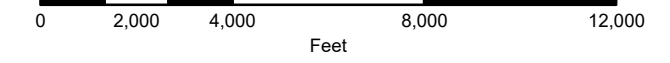
York County, Pennsylvania

## Exhibit 8.1

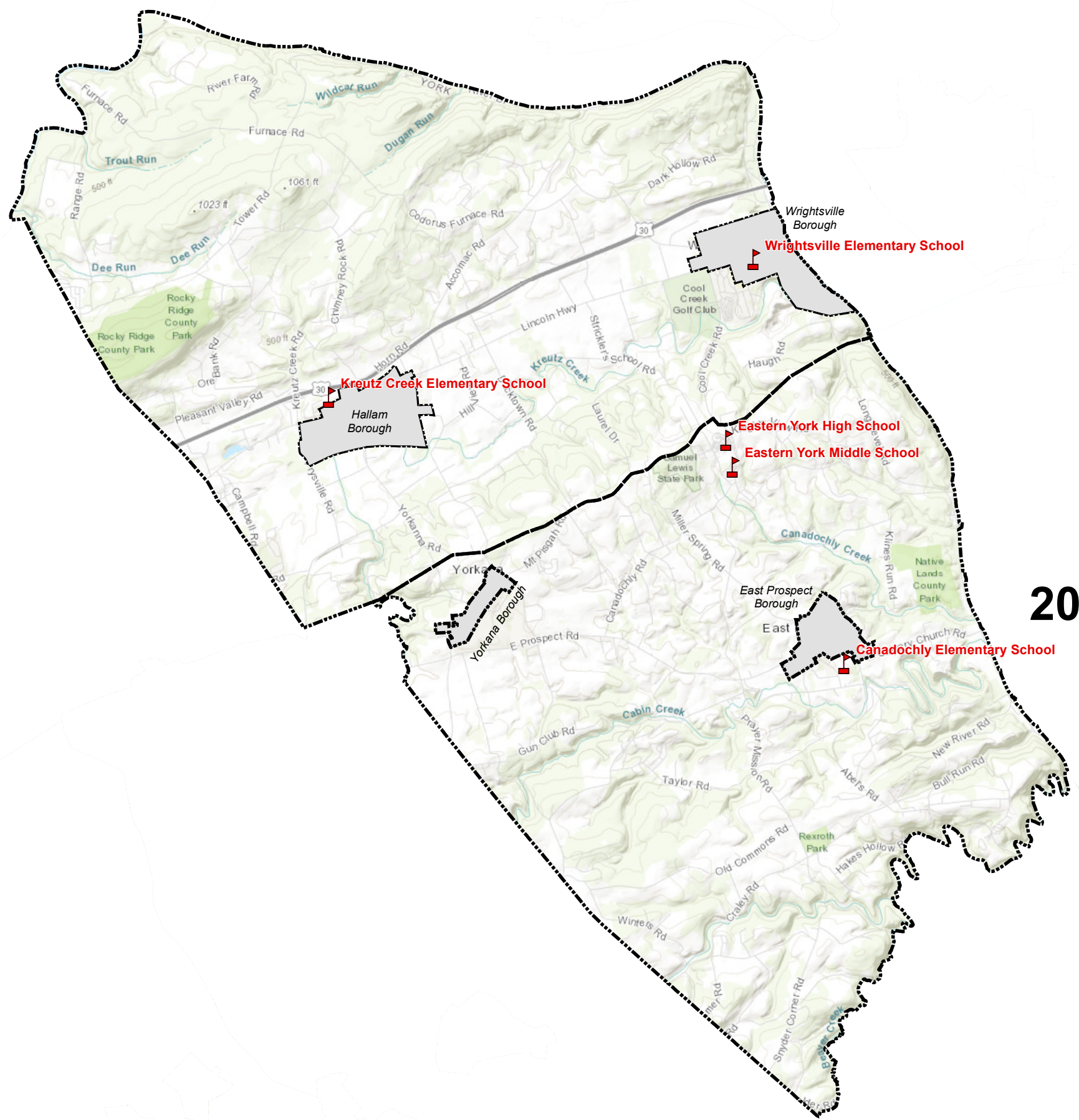
### Community Facilities



- † Churches**
  - 1 St. Michael's the Archangel Roman Catholic Church
  - 2 Calvary Bible Church
  - 3 Canadochly Lutheran Church
  - 4 Canadochly Evangelical & Reformed Church
  - 5 Water's Edge UMC
  - 6 East Side Bible Church
  - 7 Salem Martinsville UMC
  - 8 Prayer Mission Church
  - 9 Springvale Gospel Church
- ⚓ Schools**
  - 1 Canadochly Elem. School
  - 2 Eastern York Middle School
  - 3 Eastern York High School
- 🔴 Fire & EMS Services**
  - 1 Craley Community Fire Company
  - 2 Yorkkana Fire Company
  - 3 East Prospect Fire Company
  - 4 Lake Clark Rescue
- 🌳 Recreation**
  - 1 Willow Creek Farms Park
  - 2 Canadochly School Play Area
  - 3 Eastern High School Tennis Courts
  - 4 Safe Harbor Recreation Areas
  - 5 Sam Lewis State Park
  - 6 Rexroth Park
  - 7 Kline's Run Park
  - 8 Native Lands County Park
  - 9 Highpoint Scenic Vista & Recreation Area
- 🟡 Game Clubs**
  - 1 East Prospect Fish & Game Assoc.
  - 2 Windsor Fish & Game Assoc.
  - 3 York Archers, Inc.
  - 4 Yorkkana Game & Gun Club
  - 5 Craley Fish & Game Assoc.
- 🏠 Township Municipal Building**
- ⚓ Boat Launch**
- 📧 Craley Post Office**
- 🌳 Cemetery**
- ▭ Parcels**
- 📦 Planning Districts**
- ⬜ Lower Windsor Township**







# 2022 Comprehensive Plan Update Lower Windsor Township

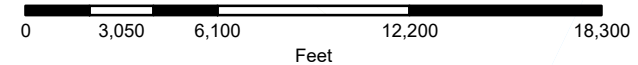
York County, Pennsylvania

## Exhibit 8.2

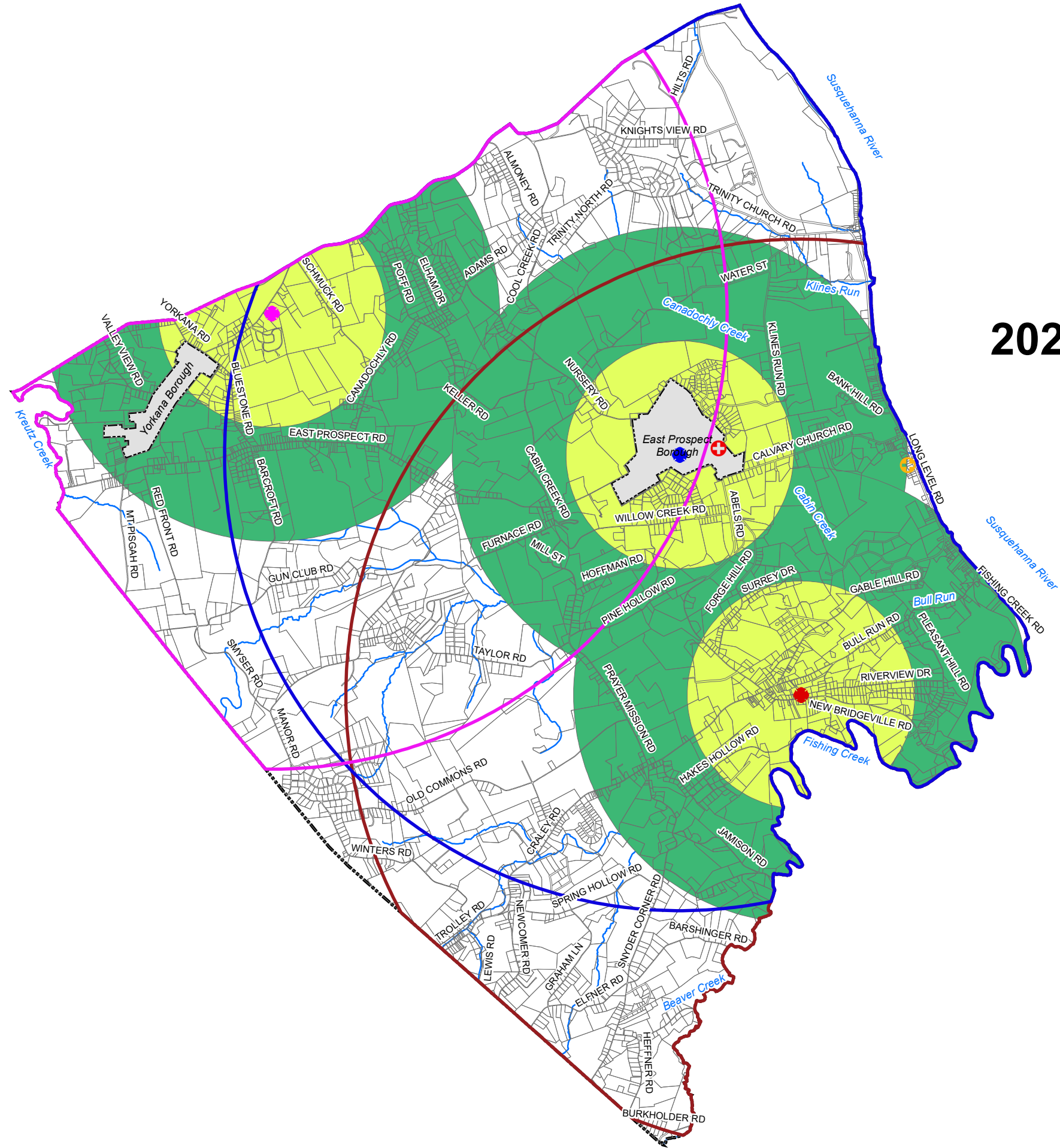
Eastern York School District

### Legend

 Schools



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 8.3

### Fire Emergency and Support Facilities

#### Legend

##### Fire Companies

- Craley Fire Company
- East Prospect Borough Fire Company
- Yorkana Community Volunteer Fire Company

##### Emergency Services

- + UPMC Life Team
- + Lake Clarke Rescue Service

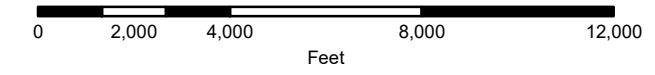
##### Recommended Distance Zones for Fire Protection

- 3/4 Mile Radius for Commercial & Industrial Uses
- 1 1/2 Mile Radius for Residential Uses

##### 3 Mile Radius for Scattered Development

- Yorkana Community Volunteer Fire CO
- East Prospect Borough Fire CO
- Craley Fire CO

- Streams
- Parcels
- Lower Windsor Township



## 9. TRANSPORTATION FACILITIES

### TRANSPORTATION NETWORK

The following represents the 2022 update of Chapter 9 Transportation Facilities.

Urban form is largely a function of the underlying transportation network. Development occurs adjacent to the transportation network where it can most easily be served. Transportation networks are influenced by many of the same factors that shaped our urban areas. Topography and natural features are major criteria for network locations as well as historical factors. Likewise, earlier precedents often dictate what happens. In most cases, transportation networks evolve over many years and are therefore built incrementally. The first part of a network may dictate what the rest of the network will look like for many years to come.

Lower Windsor Township is unique in that there are no major traffic routes that traverse the Township carrying heavy traffic volumes. The highest volume roadway in the Township is East Prospect Road with an average daily traffic (ADT) volume of only four thousand (4,000) to seven thousand (7,000) vehicles per day. Lower Windsor Township and the municipalities south of Lower Windsor Township are rural in character with few major traffic generators. Because of the rural nature of this area and the undulating topography, the majority of

travel on the Township's road network is mostly limited to residents, except during the summer months when people are attracted to the Long Level recreation area.

Passenger through traffic in the Township is minimal, which is a result of the Susquehanna River, located east of the Township, with no crossings between Route 462 in Wrightsville Borough and Route 372 in Lower Chanceford Township, approximately twenty (20) miles apart. Most through traffic and much of the local traffic will migrate either west to Interstate 83 or north to State Routes 462 and 30, instead of traveling the winding, hilly roadways through Lower Windsor Township. The one exception is Craley Road (SR0624) which connects the Township to all points south into the Muddy Creek Region, Peach Bottom Township, and the Maryland State Line.

Additionally, several large agriculture and industrial uses generate large amounts of heavy vehicles and equipment through traffic on secondary roadways, as identified below:

- Modern Landfill
  - Mount Pisgah Road provides large trucks with access to and from Route 30; and,
  - East Prospect Road west from Mount Pisgah Road provides access to Interstate-83

- Rexroth Farm
  - Old Commons Road connects the lands owned by Rexroth Farm and Prayer Mission Road to East Prospect Road which connects the farm to both Route 30 and Interstate 83.
- County Line Quarry
  - Long Level Road, Craley Road, and New Bridgeville Road heading south
- Star Rock Farms (Lancaster County)
  - Long Level Road, Craley Road, and New Bridgeville Road heading south
  - Star Rock Farms is also farming a leased piece of ground along Snyder Corner Road.

Anecdotally, it seems that large farm and industrial truck traffic is increasing on the secondary roads identified above. Many of these roads, Prayer Mission Road in particular, are narrow with significant vertical and horizontal curves which large trucks and machinery have trouble maneuvering, especially when there is on-coming traffic.

Lower Windsor Township has only one (1) traffic signal, which is located at the intersection of East Prospect Road (SR 0124) and Main Street/Mount Pisgah Road (SR 2009). It is owned by the Township and maintained by Modern Landfill. There is also a four (4)-way stop-controlled intersection at Abels Road (SR 0124)/New Bridgeville Road (SR 0425) and Craley Road (SR 0624) with a flashing intersection control beacon. There are no other intersections within the Township that currently warrant the installation of traffic signals.

As mentioned above, the Susquehanna River borders the Township on the east and there are no bridges that cross the river within the Township. The nearest bridges are the Route 462 (Columbia-Wrightsville) bridge in Wrightsville Borough to the north and the Route 372 (Norman Wood) Bridge to the south. Both of these bridges are many miles from the Township and do not provide convenient access to the Township. This is a major reason why traffic is limited within Lower Windsor.

### **TRAFFIC VOLUME**

As one would expect, East Prospect Road (S.R. 0124), Cool Creek Road (S.R. 2011), Long Level Road (S.R. 0624), and Mt. Pisgah Road (S.R. 2009) are the highest-volume state roadways in the Township.

Conversely, Bull Run Road (S.R. 2012) and Richmond Road (S.R. 2035) are the lowest volume state roadways in the Township.

Table 9.1 identifies traffic volumes for state routes located in Lower Windsor Township.

Long Level Road was the only state route that experienced an increase in volume of more than twenty percent (20%) between 2002 and 2022. All other state routes remained stable or experienced a decrease in traffic volume. See Exhibit 9.1 for a comparison between the 2002 and 2022 Annual Average Daily Trips (AADT).

<b>TABLE 9.1                      TRAFFIC VOLUME                      STATE ROUTES                      LOWER WINDSOR TOWNSHIP – 2022</b>		
<b>State Route</b>	<b>Name</b>	<b>2022 ADT</b>
S.R. 2012	Bull Run Road	157
S.R. 2035	Richmond Road	249
S.R. 2021	Ducktown Road	814
S.R. 2019	Bluestone Road	881
S.R. 2029	Manor Road	885
S.R. 2019	Yorkana Road	1,132
S.R. 2014	Burkholder Road	1,505
S.R. 0624	Craley Road	1,603 – 2,600
S.R. 0425	New Bridgeville Road	1,922
S.R. 0124	Abel's Road	1,938
S.R. 2025	Nursery Road	1,999
S.R. 0124	East Prospect Road	2,370 - 5,301
S.R. 2009	Mt. Pisgah Road	2,719 – 4,101
S.R. 0624	Long Level Road	3,022
S.R. 2011	Cool Creek Road	4,420 – 4,474
Source:		

**TRAFFIC SAFETY**

The graphic within Table 9.2 details all vehicle crashes by severity between the years 2012 – 2021.

Safety is a critical conversation when evaluating the local transportation system. Topography, density of land use, roadway condition, speed, weather, wildlife, and human behavior come together to create conditions that can result in a crash.

Evaluating crash data may reveal potential priorities or recommendations for the Comprehensive Plan.

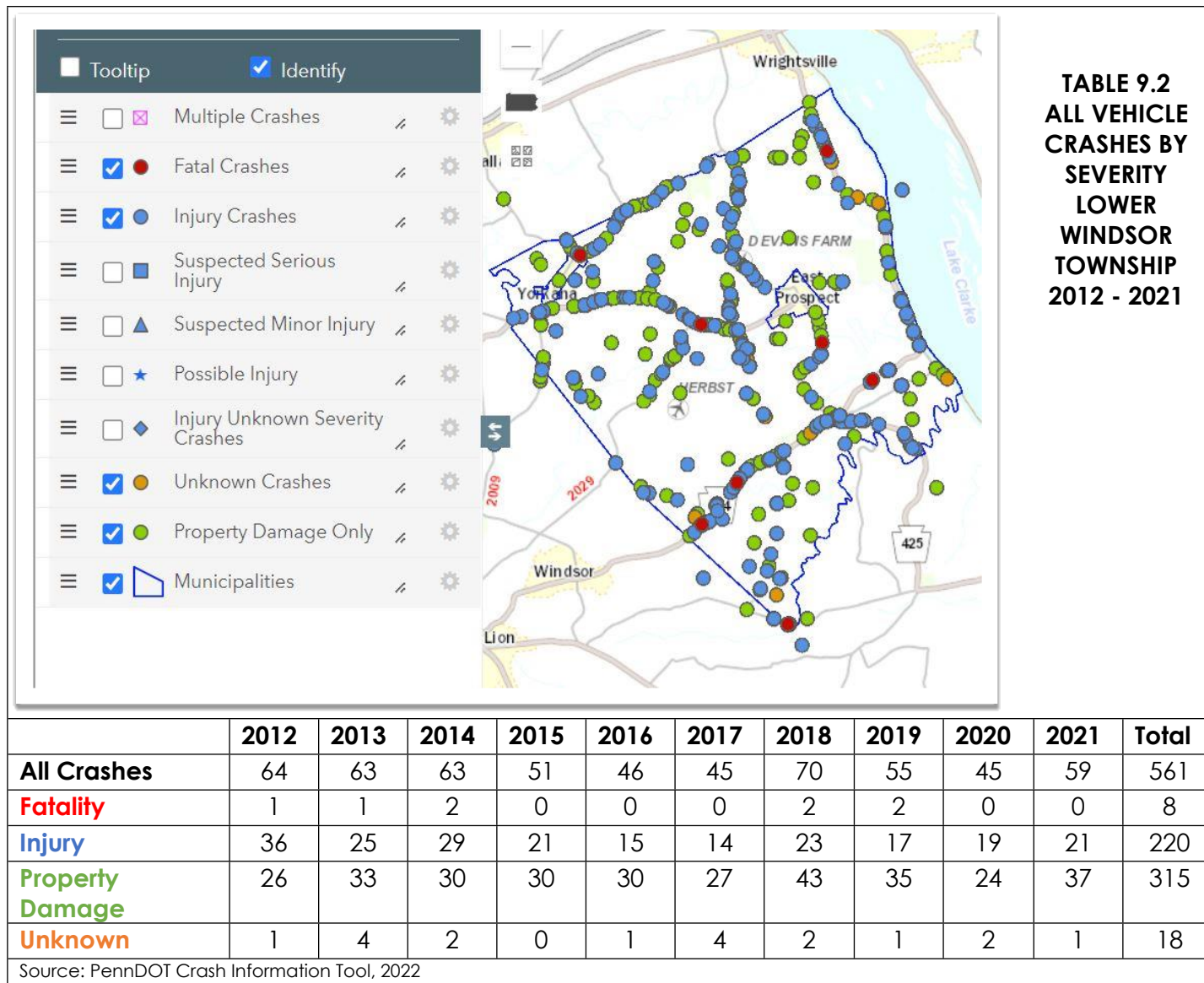
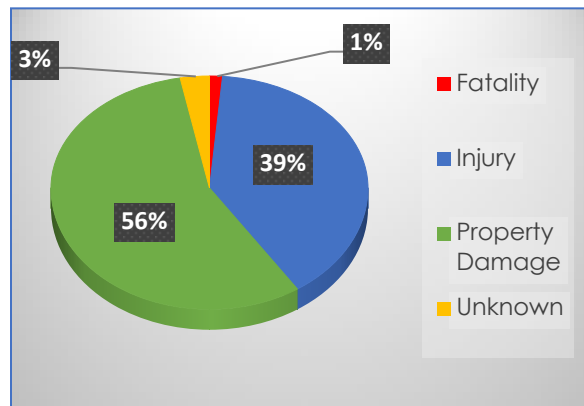


Table 9.2, above, identifies the total number of crashes and their severity, within Lower Windsor Township between January 1, 2012, and December 31, 2021. As shown, there were a total of five hundred sixty-one (561) crashes over the ten (10) years, averaging roughly fifty-six (56) accidents per year. The high for the time period was in 2008 with seventy (70) accidents and the low was forty-five (45) accidents in both 2017 and 2020.



As shown in the pie chart to the left, the majority of accidents involve property damage only. Injury accidents represent thirty-nine percent (39%) of the

accidents, and fatalities make up two percent (2%) of all accidents.

Fatalities have occurred at the following locations:

- Craley Road – Three (3) Fatalities
  - East of Winters Road
  - At Adair Road
  - Between Fox Creek Road and Gable Hill Road

- Mt. Pisgah Road and Blue Stone Road – One (1) Fatality
- East Prospect Road, southeast of Manor Road – One (1) Fatality
- Abel’s Road between Forge Hill Road and Circle Drive – One (1) Fatality
- Long Level Road at Knights View Road – One (1) Fatality
- Burkholder Road at Rocky Road – One (1) Fatality

Table 9.3 below identifies crash data for six (6) southeastern York County Townships between 2012 and 2021. Lower Windsor Township had the third highest number of accidents of the Townships identified in the table.

<b>TABLE 9.3 ALL VEHICLE CRASHES 2012 - 2021</b>											
<b>Municipality</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Chanceford Twp.	50	50	37	55	45	53	51	40	43	55	479
East Hopewell Twp.	4	8	7	6	5	13	7	7	12	5	74
Hopewell Twp.	63	54	57	64	71	66	52	74	52	46	599
Lower Chanceford Twp.	37	33	29	43	39	56	36	41	47	37	398
<b>Lower Windsor Twp.</b>	<b>64</b>	<b>63</b>	<b>63</b>	<b>51</b>	<b>46</b>	<b>45</b>	<b>70</b>	<b>55</b>	<b>45</b>	<b>59</b>	<b>561</b>
Windsor Twp.	126	151	141	175	162	147	164	170	148	135	1,519
<b>Total</b>	<b>344</b>	<b>359</b>	<b>334</b>	<b>394</b>	<b>368</b>	<b>380</b>	<b>380</b>	<b>387</b>	<b>347</b>	<b>337</b>	<b>3,630</b>

Source: PennDOT Crash Information Tool, 2022



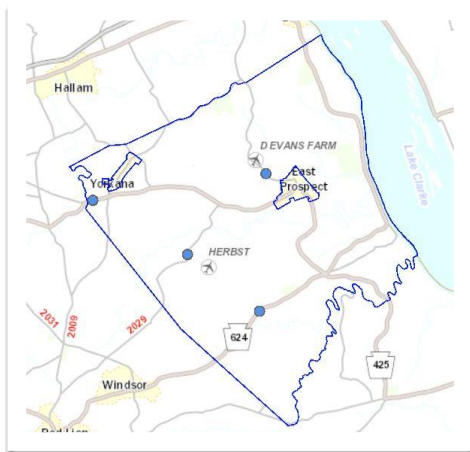


Figure 9.2: Crashes Involving Vulnerable Road Users, 2012-2021

Figure 9.2 details the number of crashes that involved a vulnerable road user. Vulnerable road users (VRU) are road users not in a car, bus, or truck, generally considered to include pedestrians, motorcycle riders, cyclists, children seven (7) years and under, the elderly, and users

of mobility devices. In the event of a crash, VRUs have little to no protection from crash forces.

As shown, between the ten (10) year time period, there were a total of four (4) VRU crashes, two (2) of the crashes occurred in 2012, and one (1) each in 2015 and 2016.

**Sight Distance**

The following intersections have been identified by Township staff as having poor sight distance for one (1) or more turning movements:

- Craley Road east of Massa Drive
- Trinity Church Road/Klines Run Road at Long Level Road
- Long Level Road and Boathouse Road
- Prayer Mission Road and Furnace Road

- Prayer Mission Road and Haven Drive
- Bluestone Road and Barcroft Road at East Prospect Road

Five (5) years of crash data from January 2017 to December 2021 were reviewed for each of the above-identified intersections. The following two (2) crashes were identified.

- Bluestone Road, Barcroft Road, and East Prospect Road
  - June 2021 – Angle collision with one (1) injury, which occurred on a clear, dry night.
  - May 2018 – Rear end collision with no injury, which occurred on a clear, dry day.

The remaining four (4) areas with identified sight distance issues did not appear to have crash data for the period identified above. However, there was a head-on collision at Craley Road and Massa Drive in April of 2018 which resulted in one (1) injury.

**General Roadway Safety**

The signalized intersection at East Prospect Road and Mount Pisgah Road has been the scene of six (6) accidents within the last five (5) years. All of the accidents occurred during dry and clear weather. Five (5) of the accidents occurred during daylight hours;

and, four (4) of the accidents were angle collisions and two (2) were rear-end collisions.

The 2002 Comprehensive Plan concluded that the ingress and egress points for the Turkey Hill gas station were too close to the signalized intersection and created driver confusion.

### ROADWAY CLASSIFICATION & DESIGN STANDARDS

Functional classification of roadways refers to a system by which roads are described in terms of their utility. Theoretically, roads provide two (2) separate functions. First, roads provide for mobility or the ability to go from one place to another. Second, roads provide a measure of access to adjoining properties. Transportation experts assert that these two (2) roadway characteristics determine a road's functional classification. Roads that provide for greater mobility, accordingly, also yield reduced land access, and vice-versa. This important relationship should always be considered when allocating future land uses along existing or planned roads. [Exhibit 9.2](#) identifies the roads of Lower Windsor Township as either a state road or a Township/private road.

The seven (7)-category roadway classification system used by PennDOT, the York County Planning Commission, and the York Area Metropolitan Planning Organization (YAMPO) provides details regarding design standards for the Major and Minor Collectors found in Lower Windsor Township. For this inventory, the

Functional Classification System for rural areas is being used. Rural roads are those outside small urban and urbanized areas and can be classified into seven (7) major categories, three (3) of which are found within the Township: major and minor collector roads, and local roads. There are no Interstate Highways, Freeways, Expressways, or Principle Arterials located within the boundaries of Lower Windsor Township.

The Township's roadway network can be adequately described by the following three (3) categories (see [Exhibit 9.3](#)):

**Major Collectors** provide medium-length travel distances (less than one mile) and carry between one thousand five hundred (1,500) and ten thousand (10,000) vehicles per day. Major collectors also provide land access to major land uses such as Regional shopping centers, large industrial parks, major subdivisions, and community-wide recreation facilities. Some sparsely developed rural uses also have direct access to major collectors. Major collectors primarily serve motorists between local streets and community-wide activity centers or arterial roads.

**Minor Collectors** also provide for medium-length travel distances and serve to bring traffic from local roads to major collectors and arterials. Minor collectors provide service to smaller communities and link important traffic generators with their rural hinterland.

Table 9.4 lists design standards associated with collector roads.

**TABLE 9.4: COLLECTOR ROAD DESIGN STANDARDS**

Design Standards	Roadway Width	Right-of-Way Width	Design Speed (MPH)
	40 Feet	60 Feet	35 MPH

Collector roadways in Lower Windsor Township include:

Major Collectors:

- Cool Creek Road (SR 2011)
- Nursery Road (SR 2025)
- Calvary Church Road (T 736)
- East Prospect Road (SR 0124)
- Abel’s Road (SR 0124)
- New Bridgeville Road (SR 0425)
- Craley Road (SR 0624)
- Long Level Road (SR 0624)
- Mount Pisgah Road (SR 2009)
- Yorkana Road (SR 2019)

Minor Collectors:

- Manor Road (SR 2029)
- Burkholder Road (SR 2014)

**Local Roads** are intended to provide immediate access to adjoining land uses. These roads serve up to twenty-five (25) dwellings and will be quite short within a suburban-type development. In outlying rural areas, local roads may run for greater distances and serve more individual properties; however, the sparsely developed character of these areas prevents congestion problems. Finally, local roads are intended to only provide for transportation within a particular neighborhood, or to one of the other road types already described. All of the roads not previously classified as Major or Minor Collectors are considered local roads. The following state routes have also been classified as local roads:

**ROADWAY CONDITIONS**

PennDOT evaluates state route conditions every two (2) years. The following information was gleaned from the state’s inspections in Lower Windsor Township and is shown on Exhibit 9.4, Existing Roadway Conditions Map:

Excellent Condition:

- Craley Road
- Abel’s Road
- East Prospect Road\*
- Nursery Road
- Manor Road\*
- Mt. Pisgah Road\*

Good:

- Cool Creek Road\*
- Manor Road\*
- Mt. Pisgah Road\*
- East Prospect Road\*

Fair:

- Cool Creek Road\*
- Yorkana Road
- Long Level Road

Poor:

- Bluestone Road

\*Various conditions

**Roadways Prone to Flooding**

Lower Windsor Township is part of a massive drainage area flowing into the Susquehanna River. Fishing Creek, Cabin Creek, and Canadochly Creek and their tributaries crisscross the Township and its road network.

As such, flooded roadways are a known hazard in the Township given the high number of waterways located adjacent to or crossing roadways. Exhibit 9.4 also identifies locations known to flood during wet weather events, those locations are:

- Meadow Road at Kreutz Creek
- East Prospect Road at Kreutz Creek Road
- Long Level Road at Boathouse Road and Pelican Lane
- Long Level Road between Klines Run and Bank Hill Road
- Long Level Road at Cabin Branch Fields
- Hakes Hollow Road adjacent to Fishing Creek
- Snyder Corner Road at Fishing Creek
- Prayer Mission Road at Cabin Creek
- Fishing Creek Road at Fishing Creek<sup>1</sup>
- Spring Hollow Road

**BRIDGES**

There are numerous bridges located throughout the Township spanning various creeks and their tributaries. Bridges vary from spans of over twenty (20) to four (4) foot culvert crossings. Regardless of size, each crossing is a critical component of the transportation system. Bridge closures impact daily navigation, and keeping these critical components of the transportation system in operation is a necessary high priority.

---

<sup>1</sup> There is a high probability that Fishing Creek Road from the bridge to its terminus will be vacated by the Township and County and given to the property owner, per the property owner’s request.

Bridge ownership varies between the local jurisdiction, the County, and/ or the Commonwealth. The Commonwealth is responsible for any bridge with a span of over eight (8) feet on a State Route. Additionally, the Commonwealth continues to maintain ownership of several bridges on former State Routes which were previously turned back to the municipality for maintenance, i.e. Canadochly Road.

The National Bridge Inspections Standards (NBIS), administered by the Federal Highway Administration and PennDOT, require inspections at a minimum of every two (2) years for any bridge with a span greater than twenty (20) feet. Smaller-span bridges still require safety inspections at regular intervals though not mandated by the federal or state governments.

York County conducts and funds NBIS-required bridge inspections on county-owned and municipal-owned bridges. However, the County is only financially responsible for maintenance and repairs to County-owned bridges.

The varied ownership responsibilities and inspection requirements and processes make it difficult to fully understand the local bridge inventory and responsible entities.

Additionally, the life span of a bridge (fifty to one hundred years, depending upon design) creates an

issue in making sure that information is appropriately archived and shared. It is not uncommon for this information to be siloed within the brain matter of a particular long-term public works employee, with the information being passed down verbally or not at all.

Table 9.5 identifies ownership and known maintenance needs for bridges located within the Township.

As shown, there are a total of four (4) York County-owned bridges: Meisenhelder Road, Forge Hill Road, Fishing Creek Road, and Cabin Creek Road. All County-owned bridges are in fair to excellent condition.

Table 9.5 also identifies approximately ten (10) Township-owned bridges with a combined estimate of nearly three hundred fifty thousand dollars (\$350,000) of needed maintenance and repairs.

This is not an exhaustive inventory of bridges in the Township.

The following is a list of known bridges and their conditions, per inspection data from 2019 through 2021:

**TABLE 9.5: INVENTORY OF BRIDGES IN LOWER WINDSOR TOWNSHIP**

Bridge Number	Road Number, Name	Waterway	Span	Responsible for Maintenance	NBI Ratings			Condition	Bypass (miles), if known	Repair & Maintenance Estimates
					Deck	Superstructure	Substructure			
315	Meadow Road (T-770)	Kreutz Creek	26'	Township	9	9	6	Bridge in Satisfactory Condition		\$11,410
	Water Street	Canadochly Creek	8'	Township	NA	NA	NA	Culvert in Poor condition		\$52,600
319	Bank Hill Road (T-760)	Canadochly Creek	25'	Township	NA	NA	NA	Culvert in Good Condition		\$14,440
318	Willow Creek Road (T-759)	Cabin Creek	29'	Township	8	8	5	Bridge in Fair Condition		\$27,510
317	Furnace Road (T-759)	Cabin Creek	31'	Township	3	3	5	Bridge in Serious Condition with a five (5) ton weight limit		\$86,670
434	Smyser Road (T-762)	Cabin Creek	10'	Township	NA	NA	NA	Culvert in Fair Condition		\$30,560
412	Salem Church Road (T-741)	Beaver Creek	24'	Township	6	6	4	Bridge in Poor Condition		\$14,270
441	Winters Road (T-746)	Fishing Creek	23'	Township	8	NA	NA	Bridge in Satisfactory Condition		\$16,920
	Taylor Road	Cabin Creek trib	10'	Township	NA	NA	NA	Culvert in Fair Condition		\$51,500
	Spring Hollow Road	Fishing Creek trib	11'	Township	NA	NS	NA	Culvert in Fair Condition		\$44,050
271	Cabin Creek Road (T-778)	North Branch Cabin Creek	36'	County	7	5	7	Bridge in Fair Condition		\$12,080
56	Meisenhelder Road	Cabin Creek	38'	County		5	6	Bridge in Fair Condition, with a fifteen (15) ton weight limit		\$22,320
55	Forge Hill Road (T-759)	Cabin Creek	49'	County				Bridge recently replaced		
53	Fishing Creek Road (T-744)	Fishing Creek	47'	County	5	5	5	Bridge in Fair Condition, with a twenty (20) tone weight limit		\$87,140

Missing: Gun Club Road (culvert recently repaired) and Canadochly Road (state), Prayer Mission Road (state), Snyder Corner Road (state), Snyder Corner Road at Fishing Creek (state)  
 Source: PennDOT

## PUBLIC TRANSPORTATION

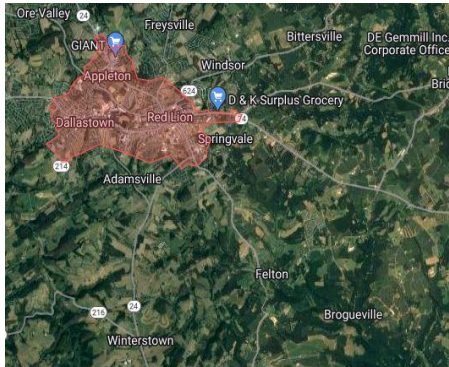


Figure 9. 3: Stop Hopper Service Area, Red Lion and Dallastown

The Central Pennsylvania Transportation Authority is the primary provider of public transportation services for York County. It operates under the name Rabbittransit and provides many different types of transportation services to the southcentral

Pennsylvania Region, including York County. Fixed route bus service provided by Rabbittransit does not extend into the Township. Route 12 – East York Walmart to Locust Street (Columbia Borough, Lancaster) and Route 10S Red Lion/Dallastown route are the closest access points

Rabbittransit's Stop Hopper program is a designated stop service for those outside fixed route service areas. [Figure 9.3](#), above, identifies the closest stop hopper service area in Red Lion.

Rabbittransit provides a Paratransit curb-to-curb service, which is a County-wide van service available to everyone. Vans operate weekly and travel in various areas of the County at certain times daily. All anticipated trips must be scheduled by the day before

transportation is needed. In addition, Rabbittransit offers several specialty transportation programs, including Shared Ride Services for Seniors, Paratransit Service for Persons with Disabilities, Veteran's Rideshare to the Lebanon VA Medical Center, and Shared Ride Service for Persons Receiving Medical Assistance.

## RAIL SERVICE

Currently, no regular passenger/commuter rail service operates in York County. However, a recreational/excursion rail passenger line operates in southern York County.

## PEDESTRIAN AND BICYCLE FACILITIES

In recent years, more emphasis has been placed on providing and maintaining increased opportunities for walking and cycling. Sidewalks in the Township are limited to newer suburban-style subdivisions and areas within proximity to the Boroughs.

Township residents have access to trail systems within the State and County Parks located in the Township. However, these trails do not yet provide linkages to other areas of the Township.

Additionally, the Captain John Smith Chesapeake Bay Trail and the Mason Dixon Trail run along the west side of the Susquehanna River through the Township.

In addition to maintaining sidewalks in the more densely built and populated areas of the Township,

public trails for pedestrians and non-motorized vehicles are an opportunity to be explored. For trails to be suitable for recreational and/or commuter traffic, the trail must be improved to specific design standards and undergo frequent maintenance. The Township's topography and rural nature prohibit the creation of a Township-wide trail network.

The York County Open Space Plan identifies the Fishing Creek/Beaver Creek Greenway and the State designated Mega Greenway, the Susquehanna Greenway, both of which are located in Lower Windsor Township.

There are currently no established bicycle routes, though GoYork2045, the York County Long Range Transportation Plan, identifies Long Level Road (SR 0624) and New Bridgeville Road (SR 0425) as conceptual bike routes.

### EXISTING TRANSPORTATION IMPROVEMENT AREAS

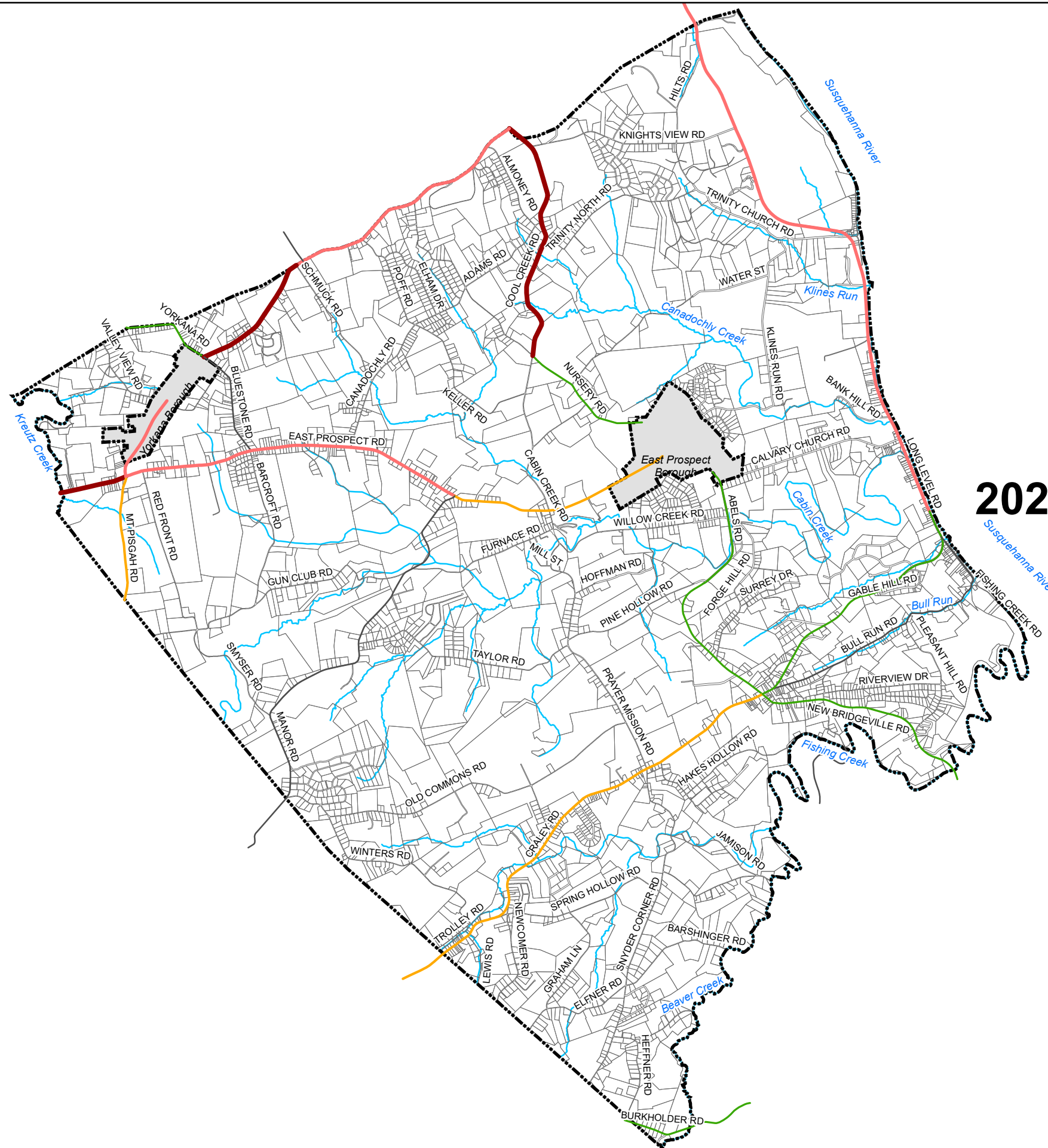
Per the Township's 2002 Comprehensive Plan and adopted Official Map, the following transportation projects were identified as priority improvement areas and continue to be priorities today:

- Mount Pisgah and East Prospect Intersection – Additional turning lanes

- Bluestone Road and East Prospect Road – Sight distance
- Cool Creek Road Corridor Improvements – This improvement has been completed and should be removed from the official map.
- Craley Road Corridor Improvements – Massa Drive to Hakes Hollow Road
- Trinity Church/Klines Run/ Boathouse Road – Sight distance

Chapter 15 of the Community Plan identifies the above road improvements as well as other suggested priorities and recommendations gleaned from the previous pages of this chapter.





# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 9.1

Average Daily Traffic 2020

### Legend

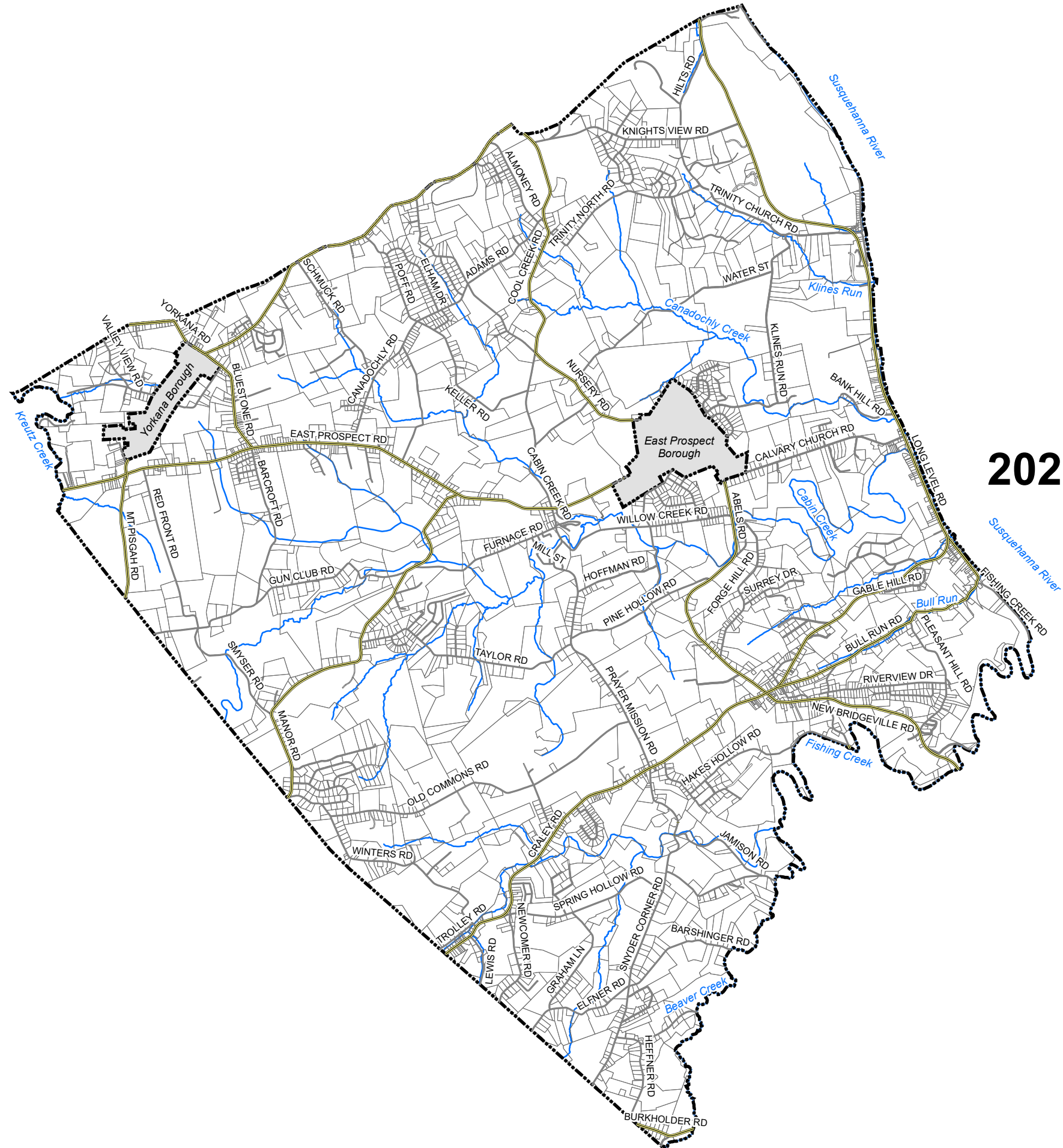
#### Average Daily Traffic

- 4,001 to 5,300
- 3,001 to 4,000
- 2,001 to 3,000
- 1,001 to 2,000
- 150 to 1,000

- Streams
- Parcels
- Lower Windsor Township



\*No Data in this Range






# 2022 Comprehensive Plan Update Lower Windsor Township

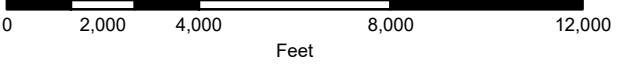
York County, Pennsylvania

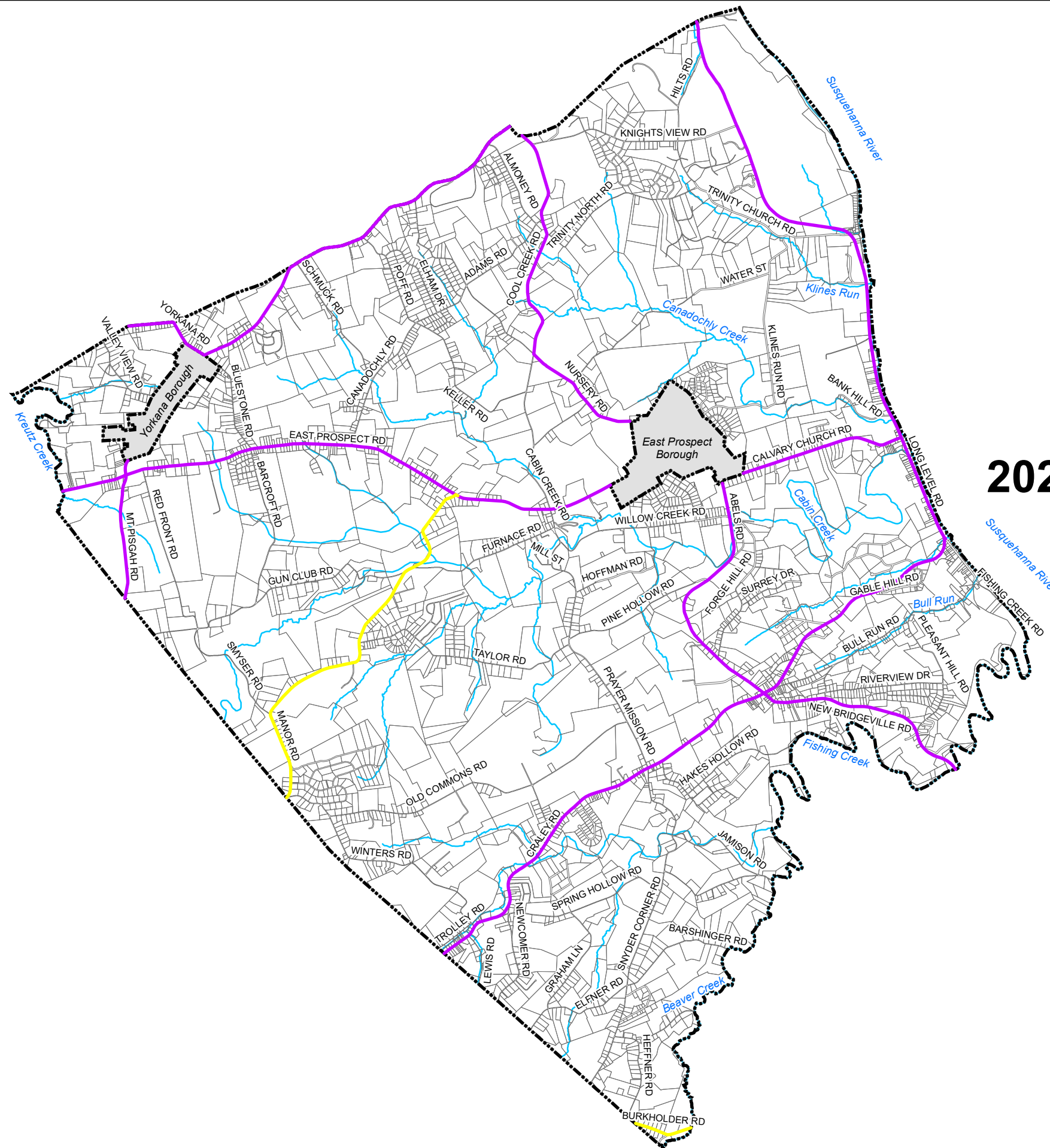
## Exhibit 9.2

### Road Jurisdiction

#### Legend

-  State Roads
-  Township or Private Roads
-  Streams
-  Parcels
-  Lower Windsor Township





# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 9.3

Functional Classification

### Legend

#### Roadway Classification

Major Collector

Minor Collector

Streams

Parcels

Lower Windsor Township





## **PART II: COMMUNITY PLAN**

---

## 10. REGIONAL PLANNING

The purpose of this section is to briefly describe the proposed development plans of adjacent municipalities to facilitate proper coordination of future development proposals in Lower Windsor Township with those of neighboring municipalities.

A total of five (5) municipalities border Lower Windsor Township, including the Boroughs of East Prospect and Yorkana, Hellam Township to the north, Windsor Township to the west, and Chanceford Township to the south. Lower Windsor Township is bordered on its eastern side by the Susquehanna River. Since the Susquehanna River presents a significant physical barrier and buffer to Manor Township, Lancaster County, there is no significant involvement or influence related to that area, so it has not been addressed. Lower Windsor Township and its other surrounding municipalities are all located in York County.

The Boroughs of East Prospect and Yorkana are highly developed with virtually no room for additional growth. Development in these Boroughs mainly consists of residential and commercial uses, which are compatible with the Township's proposed future land use designation of Village in the areas adjacent to the Boroughs.

The Chanceford Township 2023 Comprehensive Plan has identified the land that abuts Lower Windsor Township as Conservation near the Susquehanna River and Agriculture further inland. Lower Windsor's primary future land use designation of Agriculture in this area will create a harmonious relationship with these two (2) land uses in Chanceford Township.

Windsor Township's 2010 Comprehensive Plan shows the land uses adjoining Lower Windsor Township to be Industrial (Modern Landfill) and Agriculture. Lower Windsor's proposed future land uses in this area nearly match Windsor Township's future land use designations. From Kreutz Creek south, both municipalities are identifying Industrial and Agriculture future land uses. However, north of Kreutz Creek is identified as Residential in Lower Windsor Township and Agriculture in Windsor Township. Residential uses are generally compatible with agricultural uses; thus, for the most part, Windsor's Plan is generally compatible with Lower Windsor's primary future land use designation of Residential in this area.

Hellam Township's 2002 Land Use Map shows Rural/Agriculture land uses adjacent to Lower Windsor Township. The Rural/Agriculture area in Hellam Township adjoins Residential future land designations in Lower Windsor Township. Also, the proposed Village area around Yorkana Borough in

Lower Windsor Township adjoins Rural/Agriculture in Hellam Township.

Since residential uses are generally compatible with agricultural uses, these land use plans are, for the most part, consistent.

In general, the uses proposed adjacent to Lower Windsor Township are either identical to or compatible with land use designations in Lower Windsor Township's Future Community Character and Land Use Plan, minimizing the potential for future land use conflicts.

Additionally, the 2017 York County Growth Management Plan (Envision 2040) has identified the boroughs of East Prospect and Yorkana as Secondary Growth Areas and the villages of Craley, Long Level, Bittersville, Delroy, and Martinsville as Rural Clusters, while the remainder of the Township is designated as Rural Area. These designations have been identified on the Township's Future Land Use Map and are consistent with the goals and objectives identified in Chapters 11 through 15 of the Community Plan.

---

## 11. FUTURE COMMUNITY CHARACTER & LAND USE PLAN

The 2002 Future Community Character and Land Use Plan designated locations in the Township for the future development of residential, commercial, office, industrial, park, and recreation uses, as well as the preservation of farm and natural lands. The future land uses were located to ensure a pleasant, safe, and attractive environment, and to help retain community character and traditional land use patterns over the long term. As in 2002, this Plan's future land use designations are based on good planning principles and have been prepared in response to meetings with Township staff, officials, and residents, as well as the Township's community survey. The proposed future land use designations are shown in Exhibit 11.1.

The 2022 Future Community Character and Land Use Plan has been updated to reflect growth and development trends over the last twenty (20) years.

The intention of the Plan remains to retain and maintain the traditional community character and development patterns reviewed in Chapter 3 of the Community Profile, originally identified in the 2002 Farmland Preservation Strategy which can be found in [Appendix 3](#).

### GENERAL DISTRIBUTION OF FUTURE LAND USES

As was the case in 2002, the Future Community Character and Land Use Plan proposes primary development centers in the northern portion of the Township adjacent to the Boroughs of Yorkana and East Prospect, the village of Delroy, and the land around Eastern High School and the River Ridge Hills subdivision. These areas are intended to accommodate the most intensive types of development in the Township, including an array of residential, commercial, and, south of Yorkana, industrial uses. The pattern of existing development in this vicinity, along with the potential for the area to be served by public water and sewer facilities, are the major factors guiding this distribution of uses.

The traditional villages of Bittersville, Martinsville, Craley, and the Long Level area along the Susquehanna riverfront are also proposed to accommodate some future development since these areas currently contain a mix of uses.

Future development elsewhere in the Township is to be generally limited in scope. These areas, which include the majority of the Township, are primarily designated for agricultural uses and should thus enhance the community's rural aesthetic qualities.

In delineating the extent of future land use types in the identified growth areas, Exhibit 11.3, Future Land



Use Map, includes more land for future development activities than that which is needed to accommodate projected population growth in the Township. In doing so, the Plan provides for some flexibility in the choice of development sites and also permits new growth to exceed current projections without adversely affecting the basic framework of the Plan.

The proposals within this Plan, as well as other elements of the Comprehensive Plan, have been successful in directing growth and maintaining the Township's rural and agricultural character. However, minor revisions and updating will remain necessary to accommodate changing local conditions and the development of new planning techniques. The future land use policies reviewed below will require annual monitoring, as well as major review and update every ten (10) years. Thus, it is anticipated that sufficient land will always be made available for development activities required to meet the future needs of the Township.

**FUTURE LAND USE ALLOCATION**

The specific allocation of future land uses in the Township is illustrated geographically in [Exhibit 11.1](#), Future Land Use Map. This map is not a zoning map, but rather, a guide for future changes to the Zoning Map.

As shown in [Exhibit 11.1](#), there are five (5) distinct future land use categories, plus two overlays meant to preserve sensitive environmental areas and known historic features, they are the Restricted Development Overlay and the Historic Overlay. As shown in Table 11.1, below, the future land use designations include: Agriculture, Industrial, Residential, Village, and Waterfront Recreation. The amount of land allocated for each land use category is also identified.

**TABLE 11.1: FUTURE LAND USE ALLOCATIONS**

<u>Land Use</u>	<u>Approx. Area in Acres</u>	<u>Percent of Total Land Area</u>
Agriculture	12,771	79%
Village	1744	11%
Residential	1012	6%
Industrial	244	2%
Waterfront Recreation	266	2%
<b>Total</b>	<b>16,038</b>	<b>100%</b>
Restricted Development Overlay	5,292	32.9%

This Plan also carries forward the primary and secondary development centers established in 2002 to contain most new development. These development areas will continue to play a key role in accommodating future growth. The primary development areas are intended to absorb most of the Township's future development and are included in the Village and Residential land use designations.

By directing growth to concentrated Village and Residential areas, the Township will continue to conserve rural and agricultural lands, ensuring Lower Windsor remains a prime area for its designation as a York County Established Rural Area.

### **Housing Land Use Allocation**

As part of the overall allocation of future land uses, municipalities have a responsibility to ensure that adequate land is available for a variety of housing styles, and in amounts that are adequate to provide for the community's "fair share" of Regional growth. This concept is known as the "fair share" doctrine and applies to all municipalities in Pennsylvania.

The projections for population growth in Chapter 5: Population Characteristics and Trends of the Community Profile projected a nineteen and nine-tenths percent (19.9%) increase in the Township's population by 2040, or one thousand five hundred

(1,500) individuals and five hundred forty-six (546) housing units.

This housing growth will be accommodated in the Village and Residential land use areas, with some limited new housing in the Agriculture land use area.

## **FUTURE LAND USE DESIGNATIONS & POLICIES**

### **Agriculture**

Lower Windsor has a large amount of prime agricultural soils dispersed throughout the community (See Exhibit 4.2), with primary concentrations of such soils in the southwestern and northwestern portions of the Township. Farming plays a significant role in the livelihood of many Township residents and farmland is a critical part of the community's "town and country" character. Therefore, the Future Land Use Map designates seventy-nine percent (79%) of the Township's land areas as Agriculture, this is down from eighty-one and five-tenths percent (81.5%) in 2002. Farmland preservation is a major component of the Plan's Agricultural land use policies.

### Existing Farmland Preservation Initiatives

Landowners across the Township have demonstrated their commitment to agriculture by

participating in established farmland preservation initiatives:

- Several Township landowners have permanently preserved their farmland through the donation/sale of conservation easements to the Farm and Natural Lands Trust of York County or the York County Agricultural Land Preservation Program. These easements prevent the development or improvement of designated land for any purpose other than agricultural production. Township lands preserved with such easements are shown in [Exhibit 11.2](#).
- Many landowners in the Township have shown their commitment to agriculture by including their properties in Agricultural Security Areas (ASAs) and the Clean and Green Program. These parcels are shown in [Exhibit 11.3](#). ASAs are authorized by the State of Pennsylvania and established by the Township to promote more permanent and viable farming operations and protect farmers from nuisance ordinances, land condemnation, and other public restrictions and actions. Currently, 5,878 acres of Township farmland are included in ASAs. Properties in the County's Clean and Green Program are taxed at farm value rather than full market value to help reduce the cost of continued farming operations. Currently, eight thousand eight hundred thirty-six (8,836) Township acres are designated as Clean

and Green properties.

To effectively protect the Township's existing agricultural operations and ensure a supply of land for future agricultural production, it is critical that Agriculture lands remain primarily as open farmland and relatively undeveloped scenic countryside. However, since creating areas exclusively for agricultural use may not be legally, politically, or culturally realistic, it is recommended that the Township allow limited growth in these areas in the form of very low-density, single-family residences, preferably located near existing traditional villages and rural residential clusters.

#### A Farmland Preservation Strategy for Lower Windsor

In 2002, in support of the designation of agriculture areas on the Future Land Use Map, Lower Windsor Township created a Comprehensive Farmland Preservation Policy to further define the community's commitment to agriculture and establish specific strategies for the preservation of farmland acreage and rural character. This Policy has been included in [Appendix 3](#), Farmland Preservation Strategy.

The following information summarizes key recommendations included in this strategy. For detailed information see [Appendix 3](#).

The strategy identified the Comprehensive Plan as the primary policy tool used to further the efforts of farmland preservation.

The strategy then identified a suite of incentive-based tools and regulatory-based tools to implement the policy statement within the Comprehensive Plan.

Incentive Tools:

- Agricultural Security Areas
- Clean and Green
- Preservation Easements

Regulatory Tools

- Subdivision and Land Development Ordinance
- Zoning Ordinance

Lower Windsor Township's Farmland Preservation Strategy also includes the five (5) strategies that have been updated for inclusion in this plan:

**Strategy 1:** *Continue to* Include the Farmland Preservation Strategy in the Comprehensive Plan's Future Community Character and Land Use Plan to make a strong policy and planning statement about the Township's desire to retain its agricultural heritage and economy.

**Strategy 2:** In association with other incentive efforts, continue to target marketing of ASA and Clean & Green program benefits to non-participating property owners in areas identified as priority locations for farmland preservation.

**Strategy 3:** Maintain and grow partnerships with the York County Agricultural Land Preservation Board and the Farm and Natural Lands Trust to continue the coordinated approach of using conservation easements as the primary tool for preserving farmland:

- Identify priority farmland preservation areas
- Develop a targeted marketing & educational campaign
- Provide Township funding for easement purchases, as appropriate

**Strategy 4:** Continue to administer and evaluate the efficacy of the Township's Conservation by Design subdivision and land development and zoning regulations.

**Strategy 5:** Continue to administer the zoning ordinance and evaluate its effectiveness in:

- Limiting regulations in agricultural districts primarily to issues related to use and density.
- Providing flexibility in agricultural districts for farming activities and farm-based businesses, including accessory cottage industries such as

hand-tool crafts and craft food production.

- Tracking usage of the Transferable Development Rights (TDR) program, with Agriculture land use areas designated as sending areas and Village and Residential land use areas designated as receiving areas.
- Conserving open space and natural areas via the Conservation by Design regulations.

As stated above very low-density residential land uses are permitted in the agriculture land use. This includes seven hundred sixty-two (762) pre-existing, non-conforming residential lots of less than 1 acre. The creation of alternate dimensional criteria regarding setbacks and lot coverage for these non-conforming lots will alleviate hardships associated with the installation of permitted accessory residential uses, i.e. sheds, patios, and pools. See [Exhibit 11.4: Parcels 1 Acre and Smaller in the Agricultural Future Land Use](#).

### **Village**

The 2002 Future Land Use Map designated three (3) Village land use areas in the Township, which were adjacent to Yorkana Borough, adjacent to East Prospect Borough, and one that encompassed the village of Craley. These areas comprise ten and five-tenths percent (10.5%) of the Township land area.

Presently there is a compatible intermixing of commercial and residential land uses within these areas, including a limited number of small commercial businesses, light craft and hand tool production businesses, professional services, and quasi-public uses, plus multi-family and single-family dwellings. In essence, these areas are the hubs of community activity in their respective parts of the Township. The Village concept is consistent with present development in the designated areas and is designed to limit strip commercial development in the Township.

In keeping with the Village concept, the proposed Village land use areas are intended to be mixed-use districts that provide for the continuation of existing residential and commercial, uses as well as encourage the development of a variety of housing types, service functions, and complementary convenience commercial functions to satisfy the needs of residents. Such activities may be developed either through new construction or through the conversion of existing buildings. Commercial uses that are not compatible with residential uses are not considered appropriate for Village areas. The Township should establish performance criteria for non-residential uses.

The 2022 Future Land Use map has designated additional Village land use areas, along both sides of Prospect Road connecting the two (2) village

land use areas adjacent to the Boroughs. The designation intends to foster continued mixed-use development along Prospect Road.

### **Residential**

As in 2002, this Plan proposes one (1) major residential area in the north-central portion of the Township. This area encompasses six percent (6%) of the Township's land area, up from five and five-tenths percent (5.5%) in 2002.

Additionally, Samuel S. Lewis State Park and Native Lands County Park were removed from the Residential Future Land Use and placed within the Agriculture land use.

Proper development of the residential area will continue to be heavily dependent upon strict enforcement of the zoning and subdivision and land development regulations and the provision of public utility systems.

### **Industrial**

Lower Windsor Township's industrial uses are located in the northwest corner of the Township and encompass two hundred forty-six (246) acres or two percent (2%) of the Township's total land area, this is up from one and five-tenths percent (1.5%) in 2002. The vast majority of the Township's Industrial future

land use continues to be occupied by the Modern Landfill. Although relatively small, this area is suitable for a wide range of industrial activities that contribute to the well-being of the Township by diversifying its economy and providing valuable employment opportunities. Land use regulations should continue to allow for small start-up businesses and light industry as permitted uses. Other heavier, potentially more objectionable uses should continue to require Special Exception approval.

### **Waterfront Recreation**

The proposed Waterfront Recreation land use area, situated along the Susquehanna River, accounts for roughly two percent (2%) of the Township's total land area.

Generally, the Waterfront Recreation area is characterized by riverfront properties occupied by a mixture of seasonal and year-round dwellings, public and semi-public recreational types, uses, and a variety of commercial establishments, including marinas, boat storage facilities, bait shops, boat rentals, and snack bars. It is expected that these uses, which are primarily oriented toward providing riverfront recreation, will continue to exist in harmony with one another. Considering that this area provides recreation for the surrounding region as well as for residents of Lower Windsor Township, it is also expected that the demand for additional

quasi-public and commercial recreational facilities will increase. The Plan thus encourages the ongoing development of this area in a manner consistent with existing development so that the rural recreational character of the area will be retained.

Although development is encouraged in the Waterfront Recreation land use area, each development proposal should be carefully scrutinized as to its impact on the area. Much of the land in this category is located in the special flood hazard area; therefore, conservation measures, especially floodplain management and erosion and sediment control regulations, should be strictly enforced.

Of critical concern in the Waterfront Recreation area is increasing, improving, and ensuring access to multimodal infrastructure for pedestrians and cyclists. Long Level Road is a narrow, two (2)-lane road characterized by high-speed passenger vehicles and heavy truck traffic, which creates a dangerous and, at times fatal, conflict with the vulnerable road users drawn by the Susquehanna River. Encouraging development within the waterfront recreation future land use must also include important and necessary safety and multi-modal transportation improvements along Long Level Road.

Such improvements must include road crossings that provide safe pedestrian access to the following pedestrian traffic generators and the riverfront:

- Lake Clarke Marina
- Kline's Run Park
- The Zimmerman Center for Heritage
- Long Level Marina
- Shanks Mare Outfitters

### **Restricted Development Overlay**

The Restricted Development Overlay of this Plan seeks to conserve those areas throughout the Township with natural features that have been identified as essential to the environmental health, economy, and rural character of the community. These areas include lands with severe development constraints, such as steep slopes ([Exhibit 4.4](#)), wetlands and floodplains ([Exhibit 4.3](#)), and lands characterized by such sensitive natural features as streams and watersheds ([Exhibit 4.9](#)).

The Restricted Development Overlay, as shown in [Exhibit 11.1](#), will provide benefits such as soil erosion control, improved soil quality, enhanced water quality by means of filtering out harmful substances from runoff, enriched habitat and biodiversity, flood control, and the protection of buildings, roads, and other property.

From the Township's perspective, the protection of sensitive natural features represents sound public policy, and shall be supported by the following policies:

- Directing Growth

The Township will encourage and promote the preservation of its natural resource base and rural character by directing, wherever possible, future land development to appropriate areas, and away from environmentally sensitive areas, such as areas containing steep slopes, wetlands, and floodplains.

- Restricted Development Overlay

It is recommended that the Restricted Development Overlay continue to be used to implement the Conservation strategies of this Plan. This Overlay was established according to performance-based densities and standards. It ensures that all development is located or clustered on land having the least impact on important natural, scenic, and cultural features. Land design standards will continue to be flexible so that land use plans will preserve the continuity of woodland and other natural habitat areas located within and between adjoining properties. Stream corridors and/or linear trails will also connect open space areas where

possible. Density bonuses may be awarded for added amenities sought by the Township, such as linear trails, parkland, and or historic site rehabilitation.

- Conservation by Design

In addition to the provisions of the Restricted Development Overlay, the Conservation by Design Overlay land use regulations provide for the protection of important conservation features, such as steep slopes, wetlands, and the one hundred (100)-year floodplain. These standards should continue to be flexible so that land development plans will preserve the continuity of woodland and other natural habitat areas located within and between adjoining properties. Stream corridors and/or linear trails will be intended to connect open space areas where possible. Density bonuses will continue to be used to support participation in the transfer of development rights.

- Site Plan Review

To minimize disturbance of sensitive environmental and cultural areas, subdivision and land development applications should continue to utilize the Conservation by Design site plan review process, which prioritizes the protection of natural features and resources.



## Historic Overlay

Lower Windsor Township, like much of York County, is fortunate to possess a rich cultural and historic heritage. Today, this heritage is apparent in the many older buildings, structures, and related settlements that are scattered throughout the Township. Local officials and residents alike recognize the value in preservation and rehabilitation, plus restoration or adaptive reuse, of these historic features as a means of providing a glimpse into the area's important past. Additionally, historic preservation can provide educational opportunities regarding historic lifestyles and architectural styles. Well-maintained historic areas can create a sense of place and a unique identity that stimulates civic pride and economic vitality. This Plan intends to protect the Township's significant historic resources through the continued application of the Historic Overlay designation to the Township's most significant historic areas, structures, and other features worthy of protection. For the present, this designation will be applied to structures of historic or architectural significance.

The overlay should be reviewed and updated as necessary to include new historic structures and areas, as the need or opportunity arise. There are many ways to identify these features. The Township should consider conducting an updated historic features inventory using criteria similar to those used

by the National Register of Historic Places, including the identification of structures and areas of historical significance beyond a certain age.

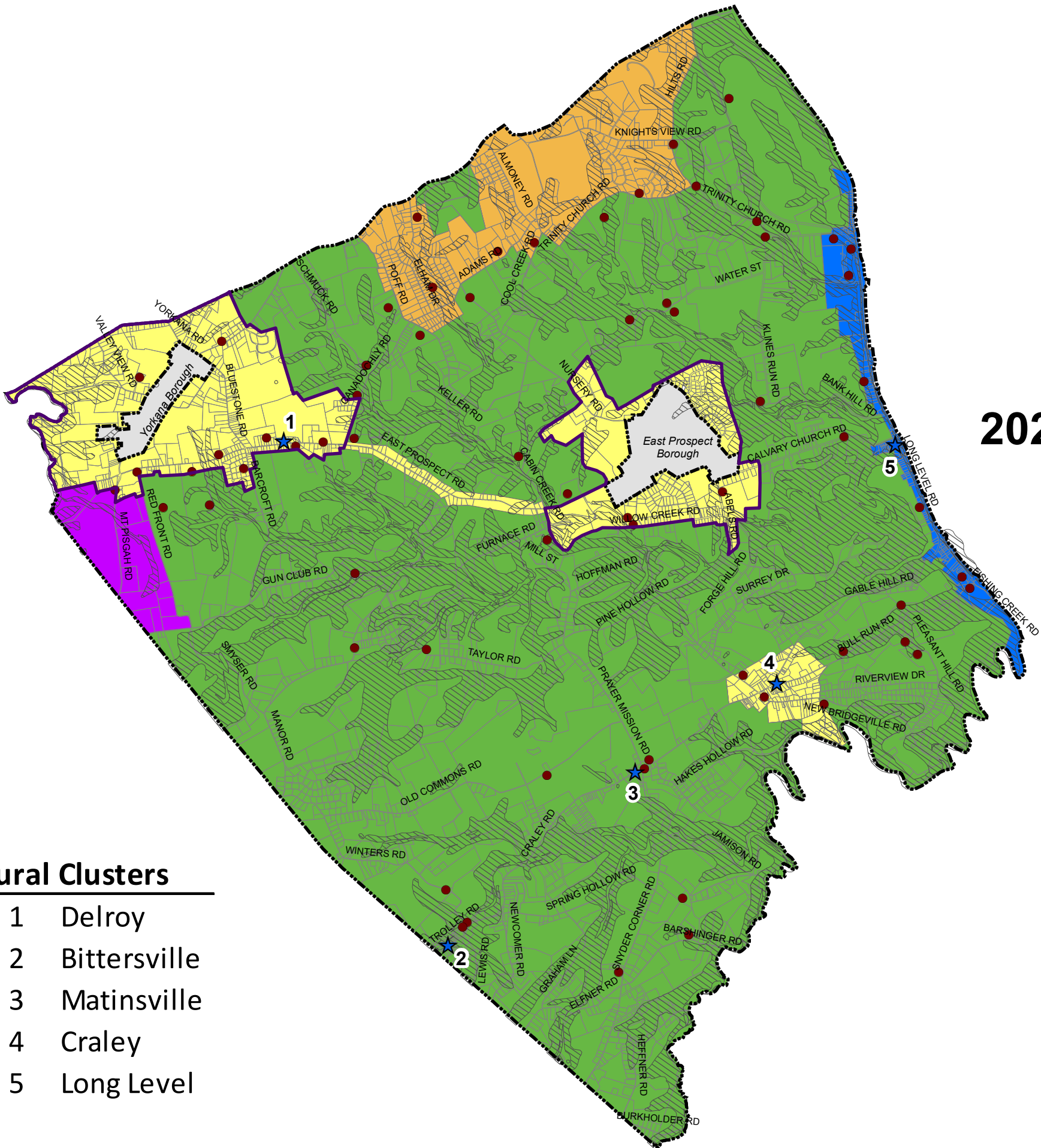
The historic features overlay is intended to:

- Ensure that future development in the Township takes historic resources into account in a manner in keeping with their historic nature.
- Trigger the local review of proposed demolitions of historic structures.

## COMMUNITY CHARACTER

Preservation of community character is woven throughout the recommendations for each of the proposed future land uses discussed above.

The Township's existing community character may be further ensured and strengthened through the implementation of zoning regulations that govern the size, construction, and location of all signage within the Township.



# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

## Exhibit 11.1

### Future Land Use

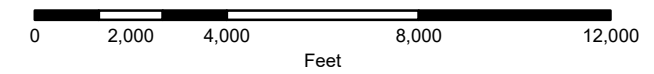
#### Legend

- Historic Overlay
- ★ Rural Cluster
- Restricted Development Overlay - NA% (5,292 ac.)
- Secondary Growth Area

The boroughs of Yorkana and East Prospect have been identified in the York County Growth Management Plan as Secondary Growth Areas, the remainder of the Township is designated as Rural.

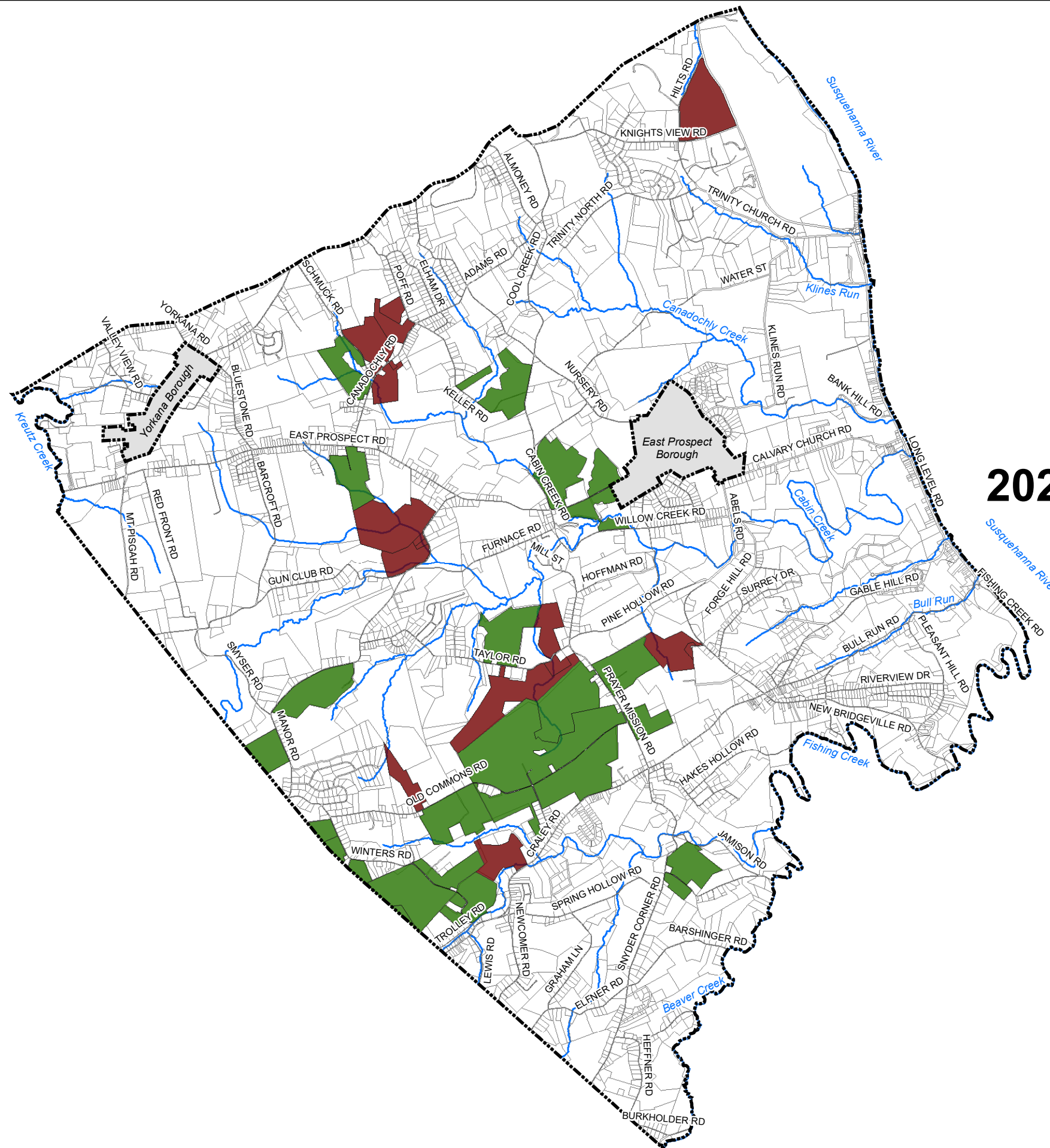
#### Future Land Use

- Agricultural - 79% (12,754 ac.)
- Residential - 6% (1,012 ac.)
- Village - 11% (1,761 ac.)
- Industrial - 2% (246 ac.)
- Waterfront Recreation - 2% (266 ac.)
- Streams
- Lower Windsor Township Boundary



#### Rural Clusters

- 1 Delroy
- 2 Bittersville
- 3 Matinsville
- 4 Craley
- 5 Long Level



# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

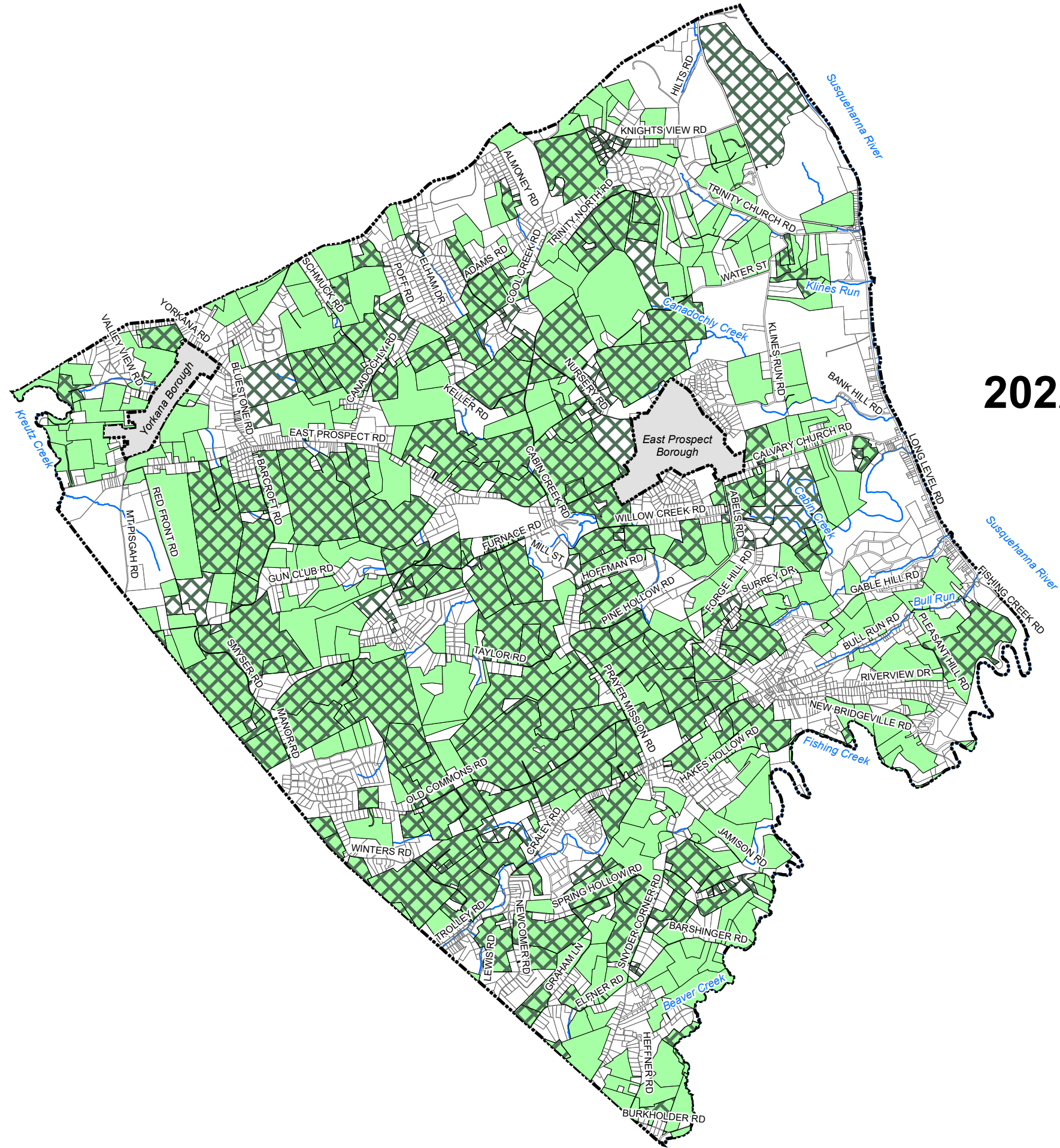
## Exhibit 11.2

Farm and Natural Lands Trust Easements  
and  
York County Agricultural Land  
Preservation Board Easements

### Legend

-  Streams
-  York County Agricultural Preservation Board Conservation Easement
-  Farm and Natural Lands Trust Conservation Easement
-  Parcels
-  Lower Windsor Township










# 2022 Comprehensive Plan Update Lower Windsor Township

York County, Pennsylvania

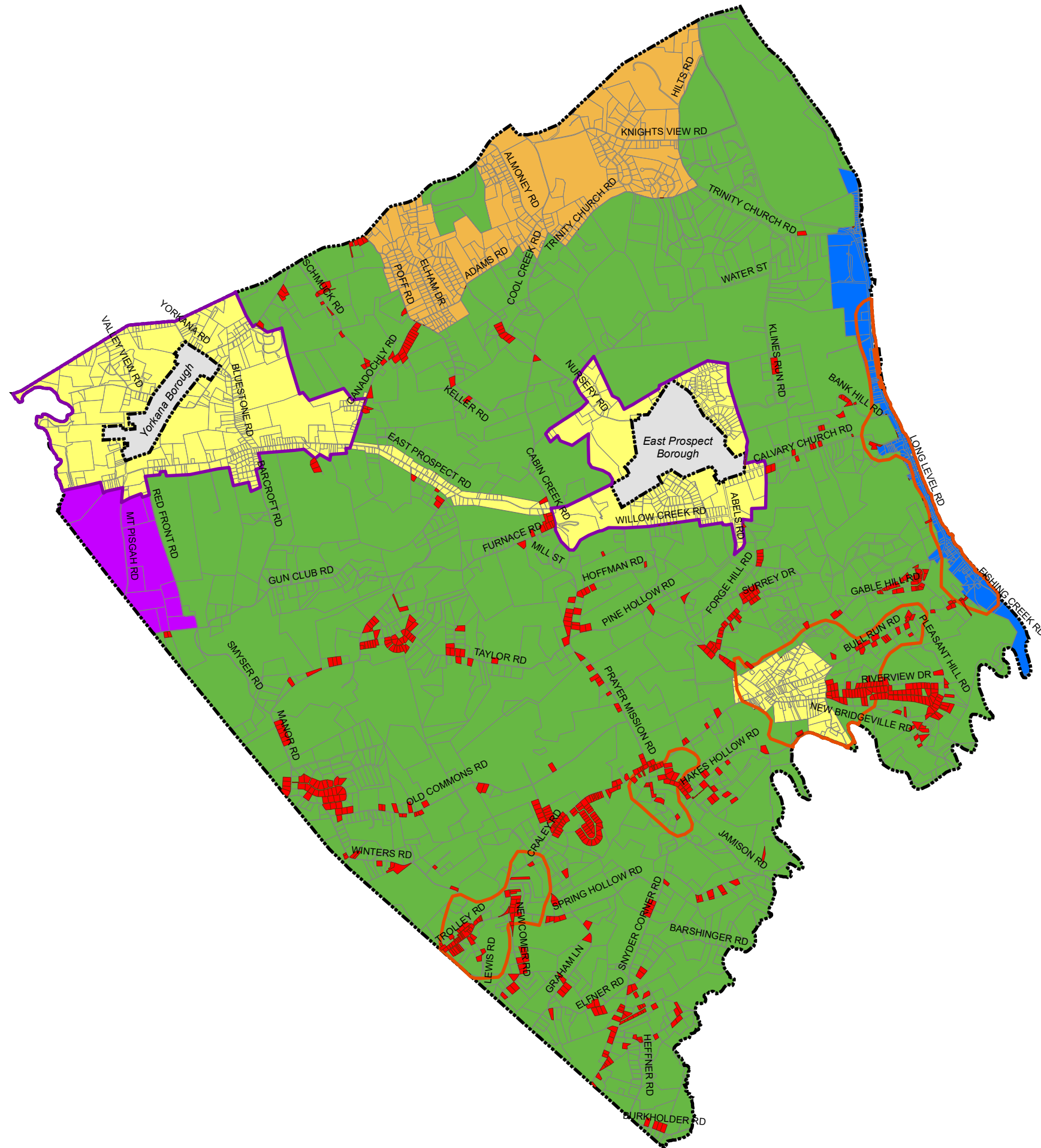
## Exhibit 11.3

Agricultural Security Areas  
and  
Clean and Green Properties

### Legend

-  Agricultural Security Areas
-  Clean and Green Properties
-  Streams
-  Parcels
-  Lower Windsor Township





# Lower Windsor Township

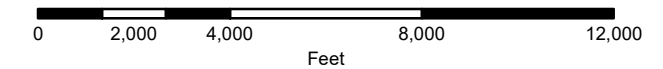
York County, Pennsylvania

## Exhibit 11.4

### Future Land Uses and Agricultural Parcels Under 1 Acre

#### Legend

- Future Land Use Agricultural Parcels 1 Acre and under
- Primary Development Areas
- Secondary Development Areas
- Future Land Use**
- Agricultural - 79% (12,754 ac.)
- Residential - 6% (1,012 ac.)
- Village - 11% (1,761 ac.)
- Industrial - 2% (246 ac.)
- Waterfront Recreation - 2% (266 ac.)
- Streams
- Lower Windsor Township Boundary



---

## 12. HOUSING PLAN

The 2022 Housing Plan has been updated to reflect the current housing needs discussed in Chapter 6, Housing Characteristics and Trends.

The goal of the Housing Plan is to provide the opportunity for a range of housing types and sizes within the Township to meet diverse housing needs while at the same time supporting the other major goals of the Plan.

### HOUSING IN AGRICULTURE LAND USE AREAS

Residential development for much of the Township should reflect very low densities. These very low-density areas correspond to the designated Agriculture Land Use Areas included in the Future Land Use Plan [Exhibit 11.1](#). Very low densities in these areas are in keeping with the need to encourage continued agricultural production, as well as the protection of the Township's historic and rural landscape and the preservation of environmentally sensitive resources.

The most effective tool for achieving very low-density residential development outside designated development areas is land use regulation, through the Township's zoning ordinance. The Township and local farmers should continue to work together to

ensure suitable land use regulations will permit some degree of residential development in the Agriculture portions of the community, but not at the expense of the primary agricultural functions indicated for these areas in the Plan.

### HOUSING IN VILLAGE & RESIDENTIAL LAND USE AREAS

Residential development within designated Village and Residential Land Use Areas should occur at significantly higher densities than that permitted in the Township's Agriculture areas, providing for a mix of low, medium, and medium-high densities. The enactment of zoning ordinance provisions that support the development of Missing Middle Housing at a range of densities, along with central water and sewer system extensions and capacity increases, road improvements, and community facilities, are the principal measures by which the Township can direct most new growth to these designated development areas.

Clustering of residential development to protect lands in the agricultural and conservation areas should continue to be required wherever on-site water and sewage facilities are capable of supporting such development.

---

**VILLAGE LAND USE AREAS**

Most new housing development in the Township is recommended for the Village Land Use Areas surrounding the Boroughs of East Prospect and Yorkana. The Village designation allows medium and medium-high-density residential uses, along with other compatible, non-residential uses.

Some existing medium and medium-high-density residential development is already located in and around the traditional towns of East Prospect and Yorkana, as well as in the traditional village of Craley. There is also some medium-density development in the north-central portion of the Township, as well as along the Susquehanna River. These developments typically have lot sizes of one-half (1/2) acre or less.

Medium-density residential development is an important component of the mixed-use character projected for the Village areas of the Township. Existing medium-density residential uses in these areas should be reinforced as part of efforts to maintain the economic and social viability of these communities. However, new residential development in and around these areas must be undertaken in a manner that achieves the desired Village character with a moderate-scale, pedestrian-oriented design.

Medium-density residential development should include a wide variety of structural types, including small-lot single-family detached dwellings; single-family semi-detached dwellings; manufactured homes; and Missing Middle Housing units such as duplexes, triplexes, townhouses, and apartment buildings. A diversified housing mix, attractive to various household types and income levels, should be encouraged in these locales.

Where access to public sewer and water is expanded in these areas, zoning ordinance regulations should be modified to encourage housing of higher densities. Such regulations may include allowing up to six (6) units per acre and limiting building lot width, depth, and height requirements to ensure an appropriate pedestrian scale.

**RESIDENTIAL LAND USE AREAS**

Residential Land Use Areas for low and medium-low-density residential development are designated on the Future Land Use Map, [Exhibit 11.1](#), in the north-central area of the Township around Eastern York High School, as well as in a small area south of East Prospect Borough.

Recommended densities for these low and medium-low-density areas are four-tenths (0.4) to two (2.0) dwelling units per acre, which allows conventional,

single-family detached dwellings on lots ranging from one-half (½) acre to two and one-half (2½) acres in size.

### **AFFORDABLE HOUSING**

Housing affordability in the Region is formally assisted through publicly administered programs for low- and moderate-income families and individuals. However, these programs still represent only a small percentage of housing units. For most Township residents, housing affordability questions must be addressed without the assistance of formal subsidies.

Housing affordability in the Township has been assisted by the stock of manufactured homes scattered throughout the Township. However, reliance on manufactured homes is decreasing. The continued viability of this housing is a goal of this Plan in areas with access to public sewer and water. In addition, the Township, with the assistance of York County, should continue to monitor available sources of federal and state funding for housing rehabilitation, low- and moderate-income housing construction, and infrastructure improvements, and should participate in these programs as appropriate.

In general, the Plan proposes to increase opportunities for affordable housing principally by providing new settings for housing construction at medium densities within designated development

areas. At the same time, housing opportunities may be expanded through more efficient use of the current housing stock. Two-Family Residential Conversions are permitted use in the Residential, Village, and Waterfront Recreation Districts. Accessory dwelling units are currently permitted as a special exception only in the Village District.

- Modifying the zoning regulations to permit accessory dwelling units as a use “by-right” in the Residential, Village, and Waterfront Recreation Districts would assist in the creation of affordable housing.

### **REDUCING THE REGULATORY BARRIERS TO AFFORDABLE HOUSING**

While the high cost of housing is largely attributable to higher land, construction, and other costs beyond the control of the Township, there are several other barriers to affordable housing over which the Township can exercise some control.

Some of the Township’s barriers to more affordable housing include:

- excessively large minimum lot sizes;
- insufficient buildable and fully-serviced land zoned for medium and high-density dwelling units;



- excessive infrastructure requirements, such as wide streets, sidewalks, and curbing;
- lack of access to sanitary sewer;
- inflexibility, vagueness, or unpredictability in review procedures; and
- no provision for conversion apartments, accessory dwelling units, farm worker housing, or elder housing.

Local land use regulations need not unnecessarily increase the cost of new housing. A review of existing subdivision/land development regulations can pinpoint those regulations that could be modified to help achieve the Township's goal of providing increased opportunities for affordable housing:

- The Township should encourage innovative mixed-use developments to allow a combination of uses within a site with lower infrastructure costs and greater flexibility in providing a wide variety of moderate-priced housing, and other amenities necessary for a community to function effectively.

---

## 13. PUBLIC UTILITIES PLAN

The majority of the Public Utilities Plan remains as relevant today as it was when initially written in 2002. The discussion has been updated where necessary and includes a new recommendation regarding access to broadband.

### WATER SUPPLY & SEWAGE DISPOSAL

The availability of a central water supply and wastewater disposal is a major determinant for growth - both the amount of growth and where it takes place. Where wastewater facilities exist and have sufficient capacity to allow new development, there is an incentive for growth to occur; likewise, where they are not available growth will (generally) be discouraged.

Where the population distribution is scattered and natural conditions are favorable, each household may be able to provide its own water supply and sewage disposal system. Increased population densities inevitably result in groundwater supply contamination and sewage disposal malfunctions, thus creating public health problems that can only be resolved through the provision of public utility systems, at which point the responsibility passes from the individual to a public or quasi-public agency.

One major objective of the Comprehensive Plan is to guide development activity to match the availability of and access to a water supply and wastewater disposal, thereby ensuring the most economical provision of these services.

Lower Windsor Township's limited access to public water and public wastewater disposal (along with its rural character and agrarian community) was a primary factor in the York County Planning Commission not designating Lower Windsor Township as a growth area. As such, public water and sewer infrastructure should be focused on areas of the existing industrial, village, and residentially developed areas.

This fact, plus the other factors discussed above, presents the decision-making framework for the planning of water and wastewater facilities within the Township.

### SEWAGE DISPOSAL

One of the basic elements vital to the proper and orderly development of a community is the need to establish sewage disposal methods that meet the needs of the community. The following three (3) methods can be utilized for sewage disposal within a community, dependent upon the situation and need:

**1. On-Lot Treatment System**

This type of facility most commonly consists of a septic tank and drainage field. Currently, this type of treatment facility is the method most commonly used within Lower Windsor Township.

**2. Package Treatment System**

Package treatment systems usually serve a small area or isolated land use activity on an interim basis. They may be publicly or privately owned. These types of systems may also be used to provide relief to small developed areas which are experiencing chronic sewage disposal problems but cannot afford a centralized system. Package treatment facilities may be used for mobile home parks, schools, new subdivisions, or other development activities which, because of density or poor soil conditions, necessitate some form of interim sewage disposal until a centralized treatment system can serve the development activity.

**3. Centralized Treatment System**

A centralized treatment system is most desirable because of its relatively low maintenance and operation costs as well as its ability to serve wider areas of a given community. Like the package treatment system, centralized systems generally

consist of a wastewater treatment plant with accompanying interceptor and collector lines to bring the sewage to a plant for treatment and discharge into a stream or other established watercourse.

Table 13.1 on the next page shows that public sewage service is normally justified if the density of the area to be served is at least two thousand five hundred (2,500) persons per square mile. The overall density of Lower Windsor Township is currently two hundred eighty-three (283) persons per square mile.

**TABLE 13.1: POPULATION DENSITY & ECONOMIC JUSTIFICATION FOR PUBLIC SEWAGE SERVICE**

Population Density	Equivalent Lot Size	Service Economic Justification
Over 5,000 persons/square mile	Less than ½ acre	Public sewage is justified
2,500 to 5,000 persons/square mile	½ acre to 1 acre	Public sewage is normally justified
1,000 to 2,500 persons/square mile	1 acre to 2 acres	Public sewage is not normally justified
Less than 1,000 persons/square mile	Over 2 acres	Public sewage is rarely justified

Source: Public Health Service, *Environmental Health Planning Guide*, (Washington: U.S. Government Printing Office, 1962).

Because of the potential problems associated with on-lot systems, intensive development activities must be undertaken only with the availability of public sewer systems.

**Sewage Facilities Plan**

Although public sewage facilities are available in portions of neighboring municipalities, and serve

some Township properties around Eastern York High School and East Prospect Borough, there are no plans in the foreseeable future to extend such facilities into significant areas of Lower Windsor Township. Most of the existing development in the Township is rural in nature with no large population concentrations to financially support the extension or development of a public sewer system.

It is generally assumed that the use of septic tanks and other on-lot systems should be considered only as a temporary means of disposal in subdivisions or other developments that will eventually become part of a primary development area. Since a public sanitary sewer system will eventually have to be provided to serve such areas, intensive development activities should only be located in areas where the extension of an existing or proposed system would be considered most feasible and where the development would be compatible with the Future Community Character and Land Use Plan for the Township.

Even if large lots are provided and percolation tests are satisfactory, there is no assurance that on-lot systems will function properly for an indefinite period. Malfunctioning systems have produced serious financial and health problems in other locations; consequently, the Township should try to avoid such situations in Lower Windsor. Although technology may eventually produce a satisfactory on-lot

system, it is strongly recommended that the Township discourage the development of major residential subdivisions with on-lot septic systems unless soil conditions are favorable, adequate lot sizes are provided to accommodate a replacement system and the subdivision are located where the future provision of public sewage facilities is feasible.

The following specific policies are recommended concerning sewage disposal facilities within Lower Windsor Township:

- Package or temporary sewage treatment facilities to serve intensive development activities should be considered for approval only in those areas of the Township where connection to a proposed regional system is feasible within five (5) years or the utilization of such a package system is necessary to alleviate past or current sewage disposal problems for an existing development area.
- For those portions of the Township beyond proposed public sewage service areas, it is recommended that development activities be strictly regulated by the provisions of the Pennsylvania Sewage Facilities Act (Act 537) and the suitability of the soils for permanent use of on-site sewage disposal systems. In areas where on-lot systems must be used, development regulations must provide for lot sizes that will, at a

minimum, provide sufficient area for the installation of replacement systems in the event of primary system failure.

- The Township should continue to enforce its On-Lot Management Ordinance and re-evaluate the frequency of required maintenance as the need arises.

## **WATER SUPPLY**

The provision of an adequate water supply system is a basic health requirement that must be achieved for all residents within a community. Water supplies are generally provided by one of three (3) methods:

### **1. Individual On-Lot Supply**

This type of facility, in most instances, consists of an individually drilled well for each lot. However, in many rural areas, springs are also used as a source of individual water supply. If the well or spring has acceptable yields, the density of development is low and no on-lot sewage problems exist, then the on-lot system can be an adequate means of providing water supply.

### **2. Community System**

This type of facility usually consists of a single well with accompanying storage facilities and

necessary piping to distribute the water to the users. These systems are generally used for small residential developments removed from public systems that require a single water supply source. This may be due to the density of development or the use of on-lot sewage disposal systems that might create problems with individual drinking well contamination.

**3. Public Water Supply System**

This system usually consists of a centralized water supply of several wells or reservoirs. In some instances, the water supply is obtained directly from a large watercourse such as a river. Like the community system, the water is provided to the user through a pressurized system whereby the supply is usually pumped to the highest service elevation and distributed from there by pressure to the users.

Because of its rural pattern of development, Lower Windsor Township has in the past had to rely on groundwater sources for individual water supply systems. This dependence upon private wells may suffer a loss of reliability since the groundwater yield characteristics of the local geology are generally classified as highly variable. In addition, increased development may heighten the danger of pollution to the individual water supply systems, as well as

possibly adversely impact the underground water table.

Sound planning will dictate the provision of public water supply systems in the areas contemplated for future development activity. Table 13.2 shows that public water supply systems are normally justified when the population density is at least one thousand (1,000) persons per square mile. The overall density of Lower Windsor Township is two hundred eighty-three (283) persons per square mile.

**TABLE 13.2: POPULATION DENSITY & ECONOMIC JUSTIFICATION FOR PUBLIC WATER SUPPLY SYSTEMS**

Population Density	Equivalent Lot Size	Service Economic Justification
Over 2,500 persons/square mile	Less than 1 acre	Public water supply is justified
1,000 to 2,500 persons/square mile	1 to 2 acres	Public water supply is normally justified
500 to 1,000 persons/square mile	2 to 4 acres	Public water supply is not normally justified
Less than 500 persons/square mile	Over 4 acres	Public water supply is rarely justified
Source: Public Health Service, Environmental Health Planning Guide, (Washington: U.S. Government Printing Office, 1962).		

Additionally, groundwater contamination resulting from leachate from Modern Landfills must continue to be closely and routinely monitored.

### Local Water System Plan

As indicated in the Public Utilities section of the Plan's Community Overview, other than six (6) private water supply systems serving mobile home parks, the majority of the Township is dependent upon on-site wells for water supply. Public water is provided by York Water Company along East Prospect Road, portions of Mt. Pisgah Road, Bluestone Road, Canadochly Road, and Eastern York High School and Middle School in the northern portion of the Township.

Although previous growth in the Township has generally occurred in a scattered pattern along the main transportation routes, the Future Community Character and Land Use Plan attempts to guide future development activities, especially intense development, into suitable and more compact areas. By proposing compact development areas, the Plan hopes to establish areas where public utilities can be economically provided in the future.

The following recommendations are made concerning the provision of adequate water supply for the residents of Lower Windsor Township:

- The Township should seek to cooperate with other municipalities and utility companies in the provision of public water supply facilities as permanent and reliable sources of water needed for continued long-range development for the community in those areas of the Township identified for growth.
- Future large-scale, intensive development activities should be provided with public or community water supply systems.
- Because the geological conditions associated with groundwater yield are characterized as highly variable for the development of individual wells in much of the Township, development activities taking place outside of existing or proposed public water service areas should be scrutinized to ensure safe and adequate water yields for on-site well systems. In general, such development should be low-density in nature.
- Future large-scale, intensive development activities should be provided with public or community water supply systems.

### SOLID WASTE DISPOSAL

Solid waste or refuse disposal is becoming more and more of a critical problem for government officials.

Along with the increasing amount of refuse being generated, there is an accompanying increase in the amount of indiscriminate dumping. As noted in the Public Utilities section of the Plan's Community Overview, private haulers licensed by the Township provide a collection of solid waste in Lower Windsor. The method of collection is not a major focus of the Plan, except to note that it should be collected. Disposal of solid waste, however, is a more critical aspect since suitable land areas are needed for this purpose.

The Township should implement the following actions to adequately provide for solid waste collection and disposal:

- Consider possible adaptive reuse strategies for the Modern Landfill site upon the Landfill reaching its capacity and implementing post-closure care requirements.
- Consider a Township-managed solid waste collection contract
- Continue to support the activities of the York County Municipal Solid Waste Authority as it implements a system of Regional solid waste collection and disposal facilities as contained in the 2014 York County Municipal Solid Waste Plan.

- Continue to prioritize the investigation and legal enforcement, as necessary, of illegal dumping within the Township.
- Encourage proper solid waste collection and disposal, including municipal large item pickup.
- Continue to encourage residents to participate in recycling and reuse options, due to the ecological and energy conservation benefits such systems provide.

## **BROADBAND**

The COVID-19 pandemic highlighted the need for universal broadband access. Health restrictions forced the majority of the population (save first responders and front-line workers) to work and attend school remotely via the Internet. The Township's lack of reliable access to the internet proved to be a problem for many households.

The Township should support the efforts of the County Commissioners to construct "last mile" infrastructure and advocate for Lower Windsor Township to be a priority need area.

- Conduct a review of the wireless communications facility's regulations within the zoning ordinance to ensure adequate



regulation without undue burdens to service providers.

### **OTHER UTILITIES**

Electric, telephone, gas, and cable TV will continue to be provided as indicated in the Public Utilities section of the Plan's Community Overview.

Although the Township has no direct role in providing these services, Township officials should make sure that such services are provided in the most efficient manner possible before approving future development plans within the Township.

---

## 14. COMMUNITY FACILITIES PLAN

The Community Facilities Plan has been updated to reflect changes captured in the 2022 update of Chapter 8, Community Facilities.

The provision of adequate community facilities and services is essential to maintaining a thriving community. Facilities and services such as schools, recreation areas, police and fire protection, municipal offices, and other selected activities should generally be provided in proportion to the number of residents needing such facilities. The provision of services varies depending upon the type of planning area (rural, suburban, urban) and total population.

As discussed in Chapter 5. Population and Chapter 6. Housing, the Township's population is anticipated to increase by 24% or 1,829 new residents between now and 2050.

Rural communities can struggle with the provision of community facilities and services due to smaller population sizes spread out across a large geographic area. The objective of the Community Facilities Plan is to propose strategies that can maximize the use of existing facilities, ensure suitable locations for new facilities, and prioritize the

provision of a diverse set of services for existing and future residents.

### CRITERIA FOR FACILITY PLANNING

The 2002 Community Facilities Plan identified the following facility planning criteria, which remain relevant and accurate in 2022.

The evaluation of existing public facilities and the determination of needs for future facilities involve several related criteria. While not absolute, these criteria provide a logical framework for community facility planning. Even though these criteria are more typically applied to buildings, they are equally applicable to both land and buildings. Whether a community facility or service is to be improved, replaced, or initiated, the following criteria should be given consideration:

1. Efficient Location

Other elements of the Comprehensive Plan must be considered when determining the location of any community facility. This includes existing and future population distribution, major thoroughfares, and topography.

2. Accessibility

Community facilities should be accessible by major thoroughfares providing the best possible access to the largest number of citizens who will use the facility.

3. Co-Location

Enhanced public convenience, operational economics, and minimal usage of land for joint parking lots and other shared accessory facilities are some of the advantages of co-locating services within one (1) complex or area. Examples of grouping-related central services are recreation and school complexes or recreation and Township building complexes.

4. Condition & Obsolescence

The present state of repair of existing facilities should be determined. Operational efficiency and the facility's adaptation to change must be reviewed to determine relative obsolescence. The poor condition and high obsolescence may indicate a need for replacement.

5. Capacity

The current level of performance of any particular service or function must be related to

present and future utilization. Increased demands for service will normally require increased staff or equipment resources.

6. Adequate Land Area

Each community facility site should make provisions for the space needs of the function and any possible future additions, along with parking and landscaping enhancements.

7. Appearance & Quality

For those man-made facilities that are visible to the public, a measure of usefulness is contained in the facility's ability, by its appearance and arrangement, to inspire civic achievement in those who see it and use it. An attractive public structure or place reflects cultural attainment and credit to its owners, the citizens.

**SCHOOL FACILITIES**

The educational process provides our most valuable and important resource: an informed and educated citizenry that is equipped to cope with the complexities of modern society. As such, the provision of adequate school facilities is extremely important to the proper overall growth and development of a community. The objective of this section of the Plan is to provide for an effective

arrangement of physical facilities for the proper development of this valued human resource.

Since the public investment for adequate school facilities and educational programs is substantial, it is extremely important that sound planning precedes the construction of new facilities or the sale or abandonment of older facilities. As an example, schools and certain recreation facilities should be considered together. The combination of a neighborhood park and an elementary school can serve as a community center. This combination provides a logical, year-round gathering place or recreation center for a residential neighborhood. Combined sites can eliminate duplication of facilities and allow efficient utilization and maintenance of space, resulting in substantial cost savings, which is particularly important to a community with a limited tax base.

Adherence to adequate size standards for school sites is as important as ensuring proper location. While long-range planning may deal with general locations for school sites, specific sites should be acquired well in advance of development to assure reasonable cost and the availability of a proper location.

Lower Windsor Township students attend classes in the Eastern York School District. Enrollments in Eastern York indicate an overall decrease in

enrollment of twenty-one percent (21%) between 2000 and 2022. Additionally, the District's five (5) educational facilities are between forty-five percent (45%) to fifty-five percent (55%) of their maximum capacity. The previous iteration of the Township's Community Facilities Plan was concerned with increasing population growth as a result of uncontrolled growth outside of designated development areas or through the development of a community sewage system. Growth has been well-managed and there are no plans to construct a community sewage system. Additionally, the Township's population is expected to grow at a much slower rate than in previous decades. As such, the School District's facilities are more than adequate to meet the educational space needs of the community.

Regardless, should the School District at any point begin evaluation of future facility sites, the following recommendation is made:

- Representatives from the School District and municipal planning commissions in the District should meet to coordinate school planning and land use planning to anticipate future school needs.

## **PARKS, RECREATION & OPEN SPACE**

Lower Windsor Township has a park system that relies

primarily on one (1) park, Rexroth Park in the village of Martinsville, to meet the active recreation needs of the community. Needs not met at Rexroth Park are being accommodated at other public and protected lands, such as the Cabin Branch Fields and Kline Run Park (Safe Harbor & York Water Company), Yorkana and May Ball fields in Yorkana, and Native Lands and High Point County Parks. Passive facilities are being provided at Willow Creek Farms Park, Samuel S. Lewis State Park, and Safe Harbor Park sites open to the public.

The 2002 Comprehensive Plan predicted a growth rate of ten percent (10%) through 2012. However, lowering birth rates, significant economic turmoil, land use regulations restricting growth, and a lack of access to public water and sewer resulted in a growth rate of only one and one-half percent (1.5%) between 2000 and 2020.

The following are findings of an analysis of park and recreation facilities within the Township:

- Given the Township's smaller growth rates, focusing level of service analyses according to total acreage may be unattainable; instead, prioritizing user experience and expenses per acre may be more appropriate.
- Availability of athletic fields is at a premium, site master plans to focus on field efficiency,

stormwater management, and the provision of amenities for all ages and abilities will ensure that Rexroth, Willow Farms Park, and Cabin Branch Fields continue to efficiently meet the needs of the community.

- Residents of all ages and abilities would like to see broader access to programming geared towards the community and its assets, such as:
  - Star gazing at Sam Lewis State Park,
  - Varied instructional classes, and
  - Nature & Aquatic Tours
- Resources exist in the community to begin the process of creating a livable, connected community. Emphasize pedestrian and bicycle facilities in planning efforts and explore opportunities for trails and greenways.
- Open space should be preserved in the Township.

The following are recommendations for Township parks and recreation facilities:

**1. Maximize the use of existing parks to respond to the expanding needs, interests, and desires of citizens and improve the safety, function, convenience, and aesthetics of park sites through the following initiatives.**

- Complete a Regional Recreation Master Plan for Lower Windsor Township, Yorkana Borough, and East Prospect Borough. Eastern York Recreation Authority should be a key partner in the development of the Plan. The Regional Plan should evaluate the relationships within the existing Regional recreation system and identify priority additions and renovations to maximize the use of each park site. Master planning is an important means to address management issues through park design and aligning facilities with recreation trends and current and projected community needs. Design park sites (Rexroth Park, Willow Creek Farms Park, and Cabin Branch Fields) to maximize the use of athletic fields, prioritize ADA improvements, and create relevance for residents of all ages and abilities.
  - Provide walking trails in parks and to access park facilities. Trails are enjoyed by all segments of the population and are highly desired recreation facilities.

The Americans with Disabilities Act (ADA) requires access to recreation facilities and activity areas via an accessible route.

- Prioritize the development of walking and biking facilities on Long Level Road.
- Connect park sites to designated greenways and trails as possible.
- Enhance the park sites to be comfortable and convenient to use by adding benches, trash receptacles, drinking fountains, grills, bike racks, restrooms, and other facilities as appropriate. Provide benches near playgrounds, in shaded locations, and at other activity areas for caregivers to sit and watch park activities.
- Utilize standard wayfinding and signage throughout the recreation network.
- Provide age-appropriate facilities.
- Provide facilities for lifetime recreation/leisure pursuits such as trails, outdoor fitness areas, bocce ball, pickle ball, and gathering spaces.
- Consider the needs of the senior adult population. Make facilities pedestrian friendly and convenient to use. Provide sitting areas in the shade, conveniently spaced along trails and near activity

- areas. Provide pavilions near parking areas.
- Design with nature.
    - Protect and enhance the natural resources of the park sites.
    - Provide buffer areas around sensitive natural resources that should have limited or no public access.
    - Locate facilities with consideration of prevailing wind and solar orientation.
    - Use native plant material to enhance wildlife habitats and minimize maintenance.
    - Consider the site soil and underlying geology during the planning and development phase. Soil and geology directly affect facility constructability, drainage, and long-term maintenance.
    - Incorporate wetlands, rock outcrops, and hedgerows sensitively into park designs.
    - Develop park sites using Best Management Practices for erosion control and stormwater management.
    - Use educational signage to highlight unique flora and fauna, as well as

natural processes within the local ecosystems.

- Strive to undertake improvements to the parks that are holistic and not piecemeal to provide a sense of presence and accomplishment in the public view.

## **2. Increase investment in additional levels of service focus areas.**

- Implementing a (somewhat) routine recreation user experience survey can help pinpoint areas where residents would like to see change, gauge the user experience over time, and assist with identifying potential expenditure increases within each facility.

## **3. Target acquisition and development of parkland to meet current and future recreation needs for expanded facilities.**

- The Township should prioritize the acquisition of parkland in the Yorkana Planning District, convenient to the Route 124 corridor and easily accessible to most areas of the Township, to respond to the desire for centralized facilities. The addition of a community park in this area of the Township will result in a triangulation of facilities with one (1) major facility in each Planning District:

- Craley Planning District: Rexroth Park
  - East Prospect Planning District: Eastern School District facilities
  - Yorkana Planning District: new community park
    - This community park should provide a balance of both active and passive recreation activities, providing sports facilities as well as trails and picnic areas for passive recreation pursuits.
  - Maximize the recreation potential of Rexroth Park through the acquisition of contiguous acreage.
  - Amend the Lower Windsor Township mandatory dedication provisions to align with the fair market value of property in Lower Windsor Township and to further define the criteria of land that the Township will accept as recreational land.
- 4. Develop a comprehensive greenway trail network that connects park sites, open spaces, residential neighborhoods, schools, and community destinations.**
- Greenways and trails should be developed to provide safe convenient travel between points of interest while providing for hiking, bicycling, and walking.
  - Create a Township-wide greenway and trail network composed of hubs (important destinations and originations for people) and linkage corridors, creating “green infrastructure” for the Township and providing trail opportunities for recreation, transportation, and movement of wildlife. The greenway and trail network should incorporate access to Yorkana and East Prospect Boroughs and their existing recreation facilities.
  - Link greenways and trails to the Mason-Dixon Trail.
  - Evaluate local roads in terms of bicycle and pedestrian compatibility.
  - Work with PennDOT and the Township Public Works Department to provide bicycle and pedestrian-friendly facilities when upgrades are undertaken for public roads.
  - Evaluate the trail opportunities of existing rights-of-way in the Township.
  - Communicate with adjacent municipalities regarding regional greenway and trail opportunities and initiatives.



- Explore the creation of greenways and trails through land acquisition, easements, and use of stream corridors.

#### **4. Provide facilities for public use that comply with accessibility and safety regulations and guidelines.**

- Evaluate existing park sites and recreation facilities to determine if ADA regulations are being met. Walkways must be developed to provide an accessible route from handicapped parking spaces to and between recreation facilities. Playgrounds must offer play equipment that provides play options for the physically challenged. Trails and walkways must be developed so that they do not exceed specific slopes. Athletic fields and courts should be accessible and provided with accessible viewing areas. Fences surrounding game courts should have gates with clear opening widths that meet or exceed ADA requirements. Picnic areas should offer accessible picnic tables.
- Provide play equipment that meets the safety criteria and age-segregation criteria of the Consumer Product Safety Commission (CPSC) Guidelines for Public Playground Safety. Remove all equipment that does not meet the CPSC Guidelines. Conduct ongoing safety inspections of playgrounds. Provide

adequate safety zones around each piece of play equipment with safety surfacing material that meets CPSC test requirements and the latest American Society of Testing and Materials criteria.

- Identify and prioritize improvements needed to bring existing facilities into compliance with the ADA and CPSC. A phased implementation schedule should be developed and improvements should be included in the capital improvement program budget.

#### **5. Develop a Capital Improvement Program to guide Township capital expenditures for parks and recreation facilities.**

- The recommendations of this Plan will require the Township to make capital expenditures. A Capital Improvement Plan (CIP) is used to identify capital costs (land expenditures for municipal-owned facilities and processes), such as software technology. The CIP is used to plan out expenditures over a five (5) to ten (10) year time period and identify possible funding and financing solutions.

## 6. Develop a Township-wide communication strategy

- Create a communication strategy that utilizes multiple platforms to provide information and education to the public regarding routine decision-making and issues of concern. The strategy should be routinely updated to assess its effectiveness and to incorporate new technologies and innovative strategies as opportunities arise.

### POLICE PROTECTION

The provision of adequate police protection is necessary for any community that is seeking to provide the necessary services to ensure the health, safety, and well-being of its residents.

The national average for police protection is three and one-tenth (3.1) policemen per one thousand (1,000) persons, however, there is no national standard regarding adequate police coverage. Because of limited financial as well as population needs, it is worthwhile for communities to consider the provision of a service such as this on an intergovernmental basis. Creating governmental ties with neighboring municipalities increases the overall effectiveness of a police force while achieving economies of scale.

The Lower Windsor Township Police Department is currently efficient in providing Township residents with adequate police protection. The department identified the following future needs:

- One (1) Full-Time Detective
- One (1) Part-Time Officer to assist with DOT inspections
- Facility Upgrades
  - Heating, ventilation, and air conditioning (HVAC) and roof
  - Audio system for the interview room
- Develop a fleet replacement protocol and transition to a one hundred percent (100%) SUV Fleet because of rural areas within the jurisdiction.
- Increased communication with the community regarding seasonal safety topics, alcohol and drug use, and methods for residents to work with the Township's police department.

### OTHER TOWNSHIP & COMMUNITY FACILITIES & SERVICES

In addition to schools, recreation and open space areas, police protection, and fire protection, there are other public and quasi-public facilities and services that are referenced in the Plan. These other

community services include governmental offices, libraries, and healthcare facilities. The following recommendations are made regarding these services.

better, more comprehensive level of service will likely result.

**Township Building & Offices**

The Township's Highway Department has recently upgraded the salt and cinder storage facilities.

Additionally, conducting a facility use and future needs analysis for the police department, highway department, and administrative offices may identify needed improvements and assist the Township in prioritizing future improvements.

**Other Community Facilities & Services**

A myriad of other community facilities and services are available to Township residents. These community services include emergency support services, health care facilities, postal services, and religious facilities. The provision of these existing services is considered to be adequate and does not require a statement of objectives for planning purposes at this time. However, concerning the provision of future services and facilities, the Township should consider that whenever it can cooperate with other local governments and organizations in the provision of such services, a

## 15. TRANSPORTATION PLAN

This Transportation Plan provides an update to the 2002 Transportation Plan. Many of the recommendations identified in the 2002 Plan remain relevant today and others needed updating to reflect changes that have occurred over the past twenty (20) years.

### ADVOCACY

As was stated in the 2002 Transportation Plan, the Township must actively advocate for transportation assistance and funding from County, State, and Federal agencies.

The Pennsylvania Department of Transportation (PennDOT) maintains several major routes in the Township. Limited resources at all levels of government have created a system that, out of necessity, funds only the most serious transportation issues in a very small number of communities. Therefore, the proactive approach of soliciting cooperation from PennDOT, York County, adjacent municipalities, and developers to plan and program improvements will ensure that improvement projects in Lower Windsor Township are included in the York Area Metropolitan Planning Organization (YAMPO) Transportation Improvement Program (TIP) and the Pennsylvania Department of Transportation Twelve

(12) Year Program (TYP).

### Mount Pisgah and East Prospect Road (S.R. 0124)

The intersection of East Prospect Road and Mount Pisgah Road has been the scene of numerous accidents. Many of the accidents have been either angle-type accidents or rear-end-type accidents. The angle accidents may be a result of road conditions, geometric conditions, and limited safe stopping sight distance. Analysis of this intersection points to several improvements needed to mitigate some of these conditions, including:

- a left turn lane on East Prospect Road; and,
- a southbound right turn lane on Mount Pisgah Road.

One of the main conditions contributing to the rear-end type accidents is the location of the eastern driveway to the Turkey Hill convenience store from East Prospect Road. The driveway is located precariously close to the intersection and westbound drivers do not anticipate a vehicle stopping immediately after the intersection. Also, an eastbound driver may conclude that the westbound vehicle turning left into the Turkey Hill store, with a left turn signal flashing, is going to turn onto Mount Pisgah Road creating an angle accident situation at the intersection. One solution to this dangerous situation is to:

- Create a driveway from the Turkey Hill property onto Mount Pisgah Road and either eliminate the eastern driveway from East Prospect Road or restrict it to a right-out-only driveway.

### **Mount Pisgah and East Prospect Road - Signalized Intersection**

Existing and future traffic signals should be analyzed and re-timed on a six (6) to ten (10)-year schedule. It is believed that the signalized intersection at Mount Pisgah and East Prospect is overdue and requires updating to determine the intersection's current level of service and current/projected traffic volumes.

### **WAYFINDING & SIGNAGE**

Lower Windsor Township, with Susquehanna River frontage at Long Level, attracts many people who are unfamiliar with the area and its transportation network. Additional actions are needed to make Township roads more user-friendly and easier to identify, and also to provide alternate choices of routes to get from place to place. Street name signs should be installed at all intersections, and since the Township is a rural area, the signs should be larger than those currently being utilized to provide increased visibility. At signalized intersections, street

name signs should be mounted on mast arm poles; at un-signalized intersections, two (2) sets of signs should be installed on diagonally opposite corners.

Posting directional signage identifying compass directions, "distance to" signage, and route markers at all major intersections will assist drivers who are unfamiliar with the area.

### **Sight Distance Issues**

Numerous sight distance issues have been identified throughout the Township, however, the level of severity remains unknown. Conducting traffic safety analyses at these locations will provide the Township with the direction necessary to prioritize improvements and plan the next steps:

- Craley Road (Route 624) east of Massa Drive
- East Prospect Road and Bluestone Road
- Prayer Mission Road and Furnace Road
- Prayer Mission Road and Haven Drive
- Bluestone, Barcroft, and East Prospect Roads
- Long Level Road (Route 624), Klines Run Road/Trinity Church Road, and Boathouse Road

The Township may also want to consider identifying the Prayer Mission Road sight distance concerns on

the Township's Official Map as transportation project areas.

### **TRAFFIC CALMING & PEDESTRIAN IMPROVEMENTS**

The need to improve pedestrian safety is paramount, especially along Long Level Road.

The following locations have been identified as candidates for corridor improvements and should be added to the Township's Official Map. Corridor improvements generally consist of wider shoulders, ADA-compliant crosswalks, dedicated areas for pedestrians and cyclists, traffic calming, and improvements to lighting, landscaping, and pavement markings.

- Long Level Road, to include:
  - Exploring the implementation of a "seasonal" speed limit, May through October.
  - Creating pedestrian and bicycling facilities that dramatically improve safety for vulnerable road users on Long Level Road.
- Cool Creek Road, in front of an approaching Eastern York High School and Knights View Road
- Mount Pisgah Road between Cool Creek Road and East Prospect Road

### **GENERAL ROADWAY SAFETY**

- Provide wider shoulders and smoother road surfaces. The width of shoulders is considered to be an important factor in the safety of a roadway, with wider shoulders being able to provide a safety buffer. In addition, where it is possible to increase the super-elevation at existing horizontal curves, this should be done to increase the degree of driving comfort and safety. These conditions generally occur along PennDOT-maintained roadways rather than Township roadways. PennDOT should be encouraged to improve State roadways within the Township to provide additional paved shoulders and to overlay the roads to provide smoother travel ways.
- Provide ample safe stopping sight distances at all intersections and driveways. Clear all obstacles that are within or that protrude into the clear sight line. This includes vegetation, trees, fences, mailboxes, etc. This type of improvement will reduce drivers' hesitation to make an entrance into the travel way and reduce the delay that would otherwise exist. A reduction in accidents can also be achieved by providing a clear view at all intersections.

- Maintain pavement markings throughout the Township.

### **Asset Management**

- Road Signage and other equipment in the road right-of-way should be inventoried in the Township's cloud-based asset management platform, CSDatum.
- Create an updated inventory of bridges and their conditions in CSDatum. Lower Windsor Township would need to formally define what is considered a pipe (a span of 4' or less) and what is considered a bridge (spans of greater than 4').
- Create a Capital Improvement Plan to begin scheduling pipe crossings and bridge maintenance and repairs.

### **PARKING**

Explore modifying the zoning ordinance to require overflow or visitor parking requirements for Townhouses and multi-family developments.

## 16. IMPLEMENTATION

The Comprehensive Plan outlines the desired pattern of growth and development for the Township. However, the Plan is a policy guide; it is not a legal document. The State of Pennsylvania authorizes local governments to use various policy and regulatory tools to implement the Plan. Thus, for the Plan's goals and objectives to become a reality, an implementation strategy must be devised and acted upon.

### IMPLEMENTATION STRATEGY

The primary tools that can be used to manage growth and implement the Comprehensive Plan are the Township's Zoning Ordinance and Subdivision and Land Development Ordinance. However, these ordinances should be combined with other growth management tools to effectively implement the Plan.

The following information provides a general overview of tools that the Township can use to control growth and achieve its goals for growth, development, and preservation of community character, as set forth throughout the Comprehensive Plan.

### Zoning Ordinance and Map

The connection between the designation of future land use and a zoning map and ordinance is direct; however, the Future Land Use Map is not the Township Zoning Map. The Future Land Use Map forms the basis for the Zoning Map, which generally is a further breakdown of planning principles into specific areas. The emphasis of the Lower Windsor Township Ordinance is to guide the direction of development to the most appropriate locations in the Township and to protect valuable agriculture and natural resources. These measures help to protect the value of properties, maximize public investments and resources, and allow a wide variety of land use to locate in appropriate areas of the community.

The Township's zoning regulations reflect its unique cultural and political character. The ordinance should be updated to incorporate changes recommended by the 2022 Future Land Use Map. Additionally, periodic reviews and updates are also necessary to capture innovative techniques in support of the Township's goals for the preservation of farmland and community character while maintaining an equitable balance between government regulation and private property rights.



The Township's Zoning Ordinance and Map were adopted in 2003 and most recently amended in 2012.

Future changes to the Township's Zoning Ordinance could include regulations that encourage the development of pedestrian and bicycle facilities, trails and greenways, complete streets, and overflow parking requirements for townhouses and multi-family developments.

### **Subdivision and Land Development Ordinance**

The primary purpose of a Subdivision and Land Development Ordinance is to protect municipalities against unwise, poorly planned development.

By adopting appropriate standards for subdivision and land development, the Township avoids many potential problems relating to such issues as traffic circulation, access, utilities, and stormwater. As more items are addressed at the planning stage, the likelihood that a proposed development will be acceptable to Township residents significantly increases.

The Township's Subdivision and Land Development Ordinance was adopted in 2012.

Future updates to the Township's Subdivision and Land Development Ordinance could include

modifications to the recreation fee, and design guidelines for the development of trails, greenways, and complete streets.

### **Official Map**

Another tool that can be used to implement the Comprehensive Plan is the Official Map. Article IV of the Pennsylvania MPC grants municipal governing bodies the power to show elements of the Comprehensive Plan related to proposed public land and facilities on an Official Map. The specific elements that may be incorporated into the Map include: existing and proposed public streets; existing and proposed public parks, playgrounds, and open space reservations; pedestrian ways and easements; railroad and transit rights-of-way and easements; flood control basins, floodways, and floodplains; drainage easements; and stormwater management areas.

The Official Map provides the Township with a one (1)-year period in which to acquire a property or place an easement upon it, from the time a property owner requests a building permit or submits a written notice of intent to build upon, subdivide, or develop the land.

The Borough's Official Map was adopted in 2012.

The following updates to the official map should be considered:

- The site distance issues on the following roads may necessitate additional right-of-way to correct:
  - Prayer Mission Road sight distance concerns,
  - Long Level Road, Klines Run Road, and Boat House Road
- Corridor Improvement Areas:
  - Long Level Road
  - Cool Creek Road, in front of and approaching Eastern York High School and Knights View Road.
  - Mount Pisgah Road between Cool Creek Road and East Prospect Road.

### **Building and Construction Codes**

Various types of building and construction codes support the objectives and goals of this Comprehensive Plan. Generally, such codes are concerned with structural requirements; material performances, including plumbing and electrical; the arrangement of buildings; property maintenance; and fire prevention. To ensure a quality residential and non-residential building stock,

the Township must continue to carefully monitor the implementation of the Uniform Construction Code (UCC).

Adopting, administering, and enforcing, building, and construction codes increase the quality of construction and the safety of housing and other structures. They also promote the improvement or rehabilitation of existing buildings throughout the Township, thereby creating more desirable neighborhoods.

The Township adopted the UCC in 2004.

### **Sewage Facilities (Act 537) Plan**

Since the Township's current Sewage Facilities Plan was given utmost consideration in the drafting of this Plan, it is recommended that any proposed revision to the Sewage Facilities Plan likewise be carefully scrutinized to determine whether it would be consistent with the Comprehensive Plan. Regulations of the Pennsylvania Department of Environmental Protection (PA DEP) governing sewage plans, as well as plan revisions, require a finding by the Township, County, and PA DEP that the proposed plan or plan revision is consistent with local, County, and State planning. As such, the Township and PA DEP have the power to ensure that the recommendations of the Comprehensive Plan prevail. The approval of revisions to the Act 537 Plan

that are inconsistent with the Comprehensive Plan is a major contributor to unplanned growth in many communities.

It is further recommended that any future updates to the Sewage Facilities Plan be consistent with, or be predicated upon appropriate revisions to this Comprehensive Plan. Consistency between these documents is necessary to achieve the desired land use pattern outlined in the Future Community Character and Land Use Plan element of the Plan.

The Township's 537 Plan was adopted in 1994.

### **Capital Improvements Program**

A Capital Improvements Program is a multi-year plan for capital improvements and is typically based on the recommendations of the municipality's Comprehensive Plan. Capital improvements are major projects requiring the expenditure of public funds over and above annual operating expenses. Expenditures may be for the purchase, construction, or replacement of the physical assets of the community. By looking ahead to determine what, when, where, and how future improvements should be made, capital improvements programming enables municipal officials to avoid unplanned capital expenditures.

In a Capital Improvements Program, all anticipated projects, usually over a five (5) to six (6)-year period, are listed in order of construction priority, with cost estimates and the anticipated means of financing each project. Once established, however, an annual re-evaluation is necessary. In the re-evaluation process, municipal officials re-evaluate community needs to determine whether the existing program is acceptable or whether changes need to be made. Through this process, the focus and intent of the program remain viable.

The following items would be appropriate to add to a capital improvement program:

- Local Bridge Repairs and Maintenance
- Regional Recreation Master Plan

### **Education**

Local officials should continue to educate the public through conversation and public meetings as to how the Township is intended to develop. Through education, residents will also become aware of how the Township is intended to develop and hopefully become concerned and interested in helping the Township to carry out its plan of development in both the physical and non-physical aspects.

---

## Grant Funding and Gap Financing

Grant funding and financing strategies are critical components to project implementation. State agencies, non-profit organizations, and local governments provide funding opportunities for the following types of improvements:

- Stormwater Improvements
- Water and Sewer Improvements
- Roadway Improvements
- Recreation
- Large Equipment Purchases
- Land Acquisition

## Community Surveys

Community surveys are relatively inexpensive to implement and manageable to administer at the staff level. They are also useful tools to satisfy public outreach requirements. Conducting community outreach, as necessary, to support Township priorities assists in increasing government transparency and securing grant funding for projects. This is especially true for projects or programs that were not anticipated in the Comprehensive Plan.

## Technical Analyses

Technical analyses assist in communicating the

problem to be solved, potential solutions, and costs, and the project's urgency. They can also provide a sound justification for moving forward with a project.

## SUMMARY

The above-mentioned ordinances, codes, plans, and programs provide a valuable listing of policy and regulatory devices that are available to Lower Windsor Township to assist in accomplishing the goals and objectives of the Comprehensive Plan. However, Township officials must take the necessary steps to put such tools to work for the Plan to be successfully implemented.

Township officials should also be aware that there are many other innovative strategies and implementation tools available to protect the resources of the Township and to manage growth. Some of these tools, such as farmland preservation techniques and historic preservation approaches have been addressed in other sections of the Plan.

Furthermore, it is important to note that effective implementation requires promoting public awareness and buy-in of the Plan. Township officials should strongly and openly stress the goals and

objectives of the Plan in their decision-making processes. Periodic presentations to the public, civic organizations, business groups, and other

agencies can also create support for the Plan, as well as provide a means to obtain assistance in accomplishing the Plan's goals and objectives.

# APPENDICES

---

## **APPENDIX 1 COMMUNITY SURVEY**

---

Lower Windsor Township  
2022 Community Survey  
Summary Results

Respondent Information:

275 Responses (250 Electronic and 25 Paper) a 3.7% response rate.

**Employment:**

- 48% of respondents were full-time
- 37% of respondents were retired

**Age:**

- 41% - 45 to 64 years of age
- 31% - 65 to 74 years of age
- 21% - 26 to 44 years of age

**Living in Township:**

- 50% of respondents had lived in the Township 21 + years
- 29% of respondents had lived in the Township less than 10 years

**Housing Tenure**

- 94% of respondents owned their own home and lived in the Township

**Housing Condition**

- 99% of respondents felt they lived in average or above average housing

**Water and Sewer**

- 22% of respondents stated they had concerns over their drinking water
  - 2% issues of quantity
  - 15% issues of quality
  - 5% other
- 8% of respondents reported issues with their On-lot Sewage Disposal System

**Land Ownership**

- 42% - less than 1-acre
- 35% - 1 to 4 acres
- 21% - 5 to 49 acres
- < 2% 50+ acres



### **Outdoor Recreation and Hobbies:**

- 71% Gardening
- 68% Walking/Jogging
- 47% Hiking
- 5% Disc Golf

### **Ag Preservation:**

- 83% of respondents were not interested in receiving additional information regarding Agricultural Preservation.

### **Comprehensive Plan Vision:**

- 96% Agreed with the vision

### **Why do you live in the Township?**

#### Top 5 Responses

- Rural Character – 75%
- Natural Beauty – 78%
- Proximity to Susquehanna River – 47%
- Safe Environment – 85%
- Small Town Atmosphere – 63%
- Cleanliness – 75%

### **Growth and Development**

- Residential
  - Encourage
    - Single Family Units (42% encourage vs. 41% no change)
    - Affordable Units (23% encourage vs. 33% no change)
    - Senior Units (52% encourage vs. 33% no change)
  - Discourage
    - Multi-Family Units (64% discourage vs. 23% no change)
    - Townhouse Units (62% discourage vs. 25% no change)
    - Mobile Home Parks (67% discourage vs. 25% no change)
- Short Term Rentals
  - 36% Discourage
  - 41% Suggest No Change/No Opinion
- Conservation
  - Open Space (80% encourage)
  - Prime Agricultural Land (81% encourage)
  - Natural Resources (85% encourage)
  - Scenic View (82% encourage)

- Industrial
  - Light Industrial
    - 40% encourage
    - 23% discourage
    - 33% no change
    - 4% no opinion
  
  - Heavy Industrial
    - 16% encourage
    - 67% discourage
    - 15% no change
    - 3% no opinion
  
- Alternative Energy Production
  - Large Scale Solar
    - 32% encourage
    - 40% discourage
    - 20% no change
    - 8% no opinion
  
  - Wind Farms
    - 31% encourage
    - 40% discourage
    - 19% no change
    - 10% no opinion
  
- Commercial
  - Office and Professional Business
    - 40% encourage
    - 22% discourage
    - 30% no change
    - 8% no opinion
  
  - Retail
    - 38% encourage
    - 26% discourage
    - 30% no change
    - 5% no opinion
  
  - Service Businesses
    - 61% encourage
    - 15% discourage
    - 21% no change
    - 3% no opinion

## **Level of Service**

### **Increase**

- Elder Care
- Farmers Market
- Recreation and Leisure
- Riverfront & River Related Activities

### **No Change**

- Library
- Community Center
- Gas Station and Convenience
- Grocery
  
- Tourism Business
- Green Businesses
- Home Based Businesses
- Child Day Care
- Event Venue

## **How important is it to provide a range of housing densities, types, and sizes of housing?**

- 19% - Very Important
- 42% - Somewhat Important
- 39% - Not Important

## **Crime in the Township:**

- 75% of respondents felt that crime was “not too serious” or “not serious at all”

## **Greatest Problems facing the Township:**

- Traffic Issues
- Drug Abuse
- School Bullying
- Excessive Fireworks
- Air Pollution

## **The following pages identify responses to three open ended questions within the survey:**

- Are there other issues that are important to you and that you believe should consider and discuss?
- What would you change in Lower Windsor Township if you could?
- What is your biggest concern about the future?

Are there other issues that are important to you and that you believe should consider and discuss?		
Resident Comment	Number	Percentage
Landfill Expansion – Yes	15	20.5
Landfill Expansion – No	14	19.7
Government Transparency	10	13.6
Burdensome Regulations	6	8.2
Increasing Police Services	6	8.2
Limit Housing	4	5.5
Clean Environment	4	5.5
Trash Contracting	3	4.1
Increase Economic Development	3	4.1
Government Operations (spending and )	2	2.7
Build a New School	1	1.36
Create Afterschool Programs	1	1.36
Transportation Options	1	1.36
Increase Access to Broadband	1	1.36
Maintain the Township's Rural Character	1	1.36
Zoning and Property Enforcement	1	1.36

What would you change in Lower Windsor Township if you could?		
Resident Comment	Number	Percentage
Landfill – No (1/4 tied their response to capping the landfill and creating a recreation area)	24	16%
Lowering Taxes	22	15%
Government Transparency	12	8%
Landfill – Yes (1/3 tied their response to a concern regarding tax increase)	12	8%
Nothing to Change/ Great as is	11	7%
Economic Development	10	7%
Environmental Concerns (burning, dumping, litter, and pollution in the Kreutz Creek.)	8	5%
Farmland Preservation	8	5%
Traffic and Speed	7	5%
Single Trash Contractor	6	4%
Decrease Zoning for small lots	5	3%
Youth Activities	5	3%
Stronger Zoning Enforcement	4	3%
Police Services	3	2%
Increased water and sewer	2	1%

What is your biggest concern about the future?

<b>Resident Comment</b>	<b>Number</b>	<b>Percentage</b>
Increasing Taxes	57	33%
Expansion of the Landfill	55	32%
Farmland Preservation	32	18%
Environmental Pollution	8	5%
Government Operations	8	5%
Increasing Economic Development	6	3%
Limit Development of Townhouse and Multi-Family Housing	4	2%
Zoning and Property Maintenance Enforcement	3	2%
Moving to Single Trash Contractor	1	1%

Lower Windsor Township  
2022 Community Survey  
Summary Results

Respondent Information:

275 Responses (250 Electronic and 25 Paper) a 3.7% response rate.

**Employment:**

- 48% of respondents were full-time
- 37% of respondents were retired

**Age:**

- 41% - 45 to 64 years of age
- 31% - 65 to 74 years of age
- 21% - 26 to 44 years of age

**Living in Township:**

- 50% of respondents had lived in the Township 21 + years
- 29% of respondents had lived in the Township less than 10 years

**Housing Tenure**

- 94% of respondents owned their own home and lived in the Township

**Housing Condition**

- 99% of respondents felt they lived in average or above average housing

**Water and Sewer**

- 22% of respondents stated they had concerns over their drinking water
  - 2% issues of quantity
  - 15% issues of quality
  - 5% other
- 8% of respondents reported issues with their On-lot Sewage Disposal System

**Land Ownership**

- 42% - less than 1-acre
- 35% - 1 to 4 acres
- 21% - 5 to 49 acres
- < 2% 50+ acres

### **Outdoor Recreation and Hobbies:**

- 71% Gardening
- 68% Walking/Jogging
- 47% Hiking
- 5% Disc Golf

### **Ag Preservation:**

- 83% of respondents were not interested in receiving additional information regarding Agricultural Preservation.

### **Comprehensive Plan Vision:**

- 96% Agreed with the vision

### **Why do you live in the Township?**

#### Top 5 Responses

- Rural Character – 75%
- Natural Beauty – 78%
- Proximity to Susquehanna River – 47%
- Safe Environment – 85%
- Small Town Atmosphere – 63%
- Cleanliness – 75%

### **Growth and Development**

- Residential
  - Encourage
    - Single Family Units (42% encourage vs. 41% no change)
    - Affordable Units (23% encourage vs. 33% no change)
    - Senior Units (52% encourage vs. 33% no change)
  - Discourage
    - Multi-Family Units (64% discourage vs. 23% no change)
    - Townhouse Units (62% discourage vs. 25% no change)
    - Mobile Home Parks (67% discourage vs. 25% no change)
- Short Term Rentals
  - 36% Discourage
  - 41% Suggest No Change/No Opinion
- Conservation
  - Open Space (80% encourage)
  - Prime Agricultural Land (81% encourage)
  - Natural Resources (85% encourage)
  - Scenic View (82% encourage)

- Industrial
  - Light Industrial
    - 40% encourage
    - 23% discourage
    - 33% no change
    - 4% no opinion
  
  - Heavy Industrial
    - 16% encourage
    - 67% discourage
    - 15% no change
    - 3% no opinion
  
- Alternative Energy Production
  - Large Scale Solar
    - 32% encourage
    - 40% discourage
    - 20% no change
    - 8% no opinion
  
  - Wind Farms
    - 31% encourage
    - 40% discourage
    - 19% no change
    - 10% no opinion
  
- Commercial
  - Office and Professional Business
    - 40% encourage
    - 22% discourage
    - 30% no change
    - 8% no opinion
  
  - Retail
    - 38% encourage
    - 26% discourage
    - 30% no change
    - 5% no opinion
  
  - Service Businesses
    - 61% encourage
    - 15% discourage
    - 21% no change
    - 3% no opinion



## **Level of Service**

### **Increase**

- Elder Care
- Farmers Market
- Recreation and Leisure
- Riverfront & River Related Activities

### **No Change**

- Library
- Community Center
- Gas Station and Convenience
- Grocery
  
- Tourism Business
- Green Businesses
- Home Based Businesses
- Child Day Care
- Event Venue

## **How important is it to provide a range of housing densities, types, and sizes of housing?**

- 19% - Very Important
- 42% - Somewhat Important
- 39% - Not Important

## **Crime in the Township:**

- 75% of respondents felt that crime was “not too serious” or “not serious at all”

## **Greatest Problems facing the Township:**

- Traffic Issues
- Drug Abuse
- School Bullying
- Excessive Fireworks
- Air Pollution

# Q1 Please provide your name and address (the information is used to verify responses only).

Answered: 245 Skipped: 5

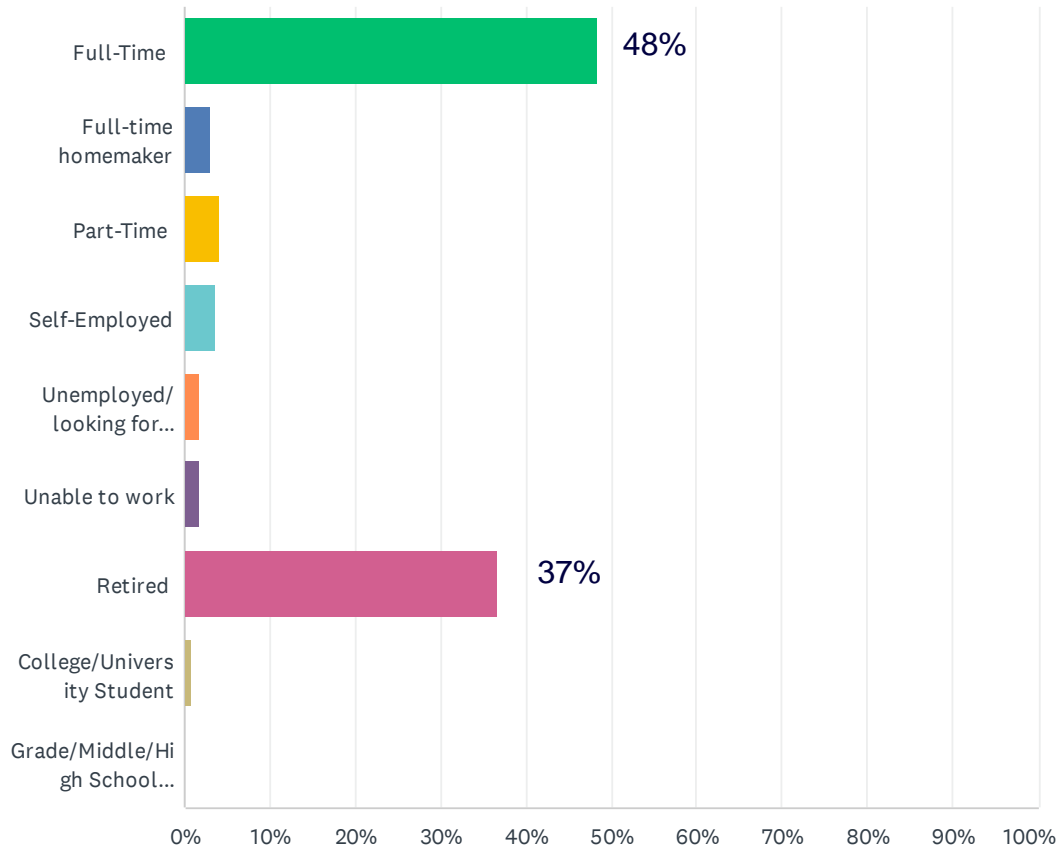
ANSWER CHOICES	RESPONSES	
Name	99.59%	244
Company (if applicable)	4.08%	10
Address	97.96%	240
Address 2	0.00%	0
City/Town	99.59%	244
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	0.00%	0
Phone Number	0.00%	0

**Q2 If you are interested in receiving information regarding the Comprehensive Plan Update, please provide the Township with your email address:**

Answered: 170 Skipped: 80

### Q3 Current Employment Status

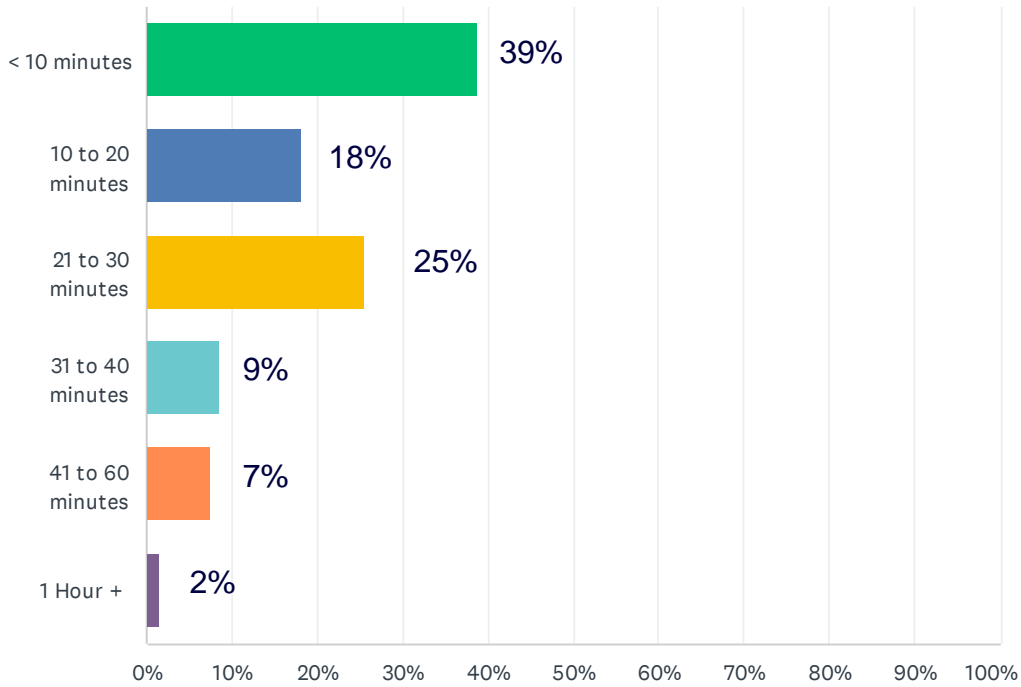
Answered: 242 Skipped: 8



ANSWER CHOICES	RESPONSES	
Full-Time	48.35%	117
Full-time homemaker	2.89%	7
Part-Time	4.13%	10
Self-Employed	3.72%	9
Unemployed/ looking for work	1.65%	4
Unable to work	1.65%	4
Retired	36.78%	89
College/University Student	0.83%	2
Grade/Middle/High School Student	0.00%	0
<b>TOTAL</b>		<b>242</b>

## Q4 How long is your commute to Work/School?

Answered: 188 Skipped: 62



ANSWER CHOICES	RESPONSES	
< 10 minutes	38.83%	73
10 to 20 minutes	18.09%	34
21 to 30 minutes	25.53%	48
31 to 40 minutes	8.51%	16
41 to 60 minutes	7.45%	14
1 Hour +	1.60%	3
<b>TOTAL</b>		<b>188</b>

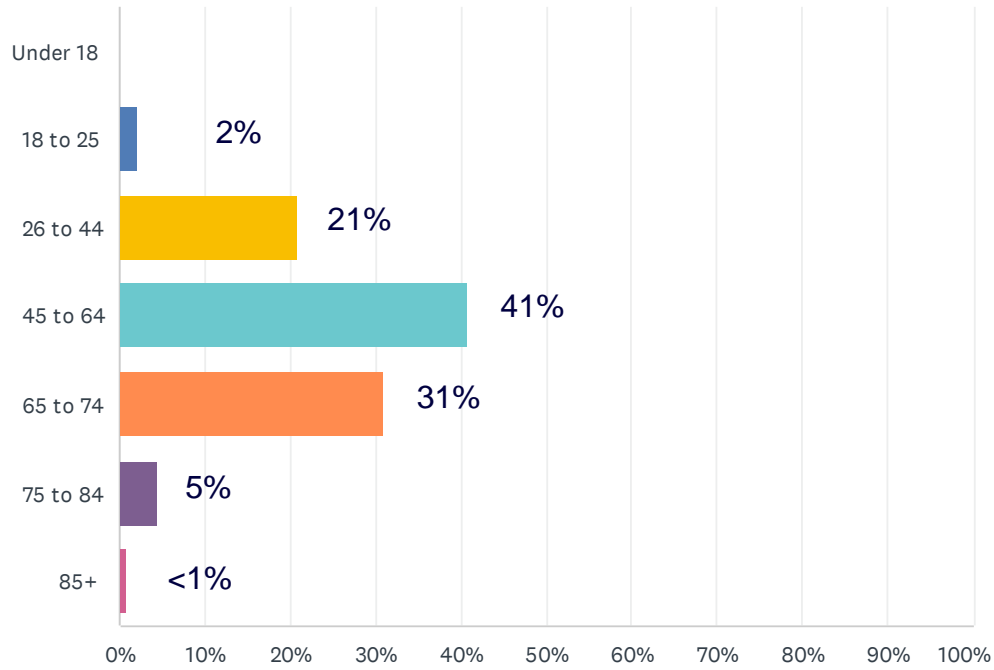
## Q5 How many people live in your household?

Answered: 240 Skipped: 10

2.4 Persons Per Household

## Q6 What is your age bracket?

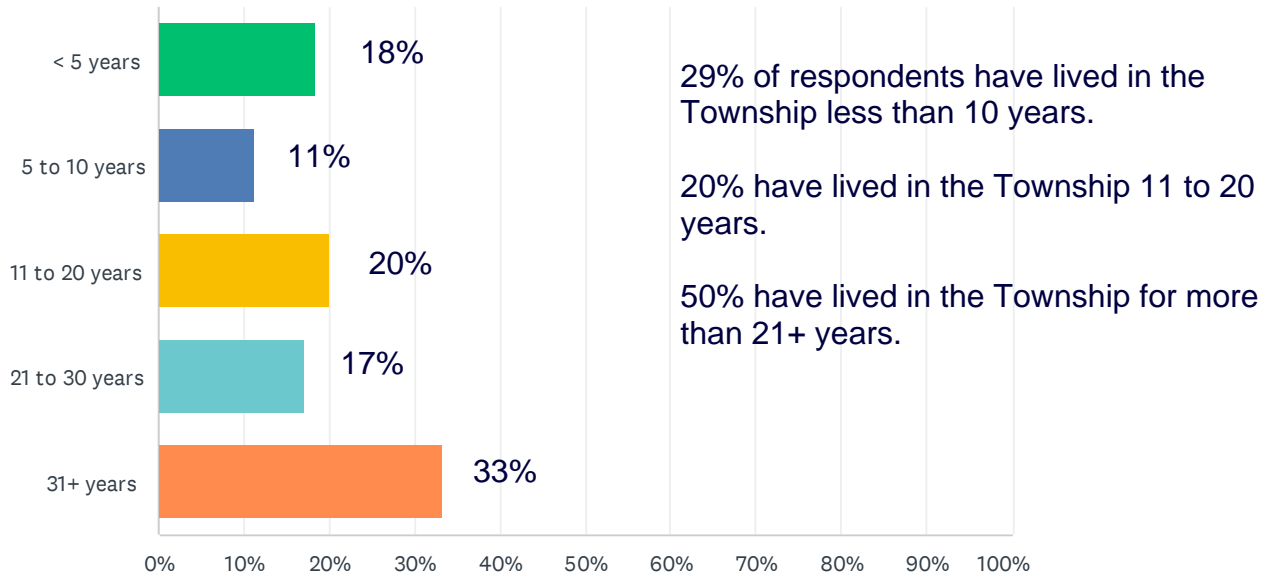
Answered: 243 Skipped: 7



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18 to 25	2.06%	5
26 to 44	20.99%	51
45 to 64	40.74%	99
65 to 74	30.86%	75
75 to 84	4.53%	11
85+	0.82%	2
<b>TOTAL</b>		<b>243</b>

## Q7 How long have you lived in Lower Windsor Township (LWT)?

Answered: 240 Skipped: 10

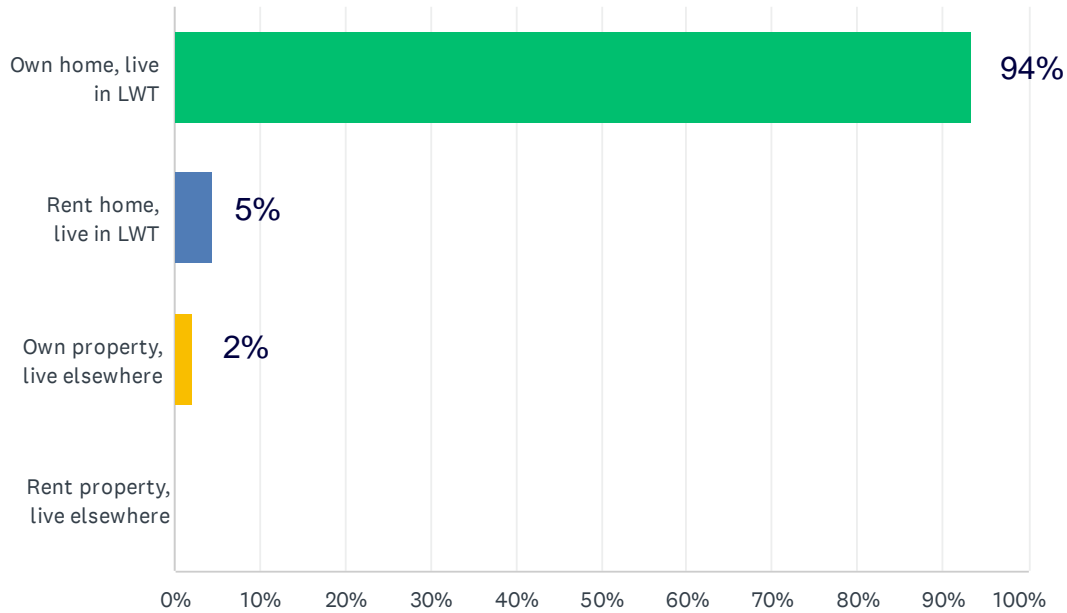


ANSWER CHOICES	RESPONSES	
< 5 years	18.33%	44
5 to 10 years	11.25%	27
11 to 20 years	20.00%	48
21 to 30 years	17.08%	41
31+ years	33.33%	80
TOTAL		240



## Q8 Do you rent or own your home/building/land in Lower Windsor Township?

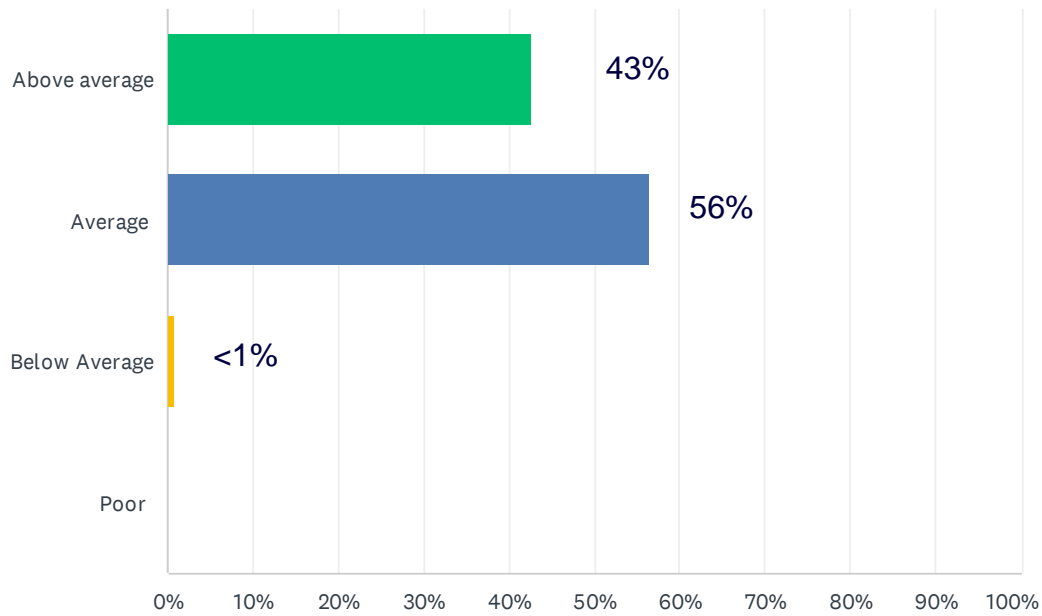
Answered: 242 Skipped: 8



ANSWER CHOICES	RESPONSES	
Own home, live in LWT	93.39%	226
Rent home, live in LWT	4.55%	11
Own property, live elsewhere	2.07%	5
Rent property, live elsewhere	0.00%	0
<b>TOTAL</b>		<b>242</b>

## Q9 Do you consider the quality of your home to be:

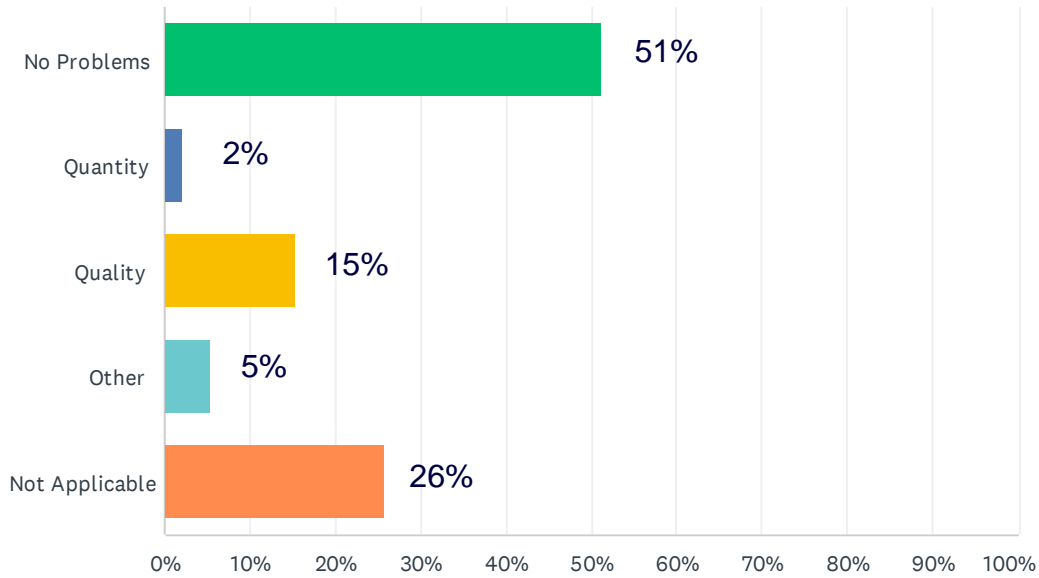
Answered: 241 Skipped: 9



ANSWER CHOICES	RESPONSES	
Above average	42.74%	103
Average	56.43%	136
Below Average	0.83%	2
Poor	0.00%	0
TOTAL		241

## Q10 Do you have any problems with your private drinking well water?

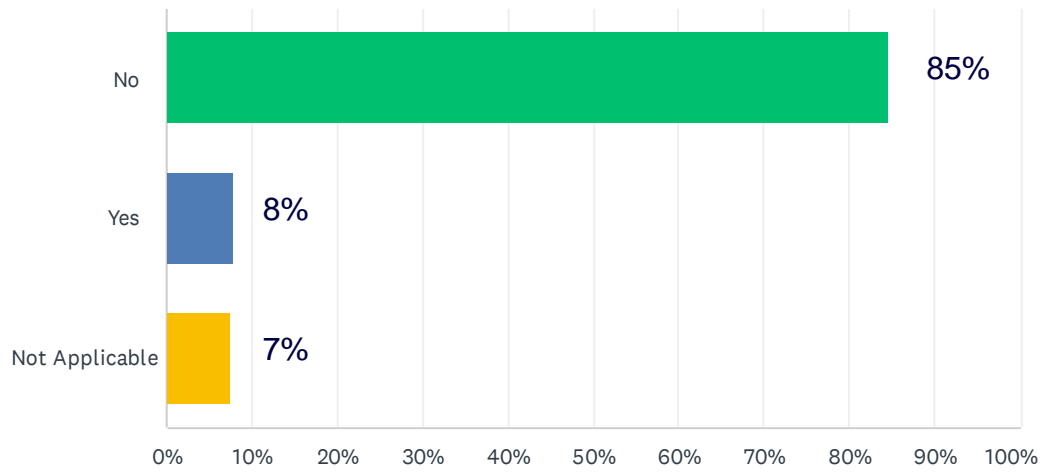
Answered: 240 Skipped: 10



ANSWER CHOICES	RESPONSES	
No Problems	51.25%	123
Quantity	2.08%	5
Quality	15.42%	37
Other	5.42%	13
Not Applicable	25.83%	62
<b>TOTAL</b>		<b>240</b>

## Q11 Do you have any concerns with your on-lot septic system?

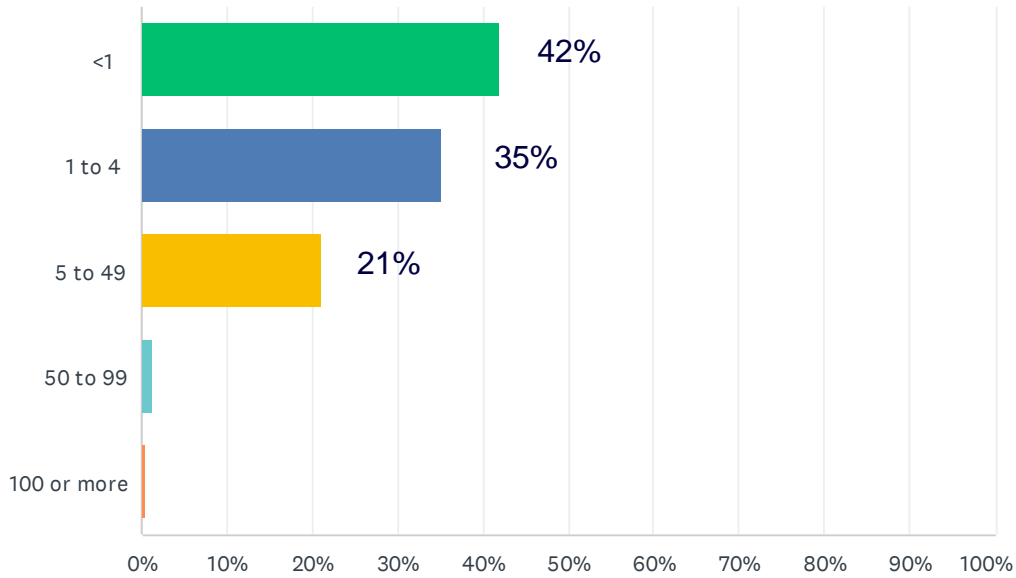
Answered: 242 Skipped: 8



ANSWER CHOICES	RESPONSES	
No	84.71%	205
Yes	7.85%	19
Not Applicable	7.44%	18
<b>TOTAL</b>		<b>242</b>

## Q12 If you own land, how many acres?

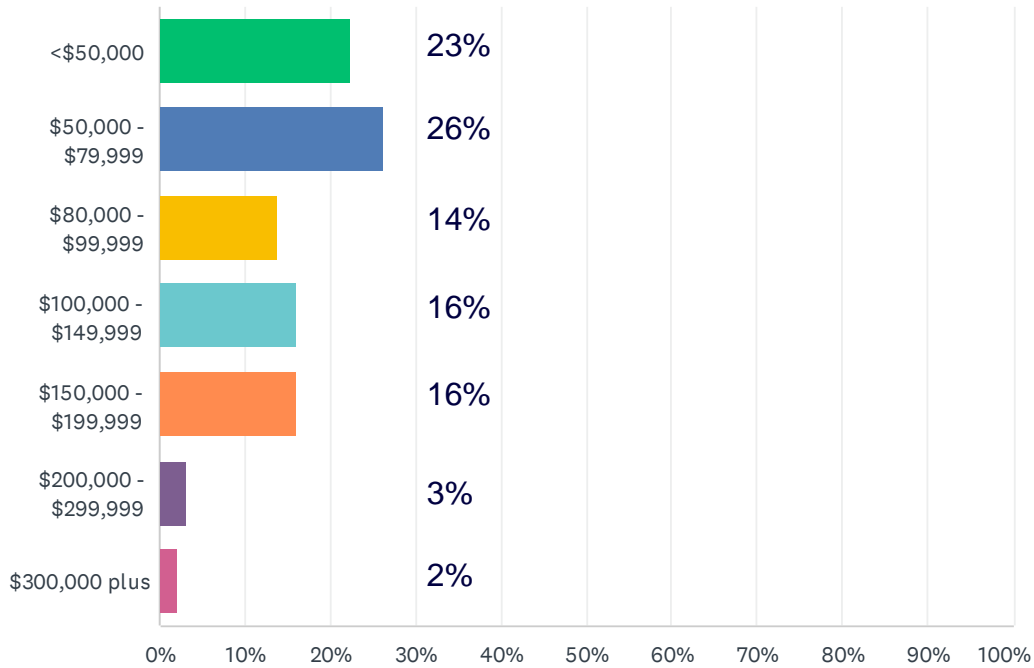
Answered: 228 Skipped: 22



ANSWER CHOICES	RESPONSES	
<1	42.11%	96
1 to 4	35.09%	80
5 to 49	21.05%	48
50 to 99	1.32%	3
100 or more	0.44%	1
<b>TOTAL</b>		<b>228</b>

### Q13 What is your household income? (optional)

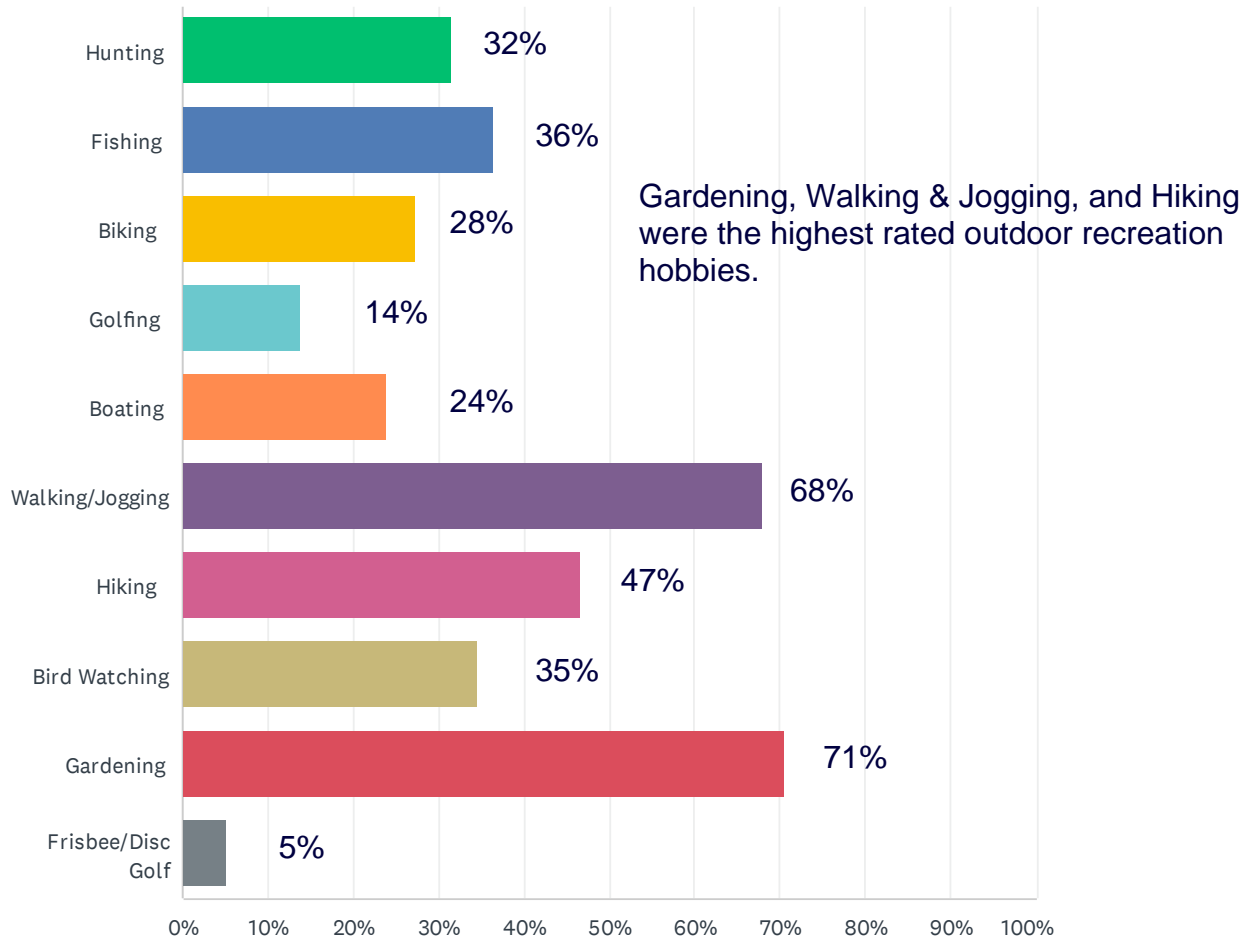
Answered: 187 Skipped: 63



ANSWER CHOICES	RESPONSES	
<\$50,000	22.46%	42
\$50,000 - \$79,999	26.20%	49
\$80,000 - \$99,999	13.90%	26
\$100,000 - \$149,999	16.04%	30
\$150,000 - \$199,999	16.04%	30
\$200,000 - \$299,999	3.21%	6
\$300,000 plus	2.14%	4
<b>TOTAL</b>		<b>187</b>

# Q14 Do you participate in outdoor recreation/ hobbies? Please click all that apply.

Answered: 231 Skipped: 19



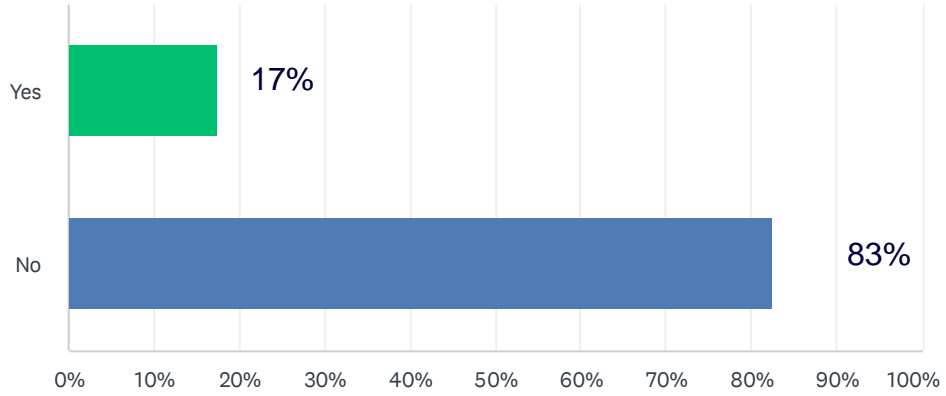
## Comprehensive Plan Update Community Survey

ANSWER CHOICES	RESPONSES	
Hunting	31.60%	73
Fishing	36.36%	84
Biking	27.27%	63
Golfing	13.85%	32
Boating	23.81%	55
Walking/Jogging	67.97%	157
Hiking	46.75%	108
Bird Watching	34.63%	80
Gardening	70.56%	163
Frisbee/Disc Golf	5.19%	12
Total Respondents: 231		



### Q15 If you own a farm, are you interested in learning more about agriculture land preservation programs and strategies?

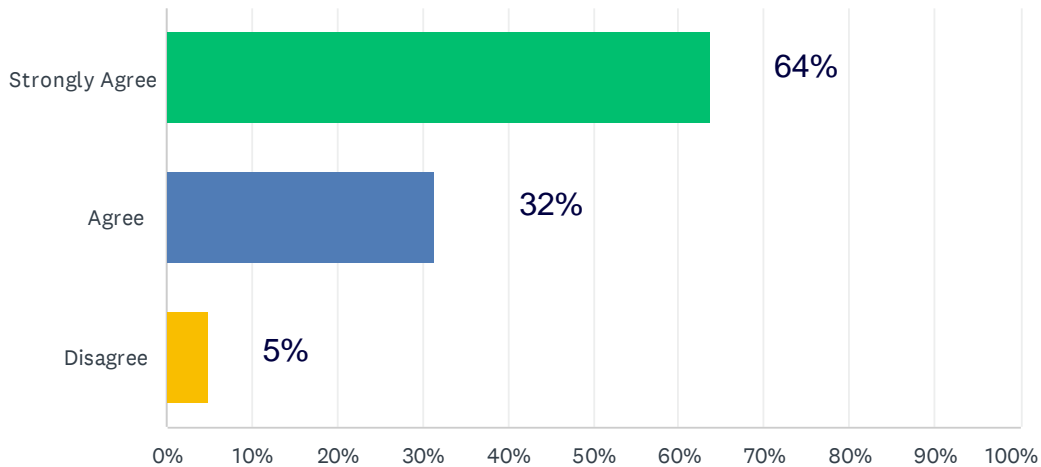
Answered: 149 Skipped: 101



ANSWER CHOICES	RESPONSES	
Yes	17.45%	26
No	82.55%	123
<b>TOTAL</b>		<b>149</b>

Q16 Please rate the following vision for Lower Windsor Township: “Lower Windsor’s rich heritage as a safe, family-oriented, small town and farming community shall be our primary guide for directing future growth and development in the Township. Decisions shall be made so as to ensure clean air and water, healthy soil, and scenic beauty for current and future residents. Our citizens and leaders will work together to preserve and enhance the Township’s traditional “town and country” character, even as we welcome the new residents and private investment needed to maintain and grow a healthy, viable and prosperous community.”

Answered: 223 Skipped: 27



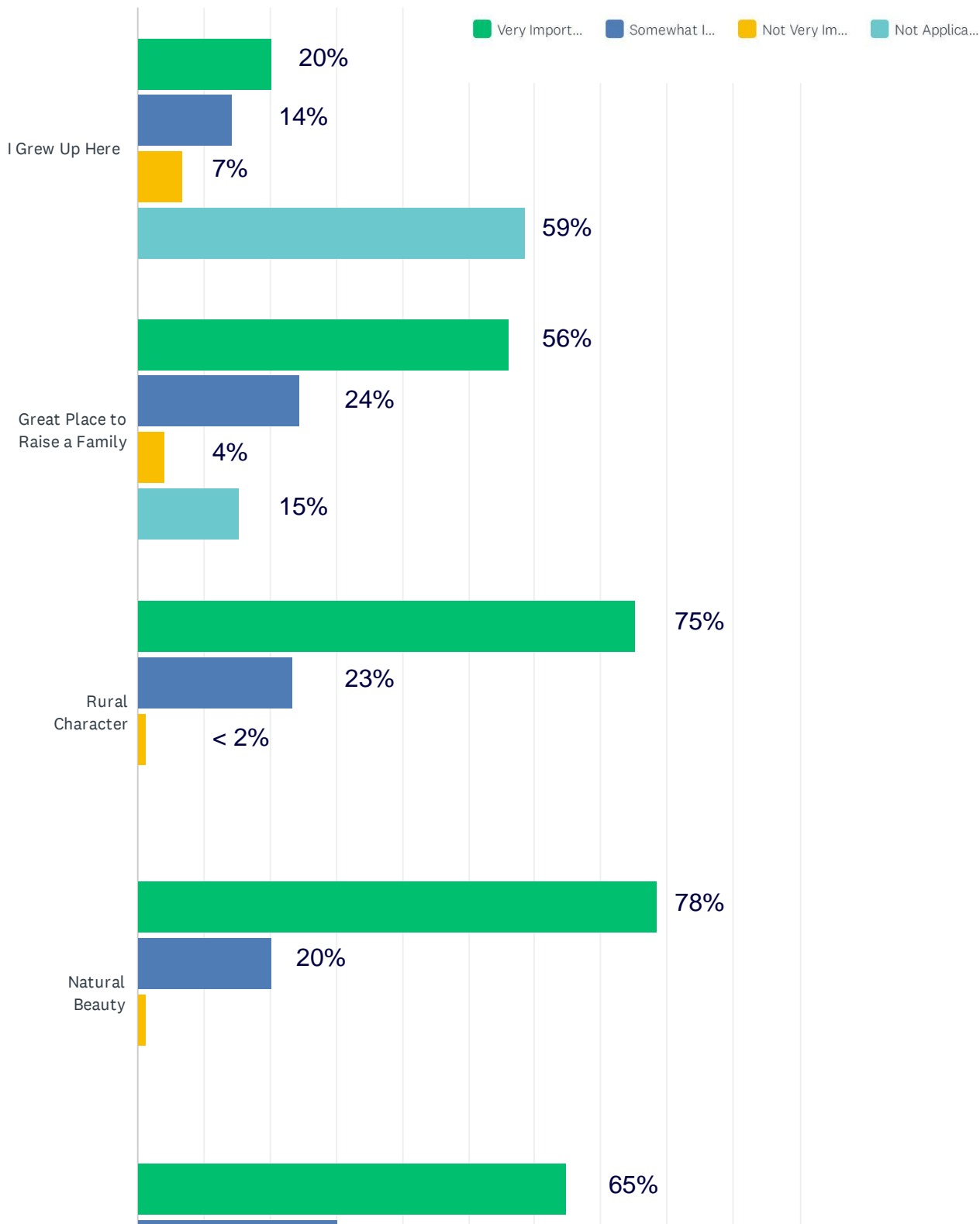
ANSWER CHOICES	RESPONSES	
Strongly Agree	63.68%	142
Agree	31.39%	70
Disagree	4.93%	11
TOTAL		223

## Q17 Would you add or change anything to the vision statement above?

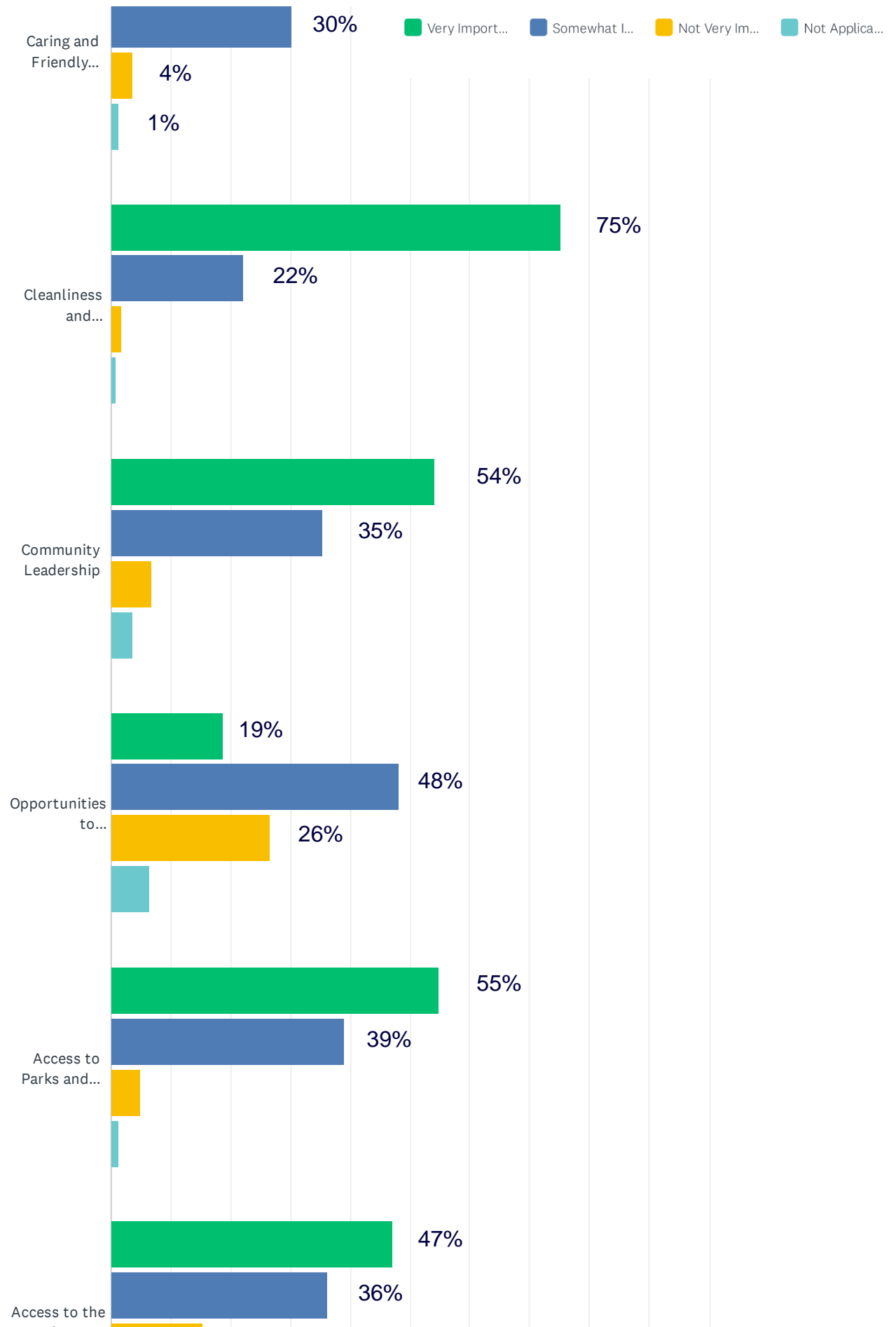
Answered: 141 Skipped: 109

### Q18 Please rate each of the following statements to indicate why you choose to live in Lower Windsor Township or what you value about the community.

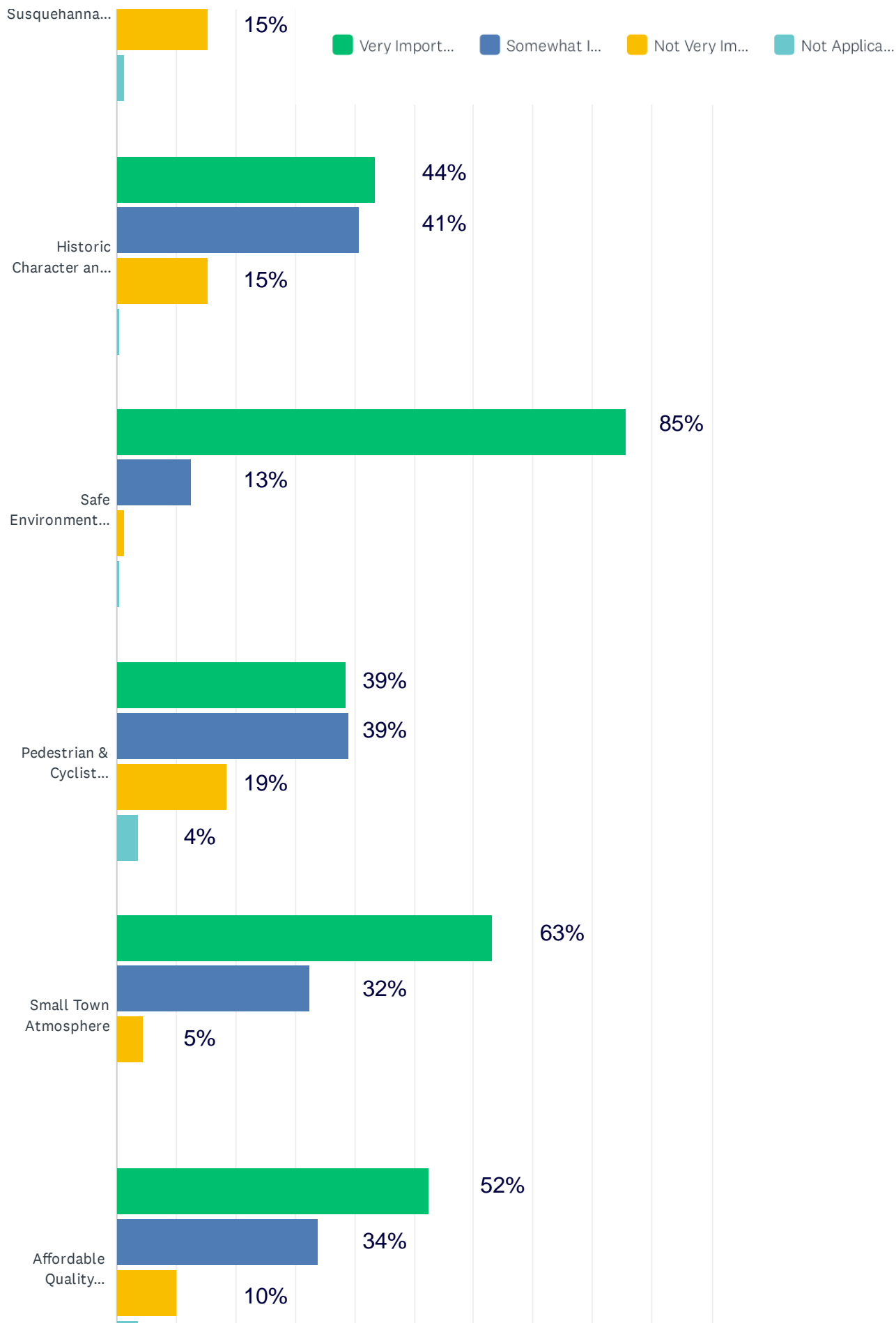
Answered: 225 Skipped: 25



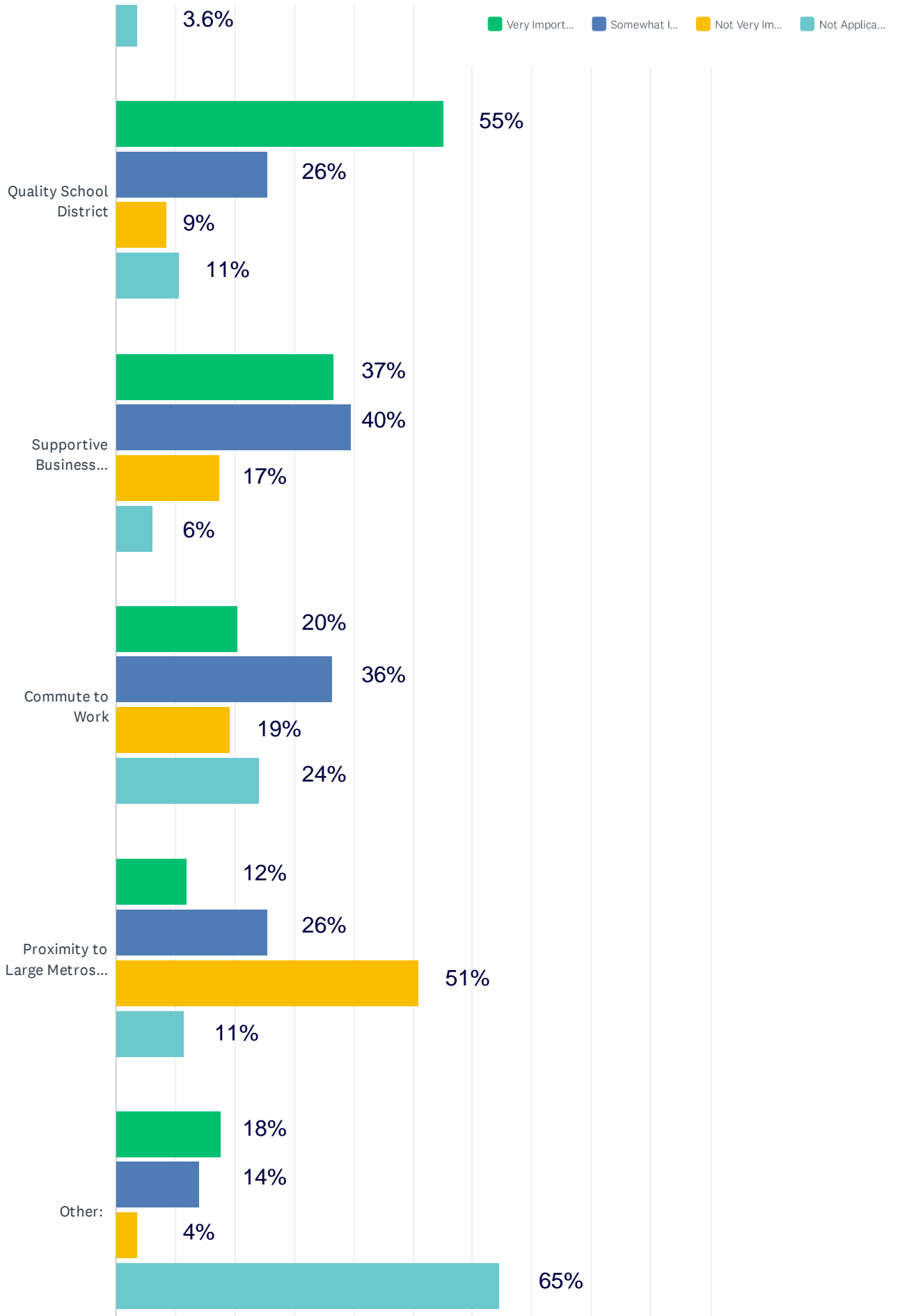
# Comprehensive Plan Update Community Survey



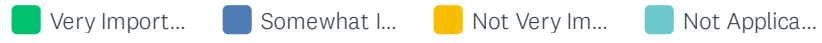
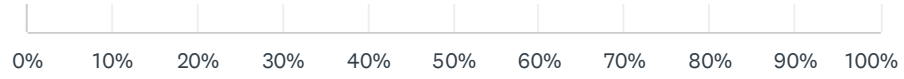
# Comprehensive Plan Update Community Survey



# Comprehensive Plan Update Community Survey



# Comprehensive Plan Update Community Survey



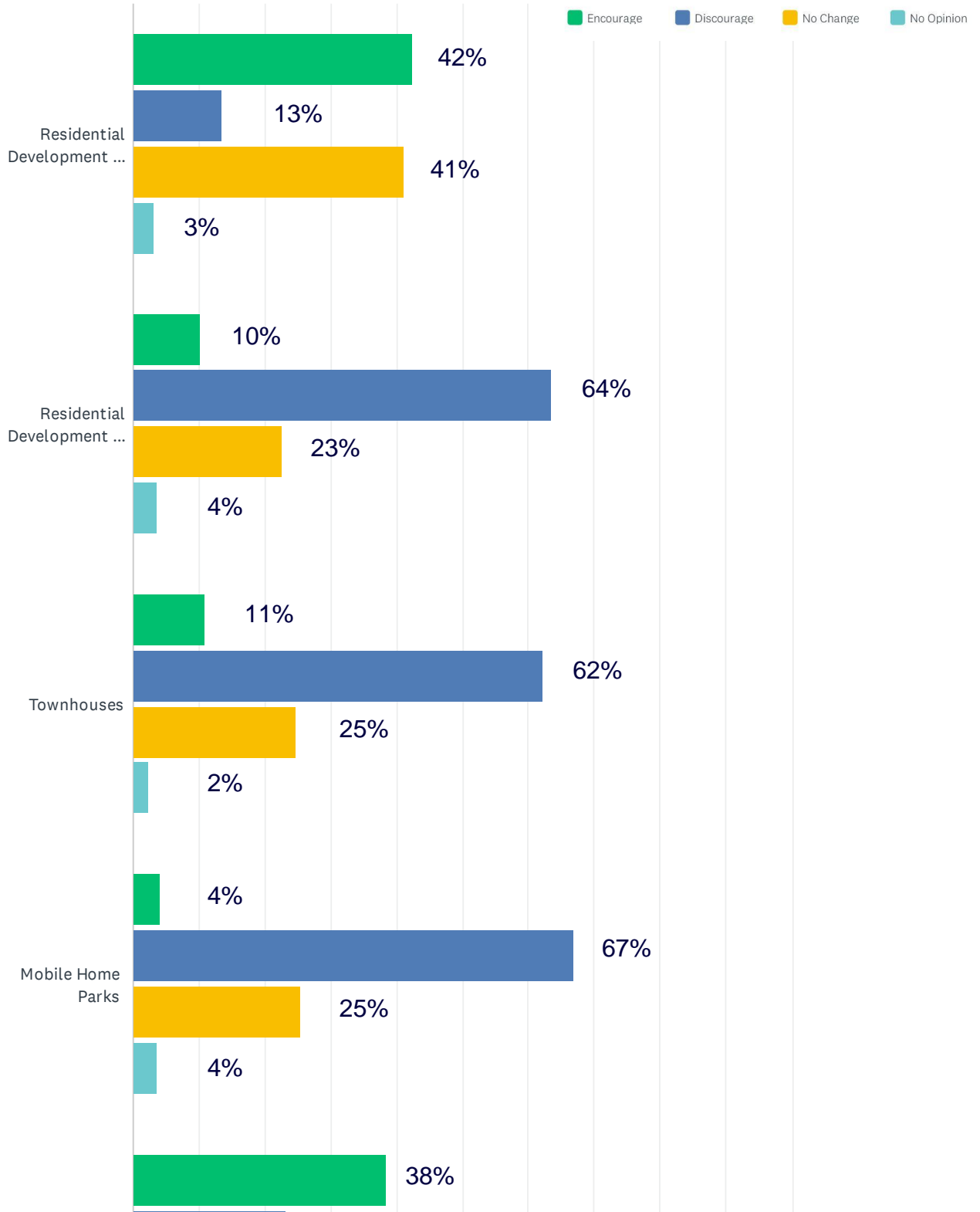


Comprehensive Plan Update Community Survey

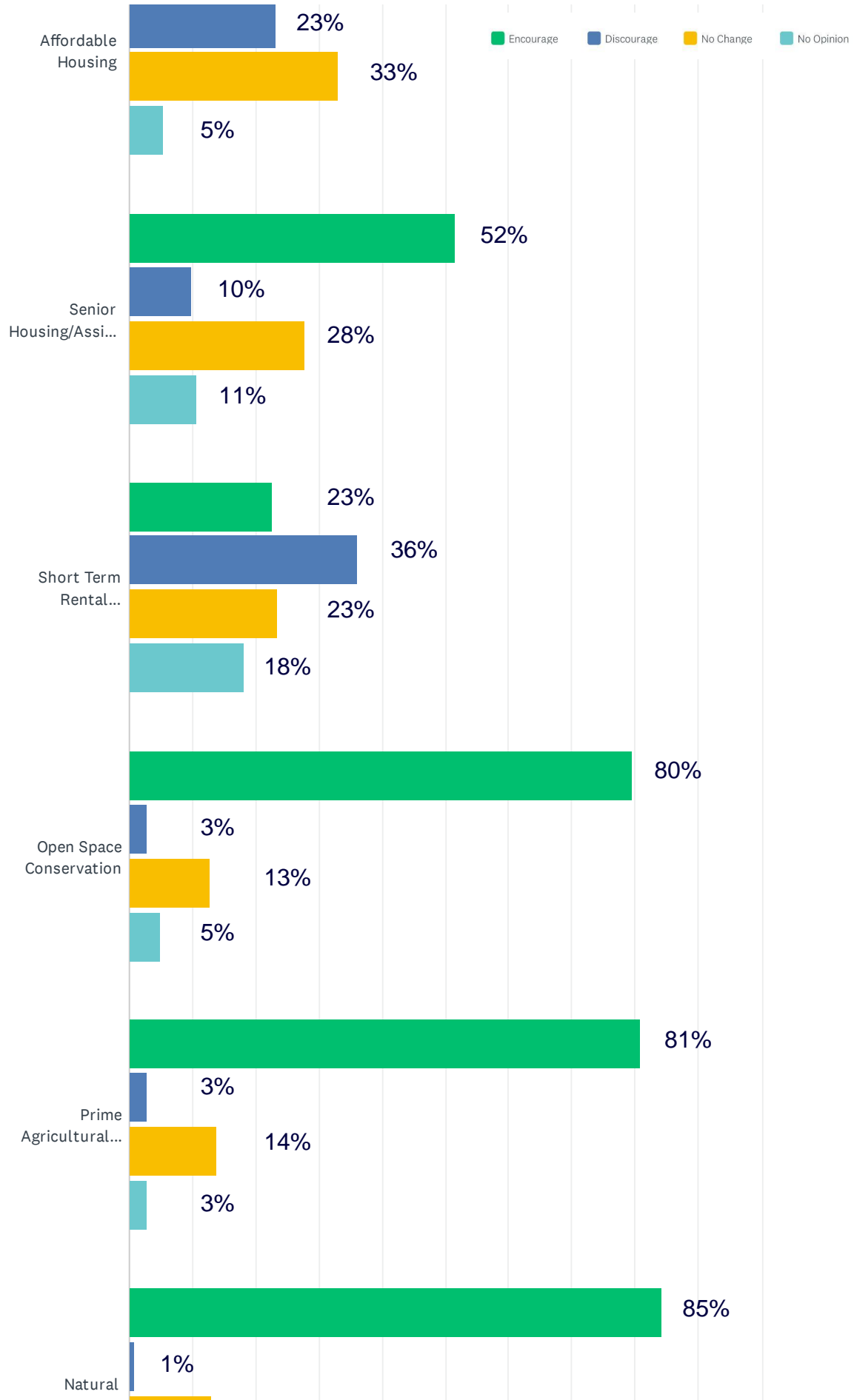
	VERY IMPORTANT	SOMEWHAT IMPORTANT	NOT VERY IMPORTANT	NOT APPLICABLE	TOTAL	WEIGHTED AVERAGE
I Grew Up Here	20.18% 44	14.22% 31	6.88% 15	58.72% 128	218	0.96
Great Place to Raise a Family	56.11% 124	24.43% 54	4.07% 9	15.38% 34	221	2.21
Rural Character	75.23% 167	23.42% 52	1.35% 3	0.00% 0	222	2.74
Natural Beauty	78.38% 174	20.27% 45	1.35% 3	0.00% 0	222	2.77
Caring and Friendly Community	64.73% 145	30.36% 68	3.57% 8	1.34% 3	224	2.58
Cleanliness and Tidiness	75.23% 167	22.07% 49	1.80% 4	0.90% 2	222	2.72
Community Leadership	54.13% 118	35.32% 77	6.88% 15	3.67% 8	218	2.40
Opportunities to Volunteer	18.81% 41	48.17% 105	26.61% 58	6.42% 14	218	1.79
Access to Parks and Recreation	54.71% 122	39.01% 87	4.93% 11	1.35% 3	223	2.47
Access to the Susquehanna River	47.09% 105	36.32% 81	15.25% 34	1.35% 3	223	2.29
Historic Character and Heritage	43.50% 97	40.81% 91	15.25% 34	0.45% 1	223	2.27
Safe Environment	85.71% 192	12.50% 28	1.34% 3	0.45% 1	224	2.83
Pedestrian & Cyclist Safety	38.64% 85	39.09% 86	18.64% 41	3.64% 8	220	2.13
Small Town Atmosphere	63.06% 140	32.43% 72	4.50% 10	0.00% 0	222	2.59
Affordable Quality Housing	52.49% 116	33.94% 75	9.95% 22	3.62% 8	221	2.35
Quality School District	55.16% 123	25.56% 57	8.52% 19	10.76% 24	223	2.25
Supportive Business Environment	36.61% 82	39.73% 89	17.41% 39	6.25% 14	224	2.07
Commute to Work	20.45% 45	36.36% 80	19.09% 42	24.09% 53	220	1.53
Proximity to Large Metros (D.C., Baltimore, Philadelphia, and N.Y.)	11.93% 26	25.69% 56	50.92% 111	11.47% 25	218	1.38
Other:	17.65% 15	14.12% 12	3.53% 3	64.71% 55	85	0.85

Q19 For each land use/activity below, please indicate whether you would be in favor of encouraging, discouraging, or not changing the level of that particular type of development in the Township.

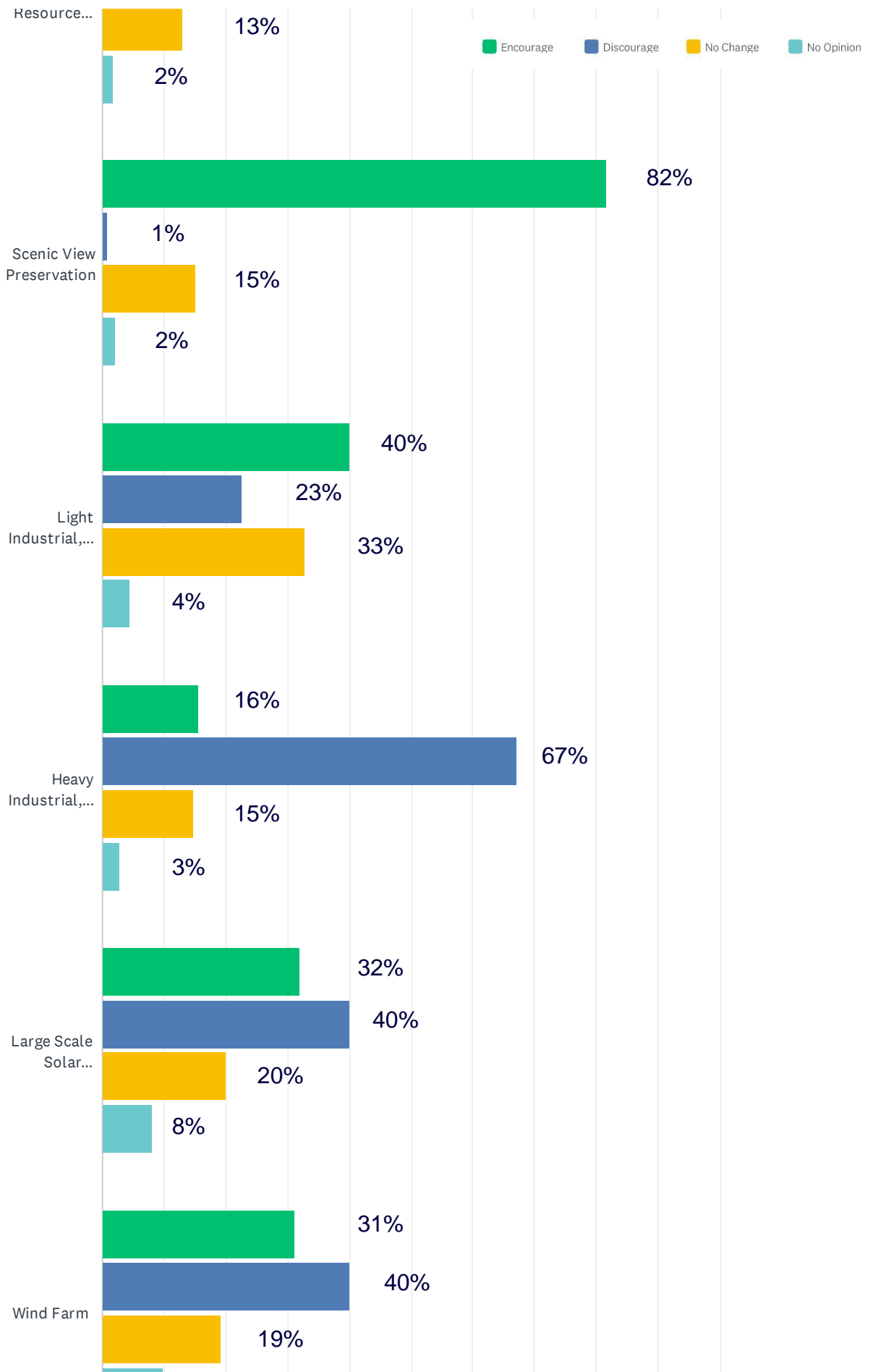
Answered: 225 Skipped: 25



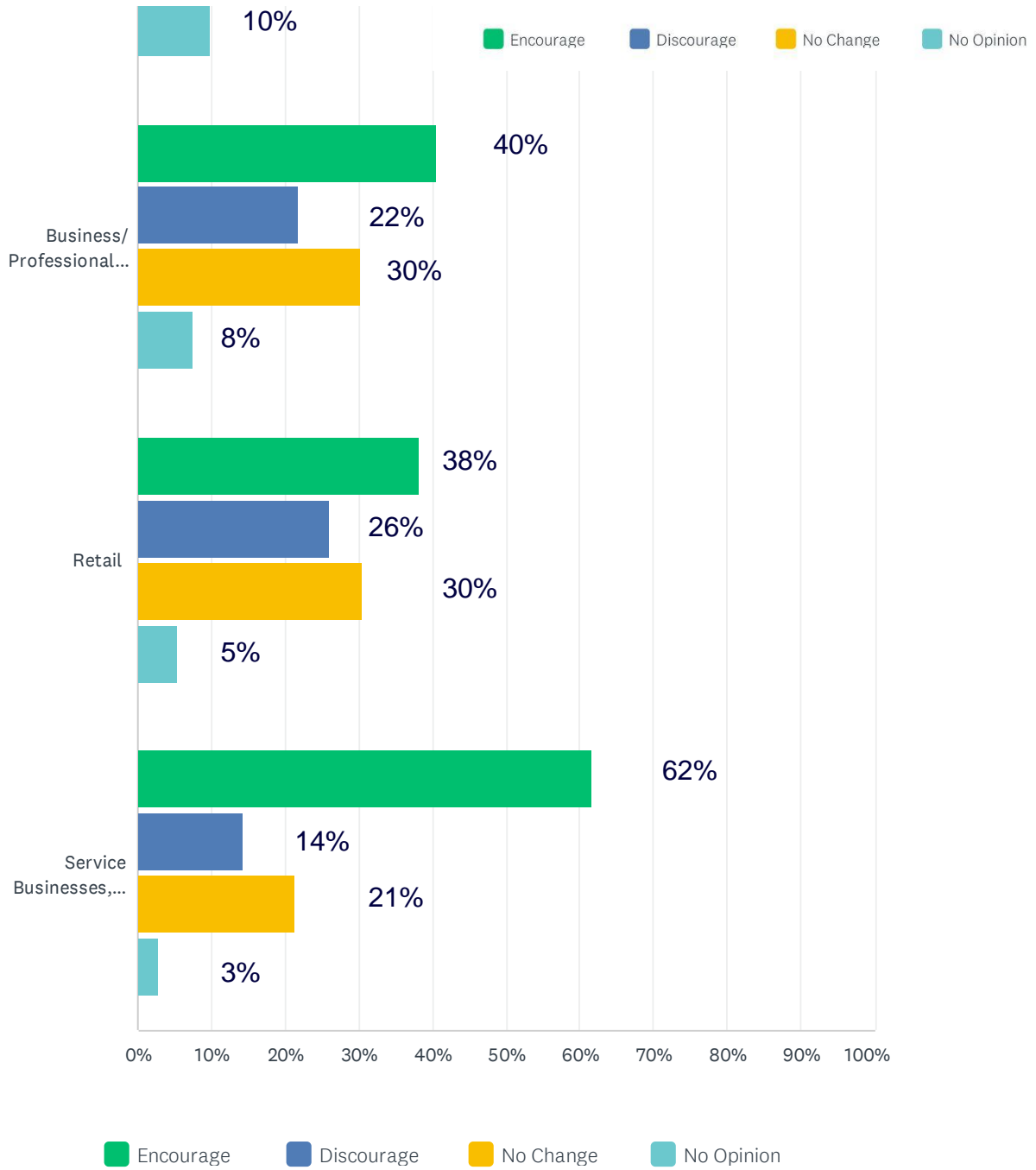
# Comprehensive Plan Update Community Survey



# Comprehensive Plan Update Community Survey



# Comprehensive Plan Update Community Survey

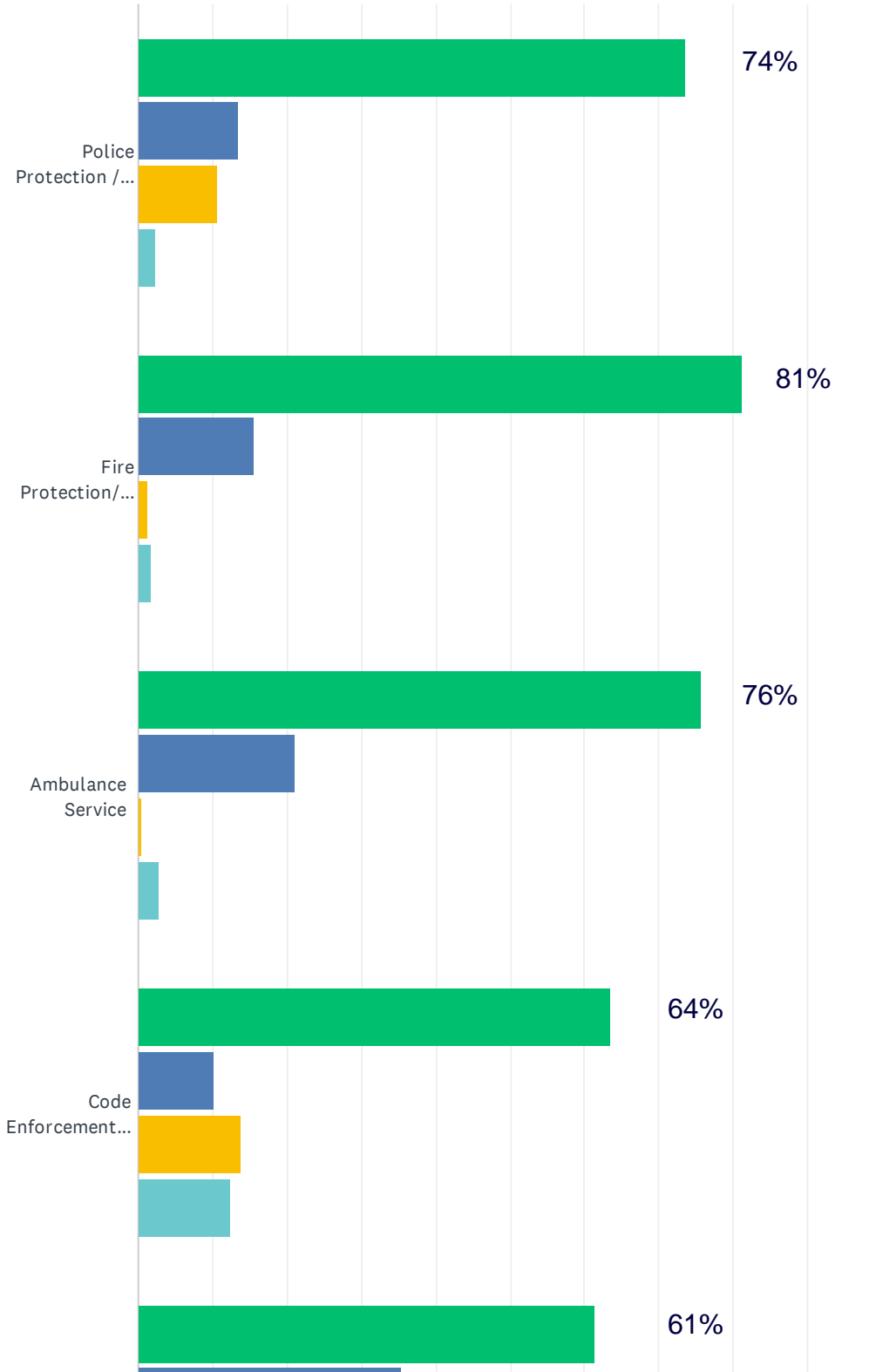


Comprehensive Plan Update Community Survey

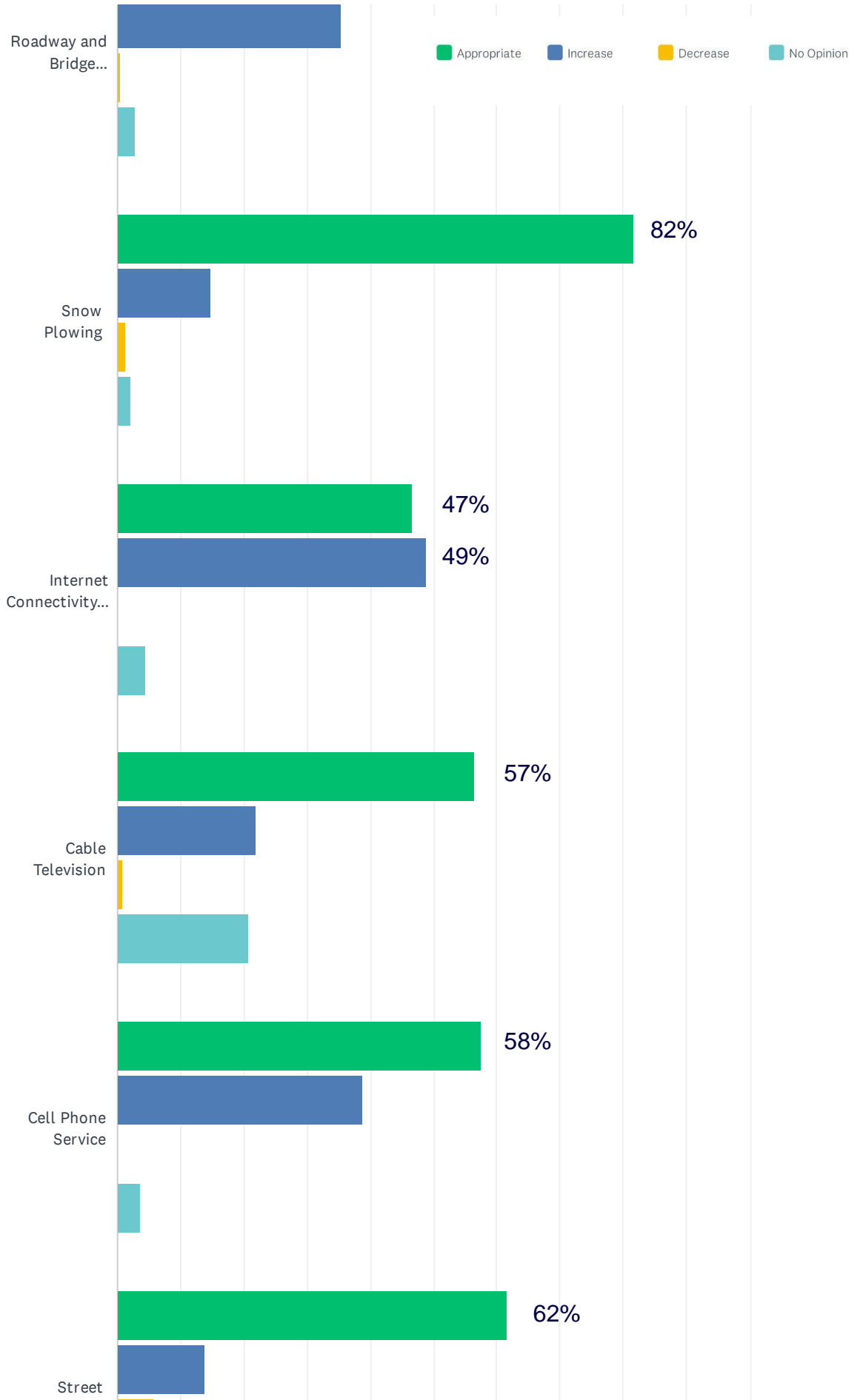
	ENCOURAGE	DISCOURAGE	NO CHANGE	NO OPINION	TOTAL	WEIGHTED AVERAGE
Residential Development - Single Family Dwellings	42.41% 95	13.39% 30	41.07% 92	3.13% 7	224	1.95
Residential Development - Multi-Family Dwellings	10.22% 23	63.56% 143	22.67% 51	3.56% 8	225	1.80
Townhouses	10.81% 24	62.16% 138	24.77% 55	2.25% 5	222	1.82
Mobile Home Parks	4.02% 9	66.96% 150	25.45% 57	3.57% 8	224	1.71
Affordable Housing	38.39% 86	23.21% 52	33.04% 74	5.36% 12	224	1.95
Senior Housing/Assisted Living	51.57% 115	9.87% 22	27.80% 62	10.76% 24	223	2.02
Short Term Rental Regulations, i.e. Airbnb, VRBO	22.52% 50	36.04% 80	23.42% 52	18.02% 40	222	1.63
Open Space Conservation	79.56% 179	2.67% 6	12.89% 29	4.89% 11	225	2.57
Prime Agricultural Land Conservation	80.89% 182	2.67% 6	13.78% 31	2.67% 6	225	2.62
Natural Resource Conservation	84.30% 188	0.90% 2	13.00% 29	1.79% 4	223	2.68
Scenic View Preservation	81.70% 183	0.89% 2	15.18% 34	2.23% 5	224	2.62
Light Industrial, i.e. assembly, fabricating, packaging, processing	40.00% 90	22.67% 51	32.89% 74	4.44% 10	225	1.98
Heavy Industrial, i.e. steel mills, landfills, salvage yards, quarries	15.56% 35	67.11% 151	14.67% 33	2.67% 6	225	1.96
Large Scale Solar Installations, i.e. solar farms	32.00% 72	40.00% 90	20.00% 45	8.00% 18	225	1.96
Wind Farm	31.11% 70	40.00% 90	19.11% 43	9.78% 22	225	1.92
Business/ Professional Office	40.44% 91	21.78% 49	30.22% 68	7.56% 17	225	1.95
Retail	38.12% 85	26.01% 58	30.49% 68	5.38% 12	223	1.97
Service Businesses, i.e. pharmacy, restaurants	61.61% 138	14.29% 32	21.43% 48	2.68% 6	224	2.35

Q20 For each of the services below, please indicate whether you think the level of service is appropriate, should be increased, or should be decreased.

■ Appropriate 
 ■ Increase 
 ■ Decrease 
 ■ No Opinion 
 Answered: 226 Skipped: 24

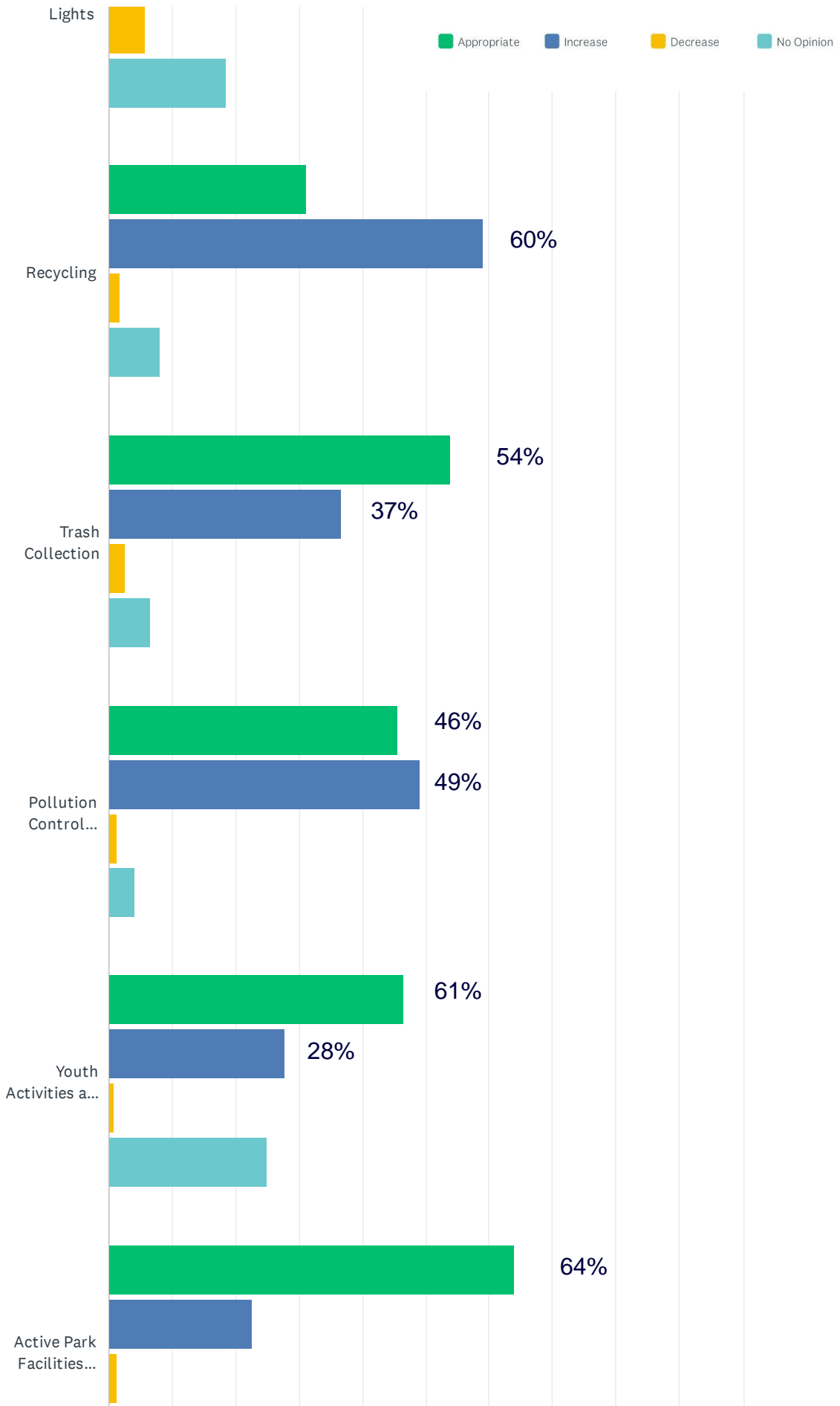


# Comprehensive Plan Update Community Survey

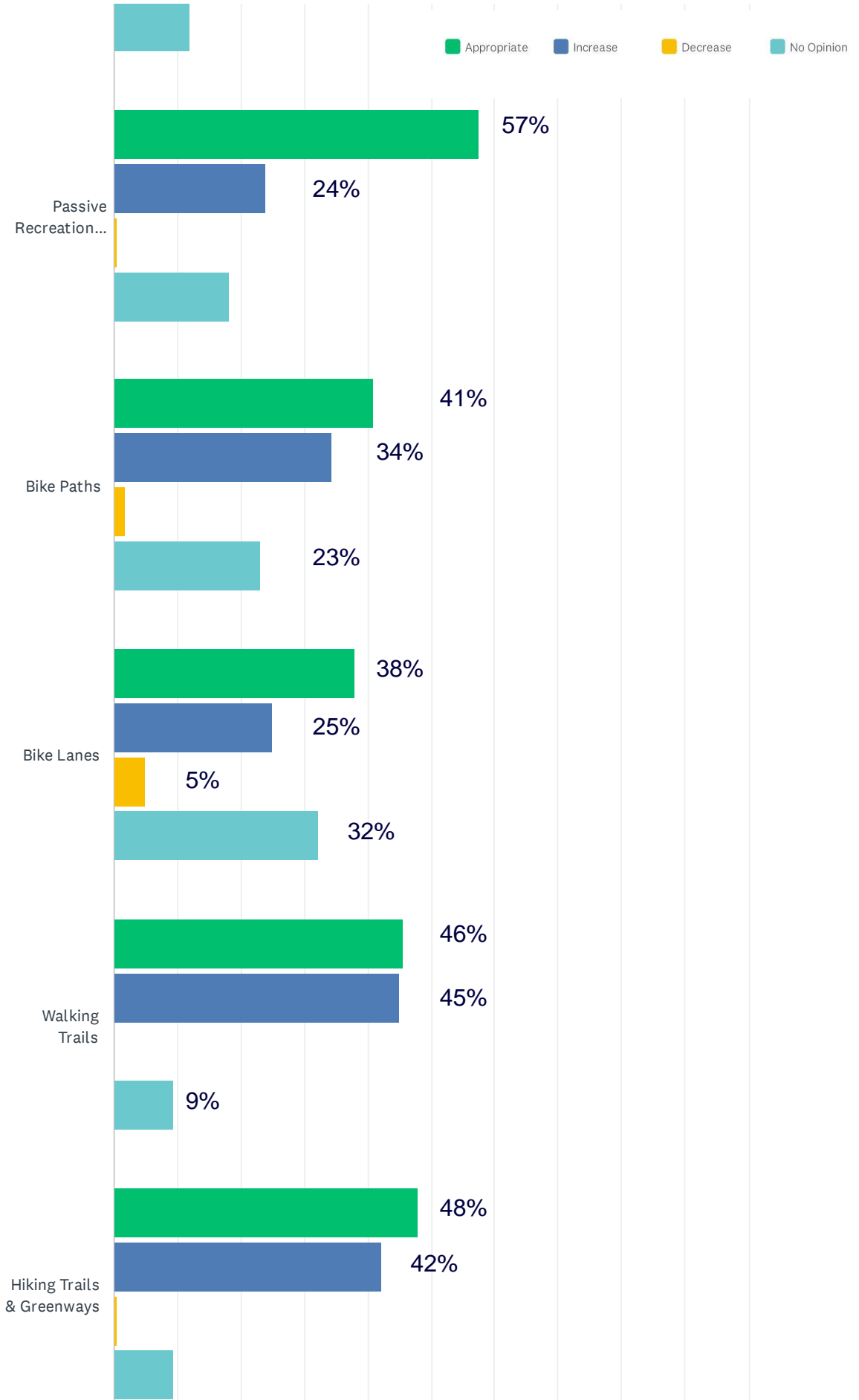




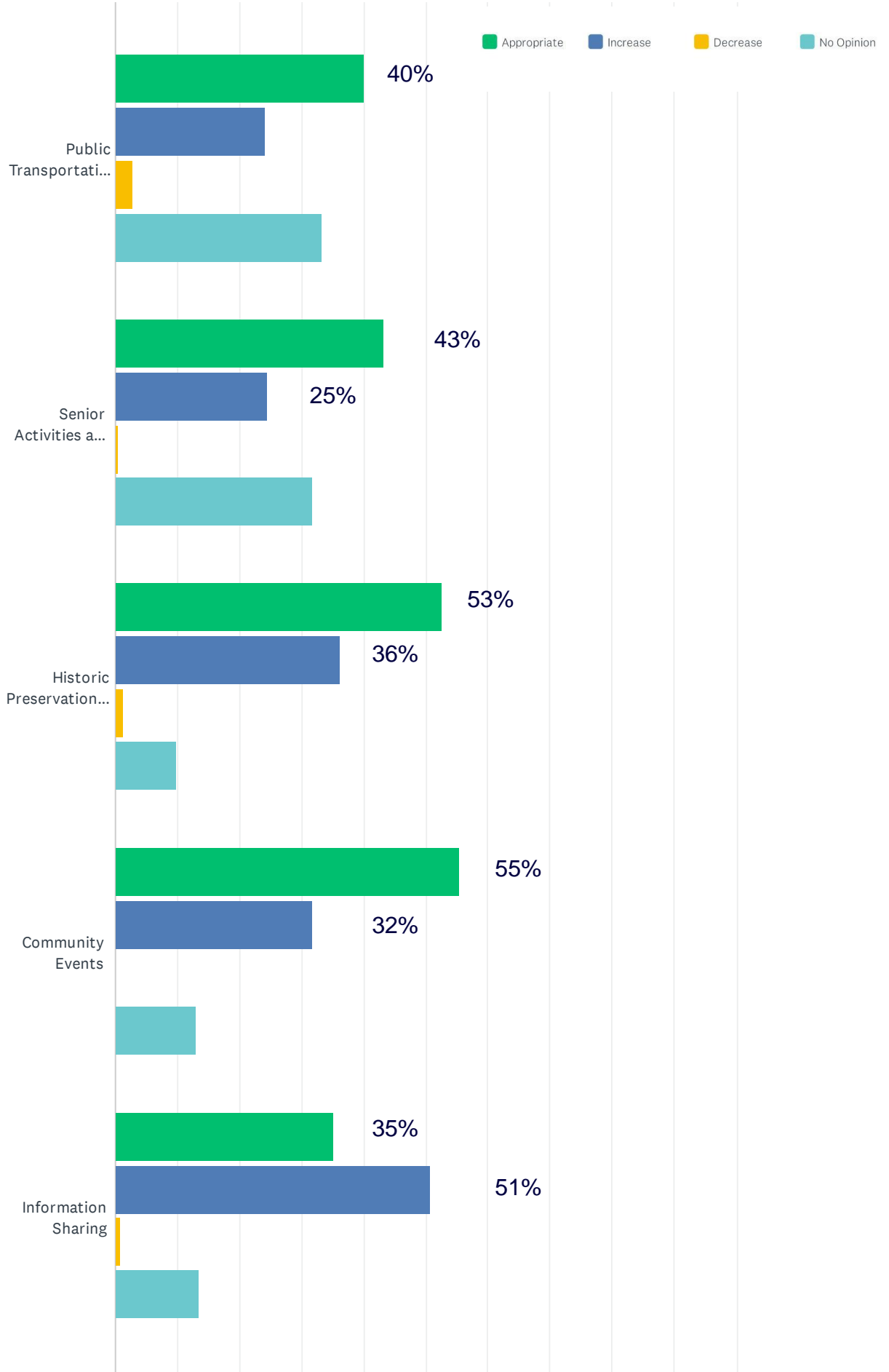
# Comprehensive Plan Update Community Survey



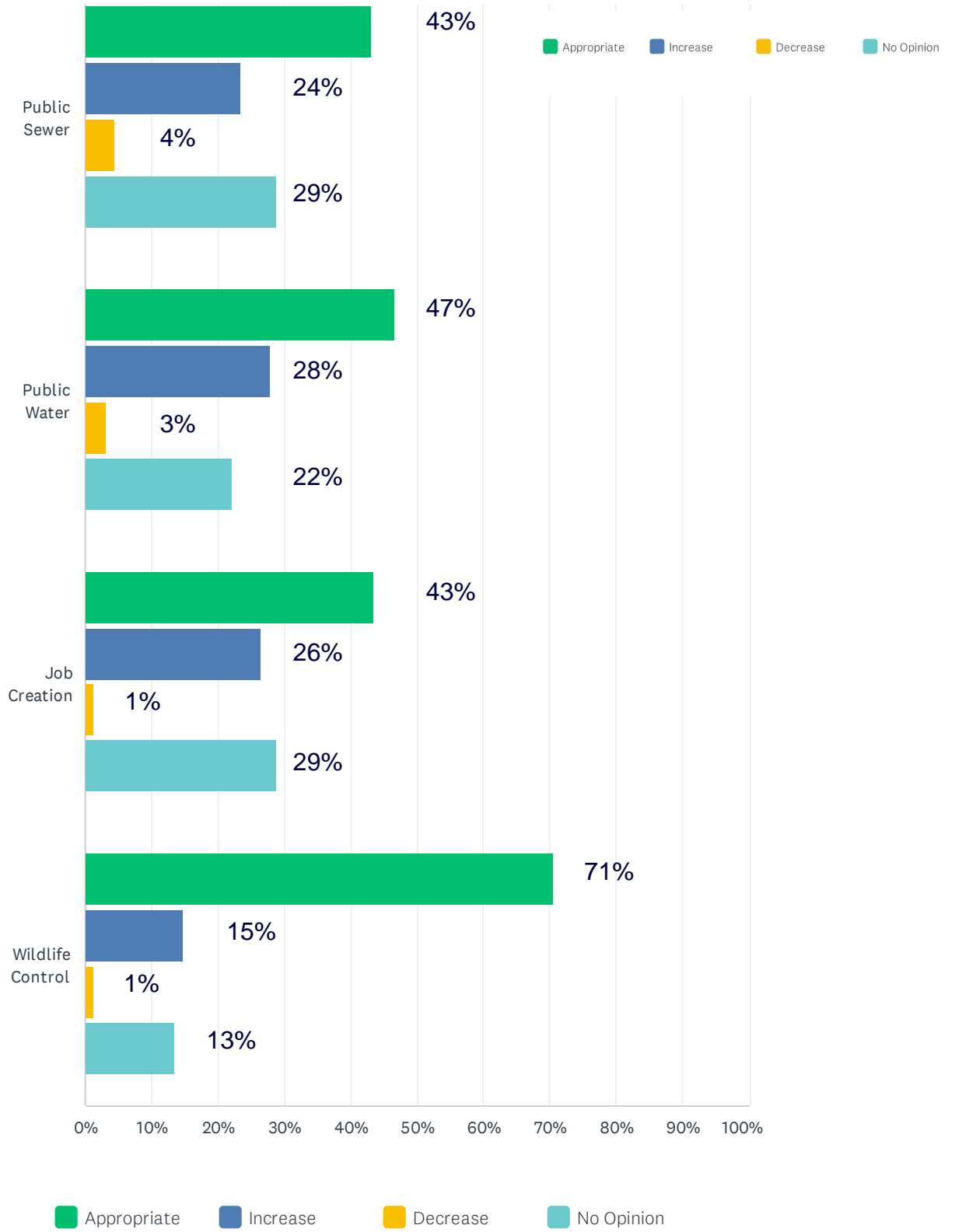
# Comprehensive Plan Update Community Survey



# Comprehensive Plan Update Community Survey



# Comprehensive Plan Update Community Survey



Comprehensive Plan Update Community Survey

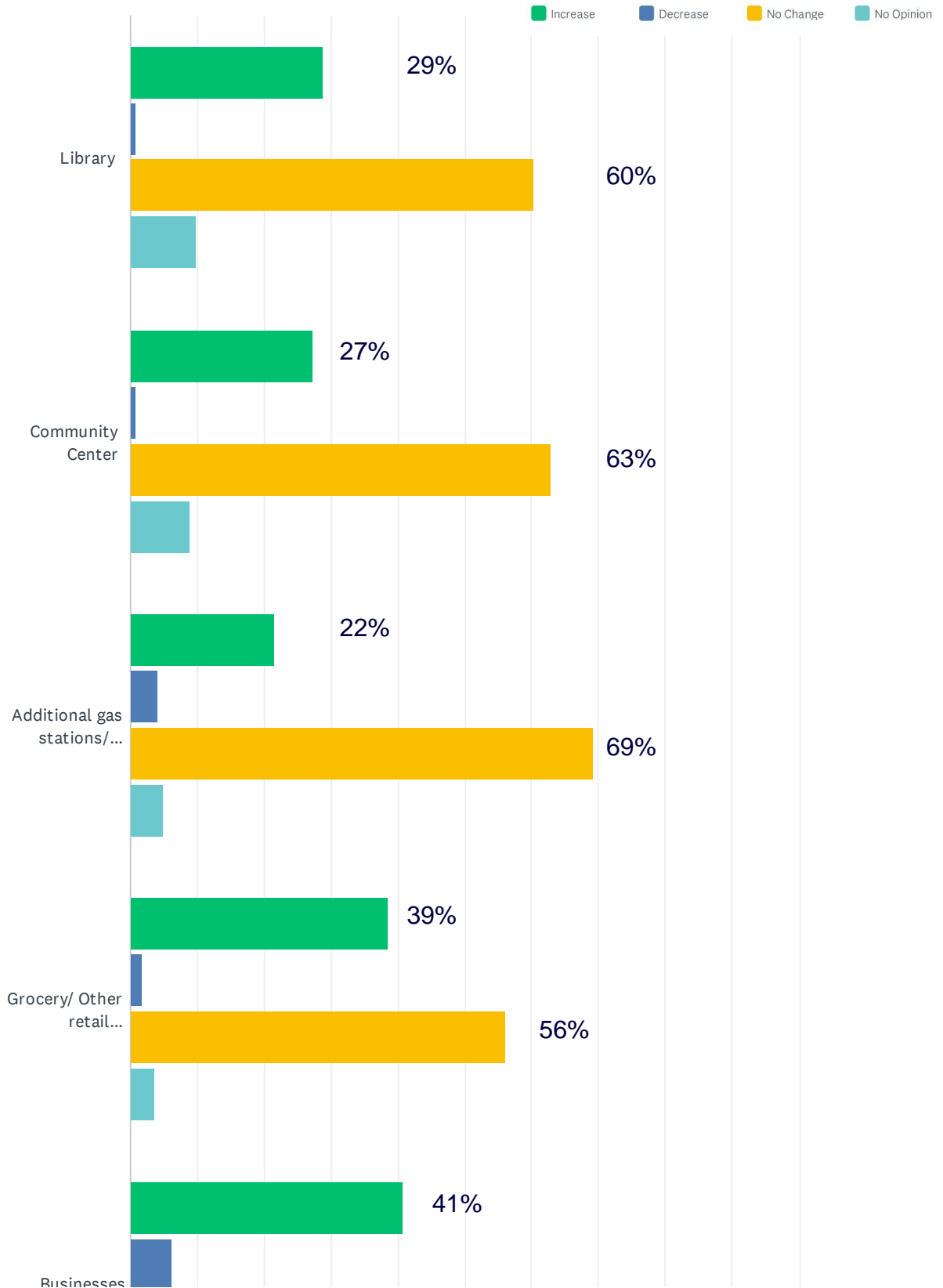
	APPROPRIATE	INCREASE	DECREASE	NO OPINION	TOTAL	WEIGHTED AVERAGE
Police Protection / Law Enforcement	73.54% 164	13.45% 30	10.76% 24	2.24% 5	223	2.58
Fire Protection/ Rescue	81.25% 182	15.63% 35	1.34% 3	1.79% 4	224	2.76
Ambulance Service	75.78% 169	21.08% 47	0.45% 1	2.69% 6	223	2.70
Code Enforcement (building, zoning, property)	63.56% 143	10.22% 23	13.78% 31	12.44% 28	225	2.25
Roadway and Bridge Maintenance	61.43% 137	35.43% 79	0.45% 1	2.69% 6	223	2.56
Snow Plowing	81.70% 183	14.73% 33	1.34% 3	2.23% 5	224	2.76
Internet Connectivity	46.64% 104	48.88% 109	0.00% 0	4.48% 10	223	2.38
Cable Television	56.50% 126	21.97% 49	0.90% 2	20.63% 46	223	2.14
Cell Phone Service	57.59% 129	38.84% 87	0.00% 0	3.57% 8	224	2.50
Street Lights	61.71% 137	13.96% 31	5.86% 13	18.47% 41	222	2.19
Recycling	31.11% 70	59.11% 133	1.78% 4	8.00% 18	225	2.13
Trash Collection	53.98% 122	36.73% 83	2.65% 6	6.64% 15	226	2.38
Pollution Control (air/water quality)	45.54% 102	49.11% 110	1.34% 3	4.02% 9	224	2.36
Youth Activities and Programming	46.43% 104	27.68% 62	0.89% 2	25.00% 56	224	1.96
Active Park Facilities (sports fields/courts, playgrounds)	64.00% 144	22.67% 51	1.33% 3	12.00% 27	225	2.39
Passive Recreation Facilities:	57.47% 127	23.98% 53	0.45% 1	18.10% 40	221	2.21
Bike Paths	40.89% 92	34.22% 77	1.78% 4	23.11% 52	225	1.93
Bike Lanes	37.95% 85	25.00% 56	4.91% 11	32.14% 72	224	1.69
Walking Trails	45.54% 102	45.09% 101	0.00% 0	9.38% 21	224	2.27
Hiking Trails & Greenways	48.00% 108	42.22% 95	0.44% 1	9.33% 21	225	2.29
Public Transportation	40.00% 90	24.00% 54	2.67% 6	33.33% 75	225	1.71
Senior Activities and Programming	43.30% 97	24.55% 55	0.45% 1	31.70% 71	224	1.79
Historic Preservation	52.68% 118	36.16% 81	1.34% 3	9.82% 22	224	2.32

## Comprehensive Plan Update Community Survey

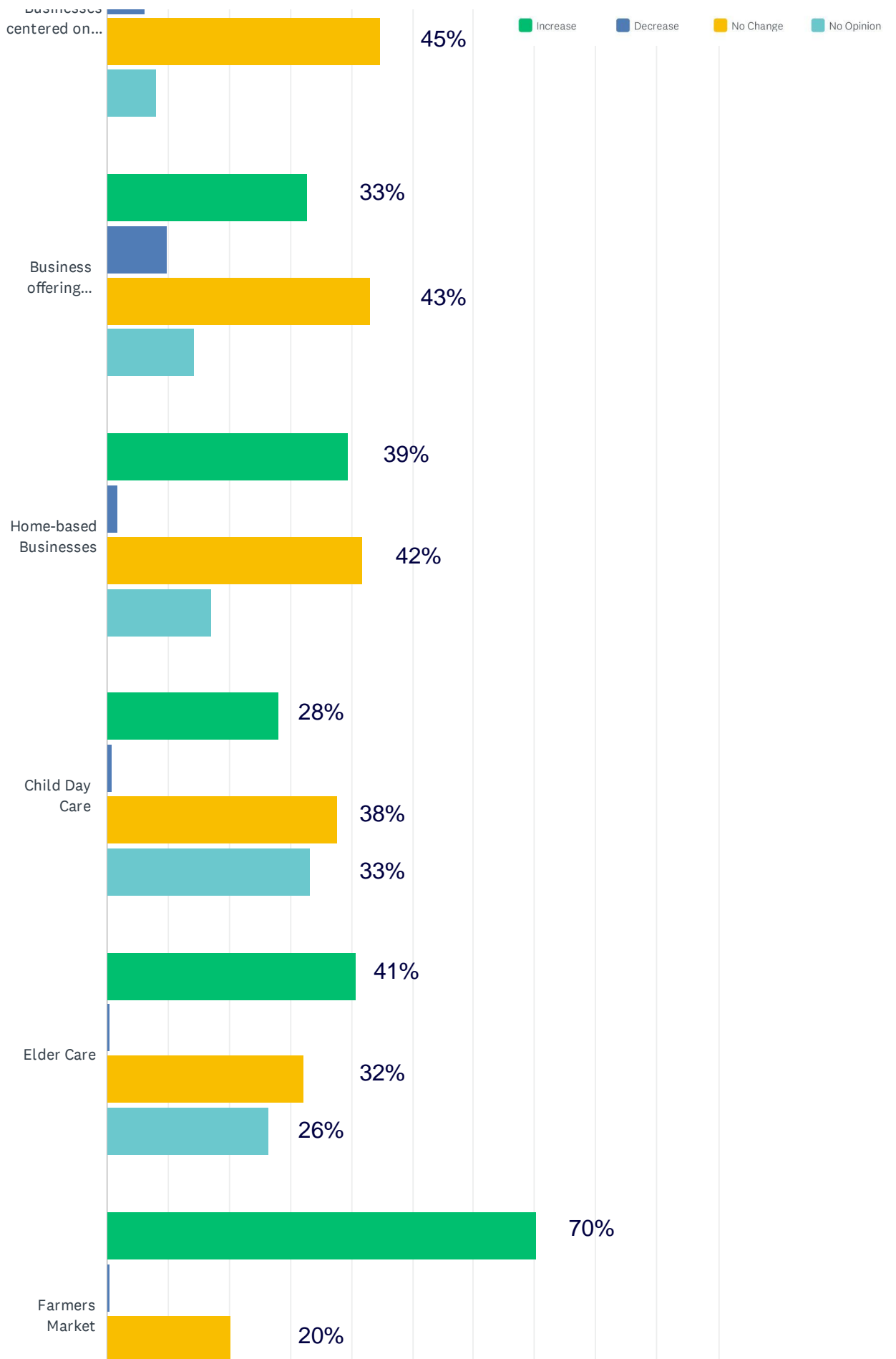
Community Events	55.36% 124	31.70% 71	0.00% 0	12.95% 29	224	2.29
Information Sharing	35.11% 79	50.67% 114	0.89% 2	13.33% 30	225	2.08
Public Sewer	43.11% 97	23.56% 53	4.44% 10	28.89% 65	225	1.81
Public Water	46.67% 105	28.00% 63	3.11% 7	22.22% 50	225	1.99
Job Creation	43.50% 97	26.46% 59	1.35% 3	28.70% 64	223	1.85
Wildlife Control	70.67% 159	14.67% 33	1.33% 3	13.33% 30	225	2.43

Q21 For each of the business/municipal development types below, please indicate it should be increase, decreased, or not changed.

Answered: 225 Skipped: 25

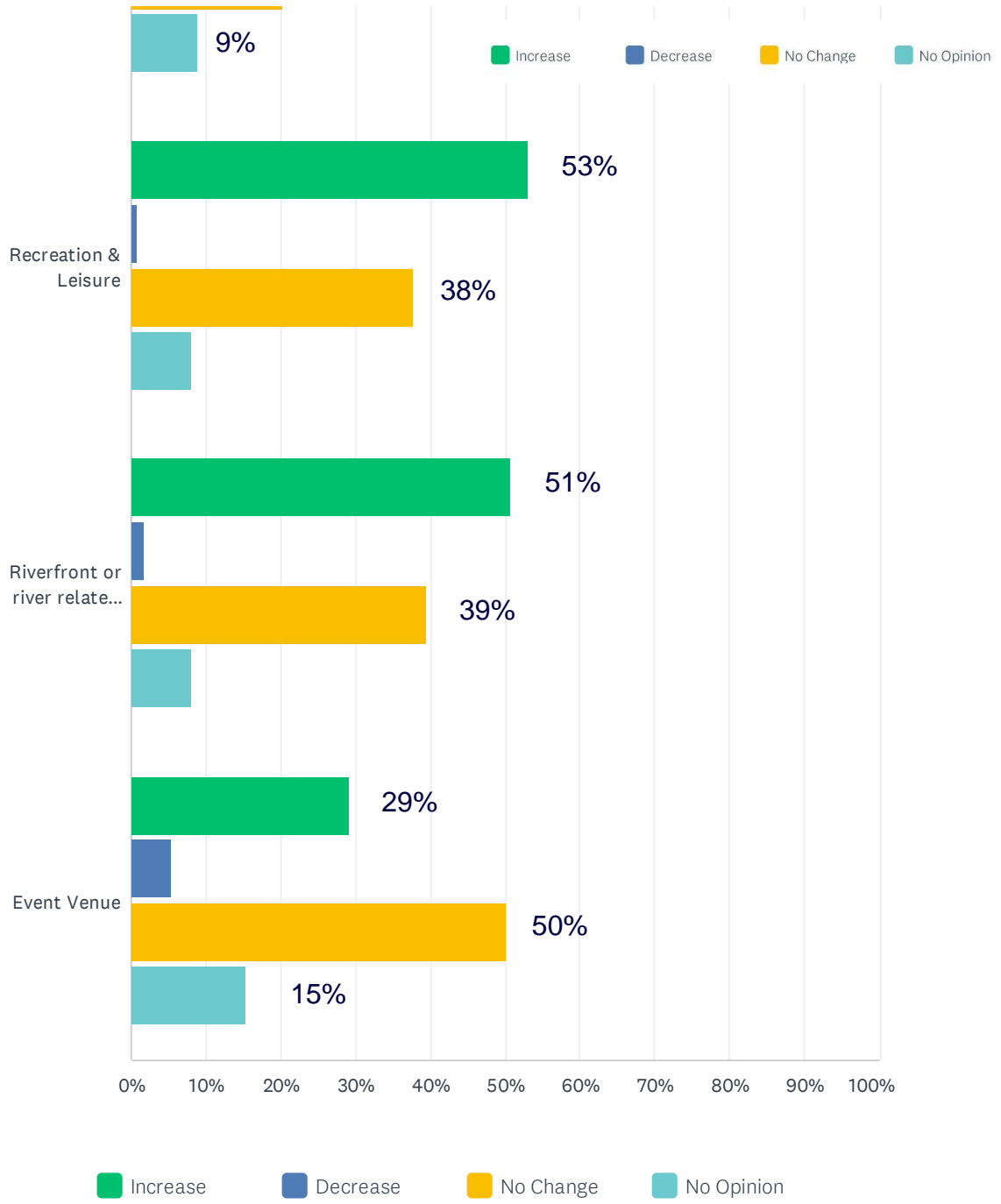


# Comprehensive Plan Update Community Survey





# Comprehensive Plan Update Community Survey

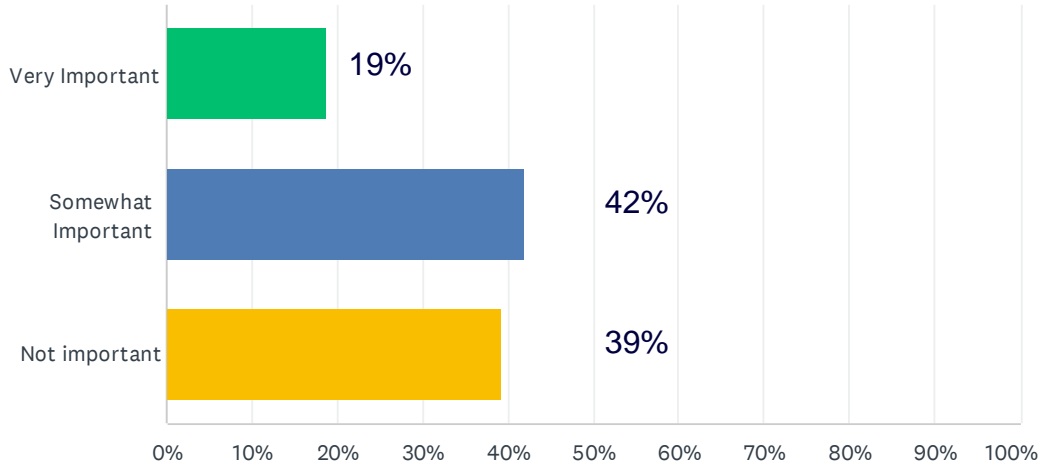


Comprehensive Plan Update Community Survey

	INCREASE	DECREASE	NO CHANGE	NO OPINION	TOTAL	WEIGHTED AVERAGE
Library	28.83% 64	0.90% 2	60.36% 134	9.91% 22	222	1.49
Community Center	27.23% 61	0.89% 2	62.95% 141	8.93% 20	224	1.46
Additional gas stations/ convenience store	21.62% 48	4.05% 9	69.37% 154	4.95% 11	222	1.42
Grocery/ Other retail stores	38.57% 86	1.79% 4	56.05% 125	3.59% 8	223	1.75
Businesses centered on tourism (e.g. bed and breakfast, restaurants, gift shops, eco-tourism)	40.81% 91	6.28% 14	44.84% 100	8.07% 18	223	1.80
Business offering "green" energy services (weatherization, solar, wind, geothermal)	32.74% 73	9.87% 22	43.05% 96	14.35% 32	223	1.61
Home-based Businesses	39.46% 88	1.79% 4	41.70% 93	17.04% 38	223	1.64
Child Day Care	28.25% 63	0.90% 2	37.67% 84	33.18% 74	223	1.24
Elder Care	40.81% 91	0.45% 1	32.29% 72	26.46% 59	223	1.56
Farmers Market	70.40% 157	0.45% 1	20.18% 45	8.97% 20	223	2.32
Recreation & Leisure	53.18% 117	0.91% 2	37.73% 83	8.18% 18	220	1.99
Riverfront or river related recreation and Leisure	50.67% 113	1.79% 4	39.46% 88	8.07% 18	223	1.95
Event Venue	29.28% 65	5.41% 12	50.00% 111	15.32% 34	222	1.49

## Q22 How important is to you that the Township provide for a range of housing densities, types, and sizes for residents of all ages and incomes?

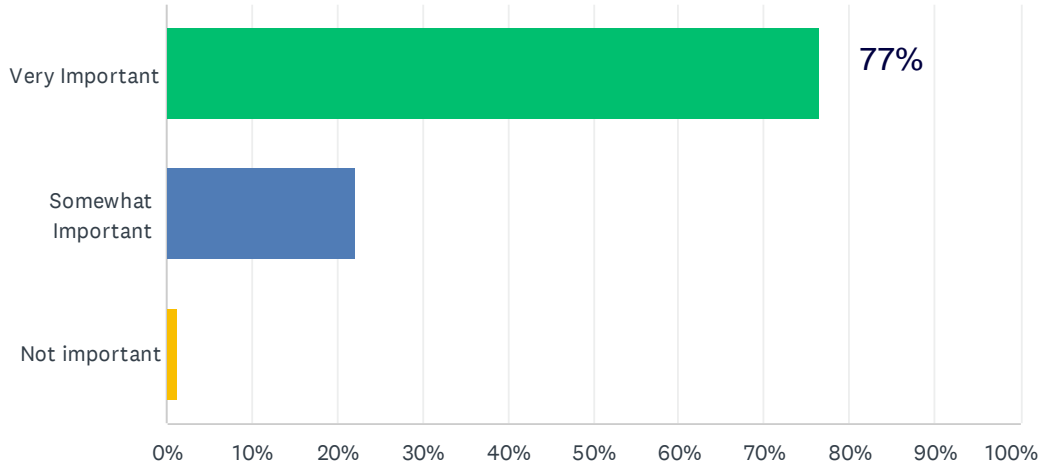
Answered: 224 Skipped: 26



ANSWER CHOICES	RESPONSES	
Very Important	18.75%	42
Somewhat Important	41.96%	94
Not important	39.29%	88
<b>TOTAL</b>		<b>224</b>

**Q23 How important is it to you that the Township protect, conserve, and carefully manage waterways, undergrown water tables, forests, agricultural areas, open space, natural systems, and scenic areas?**

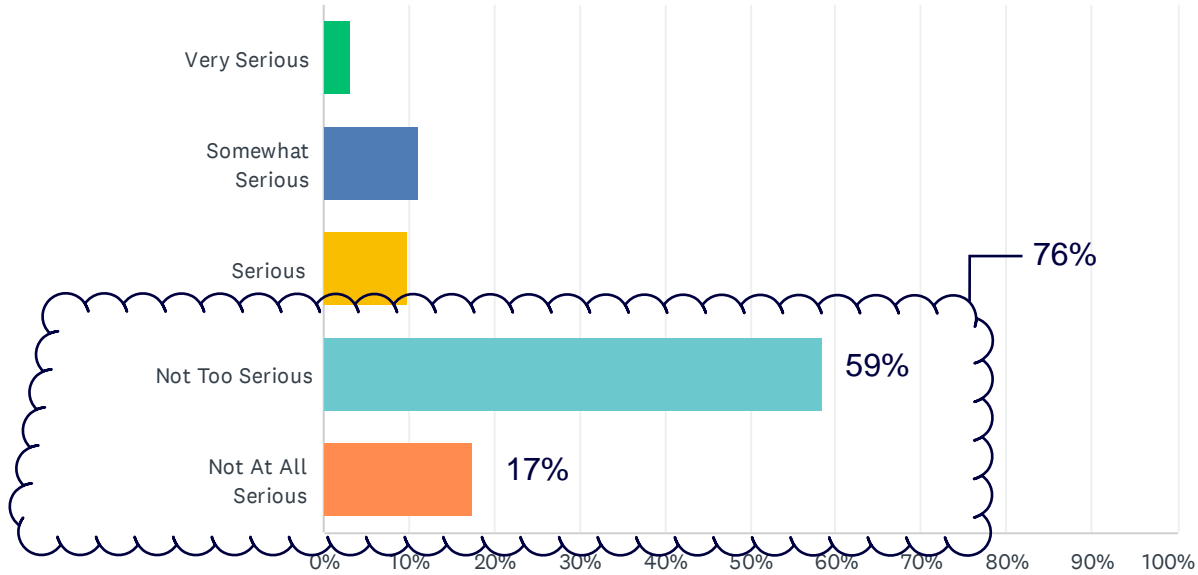
Answered: 226 Skipped: 24



ANSWER CHOICES	RESPONSES	
Very Important	76.55%	173
Somewhat Important	22.12%	50
Not important	1.33%	3
<b>TOTAL</b>		<b>226</b>

## Q24 Please rate how serious you feel the level of crime is in Lower Windsor Township:

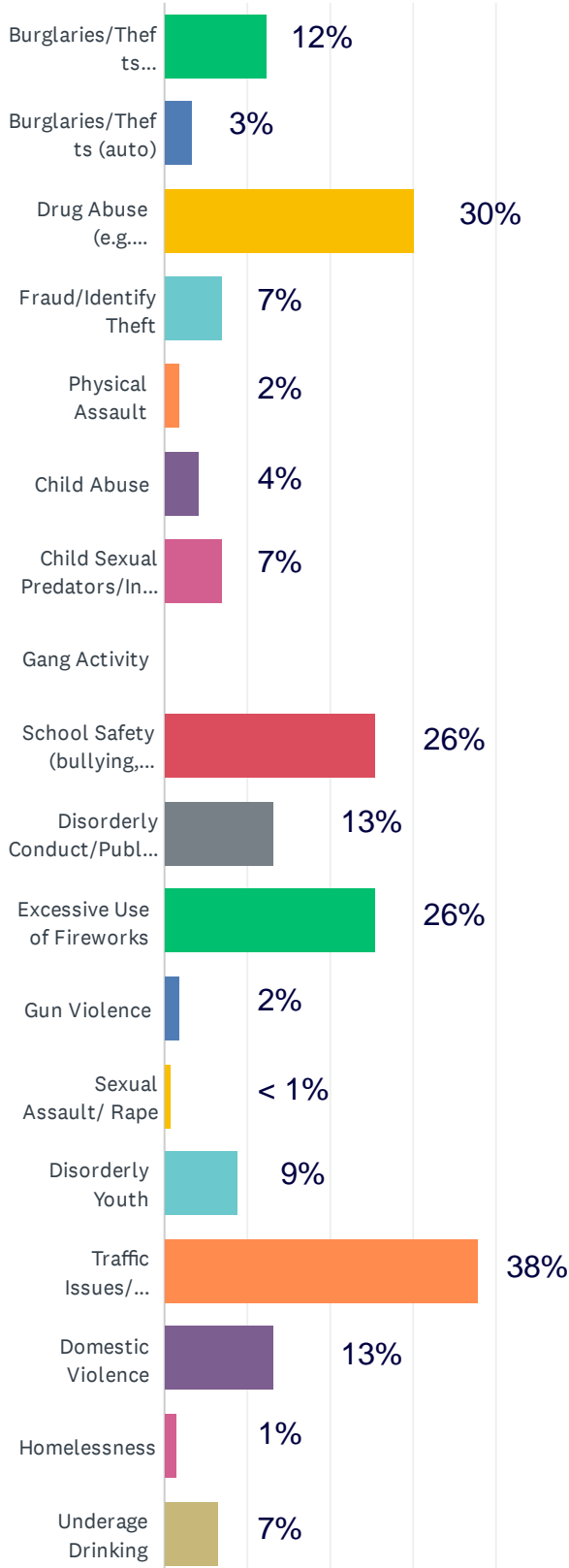
Answered: 224 Skipped: 26



ANSWER CHOICES	RESPONSES	
Very Serious	3.13%	7
Somewhat Serious	11.16%	25
Serious	9.82%	22
Not Too Serious	58.48%	131
Not At All Serious	17.41%	39
TOTAL		224

## Q25 Please select the three (3) issues you think are the greatest problems in the Township.

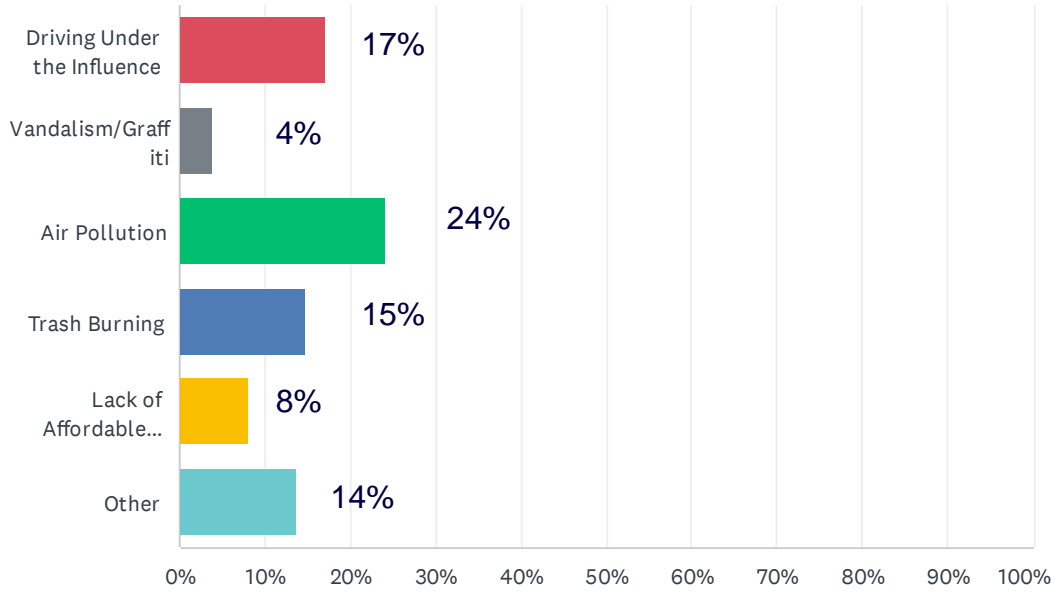
Answered: 211 Skipped: 39



The greatest issues facing the Township:

1. Traffic Issues
2. Drug Abuse
3. School Bullying
4. Excessive Fireworks
5. Air Pollution

# Comprehensive Plan Update Community Survey



## Comprehensive Plan Update Community Survey

ANSWER CHOICES	RESPONSES	
Burglaries/Thefts (residential)	12.32%	26
Burglaries/Thefts (auto)	3.32%	7
Drug Abuse (e.g. manufacture, sale, or use of illegal/prescription drugs)	30.33%	64
Fraud/Identify Theft	7.11%	15
Physical Assault	1.90%	4
Child Abuse	4.27%	9
Child Sexual Predators/Internet Security	7.11%	15
Gang Activity	0.00%	0
School Safety (bullying, fighting, weapons)	25.59%	54
Disorderly Conduct/Public Intoxication/ Noise Violations	13.27%	28
Excessive Use of Fireworks	25.59%	54
Gun Violence	1.90%	4
Sexual Assault/ Rape	0.95%	2
Disorderly Youth	9.00%	19
Traffic Issues/ Speeding	37.91%	80
Domestic Violence	13.27%	28
Homelessness	1.42%	3
Underage Drinking	6.64%	14
Driving Under the Influence	17.06%	36
Vandalism/Graffiti	3.79%	8
Air Pollution	24.17%	51
Trash Burning	14.69%	31
Lack of Affordable Housing	8.06%	17
Other	13.74%	29
Total Respondents: 211		



## Q26 What is your biggest concern about the future of Lower Windsor Township?

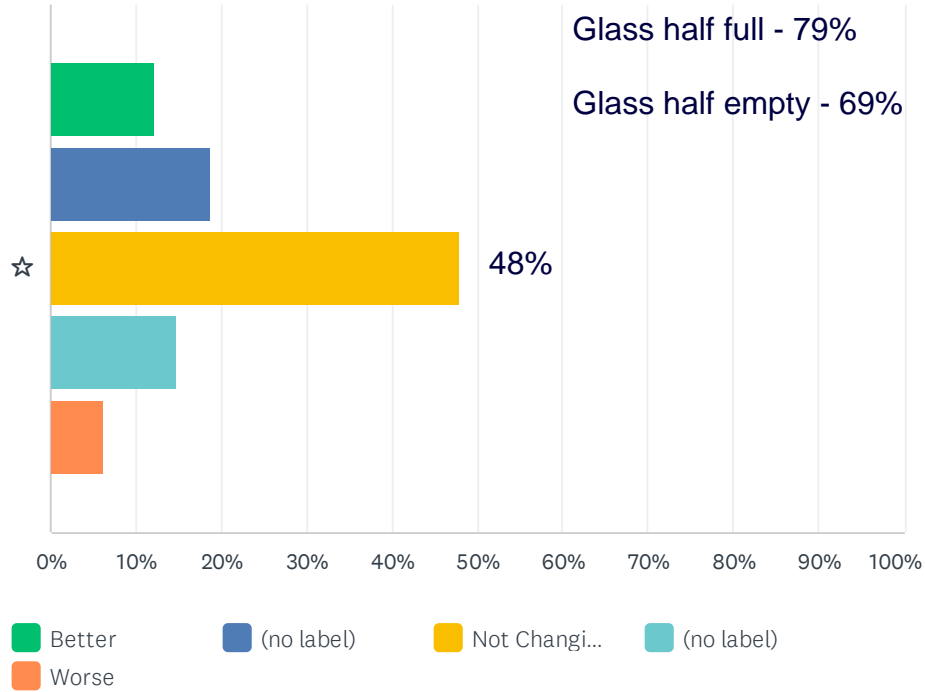
Answered: 203 Skipped: 47

## Q27 What would you change in Lower Windsor Township if you could?

Answered: 189 Skipped: 61

## Q28 On a scale of 1 – 5, do you believe Lower Windsor Township is changing for the better or worse?

Answered: 223 Skipped: 27



	BETTER	(NO LABEL)	NOT CHANGING	(NO LABEL)	WORSE	TOTAL	WEIGHTED AVERAGE
☆	12.11% 27	18.83% 42	47.98% 107	14.80% 33	6.28% 14	223	2.84

**Q29 Are there other issues that are important to you, that you believe the Township should consider and discuss?**

Answered: 153 Skipped: 97

## **APPENDIX 2 SOIL LIMITATIONS**

---

Soil Types	Soil	Depth to Seasonal Water Table (feet)	Depth to Bedrock (inches)	Permeability
Cd	Chagrin Silt Loam			
CeB CeC	Chester Silt Loam	Greater than 6	60	Moderate
CkB	Clarksburg Silt Loam	1 ½ - 3	60-99	Moderate
Cm	Codorus Silt Loam	1 - 2	60	Moderate to Rapid
CnB CnC	Conestoga Silt Loam	Greater than 6	60	Moderate
EeD	Edgemont Channery Loam	Greater than 6	40-84	Moderate to Rapid
GbB GbC GbD GdA GdB	Glenelg Channery Silt Loam  Glenville Silt Loam	Greater than 6  5 - 3	60  60-99	Moderate  Moderate to Slow
Lw MOB MOC MOD MOE MPD MRF	Lindside Silt Loam Mt. Airy & Manor Channery Loam	1 ½ - 3 Greater than 6	60 60	Moderate to Slow Moderate to Rapid
Psb Psc Psd	Pequea Silt Loam	Greater than 6	40-60	Moderate to Rapid
UdB	Urban Land-Chester Complex	Greater than 6	60	Moderate
UeB	Urban Land-Conestoga Complex	Greater than 6	60	Moderate
UfC	Urban Land-Mt. Airy Complex	Greater than 6	20-40	Moderate to Rapid

## **APPENDIX 3 2002 FARMLAND PRESERVATION STRATEGY**

---

# Lower Windsor Township, PA Farmland Preservation Strategy

---

## Project Summary Report





---

---

**Lower Windsor Township, PA**  
**Farmland Preservation Strategy**  
**Project Summary Report**

---

---

***Lower Windsor Township***

***Board of Supervisors***

Robert A. Bair, Chairman  
William Buser, Vice Chairman  
Kenneth J. Eshelman

**Planning Commission**

Marlin J. Mellinger, Chairman  
Mary Ellen Caldwell  
Gary Eaton  
Kelly Skiptunas  
William Spangle

**Township Manager**

Donald L. Keener

**Township Secretary-Treasurer**

Linda J. Zimmerman

**Township Engineer**

John A. Klinedinst

**Township Solicitor**

David C. Keiter

**Police Chief**

David Sterner



## Contents

<b>Purpose &amp; Scope of the Project</b>	<b>1</b>
<b>Key Questions</b>	<b>2</b>
<b>What Citizens &amp; Community Leaders Say</b>	<b>3</b>
<b>Township Character &amp; Development Patterns</b>	<b>10</b>
<b>Fiscal Impacts of Farmland Preservation</b>	<b>31</b>
<b>Tools for Farmland Preservation</b>	<b>33</b>
<b>A Farmland Preservation Strategy for Lower Windsor</b>	<b>42</b>
<b>Township Vision</b>	<b>56</b>



## Purpose & Scope of the Project

The Farmland Preservation Strategy for Lower Windsor Township was initiated by the Board of Supervisors to supplement and complement the Township's 2001-2002 Comprehensive Plan update. The purpose of the project was to conduct research regarding successful farmland preservation practices & identify options for implementation of a practical farmland preservation strategy in the Township. The project's recommendations are incorporated into the Comprehensive Plan as integral components of the Plan's vision, goals, objectives and policies.

### The scope of the project included:

- **Consultation Meetings**
- **Field Visits**
- **Research**
- **Project Summary Report & Presentation**



## Key Questions

- What do Township citizens & community leaders say about farmland preservation?
- Why is farmland preservation important to Township character?
- Why is farmland preservation important to Township fiscal health?
- What farmland preservation tools are available to the Township?
- What farmland preservation strategy is best for Lower Windsor?



## What Citizens & Community Leaders Say

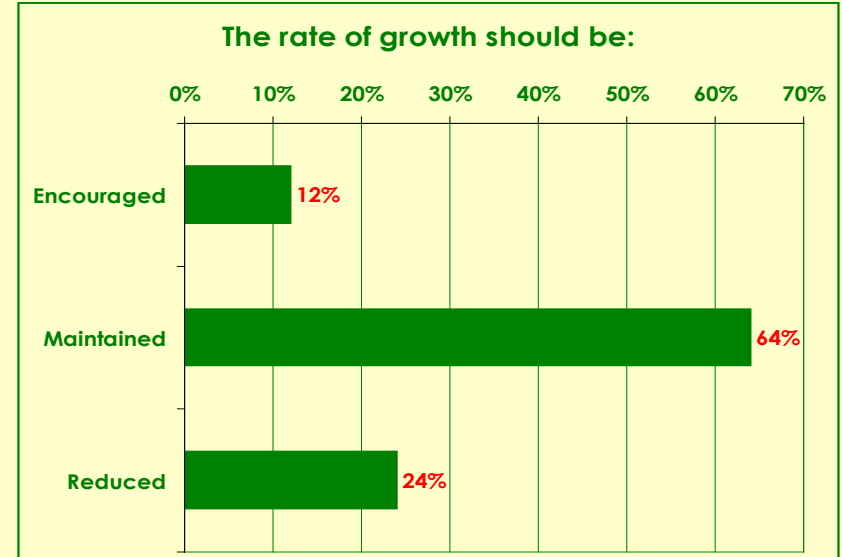
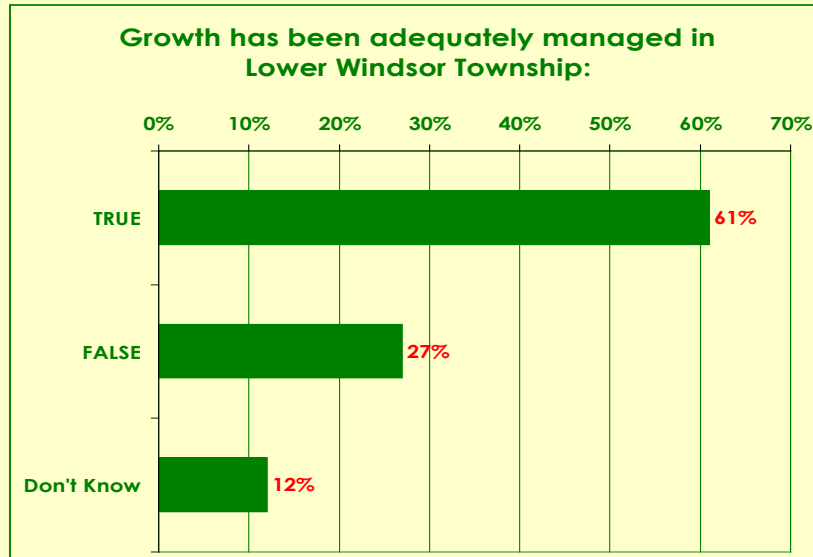
The support of Township citizens & community leaders is critical to the implementation of a meaningful farmland preservation strategy. Lower Windsor stakeholders have expressed strong political and policy consensus for more assertive farmland preservation action in the Township. This support has been measured through both a community-wide survey and consultation meetings with key Township leaders:

- **Community Survey:** mailed by Township to 3127 households in August 2001 with 562 responses, an 18% response rate
- **Consultation Meetings:** conducted by project team in January & February 2002
  - Township Board of Supervisors
  - Township Planning Commission Members
  - Township Manager, Engineer & Solicitor



## What Citizens & Community Leaders Say

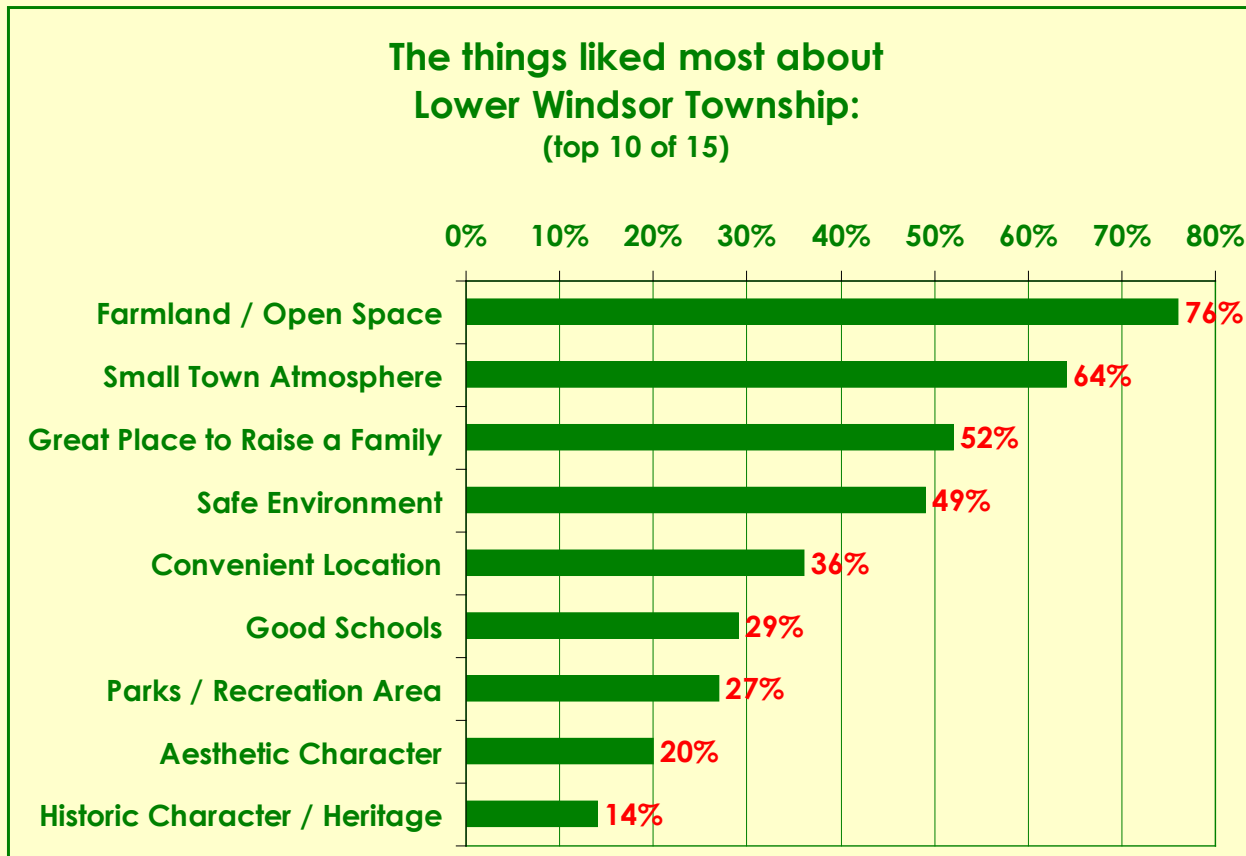
### Community Survey Summary





## What Citizens & Community Leaders Say

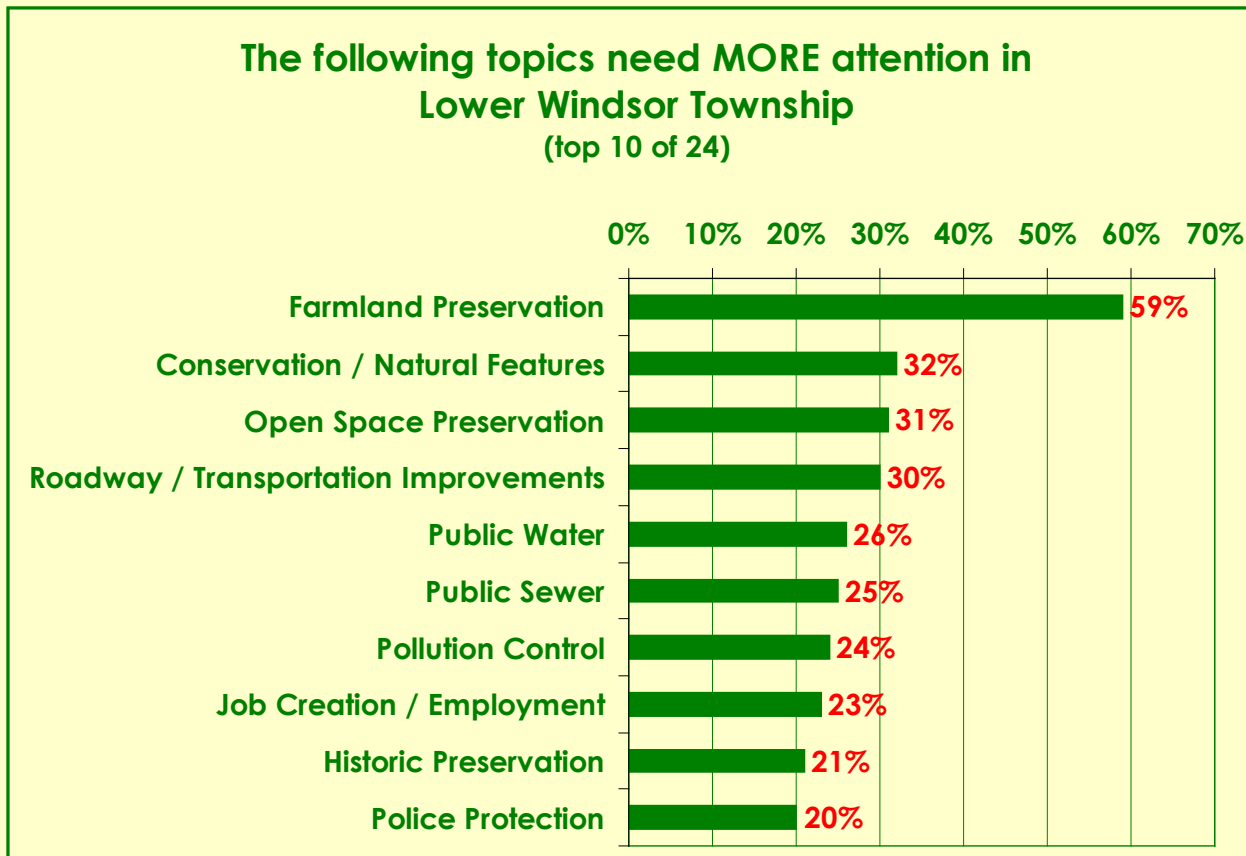
### Community Survey Summary





## What Citizens & Community Leaders Say

### Community Survey Summary

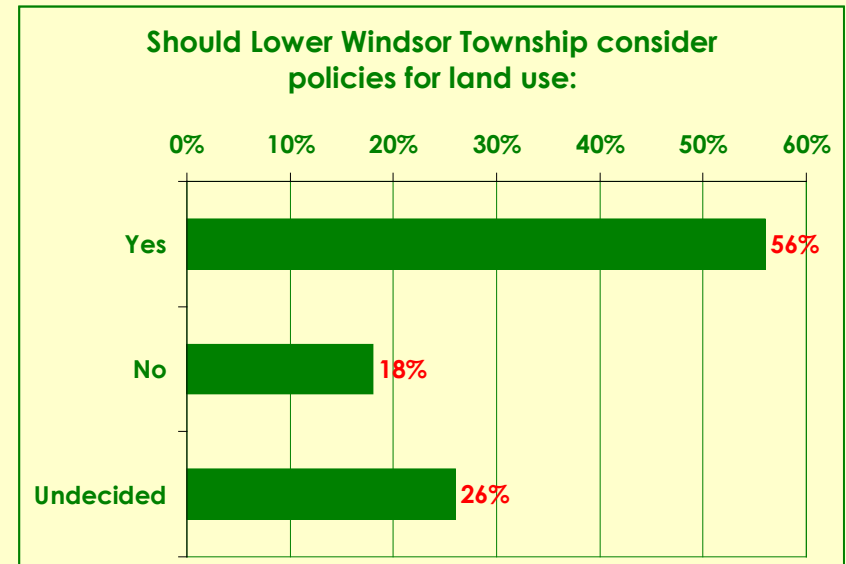
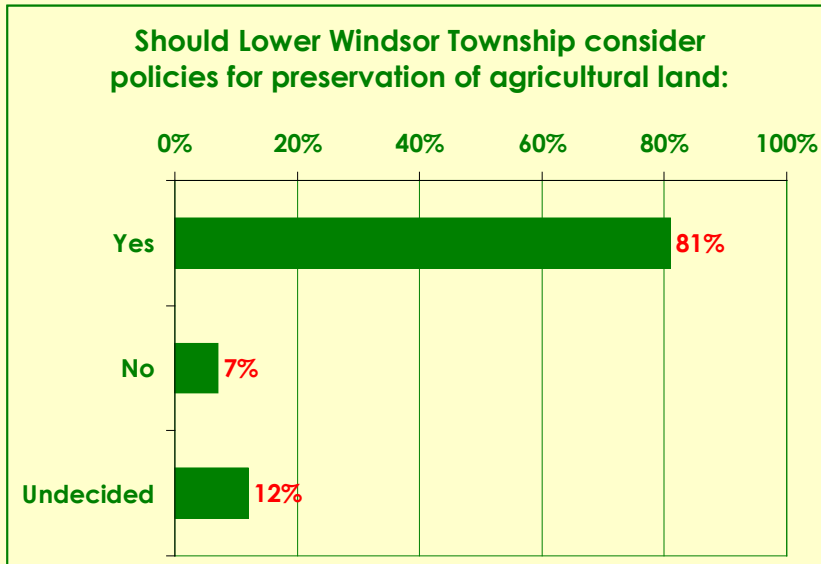






## What Citizens & Community Leaders Say

### Community Survey Summary





## What Citizens & Community Leaders Say

### *Consultation Meetings Summary*

Discussions with Township Supervisors and Planning Commission members highlighted a strong political and policy consensus for a more assertive farmland preservation strategy in the township.

#### **General agreement:**

- The next ten years will be a critical time for the future of the township.
- Significant steps must be taken now to protect the community's unique small town and rural character from the coming pressures of new development.
- The focus must be on preservation of both farm acreage and community character – they are inherently linked together.

***“I don't want to drive back from York and  
be in the city all the way home.”***

*Ken Eshelman, Lower Windsor Twp. Supervisor*



## What Citizens & Community Leaders Say

### *Consultation Meetings Summary*

#### **Supervisors tempered their support with concerns about:**

- The impact of easement purchase programs on the price of farmland.
- The degree of land regulation that is acceptable in support of farmland preservation goals.

#### **Planning Commissioners' comments included:**

- Support for regulatory options to preserve farmland and direct other development in the township, with some caution about being overly restrictive.
- Concern about preserving lands that are not feasible for continued farming.
- Concern about the impact of easement purchases on family heirs.
- Support for more immediate action to limit development until final approval of updated Comprehensive Plan and potential land development regulations.



## Township Character & Development Patterns

Many areas near Lower Windsor, such as Windsor Township to the west, are experiencing significant growth pressures, with sprawling developments quickly taking the place of farms and open space. The resulting loss of traditional character and sense of place has forever changed these communities, and their once-productive farmlands can never be replaced.



*Windsor Township developments*





## Township Character & Development Patterns

Lower Windsor Township retains much of its historic “town & country” character, with significant expanses of farms and natural areas interspersed with traditional towns and villages and scattered clusters of other development. Studying the Township’s existing land use, character and development patterns highlights the critical value of farm and natural lands and can help guide the location and design of future development in the Township.

### Existing Land Use in Lower Windsor Township - 2001:

	Acres	Percentage
<b>Total Land Area</b>	<b>15632.7</b>	<b>100.00 %</b>
Residential	3838.0	24.58 %
Commercial	567.5	3.64 %
Industrial	321.6	2.06 %
<b>Farming</b>	<b>10474.0</b>	<b>66.96 %</b>
Exempt	391.7	2.51 %
Utility	39.9	0.25 %

### Identified development patterns in Lower Windsor Township:

- *Traditional Towns*
- *Traditional Villages*
- *Rural Clusters*
- *Farmsteads*
- *Natural Areas*



## Township Character & Development Patterns

### *Traditional Towns*

The traditional towns of East Prospect and Yorkana maintain a significant physical presence in Lower Windsor Township and have traditionally been active centers of daily life.

Common characteristics of traditional towns include:

- Incorporated borough
- Location at key crossroads
- Definite sense of arrival/departure upon entering/leaving the town
- Relatively dense development pattern
- Mix of residential and commercial uses, usually with an identifiable commercial center
- Civic and spiritual buildings and open spaces which provide places for public gatherings and encounters
- Building styles and materials which reflect the age and history of the community
- Higher level of public services, usually including public sidewalks and public water or sewer or both



## Township Character & Development Patterns

### *Traditional Towns*

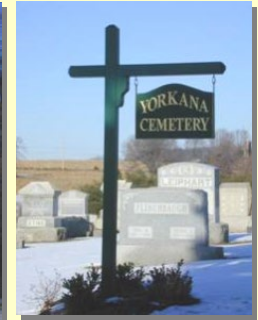
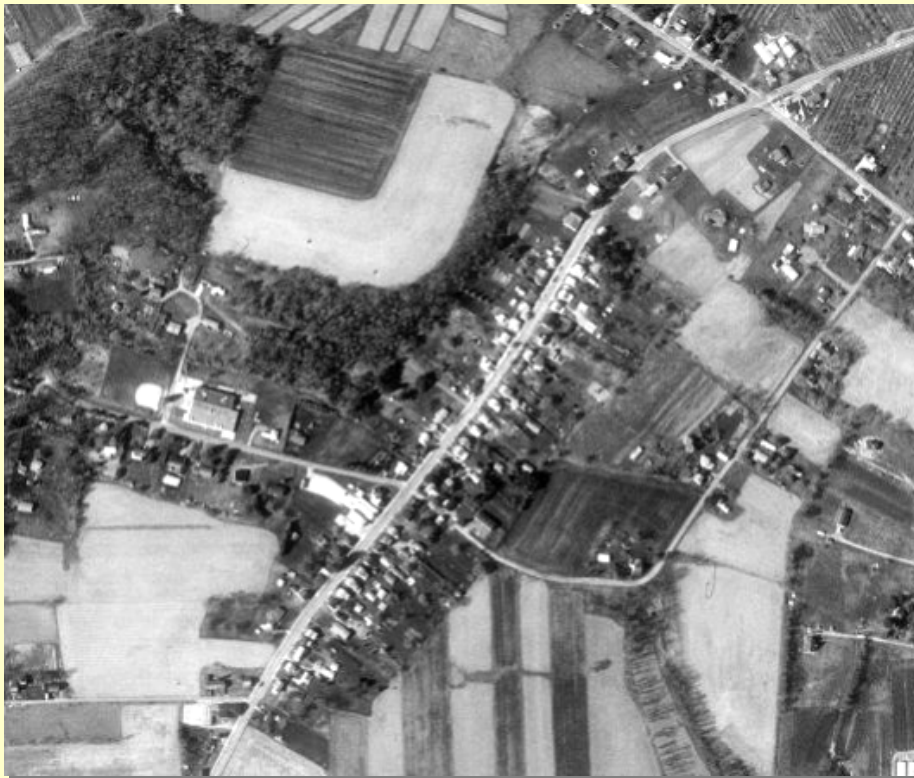


### East Prospect



## Township Character & Development Patterns

### *Traditional Towns*



### Yorkana





## Township Character & Development Patterns

### *Traditional Villages*

Traditional villages are settlements which are a step down in size and intensity from the traditional town. Traditional villages in Lower Windsor include: Craley, Long Level, Delroy, Bittersville and Martinsville. These communities, although less dense and defined than a traditional town, still have a discernable and identifiable presence in the Township.

Common characteristics of traditional villages include:

- Unincorporated areas
- Location at key crossroads
- Sense of arrival/departure upon entering/leaving the village
- Less dense development pattern than that of the traditional town, with the feeling that adjacent open space is more present and accessible
- Mix of residential and commercial uses
- Civic and spiritual buildings
- Building styles and materials which reflect the age and history of the community



## Township Character & Development Patterns

### Traditional Villages



Long Level



Craley



## Township Character & Development Patterns

### *Traditional Villages*



**Delroy**



**Bittersville**

**Martinsville**



## Township Character & Development Patterns

### *Rural Clusters*

Rural Clusters are generally newer developed areas which are significantly less intense than the traditional town and village, yet are still comprised of a grouping of homes and, sometimes, businesses. Rural clusters are located throughout Lower Windsor Township. Examples include the areas around Mt. Pisgah/Eastern High School and Edith Drive/Old Commons & Winters Roads.

Common characteristics of rural clusters include:

- Less defined edges, with little sense of arrival or departure
- Usually exhibit a suburban development pattern, and can include subdivisions and developments with a string of individual lots along rural roadways
- Newer, suburban-style homes comprise the majority of the rural clusters



## Township Character & Development Patterns

### *Rural Clusters*



**Edith Drive/Old Commons & Winters Roads**



**Mt. Pisgah/Eastern H.S.**





## Township Character & Development Patterns

### *Farmsteads*

Farmland and farmsteads encompass much of Lower Windsor Township. The views from rural roads of the many farms throughout the Township are striking and beautiful. There is a quiet elegance to the historic farm buildings and productive farm fields located in the Township. They convey a sense of the land's bounty and substance as well as the historical importance of agriculture to Township residents.





## Township Character & Development Patterns

### *Farmsteads*



### Winters Road





## Township Character & Development Patterns

### *Farmsteads*



Old Commons Road





## Township Character & Development Patterns

### *Farmsteads*



### East Prospect & Cabin Creek Roads



## Township Character & Development Patterns

### *Farmsteads*



### Schmuck & Canadochly Roads



## Township Character & Development Patterns

### *Natural Areas*

Lower Windsor Township is blessed with a great number of natural areas, both publicly and privately owned. With some of the most beautiful vistas in York County at Sam Lewis State Park, easy public access to the Susquehanna River at Long Level, numerous creeks for fishing and plentiful woodlands, the Township attracts visitors from far beyond its borders. These natural areas help define the area's "town and country" character and they should be targeted for protection along with the community's farmland.





## Township Character & Development Patterns

### *Natural Areas*



Susquehanna River



Sam Lewis State Park



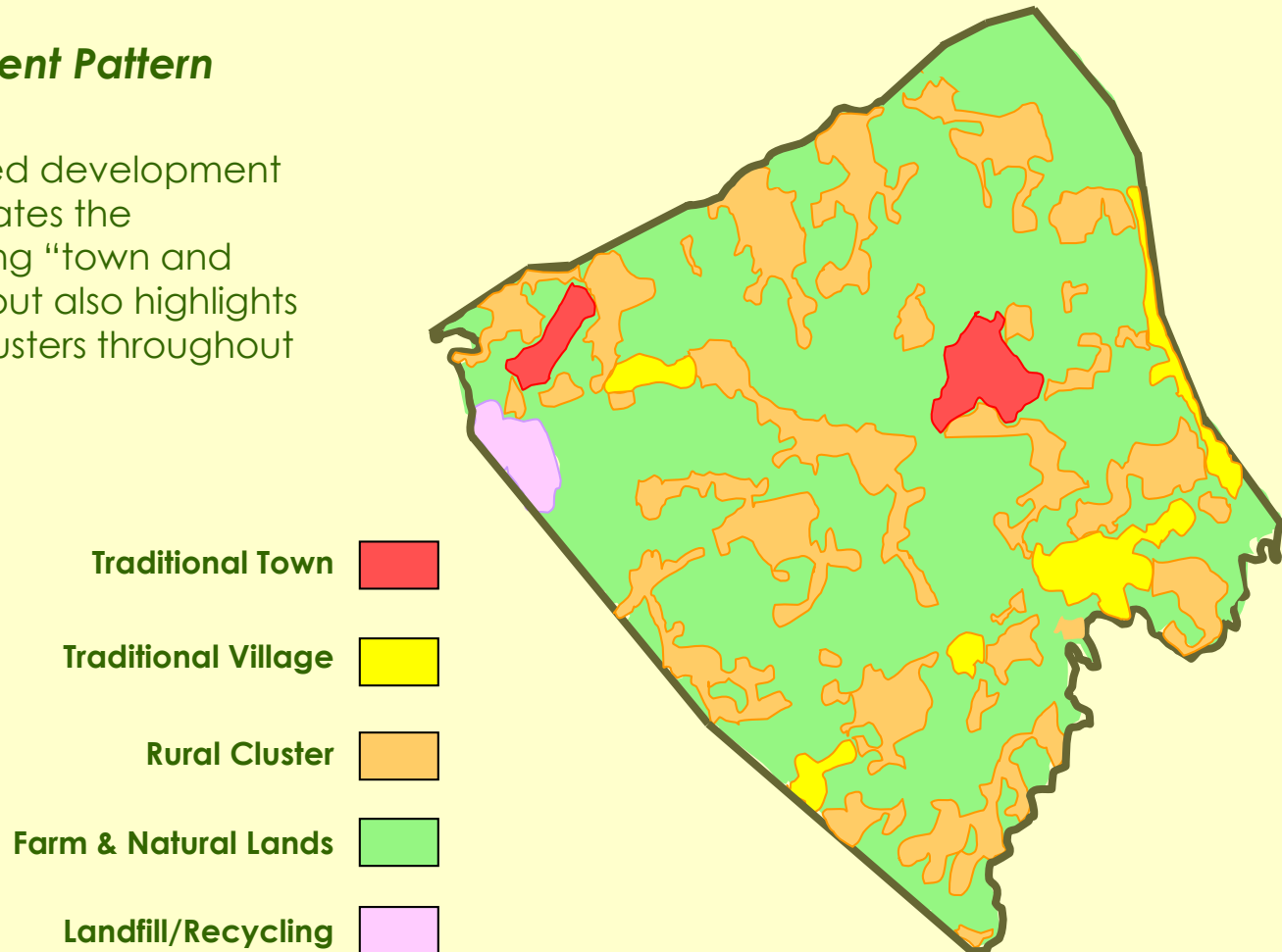
Fishing Creek



## Township Character & Development Patterns

### *Existing Development Pattern*

Mapping the identified development patterns clearly illustrates the community's prevailing "town and country" character, but also highlights the spread of rural clusters throughout the Township.

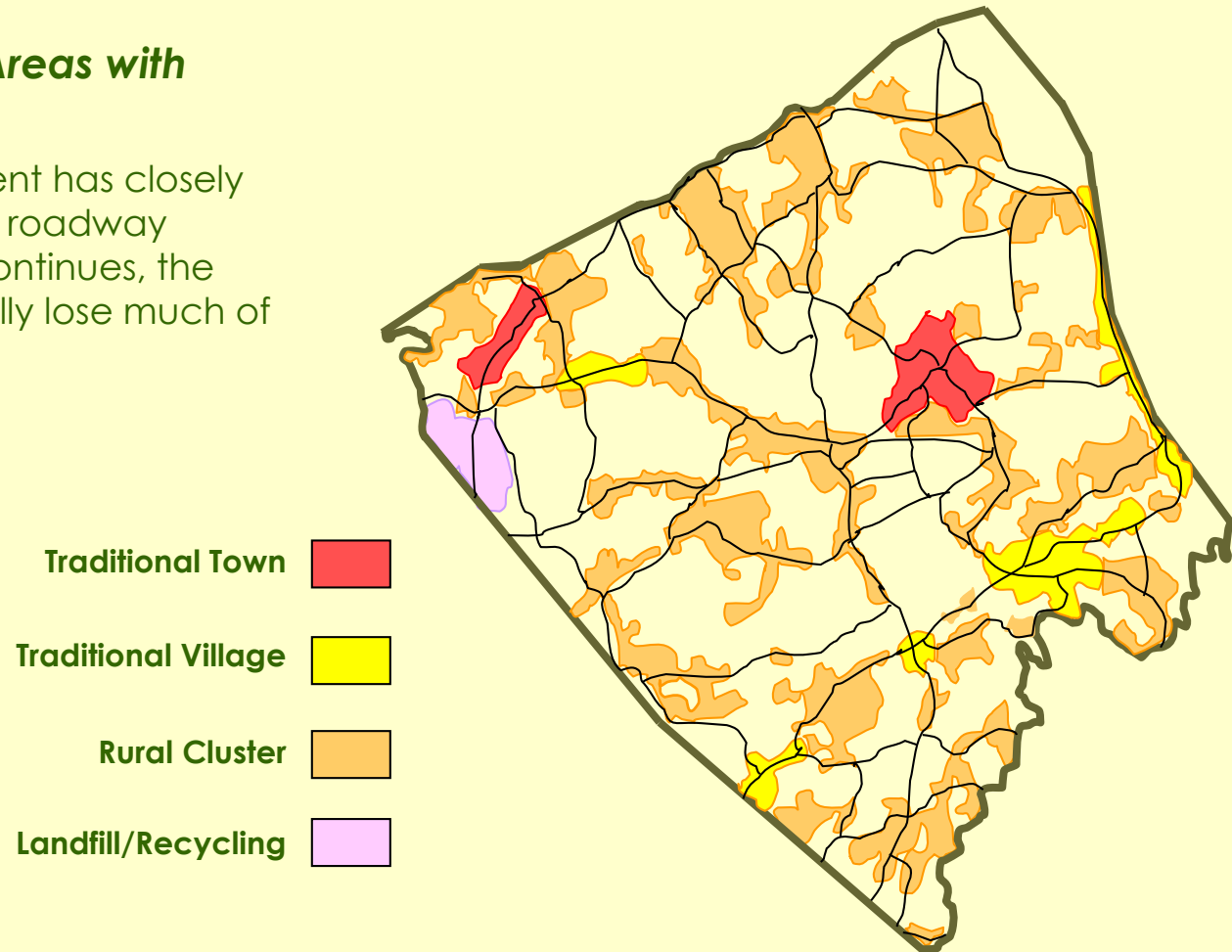




## Township Character & Development Patterns

### *Existing Developed Areas with Roadway Network*

Rural cluster development has closely followed the Township's roadway system. If this pattern continues, the community will eventually lose much of its rural flavor.

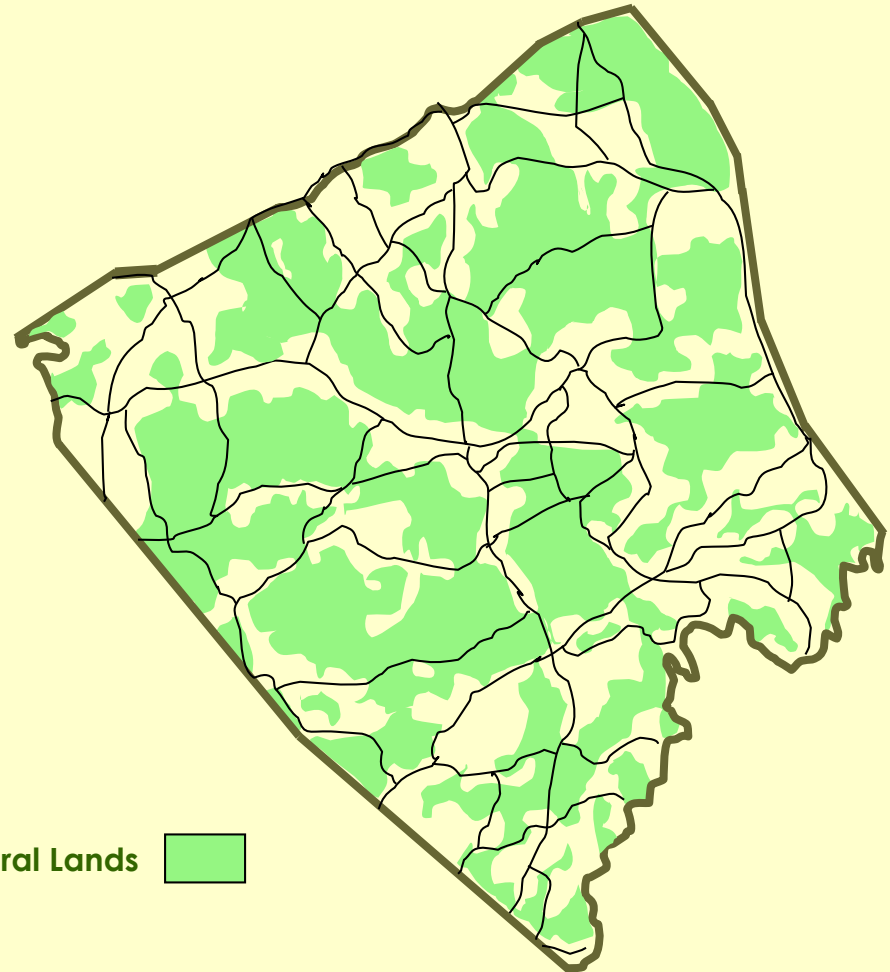




## Township Character & Development Patterns

### *Existing Farm & Natural Lands with Roadway Network*

The area's farm and natural lands still cross the roadway system at many locations in the Township, helping to maintain the "country" as a critical part of the community's identity. Preservation of these crossings and their view sheds should be a priority of the Township's farmland preservation strategy.



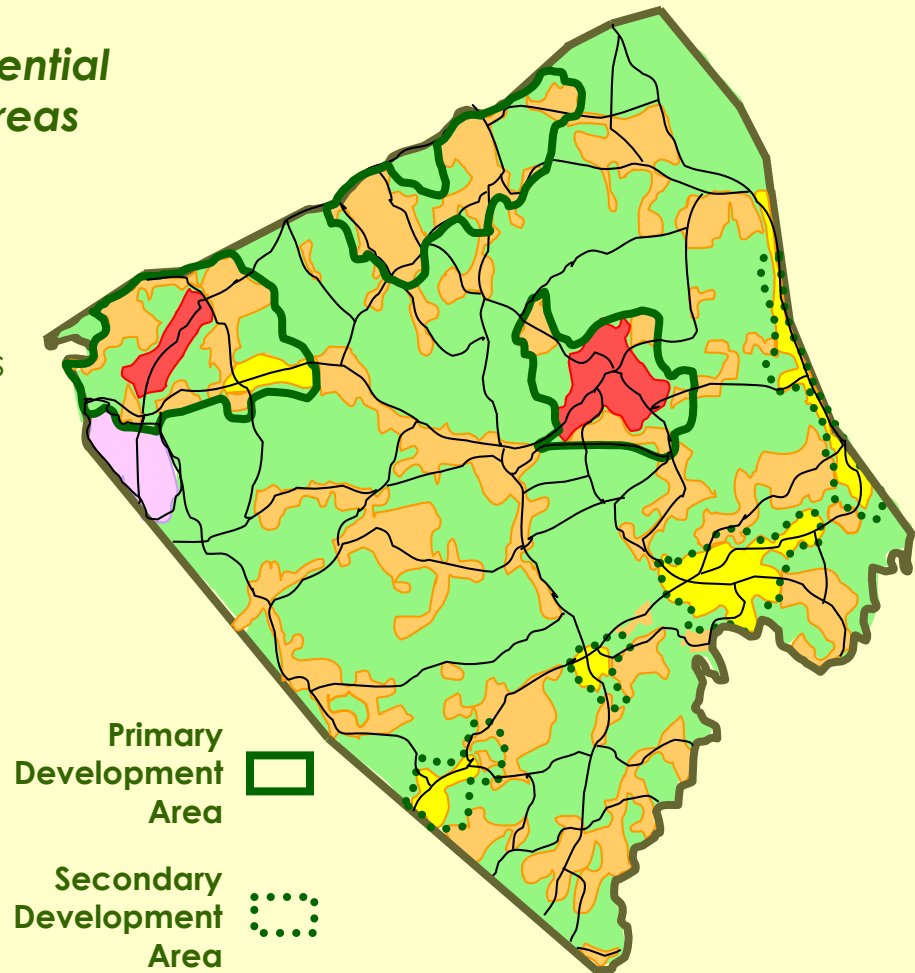
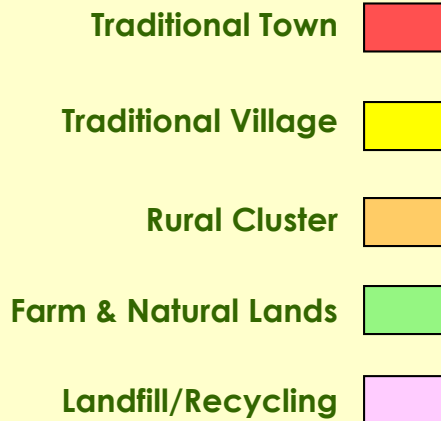


## Township Character & Development Patterns

### *Existing Development Pattern with Potential Primary & Secondary Development Areas*

To help preserve priority farmland preservation areas and retain the community's rural character, new growth and development in the Township should be directed towards existing towns, villages and rural clusters with existing or potential community services, such as schools and public utilities.

This approach is consistent with the policies of the York County Planning Commission for Established Rural Areas like Lower Windsor.







## Fiscal Impacts of Farmland Preservation

Farmland preservation and the community's overall development pattern have direct implications for the Township's fiscal health. A 1997 study by Penn State Cooperative Extension provided a detailed assessment of the fiscal impacts of land use in Pennsylvania. This study can help Township citizens and leaders make the right choices regarding farmland preservation and land use policy.

*"The way land is used in your community affects your taxes and the quality of life. Land uses influence the size of your local government, the types of services it offers, the types of equipment it must purchase, and the taxes and tax rates it must levy..."*

*Identifying the impacts of different land uses will help you recognize what types of land development and uses should be encouraged in your municipality, and what types should be treated cautiously."*

***Fiscal Impacts of Different Land Uses: The Pennsylvania Experience***

*Penn State Cooperative Extension, 1997*



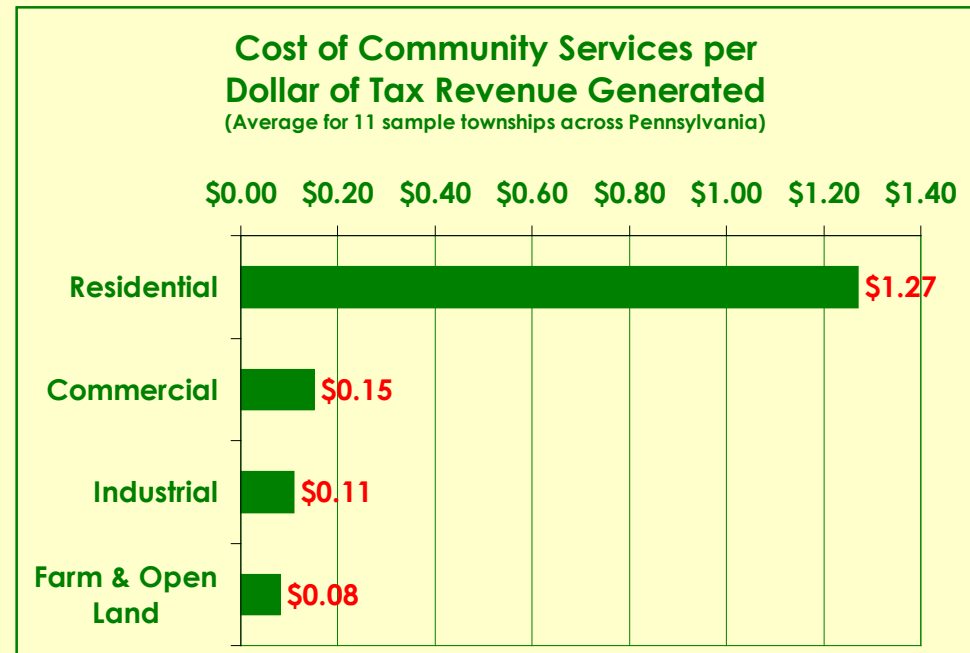
## Fiscal Impacts of Farmland Preservation

*“Residential land on average contributed less to the local municipality and school district than it required back in expenditures...*

*By contrast, commercial, industrial and farm- and open land provided more than they required back in expenditures...thus helping to subsidize the needs of residential land.*

*All residents benefit from farm- and open land...When farmland is converted for residential purposes, these benefits are lost.”*

PSCE, 1997



PSCE, 1997



## Tools for Farmland Preservation

In recent years, as the development pressures and fiscal impacts of urban sprawl have touched more communities, a variety of public and private tools have evolved to help preserve prime farmlands and retain rural character. The most effective of these tools have achieved farmland preservation goals while accommodating reasonable growth and development and protecting the rights of private property owners. Some of the key public and private sources consulted for information about farmland preservation tools include:

- *American Farmland Trust/Farmland Information Center, Washington, DC*
- *Bluegrass Tomorrow, Lexington, KY*
- *Heritage Conservancy, Doylestown, PA*
- *Natural Lands Trust, Media, PA*
- *10,000 Friends of Pennsylvania, Philadelphia, PA*
- *Penn State Cooperative Extension, State College, PA*
- *Pennsylvania Department of Agriculture/Farmland Preservation Bureau, Harrisburg, PA*
- *U.S. Environmental Protection Agency/National Center for Environmental*
- *U.S. Department of Agriculture/Economic Research Service, Washington, DC*
- *North Carolina Farm Bureau, Raleigh, NC*
- *Montgomery County/Farm Preservation Board, Norristown, PA*
- *Baltimore County/Department of Environmental Protection & Resource Management, Towson, MD*
- *King County/Water & Land Resources Division, Seattle, WA*
- *City of Davis/Parks & Community Services Department, Davis, CA*
- *Buckingham Township Land Preservation, Buckingham Township, PA*
- *Shrewsbury Township Comprehensive Plan/Zoning Ordinance, Shrewsbury, PA*



## Tools for Farmland Preservation

### *Incentive Tools*

#### **Differential Property Tax Assessment**

- Farmland assessed at agricultural value rather than fair market value
- Existing state program:
  - PA Clean & Green Program established in 1974 to preserve farmland, forest land and open space by taxing land according to its use rather than the prevailing market value
    - Voluntary program
    - Requires 10-acre minimum parcel of land; parcels less than 10 acres must be capable of producing \$2000 annually from the sale of agricultural products
    - Land taken out of permitted use subject to rollback tax, imposed for up to 7 years, with interest penalty

#### **Pros**

- Voluntary program
- Sanctions for removing land from program
- Tax benefits for landowner

#### **Cons**

- Does not permanently preserve farmland

#### **Circuit Breaker Tax Programs**

- Allows farmers to claim state income tax credits to offset local property taxes (PA does not allow)



## Tools for Farmland Preservation

### *Incentive Tools*

#### **Agricultural Security Areas (ASA)**

- Allow farmers to form special areas where commercial agriculture is encouraged and protected
- Participants receive special consideration regarding local ordinances affecting farming activities; nuisance complaints; review of farmland condemnation by state and local government agencies
- Voluntary program for farmers
- Petitions for creating ASA submitted by farmers to township supervisors
- A minimum of 250 acres from among all participating farmers is required
- An ASA may include non-adjacent farmland parcels of at least ten acres or be able to produce \$2000 annually from the sale of agricultural products
- An ASA qualifies land for consideration under the State of PA's Easement Purchase Program (at landowner's request) if the ASA has at least 500 acres enrolled

#### **Pros**

- ASAs have a low public cost
- Participants receive special consideration regarding local ordinances affecting farming activities, nuisance complaints and review of farmland condemnation by state and local government agencies.
- An ASA qualifies land for consideration for the Easement Purchase Program if the ASA has at least 500 acres enrolled.
- Enrollment is voluntary
- There are some limitations on the use of eminent domain in an ASA

#### **Cons**

- ASAs are not permanent
- The State of Pennsylvania does not have strong sanctions on withdrawal from an ASA



## Tools for Farmland Preservation

### *Incentive Tools*

#### Donation of Agricultural Conservation Easements

- Landowners donate conservation easements to government agency or private conservation group
- Existing York County program:
  - Farm and Natural Land Trust:
    - Accepts donation of easements
    - Landowner secures charitable deduction for difference in value of the land before granting the easement and value after granting the easement

#### Pros

- Permanent protection for farmland
- Keeps land in private ownership and on local tax rolls
- Easements can provide landowners with several tax benefits
- By reducing estate taxes, easements help farmers transfer their operations to the next generation
- Easements are flexible and can be tailored to the needs of individual farmers and unique properties

#### Cons

- Easements do not ensure that the land will continue to be farmed
- Donating an easement is not always financially feasible for the landowner
- Conservation easements must be monitored and enforced
- Conservation easements do not offer protection from eminent domain



## Tools for Farmland Preservation

### *Incentive Tools*

#### **Purchase of Agricultural Conservation Easements**

- Landowners sell agricultural conservation easements to government agency or private conservation organization
- According to the American Farmland Trust, funding options can include
  - Installment Purchase Agreements:
    - Landowners receive semi-annual tax-exempt interest over a term of years
    - Principal due at end of contract term
  - Bonds
  - Taxes
  - Federal Funds: Farmland Protection Program, Hazard Mitigation Grant Program, ISTE/TEA-21
  - Mitigation Ordinances
- Existing York County program:
  - York County Agricultural Land Preservation Board
    - Authorized by PA Act 149 and PA Agricultural Conservation Easement Purchase Program
    - Farms must be located in an Agricultural Security Area
    - Land Preservation Board accepts applications from farm owners
    - Applications are ranked according to a point system
    - Purchase price is difference between appraised market value and appraised farm value
    - Participants may receive proceeds from easement sales in a lump sum payment, installments up to five years or on a long-term installment basis



## Tools for Farmland Preservation

### *Incentive Tools*

#### **Purchase of Agricultural Conservation Easements (continued)**

##### **Pros**

- Permanent protection for farmland
- Keeps land in private ownership and on local tax rolls
- Easements can provide landowners with several tax benefits
- By reducing estate taxes, easements help farmers transfer their operations to the next generation
- Easements are flexible and can be tailored to the needs of individual farmers and unique properties

##### **Cons**

- Limited by funding availability
- Easements do not ensure that the land will continue to be farmed
- Conservation easements must be monitored and enforced
- Conservation easements do not offer protection from eminent domain

#### **Fee Simple Acquisition:**

- Outright purchase of farmland
- Highest level of protection
- Most expensive option for preserving farmland

##### **Pros**

- Highest level of protection

##### **Cons**

- Most expensive method





## Tools for Farmland Preservation

### *Regulatory Tools*

#### **Agricultural Preservation Zones (APZ)**

- Zoning ordinances that designate areas where farming is desired land use; limits other uses
- Include procedures for delineating agricultural zones and defining the areas to which regulations apply
- Limit residential development in agricultural zones by area based allowances: fixed area, sliding scale density (determines number of allowable units based on size of farm) or percent of total property acreage
- Can specify allowable residential density, permitted uses, minimum/maximum lot size, and site design and review and authorize right-to-farm and commercial agricultural activities
- Can require that residential development be located on the least productive soils
- Can allow incentives for cluster development
- According to the American Farmland trust, an effective APZ ordinance will support agricultural land uses by allowing no more than one house for every 20 acres and significantly restricting non-farm uses

#### **Pros**

- Protects farms from development until funds are available for purchase of development easements
- Helps municipalities reserve their most productive soils for agriculture
- Helps prevent suburban sprawl and reduces infrastructure costs
- Can be implemented relatively quickly
- Is flexible and can be changed if economic conditions change

#### **Cons**

- Not permanent
- Can reduce land values, thereby decreasing land equity
- Must be monitored and enforced
- Do not protect agricultural land against annexation by municipalities



## Tools for Farmland Preservation

### *Regulatory Tools*

#### Transfer of Development Rights

- Allows landowners to transfer development rights from one parcel of land to a different parcel of land; rights transferred from “sending” parcel to “receiving” parcel
- Generally established through local zoning ordinances
- Buying development rights generally allows developers to build at a higher density on “receiving” parcel than ordinarily allowed by zoning
- Can be used in combination with the sliding scale method of zoning
- Provides method to develop parcels targeted for development while preserving farmland
- Local government may buy and sell development rights through a TDR bank
- Must determine which agricultural areas should be protected and where development should be transferred and at what densities

#### Pros

- Permanent protection of farmland
- Voluntary
- Promotes appropriate growth in targeted development areas
- Allows farmers to retain equity without developing land
- Are market-driven - more land is protected when development pressure is high

#### Cons

- Can be complicated and require much time and resources to implement
- Is a new concept to many - a public education campaign is generally necessary
- The pace of transactions depends on private market for development rights; if real estate market is depressed, few rights will be sold and little land protected



## Tools for Farmland Preservation

### *Regulatory Tools*

#### **Subdivision Ordinance**

- Regulate development, but do not regulate land use

#### **Pros**

- Less “regulatory” than zoning ordinance

#### **Cons**

- Does not protect against inappropriate use
- A passive method of farmland preservation in that properties are not affected until development is planned

#### **Mitigation Ordinance**

- Can be used to make developers pay for farmland protection
- Relatively new farmland protection technique
- Davis, CA ordinance is designed to require developers to permanently protect one acre of farmland for every acre of agricultural land they rezone for other uses; may also be satisfied by paying a fee

#### **Pros**

- Permanent protection

#### **Cons**

- Difficult to draft defensible legal ordinance
- A passive protection tool - does not protect farmland until developer seeks rezoning
- Does not direct development to targeted development areas; could result in spotty farmland preservation



## A Farmland Preservation Strategy for Lower Windsor

### *The Time is Now*

With development pressures steadily increasing adjacent to and within its borders, yet with much of its traditional “town and country” character still intact and strong community support for preserving this farm and small town atmosphere, Lower Windsor Township stands at an important crossroads in its history. The Township can make choices now that will shape the culture and development pattern of the community for years to come.

- Township leaders are in agreement with their constituents that maintaining and enhancing the community’s current character is the path they wish to follow.
- The current update of the Township Comprehensive Plan provides a unique opportunity for leadership to confirm this commitment in policy and set the stage for additional Township actions in support of this goal. Given the importance of farms and open space to the Township’s sense of place and lifestyle, a strategy for farmland preservation must be a critical part of this planning effort.
- As illustrated by the variety of farmland preservation tools being used across the nation, an effective farmland preservation strategy should not rely on any single tool for its implementation. Rather, a package of complementary tools should be developed to address different aspects of the overall preservation goal.



## A Farmland Preservation Strategy for Lower Windsor

### *Lower Windsor's Farmland Preservation Toolkit*

The farmland preservation strategy for Lower Windsor Township proposes a toolkit that includes policy, incentive and regulatory options. Township leaders can choose which tools are most practical and effective based on the political and budgetary environment guiding their decision-making process. Some tools are currently being used in the Township, although they may need to be modified or marketed better to be more effective; others have proven successful elsewhere in Pennsylvania and York County, but will require new action and initiative by Township officials for implementation in Lower Windsor.

#### **A. Policy Tools**

##### Comprehensive Plan

#### **B. Incentive Tools**

- Agricultural Security Areas
- Clean & Green Program
- Agricultural Conservation Easements

#### **C. Regulatory Tools**

- Subdivision & Land Development Ordinance
- Zoning Ordinance



## A Farmland Preservation Strategy for Lower Windsor

### A. Policy Tools: Comprehensive Plan

- The Lower Windsor Township Comprehensive Plan is an adopted policy document for guiding community growth, development and services.
- First adopted in January, 1989 and currently undergoing its first update, the Plan is prepared in accordance with the Pennsylvania Municipalities Code, Act 247, and includes background studies concerning existing conditions and services, along with specific elements addressing the community's future needs and goals.
- Comprehensive Plan elements include include plans for future land use, housing, community facilities, public utilities and transportation.
- Farmland preservation is addressed in the Future Land Use element of the Plan, which designates locations for future development of different land uses and establishes policies for achieving the preferred development pattern and character for the Township,

**Strategy 1:** *Include the Farmland Preservation Strategy in the Comprehensive Plan's Future Land Use element to make a strong policy and planning statement about the Township's desire to retain its agricultural heritage and economy.*

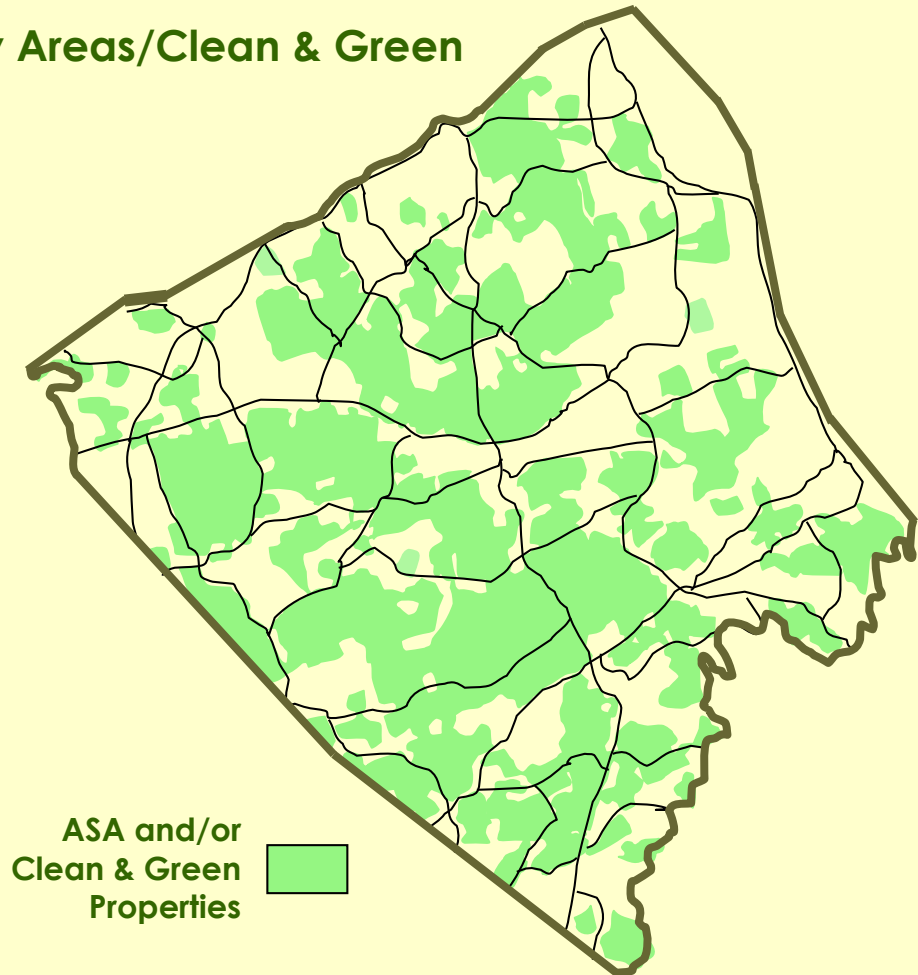


## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Security Areas/Clean & Green

- Pennsylvania's Agricultural Security Areas (ASA) and Clean & Green Program provide legal protections and tax benefits for agricultural property owners.
- Participation in these voluntary programs is high in Lower Windsor, with designated parcels located throughout most areas of the Township.

**Strategy 2:** *In association with other incentive efforts, initiate targeted marketing of ASA and Clean & Green program benefits to non-participating property owners in areas identified as priority locations for farmland preservation.*





## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Conservation Easements

- Other than outright fee simple purchase of land, the purchase or donation of agricultural conservation easements is the most permanent method for preserving farmland.
- Fortunately for the Township, two local groups have established track records with promoting and expanding the use of agricultural conservation easements for the preservation of farmland in York County:

**York County Agricultural Land Preservation Board**, a State and County funded agency that purchases easements through an application and ranking system.

**Farm & Natural Lands Trust of York County**, a not-for-profit organization that currently solicits and accepts donation of easements.



- Rather than develop its own easement program, the Township can work with these programs to significantly expand the use of such easements in Lower Windsor, thereby ensuring permanent preservation of much of the community's farm acreage and rural character for generations to come.





## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Conservation Easements

#### York County Agricultural Land Preservation Board

Program annually receives and ranks applications from landowners whose farms are located in an ASA and meet the following criteria:

**Property Size:** 50 acres or more in size or 10 acres or more if located adjacent to another conservation easement

**Attributes:** 50% of the farm in Class I-IV soils and which are available for agricultural production and crop production. A soil conservation plan must be in place.

**Compensation:** In exchange for the relinquishment of development rights the landowner receives a fee per acre reflecting the farm's appraised development value.

**Easement Cost per Acre: \$1300 - \$1900**

#### Farm & Natural Lands Trust of York County

**Property Size:** Preferably 10 acres or more; tracts of less than 10 acres will be considered if they adjoin a property with a conservation easement.

**Attributes:** Farm or natural lands including woodlands, pastures, meadows, flood plains, wetlands and streams.

**Compensation:** Landowners donate their conservation easement value to the Trust and may experience tax savings in the form of income tax charitable deductions or reduced estate taxes.

Source: York County Farm & Natural Lands Trust

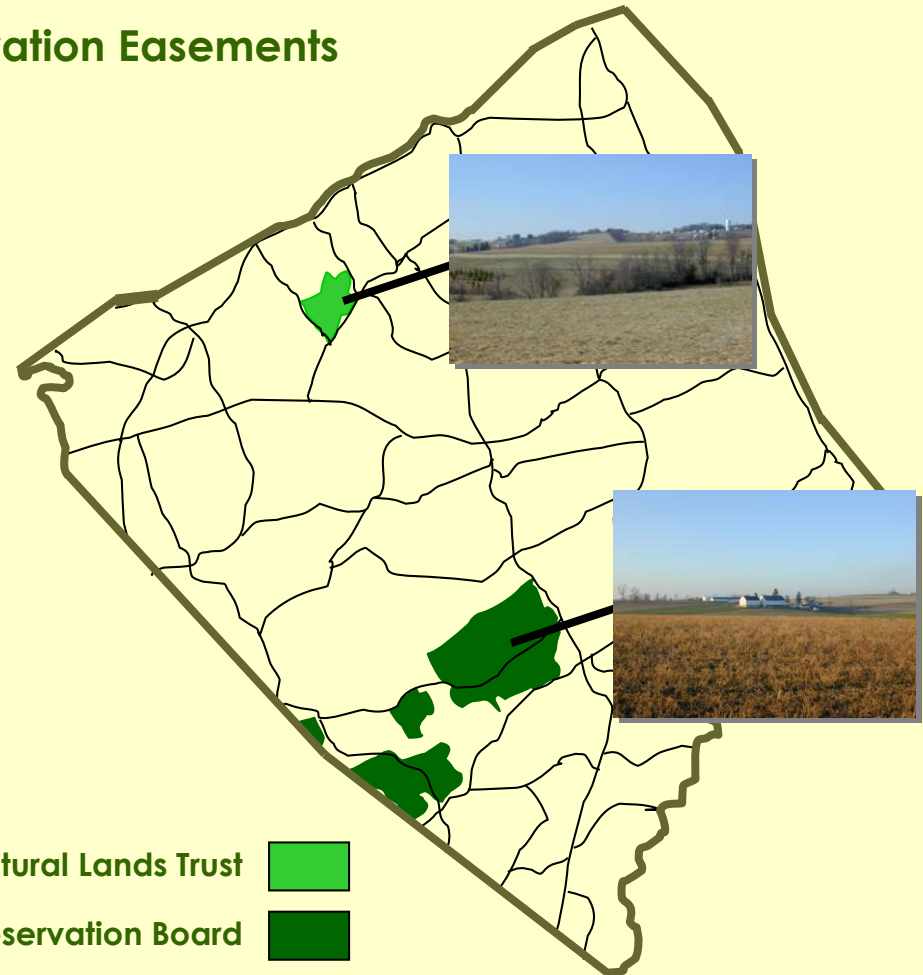


## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Conservation Easements

Over 200 landowners have placed conservation easements on more than 24,000 acres of York County farm and natural lands, including significant areas of Lower Windsor Township:

- The Agricultural Land Preservation Board holds easements on a cluster of farmsteads along Old Commons and Winters Roads in the southwest area of the Township.
- The Farm & Natural Lands Trust holds easements on a small grouping of farmsteads along Canadochly Road in the north central area of the Township.





## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Conservation Easements

**Strategy 3:** Establish partnerships with Preservation Board and Trust to develop a coordinated approach for use of conservation easements as the primary tool for preserving farmland:

#### 1 Identify Priority Farmland Preservation Areas

- Work with Board & Trust to identify Township locations for designation as priority areas for permanent preservation of farmland; these areas should be determined based on soil quality, farm productivity, development pressure, historical integrity & importance to rural character & view sheds.

#### 2 Develop Targeted Marketing & Educational Campaign:

- Develop joint marketing materials & educational programs, tailored to Lower Windsor, to explain easement options and programs, as well as ASAs & the Clean & Green program.
- Identify & directly solicit landowners in priority preservation areas for participation in easement programs.

#### 3 Provide Township Funding for Easement Purchases

- Provide matching funds for acquisition of Preservation Board easements in the Township.
- Provide full or partial funding for acquisition of Trust easements in the Township; "bargain sale" easements combine reduced purchase price with donation of a portion of the development value.
- Preservation Board & Trust assume responsibility for easement legal fees & long-term monitoring, freeing the Township from burdensome administrative costs.



## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Conservation Easements

***Setting a Goal:*** Over the next 10 years, Lower Windsor Township will permanently preserve 1/3 of the community's current farmland acreage through conservation easement programs.

- Establishing an ambitious but realistic farmland preservation goal now will provide direction for allocating resources and a yardstick for measuring progress.
- A ten year timeframe corresponds to the Comprehensive Plan's update cycle and ensures action during a period in which increased development pressures can be expected.
- The goal for preserving 1/3 of existing farmland is based upon a primary focus on priority preservation areas, and assumes that some landowners may not wish to participate in the program and some properties may not be appropriate for continued farming.
- Given the Preservation Board's current easement costs of \$1300-\$1900 per acre, an average of \$1600 per acre is used to estimate the cost of such a goal.
- The Township's total cost could be partially offset with matching funds for Preservation Board easements. It is also anticipated that at least 10% of easement acreage would be donated to the Trust by landowners seeking tax benefits instead of cash payments.



## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Conservation Easements

***Setting a Goal:*** Over the next 10 years, Lower Windsor Township will permanently preserve 1/3 of the community's current farmland acreage through conservation easement programs.

#### Estimated Budget for Conservation Easement Purchases over 10 Years:

- $+/-10,500 \text{ ac} \times 1/3 = +/-3465 \text{ ac} \times 90\% = +/-3130 \text{ ac} \times \$1600/\text{ac} = \mathbf{\$5,008,000 \text{ total cost}}$
- $\mathbf{\$750,000/\text{year for first 3 years}} = +/-470 \text{ ac/year}$ , a total of +/-1410 ac, or 45% of total goal
- $\mathbf{\$392,000/\text{year for last 7 years}} = +/-245 \text{ ac/year}$ , a total of +/-1715 ac, or 55% of total goal

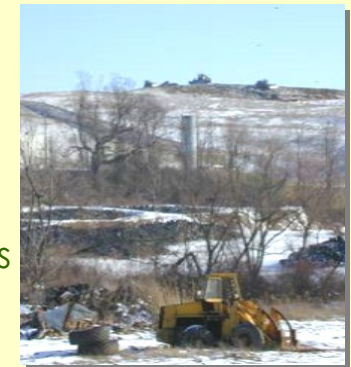


## A Farmland Preservation Strategy for Lower Windsor

### B. Incentive Tools: Agricultural Conservation Easements

#### Township Funding for Purchase of Farmland Easements

- Through voter referendums, Pennsylvania townships have approved dedicated tax increases for the purchase of conservation easements.
- Lower Windsor enjoys the unique position of having an existing source to fund easement purchases – the Host Tipping Fee/Municipal Service Funds generated from waste deposited in the Modern Landfill. This facility, located on the Township's far western edge, receives waste from New Jersey and other out-of-state locations, and pays the Township a fee for each ton of waste deposited in the Township portion of the landfill.
- The landfill fund balances currently total over \$9 million.
- A portion of these funds could be annually targeted towards purchase of conservation easements in partnership with the Preservation Board and Trust minimal impact on Township fiscal health. In fact, preserving farmland will actually reduce overall community services costs.
- This funding approach will pay for local farmland preservation with trash from New Jersey - an attractive scenario for Township leaders and taxpayers.





## A Farmland Preservation Strategy for Lower Windsor

### C. Regulatory Tools: Subdivision & Land Development Ordinance

- Lower Windsor's Subdivision and Land Development Ordinance was adopted in December 1991 and, absent a zoning ordinance, has served as the Township's primary means for guiding development in the community. The ordinance generally requires new subdivisions in the Township to meet suburban-style lot, setback and roadway design standards.
- While providing for safe street design and adequate lot size, these standards prohibit use of more innovative subdivision approaches that could help maintain the Township's traditional "town and country" character as new development occurs. The historic town of East Prospect, for instance, would be illegal to build today under the existing ordinance.
- For these regulations to serve as a good tool for preservation of farmland and community character, innovative subdivision design options should be included and promoted.

***Strategy 4:*** *As part of an overall regulatory strategy for the preservation of farmland and community character, revise the Township's Subdivision and Land Development Ordinance to permit use of innovative subdivision design options, including:*

- *Traditional Neighborhood Development*
- *Clustering & Flexible Lot Design*
- *Conservation Subdivision Design (Growing Greener)*



## A Farmland Preservation Strategy for Lower Windsor

### C. Regulatory Tools: Zoning Ordinance

- Although not voluntary and not as permanent as conservation easements, a well designed zoning ordinance can be a valuable regulatory tool for preserving farmland and community character. Zoning regulates the use of land and the location and intensity of development. A zoning ordinance can thus be used to direct new development to preferred growth areas and help ensure land uses and building and site designs that are compatible with community goals, preferences and traditions.
- In recent years many new, innovative approaches to land use regulation have been developed and proven successful across the nation. Pennsylvania's Municipalities Planning Code now allows local governments to use many of these techniques. However, many communities and developers are so vested in existing regulations and practices that amending zoning ordinances to permit new approaches can be politically challenging.
- Lower Windsor Township has never adopted a zoning ordinance, and past efforts to enact one proved unsuccessful. This lack of zoning presents a unique opportunity for the Township and its citizens. Rather than amend an existing, outdated ordinance to accommodate new approaches, the Township can develop a custom-designed zoning ordinance that incorporates innovative techniques in support of its goals for preservation of farmland and community character while preserving an equitable balance between government regulation and private property rights.





## A Farmland Preservation Strategy for Lower Windsor

### C. Regulatory Tools: Zoning Ordinance

Although a thorough review of the full range of zoning options is beyond the specific scope of this report, a basic strategy for consideration of a zoning ordinance in Lower Windsor is proposed below.

***Strategy 5:*** *Initiate consideration of a zoning ordinance for the Township that respects and strengthens the traditional development pattern of the community and includes extensive opportunities for citizen education and participation. Key principles should include:*

- *Limit regulation in agricultural districts primarily to use and density issues.*
- *Provide flexibility in agricultural districts for farming activities and farm-based businesses.*
- *Provide options for Traditional Neighborhood Development (TND) in proposed town and village growth areas to allow for the natural growth of traditional communities.*
- *Provide options for Planned Residential Development (PRD) in proposed rural cluster growth areas to allow for clustering development and preserving open space.*
- *Provide for Transferable Development Rights (TDR), with agricultural districts designated as sending areas and proposed growth areas designated as receiving areas.*
- *Investigate the feasibility of requiring acre-for-acre agricultural mitigation by applicants requesting the rezoning of property in an agricultural zone to a non-agricultural zone.*



## A Farmland Preservation Strategy for Lower Windsor

### Summary of Farmland Preservation Strategies

**Strategy 1:** Include the farmland preservation strategy in the Comprehensive Plan's Future Land Use element to make a strong policy and planning statement about the Township's desire to retain its agricultural heritage and economy.

**Strategy 2:** In association with other incentive efforts, initiate targeted marketing of ASA and Clean & Green program benefits to non-participating property owners in areas identified as priority locations for farmland preservation.

**Strategy 3:** Establish partnerships with Preservation Board and Trust to develop a coordinated approach for use of conservation easements as the primary tool for preserving farmland:

- Identify priority farmland preservation areas
- Develop targeted marketing & educational campaign
- Provide township funding for easement purchases

**Strategy 4:** As part of an overall regulatory strategy for the preservation of farmland and community character, revise the Township's Subdivision and Land Development Ordinance to permit use of innovative subdivision design options, including:

- Traditional Neighborhood Development
- Clustering & Flexible Lot Design
- Conservation Subdivision Design (Growing Greener)

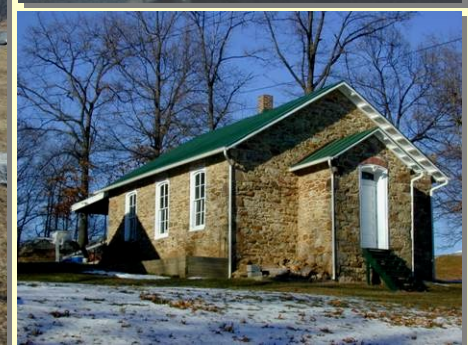
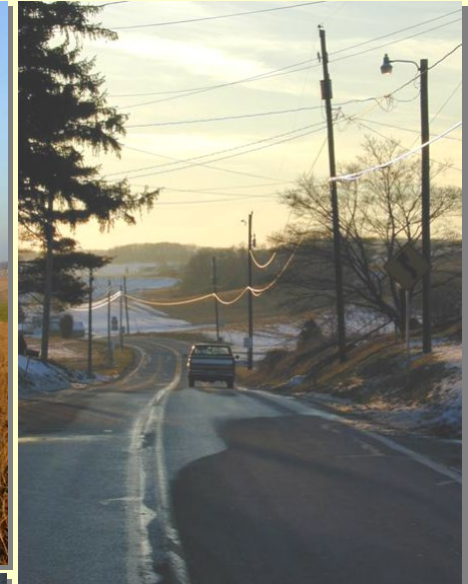
**Strategy 5:** Initiate consideration of a zoning ordinance for the Township that respects and strengthens the traditional development pattern of the community and includes extensive opportunities for citizen education and participation. Key principles guiding the zoning process should include:

- Limit regulation in agricultural districts primarily to use and density issues.
- Provide flexibility in agricultural districts for farming activities and farm-based businesses.
- Provide options for Traditional Neighborhood Development (TND) in proposed town and village growth areas to allow for the natural growth of traditional communities.
- Provide options for Planned Residential Development (PRD) in proposed rural cluster growth areas to allow for clustering development and preserving open space.
- Provide for Transferable Development Rights (TDR), with agricultural districts designated as sending areas and proposed growth areas designated as receiving areas.
- Investigate the feasibility of requiring acre-for-acre agricultural mitigation by applicants for zoning changes which will change the use of agricultural land to any non-agricultural zone or use.



## Township Vision

*Lower Windsor in 2012 . . . pretty much like Lower Windsor today.*



---

---

Lower Windsor Township, PA  
**Farmland Preservation Strategy**  
**Project Summary Report**

---

---

*Prepared by*

**Platts/Simons**

**Community Planning**

4621 42<sup>nd</sup> St. NW

Washington, DC 20016

202/243-1092

*In association with*

**C.S. Davidson, Inc.**

**Excellence in Civil Engineering**

38 N. Duke St.

York, PA 17401

717/846-4805

Lower Windsor Township, PA  
**Comprehensive Plan**

---

**Plan Document**

*Prepared by*

**C.S. Davidson, Inc.**  
**Excellence in Civil Engineering**  
38 N. Duke St.  
York, PA 17401  
717/846-4805

---