

Comprehensive Plan

Newtown Township
Delaware County, Pennsylvania



May 27, 2016



TOWNSHIP OF NEWTOWN

RESOLUTION NO. 2016-35

A RESOLUTION ADOPTING A NEW COMPREHENSIVE PLAN FOR NEWTOWN TOWNSHIP PURSUANT TO THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, ARTICLE III, ACT 247 OF 1968 AS AMENDED

WHEREAS, the Pennsylvania Municipalities Planning Code grants the governing bodies of Pennsylvania municipalities authority to develop, adopt, and implement a comprehensive plan; and

WHEREAS, a comprehensive plan is a municipal assessment of existing community conditions, an outline of short and long range community development goals and a municipal plan for managing future growth, development, land use and community character; and

WHEREAS, Newtown Township last updated its current Comprehensive Plan in 2001, and since that time, significant growth has occurred warranting a review and update of the 2001 Comprehensive Plan; and

WHEREAS, the Newtown Township Planning Commission (the Planning Commission) serves as the official planning agency for Newtown Township; and

WHEREAS, the Board of Supervisors charged the Planning Commission, along with consultants Sarcinello Planning & GIS Services, Ray Ott & Associates and Township staff (collectively the “Planning Team”) to engage the community and prepare an updated comprehensive plan; and

WHEREAS, the Planning Team has completed the procedural process set forth within Article III of the Pennsylvania Municipalities Planning Code required prior to the adoption of a comprehensive plan as well as many additional steps beyond those required, including but not limited to community surveys, public workshops, open houses, planning meetings, forwarded the draft plan for review by adjoining municipalities, the Delaware County Planning Department, and the Marple Newtown School District, and on May 27, 2016, held a public meeting to consider and make a recommendation to the Board of Supervisors about the plan’s adoption; and

WHEREAS, the result of the aforementioned process is the Comprehensive Plan of Newtown Township, Delaware County, Pennsylvania, dated May 27, 2016, (“Comprehensive Plan”) consisting of 80 pages of text, an Appendix A consisting of 12 pages of text and charts regarding the Township’s demographic profile, and an Appendix B consisting of 9 maps, identified as Maps B-1 through B-9.

WHEREAS, the Township's Planning Commission recommends adoption of the Comprehensive Plan;

WHEREAS, the Delaware County Planning Department has recommended adoption of the Comprehensive Plan;

WHEREAS, the Board of Supervisors held a duly advertised public meeting on August 8, 2016 to consider adoption of the Comprehensive Plan;

WHEREAS, the comments received from the public in writing and at public hearings, as well as from the Delaware County Planning Department, and adjacent municipalities, have been duly considered and noted; and

WHEREAS, and the Newtown Township Board of Supervisors has reviewed and considered the recommended Comprehensive Plan along with the comments received from the public in writing and at a public hearing, as well as from the Delaware County Planning Department and adjacent municipalities;

WHEREAS, the Comprehensive Plan adequately addresses the elements as required by Section 301 of the Municipalities Planning Code; and

WHEREAS, the Township Board of Supervisors is desirous of adopting the Comprehensive Plan pursuant to the powers granted by the Pennsylvania Municipalities Planning Code

NOW THEREFORE BE IT RESOLVED, by the Newtown Township Board of Supervisors that:

1. The Comprehensive Plan of Newtown Township, Delaware County, Pennsylvania dated May 27, 2016, consisting of all maps, tables, figures, and textual matter is hereby adopted as the official Comprehensive Plan of Newtown Township;
2. The Newtown Township Comprehensive Plan of 2001 is hereby rescinded;
3. This Resolution shall be appended to, or annotated on, the Comprehensive Plan; and
4. The Township Secretary shall distribute digital or paper copies, as applicable, of this Resolution and corresponding Comprehensive Plan to the Delaware County Planning Department, relevant Township staff, authorities and boards for consideration in future planning and actions related to development.

RESOLVED, this 12th day of August, 2016.



TOWNSHIP OF NEWTOWN
BOARD OF SUPERVISORS

By: _____

John A. Nawn, P.E., Chairman

ATTEST:

Stephen M. Nease

Stephen M. Nease, Township Manager/Secretary

Newtown Township Comprehensive Plan

Delaware County, Pennsylvania

Newtown Township

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Christina Roberts-Lightcap, Assistant Secretary
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Linda Gabell, Supervisor

Planning Commission

Curtis B. Silva, Chair
Shimon Guy, P.E., Vice-Chair
Jeffrey French, AIA, Member
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Nicholas Stephanou, Member
Clare L. Frissora, Member
Paul Evans, Member

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Consultant Team

Sarcinello Planning & GIS Services
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Chapter 1

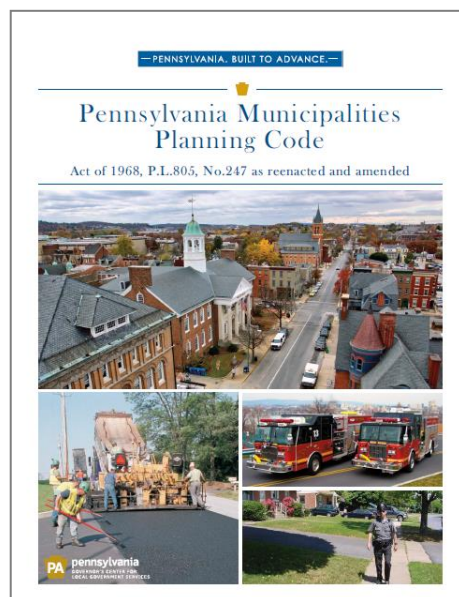
Introduction

WHAT IS A COMPREHENSIVE PLAN?

The comprehensive plan is essentially a growth management plan that assesses a municipality's existing conditions, outlines its short- and long-range community development goals, and provides recommendations and strategies aimed at achieving those goals. It is enabled by the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968, as reenacted and amended. The MPC stipulates that the comprehensive plan must be reviewed every ten years and must include the following elements:

- Statement of Community Development Objectives
- Land Use Plan
- Housing Plan
- Transportation Plan
- Community Facilities and Utilities Plan
- Natural Resources Protection Plan
- Historic Resources Protection Plan
- Statement of the Interrelationships Among the Plan's Components
- Statement of the Plan's Implementation Strategies
- Statement of the Plan's Compatibility with Adjoining Municipalities and the County Comprehensive Plan

As a policy document, the comprehensive plan *guides* future land use and planning decisions. Its recommendations may be implemented through both regulatory means, such as ordinances, and non-regulatory means, such as voluntary community action. It is also used to support applications for grant funding for municipal planning projects. Where zoning is concerned, the comprehensive plan is important in that it provides the rationale for ordinance provisions. Section 603(j) of the MPC states that “zoning ordinances adopted by municipalities shall be generally consistent with the municipal comprehensive plan...”



THE COMPREHENSIVE PLAN PROCESS

The comprehensive plan process involves finding the sometimes complex answers to four simple questions:

1. *Where are we?*
2. *Where do we want to be?*
3. *How do we get there?*
4. *How are we doing?*

1. Where are we?

The first step in the process is the collection and analysis of data that inventories the existing conditions in the community and identifies key issues. Key issues – challenges and opportunities facing the township – are identified through a series of public participation events (see *Public Participation* below).

2. Where do we want to be?

This step involves the formulation of community development goals and objectives. Goals and objectives are statements of how the community expects the Township evolve into the future. Based on this community vision, the various recommendations to guide the future growth of the township are prepared.

3. How do we get there?

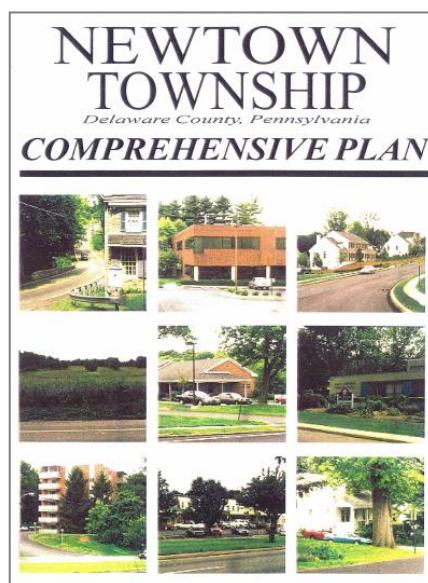
Implementation strategies provide the specific means to achieve the community's goals. Implementation strategies are provided for each of the MPC-required comprehensive plan elements.

4. How are we doing?

The ability of the community to achieve its goals depends on its continual use of the comprehensive plan. The comprehensive plan should be consulted by the Township when important land use decisions are made, and its implementation strategies should be reviewed regularly to assess the community's progress toward achieving its goals.

THE NEED FOR A COMPREHENSIVE PLAN UPDATE

This Comprehensive Plan has been undertaken by Newtown Township in recognition of the need to assess changes that have taken place since its 2001 Comprehensive Plan. Several land development projects have been completed since that time or are currently in progress, and other projects might potentially be realized in the future. The comprehensive plan allows the Township to update its vision for the future considering in-progress and potential changes to land use. Township officials are keen to obtain input from residents about challenges and opportunities facing the Township and ideas for how to move forward into the future. The ultimate goal is to produce a plan that is responsive to residents and achievable within the scope of good planning practice and land use law. Updating the comprehensive plan also brings the Township into compliance with the MPC's mandated review timeline, and allows the Township the opportunity to align its plan with county-wide planning initiatives.



PUBLIC PARTICIPATION

Public participation is at the heart of this Comprehensive Plan. The Newtown Township Planning Commission was tasked with preparing the Comprehensive Plan and sought input from community members throughout the process to ensure that key issues of importance to residents are addressed and future plans reflect the community's vision. The Township is hopeful that residents will continue to participate in the Plan's implementation over the coming years.

Work on the Comprehensive Plan began in December 2014. Throughout the process, Township residents were invited to provide input through the various avenues listed below. Over 1,000 residents

took part in the public participation events. All meetings and public participation events were advertised via newspaper as required by law, and via the township website, Facebook page, email blasts, posting of flyers, and *IN Community Magazine*.

Community Survey - A community survey was made available to all residents between February 20, 2015 and April 24, 2015. Residents responded to questions on various planning topics pertaining to Newtown Township.

Public Workshops - Three public workshops were held in the Marple Newtown High School cafeteria. At the first two public workshops, held on March 4, 2015 and April 23, 2015, residents participated in a hands-on exercise to identify key issues in the Township. At the third public workshop, held on September 22, 2015, residents participated in a hands-on exercise to provide feedback on a draft future land use plan. The third workshop was extended in the form of an “open house” held at the township building on October 14, 2015 from 8:30am to 4:30pm and on October 15, 2015 from 8:30am to 7:00pm.

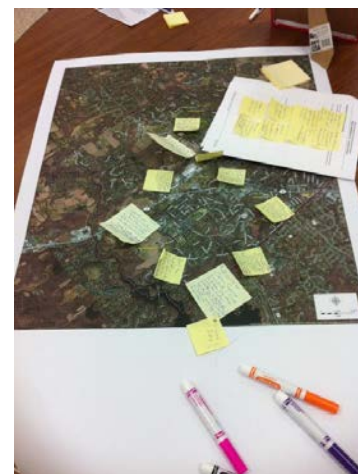
Open Houses – Three open house events were held at the Newtown Township Library to provide residents an opportunity to view comprehensive plan materials and provide comments. The first was held on Saturday, March 14, 2015; the second was held on Saturday, July 8, 2015; the third was held over two weekdays, October 14, 2015 and October 15, 2015.

Comprehensive Plan Meetings – The Planning Commission held ten meetings throughout the process that were specifically devoted to the Comprehensive Plan and open to the public. Meetings were scheduled for the first Wednesday of each month.

Act 247 Review – In compliance with the MPC, the draft Comprehensive Plan was forwarded to adjoining municipalities, Delaware County Planning Department, and Marple Newtown School District for review and comment. A copy of the Comprehensive Plan was also made available at the library to Newtown Township residents for their review and comment.

Planning Commission Public Meetings – The Planning Commission held public meetings on May 4, 2016 and May 26, 2016 to consider public comments and to make a recommendation to the Board of Supervisors for the Plan’s adoption.

Board of Supervisors Public Hearing - The Board of Supervisors adopted the Comprehensive Plan at a public hearing on August 8, 2016.



MAJOR THEMES

Based on issues repeatedly cited by residents, four major themes arose from the public participation process:

1. Preservation of the Township's remaining open spaces and natural resources
2. Traffic congestion at the PA 3 /PA 252 intersection and its spillover effects on surrounding roads
3. The need for trails and sidewalks to enable walking for both recreation and for access to destinations within and outside of the Township
4. Development form (i.e., development that is consistent with existing neighborhood form and character, and a town center that is cohesive, walkable, and aesthetically pleasing)

The Comprehensive Plan address these issues as well as others commonly cited by residents and required by the MPC.

DOCUMENT STRUCTURE

This Comprehensive Plan is structured to meet the requirements of the MPC and concisely express the community's vision for its future and recommendations for proceeding toward that vision. A chapter is devoted to each MPC-required comprehensive plan element. Within each chapter is a discussion of existing conditions and future policy recommendations. Implementation strategies, provided in Chapter 11, detail the actions that should be taken in order to put this Comprehensive Plan to work for the Township.

Chapter 2

Goals and Objectives

INTRODUCTION

Input provided by Township residents through various public participation events (see Chapter 1) revealed the Township's many challenges and opportunities. Based on this input, community development goals and objectives are formulated for each MPC-required comprehensive plan element. These goals and objectives provide the framework for the recommendations and implementation strategies contained in this Comprehensive Plan, and the Township zoning ordinance should reflect these goals and objectives.

For the purpose of this Comprehensive Plan, goals and objectives are defined as follows:

Goals – Establish the overall policy direction of Township

Objectives – More specific policy directives that will contribute to achieving the overall goal

GOALS and OBJECTIVES

Land Use

Goal

Provide for future use of land in a manner that will preserve and restore the community's small-town, suburban-rural character and enhance its social and economic vitality.

Objectives

- Preserve the character and physical form of existing residential neighborhoods
- Discourage inappropriate encroachment of non-residential land uses into residential neighborhoods
- Avoid potential conflicts between adjacent incompatible land uses
- Encourage new development to adopt a form that is compatible with the Township's historical and natural environments
- Protect tracts of open space that can serve as a passive recreational facility, facilitate establishment of a public trail or greenway corridor, or contain significant natural, scenic, and historic resources which contribute to the Township's suburban-rural character
- Establish a connected network of open space for passive recreational use and natural resource protection
- Provide for a walkable town center
- Update the appearance of commercial uses along West Chester Pike (PA 3)

Housing

Goal

Provide for housing that meets the needs of current and future Township residents, and is in harmony with the Township's historical and natural environments

Objectives

- Maintain the character and integrity of the Township's existing housing stock and residential neighborhoods
- Provide for varied housing options to accommodate various household configurations and individuals and families at various life-stages and income levels

Transportation / Circulation

Goal

Provide for a safe and efficient transportation system that facilitates vehicular traffic and accommodates public transportation and pedestrian and bicycle infrastructure

Objectives

- Maintain roads and improve road conditions
- Better manage traffic on PA 3 and PA 252
- Mitigate problems associated with cut-through traffic on local roads
- Promote access management as a low-cost means of preserving existing infrastructure while improving traffic mobility and safety
- Provide safe pedestrian access to and throughout the Township's commercial areas
- Establish a system of interconnected hiking and biking trails within the Township and connect the Township's trail system to those of neighboring municipalities
- Establish bike paths and bike lanes along selected roads for commuting and recreational purposes
- Support SEPTA bus service through the Township
- Install bus stop shelters and bus stop shelter amenities, in accordance with SEPTA design guidelines, at all bus stops that are located in front of major commercial or residential activity centers and ensure that the shelters are accessible to pedestrians.

Natural Resources

Goal

Protect the Township's natural features, which are critical to residents' health and to the community's suburban-rural character

Objectives

- Protect mature trees and woodlands, especially large stands of woodlands with interior forest habitat
- Maintain tree plantings and reestablish native trees and vegetation
- Maintain and improve water supply and water quality for potable, and aquatic uses
- Manage current flooding problems and prevent future flooding
- Maintain the stability of steep and very steep slopes
- Preserve aquatic and terrestrial habitats
- Establish a connected system of greenways for recreation and conservation purposes (i.e., to link open spaces and other destinations, provide trail corridors, enhance stormwater management, and facilitate wildlife movement)

Historic Resources

Goal

Protect the Township's historic buildings, structures, sites, and landscapes, which represent the Township's heritage and contribute to its identity

Objectives

- Strengthen protection measures for the Township's historic resources
- Increase public awareness of the Township's historic resources
- Enable the use of historic resources for commercial, institutional, or other enterprise, in a manner that protects the integrity of the resource and promotes its longevity
- Protect the natural context of historic resources and the Township's definitive historical landscapes
- Embed historic resources into the Township's open space and recreation system

Community Facilities and Utilities

Goal

Provide community facilities, services, and utilities as needed to ensure a functional, safe, healthy, and economically viable community

Objectives

Township Services

- Provide sufficient police department staffing, equipment, and facilities to meet demand for services and to maintain a high standard of service
- Facilitate the fire department's effort to construct a new fire station at a location appropriately situated to serve the community
- Continue to provide support to the Newtown Township Public Library as needed to meet demand for services and to maintain a high standard of service

Schools

- Support the Marple Newtown School District to ensure the competitiveness of its public schools

Parks, Recreation, Open Space

- Provide access to the new Newtown Meadows Nature Preserve
- Improve routine maintenance of Township parks, trails, and open space areas
- Secure a minimum of 350 acres of additional recreation and open space land in the form of public open space for passive recreational pursuits and neighborhood parks within existing and future residential developments
- Raise funds to be used exclusively for acquisition of new open space land
- Monitor demand for athletic fields and increase capacity as needed

Trails

- Establish a network of walking and biking trails that connect to parks, open space areas, historical sites, shopping areas and other key destinations
- Establish a system of interconnected hiking and biking trails within the Township and connect the Township's trail system to those of neighboring municipalities
- Establish bike paths and bike lanes along selected roads for commuting and recreational purposes

Sewer and Water Utilities

- Coordinate extension of public sewer and water utilities with future land use in a manner that serves future growth and facilitates open space preservation

Chapter 3

Land Use Plan

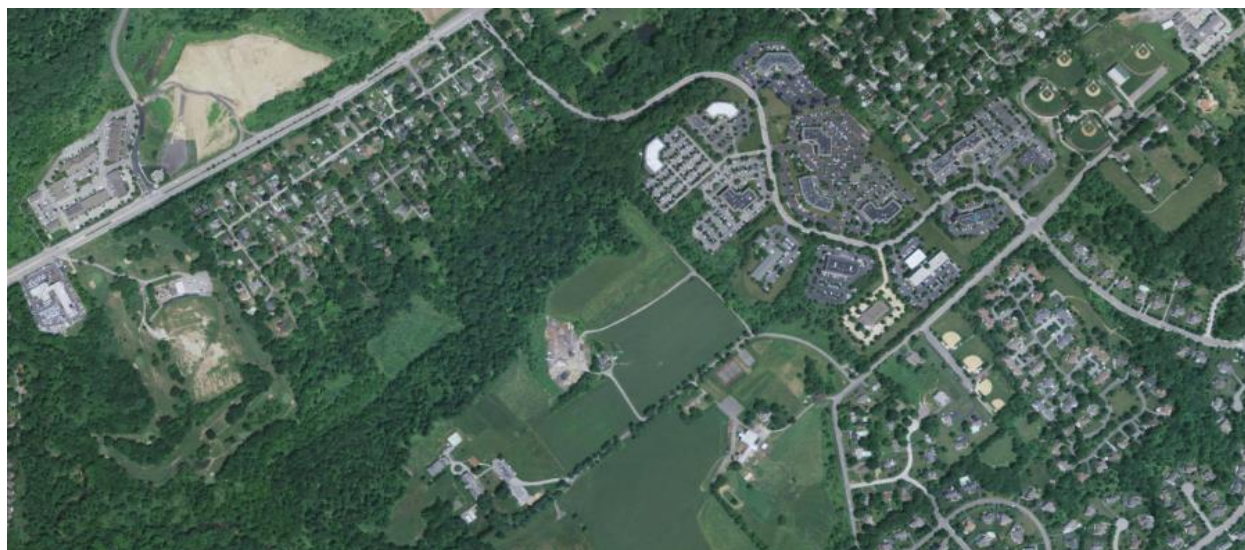
OVERVIEW

The MPC requires the comprehensive plan to include a plan for land use, which may include provisions for the amount, character, timing, and intensity of development. The plan for land use is embodied in the comprehensive plan's Future Land Use Plan, which provides the overall framework for land development and preservation for the next ten years. The Future Land Use Plan for Newtown Township is based on an assessment of the existing land use pattern, pending and proposed land development projects, remaining developable land and redevelopment potential, and the preferences expressed by residents throughout the public participation process. It is intended to effectively manage growth, balancing the need to accommodate development with the need to preserve resources and retain the community's high quality of life.

EXISTING LAND USE

Since the adoption of its last Comprehensive Plan in 2001, Newtown Township has seen the development of some of its largest properties, nearly all of which are on the western half of the Township. The former 220 acre G&W tract at the northern end of PA 252 is now the site of the Episcopal Academy, and the former 430 acre DuPont Estate is now home to the Liseter community. At the southern end of PA 252, the 141 acre Pulte tract is now occupied by the Springton Pointe Woods neighborhood. Terrazza and Sunrise Assisted Living are on the former 41 acre Holloway tract. The Bryn Mawr Health Center was constructed on the SAP tract and a new restaurant (Pizzeria Uno) was developed just across West Chester Pike.

These new land developments have transformed the Township's land use pattern, which is depicted on the Existing Land Use map (Map B-1). The map shows individual tax parcels color-coded according to the primary use of the property based on Delaware County tax assessment data. It reveals a nearly fully-developed township with few remaining large, undeveloped properties. The Township's commercial core is centrally located in Newtown Square in the vicinity of the PA 3 / PA 252 intersection. The remainder of the Township is dominated by residential development and several large landholdings including the Ellis Preserve tract, the Garrett Williamson tract, Aronimink Golf Club, and Episcopal Academy.



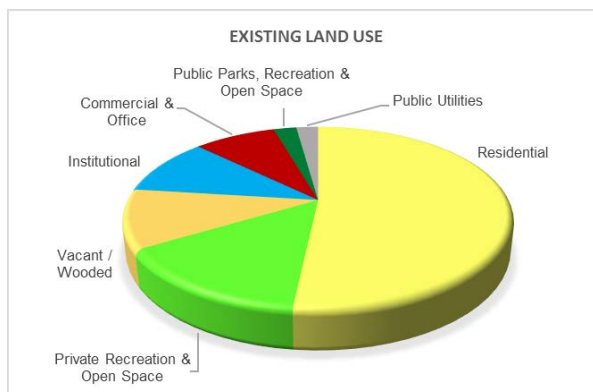
Source: Google, 2016

Existing Land Use Categories

The various land uses shown on the map and the table below are described on the following page and are listed in order according to the proportion of land they occupy:

Existing Land Use	Acres	% of Total Acres
Residential	3,059	52%
Private Recreation & Open Space	869	15%
Vacant / Wooded	624	11%
Institutional	607	10%
Commercial & Office	488	8%
Public Parks, Recreation & Open Space	136	2%
Public Utilities	130	2%

Source: Consultant's Analysis, 2016



Residential

Residential uses occupy just over one-half of the Township's land area. This category includes all residential neighborhoods, townhomes, apartments, and age-restricted communities, such as Dunwoody Village.

Private Recreation and Open Space

Private recreation and open space areas occupy 15% of the Township's land area. These properties include Aronimink Golf Club, Old Masters Golf Club, Saint Alban's Swim Club, open spaces within planned residential communities, and private land protected by conservation easement. These properties are only accessible via a paid membership, payment of an entrance fee, or by virtue of residency in the planned community. Properties under conservation easement are private property and accessible only with permission of the landowner.

Vacant/Wooded

Vacant/Wooded properties occupy 11% of the Township. These are properties that are currently undeveloped. They range from very large properties, such as those at the Marville site on the western end of West Chester Pike, to small open lots within residential neighborhoods. The vacant/wooded properties represent the Township's greatest opportunity for future development and/or preservation of open space.

Institutional

Institutional uses occupy 10% of the Township's land area. In this category are schools and religious and governmental uses. The Garrett Williamson Foundation, Melmark, Episcopal Academy, and the Marple Newtown School District are among the largest institutional landowners in the Township; the Garrett Williamson Foundation is the largest with approximately 240 acres, most of which is agricultural and open land.

Commercial & Office

Commercial and office land uses occupy 8% of the Township's land area. Major office campuses are located at Ellis Preserve, SAP, and the Newtown Square Corporate Campus. A mix of retail and office enterprises is located in Newtown Square. Development of a new, mixed-use town center is under construction at the Ellis Preserve site.

Public Parks, Recreation, and Open Space

Public parks, recreation, and open space areas occupy 2% of the Township's land area. These uses include Township-owned parks and recreation areas and the new 50-acre Newtown Meadows Nature Preserve. These properties are open to the public for recreational use.

Public Utilities

Properties classified as public utilities occupy 2% of the Township's land area. Included is the Mitchell booster station and tank on PA 252, the PECO substation on Winding Way Road, and land owned by Aqua along the Springton Reservoir.

DEVELOPMENT AND PRESERVATION POTENTIAL

Given the existing land use pattern, land development and open space preservation opportunities are identified to assess alternatives for moving forward. A build-out analysis (presented below) examines the impact on land use if the Township were to continue with the status quo and fully develop according to existing zoning. Running parallel to the build-out analysis is the identification of opportunities for open space preservation. The two analyses inform the subsequent Future Land Use Plan, which seeks to provide for continued growth while preserving a significant portion of the Township's remaining open spaces.

Development Potential: Build-Out Analysis

A build-out analysis was prepared to estimate the amount of additional development the Township could accommodate if land use policy remained unchanged and the Township developed according to existing zoning parameters. This was prepared for both residential and non-residential development. Land developments that are pending or currently under construction are included in the analysis.

The residential build-out analysis was prepared using geographic information system software (GIS) by estimating the net buildable area for all residentially zoned tax parcels and then multiplying the net area by the permitted zoning density in terms of dwelling units per acre. Any existing dwelling units on the parcel were subtracted. Parcels with projects currently proposed or under construction were added separately to the total build-out estimate. Based on review of development plans conducted in May 2015, these projects collectively include 1,461 new dwelling units. In addition to these units, the build-out analysis estimates that another 1,370 new dwelling units could be developed among the various zoning districts, for a total of 2,831 new units and a grand total of 7,515 units township-wide.



	Existing	Pending/Proposed	Additional Build-Out	Total New Units	Grand Total
Dwelling Units	4,684	1,461	1,370	2,831	7,515

Source: Consultant's Analysis, 2016

The build-out analysis for non-residential development, which would typically include office and retail facilities, also uses GIS to calculate net developable area for each tax parcel, but instead of density the

permitted maximum impervious coverage is used to estimate the total floor area (FAR) feasible for each tax parcel. As with the residential analysis, parcels with proposed projects and those under construction were added separately to the total build-out estimate. These projects include a total of 1.6 million square feet of floor area. The build-out analysis estimates that another 2.8 million square feet could be developed, for a total of 4.4 million square feet of new non-residential development and a grand total of 12.9 million square feet Township-wide.

	Existing	Pending/Proposed	Additional Build-Out	Total New Floor Area	Grand Total
Floor Area (Millions of Sq. Ft.)	8.5	1.6	2.8	4.4	12.9

Source: Consultant's Analysis, 2016

Under the status quo / full build-out scenario, it is estimated that 829 acres of land would be converted from private recreation and vacant land to developed land.

	Existing (Acres)	Full Build-Out (Acres)	Difference (Acres)
Developed Land	4,284	5,113	+829
Park, Recreation, Open Space	1,005	720	-285
Vacant / Wooded	624	80	-544

Source: Consultant's Analysis, 2016

Potential Open Space

Newtown Township has few remaining properties that contain large expanses of open space, and all of them are privately owned. In addition, several small, privately-owned undeveloped properties exist within the Township's residential neighborhoods, some of which are not buildable according to current zoning parameters. If remaining open spaces were to be preserved, the amount of park, recreation, and open space land would increase to 1,666 acres. This is a substantial increase compared to the 720 acres resulting from the full build-out scenario. That said, preservation of all of the remaining open space is not feasible and a balance between full build-out and maximum open space preservation is more consistent with the Township's goals.

	Existing (Acres)	Full Build-Out (Acres)	Maximum Open Space (Acres)
Developed Land	4,284*	5,113	4,168*
Park, Recreation, Open Space	1,005	720	1,666
Vacant / Wooded	624	80	80

Source: Consultant's Analysis, 2016

*Note: The decrease in the amount of developed land between the Existing and Maximum Open Space scenarios is caused by some land currently classified as "institutional" land use changing to "open space."

FUTURE LAND USE PLAN

The Future Land Use Plan is informed by the community development goals and objectives and represents a balance between full build-out and maximum open space preservation. It recognizes that the Township must continue to grow, and seeks to preserve a significant portion of the last remaining open spaces. The plan concentrates new development and revitalization in the vicinity of the PA 3 / PA 252 intersection and encourages a mix of land use types in that area. Development in existing residential neighborhoods is limited to residential infill development that conforms to the existing physical character of the neighborhood. Opportunities for open space preservation are identified on the few remaining large undeveloped properties in the Township.

The future land use plan is also coordinated with the other comprehensive plan elements. Areas intended to accommodate the bulk of the Township's future development and redevelopment are concentrated along the PA 3 and PA 252 arterials to coincide with roadway improvements and access to public transportation. These areas are also served by public sewer and water infrastructure (Map 8 and Map 9). Proposed open spaces are intended to augment existing parks and recreation areas, facilitate trail connections (Map 7), augment natural resources (Map 6), and help in the formation of a connected greenway system for conservation, recreation, and infrastructure.

Future Land Use Categories

Future land use categories are shown on Map 2 and are as follows:¹

Revitalization Area

The Revitalization Area encompasses the area surrounding the PA 3 / PA 252 intersection and several properties on PA 3 near Boot Road. The PA 3 / PA 252 area was identified by residents as needing improvements to its exterior appearance and accessibility, including building facades, parking areas, pedestrian access and landscaping.² Revitalization is encouraged in order to make the businesses more attractive and competitive in a changing local economic environment driven by the pending development at Ellis Preserve. The PA 3 / Boot Road area includes several vacant residential properties that, given their lot sizes, present an opportunity for small-scale commercial or office use.

Multiple Use Area

The Multiple Use Area recognizes the coexistence of multiple land use types in the center of the Township, including commercial, office, institutional, and residential land uses. It encompasses Ellis Preserve, the SAP property, Newtown Square Shopping Center, St. Alban's Circle, and properties along West Chester Pike west of Boot Road. The Township intends to direct new development and revitalization efforts to this area and encourages a mix of land uses and high-density housing types. Installation of sidewalks, streetscape enhancements, and other pedestrian amenities is encouraged to make the entire area walkable and increase foot traffic for local businesses.

Commercial and Office

The Commercial and Office area includes the Newtown Square Corporate Campus, existing business on PA 3 and PA 252, an existing vacant office building on the south end of PA 252, and the site of a potential new

¹ Note: Industrial uses are provided for in the I-Light Industrial zoning district.

² See also: Chapter 5, Transportation Plan, Streetscape section.

commercial development on West Chester Pike for which a preliminary development plan was submitted to the Township in June 2006 entitled “The Shoppes at Marville.” The Township supports the continuation of commercial and office uses in these areas.

Institutional

The Institutional areas include schools, religious institutions, and government-owned land (with the exception of township parks). The Township supports the continuation of these uses.

Open Space Opportunity

Open Space Opportunity areas represent the last large, mostly-undeveloped properties in the Township. Although on the map the properties in their entirety are shown as open space, the Township supports landowners’ rights to realize economic value from their properties, and it does not expect to preserve all of this land as open space. However, it recognizes the potential for protected open space on at least some portions of these properties secured through voluntary landowner initiative (e.g. conservation easement) and/or through contemporary planning tools (e.g. conservation subdivision and transferable development rights). These open spaces would supplement existing parks, recreation, and open spaces, as well as the Township’s natural resources (Map 6), and would help form a connected greenway system. Assuming preservation of 50% of the remaining large open spaces, the Township could realize approximately 350 acres of additional open space.

Public Utilities

Public Utilities includes PECO facilities and properties along the Springton Reservoir owned by Aqua. The Township expects these properties continue to function in the realm of the public utilities.

Residential Neighborhood Preservation

Township residents expressed a high level of satisfaction with their neighborhoods and a desire to preserve the physical character and social fabric of their neighborhoods. The Residential Neighborhood Preservation areas encompass all existing residential neighborhoods in the Township. The Township would uphold residential zoning in these areas, preventing the encroachment of non-residential uses. Any new development or redevelopment within these areas would be required to conform to the existing physical character of the neighborhood. Adequate setbacks, buffering, light, noise, and odor controls will be required for adjacent non-residential uses to mitigate adverse impacts on residences.

Future Land Use Build-Out Analysis

A build-out analysis was prepared to estimate the amount of additional development the Township could accommodate based on the Future Land Use Plan. The analysis uses the same methodology described previously, but, consistent with recent development, assumes that 50% of the new dwelling units would be detached, 25% would be attached and 25% would be apartments. The residential build-out analysis results in an estimated 2,714 new dwelling units. Of the estimated 2,714 new dwelling units, 1,461 are currently under construction or proposed; the Future Land Use Plan generates the remaining 1,253 dwelling units.

	Existing	Pending/Proposed	Additional Build-Out	Total New Units	Grand Total
Dwelling Units	4,684	1,461	1,253	2,714	7,398

Source: Consultant’s Analysis, 2016

The build-out analysis for non-residential floor area results in 3.2 million square feet of new floor area, of which 1.6 million is currently under construction or proposed and 1.6 million is generated by the Future Land Use Plan.

	Existing	Pending/Proposed	Additional Build-Out	Total New Floor Area	Grand Total
Floor Area (Millions of Sq. Ft.)	8.5	1.6	1.6	3.2	11.7

Source: Consultant's Analysis, 2016

In terms of land allocation, the Future Land Use Plan represents a balance between full build-out and maximum open space preservation. The amount of developed land is estimated at 4,560 acres and, assuming a 50% open space requirement on buildable tracts, open space is estimated at 1,353 acres (an increase of 348 acres of protected open space). Part of the Vacant/Wooded land becomes developed and part becomes protected open space. Both totals fall near the mid-point between the full build-out and maximum open space estimates and both increase with reference to existing land use (i.e., developed land increases from 4,284 to 4,560 and open space increases from 1,005 to 1,353).

	Existing (Acres)	Full Build-Out (Acres)	Maximum Open Space (Acres)	Future Land Use Plan (Acres)
Developed Land	4,284	5,113	4,168	4,560
Park, Recreation, Open Space	1,005	720	1,666	1,353
Vacant / Wooded	624	80	80	0

Source: Consultant's Analysis, 2016

RECOMMENDATIONS

The following recommendations include regulatory and non-regulatory measures that are intended to advance the Future Land Use Plan.

- Review and amend the zoning ordinance to:
 - Streamline the number of zoning districts.
 - Provide for a variety of land use types in the Multiple Use Area, including commercial, office, institutional, mixed-use development, high-density residential, and recreation and open space but keep building height limits at their current levels to prevent visual intrusion of surrounding residential neighborhoods.
 - Limit the scale and intensity of permitted land uses within the Revitalization Area.
 - Provide for infill development in existing residential neighborhoods that is consistent with the physical form of those neighborhoods.
 - Provide for adequate setbacks, buffers, and light, noise, and odor controls for non-residential uses especially where they are located adjacent to residential neighborhoods.

- Provide for Conservation Subdivision Design or amend the Open Space Development option to require a 50% open space set-aside.
- Subject to a feasibility study, enable Transferable Development Rights which would provide a mechanism to transfer development from desired open spaces to areas designated for development (e.g. the Multiple Use, Commercial/Office, and Institutional Areas).
- Review and amend the Subdivision and Land Development Ordinance (SLDO) to make it consistent with any new zoning ordinance provisions.
- Adopt a set of design guidelines to illustrate the preferred appearance of buildings, parking areas, streetscapes, and features within the Multiple Use Area and Revitalization Area. Design guidelines can be included in either the zoning ordinance or SLDO.
- Promote the formation of a Business Improvement District (BID) within the Revitalization Area. A BID is a self-taxing organization run by business-owners within the district. The BID makes improvements to the appearance of the business district and spearheads marketing and other business development activities.
- Form a Township Open Space Committee to provide education and outreach to landowners in an effort to preserve open space.

Chapter 4

Housing Plan

OVERVIEW

Housing is a basic need and Newtown Township is obligated to allow for housing opportunities for all individuals. The federal Fair Housing Act prohibits discriminatory practices, including municipal land use policies and decisions that make housing unavailable to persons because of race or color, religion, sex, national origin, familial status, or disability. The Pennsylvania Municipalities Planning Code (MPC) requires municipalities to provide for sufficient and affordable housing in various forms for all current and anticipated residents. It requires comprehensive plans to include a housing element *“to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels.”*

In reference to zoning, the MPC requires zoning ordinances to *“provide for the use of land within the municipality for residential housing of various dwelling types encompassing all basic forms of housing, including single-family and two-family dwellings, and a reasonable range of multifamily dwellings in various arrangements, mobile homes and mobile home parks, provided, however, that no zoning ordinance shall be deemed invalid for the failure to provide for any other specific dwelling type.”* This provision relates to the “fair share” principle, upheld by the Pennsylvania Supreme Court, which obligates municipalities to provide for their fair share housing types, particularly multi-family housing.

This *Housing* section contains a discussion of the elements of housing in Newtown Township that are relevant to the MPC’s mandates.



EXISTING CONDITIONS

Housing Unit Growth

The number of housing units in Newtown Township has risen over the last several decades, increasing by 11% from 1980 to 1990 and approximately 6% from 1990 to 2000. The 2015 estimate puts the number of units at 5,018—a 7% increase over the year 2000 figure.

Housing Unit Growth	# of Units	# Change	% Change
1980	3,993	(X)	(X)
1990	4,433	440	11.0%
2000	4,690	257	5.8%
2015 estimate	5,018	328	7.0%

U.S. Census Bureau; Delaware County Tax Assessment Files, 2015

Housing Type

Newtown Township provides a variety of housing types. Although predominantly single-family detached, the Township also provides attached townhomes, two-family homes, and condominiums and apartments in multi-unit structures. Senior housing is provided at Dunwoody Village. Of an estimated total 5,000 housing units, 31% of housing units are types other than single-family detached.

Housing Type	Estimate	MOE
Total housing units	5,000	+/-207
Units in Structure:		
1, detached	3,469	+/-164
1, attached	464	+/-126
2	15	+/-23
3 or 4	100	+/-70
5 to 9	15	+/-24
10 to 19	139	+/-58
20 to 49	297	+/-71
50 or more	501	+/-136
Mobile home	0	+/-16
Boat, RV, van, etc.	0	+/-16

U.S. Census Bureau, American Community Survey 2014 5-Year Estimates

MOE = Margin of Error

Housing Tenure and Occupancy

Housing tenure (owner/renter) and occupancy (occupied/vacant) data show that Newtown Township provides housing choice in the form of ownership and rental opportunities, with 78% owner-occupied units and 22% renter-occupied units. The low homeowner vacancy rate (2.1%) is indicative of a stable for-sale housing market, whereas the high rental vacancy rate (13.1%) suggests either an oversupply of rental units, or unaffordable or substandard units that cannot be rented (see Housing Affordability below).

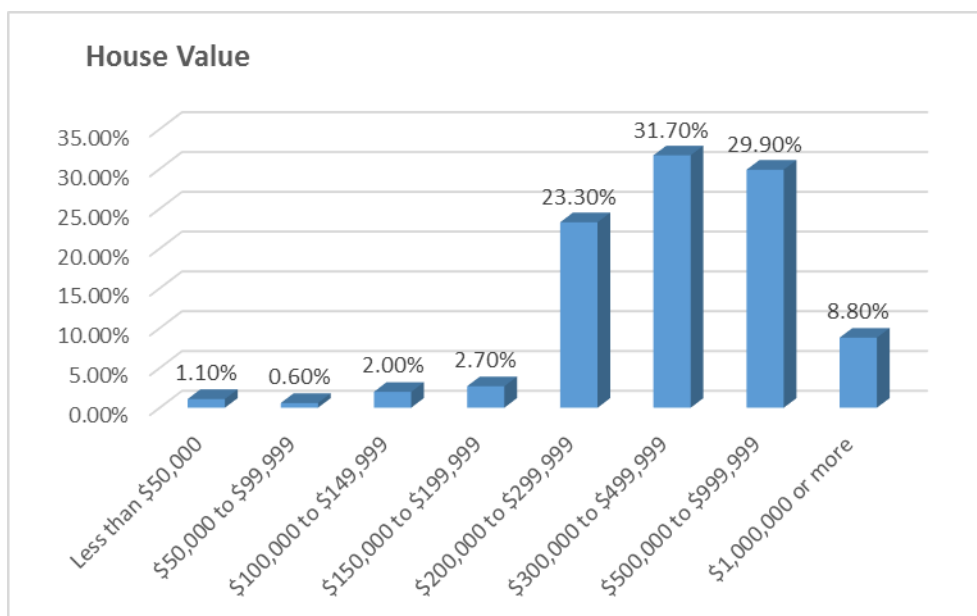
Housing Tenure and Occupancy	Estimate	MOE	Percent	% MOE
Housing Tenure:				
Occupied housing units	4,697	+/-191	(X)	(X)
Owner-occupied	3,675	+/-213	78.2%	+/-3.7
Renter-occupied	1,022	+/-185	21.8%	+/-3.7
Average household size of owner-occupied unit	2.74	+/-0.11	(X)	(X)
Average household size of renter-occupied unit	1.93	+/-0.25	(X)	(X)
Housing Occupancy:				
Occupied housing units	4,697	+/-191	93.9%	+/-2.7
Vacant housing units	303	+/-137	6.1%	+/-2.7
Homeowner vacancy rate	(X)	(X)	2.1	+/-2.1
Rental vacancy rate	(X)	(X)	13.1	+/-8.8

U.S. Census Bureau, American Community Survey 2014 5-Year Estimates

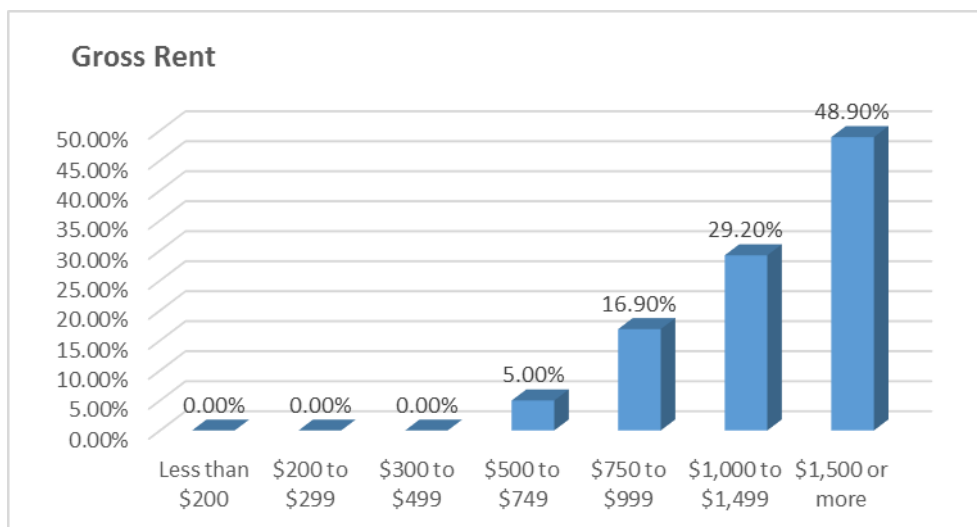
MOE = Margin of Error

House Value and Gross Rent

House value data provide a breakdown of the number of owner-occupied housing units within each value range. Housing values in Newtown Township are skewed toward the high end of the value range, with more than half of units valued above \$300,000 and nearly 40% valued above \$500,000. The median home value is approximately \$393,000. Gross rents are also high, with approximately half of rents at \$1,500 or more and a median gross rent of \$1,471.



U.S. Census Bureau, American Community Survey 2014 5-Year Estimates



U.S. Census Bureau, American Community Survey 2014 5-Year Estimates

Housing Affordability

Affordable housing is generally defined as annual owner costs or gross rent less than or equal to 30% of a household's gross income. For owners, housing costs include mortgage payment, taxes, insurance, association fees, and utilities. For renters, housing costs include rent and utilities. "Cost burden" is the fraction of a household's total gross income spent on housing costs. Cost burden greater than 30% means that the household spends more than 30% of its income on housing costs and the unit is unaffordable.

Housing data indicate that a large proportion of existing households in Newtown Township carry a cost burden of 30% or more, making their housing unaffordable. Approximately 42% of households with a mortgage are cost-burdened. More than half (57%) of renters are cost-burdened.

The presence of cost burdened households in the Township may be a consequence of some households intentionally living beyond their means, a need for rehabilitation of substandard units, a need for additional affordable housing units, or a combination of these factors.

Housing Affordability	Estimate	MOE	Percent	% MOE
Housing units with a mortgage	2,485	+/- 183	(X)	(X)
Housing costs 30.0 to 34.9 percent of income	192	+/- 85	7.6%	+/- 3.3
Housing Cost 35.0 percent or more of income	861	+/- 142	34.2%	+/- 4.4
Rental units	852	+/- 160	(X)	(X)
Housing costs 30.0 to 34.9 percent of income	23	+/- 27	2.5%	+/- 2.9
Housing Cost 35.0 percent or more of income	502	+/- 136	54.4%	+/- 11.2

U.S. Census Bureau, American Community Survey 2014 5-Year Estimates

MOE = Margin of Error

PLANNING IMPLICATIONS

Projects under construction and proposed land developments will add approximately 1,461 new housing units in the Township. The Future Land Use plan reflects this growth and has the potential to accommodate an estimated 1,253 additional units, representing a potential of 7,398 total units township-wide of various types, including single-family detached homes, townhomes, condominiums, and apartments.

Although the Township's existing housing stock is varied and is in good physical condition, the high percentage of cost-burdened households suggests that housing affordability is a challenge for many Township residents. It might also present a barrier to young individuals and young families that wish to own or rent a home in the Township. Housing costs are largely market-driven, but the Township can affect affordability by zoning for various housing types and densities that promote affordability, and by providing incentives to developers to include affordable housing units in their developments.

Newtown Township will continue to advance policies to meet the housing needs of current residents and accommodate anticipated growth. It will do its part to ensure the integrity of the housing stock and residential neighborhoods, and it will encourage housing that is accessible to households of various configurations and at various life-stages and income levels. Housing development will be coordinated with existing infrastructure, community facilities, and commercial/retail services in order to minimize the need for infrastructure expansion and maximize residents' accessibility to facilities and services.

RECOMMENDATIONS

Recommendations for housing include regulatory and non-regulatory measures and are intended to achieve the Township's goals and objectives pertaining to housing.

- Enforce building and property maintenance codes to ensure that the condition of housing and the integrity of residential neighborhoods remains sound.
- Require that new housing developed in existing residential neighborhoods (infill development) conforms to the physical dimensions already existing and predominant in the neighborhood.
- Permit a mix of housing types, including apartments and apartments on upper floors of commercial buildings (mixed-use), in the Multiple Use Area (see Future Land Use, Map B-2).
- Promote affordable housing by accommodating a mix of housing types.
- Permit accessory dwelling units in appropriate zoning districts (where lot area dimensions will accommodate such uses) as a means to provide affordable housing options to all ages, enable older relatives to reside near family, enable seniors to age in place, and enable homeowners to generate additional income from their properties.
- Conduct inspections of rental properties to ensure their condition complies with standards and to support the rental market (substandard rental units can cause a high rental vacancy rate).
- Review the Zoning Ordinance to ensure that it is consistent with the Fair Housing Act and the MPC and does not exclude any particular type of housing.

Chapter 5

Transportation Plan

OVERVIEW

The MPC requires comprehensive plans to include a plan for “the movement of people and goods.” In compliance with the MPC the following Transportation Plan addresses the Township’s roads, pedestrian and bicycle systems, streetscapes, and public transportation. Trails are discussed in the Community Facilities and Utilities Plan.

EXISTING CONDITIONS

Roads

Roadway Functional Classification

Roads are designed to serve various types of trips and travel speeds and accommodate various traffic volumes. The roadway functional classification system is a method of categorizing roads according to the purpose they are intended to serve. Functional classification recognizes the hierarchy and interconnectivity of the road network and strives to achieve continuity and efficiency of travel.

Related to functional classification is the notion of access and mobility. Access refers to the ability to enter or exit a road from abutting land. Mobility refers to the road’s ability to move traffic. Roads designed to have a high level of mobility, such as expressways, have very limited accessibility. Roads designed to have a high level of access, such as local roads, have limited mobility.

Roadway functional classifications for Newtown Township, as classified by PennDOT, are listed below and shown on Map 3:

- **Urban Other Principal Arterial – PA 252 and PA 3**
Principal arterial roads serve major activity centers of urban areas and carry large volumes of traffic with a high level of mobility through the activity center and to outlying areas. “Other principal arterial” is a sub-classification of principal arterial. Whereas “principal arterial” includes limited access freeways and interstates, “other principal arterial” roads can provide access to abutting land, but access should be incidental to the primary function of mobility.
- **Urban Minor Arterial - Newtown Rd, Saint Davids Rd, Bryn Mawr Ave, Media Line Rd, and Gradyville Rd east of PA 252**
Urban minor arterial roads connect with the principal arterial system. They serve trips of moderate distance and distribute travel to smaller geographic areas than does the principal arterial system. Urban minor arterials provide greater land access and a lower level of mobility than principal arterials.
- **Urban Collector: Gradyville Rd west of 252, Bishop Hollow Rd, Goshen Rd, Saw Mill Rd**
Urban collector roads provide both access and mobility, gathering traffic from local streets and funneling it into the arterial system. Conversely, they also distribute trips from arterial roads to the local street system.

- **Local Roads: All roads not classified as arterial or collector**

Local roads provide direct access to abutting properties. They are designed to carry low volumes of traffic at low speeds for short distance trips. A low degree of mobility is desirable, especially where there is a high density of driveways on a local road and through-traffic is usually discouraged.

Traffic Volume

Traffic volumes on the Township's major roadways are shown on Map 3. The figures represent the daily average number of vehicles that travel the roadway, based on 2015 data collection by PennDOT. Volumes in each direction on the Township's two principal arterial roads range from approximately 14,000 to 18,000 vehicles per day on PA 3, and approximately 12,000 to 18,000 on PA 252. Among the lower order roads (minor arterial and collector) Bryn Mawr Avenue has the highest traffic volume, carrying approximately 10,000 vehicles per day to and from PA 3. According to a 2010 study, the Ellis Preserve Town Square development will generate approximately 24,000 trips per weekday, which will add to the number of vehicles on the Township's roadways, most directly impacting Winding Way, PA 3, and PA 252.¹ Roadway improvements designed to mitigate traffic congestion on PA 3 and PA 252 are underway (see Traffic Congestion section below).

Traffic Congestion

Traffic congestion and its spillover effects is cited by Township residents as one of top their concerns. Congestion is most problematic during peak hours at, and along the approaches to the PA 3 / PA 252 intersection. Traffic back-ups inspire many motorists to seek alternative routes through residential neighborhoods in order to avoid the congested intersection. This creates a safety concern and compromises residents' quality of life.



The 2007 *Newtown Square Master Plan Traffic Study* found that, along PA 3 from Bryn Mawr Avenue to Boot Road, and along PA 252 from Gradyville Road to Whitehorse Road, some intersections operated efficiently, but many operated at Level of Service E or F (LOS E or LOS F) during peak hours.² Considering new land development proposals, the study anticipated that conditions would deteriorate by 2017 and

¹ Managing Access in Newtown Square: PA 3 and PA 252 in Newtown Township, Delaware County, Pennsylvania. Delaware Valley Regional Planning Commission, August 2010, p.9.

² On a scale from A through F, LOS A through D indicate intersections with acceptable operating condition, LOS E indicates conditions approaching capacity, and LOS F indicates that traffic volumes have exceeded capacity.

nearly every intersection in the study area would operate with a traffic delay at LOS E or LOS F during peak hours.

The study details a number of improvements to better manage traffic. Several improvements have been completed on PA 252 including installation of turning lanes and traffic signals at the SAP entrance, Winding Way, and Troop Farm Road/Cornerstone Drive intersections. Completed improvements on PA 3 include installation of turning lanes and traffic signals at Medical Drive, the SAP and CVS/Pizzeria Uno entrances, and the Campus Boulevard/Alice Grim Drive intersection. The Winding Way extension through SAP/Ellis Preserve has also been completed, and turning lanes have been installed on Bishop Hollow Road at PA 3.

Improvements associated with the Ellis Preserve Town Square development is scheduled for completion by 2018. According to the *DVRPC FY2015 Transportation Improvement Program*, the “Ellis Town Center” project involves:

“constructing a bypass/relief route (Loop Road), from PA 3 at the Medical drive intersection to PA 252 at the existing SAP access, widening Clyde Lane from two lanes to four lanes by adding a left turn lane and a right turn lane on the southbound approach to PA 3, widening Bishop Hollow Road from two lanes to three lanes by adding a right turn lane on the northbound approach to PA 3, constructing a southbound PA 252 right turn lane at Winding Way, widening the northern side of PA 3 from Clyde Lane to Winding Way to account for an anticipated future westbound PA 3 through lane, extending the PA 3 westbound left turn lane at Bishop Hollow, installing ADA compliant pedestrian facilities on all four corners of the PA 3/Clyde Lane/Bishop Hollow Road intersection, installing ADA compliant pedestrian facilities on the southwest corner of the Winding Way/PA 252 intersection, installing ADA compliant pedestrian facilities on northwest and southwest corners of the PA 252/ SAP Driveway (Loop Road) intersection, installing ADA compliant pedestrian facilities on northeast corner of the PA 3/ Winding Way/Roe Lane intersection, installing a new traffic signal at the Winding Way/Clyde Lane intersection to work in conjunction with the existing/new signal at the Winding Way/PA 252 intersection, installing new traffic signal equipment at the PA 3/Clyde Lane/Bishop Hollow Road intersection, installing new traffic signal equipment at the PA 252/ SAP Driveway (Loop Road) intersection, installing new traffic signal equipment at the PA 3/ Winding Way/Roe Lane intersection, and retiming traffic signals along PA 3 and PA 252.

[DVRPC] CMP (Congestion Management Process) commitments include turning lanes, new traffic signals, updated signal timings on PA 3 and PA 252, new ADA compliant pedestrian facilities at several intersections along both PA 3 and PA 252, and coordination to upgrade transit in the area, potentially including bus shelters.”³

The *Master Plan Traffic Study* also recommends construction of loop roads connecting PA 252 to PA 3 in both the southeast and southwest quadrants of the PA 3 / PA 252 intersection. The 2001 Newtown Township Comprehensive Plan shows the loop road in the southeast quadrant extending from Bryn Mawr Avenue to PA 252 via the Dunwoody Access Road and Cornerstone Drive; it shows the loop road in the southwest quadrant along Troop Farm Road, Stoney Brook Boulevard, and Campus Boulevard.

³ <http://www.dvrpc.org/TIP/pafinal/2015/dela15f.pdf>. Pg. 135

Access Management

As explained in the above Functional Classification section, the primary purpose of principal arterial roads is to provide mobility; access is secondary. When access to abutting land is not properly managed it can hamper mobility and create unsafe conditions, and roadway access management techniques become necessary to correct the situation.

Access management is a low-cost means of preserving existing infrastructure while improving traffic mobility and safety. More often than not, the improvement is implemented through land development activities – not public financing. Common access management techniques include: limiting the number of driveway curb cuts, designing driveways to fit their respective uses, using shared driveways and internal access where appropriate, locating driveways away from intersections and other driveways, and providing auxiliary turning lanes when needed. Absent large-scale roadway improvements, access management is promoted to provide a safe, efficient, and predictable driving environment.

The 2010 study entitled *Managing Access in Newtown Square: PA 3 and PA 252 in Newtown Township, Delaware County, Pennsylvania* is a supplement to the *Newtown Square Master Plan Traffic Study*. It builds on the *Master Plan* by adding access management to the assessment of the PA 3 / PA 252 intersection. In the study, the Delaware Valley Regional Planning Commission (DVRPC) identified the following access management problem areas:

- Northwest corner of PA 3 / PA 252 intersection (cited by DVRPC as the “Mattress Giant Strip Center”) – The strip shopping center has very wide driveway curb cuts, and insufficient maneuvering and storage space for accommodating traffic entering and exiting via PA 3.
- Streets and driveways intersecting near the PA 3 / PA 252 intersection – Several streets (Clyde Lane, Bishop Hollow Road, Saint Albans Avenue, Chapel Road) intersect too near the arterial intersection.
- Northbound PA 252 south of PA 3 – Nearly all businesses along this roadway segment have open frontages. Very little curb is provided to properly define driveway access points and focus/limit turning movements.



Source: Google, 2016



Source: Google, 2016



Source: Google, 2016

The study contains four conceptual plans for segments of PA 3 and PA 252 that address access management.⁴ Plans for PA 3 will be implemented through intersection improvements that are being undertaken in association with the Ellis Preserve Town Square development. The plans for PA 252 remain conceptual at this time (i.e., an improvement project is not pending).

Cut-Through Traffic

Traffic congestion along PA 3 and PA 252 inspires many motorists to seek alternative routes on adjacent roads and through residential neighborhoods in order to circumvent the congested intersection. This creates a safety concern, threatens the character of residential neighborhoods, and compromises residents' quality of life. A high volume of cut-through traffic often traveling at excessive speeds has been reported on Winding Way (east of PA 252), Brookside Road, Rhoads Avenue, Tyson Road, Horton Road, Caley Road, Barren Road, and Ellis Avenue. Planned improvements to the PA 3 / PA 252 intersection are expected to reduce cut-through traffic, but traffic calming measures are also needed.

Traffic Calming

In addition to the cut-through traffic identified above (see Cut-Through Traffic), traffic traveling at excessive speeds has been reported by residents on Saw Mill, Saint Davids, Goshen, and Bishop Hollow Roads. This creates a safety concern, threatens the character of residential neighborhoods, and compromises residents' quality of life. Traffic calming measures, for example narrowing of travel lanes and installation of speed humps, a physical barrier, or signage, may be appropriate on these roads and on those experiencing cut-through traffic (see Cut-Through Traffic). Traffic calming, however, is typically limited to local roads and to collector roads with predominantly residential land uses. Because the primary purpose of arterial roads is to provide mobility, traffic calming is usually not applied to arterial roads. Of the roads identified here, Saint Davids Road is the only arterial road.

Newtown Township has a Traffic Calming Policy, adopted in 2014, which provides residents with a mechanism for pursuing traffic calming measures. It specifies eligibility criteria and the process for nominating a road for installation of traffic calming features.

Speeding on PA 252 – Caley Road – Saw Mill Road – Whitehorse Road

The speed limit on PA 252 north of the Ellis Preserve entrance is 55 MPH. Residents report that many motorists travel in excess of the speed limit, which creates hazardous conditions given the volume of traffic on this road segment, adjacent land uses, and numerous intersecting streets. Unsignalized intersections at Caley Road, Saw Mill Road, and Whitehorse Road pose a particular safety hazard for motorists attempting to turn from these roads onto PA 252.

Bishop Hollow Road – Campus Boulevard -- Ellis Avenue – Municipal Complex

Limited sight distance and motorists traveling at a high rate of speed on Bishop Hollow Road present a hazard to vehicles entering and exiting that roadway from Campus Boulevard, Ellis Avenue and the municipal complex. Intersection improvements and/or traffic calming measures are needed to improve safety.

⁴ See Figures 6, 7, 8, and 9 in "Managing Access in Newtown Square: PA 3 and PA 252 in Newtown Township, Delaware County, Pennsylvania." Delaware Valley Regional Planning Commission, August 2010. <http://www.dvrpc.org/reports/10027.pdf>

Routine Road Maintenance

Routine maintenance of township roads is managed by the Public Works Department. The Public Works Department maintains an “Engineering Report of Township Road Conditions” that lists each Township road, details road conditions, and tracks improvements. State roads are controlled and maintained by PennDOT. State roads are:

- PA 3 (West Chester Pike)
- PA 252 (Newtown Street Road)
- Goshen Road
- Bryn Mawr Avenue
- St. Davids Road
- Newtown Road
- Darby-Paoli Road
- Media Line Road
- Bishop Hollow Road
- Gradyville Road from PA 252 to Media Line Road and from Bishop Hollow Road to Crum Creek

Pedestrian and Bicycle Circulation and Complete Streets

The Township’s SLDO includes standards for sidewalks and requires them in all non-residential areas. Despite this requirement, pedestrian facilities are lacking in some locations. Residents expressed a desire for a walkable town center, which will be provided in the Ellis Preserve Town Square according to the development plan. However, pedestrian facilities could be improved in other parts of the Township’s commercial core as a means to increase foot traffic for businesses outside of the Ellis Preserve and connect these areas to the Ellis Preserve. Pedestrian links from some residential developments to commercial areas are also lacking, causing residents to rely on their cars—thereby increasing traffic—or make unsafe journeys by foot or bicycle. Safe pedestrian and bicycle access to schools, recreation areas, historic sites, and other key destinations should also be provided.





Source: Google, 2016

Specific needs are as follows:

- upgraded pedestrian facilities, which may include sidewalks, crosswalks, pedestrian crossing signals, lighting, and landscaping/street trees, along PA 3 and PA 252 and on all roads in the Township's commercial areas;
- sidewalks and crosswalks and/or a bicycle path connecting Terrazza and Verandas to Springton Pointe Shopping Center and Newtown Square Shopping Center;
- safe pedestrian and bicycle access along Bishop Hollow Road from PA 3 to the municipal complex, Little League fields, and Troop Fields;
- pedestrian crossing amenities where trails cross roads;
- bicycle lanes or paths along roads designated as "Potential Bicycle Routes" (Map 7); and
- shelters at all bus stops and safe access between all bus stops and key destinations via sidewalks and clearly-marked crosswalks (see Public Transportation section below).

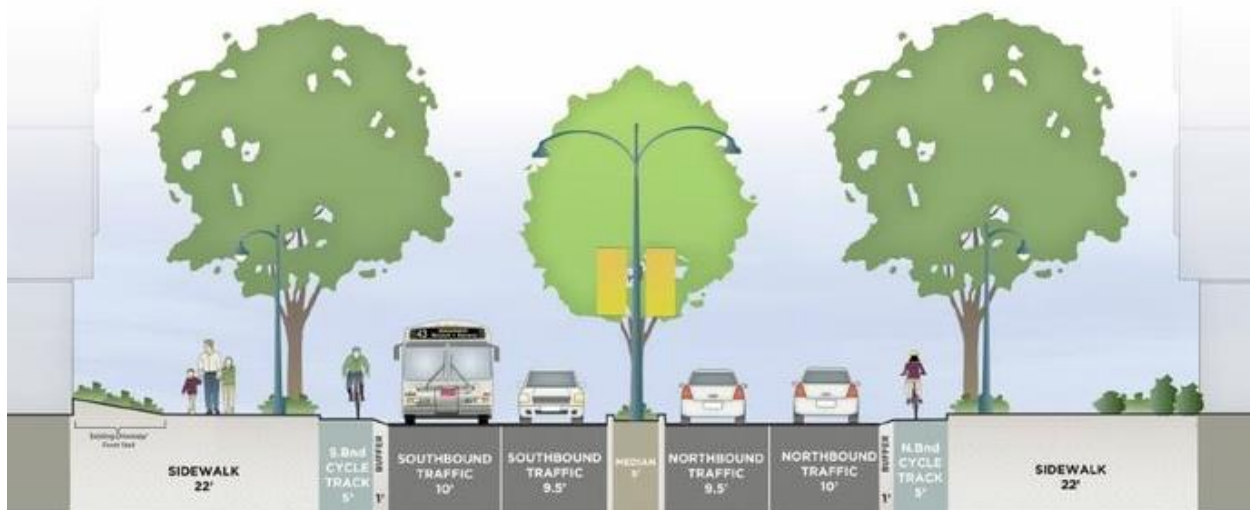


Complete Streets is a concept advocated by Smart Growth America that is enjoying adoption by communities across the country. Complete Streets are roadways designed and operated to be functional and attractive, and to enable safe access for pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities. They help to connect commercial areas, workplaces, and residential areas, and create a positive aesthetic that can be a catalyst for successful business development, retention, and revitalization.

The specific design elements of a Complete Street vary according to local context but may include:

- Pedestrian infrastructure such as sidewalks; crosswalks, including median crossing islands and raised crosswalks; accessible pedestrian signals, including audible cues for people with low vision and pushbuttons reachable by wheelchair users; and sidewalk bulb-outs
- Traffic calming measures to lower driving speeds and define the edges of car travel lanes
- Bicycle accommodations, such as dedicated bicycle lanes or wide shoulders
- Comfortable and accessible public transportation stops, such as bus pullouts and shelters
- Landscape treatments, such as street trees, planters, and ground cover

Complete Streets with bicycle lanes would be most appropriate in the Township on roads designated as potential bicycle routes (Map 7). At a minimum on other roads, pedestrian infrastructure, traffic calming, comfortable bus stops, and landscaping treatments should be provided.



Source: San Francisco Planning Department

Streetscape

The term “streetscape” refers to the view or appearance of a street. It is defined by the visual elements that form a street’s character, which may include features such as medians, adjoining buildings and/or open spaces, sidewalks, street furniture, landscaping, lighting, signage, and bus stops.

Newtown Township’s Natural Features and Landscaping Ordinance (Chapter 104) includes standards for the planting of street trees in new developments. Through the efforts of the Newtown Township Environmental Advisory Committee (EAC), the Township recently achieved designation as a Tree City USA community from the Arbor Day Foundation, availing the Township of expert guidance and assistance related to community forestry programs. The Township also runs the “Newtown Square in Bloom” (NSiB) program and won awards last year from the national organization America in Bloom for community beautification and historic preservation. Included among the programs many projects is an effort to beautify the Township’s commercial areas.

Although progress is being made through the efforts of the EAC, NSiB, and private developers (e.g., the Ellis Preserve Town Square development is planned to contain streetscape treatments) some commercial areas are void of any streetscape treatments. There are also some instances where street-side landscaping might be obstructing motorist and pedestrians. The most pressing need for streetscape enhancements are along:

- PA 252 between PA 3 and Mary Jane Lane,
- the north side of PA 3 between Clyde Lane and PA 252,
- the north side of PA 3 from St. Albans Avenue the shops just beyond the current Wells Fargo/Verizon store location,
- Saint Albans Avenue,
- Rhoades Avenue, and
- Chapel Road

The Township might also consider ground cover plantings within the PA 3 median, which require less maintenance than the existing grass median.

Streetscape enhancements could be implemented in conjunction with any redevelopment of these areas or road improvement project provided the Township has an adopted Complete Streets Policy and/or set of design guidelines similar to those used at Ellis Preserve. Short of redevelopment or road improvements, the cooperation of individual landowners perhaps working in partnership with the EAC is needed. Installation of streetscape enhancements in some areas will be challenging due to shallow lots. Streetscape features should not encroach on sidewalks, obstruct motorists, or create unsafe conditions in any way.

Public Transportation

Bus Service

Public transit service in Newtown Township is provided by the Southeastern Pennsylvania Transportation Authority (SEPTA). There are five bus routes that operate on PA 3 and PA 252 with stops in Newtown Township (Map 5). Over 1,000 trips per weekday originate and terminate in Newtown Township, and ridership is expected to increase once the Ellis Preserve Town Square development is completed. The bus routes serving Newtown Township are as follows:

- Route 104 operates 7-day service between 69th Street Terminal in Upper Darby and West Chester University. The route runs through Newtown Township along PA 3. On weekdays, it circles through the Newtown Square Corporate Campus via Bishop Hollow Road and Campus Boulevard.
- Route 112 provides daily service between Delaware County Community College and 69th Street Terminal. The route runs along Media Line Road and PA 3.
- Route 115 provides daily service between Delaware County Community and the Philadelphia Airport. The route operates along Media Line Road and PA 3.
- Route 118 operates between Newtown Square and the Chester Transportation Center. The route's northern terminus is Newtown Square. It reverses direction by circling via Chapel Avenue, Saint Albans Avenue, and PA 3, then continues southbound on PA 252 toward the City of Chester. Route 118 provides hourly service on weekdays and Saturdays. There is no Sunday service.
- Route 120 provides service between Cheyney University and 69th Street Terminal via PA 926 and PA 3. The route traverses Newtown Township along PA 3.

Bus Service to Interior of Ellis Preserve

SEPTA is exploring the possibility of providing bus service to the interior of the Ellis Preserve property. The ability to provide service is contingent on many factors including the ability of a bus to maneuver on interior roads, roadway pavement specification (must be strong enough to handle bus traffic), installation of facilities by the property owner for passenger boarding/drop off, increased duration of trip for other passengers on board, and the cost effectiveness of the additional service. In lieu of SEPTA bus service, there is potential for the businesses within Ellis Preserve to provide a shuttle to/from the Boot Road/SAP bus stop on PA 3.

Bus Service to Paoli Station

Residents have expressed a desire for SEPTA bus service connecting Newtown Square to Paoli Station via PA 252. Bus Route 118 used to serve this corridor and extended to King of Prussia, but was discontinued in 2004 due to low ridership. Considering the costs of mileage, hours of service, and number of vehicles required, SEPTA does not anticipate new land developments along the corridor generating enough ridership to support restoring the service.

Enhanced Bus Service

SEPTA and the DVRPC have proposed Enhanced Bus Service (EBS) on the Route 104 corridor between 69th Street and West Chester Borough. The program, which will be piloted and evaluated by SEPTA, is designed to: (1) provide express service to/from strategic bus stops along PA 3, (2) enhance these bus stops to make use of bus service more pleasant, (3) improve pedestrian access to these bus stops, and (4) use branding to enhance the image of the service.

Two stops in Newtown Townships are proposed for EBS: the Newtown Square Shopping Center stop and Boot Road/SAP stop (Map 5). Specific recommendations for improvements to these bus stops are contained in the DVRPC study.⁵

Pedestrian Access to Bus Stops

Transit riders will typically walk one-quarter to one-half mile to and from a transit stop. Thus, pedestrian access must extend beyond the immediate vicinity of the bus stop to the key destinations the stop serves, and it must be safe and as direct as possible to encourage use of the transit system. Unobstructed sidewalks in good condition, clearly-marked crosswalks, crossing amenities (e.g., median islands, pedestrian crossing timers), and lighting are essential. Inadequate pedestrian access to/from bus stops has been identified at several of the Township's bus stops, including: no direct pedestrian access between PA 3/Campus Boulevard stop and Garrett Williamson; no direct pedestrian access between Boot Road/SAP stop and Newtown Heights neighborhood, as well as insufficient crosswalks on PA 3 at that stop; walking distance from bus stops to interior of Ellis Preserve site is too great; no crosswalk at Newtown Square Shopping Center stop; and no crosswalk the stop at Sunrise Assisted Living.

Bus Stop Shelters

Bus stop shelters in the Township are in some cases completely non-existent and in others, substandard. Like inadequate pedestrian access, inadequate bus stop shelters can deter people from using the public transit system. According to the SEPTA, "a high-quality transit stop is one that is well connected to the neighborhood or community it serves, accommodates the needs of all transit passengers safely and comfortably, and permits efficient and cost-effective transit operations."⁶ A high-quality transit stop has an efficient location; sufficient space for the bus to curb for passenger loading and reenter the flow of



⁵ Enhanced Bus Service on West Chester Pike. Delaware Valley Regional Planning Commission, February 2016, pp. 62-69. <http://www.dvrpc.org/reports/15006.pdf>

⁶ SEPTA Bus Stop Design Guidelines. SEPTA and Delaware Valley Regional Planning Commission, October 2012, p. 1. <http://septa.org/strategic-plan/reports/SEPTA-Bus-Stop-Design-Guidelines-2012.pdf>

traffic; adequate space for passengers to wait for and board the bus and connectivity to nearby development; and adequate passenger amenities, such as shelters, lighting, and seating.

Planning Implications

Recent and pending intersection improvements on PA 3 and PA 252, and construction of the Winding Way extension are intended to alleviate traffic congestion in Newtown Square and reduce cut-through traffic on neighborhood roads. If implemented, the access management plan for PA 252 (see Access Management section above) and/or construction of a loop road from Bryn Mawr Avenue to PA 252 to PA 3 (see Traffic Congestion section above) should further improve conditions at the PA 3/ PA 252 intersection.

Going forward, land use must be coordinated with the mobility and access functions of adjacent roads. Traffic impacts of future land developments must be mitigated with roadway and intersection improvements and access management techniques.

Providing for alternative modes of transportation will give residents and workers options and make them less dependent on the car. This can reduce traffic, reduce carbon emissions, and increase opportunities for exercise. All future road and intersection improvements and new road construction should include installation of pedestrian, bicycle, and bus stop amenities where applicable. This can be accomplished through the land development process when road and intersection improvements are required to support a development/redevelopment project, or in connection with PennDOT or SEPTA improvement projects. Any road, pedestrian, bicycle, or public transportation improvement project that seeks federal funding must be included in DVRPC's Transportation Improvement Program.

Recommendations

The following recommendations are intended to address the transportation system deficiencies described above and achieve the Township's transportation system goals and objectives:

- Once the "Ellis Preserve Town Center" improvements to PA 3 are complete, reassess traffic conditions in Newtown Square and update the *Master Plan Traffic Study* accordingly.
- Include access management standards in either the zoning ordinance or subdivision and land development ordinance to aid in implementing recommendations of *Managing Access in Newtown Square* pertaining to improvements at the PA 3 / PA 252 and help prevent traffic problems on other roads.
- Engage in the process to get the Bryn Mawr Avenue extension road listed on the DVRPC's Transportation Improvement Program in order to complete the Bryn Mawr Avenue – Cornerstone Drive - Troop Farm loop road.
- Consider adopting a Traffic Impact Fee, which allows municipalities to assess developer for a portion of the transportation capital improvements costs necessitated by, and attributed to their development.

- Enforce speed limits on roads identified for speeding, cut-through traffic, and traffic calming (the north end of PA 252, Winding Way, Brookside Road, Rhoads Avenue, Barren Road, Ellis Avenue, Saw Mill Road, Saint Davids Road, Goshen Road, and Bishop Hollow Road). If necessary, reduce the speed limit on these roads and petition PennDOT to reduce the speed limit on the problematic state roads.
- Keep the Traffic Calming Policy in effect so that residents have a mechanism to pursue traffic calming measures on their streets.
- Amend the SLDO's street standards to reference the functional classification system shown on Map 3 to guide road design and road improvements.
- Amend the SLDO sidewalk standards to add a requirement for sidewalks and bicycle paths in residential districts (or at a minimum in all cluster, open space, multi-family, mixed-use, and town center developments) and to provide for pedestrian/bicycle connection (or potential future connection) to existing or proposed adjoining pedestrian systems.
- Review and amend as needed all zoning and SLDO provisions pertaining to pedestrian and bicycle facilities to ensure access is provided for.
- Adopt a Complete Streets policy, which directs transportation planners and engineers to include design for pedestrian, bicycle, public transit facilities, and landscaping (as applicable) in both new road construction projects and retrofit or road improvement projects.
- Adopt a set of design guidelines that includes streetscape features.
- Create a capital improvement plan for transportation facilities, including pedestrian and bicycle facilities, which targets locations where facilities are needed most and land development is not imminent. In addition to functional roads, projects should focus on creating safe pedestrian connections to the Township's key destinations (shops, employment, schools, recreation areas) and to SEPTA bus stops, and should include facilities such as sidewalks, bike paths and bike parking, crosswalks, crossing signals, lighting, signage, and landscaping/street trees.
- Adopt an Official Map to identify the locations of desired future roadways and pedestrian and bicycle paths. The Official Map gives the Township the right of first refusal for acquisition of land to be occupied by the road or path.
- Cooperate with SEPTA and DVRPC on efforts to pilot the EBS program.
- Work to improve SEPTA bus stop facilities in accordance with SEPTA's Bus Stop Design Guidelines giving priority to the two stops designated for EBS (Route 104 Newtown Square Shopping Center stop and Boot Road/SAP stop).
- Consider implementing a bus shelter sponsorship program with local businesses, organizations, and land owners and/or seek support from SEPTA and/or obtain advertising agreements with large media firms.

Chapter 6

Natural Resource Protection Plan

OVERVIEW

Natural features perform important ecological functions and provide important health benefits to the community. They are also strong determinants of land use, often constraining the ability to develop. The MPC requires the comprehensive plan to include a “plan for the protection of natural resources,” and enables zoning provisions that protect natural resources. The following natural resource inventory includes features that are most consequential to land use in Newtown Township. These features are: topography and slopes, streams, floodplains, soils, wetlands, habitat, and woodlands. They are shown on Map B-6.

EXISTING CONDITIONS

Topography and Slopes

Newtown Township lies within the Piedmont Upland Section of the Piedmont Province, a land classification based on geological formations and landscape characteristics. The Piedmont Upland Section is characterized by broad, rounded to flat-topped hills and shallow valleys.

In Newtown Township, elevations range from 200 feet above sea level near Springton Reservoir to 480 feet in the Township’s northern corner. Steeply sloping land is primarily located along the Township’s creeks and streams. Because steep slopes typically have shallow soils, they are particularly vulnerable to erosion, especially when natural vegetation, which holds the soil in place, is disturbed. Maintaining vegetated slopes provides a natural system of erosion prevention, minimizes flooding and water pollution, and provides wildlife habitat.

Protection of steep slopes is afforded by the Township’s Slope Conservation ordinance. Only low-impact land uses are permitted on Very Steep Slopes (slope over 25%) and disturbance is limited to 5% of the slope area. In areas of Steep Slope (15% to 25% slope), any use permitted in the underlying zoning district is allowed, but the area of disturbance area is limited to 15%.

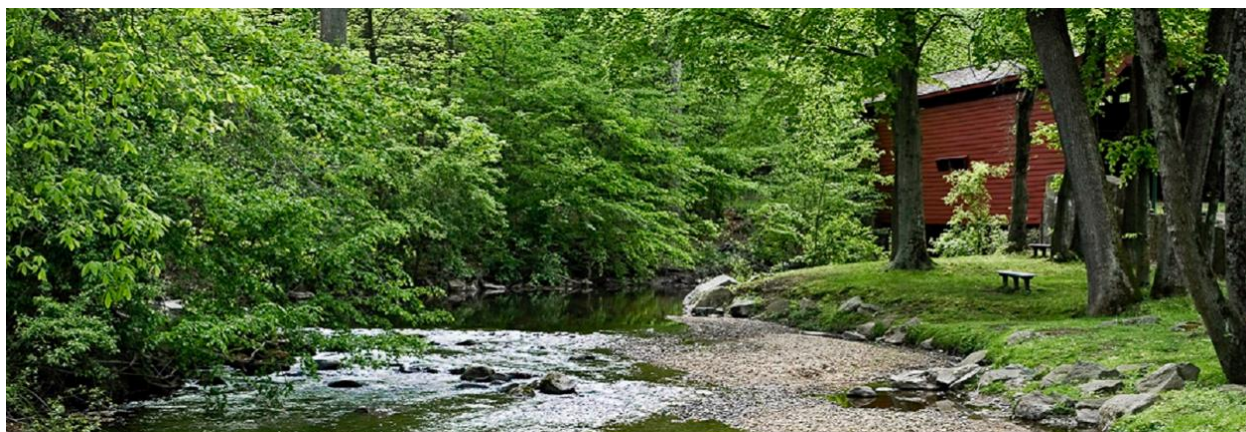
Streams and Waterbodies

A watershed is an area of land that drains into a common stream or waterbody. Watersheds are defined by drainage divides (ridgelines), which direct surface water runoff and groundwater down the hill side and into the common stream or waterbody.

In Newtown Township, the Crum Creek – Darby Creek drainage divide runs along PA 252 and the eastern segment of West Chester Pike. It drains the western two-thirds of the Township into Crum Creek and the Springton Reservoir via Lewis Run, Reeses Run, Preston Run, and Hunter Run. The eastern-third of the Township drains into Darby Creek via Thomas Run, Saw Mill Run, and Foxes Run. Crum Creek flows out of the Township in a southeasterly direction and drains into the Delaware River just south of the Philadelphia Airport, while Darby Creek flows into Radnor Township and eventually makes its way to the John Heinz National Wildlife Refuge near the Philadelphia Airport and the Delaware River.

Stream ordering is used to categorize the streams within a watershed. Streams at the top of a stream network and have no tributaries are called first order streams. When two first order streams intersect, they form a second order stream; when two second order streams intersect, they form a third order

stream, and so on. All of the Townships streams, which are tributaries to either Crum Creek or Darby Creek, can be classified as first or second order (headwater) streams. Headwater streams typically have small flows and their water quality is highly vulnerable to contamination from pollutants and stormwater runoff. Furthermore, pollutants introduced to headwater streams have the potential to flow into and contaminate other streams and waterbodies further along the stream network.



Source: Newtown Township

The Township's streams and waterbodies receive some degree of protection under federal and state regulations. Pennsylvania's *Chapter 93, Water Quality Standards* establishes water quality use designations for all surface waters in the state and specific water quality criteria necessary to protect those uses. Designated uses include aquatic life, recreation, and water supply. Chapter 93 also classifies surface waters meeting certain criteria as High Quality (HQ) or Exceptional Value (EV). HQ waters have high quality water necessary to support high quality aquatic communities and recreation. EV waters meet additional criteria such as being located in a state or national park or having exceptional ecological or recreational significance. The existing quality of EV waters must be maintained and protected, whereas the quality of HQ waters may be lowered, subject to DEP approval, to accommodate an important social or economic development provided all designated uses are protected. EV and HQ waters are given further protection by Pennsylvania's Chapter 102, *Erosion and Sediment Control*, which contains riparian buffer requirements for such waters.

All Newtown Township streams have an "Aquatic Life" designation, meaning the water quality must support the specific aquatic life use, and two streams – Lewis Run and a portion of Crum Creek – are designated as High Quality waters. The Township's stream water quality designations are as follows:

<i>High Quality – Cold Water Fishes (HQ CWF)</i>	<ul style="list-style-type: none"> - Lewis Run - Northern reach of Crum Creek
<i>Cold Water Fishes (CWF)</i>	<ul style="list-style-type: none"> - Reeses Run - Mid section of Crum Creek - Darby Creek - Thomas Run - Saw Mill Run - Foxes Run
<i>Warm Water Fishes (WWF)</i>	<ul style="list-style-type: none"> - Hunter Run - Southern section of Crum Creek

Source: PA Department of Environmental Protection, 2013

Beyond federal and state protections, Township streams and waterbodies are afforded only limited protection via the Flood Hazard District ordinance, leaving them vulnerable to disturbance and degradation.

Wetlands

Wetlands are defined by the Pennsylvania DEP in *25 PA Code, Chapter 105* as: “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.” Wetlands contain three main components: (1) water at or near the surface for significant parts of the year, (2) hydric soils, and (3) wetland indicator vegetation such as cattails and skunk cabbage.

Wetland data are limited to that provided by the National Wetlands Inventory (NWI), which typically identifies only the largest wetlands. Mapping of hydric (wet) soils are used to supplement the NWI data. The mapping indicates the presence of wetlands along many of the Township’s streams and creeks. Smaller wetlands might exist; however, their identification would require a detailed field survey and wetland delineation by a wetland biologist or other qualified professional.

In addition to providing critical habitat, wetlands and hydric soils store surface and groundwater and filter pollutants from stormwater runoff. They are extremely important to flood control, groundwater recharge, and water quality. Development on wetlands and hydric soils can damage natural drainage and water quality and can lead to flooded basements, foundation instability, and failed on-lot septic systems.



Wetland encroachments are regulated through a permitting process authorized by the federal Clean Water Act and Pennsylvania’s Dam Safety and Encroachment Act. A permit applicant must demonstrate that he/she has taken steps to avoid wetland impacts where practicable, minimized potential impacts to wetlands, and mitigated any remaining unavoidable impacts through activities to restore or create wetlands.

Newtown Township ordinances provided little to no added protection for wetlands, leaving them vulnerable to disturbance and degradation, which can have adverse impacts on flood control, water quality, and wildlife habitat. Hydric soils are included in the Township Flood Hazard District and receive some protection by way of floodplain regulations

Soils

Soil properties differ according to underlying geology, climate, and topography, and in turn, influence local vegetative cover, hydrology, and land use. The Natural Features map shows hydric soils, soils with drainage limitations, and partially hydric soils. Hydric soils and soils with drainage limitations are generally unsuitable for development because of their wet conditions. Their importance to water quality, flood control, and habitat value make these soils best suited for preservation. They are primarily located in low-lying areas of the Township near streams and waterbodies. Areas identified as partially hydric soils may contain hydric soils, but the presence of hydric soils must be determined by site testing.

Hydric soils are included in the Township Flood Hazard District and receive some protection by way of floodplain regulations.

Floodplains

Floodplains are formed along streams by the shifting of stream channels as they meander through valleys. Naturally vegetated floodplains are important for flood water storage, flood flow conveyance, stream channel formation, water quality, and wildlife habitat. Disturbance of floodplains alters their natural functions and increases the risk of damage to human life and property. Impervious cover and inadequate stormwater management can also cause an increase in flood heights and downstream flooding.



Floodplains in Newtown Township are identified along Crum Creek, Darby Creek and their tributaries.

Both the state and federal government (FEMA) administer floodplain management programs and require local municipalities to adopt regulatory standards in order for residents to be eligible for flood insurance. Consistent with that requirement, Newtown Township strictly limits development within its Flood Hazard District.

Woodlands

Woodlands provide numerous benefits for air and water quality, stormwater management, groundwater recharge, climate control (carbon sequestration), and biodiversity. They filter the air, stabilize slopes, prevent erosion and sedimentation, provide shade which regulates air and water temperature, provide wildlife habitat, and contribute to scenic quality.

Fragmentation of forests occurs when land is cleared, leaving small, isolated patches of woodland. In addition to the adverse impacts to air, water, and climate, forest fragmentation threatens plant and animal species whose survival depends on an intact interior forest. Fragmentation also cuts-off movement corridors and forces wildlife into human-inhabited areas. Finally, it diminishes the opportunity for establishing greenway corridors for recreational use.

The loss of woodlands and mature trees is cited as a particular concern by Township residents. The conventional development that has occurred in the Township over many years has resulted in fragmentation of woodlands with small stands scattered throughout the Township. The largest remaining woodlands exist at Garrett Williamson, properties adjacent to the Springton Reservoir (south of Gradyville Road), Ellis Preserve, Aronomink Country Club, and Liseter.

Newtown Township's Natural Features and Landscaping Ordinance (Chapter 104) provides some protection for trees and vegetation, and also includes standards for the planting of street trees in new developments. Through the efforts of the Newtown Township Environmental Advisory Committee (EAC), the Township recently achieved designation as a Tree City USA community from the Arbor Day Foundation, availing the Township to expert guidance and assistance related to community forestry programs.

Core Habitat

The Pennsylvania Natural Heritage Program (a partnership of the PA Department of Conservation, the Western Pennsylvania Conservancy, and state and federal wildlife commissions) maintains an inventory of critical habitat areas to guide conservation efforts and land use planning. The habitat areas are identified based on presence of, or favorable conditions for rare, threatened, and endangered plant and animal species. The inventory identifies two "core habitat" areas in Newtown Township. "Core habitat" contains one or more species of concern and can support little disturbance without adversely affecting the species. The two "core habitat" areas are:

- **Springton Reservoir** – This habitat includes the open water of the reservoir, the adjacent forested areas and the riparian areas of Crum Creek its tributary streams, which includes all streams in Newtown Township's western half. The species of concern, which is not named, requires food sources in the reservoir and its tributaries streams and breeding areas in the adjacent upland forests.

Threats include nearby development; stormwater runoff and resulting flooding, erosion, and potential pollution; forest fragmentation; encroachment of invasive species; and over-browsing by deer.

PNHP's recommended actions are: protect vegetation along the reservoir, protect adjacent upland forest areas, establish 100-foot riparian buffers along Crum Creek and its tributaries, better manage stormwater runoff, remove invasive species, reduce deer density in the area, continually remind residents living adjacent to the reservoir of the impacts of their everyday activities on the habitat.

- **Skunk Hollow Woods** – On the Newtown-Radnor border, this is a mixed hardwood forest near and along Darby Creek that contains approximately 13 acres of interior forest. A plant species of concern was documented here in the mid-1980s, and although recent surveys failed to find this species, it may still exist in the woods.

Threats include stormwater runoff and resulting flooding, erosion, and potential pollution; forest fragmentation; encroachment of invasive species; and over-browsing by deer.

PNHP's recommended actions are: avoid forest fragmentation, establish a 100-foot riparian buffer along Darby Creek and its tributaries, better manage runoff, remove invasive species, and reduce deer density in the area.

These habitat areas may derive some protections from the Township's floodplain and steep slope ordinances, but they receive no direct protections and are therefore vulnerable to disturbance.

PLANNING IMPLICATIONS

Protection of natural resources provides a multitude of benefits to the community:

- Public health – protection of natural resources contributes to better air and water quality which positively impacts public health.
- Infrastructure – natural resources are considered “green infrastructure” because of their water and air cleansing, carbon sequestration, erosion control, and flood control properties.
- Recreation – the connected network of natural resources along with the Township’s remaining woodlands present opportunities for passive recreation (i.e., low impact activities such as hiking, fishing, and picnicking) and can provide connections to various destinations within and beyond the Township’s boundaries.
- Economics – it is estimated that protected open space saves the five-county Philadelphia region \$133 million annually by naturally providing water supply, water and air quality services, flood mitigation, carbon sequestration, and wildlife habitat; services that would otherwise have to be artificially replaced and paid for¹.

Newtown Township intends to protect its natural resources to reap the multitude of benefits they provide by strengthening ordinance provisions and encouraging voluntary preservation by landowners. The network of protected natural resources will serve as greenways that perform natural infrastructure services (“green infrastructure”) and supplement and connect the Township’s public and private parks and open space areas.

RECOMMENDATIONS

The following recommendations for natural resource protection include regulatory and non-regulatory measures and are intended to achieve the Township’s natural resource protection goals and objectives:

- Create an article within the zoning ordinance that addresses natural resource protection. This article would update and consolidate existing ordinances pertaining to natural resources into one article and would include provisions for:
 - Steep Slopes – continue to enforce the provisions of the Steep Slope Conservation District and add limits to impervious cover within areas of steep and very steep slopes
 - Wetlands – add provisions requiring a wetland delineation and prohibiting disturbance of wetlands
 - Soils – add provisions prohibiting disturbance of hydric soils and soils with drainage limitations

¹ “The Economic Value of Protected Open Space in Southeastern Pennsylvania,” GreenSpace Alliance and DVRPC, January 2011

- Riparian and Wetland Buffers – add provisions requiring a minimum 100-foot buffer adjacent to surface waters and wetlands
- Floodplains - retain the provisions of the existing Flood Hazard District and update if and when required by state or federal law
- Woodlands – add provisions to limit disturbance of woodlands and woodland corridors and to prohibit removal of healthy specimen trees
- Core Habitat Areas –add provisions to prohibit disturbance of Core Habitat Areas
- Move current *Chapter 104, Natural Resources and Landscaping* to the Subdivision and Land Development Ordinance and strengthen its tree protection and replacement standards.
- Continue to support the Newtown Township Environmental Advisory Committee (EAC).
- Conduct regular public outreach and education on the importance of protecting the Township’s natural resources and steps residents, businesses, and institutions can take to protect them. Information can be published in a Township newsletter, posted on the Township website, made available at the Township building and library, and distributed at various community events.
- Partner with regional organizations such as the Chester, Ridley, Crum Watersheds Association, Willistown Conservation Trust, and Natural Lands Trust.

Chapter 7

Historic Resource Protection Plan

OVERVIEW

Historic resources are generally defined as buildings, sites, districts, objects, or structures that have historical, archaeological, cultural, or architectural value. They provide a connection to a place's heritage and are often defining features of that place's identity. The MPC requires the comprehensive plan to include a plan for the protection of historic resources and enables zoning provisions to promote their preservation (this is discussed in more detail below).

EXISTING CONDITIONS

The Newtown Square Historical Society (NSHS), an independent, volunteer, non-profit organization spearheads efforts to preserve the Township's historic resources and provides education and outreach to the community. NSHS maintains an inventory and map of 118 historic resources in the Township, including five that are listed on the National Register of Historic Places and seven that are determined to be eligible for the National Register. The inventory and map are based on the Delaware County Historic Resource Survey—a survey that was conducted by the Delaware County Planning Department (DCPD) and completed in June 1984. The county survey was part of a statewide program to inventory Pennsylvania's historic resources. Local municipalities or historical societies are responsible for maintaining an updated version of the inventory, and NSHS has filled that role for Newtown Township. The inventory can be viewed at: <http://www.historicnewtownsquare.org/historic-sites/complete-inventory/>. The map can be viewed at: <http://www.historicnewtownsquare.org/historic-sites/>.



Hood Octagonal School (Source: Newtown Township)

National Register of Historic Places

The National Register of Historic Places was established by the National Historic Preservation Act of 1966 and is maintained by the National Park Service. The program is designed to identify significant historic and archeological resources worthy of preservation and of consideration in planning and development decisions. In Pennsylvania, the program is managed by the Bureau for Historic Preservation, a department within the Pennsylvania Historical & Museum Commission (PHMC).

Resources on the National Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. In order to be eligible for the National Register, a resource must meet one of four criteria: (1) the resource is associated with events or activities that have made a significant contribution to the broad patterns of our history; (2) the resource is associated with the lives of persons significant in our past; (3) the resource has distinctive characteristics of a building type, period, or method of construction, that represent the work of a master, possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and (4) the resource has yielded, or may be likely to yield, information important in prehistory or history. (Source: Pennsylvania Historical & Museum Commission)

A resource that meets any one of the four eligibility criteria is given a Determination of Eligibility (DOE) by the Bureau for Historic Preservation. That resource, however, might never obtain a listing on the National Register.



Paper Mill House (Source: Newtown Square Historical Society)

Listing on the National Register or receiving a DOE simply provides recognition of the historic resource. Contrary to popular belief, it does not restrict a landowner's right to make changes to the building or even demolish it. A landowner can do whatever he/she wants to do with the property as long as there are no federal monies involved (projects that received federal funds, sponsorship, or assistance must be reviewed for their impact on National Register listed or eligible resources). Landowners may in fact realize financial benefits from listing on the National Register, including potential eligibility for tax incentives for rehabilitation of income producing historic resources and tax deductions for donation of easements for historic preservation purposes.

Five resources in Newtown Township are listed on the National Register of Historic Places:

- Saint David's Church and Graveyard
- Bartram's Covered Bridge
- Crosley-Garrett Mill Workers' Housing, Store and Mill (Paper Mill House)
- Hood Octagonal School
- Square Tavern (John West House)

Seven resources in Newtown Township have received a Determination of Eligibility:

- Richard/Crosley, William Iddings House
- Frank Furness Carriage House and Stables
- Harrison House (1752 House) (and Charles Curtis Harrison Estate?)
- Charles E. Ellis School
- Lisiter Hall Farm
- Geist Reservoir
- Paper Mill Road Bridge



Square Tavern (Source: Newtown Square Historical Society)

Locally Significant Historic Resources

In addition to the National Register and DOE resources listed above, 106 historic resources are identified to be historically significant and important to the Township. The resources date from 1692 to 1947.

Historical Context

There may be landscapes in the Township that are significant to the Township's agricultural history or that provide context to a historic resource. Such lands may merit further investigation to determine how they can be preserved and be integrated into the use or reuse of the resource.

Financial Incentives for Historic Preservation

Financial incentives to encourage preservation of historic resources include:

- Federal Historic Rehabilitation Tax Credit - The Federal Historic Rehabilitation Tax Incentive program provides for two tax credits. A 20% tax credit is available for the rehabilitation of income-producing buildings listed on the National Register or certified by the National Park Service as contributing to the historical significance of a registered historic district. A 10% tax

credit is available for the rehabilitation of non-historic buildings that were placed in service before 1936 and that are being rehabilitated for non-residential use.

- **Historic Preservation Easement** – A historic preservation easement permanently protects a historic property or resource by placing restrictions on the development of, or changes to, the property or resource. A property owner who donates an easement to a qualified organization may secure a charitable tax deduction. To be eligible for a tax deduction, the resource must be listed on the National Register or certified by the National Park Service as contributing to the historical significance of a registered historic district.
- **Pennsylvania's Historic Preservation Tax Credit (HPTC)** – The HPTC provides a 25% tax credit (not exceeding \$500,000 in any fiscal year) for the rehabilitation of a historic structure into an income-producing property. The historic resource must be listed on the National Register or certified by the National Park Service as contributing to the historical significance of a registered historic district.

Regulation of Historic Resources

As mentioned above, listing on the National Register or receiving a DOE simply provides honorary recognition of the historic resource. It does not restrict a landowner's right to make changes to the building or even demolish it. A landowner can do whatever he/she wants to do with the property as long as there are no federal monies involved (projects that received federal funds, sponsorship, or assistance must be reviewed for their impact on National Register listed or eligible resources). Local governments can, however, choose to regulate historic resources and can include National Register resources among the regulated resources.

Historic District Act of 1961

In Pennsylvania, protection of historic resources is enabled by two pieces of legislation: the Historic District Act of 1961 (Pennsylvania Act 167) and the MPC. Regulations under the Historic District Act are generally viewed as being more restrictive than those enacted under the MPC and apply only to historic districts that are on the National Register or certified as historic by the PHMC. Under the Historic District Act, a municipality has the authority to create local historic districts and protect the historic and architectural character, including aesthetics, within those historic districts. However, the historic district must first be certified by PHMC; that is, the district and its regulations must be reviewed by the PHMC and must satisfy recommendations of the review before being enacted. The Act also requires the appointment of a Historical Architectural Review Board (HARB), which makes recommendations to the governing body pertaining to resources within the historic district. As of the adoption date of this Comprehensive Plan, there are no historic districts in Newtown Township and such regulations cannot be enacted unless a historic district were to be certified and adopted.

Municipalities Planning Code (MPC)

Under the MPC, a municipality may establish measures to protect historic resources via the zoning ordinance, but these measures are generally viewed as less restrictive than regulations enacted under Act 167 because they do not regulate aesthetics. The MPC also permits the establishment of a historical commission. The historical commission has no decision-making authority, but rather acts in a support capacity only. It conducts research and provides data on historic resources. It also reviews applications pertaining to historic resources and makes recommendations to the zoning officer and governing body.

Historical commissions typically advise on ways to adaptively reuse rather than demolish historic resources, and ways to preserve the historic integrity of resources that are subject to modifications.

Newtown Township's zoning ordinance contains provisions for demolition of historic buildings and demolition by neglect. However, the ordinance applies only to buildings that are listed on the National Register of Historic Places. All other historic resources in the Township are vulnerable to demolition and degradation of their historic integrity. The Historical Society has begun to identify resources that have been demolished in recent years; so far they have identified six properties containing eleven resources dating from the 1700s and 1800s that have been demolished.



(Source: Newtown Square Historical Society)

PLANNING IMPLICATIONS

Protection of historic resources has implications for the Township's identity and sense of place, education, recreation, and economics.

- Identity and Sense of Place – The Township's historic resources are physical remnants of the past that bring history alive and serve as reminders of the events and circumstance that gave rise to the Township, the region, and the nation. They are important to the Township's identity and sense of place.
- Education – Historic resources are also valuable educational resources, providing a tangible learning experience for people of all ages. The Paper Mill House serves as a museum and every year hosts students from six elementary schools for lessons on local history and mills.
- Redevelopment and Revitalization – Rehabilitation and adaptive reuse of historic buildings can be an integral part of redevelopment and revitalization initiatives and can promote stabilization of both residential and commercial areas of the Township.
- Recreation and Open Space – Historic resources often serve as points of interest or destinations within a broader open space and recreation system. In this way, the two enjoy a symbiotic relationship, with historic resources increasing the value and enjoyment of the recreation and open space system and vice-versa. In many cases, the landscape and open space surrounding a historic resource provide context that is critical to the integrity of the resource. Connecting historic resources via trails and preserving open spaces that lend context to historic resources provides double the return for the effort.
- Economics – Several studies show that historic resource protection has significant economic benefit.¹ While the following economic impacts may be more pronounced in municipalities that

¹ "Economics and Historic Preservation: A Guide and Review of the Literature," Brookings Institution Metropolitan Policy Program (September 2005).

have a greater concentration of historic resources, Newtown Township can realize benefits on a scale relative to its historic resources.

- Historic preservation projects can leverage federal tax credits to stimulate private investment, construction jobs, and spending in the local economy, which generates local and state tax revenue. It is estimated that in Pennsylvania between 1978 and 2010, historic preservation projects generated an annual average of \$530 million in total expenditures, 4,600 jobs, and \$12 million in state tax revenue.²
- Historic preservation increases property values substantially. Studies show that homes with a historic designation and homes in and near a historic district trade at a premium to other homes in the area. Homes in West Chester Borough's historic district command an average \$81,000 premium over homes in Chester County and an average \$36,000 premium over other homes in the Borough.³ In Powelton Village (Philadelphia), house prices increased 63% in the year following historic designation and continued to increase 3% more per year than the citywide average.⁴
- Through "heritage tourism," historic resources bring tourist dollars into the local economy. It is estimated that heritage tourism results in \$1.3 billion in annual expenditures in Pennsylvania.⁵
- Allowing historic resources to be adapted to an income generating use can provide a long-term economic benefit to the property owner and the local economy.

Newtown Township views its historic resources as community assets. Demolition of historic resources will be discouraged and their preservation will be encouraged so that their many benefits can be realized. Rehabilitation and adaptive reuse of historic resources will be encouraged. Historic resources will be integrated into the Township's open space and recreation system to the extent possible.



Bartram's Covered Bridge (Source: Newtown Square Historical Society)

² "Economic Benefits of Historic Preservation Activities in Pennsylvania," Econsult Corporation (December 2011).

³ Ibid.

⁴ Ibid.

⁵ Ibid.

RECOMMENDATIONS

Recommendations for historic resource protection include regulatory and non-regulatory measures and are intended to achieve the Township's historic resource goals and objectives.

- Amend the Zoning Ordinance to include basic historic resource protection measures in the form of an overlay district that applies to the resources contained in the NSHS inventory and map. Provisions would be limited to:
 - Demolition and demolition by neglect, enabling a review of applications for demolition, removal, or relocation of historic resources by a Township historical commission.
 - Design guidelines for new construction near a historic resource to ensure that it is compatible with the historic resource.
 - Adaptive reuse, facilitating the retention and conversion of a building to a use other than the one for which it was originally designed.
- Amend the SLDO to require identification of historic resources and mitigation of impacts on historic resources.
- Create a historical commission, which will act in an advisory capacity only, providing information and recommendations to the zoning officer, board of supervisors, and zoning hearing board on zoning matters related to historic resources.
- Work in partnership with the NSHS.
- Continue to identify and document historic resources and where warranted, submit nominations for listing on the National Register. Identify and evaluate historic landscapes that may be included in NSHS's historic resource inventory.
- Conduct public outreach and education on the Township's historic resources. In addition to print and online communications, this includes hosting events such as the annual Historic Newtown Square Day, which takes place in June. Consider holding events with more frequency and adding other types of activities, such as historic walking tours. Continue to host educational programs for area students.

Chapter 8

Community Facilities and Utilities Plan

OVERVIEW

The MPC requires comprehensive plans to include a plan for community facilities and utilities. For the purposes of this Comprehensive Plan, “community facilities and utilities” refers to facilities and services provided to residents wholly or in part by the Township and that were most frequently mentioned in public participation events. Included in the discussion are emergency services (police, fire, and ambulance), the public library, public schools, parks and recreation, trails, and sewer and water utilities. Sidewalks and bicycle infrastructure are discussed in Chapter 5, Transportation Plan.

The locations of existing and proposed parks, recreation, open space, and trail facilities are shown on Map 7. Existing and proposed sewer utilities are shown on Map 8; water utilities are shown on Map 9.

EXISTING CONDITIONS

Police

The Newtown Township Police Department is located at the municipal complex on Bishop Hollow Road (Map 7). The police force consists of 17 officers, including the Chief of Police. It provides service 24 hours per day, 7 days per week. Officers work 12-hour shifts rotating two weeks on day shift and two weeks on night shift. One platoon consisting of 3 officers covers each 12-hour shift. It requires two platoons—six officers—to cover an entire day. The police force’s detective now devotes nearly 40 hours per week investigating complicated identity theft and fraud cases which have been on the rise in recent years (identity theft is reported to, and investigated by local police).

The number of calls for service has more than doubled from approximately 6,700 in 2001 to 14,200 in 2014. However, the police department is operating with the same number of officers that it had in 2001. The high number of calls and the increase in identity theft and fraud cases is placing extraordinary demands on the police department.



Fire

The Newtown Square Fire Company, located on PA 252 near the intersection of PA 3, provides fire, rescue, and fire police services to Newtown Township and part of Willistown Township (Map 7). It currently operates 1-Engine, 1-Rescue/Engine, 1-105 ft. Aerial /Ladder Truck, 1-Traffic Unit and 4-Support Vehicles. The membership consists of 56 active members. 40-volunteer firefighters, 7-fire police officers and 9-house members. The Fire Company also has a paid staff of 20-part-time firefighters/EMT’s. The part-time paid staff works Monday through Friday, 2-firefighter/EMT’s from 6am to 6pm shift and one staff member works a 7am to 3pm shift. The paid staff is supplemental to the volunteer firefighters. There are typically 7 to 8 volunteers during the daytime in winter months and fewer during the summer. A minimum of four qualified firefighters are required to respond to each call

for service. Volunteers are a constant need. To assist with recruitment and retention of volunteers, the Fire Company offers a small financial incentive to the members for signed on duty hours and response to emergencies.

The Fire Company is also in need of a new fire station. It currently operates out of an aging, 9,000 square foot building that has five parking spaces. The current space is insufficient and the fire Company is seeking a new location that can house a larger, modern facility.

The bulk of the Fire Company's revenue comes from fund raising and staff devote a significant amount of time to this endeavor. The Fire Company realizes approximately \$180,000 per year from fund raising activities, another \$155,000 comes from Township taxes, and varying amounts are secured through loans and grants that assist with the purchase of equipment and facilities.

The number of fire responses has increased steadily in recent years from 463 in 2000 to 686 in 2014—a 48% increase. In 2011 the number of calls was as high as 754. The majority of repeat calls originate from Dunwoody and Melmark. Response times average 6.5 to 7.5 minutes from dispatch to arrival on scene, which is within the minimum standard for volunteer and combination fire departments of 9 minutes.¹

Ambulance

Newtown Township contracts with Riddle Health Care Services/Riddle EMS to provide Advanced Life Support ambulance service. Patients are transported to either Riddle, Bryn Mawr, Paoli, or Lankenau hospital. Severe cases may be transported to a Philadelphia-based hospital.

Library

The Newtown Township Public Library is an 8,400 square foot addition to the township building, located on Bishop Hollow Road (Map 7). It is a modern facility that holds over 58,000 items available for checkout and provides free access to downloadable e-books, audiobooks, and subscription databases, including ancestry.com, home online consumer reports, and tutor.com. The Library also hosts children's story time and family programs.



The Library is part of, and partially supported by, the Delaware County Library System. It receives approximately \$200,000 per year from the Township and relies in part on private donations. The Library is staffed by a full-time Library Director, a professional children's librarian and five part-time support staff. The paid staff are assisted by many volunteers from the community. The Library Board is appointed by the Newtown Township Board of Supervisors as provided for in the Library Code of the State of Pennsylvania.

¹ National Fire Protection Association, "Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments," 2010 Edition

Schools

Newtown Township is part of the Marple Newtown School District (MNSD). The Township is home to the School District's administrative offices, located on Media Line Road (Map 7). There are six schools in the District, of which two, Marple Newtown High School and Culbertson Elementary School, are located in Newtown Township (Map 7). Newtown Township is in the catchment area of Culbertson Elementary School and Worrall Elementary School, as well as Paxon Middle School and Marple Newtown High School.

School Enrollment	Year 2000/01 to 2014/15 Change			Year 2014/15 to 2019/20 Projection	
	2000/01	2014/15	# Change	2019/20 (range)	# Change (range)
Culbertson	424	352	-72	380 to 465	28 to 113
Loomis	334	325	-9	358 to 423	33 to 98
Russell	370	359	-11	384	25
Worrall	348	316	-32	331 to 366	15 to 50
Paxon Hollow MS	838	771	-67	776 to 807	5 to 36
Marple New tow n HS	1,169	1,158	-11	1,006 to 1,025	-152 to -155
MNSD	3,483	3,281	-202	3,234 to 3,606	-47 to 325

Source: "Marple Newtown School District Enrollment and Demographic Study," April 2015

According to the *Marple Newtown School District Demographic and Enrollment Study (April 2015)*, student enrollment in the school district has declined from 3,483 in the 2000/2001 school year to 3,281 in the 2014/2015 school year – a decrease of 202 students. During that period, all schools in the district experienced declining enrollment, including Culbertson, which decreased by 72 students, and Worrall, which decreased by 32 students. However, the school district expects enrollments to increase in the coming years in all schools except the high school. New residential developments could potentially generate 357 additional students district wide. As a result of new residential development in Newtown Township, Culbertson's enrollment could increase by 146 students, and Worrall's by 51 students. These increases would primarily take effect between the 2018 and 2021 school years. District-wide enrollments are expected to stabilize in 2022 when new developments in Marple and Newtown Townships are scheduled for completion.

Culbertson has the lowest available capacity of the elementary schools and will be greatly impacted by the increasing number of students. "Culbertson School will not be able to add new education programs, ELL or special education classes without adding student capacity or increasing class size. Culbertson's special education classes will eventually need to be served at other schools."²



² "Marple Newtown School District Enrollment and Demographic Study," April 2015

Parks, Recreation, and Open Space

Different types of parks, recreation and open space provide different opportunities to township residents. The National Recreation and Park Association (NRPA) classifies parks and recreation areas for use as a planning guide. Classifications pertinent to Newtown Township are:

Type	Description	Service Area Radius, Location Criteria	Size Criteria
Mini-Park	Addresses limited, isolated, or unique recreational needs	Less than 1/4 mile, in residential setting	2500 sq. ft. to 1 acre
Neighborhood Park	Social and recreational focus of neighborhood; informal recreation	1/4 to 1/2 mile, uninterrupted by non-residential roads and barriers	5 to 10 acres
Community Park	Meets community-based recreational needs, preserves open space	1/2 to 3 miles, usually serves two or more neighborhoods	30 to 50 acres
Sports Complex	Consolidates programmed athletic fields in larger and fewer sites	Strategically located community-wide facilities	25+ acres, based on demand
Natural Resource Area/Preserve	Areas for preservation of natural resources and open space	Variable	Variable

Source: *Park, Recreation, Open Space & Greenway Guidelines*, National Recreation and Park Association



Public Recreation and Open Space

Public recreation and open space refers to recreation and open space areas that are owned by Newtown Township and available for public use. Nine public recreation and open space areas in the Township provide opportunities for active recreation (i.e. high-impact sporting activities) and passive recreation (i.e., low-impact activities such as hiking and picnicking) (Map 7). They are described in the table below and classified by type of facility using the NRPA standards as a general guide.

Public Recreation & Open Space	Location	Overview	Acres	Type
Brookside Park	Brookside Rd	Playground, grass fields (baseball, football, soccer), activity field, and is set next to a natural stream	19	Community Park
Drexel Lodge Park	West Chester Pike	Playground, grass fields (soccer, lacrosse), pond, fishing, pavillion, gazebo	22	Community Park
Gable Park	Bishop Hollow Rd	Playground, turf field, baseball field, basketball courts	8.2	Community Park
Greer Park (Winding Way Park)	Winding Way Rd	Pond, picnic areas, children's play equipment	6.5	Neighborhood Park
Newby Park	North Line Rd	Playground, basketball courts, grass fields	9.1	Neighborhood Park
Newtown Square Petticoat (Troop Fields)	Bishop Hollow Rd	Three softball fields	4.2	Sports Complex
Newtown-Edgemont Little League Fields	Bishop Hollow Rd	Five baseball fields, an indoor building, snack bar.	9.5	Sports Complex
Peter Krasas Memorial Field	Rt 252 near Gradyville Rd	One grass field for soccer and lacrosse	3.5	Sports Complex
Newtown Meadow Preserve	344 Newtown Street Rd	50 acre nature preserve	50	Nature Preserve

Source: Consultant's Analysis, 2016

Although smaller than the NRPA standard, Brookside, Drexel Lodge, and Gable Parks are classified as community parks because of the variety of amenities they contain. Only two parks in the Township are classified as neighborhood parks. Many residential areas lack access to a neighborhood park, and Township residents have expressed a need for recreational opportunities in close proximity to their homes in the form of neighborhood parks.

Playing fields for organized sports are available at the Petticoat and Little League fields and Peter Krasas Memorial Field. Lacrosse and soccer fields are also available at Drexel Lodge Park. According to the Township Parks and Recreation Department, the Peter Krasas Memorial Field needs to be regraded, and demand for soccer and lacrosse fields township-wide is exceeding capacity.

Public open space is provided at Newtown Meadow Preserve. This 50-acre property was dedicated to the Township in conjunction with the Liseter development. The Township was recently awarded a grant from the Pennsylvania DCNR to prepare a plan for the Preserve, which will presumably address the need

for access to the site. Preservation of the Township's remaining open spaces is a top priority among residents, and is discussed in more detail in the Land Use section of this Comprehensive Plan.

Private Recreation and Open Space

Private recreation and open space includes privately owned land under conservation easement and privately owned properties used for recreation and leisure activities (Map 7). Public access is allowed only by permission of the landowner or by virtue of a paid membership or membership in a home owners association (HOA). Although not accessible to the general public, these properties augment the Township's facilities by providing additional recreation possibilities and, in the case of conservation easements and HOA open space, adding to the inventory of preserved open space. Include are:

- Newtown Square Swim & Tennis Club
- St. Alban's Swim Club
- Aronimink Golf Club
- Areas set aside as open space within various residential developments (HOA open space)
- Various private conservation easements

Limited Access Recreation

Limited access recreation includes school facilities (MN School District and Saint Anastasia) and the Gauntlett Center (Map 7). These facilities are commonly used by the public for recreation, but public access can be limited or banned by the institution. Although not freely accessible to the general public, these facilities augment the Township's facilities by providing additional recreation possibilities.

Trails

In a time when both children and adults have increasingly sedentary lifestyles, trails offer an important opportunity for physical activity that is suited to nearly all ages and abilities. The need for more trails in the township was cited by a large majority of residents.

Three walking trails have been established in the Township (Map 7):

- **Goshen Road Walking Trail** – is a crushed stone, off-road trail that runs approximately one-half mile along Goshen Road westward from PA 252. Trailhead parking is located adjacent to the historic Square Tavern.
- **Liseter Trail** – is a one mile paved walking trail within the open space of the Liseter development. It runs along the eastern perimeter and part of the northern perimeter of the development. The eastern portion of the trail is adjacent to PA 252



and connects to the Goshen Walking Trail at the Square Tavern. The northern portion of the trail terminates at the Newtown Meadow Preserve.

- **Gable Park Walking Trail** – is a one-half mile trail that connects Gable Park (at the Township building) to the Newtown Edgmont Little League Fields and terminates at Campus Boulevard.

There are no formally designated bike paths or bike routes within the Township (see Chapter 5, Transportation Plan).

Sewer Service

Sewage facilities planning in Pennsylvania is governed by the Pennsylvania Sewage Facilities Act (Act 537), which requires each municipality to prepare a sewage facilities plan. Newtown Township adopted its Act 537 Plan Update in 2012. The following is summarized from the Township's Act 537 Plan Update and shown on Map 8:

- At present, the Newtown Township Municipal Authority owns the public sanitary sewer collection system, and together with the Public Works Department, monitors and maintains the system. The Township contracts with Aqua to maintain the pumping stations.
- Most of the area of the Township that lies east of PA 252 and south of Saint Davids Road is served by the Radnor-Haverford-Marple (RHM) conveyance system. Also included in the RHM service are the SAP property, and portions Ellis Preserve and Bishop Hollow Road.
- The south-central portion of the Township, the Liseter development, and Episcopal Academy are served by Central Delaware County Authority (CDCA).
- Springton Pointe Estates is served by a community sewerage system and community wastewater treatment facility permitted for underground disposal. Effluent disposal is within the drainage area to Hunters Run, which is a tributary to Springton Lake (Geist Reservoir), a public drinking water holding area owned by Aqua.
- The Hunters Run development is serviced by a community on-lot disposal system, owned and maintained by the homeowners association.
- Wastewater generated at offices in the Newtown Corporate Campus on Campus Boulevard is treated and disposed of at several separate on-lot disposal systems.
- All other residential and commercial uses in the Township are served by individual on-lot disposal systems. Individual owners contract with private haulers for sludge removal.
- Nearly all areas in the western portion of the Township will be joining the CDCA sewer system, with the exception of the Garrett Williamson property, areas adjacent to Gradyville Road, and areas adjacent to Whitehorse Road.
- Properties generally north of Saint Davids Road will continue to be served by individual on-lot septic systems.

Water Supply

Public water service is provided by AquaPA. Nearly all of the Township is in the public water service area with the exception of some properties adjacent to Bryn Mawr Avenue, Gradyville Road, Boot Road, and Whitehorse Road (Map 9). These properties rely on private wells. Future development of these properties would need to demonstrate a reliable water supply via private wells or would need to secure water supply through AquaPA's public water system.

PLANNING IMPLICATIONS

The availability of community facilities and services has a direct impact on the quality of life of Township residents and the attractiveness of the Township as a place to live and do business. As the Township continues to grow, so will the demand for facilities and services. Pending and proposed developments are projected to generate approximately 3,594 residents. If the Township were to develop to its maximum capacity based on current zoning, the population would grow by approximately 6,964 additional residents. If it were to develop according to the Future Land Use Plan it could potentially add 5,814 residents. All cases point to increased demand for community facilities and services for which the Township must prepare.

Although residents are very satisfied with the Township's police service, the large increase in the number of calls for police service is putting a strain on the department's resources. Police staffing, equipment, and facilities needs will have to be monitored and evaluated in connection with increasing demand and its effect on response times.

The Fire Company is responding to calls within the minimum response time standard despite a 48% increase in the number of calls over the last decade. However, staffing and funding are a constant challenge and the current fire station is inadequate. The Township should anticipate the need for a new fire station and additional paid fire-fighting personnel and the potential increase in funding levels that could result. Facility, staffing, and equipment needs must continue to be monitored and evaluated in connection with increasing demand and its effect on response times.

The public library is highly regarded by residents for the services it provides. The library will likely experience increased demand for its services as new residential developments within and outside of Newtown Township are completed. The Township should continue its support of the library and anticipate the potential need for increased funding to keep pace with demand.

New residential development in Newtown Township is projected to contribute to increased enrollment in Culbertson and Worrall Elementary Schools. While Worrall currently has the capacity to absorb the increase, Culbertson does not and will be more severely impacted. Programs will need to be moved out of Culbertson to make space for additional students.

Residents have expressed a desire for more open space, trails, and parks. To minimize potential financial burden of purchasing and maintaining open space, the Township should utilize, to the extent possible, land development tools such as "conservation subdivision design" (i.e., open space development), mandatory dedication of parkland, transferable development rights (TDR), and the Official Map.

There are few remaining large tracts of land that present opportunities to enhance the Township's open space system. The Township should work with these landowners to explore possibilities for setting aside

at least of portion of these properties as open space for recreation or conservation. Open spaces, whether private or public, should be linked to form a greenway system that helps to protect natural resources and provide natural infrastructure functions.

The Township has made progress in establishing walking trails, but the trail system needs to be expanded and connected. The trail system should be designed as a series of connected loops offering varying distances. Trails should connect to residential neighborhoods and points of interest within the Township and to destinations outside of the Township. All new development should be required to provide trails and those trails should connect to, or be ready to connect to, the Township-wide trail system.

Potential trail connections are shown on Map 7. The trails form three loops and connect to parks, historic sites, and shopping areas in the Township. The northernmost loop connects to Skunk Hollow Park in Radnor Township via Palmers Mill Road and Saw Mill Road. An off-road trail segment through the potential open space at Aronimink Golf Club is preferred. Another potential trail link runs along the abandoned railroad line through Winding Way Park and Brookside Park. This trail—the “Newtown Square Branch Rail Trail”—is part of Delaware County’s proposed countywide trail system, which connects to the regional trail system known as “The Circuit.”

All of the Township’s trails are designated as walking trails. To enable bicycle circulation, the Township should consider providing for multi-use trails, dedicated bicycle paths (off-road), or bicycle routes (on-road). Potential bicycle routes are shown on Map 7 and are based on Delaware County’s 2009 Bicycle Plan.

Vacant lots may present opportunities to establish mini-parks or neighborhood parks in existing residential areas. Any new residential development should be required to include an on-site park. To supplement the Township’s park maintenance efforts, “friends of the park” volunteer groups can be organized to do periodic park clean-up and other light-duty tasks and organize social events at the various parks.

Public sewer and water service are coordinated with the Future Land Use Plan. Areas designated to accommodate future development coincide with areas that are currently served by, or planned for, public sewer and water service. The plan does not advocate extension of public sewer and water infrastructure to undeveloped areas and areas identified as potential open space.

RECOMMENDATIONS

The following recommendations are intended to achieve the Township’s goals and objectives pertaining to community facilities and utilities.

- Regularly monitor police department calls for service and response times, and consider the need for, and feasibility of increasing police resources
- Regularly monitor calls for service and Fire Company response times; support the Fire Company in its effort to locate a new fire station that is appropriately situated to serve the community; consider the need for additional paid staff; consider options for increased funding; to the extent possible, assist with efforts to recruit and retain volunteers

- Continue to contract for ambulance service; regularly monitor calls for service and response times
- Continue to support the Newtown Township Public Library; work with the library to establish a system for tracking visitation as way to measure and monitor demand
- Maintain regular communication with the Marple Newtown School District regarding development plans that may impact school enrollment and the District's needs to increase student capacity
- Encourage landowners to preserve open space through voluntary conservation easements or secure open space through purchase; priority should be given to lands that contain large tracts of woodland, important natural or landscape features, and those that would facilitate establishment of a greenway or trail connection (potential open space is shown on Map 7 as "Potential Open Space")
- Upgrade maintenance of, and improve existing public parks as needed
- Establish parks in existing neighborhoods as opportunities arise; require neighborhood parks in all new residential developments (neighborhoods that are candidates for a neighborhood park are shown on Map 7 as "Potential Neighborhood Park")
- Establish trails and bicycle routes as depicted on Map 7 ; consider providing for multi-use trails to enable different forms of exercise and transportation
- Require all new developments to provide trails that connect to, or are ready to connect to, the Township-wide trail system
- Appoint an Open Space Committee to spearhead open space preservation efforts
- Appoint a Trails Committee to spearhead efforts to establish trails and bicycle routes
- Facilitate the creation of volunteer groups such as "friends of the park" to perform light-duty park maintenance and organize park-related social events; similar types of volunteer groups can be created to provide trail maintenance and trail-related social events
- Encourage use of the Open Space development option, which requires an open space set-aside in residential developments, by making it a permitted use; increase the required open space set-aside
- Explore the feasibility of Transferable Development Rights as a means to preserve open space. Under TDR, development rights from one property ("sending property") are transferred to another property ("receiving property"). The sending property is preserved as open space and the receiving property is granted increased development density based on the number of development rights transferred.

- Consider adopting an Official Map to identify future public lands and facilities. The Official Map grants the Township the right of first refusal to acquire land identified for public use.
- Continue to apply for grants to assist with establishment of open space, trails, and public parks
- Consider funding options for purchase and long-term maintenance of open space for passive recreational use
- Periodically update the Act 537 Sewage Facilities Plan to ensure that sewage facilities planning keeps pace with growth and development and is consistent with the Comprehensive Plan; enforce requirements for maintenance of individual on-lot and community septic systems to protect water quality
- Maintain consistency between the Comprehensive Plan and the public water supply system; encourage regular testing of on-lot wells used for potable water supply; strengthen and enforce natural resource protection measures to protect water quality

Chapter 9

Plan Interrelationships and Compatibility

OVERVIEW

The MPC requires the comprehensive plan to include: a statement of the interrelationships among the various plan elements; a statement indicating that the existing and proposed development of the Township is compatible with the existing and proposed development of contiguous portions of neighboring townships; and a statement indicating that the existing and proposed development of the Township is generally consistent with the county comprehensive plan.

STATEMENT OF INTERRELATIONSHIPS OF PLAN ELEMENTS

The various comprehensive plan elements work together to form a cohesive growth management plan for the Township. Future development and preservation of land is coordinated with infrastructure, community facilities, utilities, housing, and natural and historic resource protection. Growth is targeted to primarily occur in Newtown Square, an area served by public sewer, public water, and the Township's two arterial roads (PA 3 and PA 252) with SEPTA bus service. Planned for transportation system enhancements, including improvements to roads, pedestrian facilities, and SEPTA bus service, are intended to support new development. Future land use is also planned to be responsive to natural resource, historic resource, and open space protection in order to achieve sustainable growth.

STATEMENT OF PLAN COMPATIBILITY

Neighboring Municipalities

The existing and proposed development of Newtown Township is compatible with that of the contiguous portions of neighboring municipalities. With the exception of the western end of PA 3, the areas along the Township's periphery are primarily occupied by older residential neighborhoods and institutional uses and they are planned to remain as such. The western end of PA 3 is primarily commercial and adjoins the Marville shopping center in Edgmont Township.

Delaware County Comprehensive Plan

The existing and proposed development of Newtown Township is generally consistent with the objectives and goals of the Delaware County Comprehensive Plan entitled, *Delaware County 2035*.¹ Delaware County 2035 consists of a central "Land Use Policy Framework Plan" and other related component plans. Some of these component plans are completed (the 2009 *Delaware County Bicycle Plan* and 2015 *Delaware County Open Space, Recreation, and Greenway Plan*), others are currently underway, and more will be developed in the future.

Delaware County 2035 identifies Newtown Square, surrounding the PA 3 / PA 252 intersection, as a future "Town Center," and portions of PA 3 and PA 252 as an "Activity Corridor." Town Centers are promoted to "improve land use compatibility and accommodate population growth, institutions, services, and culture to strengthen economic competitiveness."² County policies for Town Centers encourage infill development, revitalization, residential uses in commercial areas, and improve connections to public transit. Activity Corridors promote revitalization and improved accessibility. The Multiple Use Area, Revitalization Area, and transportation system enhancements contained in this

¹ <http://www.co.delaware.pa.us/planning/countyregionalplanning/DelawareCounty2035.pdf>

² *Delaware County 2035*, pg. 46

Newtown Township Comprehensive Plan are generally consistent with these County objectives and plans.

The County Comprehensive Plan also promotes the protection of mature neighborhoods by encouraging appropriate infill development. The Existing Residential Neighborhood Protection Areas contained in this Newtown Township Comprehensive Plan are generally consistent with this County Comprehensive Plan in this regard.

The County Comprehensive Plan and Open Space, Recreation, and Greenway Plan identifies land along the Township's surface waters as "Greenways." The natural resource protection measures contained in this Newtown Township Comprehensive Plan are generally consistent with the County Comprehensive Plan and Open Space, Recreation, and Greenway Plan in this regard.

Like *Delaware County 2035*, *Delaware County Bicycle Plan* and *Delaware County Open Space, Recreation, and Greenway Plan*, this Newtown Township Comprehensive Plan promotes the preservation of open space, natural resources, and historic resources, and the use of alternatives modes of transportation, including public transit, walking and biking.

Chapter 10

Implementation Strategies

OVERVIEW

The MPC requires comprehensive plans to include a discussion of short- and long-range strategies to implement the recommendations of the comprehensive plan and advance the community development goals. Community development goals and recommendations for each MPC-required comprehensive plan element are specified in the preceding chapters of this plan. This chapter lists actions the Township must take in order to realize the community's vision for its future. Each strategy is given a general timeframe for implementation and parties responsible for implementation are identified. It is vital that an individual or a committee oversee and monitor implementation of this comprehensive plan. Its implementation strategies should be consulted regularly to ensure the Township is following through and making progress. It is also vital that the Township involve its citizens and local business owners, institutions, and organizations in the implementation effort. All Township staff should be made aware of the comprehensive plan's findings and recommendations.

FUNDING SOURCES

Funding sources are listed in the DVRPC's Municipal Resource Guide found online at:

<http://www.dvrpc.org/asp/MCDResource/>

IMPLEMENTATION STRATEGIES

	Timeframe	Responsibility	Potential Partners	Completed (✓)
Appoint Implementation Leader / Committee	Immediate	BOS		
Create a Comprehensive Plan Implementation Committee (CPIC) comprised of representatives of various township boards and committees to spearhead, oversee, and monitor the implementation process. The CPIC should meet regularly and maintain communication with committees involved with implementation.				
Raise Awareness	Immediate	Twp Mgr		
Make the comprehensive plan available. Post the comprehensive plan on the township website and make a hard copy available at the township office. Encourage all township staff, board and committee members and consultants to read the plan.				
Organize for Implementation	Immediate	BOS		
<ul style="list-style-type: none">○ Form an Open Space Committee to spearhead open space preservation efforts○ Form a Trails and/or Pedestrian and Bicycle Circulation Committee to spearhead establishment of trails, pedestrian and bicycle facilities○ Form a Public Transportation Committee to implement bus stop upgrades and work with SEPTA and DVRPC on piloting the EBS program○ Appoint a liaison to the local business community or form a Business Improvement/Redevelopment Committee to promote business retention and enhancement initiatives, including establishment of a BID(s) in the Multiple Use Area and Redevelopment Area				

	Timeframe	Responsibility	Potential Partners	Completed (✓)
Amend Zoning Ordinance	Short-Range	Zoning Task Force		
<p>Amend the Zoning Ordinance to:</p> <ul style="list-style-type: none"> ○ Streamline the number of zoning districts. ○ Provide for a variety of land use types in the Multiple Use Area, including mixed-use development and high-density residential use, but keep building height limits at their current levels to prevent visual intrusion of surrounding residential neighborhoods. ○ Limit the scale and intensity of permitted land uses within the Redevelopment Area. ○ Establish design guidelines for development in the Multiple Use Area and Redevelopment Area. ○ Provide for infill development in existing residential neighborhoods that is consistent with the physical form of those neighborhoods. ○ Provide for adequate setbacks, buffers, and light, noise, and odor controls for non-residential uses especially where they are located adjacent to residential neighborhoods. ○ Provide for Conservation Subdivision Design or amend the Open Space Development option to require a 50% open space set-aside. ○ Subject to a feasibility study, enable Transferable Development Rights which would provide a mechanism to transfer development from desired open spaces to areas designated for development (e.g. the Multiple Use, Commercial/Office, and Institutional Areas). ○ Require that new housing developed in existing residential neighborhoods (infill development) conforms to the physical dimensions already existing and predominant in the neighborhood. ○ Permit a mix of housing types, including apartments and apartments on upper floors of commercial buildings (mixed-use), in the Multiple Use Area (see Future Land Use map). ○ Permit accessory dwelling units in appropriate zoning districts (where lot area dimensions will accommodate such uses) as a means to provide affordable housing options, enable older relatives to reside near family, enable seniors to age in place, and enable homeowners to generate additional income from their properties. ○ Review the Zoning Ordinance to ensure that it is consistent with the Fair Housing Act and the MPC and does not exclude any particular type of housing. ○ Review and amend as needed all provisions pertaining to trails and pedestrian and bicycle facilities to ensure access is provided for. ○ Provide for roadway access management standards (or these can be included in the SLDO) ○ Create an article within the zoning ordinance that addresses natural resource protection, including provisions for: <ul style="list-style-type: none"> ▪ Steep Slopes – continue to enforce the provisions of the Steep Slope Conservation District and add limits to impervious cover within areas of steep and very steep slopes ▪ Wetlands – add provisions requiring a wetland delineation and prohibiting disturbance of wetlands ▪ Soils – add provisions prohibiting disturbance of hydric soils and soils with drainage limitations ▪ Riparian and Wetland Buffers – add provisions requiring a 100-foot buffer adjacent to surface waters and wetlands ▪ Floodplains - retain the provisions of the existing Flood Hazard District and update if and when required by state or federal law ▪ Woodlands – add provisions to limit disturbance of woodlands and woodland corridors and to prohibit removal of healthy specimen trees ▪ Core Habitat Areas –add provisions to prohibit disturbance of Core Habitat Areas ○ Include basic historic resource protection measures in the form of an overlay district that applies to all identified historic resources in the Township. Provisions would be limited to: <ul style="list-style-type: none"> ▪ Creation of a historical commission to maintain resource inventory and act in an advisory capacity ▪ Demolition and demolition by neglect, enabling a review of applications for demolition, removal, or relocation of historic resources by a Township historical commission. ▪ Design guidelines for new construction near a historic resource to ensure compatibility. ▪ Adaptive reuse, facilitating the retention and conversion of a building to a use other than the one for which it was originally designed 				

	Timeframe	Responsibility	Potential Partners	Completed (✓)
Amend SLDO	Short-Range	BOS, PC		
Amend the Subdivision and Land Development Ordinance to: <ul style="list-style-type: none"> ○ Ensure it is consistent with zoning ordinance provisions. ○ Reference the Roadway Functional Classification map (Map 3) to guide road design and improvements ○ Provide for roadway access management standards (or include this in the zoning ordinance) ○ Provide for trails and pedestrian and bicycle facilities. ○ Update natural resources and landscaping provisions ○ Require identification of historic resources and mitigation of impacts on historic resources ○ Require provision on recreational land and facilities in new residential development 				
Adopt Complete Streets Policy	Short-Range	BOS, PC	Smart Growth America, PennDOT, DVRPC	
Adopt a Complete Streets Policy, which directs transportation planners and engineers to include, as applicable, design for pedestrian, bicycle, public transit facilities, and landscaping in both new road construction and retrofit or road improvement projects.				
Adopt Official Map Ordinance	Short-Range	BOS, PC		
Adopt an Official Map Ordinance that identifies future locations of: <ul style="list-style-type: none"> ○ Roads and road improvements ○ Trails and pedestrian paths ○ Public parks, playgrounds, and open space 				
Create a Transportation Capital Improvements Plan	Short-Range	BOS, Twp Mgr	Twp Transportation Engineer	
Create a capital improvement plan for transportation facilities—including pedestrian and bicycle facilities—that targets locations where facilities are needed most and land development is not imminent. In addition to functional roads, projects should focus on creating safe pedestrian connections to the Township’s key destinations (shops, employment, schools, recreation areas) and to SEPTA bus stops, and should include facilities such as sidewalks, bike paths and bike parking, crosswalks, crossing signals, lighting, signage, and landscaping/street trees.				
Promote Formation of a Business Improvement District (BID)	Short-Range	Business Improvement Committee	Newtown Square Business & Professional Assoc.	
Reach out to business owners located in the Revitalization Area to facilitate formation of a BID				
Adopt a Transportation Impact Fee Ordinance	Short-Range	BOS, PC	Twp Transportation Engineer	
Adopt a Transportation Impact Fee Ordinance, which allows municipalities to assess developers for a portion of the transportation capital improvement costs necessitated by their development. Completion of several preliminary steps are required before adoption of the ordinance, including appointment of an advisory committee and completion of a land use assumptions report, roadway sufficiency analysis, and transportation capital improvements plan.				

	Timeframe	Responsibility	Potential Partners	Completed (✓)
Improve Bus Stop Facilities	Short-Range	Public Trans Committee	SEPTA, DVRPC	
<ul style="list-style-type: none"> ○ Conduct a detailed study using SEPTA's Bus Stop Design Guidelines to assess specific needs at all SEPTA bus stops in the Township related to pedestrian access (sidewalks, crosswalks, pedestrian crossing signals, etc.) and bus stop amenities (shelters, lighting, seating, etc.). ○ Establish a bus shelter sponsorship program with local businesses, organizations, and land owners and/or seek support from SEPTA and/or obtain advertising agreements with large media firms 				
Update Master Plan Traffic Study for Newtown Square	Long-Range	BOS, PC	Twp Transportation Engineer, DVRPC SEPTA	
Once the "Ellis Town Center" improvements to PA 3 are completed, update the Master Plan Traffic Study to reassess traffic conditions in Newtown Square.				
Plan for loop road	Long-Range	BOS, PC	Engineer, DCPD, DVRPC	
Get listed on DVRPC TIP				
Enforce speed limits	On-going	Twp Police		
Enforce speed limits on roads identified for speeding, cut-through traffic, and traffic calming (the north end of PA 252, Winding Way, Brookside Road, Rhoads Avenue, Barren Road, Ellis Avenue, Saw Mill Road, Saint Davids Road, and Bishop Hollow Road). If necessary, reduce the speed limit on these roads and petition PennDOT to reduce the speed limit on the problematic state roads				
Keep Traffic Calming Policy	On-going	BOS		
Keep the Traffic Calming Policy in effect and post it on the township website				
Enforce Building and Property Maintenance Codes	On-going	Code Officer		
<ul style="list-style-type: none"> ○ Enforce building and property maintenance codes to ensure that the condition of housing and the integrity of residential neighborhoods remains sound ○ Conduct inspections of rental properties to ensure their condition complies with standards and to support the rental market (substandard rental units can cause a high rental vacancy rate) 				
Monitor Emergency Services Needs	On-going	BOS	Police, Fire Dept., Ambulance	
<ul style="list-style-type: none"> ○ Regularly monitor police department calls for service and response times, and consider the need for, and feasibility of increasing police resources ○ Regularly monitor calls for service and Fire Company response times; consider the need for additional paid staff; consider options for increased funding; to the extent possible, assist with efforts to recruit and retain volunteers ○ Continue to contract for ambulance service; regularly monitor calls for service and response times 				
Upgrade Park Maintenance	On-going	P&R Board		
<ul style="list-style-type: none"> ○ Establish a regular park maintenance schedule for all township parks and athletic fields ○ Facilitate the creation of volunteer groups such as "friends of the park" to perform light-duty park maintenance and organize park-related social events; similar types of volunteer groups can be created to provide trail maintenance and trail-related social events. 				

	Timeframe	Responsibility	Potential Partners	Completed (✓)
Encourage Voluntary Protection of Open Space	On-going	Open Space Committee	Land Trusts, Land Conservancies	
<ul style="list-style-type: none"> Open communications with landowners and provide information on voluntary means of open space preservation such as a conservation easement 				
Maintain Sewer and Water Utilities	On-going	Sewer, Water Authority	Twp Engineer, CDCA, RHMA, AQUA	
<ul style="list-style-type: none"> Periodically update the Act 537 Sewage Facilities Plan to ensure that sewage facilities planning keeps pace with growth and development and is consistent with the Comprehensive Plan. Enforce requirements for maintenance of individual on-lot and community septic systems to protect water quality Encourage regular testing of on-lot wells used for potable water supply 				
Involve the Community	On-going	Twp Mgr, Various Twp Committees	Community Members	
<ul style="list-style-type: none"> Distribute/make available a quarterly or bi-annual township newsletter that includes educational material related to the various comprehensive plan topics Keep the township website updated Hold regular community-building social and educational events that highlight the Township's cultural, economic, historic, natural, and recreational assets Advertise the township's need for volunteers (e.g. friends of XYZ park) 				

Appendix A

Demographic Profile

INTRODUCTION

The demographic profile provides an understanding of Newtown Township's population trends and socioeconomic conditions. It forms a basis upon which to evaluate the Township's planning policies and provides a measure of anticipated growth. Data on population, income, and employment are included, along with population projections through the year 2025. To gain a broader perspective and a measure of comparison, data for the six adjoining municipalities, Delaware County, and the Philadelphia region are included where appropriate.

SUMMARY

According to the demographic analysis, Newtown Township is an affluent, well-educated, and aging community. Its labor force is primarily engaged in high-paying, skilled professional and managerial occupations. The Township's population has been steadily increasing over recent decades and is projected to continue growing through 2025.

The data also indicate that the Township's population is aging rapidly and will continue to do so assuming the pre-retirement and retirement populations age in place. The Township might consider the potential need to provide housing, services, and activities for this population segment. At the same time, the data suggest that the Township is not retaining its young work force and young families. This could be due to a lack of affordable housing, and/or a lack of employment opportunities, and/or shifts in social trends among Millennials who are waiting longer to start families. The Township might consider efforts to retain its younger population segments by providing opportunities for affordable housing and attracting additional employers.

Planning for projected growth and demographic trends involves all aspects of the Comprehensive Plan, including land use, housing, natural and historic resource protection, community facilities and utilities, and transportation. Continued growth will place ever increasing demands on Township infrastructure and services. The Township must identify areas that are most suitable to accommodate growth, and it must plan for providing necessary utilities, transportation infrastructure, and services to support a growing and aging population. It must also identify areas that are most suited for conservation in order to ensure that water supply, habitat, and natural resources remain functional and sustainable for the long-term health and well-being of the community.

POPULATION TRENDS

Population 1990-2013

To assess population trends, changes in the number of township residents from 1990 to 2013 are examined (Table 2.1 and Figure 2.1). Findings are as follows:

- Newtown Township has experienced steady, moderate growth since 1990.
- From 1990 to 2000, Newtown Township had the second lowest growth rate (2.9%) of the 7-township region. Edgmont Township experienced enormous growth at a rate of 43.3%. The 7-township region, as a whole, outpaced the growth rates of Delaware County, the Philadelphia region, and Pennsylvania.

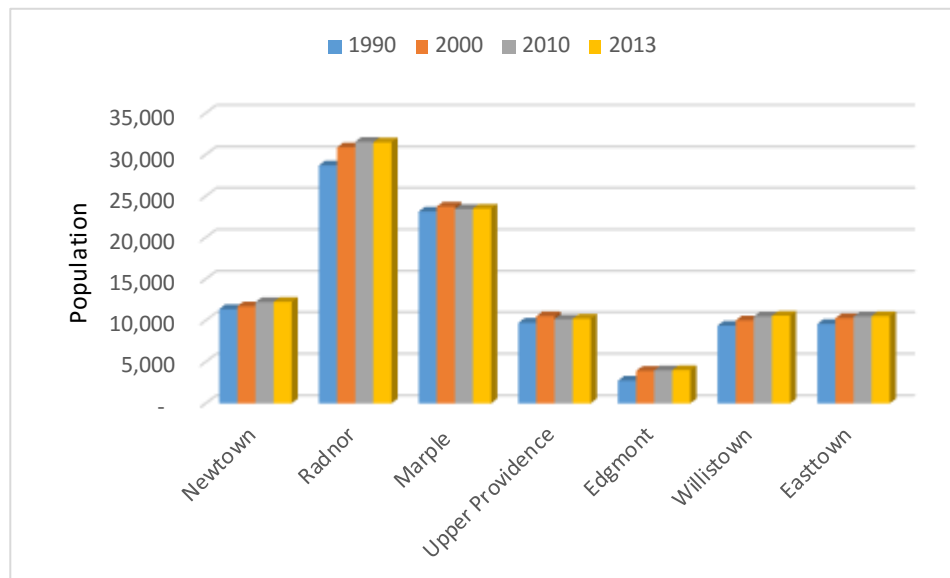
- Newtown Township is the only municipality in the 7-township region that saw its growth rate accelerate from the 1990s to the 2000s (from 2.9% to 4.4%).
- From 2000 to 2010, Newtown Township's growth rate (4.4%) was second only to Willistown Township (4.9%). Edgmont's growth decelerated rapidly, while Marple and Upper Providence lost population. Newtown Township's 4.4% growth rate kept pace with that of the Greater Philadelphia region and exceeded the county and the state.
- The most current estimate shows Newtown Township's population at 12,244.

Table 2.1. Population Trends: 1990 - 2013

Municipality	1990 Census	2000 Census	2010 Census	2013 Estimate	# Change 1990-2000	% Change 1990-2000	# Change 2000-2010	% Change 2000-2010	# Change 2010-2013	% Change 2010-2013
Newtown	11,366	11,700	12,216	12,244	334	2.9%	516	4.4%	28	0.2%
Radnor	28,703	30,878	31,531	31,482	2,175	7.6%	653	2.1%	-49	-0.2%
Marple	23,123	23,737	23,428	23,481	614	2.7%	-309	-1.3%	53	0.2%
Upper Providence	9,727	10,509	10,142	10,204	782	8.0%	-367	-3.5%	62	0.6%
Edgmont	2,735	3,918	3,987	4,015	1,183	43.3%	69	1.8%	28	0.7%
Willistown	9,380	10,011	10,497	10,572	631	6.7%	486	4.9%	75	0.7%
Easttown	9,570	10,270	10,477	10,519	700	7.3%	207	2.0%	42	0.4%
7-Township Region	94,604	101,023	102,278	102,517	6,419	6.8%	1,255	1.2%	239	0.2%
Delaware Co	547,323	550,864	558,726	559,771	3,541	0.6%	7,862	1.4%	1,045	0.2%
Greater Phila.	5,182,787	5,387,401	5,626,186	5,650,816	204,614	3.9%	238,785	4.4%	24,630	0.4%
Pennsylvania	11,881,643	12,281,054	12,702,379	12,731,381	399,411	3.4%	421,325	3.4%	29,002	0.2%

Source: U.S. Census Bureau

Figure 2.1. Population Trends: 1980 - 2013



Source: U.S. Census Bureau

Population Projections

Population projections represent anticipated future growth for which the Township must be prepared to plan. As this comprehensive plan has a 10-year horizon, projections are provided through 2025. Two sets of projections are provided: projections from the DVRPC, which is the main source for local population projections, are based on migration and birth/death data; projections by the Township's planning consultant are based on the estimated number of housing units generated by pending and potential residential development (Table 2.2 and Figure 2.2). Specific findings are as follows:

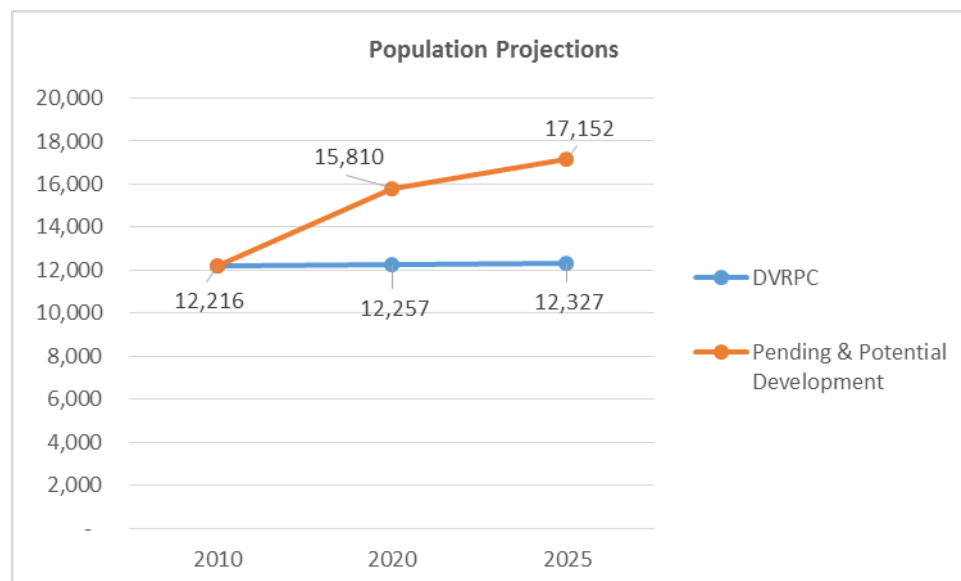
- The DVRPC projects a population of 41 persons from 2010 to 2010 and another 70 persons from 2020 to 2025. Given recent development activity in the Township, it is very likely that these figures have already been exceeded
- Projections based on pending and potential development projects estimate an increase of 3,594 persons by 2020, bringing the Township's total population to 15,810. A further increase of 1,342 persons is projected by 2025 bringing the Township's total 2025 population to 17,152.

Table 2.2. Population Projections: 2020 & 2025

	2010 Census	2020 Projection	2025 Projection	# Change 2010-2020	% Change 2010-2020	# Change 2020-2025	% Change 2020-2025	# Change 2010-2025	% Change 2010-2025
DVRPC	12,216	12,257	12,327	41	0.3%	70	0.6%	111	0.9%
Pending & Potential Development	12,216	15,810	17,152	3,594	29.4%	1,342	11.0%	4,936	40.4%

Source: Delaware Valley Regional Planning Commission; Consultant's Analysis

Figure 2.2. Population Projections: 2020 & 2025



Source: Delaware Valley Regional Planning Commission; Consultant's Analysis

Population Change by Age

Population trends are also analyzed by examining changes within age groups that occurred between 2000 and 2010 (Table 2.3 and Figure 2.3). Population composition by age shows the current distribution of age groups in the Township. This provide insight into which age groups account for recent population growth and which age groups are growing or declining. Based on this information, the Township can consider planning for services for specific population segments such as children and the seniors. Specific findings are as follows:

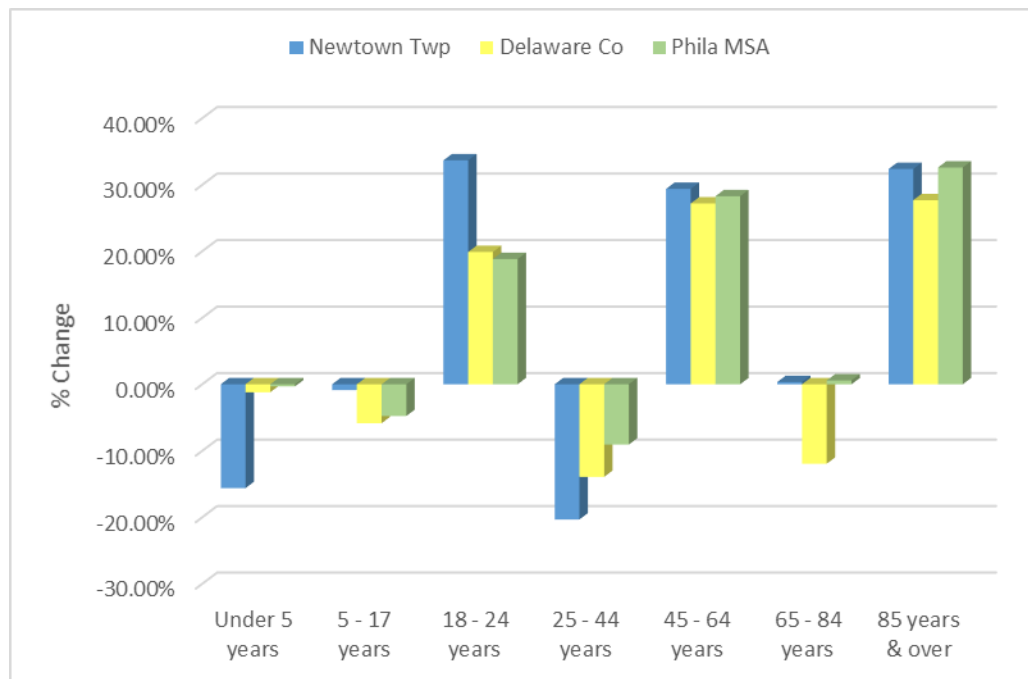
- The general age trend is similar across Newtown Township, Delaware County, and the Philadelphia region. It indicates a decline in the pre-school and school-aged populations, young professionals, and young families, and an increase in mature workers and the elderly. Newtown Township's population is substantially older and is aging rapidly (median aged increased from 43.3 to 47.3).
- Newtown Township experienced a steep decline in the pre-school-aged population (under 5 years), coincident with a steep decline in young professionals and young families (25 to 44 years). This is consistent with a national trend in which young people are waiting longer to get married and start families, or are not having children.
- The school-aged population (5 to 18 years) experienced a slight decline (0.9%).
- The increase in the 18 to 24 year age group is indicative of a recent trend in which young adults stay home to attend local colleges, and return home after graduating college due to lack of employment.
- The decline in population aged 25 to 44 years suggests that the Township is not retaining (or replenishing) its young professional population and young families. This is consistent with the statewide trend and can likely be attributed to a lack of affordable housing and employment opportunities.
- The Township experienced a steep increase in the 45 to 65 year age group, likely due in part to the prior group aging into this one, and retention of mature workers and pre-retirees who are aging in place.
- The senior population (age 65 to 84) has remained stable, while the elderly population (age 85 and over) increased sharply.

Table 2.3. Population Change by Age: 2000 - 2010

Age Group	Newtown Twp				Delaware Co		Phila MSA	
	2000 Census	2010 Census	# Change 2000-2010	% Change 2000-2010	# Change 2000-2010	% Change 2000-2010	# Change 2000-2010	% Change 2000-2010
Under 5 years	653	551	-102	-15.62%	-415	-1.21%	-1,160	-0.31%
5 - 17 years	2,051	2,033	-18	-0.88%	-6,006	-5.86%	-51,259	-4.77%
18 - 24 years	579	774	195	33.68%	9,767	19.89%	95,014	18.83%
25 - 44 years	2,857	2,276	-581	-20.34%	-22,096	-13.93%	-155,568	-9.07%
45 - 64 years	2,996	3,876	880	29.37%	32,808	27.19%	357,518	28.27%
65 - 84 years	2,147	2,154	7	0.33%	-8,951	-11.97%	3,874	0.58%
85 years & over	417	552	135	32.37%	3,008	27.68%	29,777	32.60%
Median Age	43.3	47.3			37.4	38.7	36.4	38.1

Source: U.S. Census Bureau

Figure 2.3. Population Change by Age: 2000 - 2010



Source: U.S. Census Bureau

Population Composition by Age

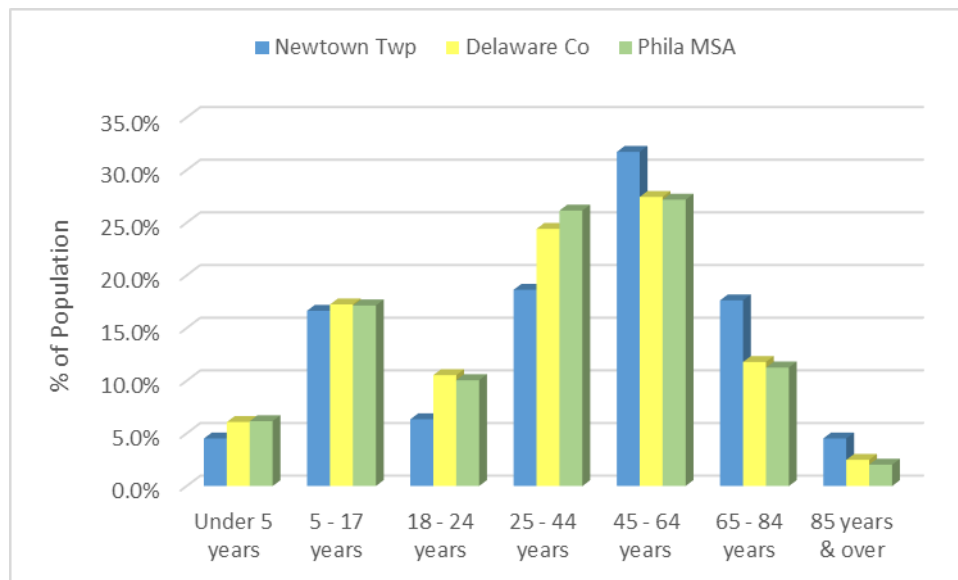
Population composition by age shows the 2010 distribution of age groups in the Township (Table 2.4 and Figure 2.4). The population aged 45 to 64 years is the largest age group in the Township (31.7%). Assuming this population ages in place and younger populations continue to decline, the Township's age distribution will continue to skew toward seniors and the elderly.

Table 2.4. 2010 Population Composition by Age

Age Group	Newtown Twp		Delaware Co		Phila MSA	
	2010 Census	% of Total	2010 Census	% of Total	2010 Census	% of Total
Under 5 years	551	4.5%	33,979	6.1%	367,858	6.2%
5 - 17 years	2,033	16.6%	96,433	17.3%	1,023,024	17.1%
18 - 24 years	774	6.3%	58,860	10.5%	599,591	10.1%
25 - 44 years	2,276	18.6%	136,504	24.4%	1,560,179	26.2%
45 - 64 years	3,876	31.7%	153,477	27.5%	1,622,207	27.2%
65 - 84 years	2,154	17.6%	65,850	11.8%	671,355	11.3%
85 years & over	552	4.5%	13,876	2.5%	121,129	2.0%
Median Age	47.3		38.7		38.1	

Source: U.S. Census Bureau

Figure 2.4. 2010 Population Composition by Age



Source: U.S. Census Bureau

EDUCATION

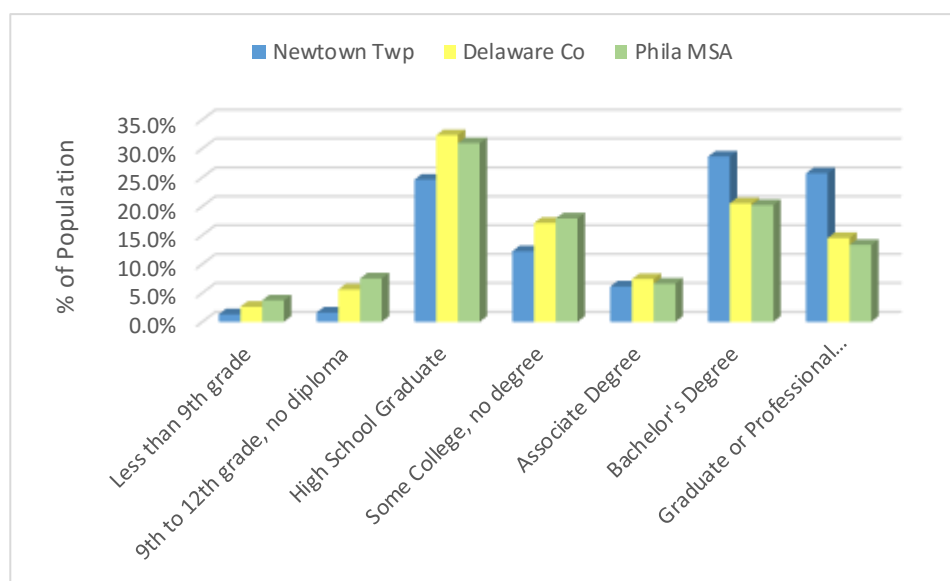
Educational attainment is surveyed from among the population aged 25 years and over. It represents the highest level of education reached by individuals of that age group (Table 2.5 and Figure 2.5). Newtown Township has a very well educated population. Over 54% of residents have attained at least a bachelor's degree – a much higher percentage than in Delaware County (35%) and the Philadelphia region (33.6%). The Township's highly educated populace gives it a competitive advantage in attracting high paying jobs.

Table 2.5. Educational Attainment

	Newtown Twp				Delaware Co		Phila MSA	
	# Persons	# MOE	% of Total	% MOE	% of Total	MOE	% of Total	MOE
Population 25 years and over	8,694				372,184		4,019,226	
Less than 9th grade	112	+/-89	1.3%	+/-1.0	2.6%	+/-0.2	3.70%	+/-0.1
9th to 12th grade, no diploma	135	+/-67	1.6%	+/-0.8	5.6%	+/-0.3	7.50%	+/-0.1
High School Graduate	2,136	+/-325	24.6%	+/-3.7	32.3%	+/-0.6	30.90%	+/-0.2
Some College, no degree	1,060	+/-209	12.2%	+/-2.4	17.1%	+/-0.4	17.90%	+/-0.1
Associate Degree	530	+/-174	6.1%	+/-2.0	7.4%	+/-0.3	6.60%	+/-0.1
Bachelor's Degree	2,485	+/-310	28.6%	+/-3.2	20.5%	+/-0.5	20.20%	+/-0.2
Graduate or Professional Degree	2,236	+/-297	25.7%	+/-3.5	14.5%	+/-0.4	13.30%	+/-0.1
High School Graduate or Higher			97.2%		91.8%		88.6%	
Bachelor's Degree or Higher			54.3%		35.0%		33.6%	

Source: ACS 2013 5-year Estimates * MOE = Margin of Error

Figure 2.5. Educational Attainment



Source: ACS 2013 5-year Estimates

INCOME

Income data enable an assessment of the community's economic well-being and its attractiveness as a marketplace for high-end good and services. Standard measures of income are presented, including median household income, median family income, and per capita income. Data on poverty are also included (Table 2.6 and Figure 2.6).

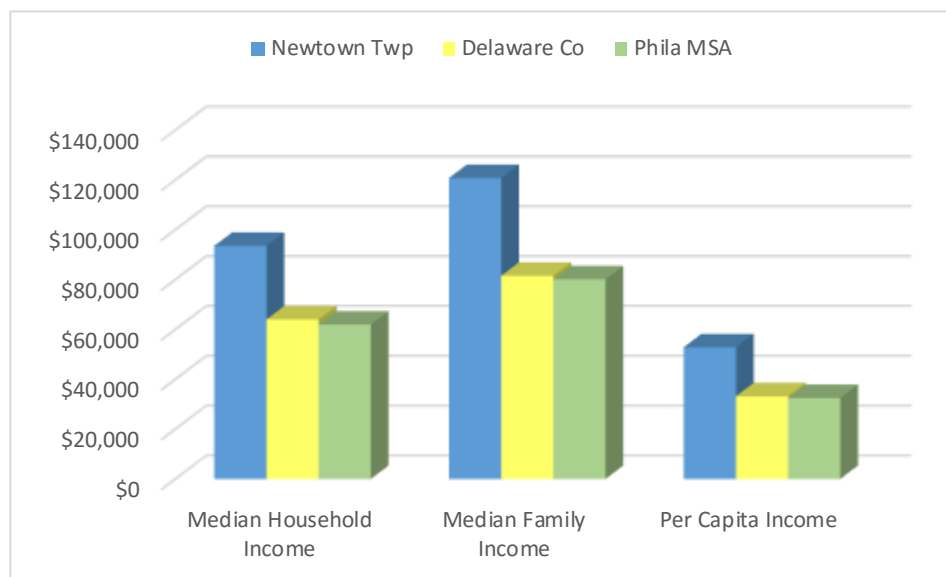
Newtown Township is an affluent community. Across all measures, its income level far exceeds that of Delaware County and the Philadelphia region, even when factoring in the margin of error.

Table 2.6. Income

	Newtown Twp		Delaware Co		Phila MSA	
	2013 Estimate	MOE	2013 Estimate	MOE	2013 Estimate	MOE
Median Household Income	\$93,565	+/- \$6,981	\$64,041	+/- \$766	\$61,923	+/- \$311
Median Family Income	\$120,746	+/- \$7,924	\$81,523	+/- \$965	\$80,114	+/- \$424
Per Capita Income	\$52,876	+/- \$4,267	\$33,179	+/- \$396	\$32,548	+/- \$137
Individuals Below Poverty Level	3.4%	+/- 1.6%	10.3%	+/- 0.5%	12.9	+/- 0.2%

Source: ACS 2013 5-year Estimates * MOE = Margin of Error

Figure 2.6. Income



Source: ACS 2013 5-year Estimates

EMPLOYMENT

Employment Status

Employment figures are derived from the population aged 16 years and over (Table 2.7 and Figure 2.7). Individuals of this age group are legally eligible to work. Those that are in the labor force are classified as either being in the armed forces or in the civilian labor force. Those that are not in the labor force include students, retired workers, seasonal workers that were surveyed during the off-season institutionalized people, stay-at-home-parents, and people working less than 15 hours per week doing incidental, unpaid family work.

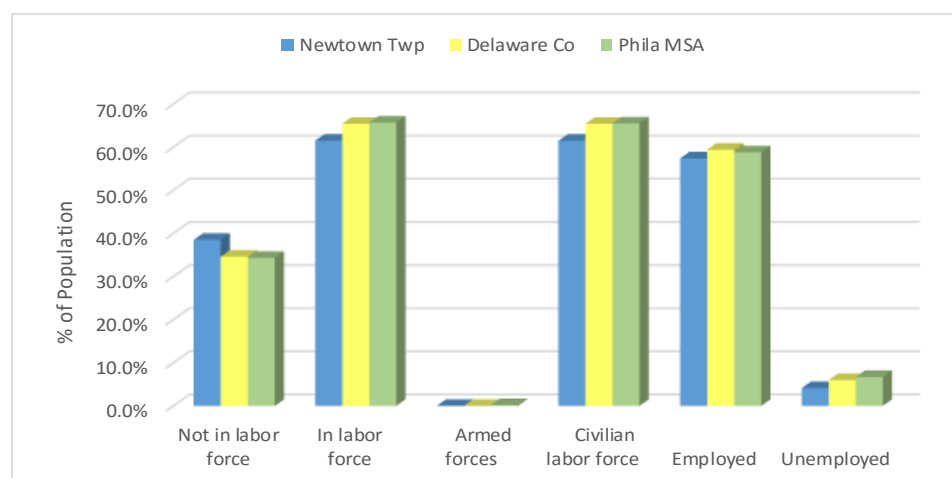
- A smaller percentage of Newtown Township's population is in the labor force (61.5%). This is mostly likely due to the Township's large percentage of seniors and elderly persons. Assuming the Township's population continues to age, it will most likely continue to have a smaller labor force.
- Given the recent economic downturn, the Township's 4.1% unemployment rate is relatively low in comparison to the County and the Philadelphia region, indicating more stability for those currently in the labor force.

Table 2.7. Employment Status

	Newtown Twp			Delaware Co		Phila MSA	
	# of Persons	% of Total	MOE	% of Total	MOE	% of Total	MOE
Population 16 years and over	9,889						
Not in labor force	3,807	38.5%	+/- 2.4%	34.60%	+/- 0.4%	34.30%	+/- 0.1%
In labor force	6,082	61.5%	+/- 2.4%	65.40%	+/- 0.4%	65.70%	+/- 0.1%
Armed forces	0	0.0%	+/- 0.3%	0.00%	+/- 0.1%	0.20%	+/- 0.1%
Civilian labor force	6,082	61.5%	+/- 2.4%	65.40%	+/- 0.3%	65.50%	+/- 0.1%
Employed	5,674	57.4%	+/- 2.5%	59.40%	+/- 0.4%	58.80%	+/- 0.1%
Unemployed	408	4.1%	+/- 1.1%	6.00%	+/- 0.2%	6.70%	+/- 0.1%

Source: ACS 2013 5-year Estimates * MOE = Margin of Error

Figure 2.7. Employment Status



Source: ACS 2013 5-year Estimates

Occupation & Industry

Occupation and industry of employment are surveyed from among the population 16 years and over in the civilian labor force. Occupation describes the kind of work a person does on the job (Table 2.8 and Figure 2.8). Industry refers to the kind of business conducted by a person's employing organization (Table 2.9 and Figure 2.9). These data inform the Township of the skill level and training of its labor force and are related to educational attainment and income levels.

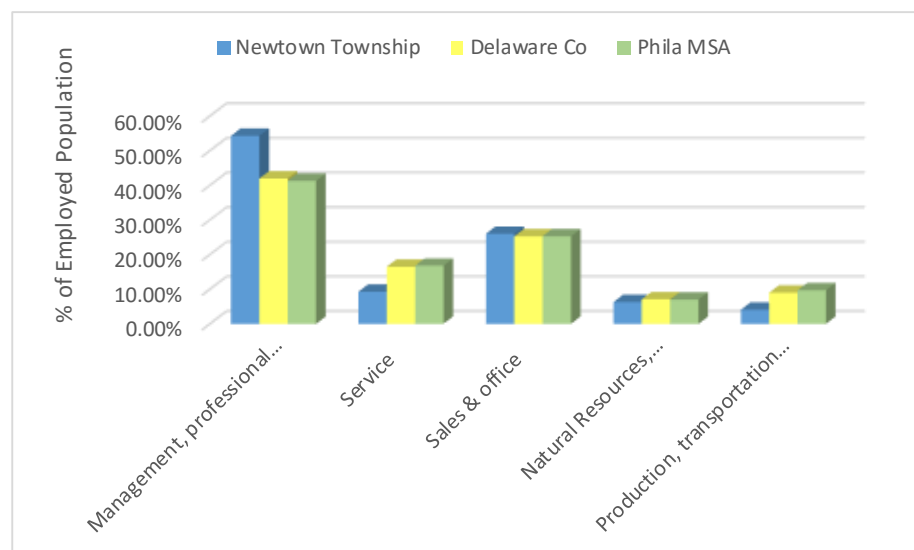
- The majority of Newtown Township workers are in management and professional occupations (54%). This is a relatively high percentage compared to Delaware County and the Philadelphia region. These occupations tend to be higher paying and require a college degree, which is reflected in income and education data for Newtown Township. Industries that employ these types of workers are categorized as “finance, insurance, and real estate;” “professional, scientific, and administrative;” and “education, health, and social services.” These industries employ the largest percentage of Newtown Township workers. A relatively small percentage work in the lower paying service occupation (9.3%) and related industries.

Table 2.8. Occupation of Workers

	Newtown Township			Delaware Co		Phila MSA	
	# Persons	% of Total	MOE	% of Total	MOE	% of Total	MOE
Employed civilian population 16 years and over	5,674						
Management, professional & related	3,082	54.30%	+/-4.8	42.00%	+/-0.6	41.3%	+/- 0.2
Service	525	9.30%	+/-2.7	16.50%	+/-0.5	16.8%	+/- 0.2
Sales & office	1,475	26.00%	+/-4.5	25.30%	+/-0.6	25.3%	+/- 0.2
Natural Resources, construction, maintenance	360	6.30%	+/-1.6	7.10%	+/-0.3	7.0%	+/- 0.1
Production, transportation & material moving	232	4.10%	+/-1.3	9.00%	+/-0.4	9.7%	+/- 0.1

Source: ACS 2013 5-year Estimates * MOE = Margin of Error

Figure 2.8. Occupation of Workers



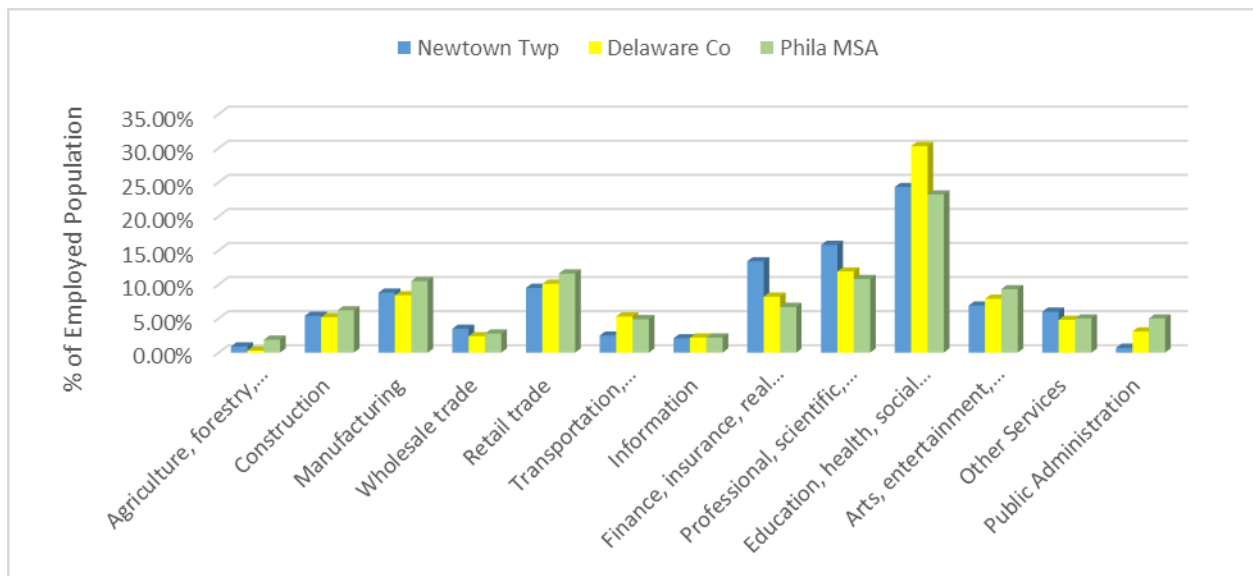
Source: ACS 2013 5-year Estimates

Table 2.9. Employment by Industry

	Newtown Twp			Delaware Co		Phila MSA	
	# Persons	% of Total	MOE	% of Total	% MOE	% of Total	MOE
Employed civilian population 16 years and over	5,674						
Agriculture, forestry, fishing, mining	52	0.90%	+/-1.2	0.30%	+/-0.1	1.90%	+/-0.1
Construction	308	5.40%	+/-1.8	5.20%	+/-0.4	6.20%	+/-0.1
Manufacturing	499	8.80%	+/-2.4	8.40%	+/-0.4	10.50%	+/-0.1
Wholesale trade	199	3.50%	+/-1.6	2.40%	+/-0.2	2.80%	+/-0.1
Retail trade	541	9.50%	+/-2.2	10.10%	+/-0.4	11.60%	+/-0.1
Transportation, warehousing, utilities	142	2.50%	+/-1.0	5.30%	+/-0.3	4.90%	+/-0.1
Information	118	2.10%	+/-1.1	2.20%	+/-0.2	2.20%	+/-0.1
Finance, insurance, real estate	762	13.40%	+/-2.8	8.20%	+/-0.3	6.70%	+/-0.1
Professional, scientific, administrative, waste management	894	15.80%	+/-2.8	11.90%	+/-0.4	10.80%	+/-0.1
Education, health, social services	1,380	24.30%	+/-3.9	30.30%	+/-0.6	23.20%	+/-0.1
Arts, entertainment, recreation, accomodation, food services	394	6.90%	+/-2.3	7.90%	+/-0.3	9.30%	+/-0.1
Other Services	343	6.00%	+/-2.1	4.80%	+/-0.3	5.00%	+/-0.1
Public Administration	42	0.70%	+/-0.6	3.10%	+/-0.2	5.00%	+/-0.1

Source: ACS 2013 5-year Estimates * MOE = Margin of Error

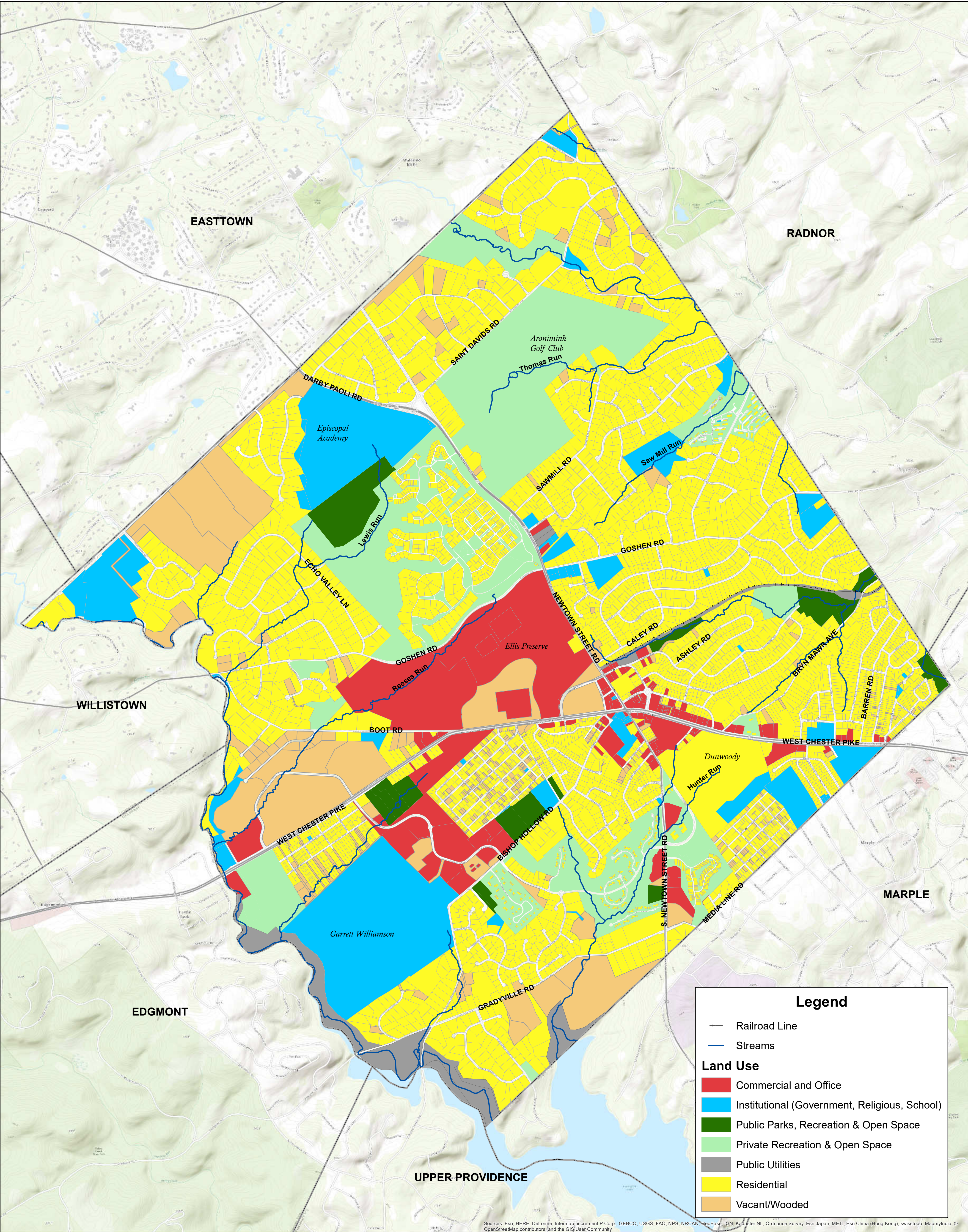
Figure 2.9. Employment by Industry



Source: ACS 2013 5-year Estimates

Appendix B

Maps

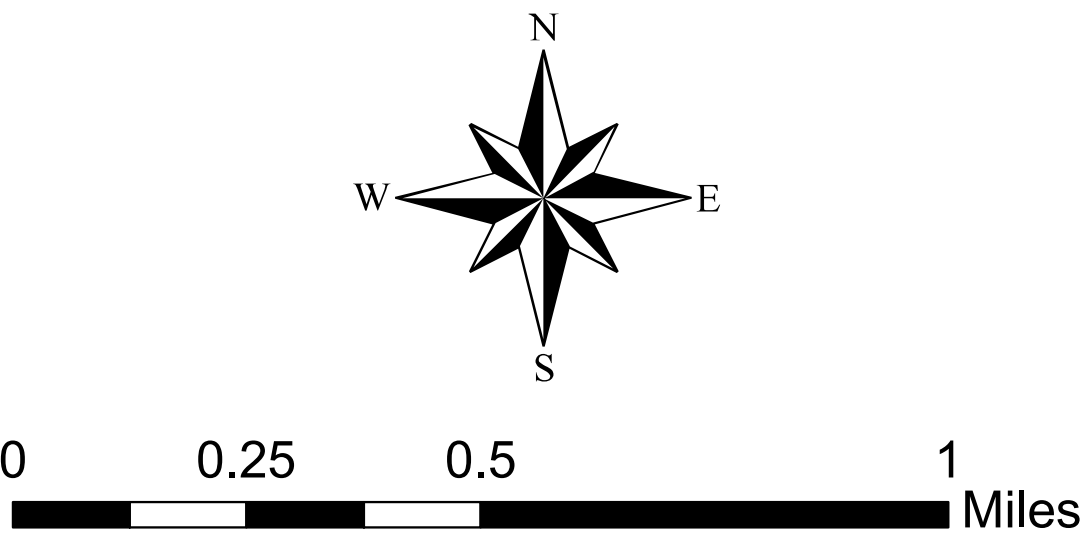


Map 1

Existing Land Use

Newtown Township Comprehensive Plan Delaware County, Pennsylvania

May 27, 2016

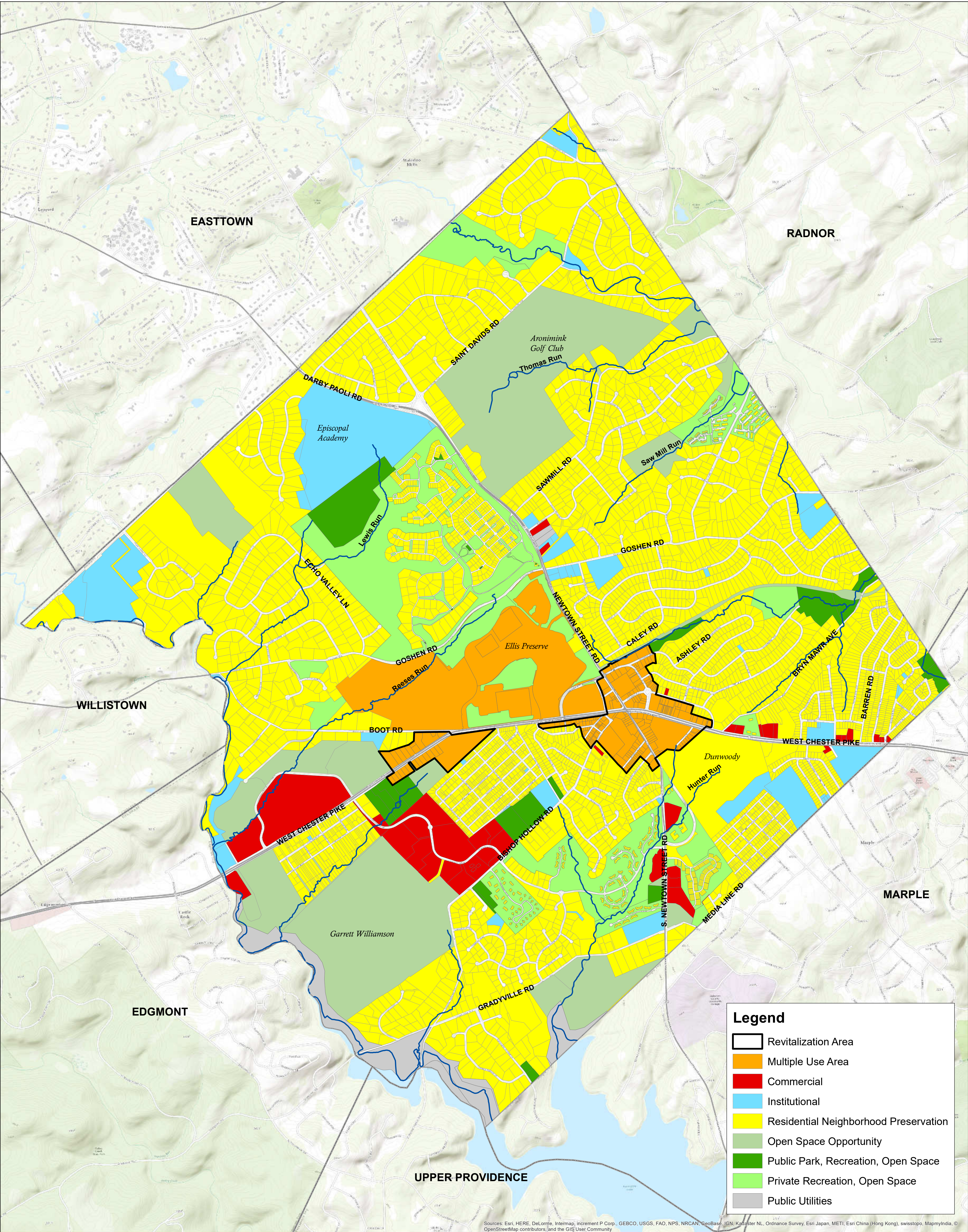


Sources: Land Use: Delaware County Planning Department
Streams, Railroad Line: FEMA
Municipal Boundaries: PA Dept of Transportation
Basemap: ESRI World Topo Map

Sarcinello
Planning & GIS Services

Map Prepared By:
Catherine Spahr

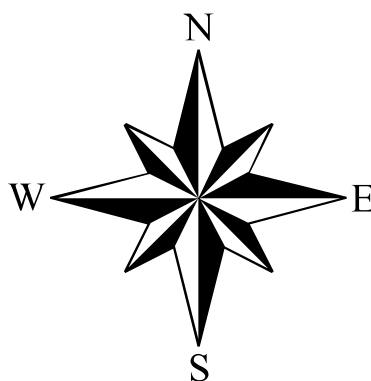




Map 2

Future Land Use Plan

Newtown Township Comprehensive Plan Delaware County, Pennsylvania May 27, 2016



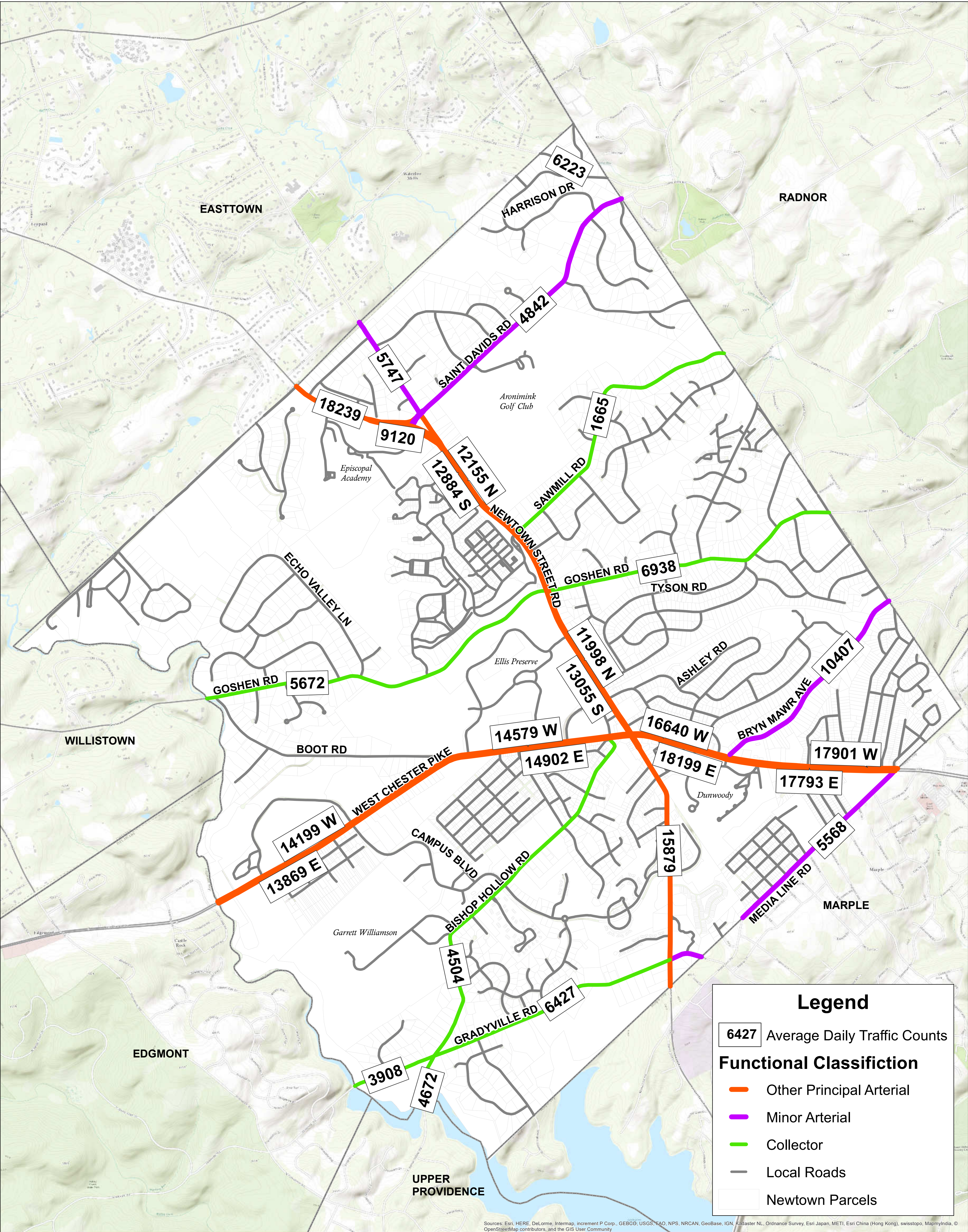
0 0.25 0.5 1 Miles

Sources: Land Use: Delaware County Planning Department
Streams, Railroad Line: FEMA
Municipal Boundaries: PA Dept of Transportation
Basemap: ESRI World Topo Map

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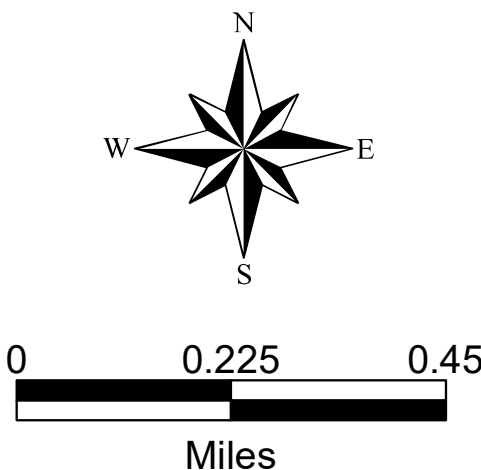




Map 3

Road Functional Classification & 2014 Average Daily Traffic Count

Newtown Township
Comprehensive Plan
Delaware County, Pennsylvania
May 27, 2016

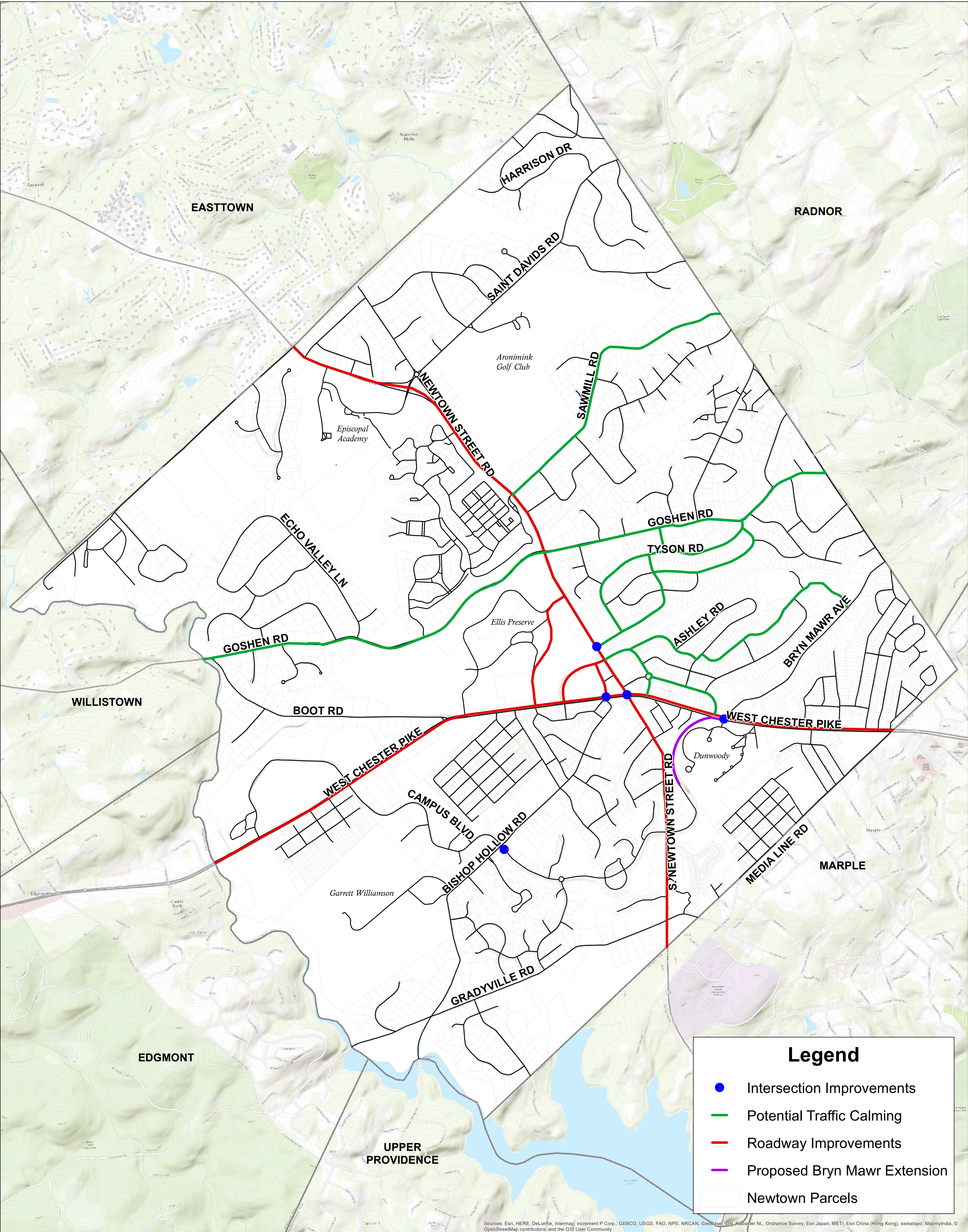


Sources: Parcels: Delaware County Planning Department
Streams, Railroad Line: FEMA
Municipal Boundaries, Roads, Traffic Counts: PennDOT
Basemap: ESRI World Topo Map

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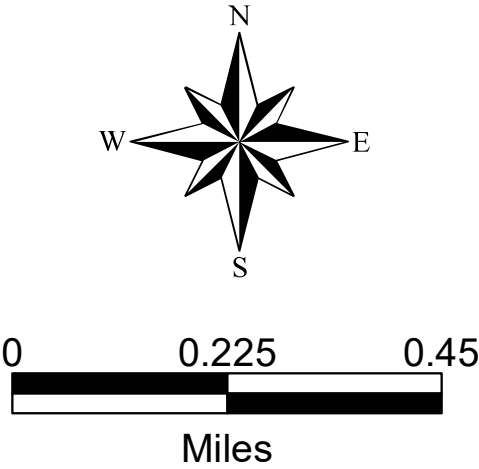
Map 4

Transportation Plan: Roads

Newtown Township Comprehensive Plan

Delaware County, Pennsylvania

May 27, 2016

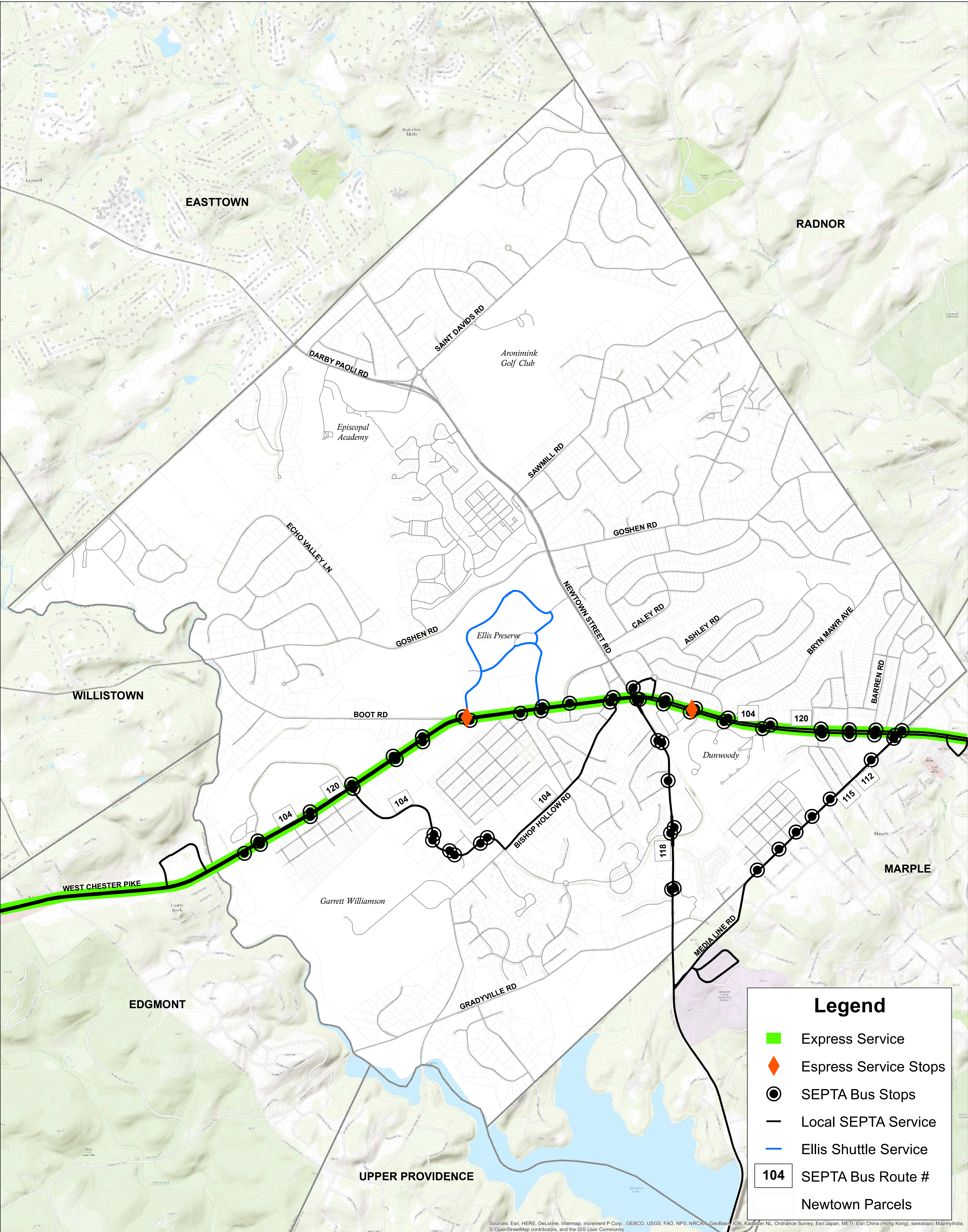


Sources: Parcels: Delaware County Planning Department
Streams, Railroad Line: FEMA
Municipal Boundaries, Roads, Traffic Counts: PennDOT
Basemap: ESRI World Topo Map

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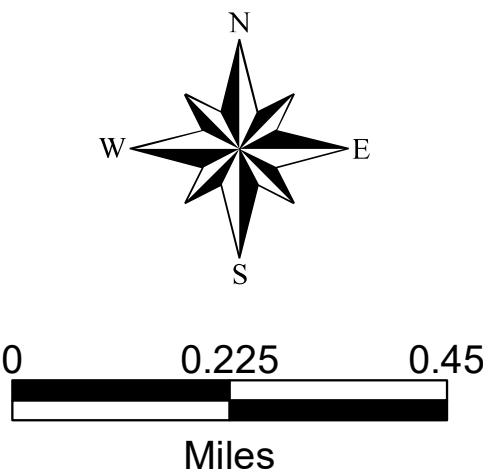
Map 5

**Transportation Plan:
Public Transportation**

**Newtown Township
Comprehensive Plan**

Delaware County, Pennsylvania

May 27, 2016

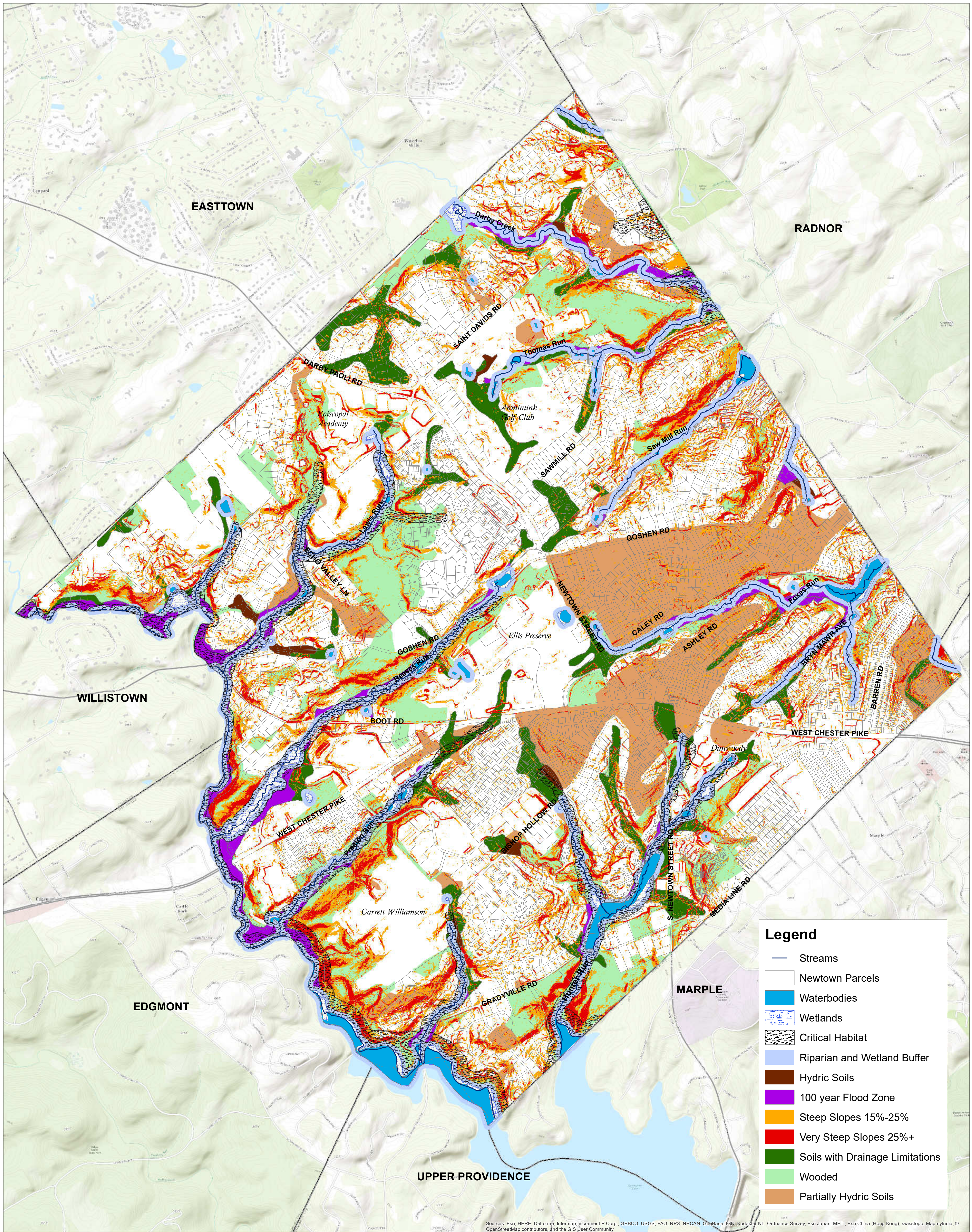


Sources: Parcels: Delaware County Planning Department
Bus Stops & Routes: SEPTA
Streams, Railroad Line: FEMA
Municipal Boundaries, Roads: PennDOT
Basemap: ESRI World Topo Map

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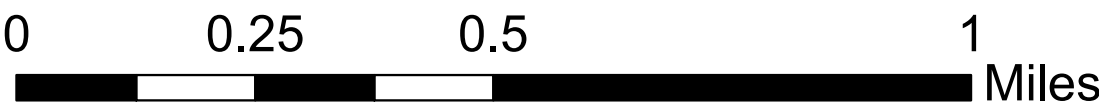
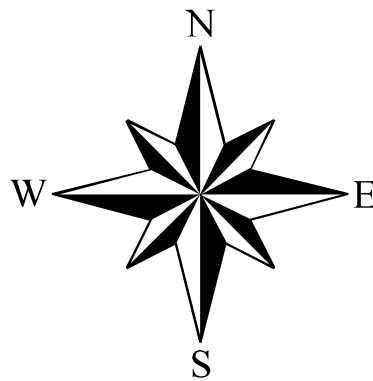
Map Prepared By:
Catherine Spahr





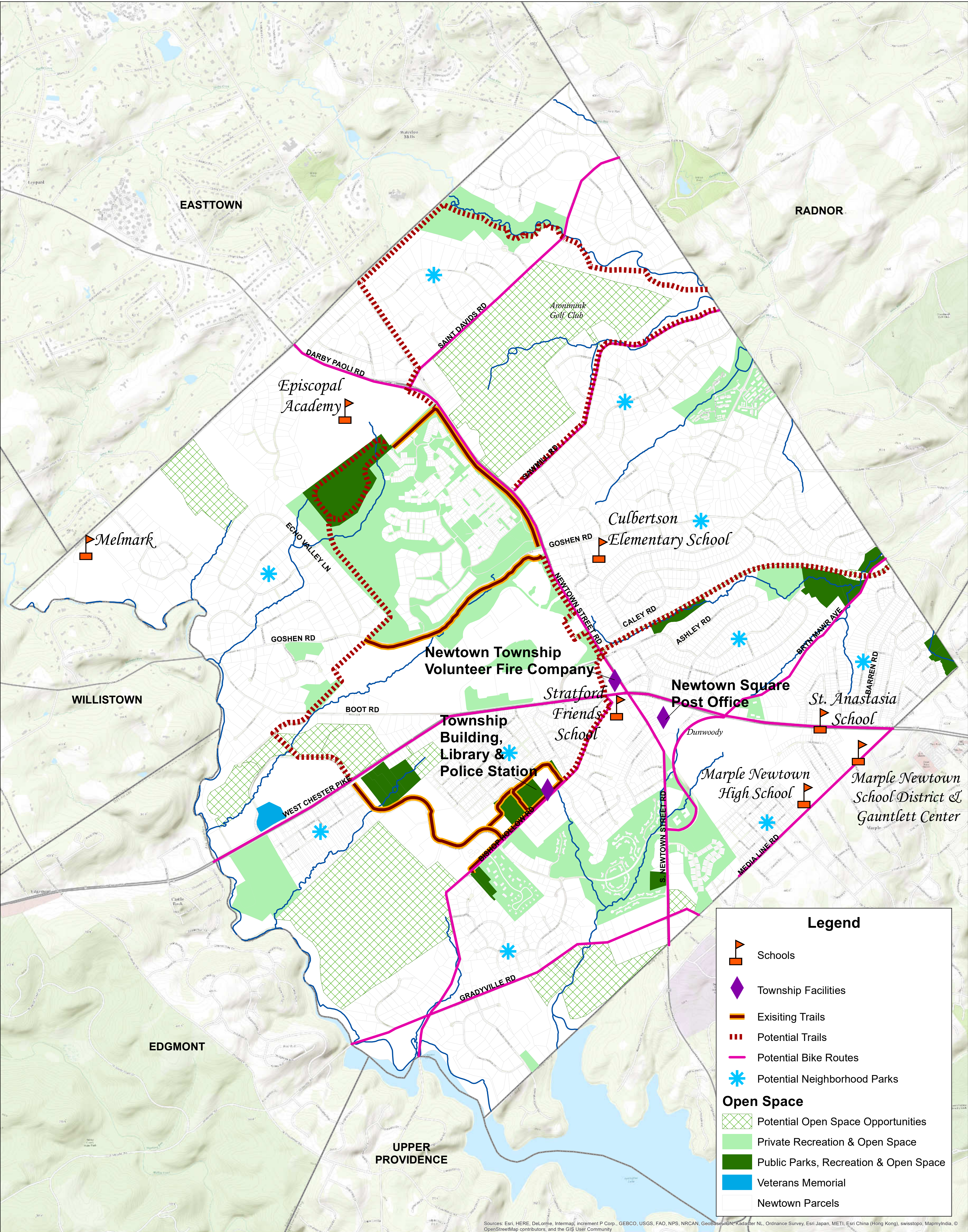
Map 6

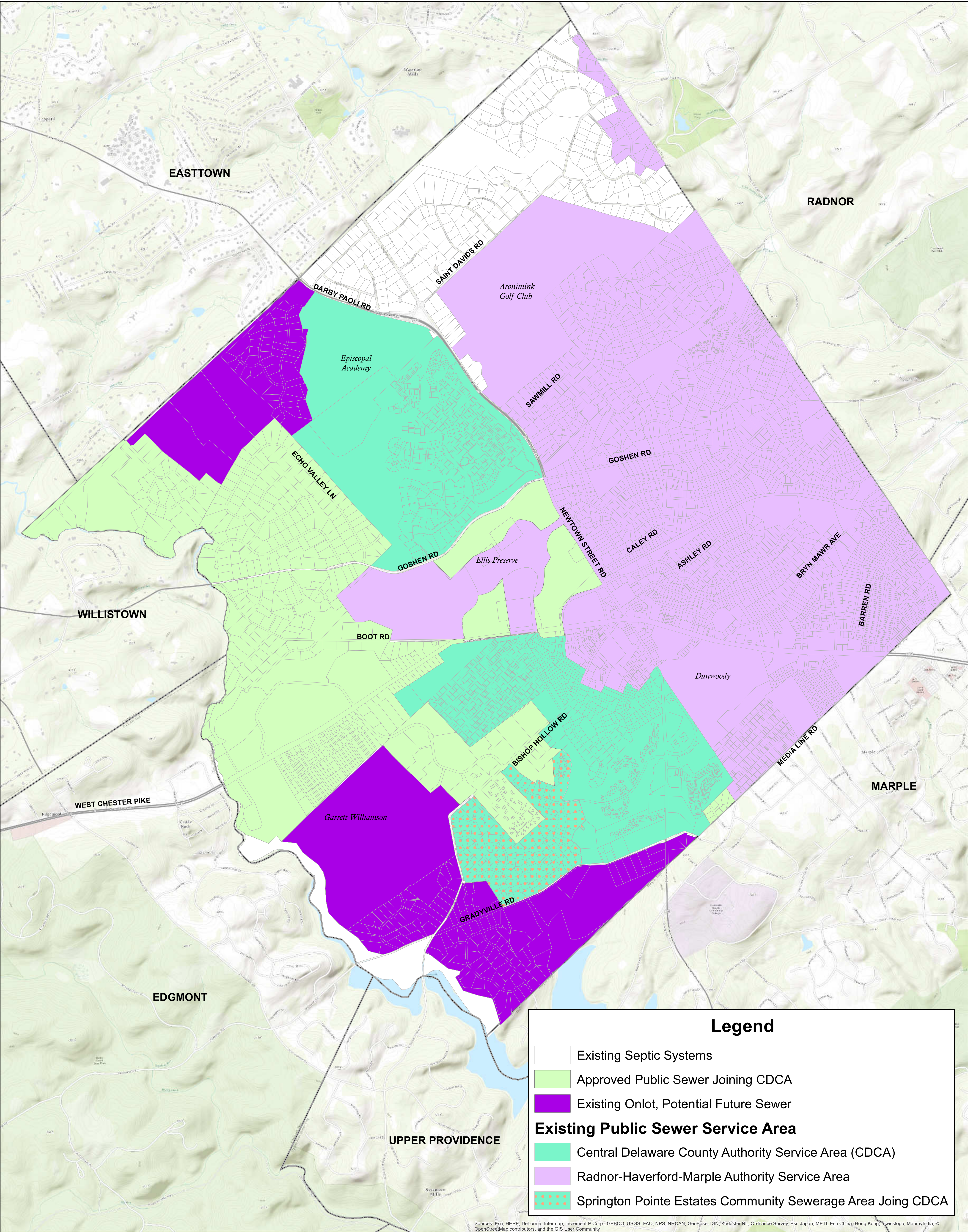
Natural Resource Protection Plan Newtown Township Comprehensive Plan Delaware County, Pennsylvania May 27, 2016



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Catherine Spahr





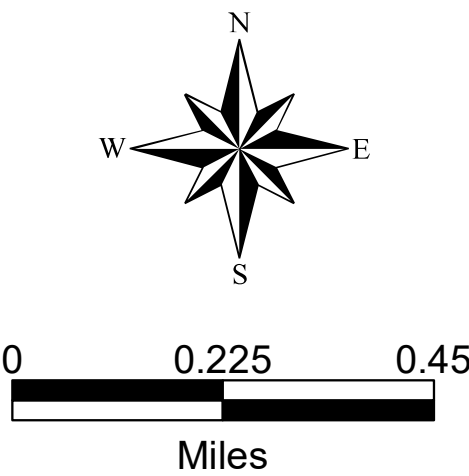


Map 8

Utilities Plan: Sewer Service

Newtown Township Comprehensive Plan Delaware County, Pennsylvania

May 27, 2016

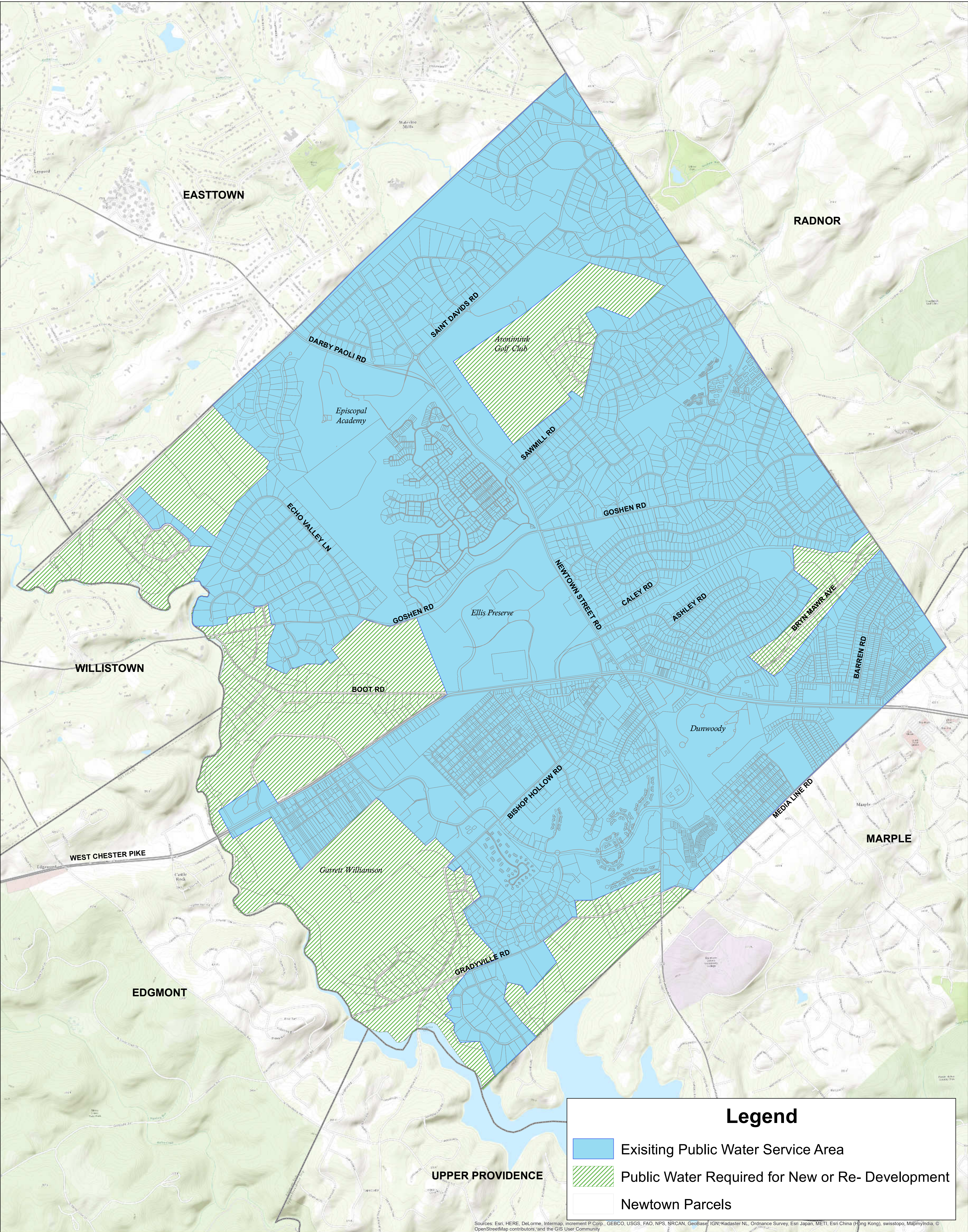


Sources: Parcels, Sewer Service Areas: Delaware County Planning Department
Streams, Railroad Line: FEMA
Municipal Boundaries, Roads: PennDOT
Basemap: ESRI World Topo Map

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Map Prepared By:
Catherine Spahr

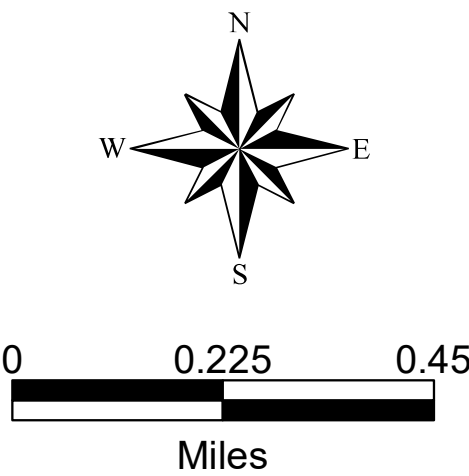




Map 9

Utilities Plan: Public Water

Newtown Township
Comprehensive Plan
Delaware County, Pennsylvania
May 27, 2016



Sources: Parcels: Delaware County Planning Department
Public Water: Aqua
Streams, Railroad Line: FEMA
Municipal Boundaries, Roads: PennDOT
Basemap: ESRI World Topo Map

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Map Prepared By:
Catherine Spahr

