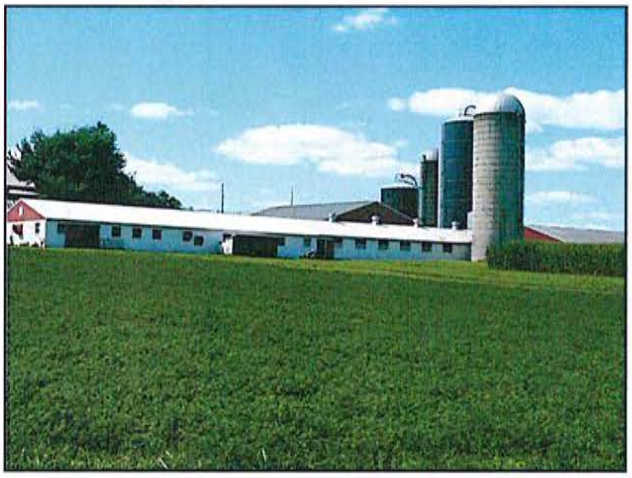
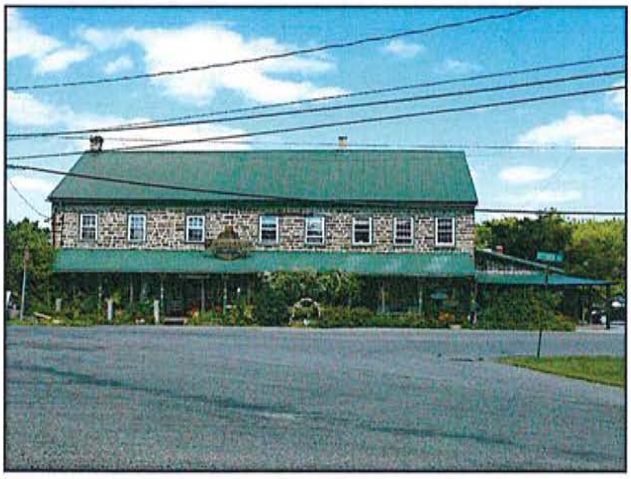
Eastern Berks
Joint Comprehensive Plan

District Township





Rockland Township

Topton Borough

April 2015

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

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I. INTRODUCTION

A. Purpose of the Plan

Healthy, attractive and economically sound communities do not “just happen.” They are created through vision and foresight and grow, and change successfully with the same. Today, local governments are responsible for guiding growth and development within communities, for setting aside open spaces, and for delivering public services. Like any business, local governments need to chart the future so that they can assure the efficient use of resources. The preparation of a comprehensive plan provides a deliberate framework of information that can be used to make future decisions regarding local government functions. The Comprehensive Plan further provides a sound legal basis for specific implementing measures, such as zoning, subdivision regulations, and the Official Map designed to carry out the intent of the Comprehensive Plan. One definition of comprehensive planning is “the allocation of municipal resources towards municipal goals and objectives”; this definition describes the essence of this work.

The Eastern Berks County Regional Comprehensive Plan embodies a truly regional effort. The municipalities of District, and Rockland Townships and Topton Borough, as well as the Brandywine Heights Area School District, have come together to prepare a sound plan for the future growth and development of the Eastern Berks County Region. This regional cooperation has been enhanced by the involvement and of the Berks County Planning Commission in this process.

This Comprehensive Plan first sets forth a set of Community Planning Goals. These goals can include broad objectives, such as the provision of adequate housing and employment opportunities, the protection of the environment, and the provision of a balance of public services. They can also seek to correct existing or foreseeable deficiencies or problems, such as improving the design of a particular road intersection or reducing localized flooding through improved storm water management.

Next, this Plan inventories, maps and describes the Region's natural, man-made and human resources over several chapters. These resources include many features, such as land, streams, roads, utilities, parks, housing, schools, police and fire service, businesses, and so on. Analyses are performed within each of the Plan’s chapters to determine whether these resources will be adequate to meet the desired future, recognizing that many goals can compete for the same resources. Then, each chapter makes specific recommendations to target resources to attain the local planning goals.

Next, the analyses of resources and recommendations are used together with the Community Planning Goals to develop a future land use scenario and a plan for the future delivery of public and other services. The period for this Comprehensive Plan is to the year 2025; all recommendations made within this Plan are structured around this period.

Finally, implementation strategies are discussed and recommended that will enable the Region's municipalities to set in motion the goals, objectives and recommendations identified in the Plan. In the end, any planning process is meaningless unless its recommendations find application as part of the Region's business—the protection of public welfare and the delivery of public services.

B. MPC Requirements

Pennsylvania's Constitution gives the General Assembly the power to enact laws that protect the public health, safety and general welfare of its citizens. The General Assembly has given local municipalities' primary responsibility for community comprehensive planning. Municipalities in Pennsylvania are empowered by the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968, to prepare and adopt comprehensive plans according to specified requirements and procedures. Revisions to the MPC made by Act 170 of 1988 expanded the subject matter and goals of comprehensive planning to enable municipalities to manage growth more effectively, and to provide greater protection for environmentally sensitive lands and important historic and cultural sites. Furthermore, Act 170 also requires that all counties in Pennsylvania prepare and adopt comprehensive plans and that municipal plans be generally consistent with the adopted county plans. Municipalities are also empowered by this Act to carry out joint planning with one another. Finally, the Act 67/68 of 2000 amendments to the MPC specifically enables municipalities to work together and develop regional plans for the allocation of growth and development, along with the delivery of public facilities and services.

These MPC standards are the foundation upon which the Comprehensive Plan for the Eastern Berks County Region is built. This Plan, therefore, is born not only out of a belief that sound planning is the key to a healthy, attractive and economically sound community, but also out of a respect and regard for the laws of the Commonwealth of Pennsylvania.

C. How To Use This Plan

This Comprehensive Plan is designed to serve several important purposes. Principally, the Plan is intended to share with Eastern Berks County residents a vision for the Region's future. Secondly, it is designed to assist the Region in the administration of land use planning programs. A detailed table of contents appears at the beginning of the text that provides quick reference to the appropriate sections of the Plan. ***Action-oriented recommendations within each of the Plan's chapters are printed in bold, italicized letters so that the decision-maker's attention is immediately drawn to them.*** Many of these recommendations tie in to specific implementation strategies discussed in the final Plan chapter.

The numerous maps within the Plan have been carefully prepared so that the information can be easily visualized and meaningful. Related features are composited together so that the reader gains a better understanding of their connection. The many analyses utilized throughout the study are intended to maximize the utility of the findings. Step-by-step descriptions of these methodologies are furnished to enable the reader to gain a better understanding of the issues and their planning implications. All of these features will aid local decision-makers in their evaluation of future planning proposals. Data used to compile the maps in this Plan was largely furnished by the Berks County Planning Commission as part of its County-wide Geographic Information System (GIS). Therefore, the data is readily consistent with the County's database and new layers of data created by this Plan are similarly compatible with the County's system.

An additional important function of this Plan is its collection of important information. The term *Comprehensive Plan* accurately describes the composition of this report; its contents are quite comprehensive. Accordingly, the Plan provides convenient access to a wealth of up-to-date information concerning the Region's resources. This information will serve not only local officials, but also service agencies, property owners, residents, business leaders, and prospective developers. The inventories of existing conditions will also provide the groundwork upon which

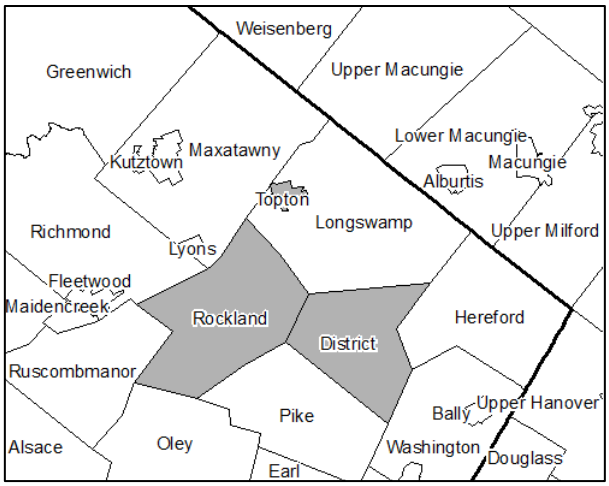
future Plan updates can be more easily accomplished.

Finally, the Plan provides a future land use scenario that can be useful to many landowners. For example, residents can get an idea of the land uses that are projected around their homes. Prospective developers can use the Plan to package development proposals that conform to the regional and municipal goals, thereby ensuring a smooth development review process. Business leaders can glean a sense of secure investment climate from the Region's future land use scenario. In all, the Plan considers many competing interests and devises a strategy to assure their relative harmonious coexistence. It is hoped that the Plan will become a powerful and practical tool in local decision-making.

It is important for all persons involved and/or interested in the future of the Eastern Berks County Region to read and understand this Plan. Local decision-makers should keep the Plan handy when evaluating future development proposals, service adjustments or public investments.

D. Regional Setting

As mentioned previously, the Eastern Berks County Region is composed of District and Rockland Townships and Topton Borough, as well as the Brandywine Heights Area School District. The Region is situated in the northeastern portion of Berks County in southeastern Pennsylvania, approximately 10 miles northeast of the City of Reading, which serves as the County seat of government and is the County's major urban area. The Eastern Berks County Region contains a total of 29.38 square miles. The Region is within Berks County and it is within commuting distance of the Allentown/Bethlehem metropolitan area. Furthermore, the Region also has convenient access to nearby urban destinations that can influence its economy and development pattern.



The Region abuts Longswamp and Maxatawny Townships to the northeast; Hereford and Washington Townships to the southeast; Pike, Oley and Ruscombmanor Townships to the southwest; and Richmond and Maxatawny Townships to the northwest. Topton Borough is surrounded by Longswamp and Maxatawny Townships. The Region's three municipalities are in the Brandywine School District. The Region's rugged character has historically impeded the construction of primary transportation corridors. However, the Region is generally encircled by major roads that lie just a few miles beyond its periphery. US Route 222 runs just north of the Region and provides ready access to Allentown, Reading and Lancaster Cities. PA Route 100

runs a few miles to the east of the Region between Allentown, Pottstown and Philadelphia to the south. PA Route 73 generally parallels the Region's southwestern boundary between Boyertown and Maidencreek. Locally, Pricetown Road provides the most direct connection between the Region and the City of Reading.

II. COMMUNITY GOALS AND OBJECTIVES

This section addresses Region-wide planning and community development efforts to address growth and development patterns in all areas of the Eastern Berks Region. Regional planning has an important role in shaping the general character of both rural and urban development that transcends municipal boundaries. This section addresses goals, objectives, and policies that encourage regional planning and community development efforts to provide a quality living environment for all existing and future residents of the Region.

To create those goals for this Plan, members of the EBRCPC and other citizens of these municipalities were asked to complete a 16-question survey. The survey asked questions regarding age, housing, municipal cooperation, existing and future development, land use, preservation, business growth, park and recreation, and historic preservation. The committee met and discussed the results of the survey. The following presents an overall narrative vision of the desired future followed by a detailed listing of specific planning goals for each municipality and the Region.

A. Community Vision

The Eastern Berks County Region continues to prepare for the future with the update of the initial 2004 joint comprehensive planning effort that will allow for modest planned growth and development while protecting the region's natural resources, farmland and community character.

Based on input from the surveys, residents and local leaders, this Plan aims to protect the resources and protect the region's rural areas that have a mixture of prime agricultural soils, wooded areas, wetlands, farms, open spaces, wildlife habitat corridors, and pristine water resources. The plan also seeks to strengthen downtown Topton that serves as the region's center for commercial, community and cultural activity and events.

B. Community Planning Goals

The itemized list of goals were created considering the Plan's vision, survey input and discussions with local officials and citizens These specific goals will guide the rest of this effort by allocating the Region's resources towards expressed needs. The goals are presented by functional category.

	District Township	Rockland Township	Topton Borough	Region
Environmental Goals				
1. Protect the wellheads and watersheds for several public water sources contained within the Region.				X
2. Protect the headwaters of the Perkiomen, Pine, Oysterville, Sacony, Swamp and Manatawny creeks.	X			
3. Protect the extensive areas that are part of the four exceptional-value and two high-quality watersheds within the Region.				X
4. Protect productive farmlands.	X	X		
5. Protect the PA State game lands.	X			
6. Protect the blend of steep slopes, woodlands, watersheds, wetlands and elevations and natural habitats within the Region.				
7. Steer development away from steep slopes to avoid the stormwater and drainage problems.	X	X		
8. Promote the preservation of historic sites with adaptive-reuse options.				X
9. Promote redevelopment of portions of the Borough and Townships that are in disrepair or their use is less than optimum or obsolete.				X

	District Township	Rockland Township	Topton Borough	Region
10. Promote the creation of riparian buffers as a means of improving local surface water quality and providing wildlife habitats.				X
11. Protect the Region's groundwater supplies.				X
Community Development Goals				
1. Promote the creation of new businesses and related services that serve the daily needs of the local Region within a Town Center that promotes pedestrian traffic.			X	
2. Rely upon larger commercial centers in nearby areas for regional commercial goods and services.				X
3. Acknowledge a mix of new and old neighborhood styles that exist within the Borough.			X	
4. Promote adaptive reuse of the structures within the Borough as a means of preserving local historic buildings and encouraging limited new businesses and other service uses.			X	
5. Inventory and acknowledge properties that have sold or donated conservation/agricultural easements that prevent their future development.	X	X		
6. Limit, locate and design rural growth areas so that, if and when public utilities are required in these areas, they can be provided in an affordable manner.	X			
7. Direct growth towards land that is less sensitive to protect environmental features of the rural areas. Attempt to promote flexible densities in planned residential areas and conservation subdivisions as a means of reducing development on the rural landscape.	X	X		
8. Promote conservation design practices as a means of conserving natural resources and open space during the development review process.	X	X		
9. Encourage rural businesses that can provide for local employment and contribute to an expanded tax base, particularly for public schools.	X	X		
10. Encourage large-scale commercial and industrial developments to locate in the Borough where there is existing infra-structure.				X
11. Locate new rural development in areas with that will support on-lot utilities or small-scale community systems and manageable stormwater drainage.	X	X		

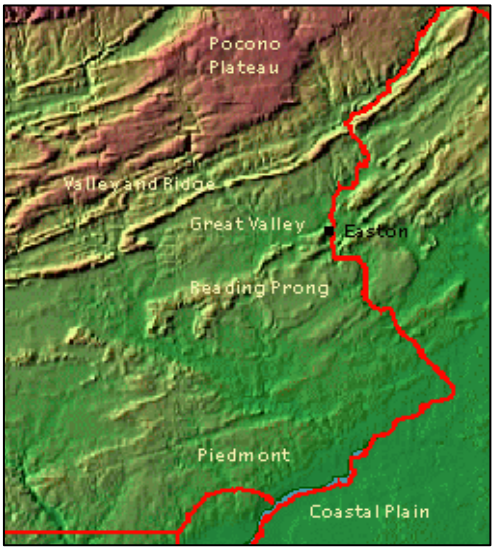
	District Township	Rockland Township	Topton Borough	Region
12. Attempt to identify and eliminate blighted properties that may affect adjoining property values.				X
Planning Program Goals				
1. Preserve existing character of the Region and Communities.				X
2. Preserve and expand, where appropriate, existing infrastructure.				X
3. Plan for future growth and preservation with a pro-active land use policy that uses regulatory controls and development reviews that reflect the Regions overall vision.				X
4. Coordinate development reviews with other municipalities so that local officials are better able to negotiate with prospective developers for needed public improvements and protected natural and cultural features.				X
5. Encourage a plan development process that invites public participation and awareness.				X
Public Facilities & Services Goals				
1. Where practical, seek to provide public facilities and services on a regional basis to avoid duplication.				X
2. Maintain the current high level of parks and recreation service available within the Borough.			X	
3. Encourage a centralized community park for Township yet look to coordinate with the School District and the other municipalities in a coordinated delivery of recreation programs and activities.				X
4. Improve access to public School District parks and indoor facilities.				X
5. Coordinate local planning policies with the need to support local volunteer emergency services.				X
6. Seek to coordinate the Region's overall planning review processes with that of the public School District.				X
7. Promote the creation of a linear trail.				X

	District Township	Rockland Township	Topton Borough	Region
Public Utilities Goals				
1. Coordinate public utility planning to serve the Region.				X
2. Coordinate growth areas with planned and anticipated public sewer and water service areas.			X	
3. Seek alternative options for areas with concentrated malfunctioning on-lot sewers.	X		X	
4. Coordinate zoning policies with the location and availability of public utilities.				X
5. Continue to rely upon on-lot wells and septic to accommodate new land uses in suitable areas.	X	X		
6. Promote compliance with The Department of Environmental Protection's regulations regarding wells, septic systems and stormwater.	X	X		
Transportation Goals				
1. Attempt to acquire funding for roadway maintenance, improvements and traffic flow as a means of encouraging greater economic development potential within the Borough.				X
2. Promote coordination of road projects with other municipalities, PennDOT and utilities.				X
3. Promote pedestrian travel within the Borough and its Village Centers.				X
4. Assess current road conditions and compare with adopted design standards				X
5. Monitor the long range plans concerning major road corridors that may affect the Region.				X
6. Coordinate future land uses with roads that have sufficient capacity to handle the additional traffic.				X
7. Avoid the improvement of additional roadway capacity that would lead to additional local development pressure.	X	X		
8. Look to improve "rural" road conditions (e.g. inadequate sight distance, tight curves, lack of shoulders, excessive speed limits).				X
9. Explore the possibility of restoring regularly-scheduled commuter and/or bus service to the Region.				X

III. NATURAL & CULTURAL FEATURES

This chapter will describe and map the Eastern Berks County Region's natural and cultural resources. This information will be extremely useful in allocating future land uses within the Region, as well as in formulating policies and implementing measures that protect these natural and cultural resources.

A. Topography



The northern tip of the Eastern Berks County Region (EBCR) is situated within the Great Valley Section of the Valley and Ridge Province. The "Great Valley" section derives its name from the fact that it forms an almost continuous valley extending from New York to Georgia. Along the way this valley takes on local names like the Cumberland Valley, Lebanon Valley, Lehigh Valley and, in Virginia, the Shenandoah Valley. Within the EBCR, this valley is comprised of Cambrian and Ordovician limestones and dolomites that form low, flat and gently rolling terrain with a thick fertile soils cover and a karst drainage pattern.

The southern expanse of the EBCR is located along the northern edge of the Reading Prong of the New England Province. This area is formed by a deeply dissected mountain range that rises more than 800 feet above the adjoining Great Valley. Here ridges of 6 to 8 miles in width extend between the Delaware River to the Schuylkill River near the City of Reading. The rocks include the Cambrian Hardyston Formation and Precambrian Granitic Gneiss. These formations are characterized by large over-turned folds and thrust faults which occurred during two major mountain building geologic periods. This creates a rugged terrain with complex structure and sudden elevation changes.

B. Geology

The geology of an area plays an important role in determining the surface shape of the environment. Throughout the ages, underlying rock is subjected to natural weathering forces that chemically and physically erode its original shape. The physical properties of underlying rock determine its strength and suitability to support development, including the ease of excavation, and ability to support the foundations of various structural types.

Geologic Formations

The *Soils and Geology Maps* illustrates the geologic conditions within the Region. All of the geologic formations within the Region were formed during the Precambrian, Cambrian and Ordovician Eras, which occurred between 523 and over 600 million years ago years ago.

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The ECBR contains large deposits of the ***Felsic to Mafic Gneiss (formerly known as Granitic Gneiss)*** and the ***Hornblended Gneiss*** formation of the Reading Prong. These formations are very hard and resistant to erosion thus forming the hills and ridges so abundant in this area. These formations are composed of compact and dense rock that does not "hold" or "convey" water except through joints and widely-spaced fractures. This makes it difficult to obtain high yield wells although yields of 10 to 15 gpm (gallons per minute) are average. These formation's weathering has over the millennia produced the Region's Gladstone and Towhee soils.

Landscape of Gneiss formation

The ***Leithsville Formation*** is principally located along the northern edge of the Reading Prong and the southern edge of the Great Valley landforms, although two small areas of District Township also include this formation. This formation appears as a band that largely straddles State Street through Topton Borough and the northern tip of Rockland Township. This formation consists of crystalline dolomite and is a carbonate rock like limestone. Accordingly, this rock is comparatively soft and subject to erosion which over time creates their characteristic flat and fertile lowlands. These same properties make this formation susceptible to the creation of solution channels that can convey large quantities of groundwater; however, these same waters are also susceptible to contamination via the solution channels. This formation's weathering has produced the Region's Ladig and Murrill soils.

The Region is dominated by the ***Hardyston Formation*** that occurs throughout the Region's larger gneiss formations. It consists of metamorphisized quartz sandstone called quartzite. The upper horizons closest to the surface decomposes into a siliceous clay while deeper materials are composed of rounded pebbles of quartz and feldspar called conglomerate. This formation is very hard and resistant to erosion and produces the highest ridges in the area with steep side slopes. Over time, cementation and metamorphism have made this rock more dense and impermeable. Like the gneiss formations, the Hardyston Formation produce low well yields except where it adjoins another more permeable rock type. This formation's weathering has produced the Region's Edgement soils.

Along the northern tip of the Region are the two formations associated with the Great Valley landform. The ***Allentown Formation*** appears as a broad band sweeping in an east-to-west direction generally north of Pennsylvania Railroad line. This formation is characterized with carbonate rock that formed during the Ordovician period. The softer limestone has eroded over thousands of years to produce low-lying fertile flatlands with a karst topography. They yield abundant groundwaters through solution channels but are therefore susceptible to widespread contamination. This formation has produced the Duffield and Duffield-Ryder soils within the Region.

Several other minor occurrences of geology are also represented within the ECBR. These include the ***Beekmantown Group, Graphitic Felsic Gniess, and Metadiabase formation***.

The following table has been constructed to show the relationship between the geology of the Region and four important land use planning considerations. Porosity and permeability, ease of excavation, foundation stability, and groundwater availability are integral to the planning of land use activities. This table is intended for reference use only and can be utilized to determine general characteristics of formation types.

The ***porosity*** and ***permeability*** of a geologic formation refer to how quickly and easily water, air, and other substances pass through the rock. A classification of low means the rock is essentially impermeable. A classification of moderate refers to a permeability of less than 14 feet per day, while high permeability means that substances may pass through the rock at a rate between 14 and 847 feet per day. The ***ease of excavation*** refers to how pliable the rock is when moving or drilling it. The classifications range from easy to difficult. ***Foundation stability*** can be classified as either good, fair, or poor. Good foundation stability means that the bearing capacity of the rock is sufficient for the heaviest classes of construction, except where located on intensely fractured zones or solution openings. Fair foundation stability is determined by the location of the water table, type of rock composition, and weathering depth. Poor foundation stability means that foundations must be artificially stabilized to allow sufficient bearing capacity for construction.

GEOLOGIC FORMATION CHARACTERISTICS

Formation Name (Composition)	Symbol	Porosity & Permeability	Ease of Excavation	Foundation Stability	Groundwater
ALLENTOWN FORMATION (Medium-gray dolomite and impure limestone; dark-gray chert stringers and nodules; laminated; some oolite and sharpstone conglomerate; maximum thickness is about 2,000 feet; reference sections are along Lehigh River and Jordan Creek in vicinity of Allentown, Lehigh County.)	Ꞓal	Solution channels produce a secondary porosity of moderate to high magnitude; low permeability.	Difficult; bedrock pinnacles are a special problem; moderate to slow drilling rate; numerous sandstone beds containing chert lenses slow the drilling rate.	Good; a thorough sinkhole investigation should be undertaken.	Median yields from specific study areas range from 60 to 210 gal/min; many wells are capable of yielding 1,000 gal/min or more; aquifer can be easily contaminated; turbidity is a common water-quality problem.
BEEKMANTOWN GROUP (Where these rocks have not been subdivided into separate formations, they are interbedded, finely laminated, light-gray limestone containing dark-gray dolomite beds; dolomite is fractured, and the fractures are recemented by white calcite; limestone weathers to a pale-gray surface contrasting with the yellowish-gray-weathering dolomite; maximum thickness is about 2,300 feet; reference section is between Leesport and Reading [Berks County] along the Schuylkill River.)	Ob	Joint and solution-channel openings provide a secondary porosity of low to moderate magnitude; low permeability.	Difficult; bedrock pinnacles are a special problem; moderate drilling rate; chert beds, lenses, and quartz sand slow the drilling rate.	Good; should be investigated thoroughly for solution openings.	High yields from fractures and solution cavities; median yield is 50 gal/min in southeastern Pennsylvania; industrial and public supplies are available in most areas.
Felsic to Mafic Gneiss (Light buff to light pink; fine to medium grained; most mineral grains are about 1 mm in diameter; primary minerals are quartz, microcline, hornblende (5 to 10 percent), and occasional biotite.)	gn	Joints provide a very low secondary porosity; low permeability.	Difficult; slow drilling rate.	Good; should be excavated to sound rock.	Median yield is less than 20 gal/min; yields of 35 gal/min or more may be obtainable from wells properly sited and developed; wells should be at least 100 feet deep, but probably not over 200 feet for maximum yield
GRANODIORITE & GRANODIORITE GNEISS	ggd	Joints produce a secondary porosity of	Difficult; large surface and near-surface	Good; should be excavated to	Yield of 10 gal/min or less may be expected; yields of

GEOLOGIC FORMATION CHARACTERISTICS

Formation Name (Composition)	Symbol	Porosity & Permeability	Ease of Excavation	Foundation Stability	Groundwater
(Medium grained; light pink to green; largely quartz, feldspar, and mica; commonly gneissic.)		low magnitude; low permeability.	boulders hamper excavation; slow drilling rate.	sound material.	25 gal/min or more may be obtained from wells properly sited and developed.
HARDYSTON FORMATION (Light-gray quartzite; weathers yellow brown; porous and limonitic in many places; quart-pebble conglomerate occurs at base; maximum thickness is 800 feet; reference to section is at Mt. Penn, Reading, Berks County)	Cha	Joint- and cleavage-plane openings produce a secondary porosity of low magnitude; low permeability.	Difficult; slow drilling rate, in part due to many quartz veins that exceed 12 inches in width; boulders may be a special problem; locally highly fractured, highly weathered, and moderately easy to excavate.	Good; should be excavated to sound material.	Median yield of 20 water-yielding fractures seldom found below 200 feet; water is usually soft and of good quality; iron may be a problem.
HORNBLENDE GNEISS (Dark-gray to black; most grains are about 1 to 2 mm in diameter; hornblende makes up about 50 percent of the rock; the other 50 percent is labradorite [feldspar]; rock is extremely resistant to abrasion and very resistant to rupture, but may be susceptible to crumbling.	hg	Extremely low primary porosity; joint openings provide a low secondary porosity; highly weathered near- surface rock may have high porosity; low permeability.	Highly weathered portion of rock mass has moderately easy excavation; un-weathered rock is difficult; fast to moderate drilling rate.	Good; should be excavated to sound material.	Median yield of reported wells is 10 gal/min; yields of 35 gal/min or more may be obtained from wells properly sited and developed.
LEITHSVILLE FORMATION (Dark-gray to medium-gray dolomite; some calcareous shale and sandy dolomite; cherty; 1,500 feet thick; type section is at Leithsville, Northampton County.)	Clv	Joint openings and solution channels pro- vide a secondary porosity of high magnitude; moderate to high permeability.	Difficult; bedrock pinnacles may be a special problem; fast drilling rate.	Good; solution openings and bedrock pinnacles should be thoroughly investigated.	Median yield is 100 gal/min; large yields may be obtained from solution openings; aquifer can be easily contaminated; turbidity is a common water-quality problem; water is relatively hard.
MARTINSBURG FORMATION (Buff weathering, dark-gray shale, and thin interbeds of siltstone, metabentonite, and fine-grained sandstone; brown-weathering, medium-grained sandstone containing shale and siltstone interbeds occurs in the middle of the formation; basal part grades into limy shale and platy-weathering, silfy limestone; may be 12,800 feet thick; reference section is in a small quarry along Longs Gap Road, North Middleton Township, Cumberland County.)	Includes Om, Omgs, and Oml	Cleavage- and joint- plane openings provide a secondary porosity of generally low magnitude; low permeability.	Moderately easy in shale; moderately difficult in limestone; difficult in sandstone; fast drilling rate.	Good; should be excavated to sound rock; limestone should be investigated for solution openings.	A median sustained yield of 32 gal/min has been calculated and a maximum well yield of 200 gal/min is reported; yielding zones are commonly less than 150 feet in depth but occur as deep as 400 feet below land surface; the natural quality of the water is often poor due to hydrogen sulfide and high concentrations of iron.
METADIABASE (Dark-greenish-gray to almost black diabase; generally ½ to 1 mm in grain size; consists of augite, feldspar [andesine to labradorite], and magnetite; extensively altered—feldspar is altered to sericite and augite has been replaced by epidote and chlorite; occurs as mostly thin dikes, but a few may be greater than 100 feet thick; reference locality is a mile south of Ritten- house Gap, Berks County.)	md	Joint-plane openings provide a very shallow and low secondary porosity; low perme- ability; effective porosity and permeability probably exist to 150 feet in depth.	Moderately easy where highly fractured and weathered; difficult elsewhere and at depth.	Excellent; should be excavated to sound bedrock.	Yield of less than 5 gal/min are common.

Source: Alan R. Geyer and J. Peter Wilshusen, *Engineering Characteristics of the Rocks of Pennsylvania* (Harrisburg, PA: Pennsylvania Geologic Survey, 1982 and the United States Geologic Service (USGS)).

Groundwater & Wellhead Protection

Geology is also a primary determinant of ***groundwater quality and quantity***, as shown in the foregoing table. Groundwater is surface water that has seeped into and is contained by underground geological formations called aquifers. Water stored in aquifers is sometimes released to the surface through springs or can be pumped to the surface through wells. Groundwater aquifers are part of an interconnected network that includes surface waters, such as streams, ponds, wetlands, and lakes. Aquifers regulate the levels and flow rates of these surface waters by collecting and retaining water reaching the ground and gradually releasing it during dry periods.

Some of the primary geological determinants of groundwater quality and quantity are the type, structure, permeability, porosity, and chemical composition of the bedrock formations present in the area. An understanding of local groundwater conditions is necessary to (1) plan for future public sewer and water needs, (2) allocate future land uses so as to protect important groundwater recharge areas, and (3) protect existing and potential future groundwater sources from contamination.

A typical household with three family members requires an average flow of 0.2 to 0.4 gpm with a peak rate of use ranging between 3 and 5 gpm. ***The more rural southern areas of the Region are characterized by geologic formations that average between 10-20 gpm and can adequately accommodate a sparsely-developed rural land use pattern.*** The northern tip of the Region with its limestone and dolomite formations provide for more ample groundwater yields that range between 60 to 210 gpm with many wells capable of obtaining 1000 gpm in the larger Allentown Formation. ***Public water supplies and small-scale community systems within the ECBR that rely upon wells for source should be located in the vicinity of these carbonate formations to take advantage of the abundant groundwater supplies. However, such sources should be routinely monitored and treated as necessary due to the vulnerability of this groundwater from contamination via the widespread solution channels.***

Wellhead protection safeguarding public groundwater sources is also a particularly sound investment because wellhead protection is more effective and less expensive than cleaning a contaminated groundwater source, which may cost 30-40 times more than initial protection. The following presents a brief synopsis of the five initial steps of the planning process needed to undertake a wellhead protection program as presented in *the Wellhead Protection Workbook for Local Municipal Water Planning Teams* (Lancaster County Planning Commission & Lancaster County Water Resources Task Force):

(1) ***Form a Water Planning Team*** of local officials, citizens, and interested experts who are interested in a successful wellhead protection program and can commit the time to assist in the work involved. Then establish a regular meeting schedule to be followed;

(2) ***Define the land area to be protected*** - A wellhead is defined as an area above or below grade that contributes water to, and could potentially contaminate a water supply. Wellhead protection areas should be delineated by a professional geologist at the outset. A water supplier may use its own municipal engineer or retain a qualified consultant for this work. Not all public groundwater sources warrant a wellhead protection program. That is a decision that should be made based on several factors: feasibility of protecting the recharge area, influence of surface water on the water supply, existence of a filtration plant, possible interconnection to buy water from another system, or designation of the water source as a sole-source aquifer. Within Pennsylvania wellheads are generally divided among three different zones:

Zone I is a 100 to 400 foot radius immediately surrounding a well or spring in which no development should be permitted. Activities in this area generally pose the greatest risk to groundwater because of the short distance (and correspondingly short travel time) that contamination must travel to reach the well.

Zone II is a larger area from which the groundwater is pulled into a well by pumping. Generally, the harder a well is pumped, the further out the water is drawn from. Because springs are not pumped, a Zone II is not delineated for springs.

Zone III is the area from which any rain that fails to the surface and eventually flows into Zone II or a spring.

Not all wellhead protection programs utilize the three zone approach and local officials should tailor their program with appropriate levels of regulation and implementation that meets local protection goals and responds to local conditions.

(3) ***Identify potential contaminate sources*** - The water planning team should review the following list of potential sources of groundwater contamination then specifically inventory and map such sources within their respective wellhead zones.

Potential Source for Groundwater Contamination

AGRICULTURE Animal burial areas Irrigation Animal feedlots Manure storage areas Pesticide and herbicide storage areas	**RESIDENTIAL** Fuel storage systems Septic systems, cesspools, water softeners Furniture and wood strippers and refinishers Sewer lines Household hazardous products Chemical applications to lawns
COMMERCIAL Airport Boat Yards Medical Institutions Paint shops Photography business Printing business Carwashes Railroad tracks Railroad yards or maintenance facility Cemeteries Research laboratories Construction areas Road deicing operations (i.e. road salt storage or use) Dry cleaning establishment Scrap and junk yards Gas station Auto Repair Shops Storage tanks and piping (either above ground or underground) Golf courses (chemical applications) Jewelry and metal plating Laundromats	**INDUSTRIAL** Abandoned properties Asphalt plants Chemical manufacture, warehousing and distribution Electrical and electronic products and manufacturing Electroplaters and metal fabricators Foundries Fire Training Facilities Machine and metal working shops Manufacturing and distribution sites for cleaning supplies Quarries Petroleum products production, storage and distribution Pipelines (e.g. oil, gas) Septage lagoons and sludge Storage tanks (i.e. above ground, underground) Toxic and hazardous spills Wells- operational and abandoned (e.g. water supply, injection, monitoring) Wood Preserving facilities

OTHER	WASTE MANAGEMENT
Rifle and pistol ranges	Hazardous waste management units (e.g. landfills, land treatment areas, surface impoundments, waste piles, incinerators, treatment tanks) Municipal incinerators Municipal landfills Municipal wastewater and sewer lines Open burning sites Recycling and reduction facilities Stormwater drains, retention basins, transfer stations

(4) **Evaluate alternative tools and techniques** – Based upon results of previous task select from the many techniques that can be used to protect groundwater, including but not limited to:

ASSORTED STRATEGIES & TECHNIQUES FOR GROUNDWATER PROTECTION

Regulatory Techniques	Non-Regulatory Techniques
• Overlay Zones; • Prohibited Land Uses; • Special and temporary permitting; • Performance standards; • Amortization of land uses; • Restrictive agricultural or conservation zoning; • Lot coverage regulations; • Transfer of development rights; • Staging of development; • Setbacks; • Disturbance requirements; • Conservation plans; • Stormwater management regulations; • Materials & waste handing requirements; • Fuel storage tank regulations; • Well drilling regulations; • OLDs maintenance; • Sewage planning strategies; • Nutrient management plans; • Integrated pest management	• Emergency preparedness; • Contingency planning; • Signage; • Monitoring; • Remediation; • Land purchase; • Land donation; • Easements; • Land banking; • Comprehensive planning • Regional wellhead / watershed protection planning; • Public education; • Environmental watch groups; • Street sweeping; • Household & hazardous waste collection; • Storm drain labeling; • Sinkhole cleanup; • Streambank cleanup; • Streambank fencing & stabilization.

(5) **Develop and implement a plan of action –** Using any combination of the above, prepare a plan that assigns duties and schedules completion. Then, conduct public hearings with local officials for official adoption of plan, and ordinances or approval of resolutions needed to implement the Plan. Regularly review the status of the Plan's effectiveness and related developments within the field of wellhead protection. Conduct ongoing public education about the need for groundwater protection and possible consequences for violations. Whatever, the first step the municipality or water provider takes (either modest or comprehensive) it must have local official and community-based support to be effective.

Given this Plan's goals and the Region's sensitive environmental conditions, it is recommended that all known public wellhead protection areas be reserved for low intensity rural uses with limited permitted lot coverages and woodland preservation requirements that will reduce potential impact on groundwater volumes and quality. Furthermore, any home-based businesses or rural occupations should require the applicant for such uses to demonstrate the means by which he/she will properly handle materials, and dispose of any wastes, that could threaten groundwater contamination.

In addition it is recommended that the following "Best Management Practices" (BMPs) for the control of stormwater be applied to:

1. ***Minimize on-site impervious areas by preserving natural wooded cover and drainage- ways on-site.***
2. ***Utilize pervious surfaces, such as porous pavement and gravel as ways to minimize runoff.***
3. ***Minimize directly connected impervious area. Promote natural removal of pollutants using vegetation and soil. Direct impervious area runoff to pervious. For example:***
   - ***a. roof downspouts to lawns***
   - ***b. driveways to lawns***
   - ***c. parking areas to lawns or grassed swales***
4. ***Eliminate the opportunity for pollutants to mix with storm water runoff by:***
   - ***a. street sweeping***
   - ***b. cover chemical storage areas***
   - ***c. dike potential spill areas***
   - ***d. regular sediment removal from drainage system***
5. ***Minimize the potential for concentrating pollutants and concentrating storm water runoff by:***
   - ***a. utilizing grass swales and filter strips: and,***
   - ***b. utilizing infiltration trenches, where applicable.***

C. Soils

The constant weathering of geologic formations produces various soil types. The capabilities and constraints exhibited by these soils are related to the geologic characteristics of the underlying rock and the local climatic conditions. A soils analysis is essential to planning for future land uses, which are best located on soils that are suitable and have complementary characteristics for specific land uses. For example, agricultural land uses are usually found where soils are level, well-drained and fertile. Residential land uses are suitably located where soils are fairly level and sufficiently above bedrock and the water table. The appropriate siting of development significantly reduces the costs associated with excavating a foundation, as well as locating and designing an on-lot sewage disposal system. Finally, industrial uses favor soils that are relatively flat and sturdy so as to withstand the heavy weights associated with the operation of large plants.

The EBCR is dominated by the **Gladstone Gravelly Silt Loam** soil group. This soil is closely associated with the widespread Granitic and Hornblende Gneiss geologic formations. The areas of this soil that are less sloped tend to be fertile and have moderate development limitations while steeper slopes have thinner soils that are less fertile with severe development limitations, particularly for use of on-lot sewers. To a lesser extent the Region's gneiss geologic areas also have **Edgemont Channery Loam and Towhee Silt Loam** soils. The Edgemont soils are better suited for development than the severely constrained Towhee soils.

Just north of the above-described soils are a band of **Murrill Gravelly Loam and Ladig Gravelly Loam** soils in the geologic transition between the rugged gniess and the more level limestone formations. These soils tend to be best suited for development within the Region.

And finally along the northern edge of the Region are found the **Duffield Silt Loams** associated with the Allentown and Epler geologic formations. These soils provide the greatest concentration of prime farmlands but are generally severely constrained for development.

Prime Farmland

A major consideration of any soils analysis is the identification of ***prime farmland***. Prime farmland soils are those soils with an agricultural rating of Class I or II. In addition, the USDA considers

Class III soils to be of ***Statewide importance*** to agriculture. The United States Department of Agriculture (USDA) describes prime agricultural land as "the land that is best suited for producing food, feed, forage, fiber and oilseed crops." It possesses the soil quality, growing season and water supply needed to economically produce a sustained high yield of crops when it is treated and managed using acceptable farming methods. Prime farmlands are rich in chemical nutrients, have good permeability to air and water with few rocks, are well-drained but resistant to erosion, and have relatively flat topography. Prime farmlands produce the highest yields with minimal inputs of energy and economic resources, and farming them results in the least damage to the environment. The USDA encourages all levels of government and private individuals to effectively use these valuable resources to meet the nation's food and fiber needs.

Aside from the limestone areas, the Region only has scattered Class I & II prime farmlands that extend along the valleys between the rugged ridge tops. The side slopes of the hills transition with Class III soils of statewide importance. Unfortunately, the soils most suitable for agricultural purposes are also those most suitable for development, creating competition between these uses for these soils, and resulting in the loss and fragmentation of the most productive farmlands.

Prime farmlands of Duffield Soils

Prime farm soils and soils of Statewide importance should be protected from conversion to other uses through appropriate planning and zoning, including strengthening the Townships' agricultural zones and applying it to more of the Townships' farmlands. Development abutting working farmland can minimize disruption of farming activities by using conservation subdivision design, explained further in Chapter XII of this Plan.

Development Constraints

Another important soils consideration relates to those soils that produce constraints for building development and the operation of on-lot utilities. ***Building development constraints*** can include a wide range of soil characteristics, including steep slopes, wetness, depth to bedrock, frost action, shrink-swell, low strength and cemented pans, and flooding. Other soil-related constraints become important if ***on-site sewage disposal systems*** are contemplated. Constraints associated with the installation and operation of these systems include steep slopes, wetness, flooding, slow percolation rates, poor filtration characteristics, and high secondary porosity due to the presence of fractures and solution channels. It is important to identify and map those soils that possess building development and on-site sewage disposal constraints so that future land uses can be kept away from these environmentally sensitive areas. The soils of the EBCR are generally severely restricted for building development and/or on-lot sewers. Only a small band of Murrill Gravelly Loam generally straddling the Pennsylvania Lines Railroad and scattered pockets of low-lying Gladstone Gravelly Silt Loams are free of both these severe limitations. ***Future planning should avoid development in areas with severe soil constraints or be accompanied by strict siting standards in local zoning or SALDO ordinances.***

The following table lists the soil characteristics found within EBCR:

SOILS CHARACTERISTICS OF THE EASTERN BERKS COUNTY REGION

Soil Symbol	Soil Name and Slope	Agricultural Rating	Hydric	Drainage Classification
AoB	Andover-Buchanan gravelly loams, 0 to 8 percent slopes, extremely stony	7	Partially hydric	Poorly drained
BuB	Buchanan gravelly loam, 3 to 8 percent slopes	2	Partially hydric	Moderately well drained
BvB	Buchanan gravelly loam, 0 to 8 percent slopes, extremely stony	7	Partially hydric	Moderately well drained
CmA	Clarksburg silt loam, 0 to 3 percent slopes	2	Partially hydric	Moderately well drained
CmB	Clarksburg silt loam, 3 to 8 percent slopes	2	Partially hydric	Moderately well drained
DbA	Duffield silt loam, 0 to 3 percent slopes	1	Partially hydric	Well drained
DbB	Duffield silt loam, 3 to 8 percent slopes	2	Partially hydric	Well drained
DfC	Duffield-Ryder silt loams, 8 to 15 percent slopes	3	Partially hydric	Well drained
EdB	Edgemont channery sandy loam, 0 to 8 percent slopes, extremely stony	7	Partially hydric	Well drained
EdD	Edgemont channery sandy loam, 8 to 25 percent slopes, extremely stony	7	Partially hydric	Well drained
EdF	Edgemont channery sandy loam, 25 to 60 percent slopes, extremely stony	7	Partially hydric	Well drained
EhB	Edgemont channery loam, 3 to 8 percent slopes	2	Partially hydric	Well drained
EhC	Edgemont channery loam, 8 to 15 percent slopes	3	Partially hydric	Well drained
EhD	Edgemont channery loam, 15 to 25 percent slopes	4	Partially hydric	Well drained
GeB	Gladstone gravelly loam, 3 to 8 percent slopes	2	Partially hydric	Well drained
GeC	Gladstone gravelly loam, 8 to 15 percent slopes	3	Partially hydric	Well drained
GeD	Gladstone gravelly loam, 15 to 25 percent slopes	4	Partially hydric	Well drained
GfB	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery	6	Partially hydric	Well drained
GfD	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery	6	Partially hydric	Well drained
GfF	Gladstone gravelly loam, 25 to 55 percent slopes, very bouldery	7	Partially hydric	Well drained
GnA	Glenville silt loam, 0 to 3 percent slopes	2	Partially hydric	Moderately well drained

GnB	Glenville silt loam, 3 to 8 percent slopes	2	Partially hydric	Moderately well drained
HeD	Hazleton very channery loam, 8 to 25 percent slopes, extremely stony	7	Not hydric	Well drained
HeF	Hazleton very channery loam, 25 to 60 percent slopes, extremely stony	7	Not hydric	Well drained
Ho	Holly silt loam	3	All hydric	Poorly drained
LaB	Laidig gravelly loam, 3 to 8 percent slopes	2	Not hydric	Well drained
LaC	Laidig gravelly loam, 8 to 15 percent slopes	3	Not hydric	Well drained
LaD	Laidig gravelly loam, 15 to 25 percent slopes	4	Not hydric	Well drained
LbB	Laidig very gravelly loam, 0 to 8 percent slopes, extremely stony	7	Partially hydric	Well drained
LbD	Laidig very gravelly loam, 8 to 25 percent slopes, extremely stony	7	Partially hydric	Well drained
LdF	Laidig-Rubble land complex, 25 to 55 percent slopes	7	Partially hydric	Well drained
Me	Middlebury silt loam	2	Partially hydric	Moderately well drained
MuB	Murrill gravelly loam, 3 to 8 percent slopes	2	Partially hydric	Well drained
MuC	Murrill gravelly loam, 8 to 15 percent slopes	3	Partially hydric	Well drained
PaA	Penlaw silt loam, 0 to 3 percent slopes	3	Not hydric	Somewhat poorly drained
ThA	Thorndale-Penlaw silt loams, 0 to 3 percent slopes	4	Partially hydric	Poorly drained
ToA	Towhee silt loam, 0 to 3 percent slopes	4	All hydric	Poorly drained
ToB	Towhee silt loam, 3 to 8 percent slopes	4	All hydric	Poorly drained
TwB	Towhee silt loam, 0 to 8 percent slopes, very stony	7	All hydric	Poorly drained
Ua	Udorthents	7	Not hydric	Moderately well drained
UmB	Urban land-Duffield complex, 0 to 8 percent slopes	8	Partially hydric	NA
W	Water		Unknown	NA

D. Surface Waters

The way in which water moves through our environment has implications for land use planning. First, rivers, streams, creeks, runs, and their floodplains present hazards to development. Second, land areas adjacent to surface waters offer high quality habitat, conservation and recreational opportunities. Finally, the drainage basin within which surface waters flow is a basic geographic unit used to plan and design sanitary and storm sewers; systems that can make use of gravity-fed lines can reduce the costs of these types of utilities.

Drainage Basins

A drainage basin consists of the streams and associated floodplains which dispose of surface water from that area. Drainage basins are separated by ridge lines. All of the water draining from the Eastern Berks County Region eventually flows into the Delaware River. Because of the Region's topographic position, five of Berks County's most important watersheds converge here. The Region's major and minor drainage basins are identified on the *Natural Resources Map*.

The Toad Creek, which flows into the ***Little Lehigh Creek,*** is the largest drainage basin in Topton Borough. The Toad and Little Lehigh Creeks all originate within Longswamp Township and flow in a northeast direction into adjoining Lehigh County where they all feed into the Little Lehigh Creek. The eastern half of Topton Borough is within this drainage area and straddles the upper reaches of Toad Creek. ***This entire drainage area within the Region has been designated by the State as a High- Quality Cold Water Fishery. As such this area should be fitted with future land uses that comply with protective measures aimed at keeping these waters free from unnecessary degradation.***

The ***Perkiomen Creek*** watershed sits along the Region's southeastern border, principally within District Township. Here several tributaries to the West Branch of Perkiomen Creek originate and flow in an easterly direction where they meet just across the Hereford Township line. In addition Swamp Creek also originates here in the extreme southeastern tip of the Region; this too flows east into adjoining Washington Township and is a high quality cold water fishery. The West Branch of this Creek was nominated and approved for Exceptional Value status.

The ***Pine Creek*** watershed straddles both District and Rockland Townships along the southern border of the Region. Here several tributaries feed the Western Branch of Pine Creek and its main course. These waters flow in a southwestern direction where they converge in adjoining Pike Township to the south and eventually spill into the Manatawny Creek. ***All areas within this watershed within the EBCR are State-designated Exceptional Value Waters. This is the highest level of water quality recognized by the State and commands protection from uses and practices that would degrade its purity.***

The ***Saucony Creek*** watershed straddles the northern portion of Rockland Township, the eastern portion of Topton Borough and touches a small section of northeastern District Township. Here the Little Saucony and the main course of the Saucony Creek flow in a northwesterly direction before they merge near Smoketown Road. Above this convergence the watershed is also a ***State-designated Exceptional Value Waters. This is the highest level of water quality recognized by the State and commands protection from uses and practices that would degrade its purity.*** Downstream of this convergence the watershed is a cold water fishery.

The ***Bieber Creek*** watershed occupies the western half of Rockland Township along the Region's southwestern border. The headwaters for this creek initially flow in a northern direction but then shift to the south eventually leading into the Manatawny Creek. ***The central branch of Bieber Creek is also State-designated Exceptional Values Waters and worthy of special protection.*** Peripheral tributaries are cold water fisheries.

A small area of western Rockland Township is located within the ***Willow and Moselem Creeks,*** which are part of the Maiden Creek Watershed, are largely located to the west of the Region; however, no named tributaries are shown within the Region as water mostly "sheet-flows" until it collects further downstream in adjoining Richmond Township. ***This small area is a State-designated High-Quality Cold Water Fishery.***

Overall the Region's drainage pattern exhibits a course texture and generally dendritic shape. This is consistent with the resistant geologic materials that produce its rugged landform and high elevations.

High Quality & Exceptional Value Waters

The Federal Water Pollution Control Act of 1972 was passed to "restore and maintain the chemical, physical and biological integrity of the Nation's waters."[1] To implement this Federal mandate, the PA DEP passed the Pennsylvania Clean Streams Law and designated some 12,500 miles of rivers and streams as "special protection water," including ***Exceptional Value Waters*** and ***High Quality Waters***.

Water Quality
Protection Measures

1. Riparian buffers
2. Streambank stabilization
3. Streamside fencing
4. Filter strips
5. Conservation plans
6. Development setbacks
7. Limitations on land uses

Benefits of High Quality Waters

1. Recreational values
2. Fisheries protection
3. Aesthetic/visual
4. Health and welfare

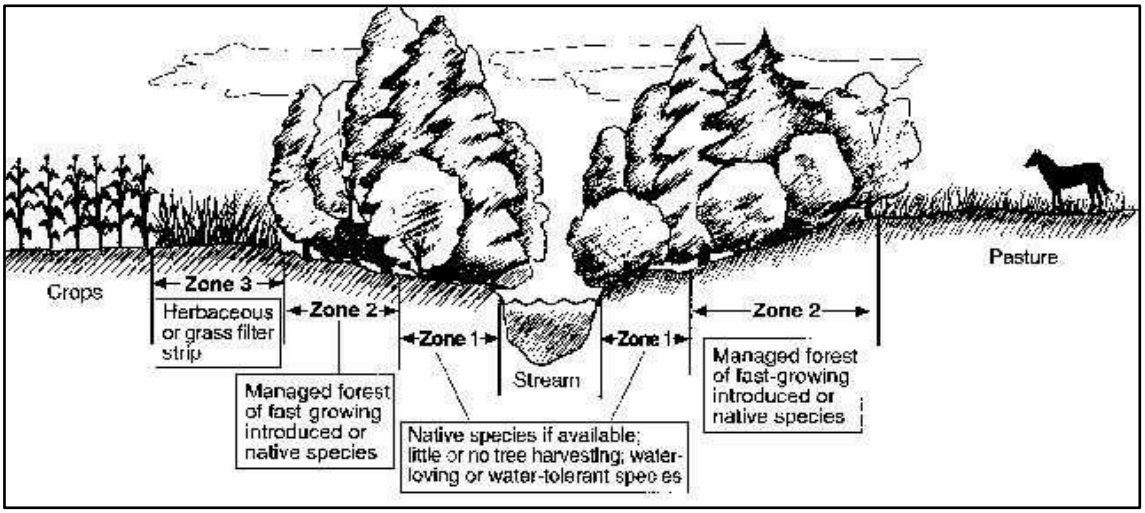
It is estimated that the majority of the Region consist of Exceptional Value waters, including portions of the Bieber, Pine, Oysterville, Saucony, West Branch of the Perkiomen Creeks watersheds and High-Quality waters including the Toad and Swamp Creek areas within the Little Lehigh and Swamp Creek watersheds. Clearly surface water quality is a feature that distinguishes the Region from many other areas within Berks County and across the State. Local officials should take active steps to preserve and protect these "sacred" resources from inappropriate land use and local activities that could threaten their integrity.

The PADEP also provides a measure of protection to High Quality and Exceptional Value Waters by regulating the discharge of wastewater, and other point sources of pollutions. However, nonpoint source pollution such as agricultural and other types of runoff is only partially regulated. Under Pennsylvania law, the regulation of land uses and activities that generate nonpoint source pollution is largely a municipal function. To avoid degradation of these waters, existing and potential future land uses and activities must be carefully scrutinized.

Local measures which could be adopted to provide water quality protection for the Region's streams include the adoption of a riparian protection partnership program involving the Region's municipalities, the Berks County Conservation District, Penn State Cooperative Extension, Trout Unlimited, private landowners, and others. This program might consist of a mix of educational, assistance and regulatory measures to promote surface water quality protection as identified in the adjacent inset. ***Local officials should develop a public/private partnership to protect stream water quality using a combination of educational, assistance and regulatory measures.***

[1]Pennsylvania Department of Environmental Protection, *Local Protection of High Quality Streams* (Harrisburg, PA: June, 198

While protection of floodplains and wetlands are widely accepted land use management techniques, recent awareness of diminishing surface water quality suggests the need for more protection. Studies conducted by the U.S. Forest Service demonstrate that riparian buffers offer real advantages in the removal of harmful nutrients and sediment from storm water before it enters the stream. These same riparian buffers can increase the food supply and create interconnected natural systems of movement for local wildlife. ***Riparian buffers are areas adjoining streams where naturally successive vegetation is provided and protected. Each of the Region's municipalities should apply riparian buffer standards to developments that seek to locate within these valuable watersheds.***



It is estimated that 85% of all surface water occurs in smaller streams and creeks. Therefore, the inclination of society to focus upon water quality of larger streams, creeks, rivers, and bays is defective. It is vital that surface water quality of small stream headwaters and low-order tributaries becomes our priority. Without such measures, our higher order creeks and rivers are threatened by poor surface water quality. Surface water quality is a direct function of the interaction between water and the land and vegetation through which it flows. The greatest interaction occurs within lower order streams. Within high order streams and rivers, water is principally contributed from tributaries rather than the adjoining streamside areas; therefore, the opportunity for water quality improvement is minimal. For example, no overhead tree canopy could possibly span the width of the Schuylkill River and reduce its summer water temperature. On the other hand, a well-designed riparian buffer along a low order stream can offer direct water quality benefit to the adjoining property owner and those located downstream. More information about this topic is contained with Chapter XII (Future Land Use) of this Plan.

Wetlands

Wetlands are areas that are regularly inundated or saturated long enough to produce the particular types of vegetation associated with ***swamps, bogs and marshes***. While there are several definitions of wetlands used by regulatory agencies, all definitions require the presence of hydrophytic plants (plants that grow in wet soils), hydric (wet and anaerobic) soils, and the presence of water at or near the surface at some part of the growing season.

Benefits of Wetlands

1. Provide food and habitats for an abundance of animal life.
2. Are breeding, spawning, feeding, cover, and nursery areas for fish.
3. Are important nesting, migrating and wintering areas for waterfowl.
4. Act as natural storage areas during floods and storms.
5. Act as groundwater recharge areas, particularly during droughts.
6. Purify ground and surface waters by filtering and assimilating pollutants.

Recently, much attention has been focused upon the importance of wetlands. All wetlands have value, although their value is highly variable. Wetlands support an abundance and diversity of life unrivaled by most types of environments. The many benefits wetlands provide are summarized in the adjacent inset.

Wetlands within the Region have been identified using the U.S. Department of the Interior's National Wetlands Inventory, derived from high altitude aerial photograph interpretation of surfacial features commonly associated with wetlands. This inventory tends to identify the larger wetland areas only. These include a combination of scattered palestrine and riverine wetlands. Palestrine wetlands are ponds and small lakes, while riverine wetlands are associated with rivers, streams, runs, creeks, and brooks. The Natural Features Map identifies these USDI wetland areas.

The latest Soil Survey completed for the County by the Natural Resources Conservation Service identifies hydric soils which can also indicate the presence of wetland areas. Holly Silt Loam (Ho), Thorndale-Pennlaw silt loam (ThA) and Towhee Silt Loams (ToA, ToB & TwB) are those hydric soils within the Region; these hydric soils have been depicted with severe building and sewer constraints on the Soils & Geology Map contained earlier in this Chapter.

Wetland Protection Measures

1. Modifications to road maintenance practices(e.g., salt and de-icing chemicals).
2. Homeowner education (e.g., application of yard chemicals).
3. Development setbacks.
4. Limitations on land uses.
5. Filter strips.
6. Environmental Impact Assessment.

A variety of laws have been passed to protect wetlands. Infill and development in larger wetlands are now regulated by the U.S. Environmental Protection Agency and subject to both State and Federal permitting processes. Careful local planning, education, and the incorporation of protective standards into local subdivision and land development ordinances could extend further protection to the Region's smaller wetlands as well as to land areas immediately surrounding wetlands. A requirement for an Environmental Impact Assessment (EIA) prior to any subdivision approval could identify potential adverse impacts as well as opportunities and mitigating measures intended to protect the resource. Such additional protection would further enhance the many benefits wetlands provide to the Region. Examples of such efforts could include any of those measures noted in the above inset.

Municipal officials should consider the adoption of various measures to protect the Region's wetlands, including modified road maintenance standards, an EIA requirement in their respective SALDO, land use and development limitations, and a homeowner educational program.

Floodplain Protection

A floodplain is an area of land adjoining a water source, such as a river or stream that is subject periodically to partial or complete inundation by the water source. The floodplain consists of the ***floodway*** and the ***floodway fringe***. The floodway is the stream channel plus an additional area that must be kept free of encroachments to avoid an increase in flood heights. The floodway fringe is the remaining portion of the floodplain within which encroachments must be limited.

Flooding can result in the loss of life and property, health and safety hazards and significant public expenditures for flood protection and relief. Floodplains also often contain valuable prime farmlands and wildlife habitats. Floodplain protection safeguards the public health, safety and welfare, while protecting natural resource values.

Benefits of Floodplain Protection

1. Protection of life, health and safety.
2. Protection of property.
3. Protection against surface water pollution.
4. Protection against soil, crop and wildlife habitat loss.
5. Reduces/eliminates need for public expenditures.

Flood hazard areas within the Region have been identified by the Federal Emergency Management Agency (FEMA). Local governments which regulate development and fill within flood hazard areas qualify to participate in the Federal Flood Insurance Program. Flood hazard areas have been identified for the Region's four municipalities, all of which participate in the Federal Program.

Federal floodplain mapping denotes estimated 100-year floodplain boundaries, areas within which there is the probability that flooding will occur once in 100 years. These areas are identified on the *Natural Features Map*. The presence of alluvial soils may also be used to identify additional areas subject to periodic inundation. The latest Soil Survey for the County identifies two alluvial soil types for the Region—Holly Silt Loam (Ho) and Middlebury Silt Loam (Me). The delineation of alluvial soils generally provides wider floodplains than those identified by FEMA; this is an option for increased protection against flooding for the Region's municipalities. The Region's alluvial soils have been depicted with severe building and sewer limitations on the Soils and Geology Map contained earlier in this Chapter. The following tabulates the regulatory floodplains protected in each of the Region's municipalities under current ordinances:

Municipality	100-Year Floodplain	Alluvial Soils
District Township	X	
Rockland Township	X	
Topton Borough	X	

District and Rockland Townships and Topton Boroughs should consider the use of alluvial soils to augment their flood hazard boundaries.

Stormwater Management

One of the most frequently described planning problems is the impact from storm water runoff. As an area develops, the patterns, volume and velocities of storm water runoff are likely to change. Individual developments produce marginal impacts; however, these impacts produce major cumulative problems unless measures are used to protect the capacity of watersheds to discharge surface water in a timely manner and at a safe rate. Storm water runoff can and should be managed. The benefits of storm water management are summarized in the adjacent inset.

Recognizing the need to resolve serious problems associated with flooding the Pennsylvania General Assembly enacted Act 167, the Pennsylvania Stormwater Management Act. This Act changed the way local stormwater management occurred by applying a watershed-based, comprehensive program of regional stormwater management. Act 167 requires all counties within Pennsylvania to prepare and adopt stormwater management plans for each of its watersheds, as designated by the Pennsylvania Department of Environmental Protection (DEP). These plans are to be prepared in consultation with municipalities within the watershed, working through a Watershed Plan Advisory Committee.

Benefits of Storm Water Management

1. Reduces off-site and downstream flooding.
2. Reduces soil erosion and habitat loss.
3. Protects surface water quality.
4. Improves groundwater recharge.

The plans are to contain stormwater controls to manage stormwater runoff from proposed subdivision and land development applications.

Given the Region's importance as the headwaters of many of the County's watersheds these plans have been prepared for all of the areas within the Region. Completed plans include the Pine Creek Watershed Protection Plan, the Upper Perkiomen Watershed Protection Plan, and the Little Lehigh, Saucony and Swamp Creek Act 167 Watershed Stormwater Management Plans. Within the Region, the Manatawny Creek watershed involves the Pine Creek and Bieber Creek sub-basins, which do not currently have an overall stormwater management plan. These plans recommend, among other things, that municipalities:

- employ a wide range of planning and design techniques to properly locate intensive land uses away from sensitive waters and their adjoining lands;
- protect important conservation and agricultural features through proper community planning and transferable development rights programs;
- apply a regional approach to growth allocation to focus development into established communities with needed infrastructure; and,
- adopt and enforce a full range of environmental protection ordinances for wetlands, floodplains, riparian buffers, steep slopes, and habitats.

Another important component of stormwater management relates to the use of Best Management Practices (BMPs). BMPs are techniques that manage stormwater from particular land uses in a manner that is more consistent with the natural characteristics of the resources of the watershed. BMPs are a broad series of land and water management strategies designed to minimize the adverse impacts from developments and other disruptive activities. BMPs provide varying levels of protection and are becoming more widely utilized within Pennsylvania.

BMPs can be "structural" or "non-structural". Structural BMPs are measures that require the design and physical constructions of a facility to assist with reducing or eliminating a non-point source of pollution and control stormwater. Structural BMPs are most often applied to agricultural operations and stormwater management. Non-structural BMPs are approaches to planning, site design or regulations that positively affect water quality and reduce stormwater runoff. Nonstructural BMPs are generally implemented through the enactment of municipal ordinances that specify site design and construction standards and operational procedures and activities.

Agricultural BMPs include requirements that adequately address soil erosion control measures, nutrient management and pest control. • Conservation management, tillage and contour farming techniques intended to limit disturbance and erosion. • Provisions for grass or filter strips intended to remove sediment or other non-point pollutants from runoff. • Providing stream fencing intended to keep livestock out of stream channels. • Establishing programs for pesticide management intended to reduce the off-site impacts or spraying or applying pesticides. • Developing a manure management program to reduce runoff of nutrients and pathogens to streams.	**Conservation BMPs** include requirements that adequately address soil erosion control measures and stabilization techniques. • Stabilize stream embankments by utilizing structural or natural techniques designed to minimize erosion. • Provisions for grass or filter strips intended to remove sediment from point or non-point pollutant sources. • Preserve natural resources and habitats. • Establish networks of forested riparian buffers. • Establish mandatory setback requirements from wetlands and floodplains. • Develop a public education program to provide information (seminars and literature) to the residents of the community on the importance of protecting our natural and hydrological resources.
Stormwater Management BMPs include requirements that adequately address surface drainage, groundwater recharge and soil erosion control measures. • Minimize the volume of stormwater runoff generated by minimizing impervious surfaces required to support development. • Promote effective groundwater recharge within all stormwater management facilities including detention ponds, swales and downspouts. • Protect receiving stream channels by routing outfall locations from detention basins through grass or filter strips intended to remove contaminants. • Protect adjacent land areas from direct stormwater discharge by establishing a minimum isolation distance to enhance stabilization and groundwater recharge. • Establish stormwater management and natural features easements. • Utilize pervious surfaces to promote groundwater recharge. • Establish networks of forested riparian buffers.	**Land Development BMPs** include requirements that adequately address design requirements and conservation management techniques. • Reduction of infrastructure required to adequately support subdivision and land development activity. • Develop effective requirements to minimize the environmental impacts resulting from the change in land use. • Promote groundwater recharge by establishing minimum standards to maintain a balanced water budget of what is required to support the needs of the development versus the amount if water that is lost as a result of the development. • Incorporate the use of non-structural stormwater management techniques into site landscaping to minimize stormwater runoff and maximize infiltration. • Establish networks of forested riparian buffers as part of the landscaping requirements. • Include incentives in municipal regulations to achieve site design that is sensitive to existing environmental, natural, scenic, historical and cultural resources.

E. Important Plant & Wildlife Habitats

As an area is converted from its natural to a man-made state, the delicate balance of the local ecosystem is often disrupted. This imbalance degrades or strains the environment's ability to support varied forms of plant and animal species. Consequently, species become ***threatened*** or ***endangered***.

State and Federal agencies have become increasingly concerned over the protection of local natural habitats as a means of protecting wildlife diversity. The protection of these habitats can also provide other benefits, as summarized in the adjacent inset. For these reasons, all levels of government and other conservation-oriented groups have become involved in the protection of these habitats.

Benefits of Habitat Protection

1. Protection of plant and wildlife diversity.
2. Protection of threatened and endangered species.
3. Protection of woodlands and linear corridors.
4. Provision of passive recreation opportunities.

Natural Areas

Information for this section was obtained from the *Berks County Natural Heritage Inventory*, a document recently updated by the Pennsylvania Science Office of the Nature Conservancy. In turn, this document draws heavily from the Pennsylvania Natural Heritage Program (PNHP) database and recent field inspections (these were previously called the Natural Areas Inventory and the Pennsylvania Natural Diversities Inventory). This agency conducts an ongoing process that cumulatively updates and refines data regarding rare, endangered, or otherwise significant natural features. This inventory uses some 800 sources of information to map, describe and disseminate facts about important natural features.

It is the policy of the PNHP not to release detailed site-specific information about significant natural features for general exposure to the public. This protects the feature from persons who become curious and attempt to locate and collect such features. Instead, PNHP provides generalized locations of known or historic natural features occurrences.

Using PNHP's criteria, it is unsurprising that the Region contains an abundance of important habitats. The following tabulates information about these sites which are keyed to their depiction on the Natural Features Map.

Important Natural Areas within the Region

NHA No.	Site Name	Municipality	Notes
1	Bieber Creek	Rockland	Regional – Wetlands and riparian forest along Bieber Creek support 4 plant species of concern, including globally vulnerable bog bluegrass, in addition to two sensitive species of concern.
2	Bittig Road Seeps	District	State - Wetland seeps in a powerline right-of-way supports a population of twisted yellow-eyed grass, a critically imperiled plant species in Pennsylvania.
3	Boyers Junction	Rockland	Regional – Forest that supports bog bluegrass, a state threatened plant species, and an additional sensitive species of concern.
4	Fredericksville	District	State - This forested site provides habitat for two sensitive species of concern.
5	Landis Well	District	State – Wetlands and riparian habitat support a sensitive species of concern.

Important Natural Areas within the Region			
Site No.	**Site Name**	**Municipality**	**Notes**
6	New Jerusalem Cemetery	Rockland	Regional - Wetlands at the edge of a cemetery support a population of possum-haw, an endangered plant species in Pennsylvania, and a population of a sensitive species of concern.
7	Pine Creek - Manatawny	District	State – Forested floodplain that supports a plant species of concern.
8	Sacony Creek	Rockland	State – This site provides habitat for a sensitive species of concern.
NA	West Branch of Pine Creek Seeps	Rockland	High-gradient clear water creek and exceptional value watershed
NA	Swamp Creek Seeps	District	Wooded wetland dominated by a young red maple canopy with spice bush shrubs and a variety of species on the ground.
NA	Weller Cemetery Seeps	District	Headwater feeder wetland for Swamp Creek dominated by older tulip poplar, yellow birch and red maple trees. Upland and wetland areas provide a fairly diverse habitat for plants and animals. Area should be buffered around the seeps.

Many of these important natural areas are contained within other inventoried natural features that have combined to produce the pristine areas of the Region. Techniques used to manage these other resources should assist in the protection of these areas.

Natural Areas Protection Measures

1. Development and vegetation removal setbacks.
2. Modifications to road maintenance (e.g., snow and ice removal; salt and de-icing chemicals).
3. Limitations on land use.
4. Homeowner education (e.g., application of yard chemicals/removing plants).
5. Environmental Impact Assessments.

However, rare and endangered plant and animal species must be preserved and protected from indiscriminate development by using development review procedures intended to conserve habitats in which these species occur. ***A requirement for an Environmental Impact Assessment prior to any subdivision approval should be applied to areas within these natural areas. These EIAs can be applied universally within rural areas or imposed as a special overlay zone within the designated areas. Required EIAs should require the identification of potential adverse impacts as well as opportunities and mitigating measures that could protect these areas amid development. Other development review procedures that protect these natural features include those promoted under Growing Greener: Conservation by Design (explained further in Chapter XII), which include a detailed Existing Resources/Site Analysis Plan for every development site, as well as a design process founded on designing around conserved open space.***

Pennsylvania State Gamelands

The Pennsylvania State Game Commission owns and administers State Gamelands No. 315 on the north side of Long Lane in northern District Township. This 117-acre property is principally used for public hunting of small game and deer.

Woodlands

Woodlands comprise approximately much of the land area within the Eastern Berks County Region. Most of the Region's woodlands are scattered atop the steep ridges that converge here. The side slopes tend to have more fragmentation amid pockets of farming and rural housing on large lots. It is no accident that the Region has high quality surface and groundwaters as forests play a major role in the protection of these waters. It is also no surprise that many of the Region's significant natural habitats also correspond to wooded areas as they offer wildlife cover and food supplies.

Recent amendments to the Pennsylvania Municipalities Planning Code (MPC) specifically enable local governments to protect significant woodland areas by preventing extensive development in those areas and/or engaging development review procedures that conserve these important natural features. However, the MPC also requires every municipality to permit forestry uses by right in every zone within the Commonwealth.

Benefits of Woodlands Protection

1. Slows erosion by stabilizing steep slopes and stream banks through extensive root systems.
2. Aids in storm water management and replenishment of aquifers by promoting groundwater recharge.
3. Aids in purifying groundwater by filtering runoff and reducing sediment wash caused by erosion.
4. Provides important wildlife habitat areas, particularly when large, unbroken areas of forest cover or linkages to other blocks of woodland can be maintained.
5. Offers excellent passive recreation opportunities, such as hiking, horseback riding, photography, hunting, and camping.
6. Helps reduce the level of air pollution by absorbing airborne pollutants and producing beneficial carbon dioxide.
7. Moderates climatic conditions by providing wind-breaks and shade from direct sunlight.

Therefore each municipality has made these required changes within their respective Zoning Ordinance, even Topton Borough as absurd as it may sound. Furthermore it is vital that each municipality develop and adopt sound forestry management regulations that can protect the sensitivity of wooded areas and adjoining neighbors from the deleterious impacts of uncontrolled logging uses and operations. More on this subject and a model forestry ordinance can be found within the Future Land Use Section XII of this Plan.

Next, the concentrations of woodland deserve protection particularly in light of the Region's desire to protect its ground and surface waters. Reforestation and tree preservation requirements can require that a majority of existing trees in proposed subdivisions or land developments be maintained or replaced, except those whose removal is necessary for the proposed structures and required improvements.

The Region's municipalities should consider the adoption of other protective measures for woodlands, such as limiting the removal of trees adjacent to streams, in steep sloped areas, and in or adjacent to identified Natural Areas. In addition, developers as well as woodlot managers should be encouraged to

Woodland Protection Measures

1. Tree removal setbacks adjacent to streams.
2. Tree removal limitations in steep-sloped areas and in and near Natural Areas.
3. Maintenance of wildlife corridors.

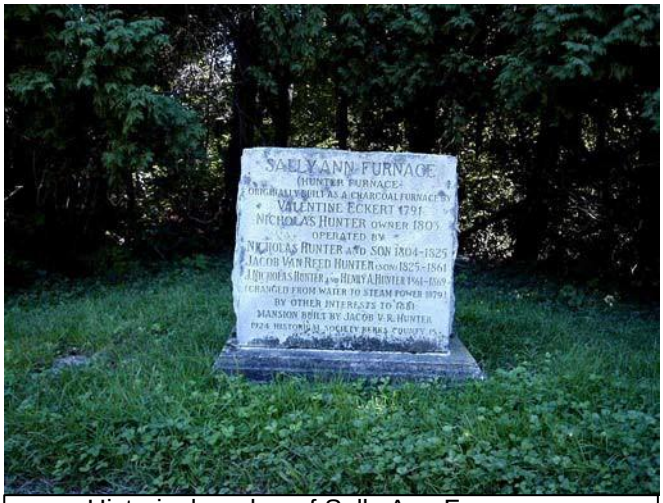
maintain established wildlife corridors in the form of linkages to other wooded areas. ***Municipal officials should consider the adoption of zoning and subdivision and land development standards limiting the removal of trees in sensitive areas, and encouraging the preservation of wildlife corridors.***

Caves

According to the publication entitled *Caves of Berks County* by the Mid-Appalachian Region of the National Speleological Society, the Sally Ann Furnace cave is located on the site of an old iron furnace several miles south of Bowers near the headwaters of the Saucony Creek. This cave supposedly has a moderately sized entrance with a passage beyond and a stream. It is located within Granitic Gneiss at an elevation of 730 feet and on private property. Since this description is vague it is difficult to verify this cave's location within the Region; however, it seems quite possible. Moreover, historical accounts describe the Sally Anne Furnace as being first built in 1811 within Rockland Township. The Pennsylvania Cave Protection Act was signed into law on November 21, 1990. It provides protection to caves, their mineral deposits and wildlife inhabitants from prescribed acts of destruction, defacing, unlawful entry, dumping, burning and disposal of wastes. ***Local officials within Rockland Township should protect the cave's integrity.***

F. HISTORICAL SKETCH

The Eastern Berks County Region possesses a rich historical heritage that like today is strongly influenced by its rugged terrain and remote location. The following excerpts from previous municipal comprehensive plans assemble a glimpse into the Region's past.



Historical marker of Sally Ann Furnace

The land area of the Region (and most of Berks County) was purchased in 1732 by the sons of William Penn from the Schuylkill tribe of the Delaware Indians.

Swedes made the first European Settlement in Berks County along the Maxatawny Creek in 1701. Extensive German settlement soon followed, beginning in 1712. Approximately 75% of Berks County's inhabitants reported German ancestry in the first federal census in 1790. Berks County was incorporated in 1752 from parts of Chester, Lancaster, Philadelphia and Montgomery Counties.

District Township originated in 1759. Rockland Township was created from a part of Oley in 1785. Topton was named in 1859 when it was identified as the highest point along the East Penn Railroad from Reading to Allentown but it wasn't formally created until 1876.

Berks County experienced early industrial development. The mining of ore became the Region's first principal industry by the mid-1800's. The most notable of these was the Sally Ann Charcoal Furnace which produced iron as early as 1791. This furnace required much power to provide air blast in the furnace which was provided by the swiftly-moving waters of the Saucony Creek. There were over 100 mines in the area during the peak of this activity which began its decline around 1900. The Region also supplied charcoal to the nearby iron industries in Pottstown and in the Schuylkill Valley. Ancient coal burning pits can still be found throughout the dense woodlands of the Region. Also a cave is supposedly intact at the original site of the Sally Ann Furnace. The Region's creeks powered many early mills that were an important part of industry and domestic life in the past.

A lack of prime agricultural soils and steep slopes at times has hindered growth and development within the Region. Today its rugged terrain still presents substantial impediment to widespread development. This Plan will acknowledge this longstanding relationship between the conservation values that have helped to form the Region in the past and the pressures of growth exerted from beyond its boundaries.

The historic settlement pattern that developed in the area over the last 300 years will remain a vital influence on the future growth and character of the Region. Its Pennsylvania-German heritage is still very much evident. Existing historic structures and traditional rural values will continue to influence the shape of future development in the area.

G. Historic Sites

The cultural heritage of the Eastern Berks County Region is evident in the many older individual buildings, structures, and sites throughout the Region. Local officials and residents recognize the value of conservation, rehabilitation, restoration, and adaptive reuse of these historic features as a means of providing a glimpse into the Region's important past. Additionally, historic preservation can provide educational opportunities regarding historic life and architectural styles. Well-maintained historic sites and areas can create a sense of unique identity and stimulate civic pride, economic vitality and tourism opportunities.

To identify the Region's specific historic sites, the Berks County Planning Commission Historic Resources Inventory was used. This inventory includes PHMC, Meiser, Berks County Conservancy, and other resource data. The inventory includes 73 different historic sites that have been identified as important from a local, State and National perspective. The Region's sole National Register site is the Sally Ann Furnace Complex located along Sally Ann Furnace Road in Rockland Township. This well-known site contains a furnace and a farm setting with a manager's house, charcoal house, mule barn, blacksmith shop and other related outbuildings.

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

District

Resource ID	Historic Name	Source	National Register Status
1718	Bechtel-Benfield Farm	PHMC	Undetermined
1719	David L. Stokes Property	PHMC	Undetermined
1721	German Furnace	PHMC	Undetermined
1722	Fredericksville Hotel	PHMC	Undetermined
1723	Landis Farm	PHMC	Undetermined
1724	Landis Hotel	Meiser	Unknown
1725	Landis Store Hotel	PHMC	Undetermined
1726	Village of Landisville	PHMC	Undetermined
1727	Landisville School	Meiser	Unknown
1728	Lesher Cabin	PHMC	Undetermined
1729	Lesher Forge	PHMC	Undetermined
1730	Old Landis Farm	PHMC	Undetermined
1732	Spohn House	Conservancy	Unknown
1734	Treichler Orchard	PHMC	Undetermined
1735	Weidner Farm	PHMC	Undetermined
1736	Weller Farm	PHMC	Undetermined
5917	Marker Property	Conservancy	Unknown
6523	Schaefer Barn	PHMC	Unknown

Rockland

Resource ID	Historic Name	Source	National Register Status
5020	Alfred Huff Property	PHMC	Undetermined
5021	Angstadt Homestead	PHMC	Undetermined
5022	Anthony Mickey Deoliveira Property	PHMC	Undetermined
5023	Christ (Mertz) Evangelical Lutheran Church	PHMC	Undetermined
5024	Delong Bridge	PHMC	Undetermined
5025	Delong Farm	PHMC	Undetermined
5026	Dr. C.P. Dent Property	PHMC	Undetermined
5027	Dry Store	PHMC	Undetermined
5028	Farmers & Drovers Hotel	PHMC	Undetermined
5029	Forgedale Rd Property	PHMC	Undetermined
5030	Grim's Mill	PHMC	Undetermined
5031	Guinther's Head Rock	PHMC	Undetermined
5032	Hertzog School	PHMC	Undetermined
5033	Hoch Road Bridge	PHMC	Undetermined

5034	James Lengel Property	PHMC	Undetermined
5035	Jerome Lendacki Property	PHMC	Undetermined
5036	Original Hertzog Farm	PHMC	Undetermined
5037	Luke Snyder Property	PHMC	Undetermined
5038	Moyer Farm	PHMC	Undetermined
5039	Village of New Jerusalem	PHMC	Undetermined
5040	New Jerusalem Evangelical Lutheran Church	PHMC	Undetermined
5041	New Jerusalem Hotel	PHMC	Undetermined
5042	Nicholas Niess Property	PHMC	Undetermined
5043	Norman Burkholder Property	PHMC	Undetermined
5044	Oyster Forge	PHMC	Undetermined
5045	Paddock Property	PHMC	Undetermined
5046	Paul & Deborah Stolz Property	PHMC	Undetermined
5047	Reinert Equipment Shop	PHMC	Undetermined
5048	Richard & Eleanor Shaner Property	PHMC	Undetermined
5049	Robert & Sue Hollowbush Property	PHMC	Undetermined
5050	Rockland Forge Farm	PHMC	Undetermined
5051	Rockland Forges #1 And #2	PHMC	Undetermined
5052	Rupperts School	PHMC	Undetermined
5053	S.R. Burkholder Property	PHMC	Undetermined
5054	Sally Ann Furnace Complex	PHMC	Listed
5055	Stanley Nieznay Property	PHMC	Undetermined
5056	Stonehill	PHMC	Undetermined
5057	Village of Stony Point	PHMC	Undetermined
5058	Wayne Readinger Property	PHMC	Undetermined
5945		BCPC Survey	Unknown
6613	Bridge	PHMC	Ineligible
6614	Rockland Bridge	PHMC	Ineligible
6615	Bridge	PHMC	Ineligible

Topton

Resource ID	Historic Name	Source	National Register Status
5367	American House	Meiser	Unknown
5368	Callowhill & Weis Store / Hotel	Meiser	Unknown
5369	Charles & Myrtle Smith Property	PHMC	Undetermined
5370	Greg Brown Property	PHMC	Undetermined
5371	Ziegler Hotel	PHMC	Undetermined

5372	Railroad Station & Freight Station	PHMC	Undetermined
5374	St Peters Union Church	PHMC	Undetermined
5375	Village of Topton	Meiser	Unknown
5376	Topton Furnace	PHMC	Ineligible
5377	Topton House	PHMC	Undetermined
6305	Philadelphia and Reading Railroad	PHMC	Undetermined

Pennsylvania Act 167-1961 enables local governments to regulate the alteration, demolition or erection of structures within designated local historic districts. Such districts should consist of an area with a significant concentration of historic structures as identified by an inventory and might overlap or entirely include National Register Districts. Proposed local historic districts must be approved by the Pennsylvania Historical and Museum Commission (PHMC) and a Historic Architectural Review Board (HARB) established to provide guidance to governing body decisions on proposed actions within these areas.

Municipalities following this path should then adopt local historic preservation ordinances to be administered by the HARB which apply to local historical districts. These ordinances should contain suitable historical review standards addressing proposed demolitions, alterations and removal of structures, as well as assuring the architectural and historic compatibility of new development with the existing character of the District.

Today, local officials have many resources to engage a meaningful program of historic preservation. An effective historic preservation program does not necessarily require a strict program of architectural control like that described above. Some municipalities have adopted more voluntary approaches. First, they clearly designate historic sites and widely publicize their existence. Next, they adopt an "overlay zone" that requires a "waiting period", during which would-be developers and property owners are encouraged to meet with local or County historic preservation experts, before they substantially alter or demolish an historic site. This is also known as demolition by delay.

Oftentimes, this meeting will give the experts a chance to present other suitable building options that are more consistent with the site's character and will enhance the property's value. In other instances, the waiting period gives the community the opportunity to devise other adaptive reuse options for buildings that are proposed for demolition. For example, maybe an old historic house could be converted into a physician's office or a bed and breakfast. In either event, such worthwhile efforts require some commitment on the part of local municipalities to take the next step toward historic preservation.

Designating historic sites within the region can also allow for provisions to be included in the region's respective zoning ordinances to prevent demolition by neglect. In some instances, owners may allow their historic property to deteriorate when upkeep becomes too expensive or creates a hardship for them. Sometimes, historic property owners may try to circumvent the demolition permit process by allowing the structure to demolish or deteriorate 'naturally'. By including language in these ordinances regarding the historic preservation of the identified historic districts and properties, many municipalities can better maintain and preserve the historic characteristics that exist in their respective municipality.

Local officials are encouraged to consider the benefits of these voluntary approaches and gauge public reaction. Local historical societies, Berks County Historic Preservation Trust, and Berks County Planning Commission can assist in these efforts. If response is favorable, local interested citizens should be deputized to continue the process and work with these organizations. The following list some of the actions that can better incorporate historic preservation within the Region.

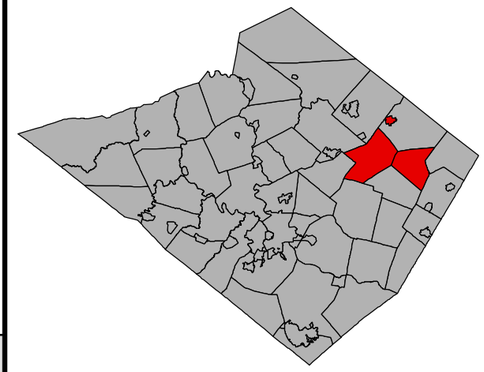
Successful historic preservation involves more than a mere compilation of data. Rather, it should recognize the importance of its historic defining features and indicate how those features relate to the future by:

1. ***Establishing realistic goals to implement suitable preservation guidelines and standards. Realistic goals should be established that are adopted with considerable public scrutiny and support (make sure that goals are achievable);***
2. ***Identifying individual resources and districts based on the survey that could be eligible for the National Register of Historic Places and apply for listing on the Register;***
3. ***Adding regulations into the zoning ordinance which will help achieve historic preservation goals, like the review of demolitions; design guidelines for infill construction; Historic Overlay Zones; incentives for adaptive reuse, demolition by delay, etc.;***
4. ***Updating existing zoning regulations to resolve conflicts with historic preservation goals, like incompatible uses, excessive setbacks, required off-street parking, reduced lot coverage, etc.; and,***
5. ***Developing partnerships with community groups and organizations to facilitate a public education initiative about local history and the historic resources in the municipality.***

FIGURE 1-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Soils



Soil Map Unit Descriptions

AoB	EhB*	HeD	MuC*
BuB*	EhC*	HeF	PaA*
BvB	EhD	Ho*	ThA
CmA*	GeB*	LaB*	ToA
CmB*	GeC*	LaC*	ToB
DbA*	GeD	LaD	TwB
DbB*	GfB	LbB	Ua
DfC*	GfD	LbD	UmB
EdB	GfF	LdF	W
EdD	GnA*	Me*	
EdF	GnB*	MuB*	

Poorly Drained Soils

Municipal Boundaries

Roads

Railroads

* Prime Agricultural Soils (Classes 1-3)

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services, USDA NRCS

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Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Hereford
Ruscombmanor
Pike
Oley
Washington

0 1 2 Miles

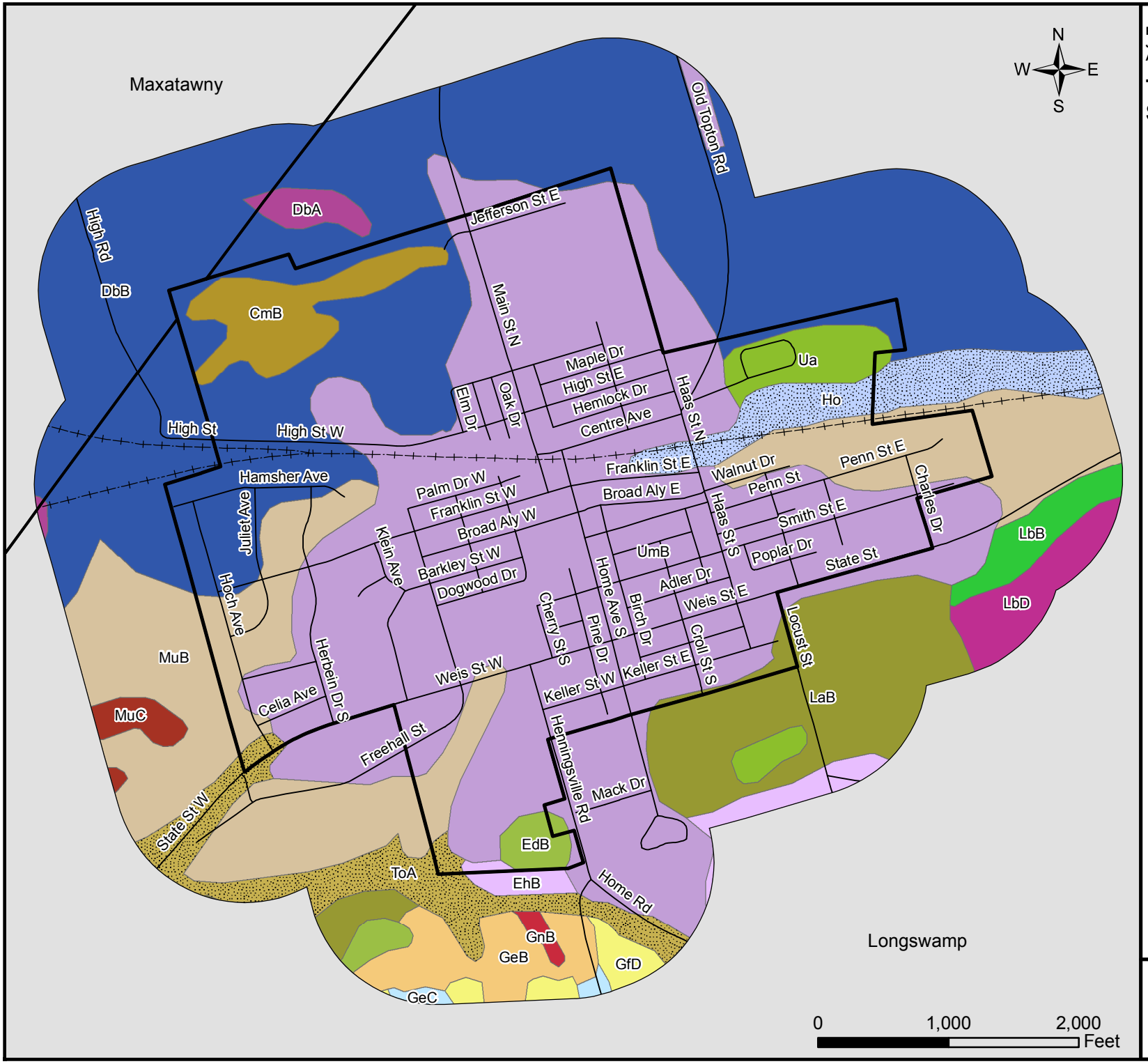
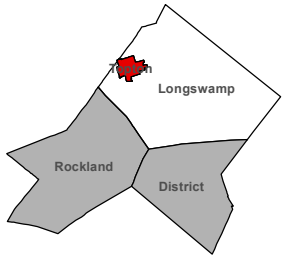


FIGURE 1-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Soils



Soil Map Unit Descriptions

AoB	GeB*	LbB
BuB*	GeC*	LbD
BvB	GeD	LdF
CmA*	GfB	Me*
CmB*	GfD	MuB*
DbA*	GfF	MuC*
DbB*	GnA*	PaA*
DfC*	GnB*	ThA
EdB	HeD	ToA
EdD	HeF	ToB
EdF	Ho*	TwB
EhB*	LaB*	Ua
EhC*	LaC*	UmB
EhD	LaD	W

Poorly Drained Soils

Municipal Boundaries

Roads

Railroads

* Prime Agricultural Soils (Classes 1-3)

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services, USDA NRCS

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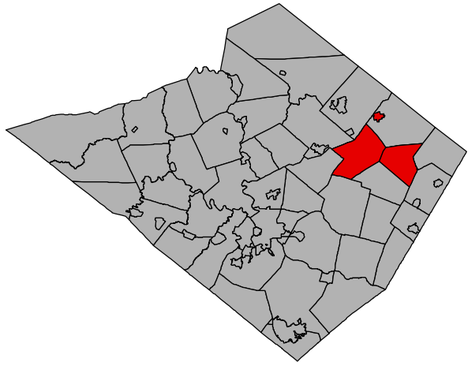
FIGURE 2-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Geology



Geologic Formation

- Allentown Formation
- Beekmantown Group
- Felsic and Intermediate Gneiss
- Felsic to Mafic Gneiss
- Graphitic Felsic Gneiss
- Hardyston Formation
- Hornblende Gneiss
- Leithsville Formation
- Metadiabase
- Tax Parcels
- Municipal Boundaries
- Railroads
- Streams

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Pennsylvania Bureau of Topographic and Geologic Survey, Department of Conservation and Natural Resources

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Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Hereford
Ruscombmanor
Pike
Washington
Oley
N
W
E
S
0
1
2
Miles
Cider Mill Rd
Mine Rd
Smoketown Rd
Foxs Rd
Carls Hill Rd
Stimmel Rd
Beaver Creek Rd
Clay Valley Rd
Lyons Rd
Kutz Rd
Longedale Rd
Pricetown Rd
Steep Hill Rd
Fredericksville Rd
Highview Ln
Gressley Rd
Five Points Rd
Huffs Church Rd
Delong Rd
Benfield Rd
Bitting Rd
Fretchler Rd
Baldy Hill Rd
Fairmill Dr
Long Ln
Keim Rd
Weidner Rd
Day Rd
Ruppert School Rd
Schweitz Rd
Bickel Rd
Keller Rd
Conrad Rd
Ridge Dr
Cardinal Dr
Sheephill Rd
Orchard Rd
Crestview Dr
Hill Rd
Deysher Rd
Boyer Rd
Lobachsville Rd
Angstadt Rd
Oysterdale Rd
Forgedale Rd
Chew Rd
Kemp Rd
Bull Rd
Landis Store Rd
Deer Run Rd
Hardy Hill Rd
Weil Rd
Merkel Rd
Groff Rd

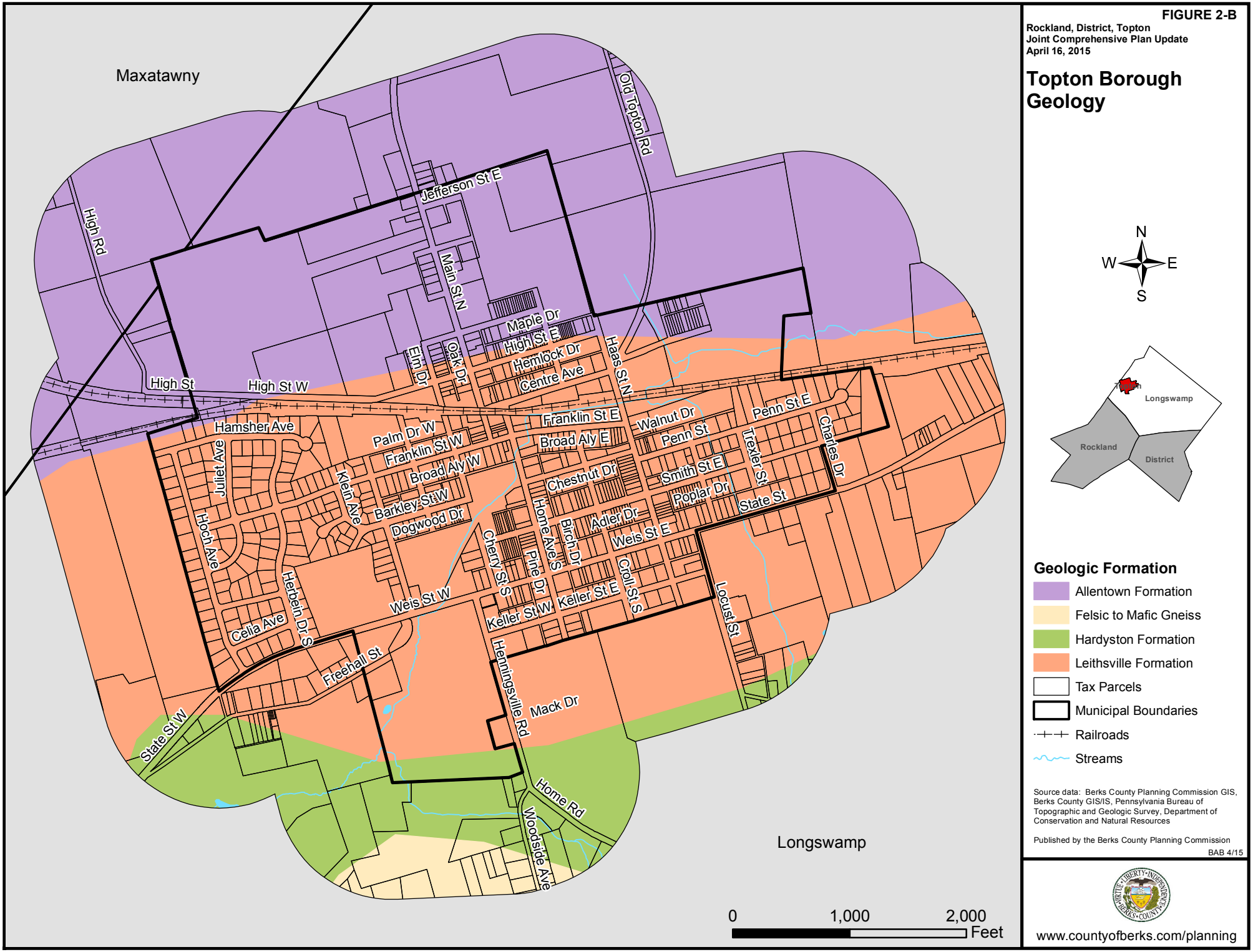

FIGURE 2-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Geology

Geologic Formation

- Allentown Formation
- Felsic to Mafic Gneiss
- Hardyston Formation
- Leithsville Formation
- Tax Parcels
- Municipal Boundaries
- Railroads
- Streams

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Pennsylvania Bureau of Topographic and Geologic Survey, Department of Conservation and Natural Resources

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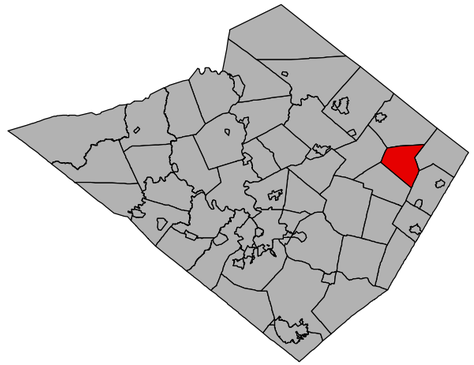
FIGURE 3-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Historic Resources
District Township



Legend

- National Register Listed
- National Register Ineligible
- Other Historic Sites*
- Historical Districts
- State Gamelands
- Municipal Boundaries
- Roads
- Streams

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

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services

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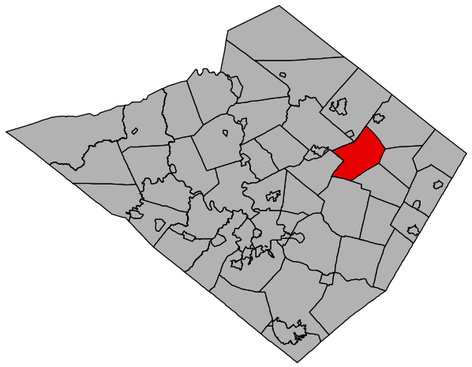
Longswamp
Rockland
District
Hereford
Washington
Hertzog School Rd
Five Points Rd
Huffs Church Rd
Delong Rd
Benfield Rd
Bitting Rd
Treichler Rd
Baldy Hill Rd
Long Ln
Day Rd
Keim Rd
Conrad Rd
Chew Rd
Bull Rd
Kemp Rd
Oysterdale Rd
Forgedale Rd
Landis Store Rd
Deer Run Rd
Hardt Hill Rd
Weil Rd
Merkle Rd
Groff Rd
5043
5036
5053
1722
1718
1728
1734
1719
1721
1729
1735
1723
1727
1726
6523
1732
1736
5917
0 0.5 1 Miles

Inset
Baldy Hill Rd
Conrad Rd
Oysterdale Rd
Forgedale Rd
Landis Store Rd
1723
1727
1726
1725
1724
1730

FIGURE 3-B

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Historic Resources
Rockland Township



Legend

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- National Register Ineligible
- Other Historic Sites*
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N W E S

Maxatawny
Lyons
Richmond
Longswamp
Fleetwood
Ruscombmanor
Rockland
District
Pike
Oley

Old Bowers Rd
Main St
Bowers Rd
Mine Rd
Foxs Rd
Carls Hill Rd
Smoketown Rd
Fredericksville Rd
Huffs Church Rd
Lake Rd
Beaver Creek Rd
Lyons Rd
Schweitz Rd
Gressley Rd
Five Points Rd
Kutz Rd
Forgedale Rd
Pricetown Rd
Bick Rd
Conrad Rd
Ridge Dr
Crestview Dr
Hill Rd
Orchard Rd
Angstadt Rd
Deysher Rd
Boyer Rd
Day Rd
Long Ln
Bitting Rd
Baldy Hill Rd
Keim Rd
Oysterdale Rd

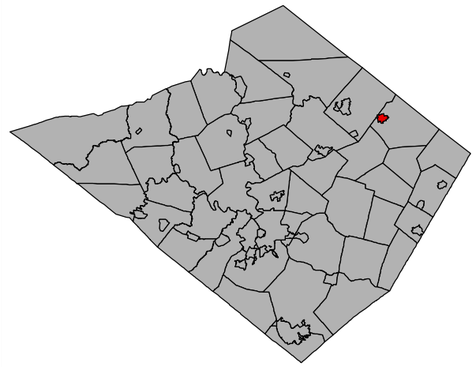
5025 5022 5945 5030 6613 5042 5054 5026 5023 5027 5057 5028 5031 5053 5036 5043 5032 1722 5024 5037 5037 5039 5035 5041 5048 5055 6615 5044 5052 1728 1721 1729 1735 5049 5056 5021 5045 5051 5029 5046 5050 5020 5038 6614 5033 5034 5058 5047

0 0.75 1.5 Miles

FIGURE 3-C

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Historic Resources
Topton Borough



Legend

- National Register Listed
- National Register Ineligible
- Other Historic Sites*
- Historical Districts
- State Gamelands
- Municipal Boundaries
- Roads
- Railroads
- Streams

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

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services

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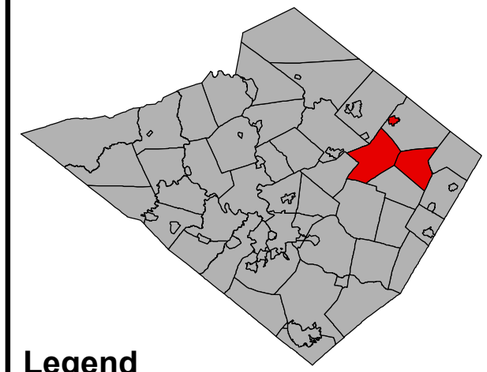
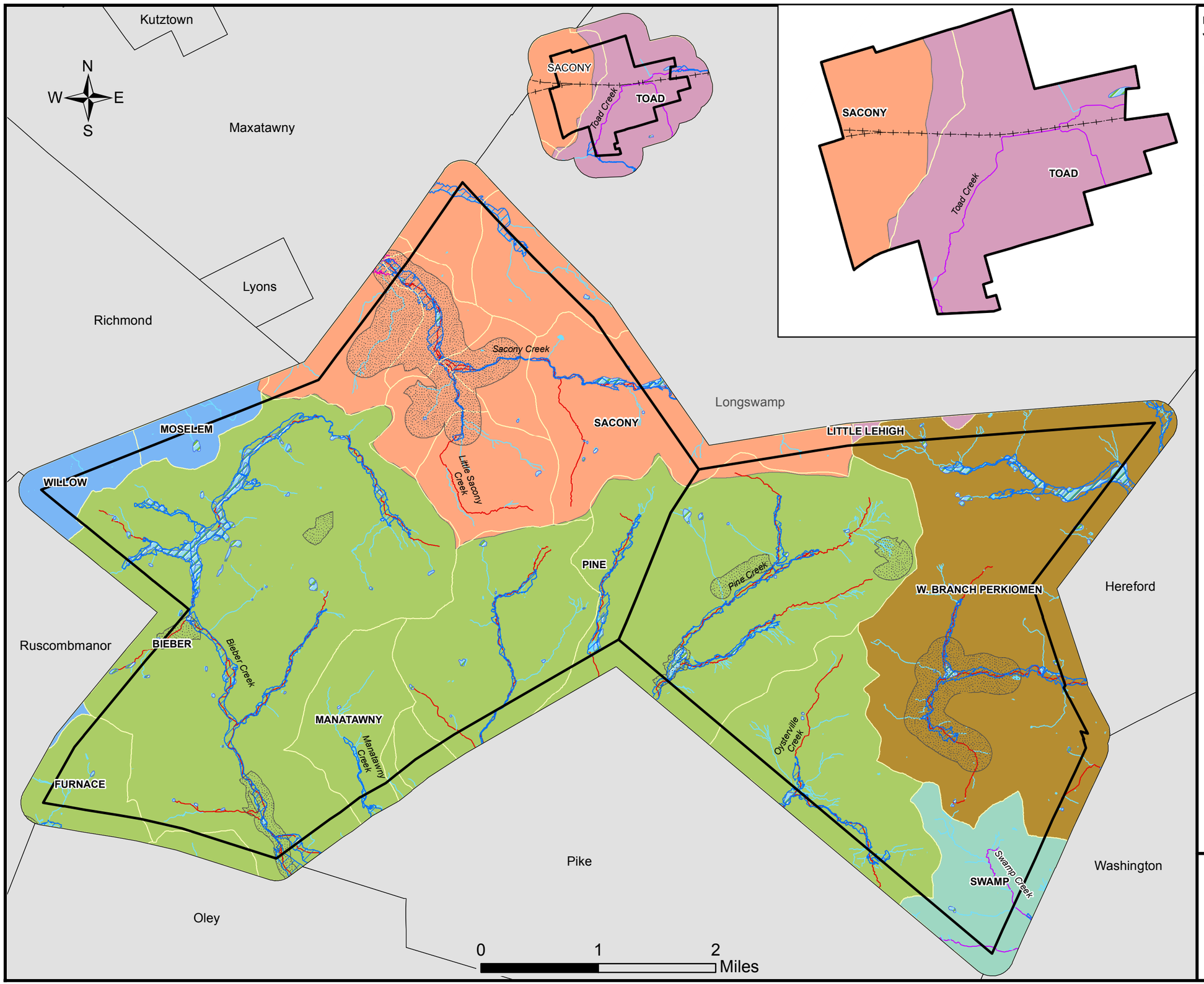
Maxatawny
Longswamp
Topton
Maxatawny
Longswamp
Longswamp
High Rd
Jefferson St W
Jefferson St E
Main St N
Old Topton Rd
Washington St W
Washington St E
Maple Dr
High St E
Hemlock Dr
Heffner St
Haas St N
Furnace St
Centre Ave
Elm Dr
Cherry St N
Oak Dr
Willow Dr
High St
High St W
6305
6305
5376
5370
5377
5372
5375
5367
Franklin St E
Walnut Dr
Penn St E
Penn St
Ash Dr
Ash Dr
Smith St E
Trexler St
Charles Dr
Broad Aly E
Barkley St E
Chestnut Dr
Sycamore Dr
Hickory Dr
Poplar Dr
Haas St S
Hamsher Ave
Palm Dr W
5374
Juliet Ave
Herbein Dr N
5371
Broad Aly W
Cherry St S
Klein Ave
Barkley St W
Dogwood Dr
Callowhill St S
Franklin St W
Hoch Ave
Smith St W
Cherry St S
Pine Dr
Home Ave S
Birch Dr
Croll St S
Adler Dr
State St
Weis St E
Aspen Dr
Keller St E
Walnut St
Locust St
Marshall Ave
Celia Ave
Herbein Dr S
5368
Weis St W
Keller St W
Freehall St
Henningsville Rd
Mack Dr
Trexler Rd
State St W
Home Rd
0
750
1,500
Feet

FIGURE 4-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Natural Resources





Legend

- Little Lehigh Creek Watershed**
- Maiden Creek Watershed*
- Manatawny Creek Watershed*
- Perkiomen Creek Watershed*
- Sacony Creek Watershed*
- Swamp Creek Watershed*
- Subwatersheds
- 1% Floodplain
- 0.2% Floodplain
- Wetlands
- Natural Heritage Areas- Core Habitat
- Streams
- Exceptional Value Streams
- High Quality Streams
- Municipal Boundaries
- Railroads

* Drains to Schuylkill River
** Drains to Deleware River

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services, FEMA, Western Pennsylvania Conservancy

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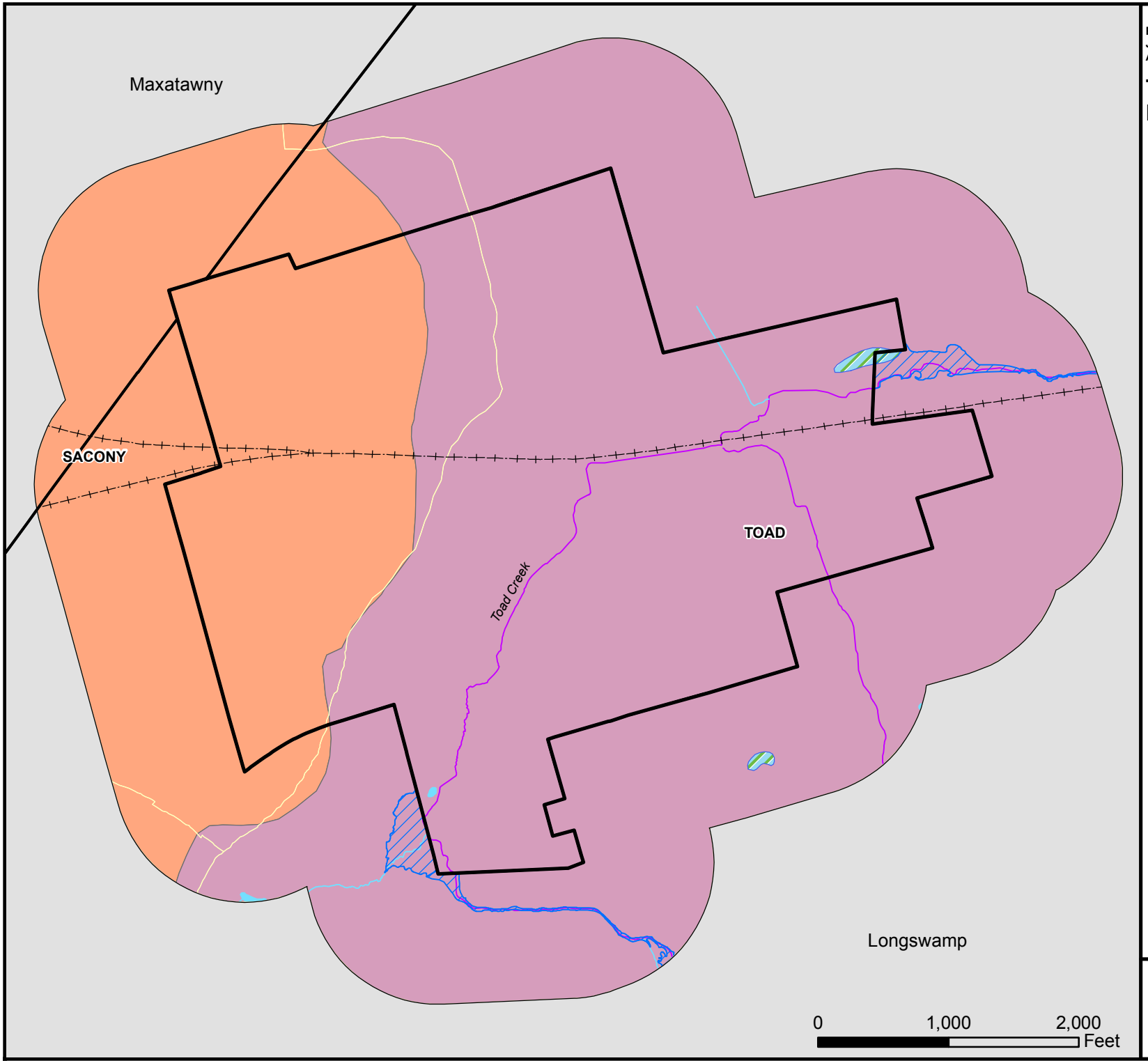
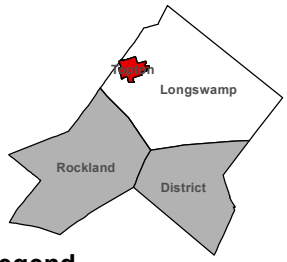


FIGURE 4-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Natural Resources

N
W E
S



Legend

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- Sacony Creek Watershed*
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- Exceptional Value Streams
- High Quality Streams
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* Drains to Schuylkill River
** Drains to Deleware River

Source data:
Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services FEMA

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IV. DEMOGRAPHICS

The allocation of municipal resources must consider the population to be served. Population, housing and economic analyses are a principal component of any comprehensive plan. Obviously, the overall size of a population is related to the amount of land, manpower and services to be provided. In addition, particular groups within the population have different needs. This section will present past, current and expected population statistics in order to determine the Region's needs.

A. Historic Population Growth

The historical growth pattern of an area provides insight as to the growth that might be expected in the future. The following table lists the amount of population growth that has occurred over the last 50 years within each municipality of the Region.

Historic Population Growth
Eastern Berks County Region

	1960	1970	1980	1990	2000	2010
District Township	570	752	1,094	1,211	1,449	1,337
Rockland Township	1,298	1,452	1,911	2,675	3,765	3,778
Topton Borough	1,684	1,744	1,818	1,987	1,948	2,069
Region	**3,552**	**3,948**	**4,823**	**5,873**	**7,162**	**7,184**

From the above table, several trends are visualized. First, the Region has realized a moderately accelerating rate of growth since 1960, most notably since 1970. The 1970s and 1980s saw particularly high rates of growth which continued in the 1990s and then leveled off between 2000 and 2010. Rockland Township has lead the Region in growth. District Township has had a very modest rate of growth throughout the period but has declined since 2000 and Topton Borough experienced growth until 1990 then declined in population in 2000 and saw a very modest growth over the last decade.

Another trend deals with the type of growth occurring. In 1960, Topton Borough comprised about 47% of the Region's population. In 2000 that share had diminished to 27% and slightly increased to about 29% in 2010. Therefore, the suburban and rural residences within the Region comprised 71% of its population. Overall, the Region had grown by 51% since 1960, but between 1990 and 2010 the Region grew only 18% overall and only 0.3% since the year 2000. During the highest growth decades, 1970 through 2000, the average growth rate of the Region in each decade was about 18%.

Next, a comparison of growth within Berks County and the Region can provide further insight into future expectations. By comparison, Berks County's growth rate for 1990-2000 was about 10% and for 2000-2010 was about 10%. The growth rate for Berks County from 1970-1990 was about 14%.

As the above number reflects, the Region has at all times experienced proportional growth above that of the County as a whole. Interestingly, the Region exhibits an inverse pattern of proportional growth when compared with the County between 1970 and 2000. When the County has experienced slower growth the Region has experienced accelerated growth and vice versa. Based upon the recent economic downturn and the slower housing market it is expected that Region will continue to grow at a rate slower than that of Berks County over the next decade.

B. Historic Housing Growth

In addition to population growth, another important consideration when projecting how fast an area will grow relates to its number of housing units. The following table lists the number of housing units within each municipality since the US Census Bureau began reporting such information in 1970.

Housing Growth by Municipality
1970-2010

	1970	1980	1990	2000	2010
District Township	254	400	461	548	565
Rockland Township	477	704	989	1,368	1,469
Topton Borough	590	693	779	842	877
Region	**1,321**	**1,797**	**2,229**	**2,758**	**2,911**

Unsurprisingly, the number of housing units exhibited similar growth trends as the population within the Region. However, the rate of housing growth is slightly greater than that of population. Between 1970 and 2010, the Region's population grew by 45.9%, while its number of housing units grew by 52.1%. This occurred because fewer people are living together, as family sizes have decreased and more people are living by themselves. This trend is true for each municipality within the Region except Topton Borough which experienced a slight increase in household size during the 2000s, as can be seen in the table below. This trend has also occurred nationally for several decades. While there was a significant decrease in household size from 1970 to present, the numbers are leveling off and overall may even increase slightly in the future.

Persons per Housing Unit by Municipality

1970-2010

	1970	1980	1990	2000	2010
District Township	2.96	2.74	2.63	2.64	2.49
Rockland Township	3.04	2.71	2.7	2.75	2.67
Topton Borough	2.96	2.62	2.55	2.31	2.48
Region	**3.15**	**2.77**	**2.71**	**2.63**	**2.55**

C. Population & Housing Projections

Review of the population and housing trends for the Region over the last few decades reveals a somewhat uniform and steady rate of growth. While previous population and housing projections showed a fairly steady growth in the Region until 2020 these numbers have proved to be unreliable since they did not predict the economic downturn between 2000-2010. As new projections are completed for the area the Region should review them to determine their validity. The projections shown in the previous EBRCP showed inflated population and a large decrease in the persons per housing unit that did not occur. The Pennsylvania Department of Environmental Protection prepared a population projections report for the Updated State Water Plan. The projections are based upon the most recent 2010 Census, however even these newer projections are questioned as to their accuracy and validity. With a high rate of unoccupied housing and Brandywine School District projections of -3.75% the State's projections are even more questionable. (See Section V for Brandywine School District Projections) We can also look at the per capita taxed population with the Region to understand that the population is not currently increasing significantly. As of 2014 the total per capita taxes sent out to residents was 4,902. This tax is assessed upon persons that work and are not full-time students. With the idea that the majority of persons who work are between the ages of 20-64, as of 2010 this age group made up 4,476 persons in the Region. Even with the small numbers of person age 15-19 and over 65 that are employed and not full time students that would need to be included in the per capita eligible number, there does not appear to be any reason to believe that development increases will return to the 1970-2000 level and with the recent 2010 Census numbers along with the subdivision and land development activity levels at their lowest, populations increases will probably be even less than what is currently projected for the Region.

PA Department of Environmental Protection Population Projections Report (Berks County)					
Municipality	2000 Census	2010 Census	2020 Projected	2030 Projected	2040 Projected
District Twp.	1,449	1,337	1,425	1,399	1,438
Rockland Twp.	3,765	3,778	4,406	4,683	5,161
Topton Boro.	1,948	2,069	2,099	2,180	2,232
Region Totals	7,162	7,184	7,570	8,262	8,831
Berks County	372,049	411,442	444,991	480,374	514,836
Comments: While the Region is growing in population and housing the development trends lean more towards modest growth rates lower than what the PA DEP projects. It is anticipated that Rockland Twp. will continue to see more growth than either District Twp. or Topton Boro. due to their closer access to development centers, however development numbers in the Region have not increased to support the inflated numbers seen above.					

D. OTHER SOCIO-ECONOMIC CHARACTERISTICS

AGE PROFILE					
Age Group	Topton Borough	District Township	Rockland Township	Region	Berks County
Under 5 years	108 (5.2%)	54 (4.0%)	184 (4.9%)	346 (4.8%)	25,288 (6.1%)
5-9 years	117 (5.7%)	57 (4.3%)	261 (6.9%)	415 (5.8%)	26,960 (6.6%)
10-14 years	151 (7.3%)	86 (6.4%)	261 (6.9%)	498 (6.9%)	27,828 (6.8%)
15-19 years	152 (7.3%)	87 (6.5%)	257 (6.8%)	496 (6.9%)	31,785 (7.7%)
20-24 years	140 (6.8%)	54 (4.0%)	164 (4.3%)	358 (5.0%)	27,355 (6.6%)
25-64 years	1,114 (53.8%)	808 (60.4%)	2,196 (58.1%)	4,118 (57.3%)	212,668 (51.7%)
65+ years	287 (13.9%)	191 (14.3%)	475 (12.6%)	953 (13.3%)	59,558 (14.5%)
Median age	39.3	46.7	44.4	43.5	39.1
Comments: The Region's age profile is fairly similar to the overall County's except for the age group 25-64 years where the Region has over 5.5% more persons.					

GENDER PROFILE					
Gender	Topton Borough	District Township	Rockland Township	Region	Berks County
Male	993 (48.0%)	688 (51.5%)	1,915 (50.7%)	3,596 (50.1%)	201,864 (49.1%)
Female	1,076 (52.0%)	649 (48.5%)	1,863 (49.3%)	3,588 (49.9%)	209,578 (50.9%)
Comments: The Region as a whole is gender balanced.					

Racial Composition & Hispanic/Latino Origin					
Race	Topton Borough	District Township	Rockland Township	Region	Berks County
White	2,016 (92.4%)	1,307 (97.8%)	3,692 (97.7%)	7,015 (97.6%)	342,148 (83.2%)
African American	12 (0.6%)	8 (0.6%)	11 (0.3%)	31 (0.4%)	20,143 (4.9%)
Native American	5 (0.3%)	7 (0.5%)	2 (0.1%)	14 (0.2%)	1,285 (0.3%)
Asian	1 (0.0%)	2 (0.1%)	15 (0.4%)	18 (0.3%)	5,385 (1.3%)
Pacific Islander	-	-	1 (0.0%)	1 (0.0%)	128 (0.0%)
Other	14 (0.7%)	2 (0.1%)	15 (0.4%)	31 (0.4%)	32,101 (7.8%)
Bi-racial	21 (1.0%)	11 (0.8%)	42 (1.1%)	74 (1.0%)	10,252 (2.5%)
Hispanic/Latino	58 (2.8%)	7 (0.5%)	68 (1.8%)	133 (1.9%)	67,355 (16.4%)
Comments: As a whole the Region does not have as much racial diversity as Berks County. Combined the Region's minority population is 2.4%, which is up from 1.3% in 2000.					

Other Housing & Household Characteristics					
Other Characteristics	Topton Borough	District Township	Rockland Township	Region	Berks County
Persons in Group Quarters	-	-	-	-	12,023 (2.9%)
Family w/children	273 (47.9%)	152 (37.7%)	463 (42.1%)	888 (42.8%)	50,394 (47.3%)
Rental Units	260 (31.1%)	75 (15.0%)	105 (7.4%)	440 (15.8%)	43,703 (28.3%)
Vacant Units	42 (4.8%)	29 (5.1%)	56 (3.8%)	127 (4.4%)	10,471 (6.4%)
Comments: Except for Topton Boro. the Region has fewer families with children and fewer rental units than Berks County as a whole. This contributes to the assumption that the increase in population will not be as significant as PA DEP projections. The Region as a whole and each municipality has lower vacancy rates than the County.					

Education		
Area	High School Diploma	4+ Year @ College
Topton Borough	81.7%	20.0%
District Township	84.5%	16.6%
Rockland Township	90.7%	32.9%
Berks County	84.1%	22.3%
Comments: Overall the Region has a higher number of both graduates with a high school diploma and a 4+ year college degree.		

Income				
Area	**Per Capita**	**Median Family**	**Median Household**	**% of Persons Below Poverty**
Topton Borough	$27,274	$74,423	$59,330	5.0%
District Township	$28,502	$59,688	$54,614	6.7%
Rockland Township	$34,419	$92,083	$79,438	4.6%
Berks County	$26,478	$66,212	$55,021	13.5%
Comments: The Region has significantly fewer persons living below the poverty rate than Berks County as a whole. Rockland Twp. leads the Region in income levels and education levels.				

Employment Status & Commuting						
Area	**Total Labor Force**	**Employed**	**Unemployed**	**Carpooled**	**Public Transit**	**Average commute**
Topton Borough	63.7%	59.5%	4.2%	5.5%	-	23.0
District Township	70.5%	66.5%	4.0%	2.5%	0.4%	30.2
Rockland Township	74.1%	69.2%	4.9%	6.2%	1.6%	29.2
Berks County	(66.3%)	(60.0%)	(6.23%)	(9.9%)	(1.8%)	24.2 min.
Comments: District and Rockland Twps. have a higher percentage of workers than Berks County as a whole. Overall the employment status is about equal to the County or higher, as seen in the Townships. Carpooling and Public Transit are not as popular in the Region as the County due to the more remote location and variety of directions that many workers travel.						

Civilian Labor Force				
Area	**Topton Borough**	**District Township**	**Rockland Township**	**Berks County**
Agriculture, forestry, fishing, hunting and	1.1%	2.2%	0.0%	1.9%
Construction	4.5%	10.1%	10.6%	5.7%
Manufacturing	28.3%	26.4%	28.6%	18.3%
Wholesale trade	3.0%	1.6%	0.7%	3.3%
Retail trade	9.6%	13.2%	7.0%	12.4%
Transportation, warehousing and utilities	6.4%	5.6%	1.5%	4.8%
Information	0.4%	3.1%	2.0%	1.4%
Finances, insurance and real estate	3.8%	2.8%	6.2%	5.9%
Professional, scientific, management and waste	5.0%	7.2%	8.9%	8.8%
Educational, health and social services	23.4%	12.7%	21.6%	23.5%
Arts, entertainment, recreation, lodging & food	9.3%	7.8%	5.2%	7.2%
Other services	2.6%	5.0%	5.9%	4.5%
Public administration	2.9%	2.5%	2.0%	2.5%
Comments: The Region has significantly more persons working in the Construction and Manufacturing sectors than Berks County. This may in some part be related to the fact that East Penn Manufacturing, one of the largest employers in Berks County, has facilities in and near the Region. In most cases the remaining sectors are fairly consistent with the overall County percentages with a few exceptions, District Twp. has far fewer workers in the Educational, health and social services fields than the County and other two municipalities and Rockland Twp. has more individuals in the professional, scientific, management and waste category than Topton and District.				

Housing Condition			
Area	**Units Lacking Complete Plumbing**	**Units Lacking Complete Kitchen**	**Built Pre-1940**
Topton Borough	-	-	302 (40.6%
District Township	-	3 (0.6%)	104 (18.5%)
Rockland Township	-	-	365 (25.4%)
Berks County	961 (0.6)	1,656 (1.1%)	47,709 (29.0%)
Comments: Topton Boro. has more housing units than the Region and Berks County as a whole built prior to 1940.			

Housing Tenure & Vacancy				
Area	**Owner-occupied Units**	**Owner-occupied Vacancy Rate**	**Renter-occupied Unit**	**Renter-occupied Vacancy Rate**
Topton Borough	530 (74.3%)	-	183 (25.7%)	6.5%
District Township	402 (80.2%)	2.9%	99 (9.8%)	10.8%
Rockland Township	1,364 (95.1%)	0.0%	71 (4.9%)	0.0%
Berks County	111,016 (72.1%)	1.6%	42,961 (27.9%)	5.7%
Comments: Overall the Region has a higher owner occupied rate than Berks County and a lower amount of renter occupied units.				

Housing Costs		
Area	**Median Monthly Rental Costs**	**Median Owner-Occupied Housing Values**
Topton Borough	$841	$165,400
District Township	$774	$244,900
Rockland Township	$834	$243,600
Berks County	$812	$173,400
Comments: The Median owner occupied housing values are significantly higher in District and Rockland Townships versus the County as a whole, in fact more than $70,000 higher than the County. Median rental housing is highest in Topton Borough. Possibly in part to the significantly higher number of rental properties compared to the other municipalities.		

Housing Type					
Area	**Single-family Detached**	**Single-family Attached**	**Two-family**	**Multiple-family**	**Mobile Home**
Topton Borough	382 (51.3%)	214 (28.8%)	39 (5.2%)	105 (14.2%)	4 (0.5%)
District Township	444 (78.9%)	3 (0.5%)	3 (0.5%)	2 (0.4%)	111 (19.7%)
Rockland Township	1,375 (95.8%)	16 (1.1%)	-	-	44 (3.1%)
East. Berks Co. Region	2,201 (80.3%)	233 (8.5%)	42 (1.5%)	107 (3.9%)	159 (5.8%)
Berks County	90,289 (54.9%)	3,842 (73.3%)	6,175 (3.8%)	24,114 (14.6%)	5,581 (3.4%)
Comments: Overall the Region favors single-family detached housing units with more than 25% more than Berks County overall. Topton has the most single-family attached, two-family and multiple family of the Region, however this is due to their having access to public sewer and water facilities.					

V. PUBLIC FACILITIES

A. Schools

A high quality education is a widely-held objective for most of our society. Historically, school districts have forecast short-term future demands for school facilities, enabling them to program additional building expansion, construction, consolidations, and closures to meet forecasted demands. School district planning can have a direct effect on, as well as be affected by, the land use activities within an area. For instance, new or expanded schools may generate increased nearby residential development, and school closures may contribute to the de-population of communities. At the same time, long-range municipal land use planning may designate new growth areas at some distance from existing or planned school facilities. All of these issues underlie the importance of coordinating school district and municipal comprehensive planning processes to assure that existing and future schools and planned community growth occur hand-in-hand.

The Eastern Berks County Region is served by the Brandywine Heights Area School District. School Board members serve 4-year terms. In addition, the Gateway and Lighthouse Christian Schools also serve the Region. ***The Eastern Berks County Region Public Facilities Map*** illustrates the location of the Region's public school sites. The remainder of this section will focus upon conditions at the public schools within the Region.

Brandywine Heights Area School District athletic fields and existing Middle School

Presently, the School District employs the following grade format:

Public School Grade Format	
Kindergarten	Kindergarten
Elementary School	1-4
Intermediate/Middle School*	4-8
High School	9-12
*The Kemp Building houses both the Intermediate School, grades 4th and 5th, and the Middle School, grades 6th through 8th.	

The following tabulates conditions at each of the School District's five school sites:

Summary of Brandywine Heights Area School District Facilities

School Name	Year Built	Renovation Dates	Site Size (acres)	Rated Condition	Grades Housed	Rated Capacity	2013-14 Enrollment
Topton Elementary	1960	1980 & 1990	10.3	Good	K–3	473	425
Intermediate	1955	1968 & 1995	32	Good	4-5	1190	211
Middle School					6-8		364
High School	2003	NA	42	New	9–12	800	565

Source: School District

The Brandywine Heights Area School District serves the entire Eastern Berks County Region along with Longswamp Township. The Topton Elementary School is located within Topton Borough. The Middle School, also located within Topton Borough, sits across Weiss Street from the Elementary School, on the south side. The High School, which was built in 2003, sits northeast of Topton Borough within Longswamp Township.

One Elementary School serves the entire Region. The Topton Elementary School site has 10.3 acres and a school that was renovated twice, the last of which occurred in 1990. This facility is rated in "good" condition by District officials. This School serves students from Kindergarten through grade 3 from the entire Region and Longswamp Township.

The Longswamp Elementary School and the Rockland Elementary School are closed. The Rockland Elementary school, which was located on the west side of Lyons Road just north of the Village of New Jerusalem and contained 11.2 acres, was sold to a private school.

The Brandywine Heights Area Intermediate and Middle Schools are also located at the intersection of Henningsville Road and Weiss Street East in Topton Borough. The Middle School was built in 1955 and renovated in 1968 and 1995; its condition is described as "good." A new High School was constructed on the east side of Old Topton Road in Longswamp Township a short distance northeast of Topton Borough. This opened in 2003-04.

The following lists the residual capacity in each of the public schools that serve the Eastern Berks County Region:

Residual Capacity of Schools Serving Region			
School	**Rated Capacity**	**2013-14 Enrollment**	**Residual Capacity**
Topton Elementary	473	425	47
Intermediate/Middle School	1190	575	615
High School	800	565	235
		Total Residual Capacity	**897**

In the year 2010, the number of school-aged children within the Region totaled about 1409, or 21.1% of the total population, this does not include Longswamp Township. The planning goals for this Plan suggest that Topton Borough and Rockland Township will bear most of the planned development potential within the Region. The School District prepares a 10-year History of Enrollment and a 10-year Projection. The following tables show this and include Longswamp Township:

Brandywine Heights Area School District Enrollment 10-Year History and 10-Year Projection

Grade	2004-05	2005-06	2006-07	2007-08	2008-09	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
K	123	111	115	110	92	117	112	113	124	84
1	144	126	118	120	116	100	123	110	108	120
2	122	147	130	118	122	119	103	118	114	110
3	137	122	150	134	120	129	120	96	119	111
4	137	142	124	151	135	124	128	119	93	117
5	149	137	147	130	161	137	129	120	117	94
6	171	145	139	145	136	161	142	123	120	117
7	159	167	150	137	148	132	161	132	119	125
8	182	159	173	151	135	154	129	154	127	122
9	182	194	181	191	174	152	159	128	171	145
10	173	167	178	156	170	158	158	151	122	161
11	169	164	164	166	144	169	147	138	142	116
12	147	162	155	148	166	146	165	154	150	143
Total	1,995	1,943	1,924	1,857	1,819	1,798	1,776	1,656	1,626	1,565
% Change		-2.61%	-0.98%	-3.48%	-2.05%	-1.15%	-1.22%	-6.76%	-1.81%	-3.75%
Avg. Grade	153	149	148	143	140	138	137	127	125	120

Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
K	110	110	110	110	111	111	111	112	112	112
1	84	110	110	110	110	111	111	111	112	112
2	120	84	110	110	110	110	111	111	111	112
3	110	120	84	110	110	110	110	111	111	111
4	111	110	120	84	110	110	110	110	111	111
5	117	111	110	120	84	110	110	110	110	111
6	94	117	111	110	120	84	110	110	110	110
7	117	94	117	111	110	120	84	110	110	110
8	125	117	94	117	111	110	120	84	110	110
9	122	125	117	94	117	111	110	120	84	110
10	145	122	125	117	94	117	111	110	120	84
11	161	145	122	125	117	94	117	111	110	120
12	116	161	145	122	125	117	94	117	111	110
Total	1,532	1,526	1,475	1,440	1,429	1,415	1,409	1,427	1,422	1,423
% Change	-2.11%	-0.39%	-3.34%	-2.37%	-0.76%	-0.98%	-0.42%	1.28%	-0.35%	0.07%
Avg. Grade	118	117	113	111	110	109	108	110	109	109

With the both the historical enrollment decreases and the projected continuing enrollment decreases the School District has sufficient capacity for all of the municipalities within the District boundary. ***It is recommended that the Brandywine Heights Area School District closely monitor growth within the Region so as to proactively plan for facility expansion or restoration well in advance of actual demand for space. The School District will benefit from an improved process of residential development review where municipalities are required now to notify School Districts of residential development approvals. By learning of proposed developments early, the District can better prepare for education needs and bus routing. The School District should work closely with the municipalities within its service area so that they can properly respond to such applications and provide meaningful feedback to the municipalities.***

Unsurprisingly, the School District welcomes additional commercial and industrial growth as a means of increasing its tax base. Based upon the planning goals articulated for this Plan, it is unlikely that the Region will encourage new large-scale commercial and industrial expansion. Nonetheless, the Plan will accommodate some local commerce and industry and seek to revitalize existing areas, all of which should add to the tax base.

Finally, the District suggested a willingness to cooperate with the municipalities in the delivery of parks and recreation opportunities, provided student use takes priority during the school year, adequate supervision is provided and other administrative issues can be resolved. Clearly, the School District has already contributed to the availability of parks and facilities within the Region to the benefit of all residents and municipalities. This represents savings in the amount of millions of dollars to local municipalities who would otherwise need to fulfill this need.

To enhance these offerings and "work-out-the-details" it is recommended that the Region and School District explore the creation of a new Regional Recreation Board (RRB). This RRB should include at least two voting members from each municipality/ school district who have demonstrated interest in parks and recreation.

One of the first assignments of the RRB should be to prepare and submit an application to PA DCNR for a peer grant to determine the feasibility of creating a RRB. With all of the municipalities and the school district represented, this plan is likely to be funded. Once the peer study was completed, then the municipalities and School District would review the findings to determine the next steps.

B. POLICE PROTECTION

The Berks Lehigh Regional Police Department served the region at the time of the initial comprehensive planning effort. The department was dissolved on Dec. 31, 2013. The Pennsylvania State Police, Troop L, now provides police protection to the region. Troop L is headquartered at 600 Kenhorst Blvd., Reading, PA 19611 and include:

- criminal investigation section comprised of full-time criminal investigators;
- criminal investigative assessment unit;
- fire marshal unit;
- polygraph unit;
- auto theft unit;
- intelligence unit; and
- vice/narcotics unit.

The Region is situated at a convergence of several patrol zones, which means that any number of patrol vehicles could be called upon to respond to calls, depending upon which vehicles were the closest. Patrol shifts run around-the-clock with varying hours assigned based upon demand. These patrol assignments are subject to ongoing adjustment, depending upon the number of officers actually available for patrol versus the anticipated demand for coverage based upon previous numbers of calls received. The Reading Station unit works closely with the neighboring State Police Stations in Hamburg (Berks County), Fogelsville (Lehigh County) and Skippack (Montgomery County) to ensure a prompt and professional response to the Eastern Berks County Region.

The Reading station manpower needs are assessed annually by the Pennsylvania State Police, Bureau of Research and Development, using a complex equation that considers demographics, geography, crime patterns, and statistics and other factors. The region has a relatively low crime rate. This is expected to continue in the future.

Future Regional Police Protection

The local officials, who assisted in the preparation of this Plan, specifically listed the maintenance of the “status-quo” as a goal for future police protection. It would seem that other more pressing issues are of greater concern than the need for a regionalized police force at this time. It also suggests an overall satisfaction with the methods and efficiency of the current system of police protection. This Plan respects these current intentions but offers the following forewarning of a likely future.

As a rural area develops, local officials find themselves torn between retaining low levels of taxation, and providing for increasing levels of public facilities and services that are usually expected by the “newcomers.” This often pits long-time residents of the community who want things to remain as they were against new residents who move from more urbanized locations, and are often surprised and disappointed by the relative lack of public services. At some point, the new residents usually outnumber the existing inhabitants and the political winds change. At that time, new officials are elected on platforms of better delivery of more services, and real ill-will within the community develops.

Local officials need to know and understand these pressures if they are to persevere through the transition. The question is not **if** better services and higher taxes result, but **when**! Fortunately, State programs exist to assist municipalities with these difficult studies and decisions and offer

independent expert advice. Some of these programs are free, while others are offered in the form of peer-to-peer grants. In any event, these programs and grants can provide invaluable assistance to the open-minded elected official who is trying to “cut through” all of the local politics and emotion.

C. Fire Protection and Ambulance Service

Fire protection is a basic public safety service that is important to the Region. Obviously, fire protection is intended to minimize the loss of life and property due to fire and related hazards. The level of fire protection a community offers also affects the rate which area residents and business owners must pay for fire insurance. Six separate fire companies have first-call responsibilities within the Eastern Berks County Region and other adjoining municipalities. In addition to being responsible for their primary service areas, these companies provide reciprocal, mutual-aid assistance to each other and to other surrounding fire companies as needed. Mutual-aid assistance enables neighboring fire departments to supplement manpower and equipment, and thereby respond more effectively to multiple or major calls. Ambulance service is an obvious lifesaving benefit. Emergency ambulance service involves the pick-up of patients at the scene of an accident or other medical emergency, and their transport to local medical care facilities for treatment. Ambulance service can also involve routine transport, which is the transport of patients from one medical facility to another, or to their home. Four different ambulance companies serve the Region.

The tables on the following two pages summarize fire protection and ambulance services within the Region, respectively.

Summary Characteristics of Fire Companies Serving Eastern Berks County Region						
Fire Company	**Eastern Berks Fire Company**	**Lyons Fire Co.**	**Oley Fire Co.****	**Ruscombmanor Fire Co.****	**Seisholtzville Fire Co.****	**Topton Volunteer Fire Co. # 1****
First Call Service Areas *Within the Region* ***(see Public Facilities Map)***	***District, Rockland*** Bally, Bechtelsville, Lyons Boro. & Washington, Pike, Maxatawny Twp.	***Rockland,*** Lyons & Maxatawny	***District , Rockland,*** Oley & Pike Townships	***Rockland &*** Ruscombmanor Townships	***District,*** Hereford, Longswamp Twp.	***Rockland Township, Topton Borough &*** Longswamp Twp.
Mutual-Aid Service Areas *Within the Region*	Berks, Montgomery & Lehigh Counties	***Topton, District,*** Longswamp/Kutztown Fleetwood,/Richmond Ruscombmanor/Pike	***Rockland,*** Alsace, Birdsboro/Earl/Exeter Lower Alsace/Mt. Penn/Ruscombmanor	Alsace, Lower Alsace, Oley, Richmond, Pike, Muhlenberg, Fleetwood Reading, Maxatawny	As dispatched	***Rockland, District,*** Lyons, Maxatawny, Kutztown, Hereford, Upper Macungie, Lower Macungie, Alburtis
Station Locations *Within the Region* ***(Public Facilities Map)***	**Station 1 – Barto Station 2 – Bally Station 3 – Bechtelsville**	**P.O. Box 5 Lyon Station , PA 19505**	**477A Main St. Oley, PA 19547**	**3721 Pricetown Rd. Fleetwood, PA 19522**	**PO Box 132 Hereford, PA 18056**	***PO Box 8 Topton, PA 19562***
Avg. No. of Volunteers	**60 full-time**	**N/A**	**30 full-time 4 fire police**	**7 full-time, 3 part-time 2 fire police**	**20 full-time**	**30 full-time 8 fire police**
1st Due Calls 2011-2013	**2011**	**300 avg.**	**2012 Total Calls – 54 2013 Total Calls - 69**	**N**	**100 avg.**	**2012 Total Calls–21 2013 Total Calls-39**	**145**
	2012	**300 avg.**		**N**	**100 avg.**		**201**
	2013	**300avg.**		**N**	**100 avg.**		**207**
Mutual-Aid Calls 2011-2013	**2011**	**35 avg.**		**N**	**100 avg.**		**22**
	2012	**35 avg.**		**NA**	**100 avg.**		**64**
	2013	**35 avg.**		**NA**	**100 avg.**		**62**
Avg. Emergency Response Time*	10 mins. or less	**5 – 8 mins.**	**4 mins.**	**4-5 mins.**	**> 5 mins.**	**3 mins.**
Major Equipment	• **Hurst Rescue Tools & Air Bags** • **5" hose** • **Class A & B Foam** • **3 Engines 1500 gpm** • **3 Tankers 2000 gal.** • **3 Brush Trucks**	• **Brush truck** • **Engine** • **Rescue Truck** • **Tanker** • **Utility**	• **02 Pierce Heavy Rescue** • **97 E-one Pumper** • **90 E-one Pumper** • **63 Ford Brush**	• **91 Pierce Lance Pumper 1250 GPM 750 gal water tank** • **86 Pierce Dash Rescue Truck w/full Holmatro Hydraulic Rescue tools, 4 bottle 6000 PSI cascade system to refill SCBA cylinders** • **00 F-550 KME mini-pumper 500 GPM Pump w/250 gal water tank & 30 gal class A/B Foam tank w/200 ft booster & assorted 1-3/4" attack lines** • **01 F-450 brush truck w/450 GPM pump, 175 gal water tank w/200' booster lines & other brush fire hand lines & related brush fire fighting equip.** • **05 Int'l. Chassis KME Tanker w/2000 gal water tank & 1250 GPM pump. Assorted 1-3/4 & 2-1/2" attack lines & 2500 gal porta-tank**	• **2 pumpers** • **2 tankers** • **brush truck**	• **71 Mack Pumper**** • **93 KME Pumper** • **92 Heavy Rescue** • **89 Tanker (6000 g)** • **01 Brush Truck** • **89 Jeep Utility**

*Time that it takes the vehicle to leave the station.
**Information provided by Berks County Department of Emergency Services

Summary Characteristics of Ambulance Companies Serving Eastern Berks County Region								
Ambulance Company		**Bally Community****	**Fleetwood**		**Oley****		**Topton**	
Service Area		***District Township***, Douglass, Hereford, Longswamp, New Hanover, Pike & Washington Twps.; Bally, Bechtelsville Boro's.	***Rockland Township*** (portion), Fleetwood Boro., Portions of Oley & Pike Twps. Richmond, & Ruscombmanor Twps.		***District, Rockland Twps.,*** Alsace, Amity, Earl, Oley, Pike & Ruscombmanor Twps.		***Parts of District and Rockland Townships,*** Lyons & Topton Boro., , Longswamp Twp. & parts of Maxatawny Twp.	
Station Locations *Within the Region* (see *Public Facilities Map*)		537 Chestnut St. Bally, PA 19503	16 North Chestnut St. Fleetwood, PA 19522		477A Main Street Oley, PA 19547		205 Home Road, Mertztown, PA 19539-9044	
Average No. of Volunteers/Paid Staff		3 full-time staff 9 part-time staff 13 part-time volunteers	9 full-time staff 25 part-time staff 7 volunteers		15 full-time volunteers 10 part-time volunteers		9 full-time staff 13 part-time staff 15 volunteers	
Coverage Periods		24/7 with occasional callouts	24/7		24/7		24/7	
No. of Ambulance Responses (2011-2013)	**Type of Response**	**Total Emergency / Non-Emergency**	**Emergency**	**Non-Emergency**	**Emergency**	**Non-Emergency**	**Emergency**	**Non-Emergency**
	2011	NA	2083	N	NA	NA	1039	13
	2012	27	2105	N	NA	NA	960	13
	2013	80	2024	N	NA	NA	839	19
Average Emergency Response		2 mins.	2 mins.		10 mins. to scene		3 mins.	
Major Equipment		• 4 EMS Units	- 2001Chevrolet Tahoe – ALS Squad Vehicle - 2003 Ford E-450 Ambulance - 2007 Ford E-450 Ambulance - 2009 Ford E-450 Ambulance		• 4 EMS Units		2006 Ford Ambulance 2010 Ford Ambulance	

*Time that it takes the vehicle to leave the station.
**Information provided by Berks Department of Emergency Services

Future Volunteer Manpower

There is always a concern over declining numbers of volunteers. This is particularly true of next generation of emergency service providers. However, given the projected growth within the Region, future demands will rise and more manpower will be needed. Nationally, volunteerism is declining. The National Volunteer Fire Council reported that the number of volunteer firefighters dropped 12% since its record high in 1983. Despite President Bush's call to public service after "9/11", the downward trend continues. This often forces mutual-aid responses from distant companies; this strategy may work in the short term, but will eventually overburden volunteers who will get frustrated and quit. The more you demand of a volunteer, the less you are likely to receive! Declining manpower response is most problematic during the day when many volunteers work outside of their first response area.

Presently, 6 separate fire companies serve the Eastern Berks County Region with 147 full-time volunteers, 3 part-time volunteers and 10 volunteer fire police. The increase in traffic, certain types of crimes and fears of increased terror attacks many experts argue that capacity to respond to local emergency crises needs to be expanded. Fortunately, many citizens within our society have begun to acknowledge the important and life-saving roles volunteer firefighters, EMTs and local police officers provide.

To enlist more volunteer firefighters/EMTs, particularly during the daytime, it is recommended that the Region create a new Emergency Services Alliance of local officials (say, one from each municipality), the fire chiefs from each fire company and the ambulance chiefs from each ambulance company. The Alliance should seek to ensure that the following possible sources of daytime and other volunteers are put in place:

1. ***Recruit firefighters/EMTs who live within the Region and work for businesses located here;***
2. ***Recruit firefighters/EMTs that live outside of the Region, but work for businesses located here;***
3. ***Establish policies with local governments and businesses that enable their employees to respond to daytime emergencies;***
4. ***Identify local volunteer firefighters/EMTs that may work for Berks County, and establish policies for their release from work duties to respond to daytime emergencies within the Region;***
5. ***Design ongoing recruitment strategies for new resident volunteers and retention strategies for existing volunteers; and,***
6. ***Explore the offering of a "junior" firefighting curriculum within the Public School Districts as a means of developing interest and expertise among potential future volunteers.***

Prior to actual recruiting, the Alliance should complete the following evaluation process:

1. ***Determine the need by local fire/ambulance chiefs for more volunteers from any of the preceding sources within their respective companies;***
2. ***Establish policies within the Region's fire and ambulance companies that allow for nonresidents to become members of their respective companies;***
3. ***Identify those local and nonresident volunteers who work for companies within the Region who could potentially respond to daytime emergency calls;***
4. ***Determine the level of competence of potential volunteers and/or training needed to "run" with local companies;***
5. ***Establish ongoing working agreements with local businesses for the release of volunteer firefighters/EMTs during daytime emergencies;***
6. ***Require the potential "daytime" employee volunteer firefighter/EMTs to become an official member of the respective fire/ambulance company, so that they can be covered by the municipality's workmen's compensation insurance policy; and,***
7. ***Establish an ongoing mechanism that periodically reinitializes the recruitment process.***

Today, emergency services often involve specialized equipment and training. The Region's fire and ambulance companies already have an informal means of efficiently using the specialized skills and expertise of existing volunteers across the Region. ***The Emergency Services Alliance should also formalize a program to deliver specialized training to ensure a wide and uniform coverage of specialized skills and expertise throughout the Region***. In addition, the PA DCED's Shared Municipal Services Program may offer matching grants for any two or more municipalities who jointly perform local government functions. Such grants have been awarded to

fund paid administrators to oversee the preceding recruitment and training activities. ***The Eastern Berks County Region could benefit from the same type of position to carry out these same duties, as discussed in this section of the Plan.***

Future Fund Raising

Like a lack of manpower, local volunteer fire and ambulance companies are plagued by rising costs associated with the need to purchase equipment and supplies. A 2001 study conducted by the Pennsylvania Fire and Emergency Services Institute provided information about the costs saved by the Commonwealth's volunteer fire companies. Essentially, they assumed that, in the absence of volunteer fire companies, paid companies would be required.

Local officials and volunteers are aware of the difficulties faced. Yet, in many cases, an area's long-time residents usually financially support local fire and ambulance companies at an appropriate level. They have been historically educated about the value of local volunteer efforts. However, as the Region has grown and will continue to do so, many new residents have moved here from other, more urban, locations where paid firefighting and ambulance services are normal. These new residents are unaware of their reliance upon, and the plight of, local volunteer companies. Therefore, ***the Region must cultivate awareness among the newly-arrived residents of the need for their financial and manpower support to sustain volunteer firefighting and ambulance services.***

To accomplish this awareness, the local fire and ambulance chiefs must work with local municipalities on a regular and ongoing basis to mount an educational and media campaign. Such campaign must exceed the traditional general campaign that merely includes statements like the following:

- *"Local volunteer fire and ambulance campaigns depend entirely upon your donations";*
- *"Not a single tax dollar is used by local volunteer fire and ambulance companies."*

The new campaign should be more of an "in-your-face" effort that presents specific findings and presents hard, "credible" facts about the cost of delivering these services and the foreseeable equipment needs of the various companies. It should explain the benefits of new equipment and what it can mean to the Region. It should also portray the competent plans of the local companies in their attempts to ensure an adequate level of protection in the near and long-range future. Schedules for equipment replacements and upgrades should be accompanied with target financial goals to which the public can respond. Citizens should gain an understanding that local companies really need this equipment, and that they are not just "after" the newest and shiniest truck on the market.
To demonstrate these facts, the Region should (through the above-described Alliance) apply to the PA DCED for the preparation of a technical review, as part of its Shared Municipal Service Program, at no cost to the Region. This will require the preparation of a "Single Application for Assistance," a copy of which can be found online at www.esa.dced.state.pa.us***. The PA DCED will examine the adequacy of the Region's equipment to provide adequate service. Then, the results of these impartial and objective analyses should be used to program needed equipment purchases, and justify funding requests and pledge drives in the ongoing media and educational campaign. In addition, the results of the analysis can be used as justification for additional application to the PA DCED for 50/50 matching grants for other equipment needs, like communications and dry-hydrant programs.***

Other related facts that should be emphasized to the public include:

- Local volunteer fire and ambulance companies are responding to ever-increasing numbers of calls based upon the Region's growth with actual figures presented; and,
- Local volunteer fire and ambulance companies are responding to a wider variety of types of calls and that the amount of time spent per incident is also increasing.

As a byproduct of this campaign, the municipalities should annually, publicly present the names of those businesses and individuals who contribute to the various companies. This will publicly recognize those who offered support, and potentially impose peer pressure to others who have not contributed to these important efforts. In addition, some volunteer ambulance companies have begun to affix advertising logos on the sides of their vehicles for private sponsors who contribute substantial sums each year. Even though local volunteer firefighters are described as strong-willed, determined and fiercely independent, most agree that difficult times lie ahead. Therefore, as a long-term strategy, ***local volunteer fire companies and municipal officials should begin to explore the partial and gradual use of other funding mechanisms (e.g., billing for responses, fire tax, etc.), so that these measures can be phased-in, in support of local volunteer efforts, rather than allowing for complete failure of the volunteer system which would then be replaced by a completely-paid force.***

Other issues raised by local fire and ambulance companies that could improve emergency service to the Region include:

Driveway Design and Addressing - ***As a means of improving emergency access and response, each municipality within the Region should adopt minimum driveway design standards that facilitate adequate emergency access and resist efforts to waive or vary from these safety-related standards. Such standards should require:***

- A minimum 10 foot-wide improved (paved or stone surface) cartway for single-use driveways and 16 feet for joint-use driveways;
- A paved apron connection with the public or private street that extends at least 25 feet off-of the road cartway and has a slope of no more than 8 percent;
- A minimum 12-foot high clear vertical path along the driveway between the road and all structures that is free of vegetation and other obstruction;
- A maximum driveway length of 600 feet for single–use driveways and 1000 feet for joint-use driveways; and,
- Posting of reflective road address number signs at all driveway entrances or turn-outs along joint-use driveways. On paved driveways reflective paint can be used upon the driveway apron to portray the street address number as an alternative to reflective sign posting.

In addition, the County's improving GIS mapping database can provide each fire and ambulance company with emergency response mapping that clearly depicts every property and its address. As this database continues to evolve in the coming years, such maps can depict actual driveway and structure locations and aerial photographs. This can greatly assist in emergency response in rural areas that are difficult to negotiate at street level.

Dry Hydrant Installation – ***Several of the Fire Chiefs expressed the need for better sources of water for firefighting within the rural areas of the Region. Dry hydrants are permanently mounted pipes that are located at local sources of water (ponds and streams) that firefighters can readily access during times of emergency. Typically these hydrants are located alongside an improved from the cartway. They appear as 5" PVC pipes extending out of the ground with suitable tap fittings. From here the pipes travel underground into the watersource where strainers are used to keep them clear of debris and silt. Installation of these hydrants costs about $750 to $1000 and can be less if volunteer or Township***

excavating can be used. Easements from private property owners need to be negotiated and recorded so that future conveyances of the property preserve the water access. Prior to installation, permits are required from the Berks County Conservation District but no fees are charged. The installation of these hydrants can affect a reduction in homeowner insurance rates.

D. Municipal Government

This section provides a description of local government structure and function in the Region's three municipalities. The role of local officials, boards, commissions, authorities, committees, and staff are set forth to provide an understanding of the hierarchy of local decision-making, input into these decisions, and the role of citizen involvement.

TOPTON BOROUGH

Office Address: 205 South Callowhill Street, Topton, PA 19562
Office Phone Number - (610) 682-2541
Office Fax Number - (610) 682-1636
Office Hours: Monday–Friday 8 a.m. – 4 p.m.

Description of Office and Facilities: Current municipal building was constructed in 1967, with improvements made in 1995. The building contains 475 square feet with offices and a council room and is ADA compliant. The water treatment plant was constructed in 1996. The sewage treatment plant was built in 1963 and upgraded in 2000.

Municipal Staff: Staff currently consists of six full-time employees including a Borough Secretary, Office Assistant, Coordinator of Maintenance & Utilities, Water Treatment Operator, Sewage Treatment Operator and a laborer.

Mayor: The Mayor is an elected 4-year position who has a seat at the Council table and provides valuable input into the functions reviewed by the Council.

Borough Council: Borough Council is the elected governing body of the Borough. The 7-member Council meets on the 2nd & 4th Mondays of the month, in the Borough Hall. They serve 4-year terms, review issues involved in operating the municipality, address resident concerns and set future policy standards that are implemented by Borough staff.

Planning Commission: Members are appointed by Borough Council for 4-year terms. The five member board meets in the Borough Hall on an as needed basis. The Planning Commission is an advisory body.

Zoning Hearing Board: Members are appointed by Borough Council for 4-year terms. The five members meet in the Borough Hall on an as needed basis (when an application is submitted for a zoning hearing). The Board reviews and acts upon requests for zoning variances or special exceptions from property owners who want to build or use their properties, which do not follow the Zoning Ordinance.

Municipal Authority: The Municipal Authority oversees the Borough's water and sewer plants. Members are appointed for 4-year terms. The five members meet on an as needed basis.

Recreation Board: Yes

DISTRICT TOWNSHIP

Office Address: 202 Weil Road, Boyertown, PA 19512
Office Phone Number - (610) 845-7595
Office Fax Number - (610) 845-7596
Office Hours: Tues. & Thurs. 8 a.m. – 3 p.m.

Description of Office and Facilities: Current municipal building was first occupied by the Township in the summer of 1979. It contains 4,964 square feet with three offices and a meeting room with a seating capacity of 80 people.

Municipal Staff: All staff positions are currently part-time and include one secretary/treasurer, one Roadmaster, three road crewmembers, one groundskeeper and one housekeeper.

Board of Supervisors: Board of Supervisors is the elected governing body of the Township. The 3-member Board meets in the Municipal Building on the 3rd Thursday of the month, at 7:00 p.m.

Planning Commission: Members are appointed for 4-year terms. The five members meet in the Municipal Building on the 1st Thursday of the month, at 7:00 p.m.

Zoning Hearing Board: The three members are appointed for 3-year terms and meet as needed.

Recreation Board: This three member board meets the 2nd Thursday of each month at 6:30 p.m. at the Municipal Building to advise local officials on matters dealing with parks and recreation.

Environmental Advisory Council: This five member board meets the 1st Monday of each month at the Municipal Building at 6:30 p.m. to advise local officials on matters of environmental consequence.

Crime Watch: Meet quarterly at 7:00 p.m. at the Municipal Building

ROCKLAND TOWNSHIP

Office Address: 41 Deysher Road, Fleetwood, PA 19522
Office Phone: (610) 682-6311
Office Fax: (610) 682-4717
Office Email Address: rocktwp1@ptd.net
Office Hours: Monday–Friday; 9 a.m. – 4 p.m. (Closed 12:00 – 1:00)

Description of Office and Facilities: The Township's original garage was built in 1979 with 5,000 square feet. A building expansion in 2001 provided an additional 1,764 square feet for a meeting room and two offices.

Municipal Staff: Staff currently consists of a full-time Secretary/ Treasurer, who directs all day-to-day office operations. A full-time Roadmaster, two full-time and one part-time road crew are responsible for the maintenance/repair of Township roads.

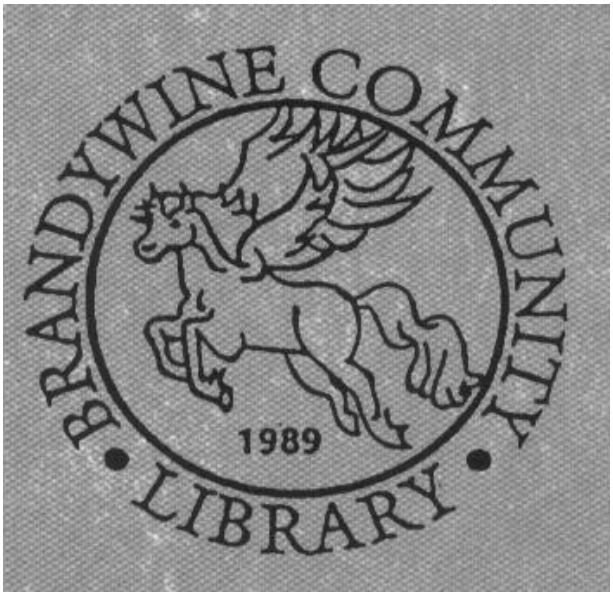
Board of Supervisors: Board of Supervisors is the elected governing body of the Township. Members are elected for 6-year terms. The three member Board meets at the Township Office on the 2nd Tuesday of each month. Duties include governing and execution of legislative, executive and administrative powers to ensure sound fiscal management and to secure the health, safety and welfare of the citizens of the Township.

Planning Commission: Members are appointed for 4-year terms. The five members meet at the Township Office on the last Tuesday of every month. Duties include review of submitted subdivision and land development plans.

Zoning Hearing Board: The Board consists of three regular members, appointed to 3-year terms. The Board meets at the Township Office on an as-needed basis, to review hear requests for special exceptions and variances.

Recreation Board: Inactive

BRANDYWINE COMMUNITY LIBRARY



Location: 60 Tower Drive, Topton, PA 19562
(On the campus of the Lutheran Home) See the ***Public Facilities Map***, for a graphic illustration of this location.
Phone: (610) 682-7115
Fax: (610) 682-7385
Website: www.berks.lib.pa.us./sbr

Primary Service Areas & Population assigned by the Berks County Public Libraries:

Topton Borough
District Township Longswamp Township
Rockland Township
Outreach program to Lutheran Home at Topton
Population – 12,863

Hours of Operation – Mon. – Wed., 10 a.m. to 8:00 p.m., Thurs. – Fri., 12 p.m. to 5:00 p.m., Saturday, 9 a.m. to 4 p.m. (July & Aug. 9 am to 2 p.m.)

Personnel – Library Director, Children's Librarian, Head of Circulation, 2 Circulation Clerks

Facilities Inventory – 7 rooms, 8 computers, 33,040 collection size & DVDs, digital magazines, music CDs, video games, audio books, children's early literacy workstation, newspapers, magazines, Public Wireless Network, Fax service, copy and print services

Major Complications – Staff are not provided benefits, lack of space limits range of services, lack of funding limits hours.

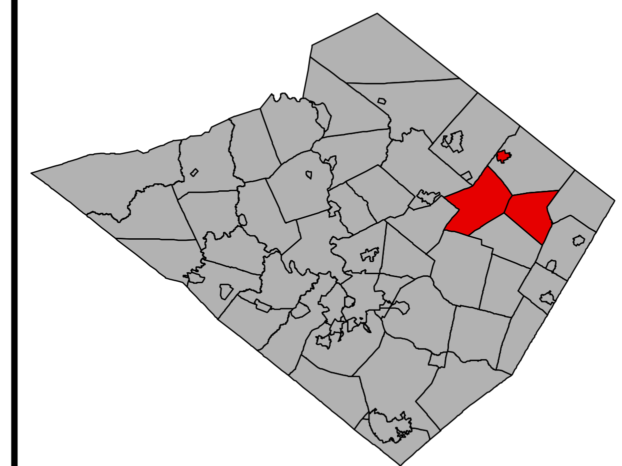
Funding and Budget – Local municipalities have pledged their support as follows: Topton Borough $5.00 per capita, Longswamp Township $2.00 per capita, District Township $1.31 per capita and Rockland Township's 2014 donation of $4,500.

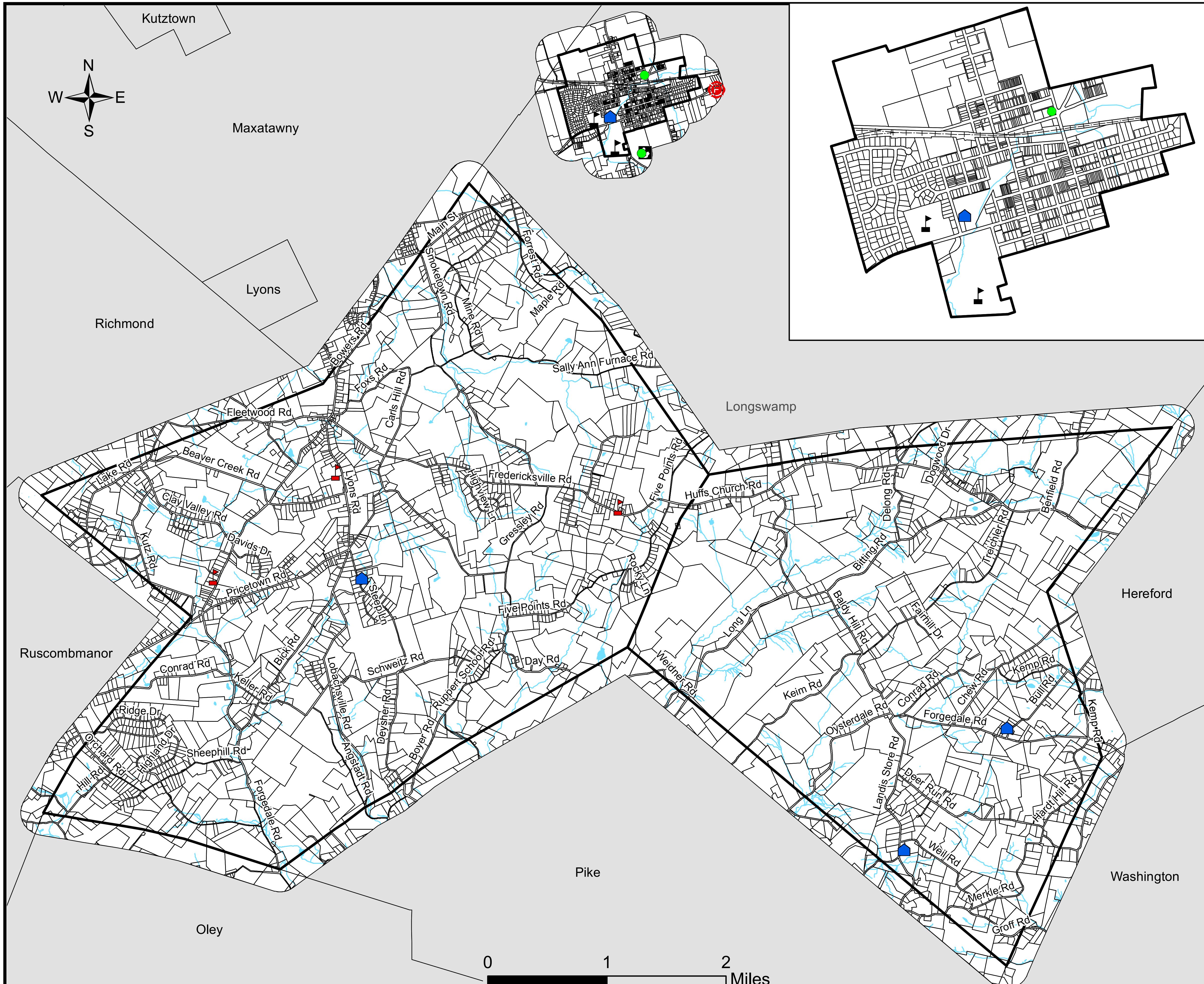
Operating Income (2013)		**% of Total**
State of Pennsylvania	$25,779	17.3%
Berks County	$58,473	39.1%
Local Municipalities	$26,886	18.0%
Other Local Sources	$38,300	25.6%
TOTAL	**$149,438**	

Operating Expenses (2013)		**% of Total**
Salaries and Benefits	$81,320	65.4%
Collection Expenses	$15,480	12.4%
Operating Expenses	$27,542	22.2%
TOTAL	**$124,342**	

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Public Facilities




Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Hereford
Ruscombmanor
Pike
Washington
Oley
N
S
W
E
0
1
2
Miles
Main St
Smoketown Rd
Forrest Rd
Mine Rd
Maple Rd
Bowers Rd
Sally Ann Furnace Rd
Foxs Rd
Carls Hill Rd
Fleetwood Rd
Lake Rd
Beaver Creek Rd
Lyons Rd
Fredericksville Rd
Highview Ln
Clay Valley Rd
Davids Dr
Kutz Rd
Gressley Rd
Five Points Rd
Huffs Church Rd
Rocky Ln
Pricetown Rd
Steeple Ln
Five Points Rd
Schweitz Rd
Ruppert School Rd
Day Rd
Bick Rd
Conrad Rd
Keller Rd
Lobachsville Rd
Deysher Rd
Boyer Rd
Angstadt Rd
Ridge Dr
Orchard Rd
Highland Dr
Sheephill Rd
Hill Rd
Forgedale Rd
Weidner Rd
Long Ln
Keim Rd
Delong Rd
Dogwood Dr
Benfield Rd
Treichler Rd
Bitting Rd
Baldy Hill Rd
Fairhill Dr
Oysterdale Rd
Conrad Rd
Chew Rd
Kemp Rd
Bull Rd
Forgedale Rd
Kemp Rd
Landis Store Rd
Deer Run Rd
Hard Hill Rd
Weil Rd
Merkle Rd
Groff Rd

Legend

- Municipal Buildings
- Fire Stations
- Senior Citizen Facilities
- Libraries
- Public Schools
- Private Schools
- Tax Parcels
- Municipal Boundaries
- Railroads
- Streams

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

Published by the Berks County Planning Commission

BAB 4/15

www.countyofberks.com/planning

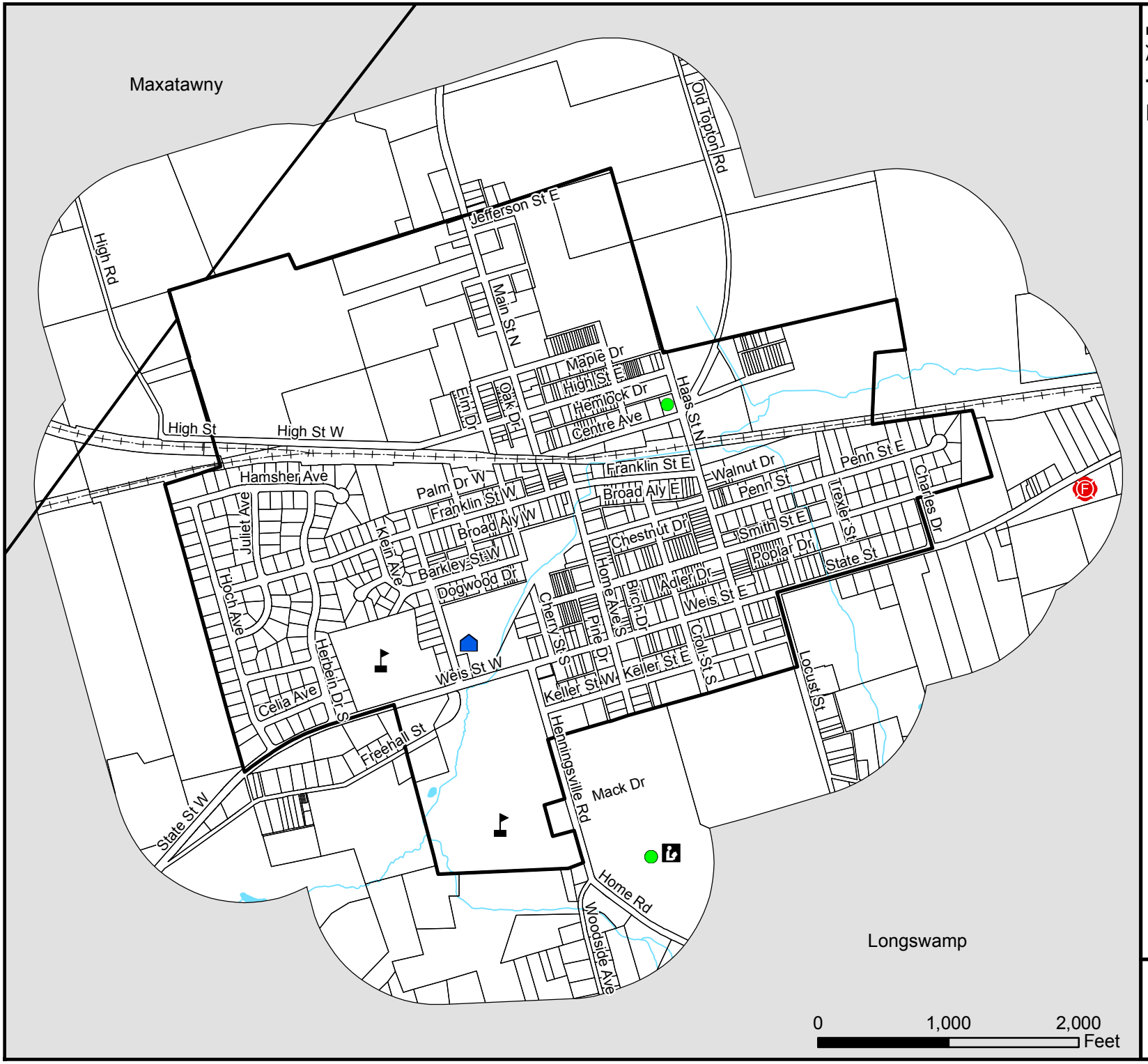
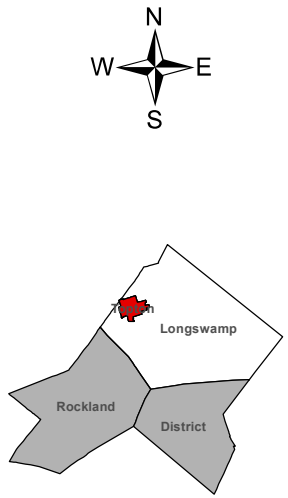


FIGURE 5-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Public Facilities



Legend

- Municipal Buildings
- Fire Stations
- Senior Citizen Facilities
- Libraries
- Public Schools
- Tax Parcels
- Municipal Boundaries
- Railroads
- Streams

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

Published by the Berks County Planning Commission

BAB 4/15

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VI. PARKS & RECREATION

The planning for both passive and active recreation opportunities is an important component of any comprehensive planning effort. Recreation planning seeks to determine the level of demand for recreation facilities and programs, and where needed parks and recreation facilities should be located. Finally, certain widely-used procedures for the acquisition of parklands via dedication/fee-in-lieu thereof subdivision requirements are only legally defensible if they seek to implement legitimate and logical recreation goals and objectives. For these various reasons, the following recreation analysis is offered.

A. Parks and Recreation Administration

Presently each of the individual participants (municipalities and school districts) acquire, develop and program their parks independent from one another. One of the most important goals of this Plan is to:

> *"Confine park development to one centralized community park per Township yet look to coordinate with the School District and the other municipalities in a coordinated delivery of recreation programs and activities."*

In order to maximize funding and coordination the municipalities should investigate park and recreation planning on a regional basis. Various State-funded programs can help the Region design and operate a regional recreation agency fine-tuned to meet its specific needs. ***The Region should appoint a Regional Recreation Board (RRB) made up of at least one representative from each municipality and school district (plus alternates) who have an understanding of the Region's recreation needs and resources. This RRB should then prepare and submit an application to the Pennsylvania Department of Conservation and Natural Resources for a Community Conservation Partnerships Program (C2P2) or "Peer-to-Peer" project.*** In this study, an expert will visit with local park and recreation providers to gain a thorough understanding of their operations and activities. A maximum grant amount of $10,000 is available for Peer-to-Peer projects. The community must provide at least a 10% local cash match. At the end of the peer project, a recommendation will be tailored to best manage the Region's recreation needs and resources. Often, another C2P2 "circuit-rider grant" is suggested to help cover the costs of initializing a Regional paid park and recreation staff. This circuit-rider grant funds 100% of such expenses the first year, 75% the second, 50% the third, and 25% the fourth years. Additional information on this program and its application requirements can be found online at: https://www.grants.dcnr.state.pa.us/GrantPrograms.aspx

B. Facilities Inventory

The first step in a recreation analysis is an inventory of existing recreation facilities serving the Region's residents. The inventory on the following pages is a series of tables which lists all identified public recreation sites and their improvements within the Eastern Berks County Region. This inventory indicates the site name, the site's ownership and maintenance responsibilities, the site type, and its total recreation acreage. Following this is a specific list of recreation improvements at each site. This list is broken out to identify amenities including playgrounds, fields and courts, picnic facilities, pools, trails and support facilities. A final section at the bottom of the table allows for comments concerning a particular site, or the listing of any additional improvements.

The *Parks and Recreation Map* utilizes the information from the inventory to illustrate the geographic distribution of all recreation sites within the Eastern Berks County Region, including their types, and service radii for locally-oriented facilities. Listed below is the name and acreage for all public parks within the Region.

Public Parks Within the Eastern Berks County Region	
Park Name	**Acreage**
Topton Borough	***52.8***
Brandywine Heights Area Middle School	30.0
Brandywine Heights Area Elementary School	10.1
Topton Community Park	10.2
Brandywine Youth Baseball Association	2.5
District Township	***188.4***
Gordon Park	71.4
PA State Gamelands	117.0
Rockland Township	***10.0***
Hogan Learning Academy	10.0
Eastern Berks County Region	***251.2 acres***

FACILITIES INVENTORY

NAME	Gordon Park	Gamelands 315	Topton Community Park	Brandywine Youth Baseball Association
MUNICIPALITY	District		Topton	Topton
OWNERSHIP	Municipal	State	Municipal	Non-profit
ACREAGE	71.4	117.0	10.2	2.5
TYPE	Community Park	Natural Resource Area	Community Park	Quasi-public
BASEBALL			X	
BASEBALL YOUTH	X			X
BASKETBALL				
BIKING				
BOATING				
BOWLING				
CAMPING				
FIELD HOCKEY				
FISHING		X		
FITNESS COURSE				
FOOTBALL				
GOLF				
GOLF DRIVING				
GOLF MINIATURE				
HANDICAP ACCESSIBLE				
HIKING		X		
HORSEBACK				
HUNTING	X	X		
ICE HOCKEY				

INDOOR ENTERTAINMENT				
INDOOR FITNESS				
MUSEUM HERITAGE				
NATURE STUDY	X			
OPEN FIELD	X		X	
OUTDOOR AMPITHEATER				
PICNIC AREA	X		X	
RACQUETBALL				
SHOOTING RANGE				
SKATEBOARD				
SKIING DOWNHILL				
SKIING CROSS COUNTRY				
SOCCER				
SOFTBALL			X	
SWIMMING			X	
TENNIS	X		X	
TOT LOT PLAYGROUND	X		X	
TRACK				
VOLLEYBALL	X			
OTHER				
RESTROOM	X		X	
STREET HOCKEY				
PAVILION	X		X	

SCHOOL FACILITIES INVENTORY

NAME	Middle School	Elementary School	Hogan Learning Academy
MUNICIPAL	Topton	Topton	Rockland
OWNERSHIP	School	School	Private School
ACREAGE	11.9	3.9	10.0
TYPE	School Park	School Park	School Park
BASEBALL	X	X	
BASEBALL YOUTH			
BASKETBALL		X	
BIKING			
BOATING			
BOWLING			
CAMPING			
FIELD HOCKEY			
FISHING			
FITNESS COURSE			
FOOTBALL			
GOLF			
GOLF DRIVING			
GOLF MINIATURE			
HANDICAP ACCESSIBLE			
HIKING			
HORSEBACK			
HUNTING			
ICE HOCKEY			
INDOOR ENTERTAINMENT			
INDOOR FITNESS			
MUSEUM HERITAGE			
NATURE STUDY			
OPEN FIELD	X	X	X
OUTDOOR AMPITHEATER			
PICNIC AREA			
RACQUETBALL			
SHOOTING RANGE			
SKATEBOARD			

SKIING DOWNHILL			
SKIING CROSS COUNTRY			
SOCCER	X	X	X
SOFTBALL	X		
SWIMMING			
TENNIS	X	X	
TOT LOT PLAYGROUND		X	X
TRACK	X		
VOLLEYBALL			
OTHER			
RESTROOM			
STREET HOCKEY			
PAVILION			

INDOOR FACILITIES INVENTORY

SITE NAME	High School	Middle School	Elementary School
GYMNASIUM	X	X	
FULL BASKETBALL COURT	X	X	X
SWIMMING POOL			
DIVING POOL			
LOCKER ROOMS	X	X	
WEIGHT ROOM	X	X	
WRESTLING ROOM	X	X	
MULTIPURPOSE ROOM			X
AUDITORIUM (NO. OF SEATS)	825	525	
MUSIC ROOM	X	X	
GYMNASTICS ROOM (EQUIPMENT)			
LIBRARY	X	X	X

MEETING ROOM			
INDOOR TRACK			
DARK ROOM	X	X	
PLANETARIUM			
COMPUTER LAB	X	X	X
OTHER/COMMENTS			

C. Spatial Park Analysis

With a complete inventory of parks, it becomes possible to analyze the level of park service available within the Region. Within this analysis, every publicly-owned park and/or recreation facility (Township, Borough, and School District) is identified. Then, its size and service area is evaluated in relation to its intended service population. Conversely, this analysis also identifies those areas of the Region that lack close, convenient, and safe access to public parkland. Typically, these evaluations are based upon prescribed standards for park size per 1,000 persons being served and also for predetermined service radii. The National Recreation and Park Association (NRPA) generally assign such standards for various park types. The national standard ranges anywhere from 6 to 19 acres per 1,000 persons. Using NRPA's PRORAGIS system, a municipality can access the national recreation database, input data, and develop reports tailored to a specific area. It is these minimum standards that will be applied to evaluate the allocation and spatial distribution of Region's park system.

First, regional parks generally contain 200± acres and are typically located within a one hour driving time from the population being served. These parks are generally located throughout a large metropolitan region, and can accommodate a wide variety of recreational activities. Often, these parks are owned and operated by the State and Federal government, and in the case of Pennsylvania, many State Game Lands are included in this category. Regional parks usually have a natural orientation with hiking, camping, and picnicking facilities. Other "activity-oriented" facilities, as well as significant historic or archaeological resources, might also be included.

Within Berks County, several public organizations and private enterprises are involved with the provision of regional recreation facilities. Within the EBC Region one Regional park is located within Rockland Township. The table on the following page lists Federal, State and County owned parks, acreage and activities offered. Facilities contained within the Region are highlighted.

Because the size and cost usually associated with regional parks transcend the responsibilities of local government, this Plan does not recommend any specific actions associated with the acquisition and development of more regional parks. Instead, this Plan will focus upon the remaining park types within the Region beginning with community parks.

However, the Berks County Greenway, Park and Recreation Plan (Dec., 2007) designates a number of regional facilities as priorities within the Countywide system of parks. More discussion of these facilities will follow in the linear parks section of this Chapter.

Facility	Acres	Activities
Federal		
Blue Marsh	5,587.64	Boating, bike trail, camping, fishing, hunting, hiking, picnic, swimming, Old Dry Road Farm Complex
Appalachian Trail	1,376.04	Hiking
Hopewell Furnace National Historic Site	537.34	Horseback riding, hiking, nature study, picnic museum
TOTAL FEDERAL	**7,501.02**	

Facility	Acres	Activities
State		
Blue Marsh	494.22	Museum, picnic
Conrad Weiser Park	24.62	Museum, ice skating, picnic
Alsace Forest	32.86	Hiking
Charming Forge/Fish and Boat	22.43	Boating, fishing
Cross Keys/Stoudt's Ferry Desilting Basins	275.1	Hiking, picnic, fishing
Eplers Landing	72.33	Boating, fishing, hiking, nature study, picnic
Hamburg Center Watershed	115.01	Hiking
Leizes Desilting Basin	41.84	Hiking, picnic, fishing
Schuylkill Canal - Gibraltar	8.32	Fishing, historic aqueduct
Wernersville State Hospital Watershed	410.55	Fishing
French Creek State Park	5,938.69	Boating, bike trail, camping, fishing, hunting, horseback riding, hiking, picnic, swimming
Kaercher Creek Park	183.67	Boating, fishing, hiking, ice skating, outdoor concerts, nature study, picnic, tot-lot/ playground, handicapped recreation facilities available
Kernsville Recreation Area/Desilting Basin (DEP)	263.73	Boating, camping, fishing
Nolde Forest Environmental Education Center	628.66	Hiking, nature study, Environmental Education Center
Schuylkill Canal – Five Locks	33.65	Boating, fishing
State Game Lands #43, #52, #80, #106, #110, #182, #274, #280, #315, #324	19,739.43	Hunting, hiking
Weiser State Forest	1,515.82	Hunting
TOTAL STATE	**29,800.93**	

Facility	Acres	Activities
County		
Tulpehocken Creek Valley Park	290.07	
Berks Leisure Area		Picnic, handicapped recreation facilities available
Gring's Mill Recreation Area		Fishing, field sports (baseball, softball, soccer, etc.), ice skating, nature study, outdoor concerts, tennis, volleyball, handicapped recreation facilities available
Red Bridge Recreation Area		Fishing, picnic
Stonecliffe Recreation Area		Basketball, bike trail, fishing, field sports (baseball, softball, soccer, etc.) ice skating, tennis, tot-lot/playground, volleyball, handicapped recreation facilities available
Union Canal & Tow Path		Bike Trail, fishing, hiking
Heritage Center		Museum, picnic, handicapped recreation facilities available
Antietam Lake & Angora Fruit Farm	501.84	Hiking, fishing, environmental education
Hunsicker's Grove	48.04	Pavilion, fishing, sand volleyball, picnic
Youth Recreation Facility	117.42	Field sports (baseball, softball, soccer, etc.), picnic, educational farm
Allegheny Aqueduct/Schuylkill Canal	34.88	Fishing, historic aqueduct
TOTAL COUNTY	**992.25**	

Community and neighborhood parks are usually provided by local governments and public school districts to serve local residents' needs.

Community parks generally contain 20± acres and are intended to serve a population within a 2 mile-service radius. They should be sized at the rate of 5 to 8 acres for 1,000 persons served. These parks generally involve a fairly high level of improvement with multiple sets of athletic fields and courts. Sometimes swimming pools and indoor recreation centers are situated on these community-wide parks. Larger school sites (usually middle, and high schools) have the facilities to qualify as community-based parks, and represent valuable recreation resources that can significantly enhance the level of recreation services offered to a given area.

Neighborhood parks are generally between 1 and 20 acres in size and meant to serve a population of 2,000 to 10,000. The recommended service area for these parks is a one- quarter to one-half mile radius. As implied by the name, these parks are intended to provide close-to-home areas for limited athletic activities, playgrounds, and passive pursuits. The NRPA recommends that 1 to 2 acres of publicly-owned land be devoted to neighborhood parks for each 1,000 residents.

While more developed areas usually provide for both of these park types, local officials within the Region believe that the Region's rural character does not require such high levels of park and recreation service, particularly in outlying rural areas. Therefore they want to provide for one community park per Township.

The table below lists all publicly-owned community parks.

Community Parks Within the Eastern Berks County Region	
Park Name	**Acreage**
Topton Borough	***52.8***
Brandywine Heights Area Middle School	30.0
Brandywine Heights Area Elementary School	10.1
Topton Community Park	10.2
Brandywine Youth Baseball Association	2.5
District Township	***71.4***
Gordon Park	71.4
Rockland Township	***10.0***
Hogan Learning Academy	10.0
Eastern Berks County Region	***134.2 acres***

To determine future community park needs, the minimum NRPA standard acreage for community and neighborhood parks will be used or 6 acres per 1000 population. The following tabulates the level of parklands provided and needed based upon D E P ' s population projections for each municipality and the Region as listed in Chapter IV of this Plan:

Municipality	**Existing Public Park Acreage**	**Year 2010**			**Year 2020**			**Year 2030**		
		Population	Needed acres	***Surplus/ deficiency***	Population	Needed acres	***Surplus/ deficiency***	Population	Needed acres	***Surplus/ deficiency***
Topton Borough	**52.8**	2069	12.4	**+40.4**	2099	12.6	**+40.2**	2180	13.1	**+39.7**
District Township	**71.4**	1337	8.0	**+63.4**	1425	8.6	**+62.8**	1399	8.4	**+63.0**
Rockland Township	**10.0**	3778	22.7	***-12.7***	4406	26.4	***-16.4***	4683	28.1	***-18.1***
Region	**134.2**	7,184	43.1	**+91.1**	7,930	47.6	**+86.6**	8,262	49.6	**+84.6**

As can be seen in the preceding table, the Region as a whole enjoys a wealth of community parkland well in excess of the NRPA-recommended minimum now and for the projected future. Aside from Rockland Township all municipalities have large surpluses of parkland.

Rockland Township has a public parkland deficiency now. Today the Township needs between 12.7 and 16.4 acres to adequately serve its Township population. ***Since the Township is deficient in community parkland, the Township should initiate plans to develop its community parkland.*** Any revenues generated for parks (as discussed later) within Rockland Township should be targeted to meet this current demand on a priority basis.
As for projected parkland deficiencies within Rockland Township, these projections assume that the Township will grow at a rate similar to that experienced in the past. This assumption does not account for the reduction of growth planned for the rural Townships based upon a regional allocation of land use integral to this Plan and its goals. ***Therefore, these projected parkland deficiencies add justification for targeting future growth in Topton Borough where abundant parklands exist to serve future residents.*** Then, since less units will be built in the rural areas, future deficiencies will be reduced.

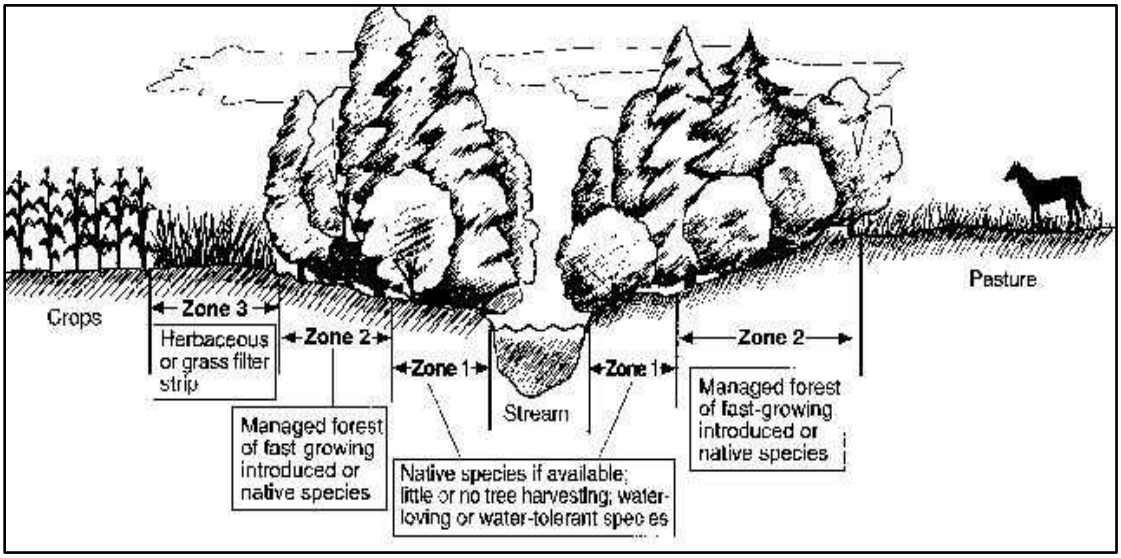
In addition to the above-described needed parkland expansions, many of the Region's parks have limited amounts and types of facilities available when compared with typical community park improvements. ***In areas where park sizes are adequate, local officials should seek to add improvements to their parks to provide for a wider range of activities and programs.*** Municipalities and the School District should seek and utilize funds to add new features and revitalize aging ones to offer improved recreation services.

Linear parks and greenways are also gaining in popularity throughout the nation as less and less open space remains within developing areas. These parks can take many forms from abandoned railroad beds to utility transmission lines and riparian buffers along creeks. This latter form appears to be most applicable within the Region. The Berks County Greenway, Park and Recreation Plan (December, 2007) recognizes multiple greenway opportunities within the Region. Each municipality has multiple opportunities at varying priorities. Many of the opportunities recommend cooperative efforts among public, private and non-profit organizations. Specific details can be found within the Berks County Greenway, Park and Recreation Plan (Dec. 2007) in the Oley Hills Region Section of the Implementation Plan chapter.

Fortunately, the Region has an abundance of important and high quality streams that, with proper attention, can offer tremendous environmental, recreational and educational value. These natural corridors represent the Region's best opportunities for greenways that respond to the County's system of greenways and fulfill the goals expressed by local officials for improved water quality protection. Presently, the Region's municipalities already strictly regulate land use activities within the floodplains. However, additional protection and management is warranted if the Region wants to improve water quality and offer better streamside opportunities. Studies conducted by the U.S. Forest Service demonstrate that riparian buffers offer real advantages in the removal of harmful nutrients and sediment from storm water before it enters the stream. These same riparian buffers can increase the food supply and create interconnected natural systems of movement for pedestrians and local wildlife. Riparian buffers are areas adjoining streams where naturally successful vegetation is provided and protected.

In this area riparian buffers are recommended to include a 90-foot wide radius from the streambanks.

This width is determined by the USDA Department of Forestry, based upon the climatic conditions. Essentially, riparian buffers comprise three distinct zones as depicted below. The following will describe where to establish, and how to plant and maintain each of these three zones:



Zone 1 is the landward area located between the streambank edge under typical flow conditions, and the largest width of any of the following:

- Fifteen (15) feet, as measured directly perpendicular from the streambank edge;
- The 1-percent-chance-annual-flood (100 year floodplain);
- Any adjoining identified wetlands; and/or,
- Any adjoining area characterized by slopes exceeding twenty-five percent (25%).

This Zone must include mature canopy trees and a ground cover of warm season grasses. New tree plantings should be selected, arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. New grass plantings should be selected and managed to filter out pollutants and offer habitat. All vegetation within this Zone must thrive in wet conditions. Zone 1 requires little maintenance. As trees mature, die and decay, it is important that such natural debris be allowed to decompose within the stream. This will provide important food and habitat for beneficial microorganisms, fish and amphibians. Streamside grasses should similarly be allowed to seasonally flourish and recede. Manmade activities should be very limited and confined to perpendicular passages from Zone 2. Intensively-used locations should be fitted with raised walkways and reinforced embankments. Streamside cleanup of junk and manmade debris is permitted. No animal watering and crossing locations are permitted, unless they are reinforced.

Zone 2 begins at the inland edge of the above-described Zone 1 and extends at least sixty (60) feet inland therefrom. This Zone must also include mature canopy trees generally three rows deep, and a natural undercover. New tree plantings should be selected that grow rapidly, so as

to intercept passing nutrients. Such trees should also be arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. Successful undercover plants should also be allowed to "evolve" within the canopy of this Zone. This Zone requires the most attention, but not for some time after initial planting. Here, the objective is to develop a stable and broad canopy of tree cover. The trees within Zone 2 are fast-growing and, therefore, consume many nutrients. The regular pruning and trimming of these trees will increase their nutrient consumption, but should not jeopardize the important overhead canopy of shade. The natural undercover should be undisturbed, except for periodic litter cleanup. Pedestrian paths can weave through Zone 2, but should be provided to prevent compacted soils and root damage.

Zone 3 begins at the inland edge of the above-described Zone 2, and extends at least fifteen (15) feet inland therefrom. Where a pasture is proposed just beyond the above-described Zone 2, no Zone 3 is required. This Zone should be planted with warm season grasses that are allowed to mature naturally without mowing. The tall grasses ensure that overland storm water flows do not "channel" into Zone 2. New grass plantings should be selected and managed to enable controlled grazing or haying, so long as the grasses are not reduced to a point where they are no longer able to effectively disperse the surface water flows. This Zone also requires little maintenance. Long summer grasses should be allowed to flourish and recede with the seasons. Grazing and haying is permitted, so long as the residual grass length is sufficient to disperse overland storm water flows into Zone 2 and avoid channelization.

Buffer Use and Maintenance

Streamside buffers must be generally undisturbed. Mature trees and long grasses absorb more nutrients than do manicured plants. Similarly, the more extensive root systems retain passing sediments. These characteristics reduce pollution and yield abundant food and habitat for wildlife. The temptation to "over-maintain" the streamside must be overcome.

Local officials should educate landowners and developers of the importance of riparian buffers, and the Region's intent to provide for them. Newsletter articles should be used occasionally to introduce these concepts, and then to feature successful implementation examples as they occur. A sample riparian buffer ordinance is contained in Chapter XII (Future Land Use) of this Plan and should be adopted throughout the Region. Then as new developments are proposed, local officials can ensure, through proper site plan review procedures and conservation subdivision design, that these riparian buffers are protected.

But zoning regulations alone will not get this job done, as most land uses don't require zoning approval to continue to operate. In these areas, other options exist. First, the USDA Natural Resources and Conservation Service offers its Conservation Reserve Enhancement Program (CREP). This program seeks to enroll some 100,000 across the Commonwealth. ***Landowners adjoining streams are offered annual rental payments for installation and proper management of streamside buffers. In addition to the rental payments, landowners are eligible for 100% cost share reimbursement for installation of suitable vegetation within these buffers.***

Township officials should mount a campaign to inform local landowners who abut these creeks. Program experts should be invited to explain the benefits of these programs. Information about this program can be found at www.creppa.org.

Most of the success stories surrounding riparian buffers within Central Pennsylvania have been the results of dedicated volunteers from conservation and sporting groups. Local anglers have made it their mission to rehabilitate and save stream habitats for fishing purposes. The Region, too, shares in these dedicated groups. ***These captive groups should be educated about the benefits of riparian buffers and energized into action. These "neighbors" can probably best affect the peer pressure to convince local landowners to get involved.*** A "hip-boot-brigade" should be formed from local sportsmen who should regularly travel up the waterways and meet with adjoining landowners, and describe the benefits and programs of riparian buffers. ***Another powerful ally are the Region's youth. Environmental studies classes can develop pilot riparian buffers at visible school and park locations; these focused successes enable the benefits of these buffers to be experienced first-hand by the general public. The School District should develop and regularly offer a streamside riparian buffer workshop as part of its curriculum, for students to learn "first-hand" about how man can co-exist with nature. Local and School District officials should cooperate on a number of these pilot projects at visible locations throughout the Region. Then, as successes mount, they should be featured in local newsletter and media articles that widen awareness and attention about their use and benefits. Such projects represent excellent candidates for Growing Greener grants from the State. Once momentum is achieved, other civic groups are likely to get involved.***

Finally, Topton Borough has expressed an interest in developing a rail-trail along the abandoned Kutztown Railroad line that runs between both Boroughs. The development of a rail-trail is also a popular way to acquire linear trails that are relatively flat and accessible for public use. However, they are also controversial as many adjoining landowners fear impacts of noise, litter, vandalism, criminal or mischievous behavior and a general intrusion in their privacy. Consequently the feasibility of these types of trails must consider a broad range of acquisition and development options that are well beyond the scope of this project. Fortunately, the State has a number of programs that fund these feasibility studies. ***It is therefore recommended that the staff from Topton Borough inquire with Maxatawny Township and Kutztown Borough in their respective interest for such a trail. If interest exists then the Region should sponsor a grant application for a "Rail-to-Trail Program".*** More information is available at the following website: https://www.grants.dcnr.state.pa.us/GrantPrograms

C. Mandatory Dedication (or fee-in-lieu thereof) of Recreation Land

Mandatory dedication of parkland has become a standard technique for local park systems to keep pace with growth since it was enabled by the Pennsylvania Municipalities Planning Code in the late 1980s. The regulations for mandatory dedication of parkland and fees-in-lieu thereof can be found in Article V Subdivision and Land Development. Interesting to note as part of the mandatory dedication of parkland in this

article, is that a municipality must have adopted a recreation plan. For further information, see MPC Section 503(11).

Topton Borough has adopted mandatory dedication provisions within its subdivision and land development ordinance. Details for these regulations can be found in Article VIII, Section 818.

Given changing demographics, land values and parkland needs it is important for municipalities to periodically recalculate mandatory dedication standards and their related fees-in- lieu-thereof. As mentioned earlier in this chapter, the NRPA's minimum standard for local parklands in 6 acres per 1,000 persons. To date, the Region has provided local parklands exceeding the NRPA standards listed above; however, much of this has been derived from sources other than the mandatory dedication regulations in effect.

As an alternative to parkland dedication, municipalities can accept a fee-in-lieu of parkland dedication. This approach can only be used in those instances where the developer and municipality agree on the amount of the fee-in-lieu. In addition, such funds cannot be used merely to maintain existing facilities, but must be used to:

1. Purchase new parkland;
2. Purchase new equipment for new or existing parks;
3. Operate new or existing parks; and/or,
4. Make improvements to existing parks that will serve existing residents and those of the proposed development.

According to requirements within the Municipalities Planning Code, amounts of the fees-in- lieu should be derived from the following approach:

An appraiser should be retained by the municipality to analyze recent real estate transactions and derive estimates of fair market value. Such estimates can be based upon all properties within the municipality, or on a neighborhood basis. It is important that the appraiser be informed of the development features (e.g., utilities, zoning, curbs, sidewalks, etc.) common to such lands, so that accurate real estate comparisons can be identified. Once these estimates are derived, they should be periodically updated to reflect the ever-changing value of land.

When disputes between the developer and municipality occur, both the developer and municipality should select an appraiser who, in turn, should jointly select a third appraiser. This third appraiser should then determine the fair market value of the land.

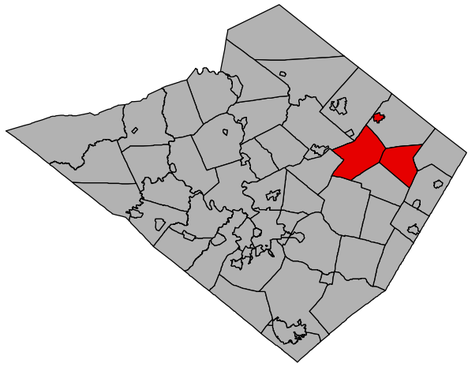
Funds collected under this approach must be used to provide for recreation facilities that are accessible to residents of the proposed development. In determining accessibility to the park, local officials should be guided by the respective park service areas as listed in this Plan.

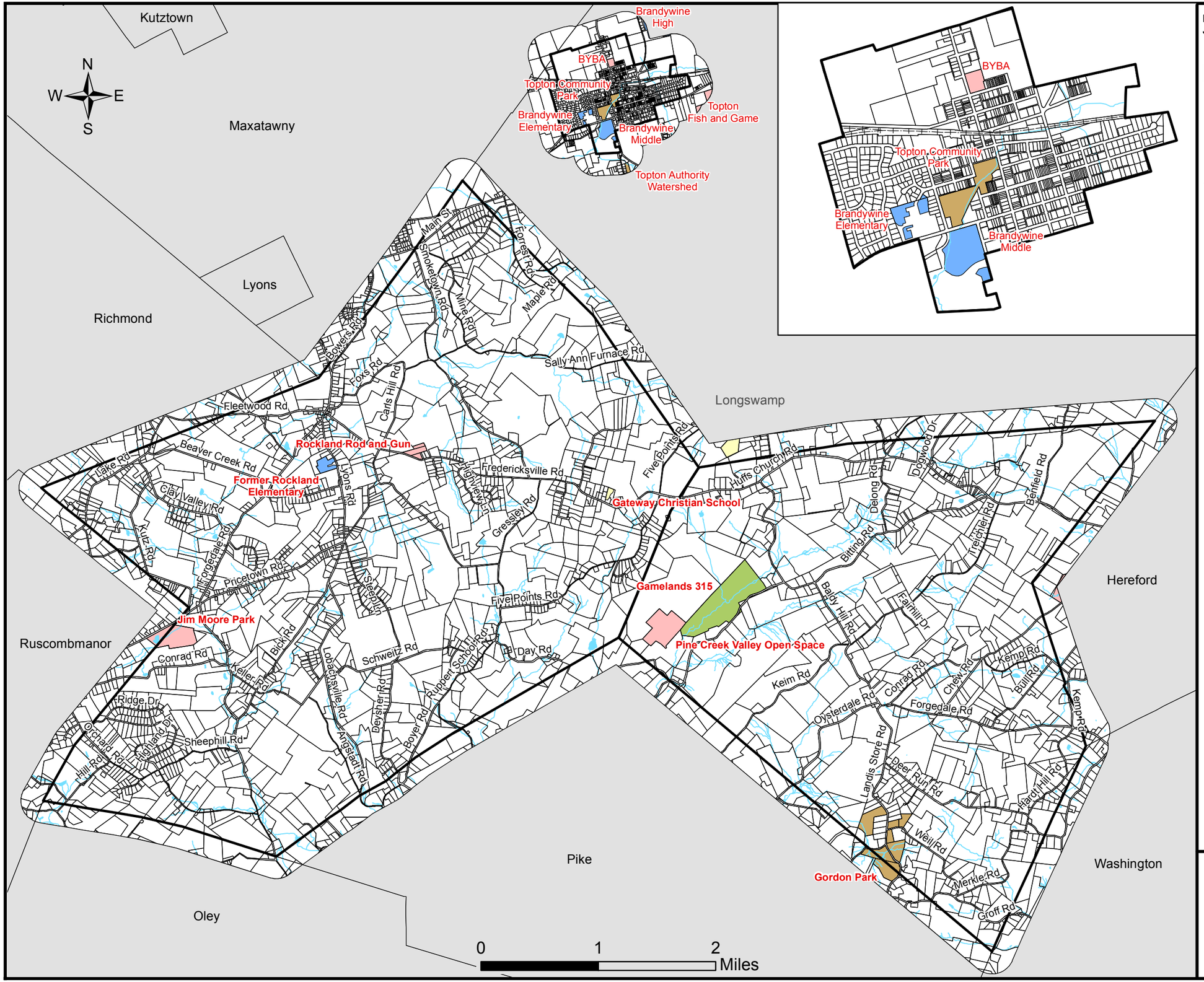
District and Rockland Townships should consider adoption of mandatory dedication standards within their respective Subdivision and Land Development Ordinance and each of the municipalities update their existing standards to reflect current conditions and trends. The revenues/parklands acquired through this process should be used across the Region.

FIGURE 6-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Parks and Recreation





Legend

- State Recreation Land
- Municipal Recreation Land
- Non-Profit Recreation Land
- Private Recreation Land
- School Recreation Land
- Tax Parcels
- Municipal Boundaries
- Railroads
- Streams

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services

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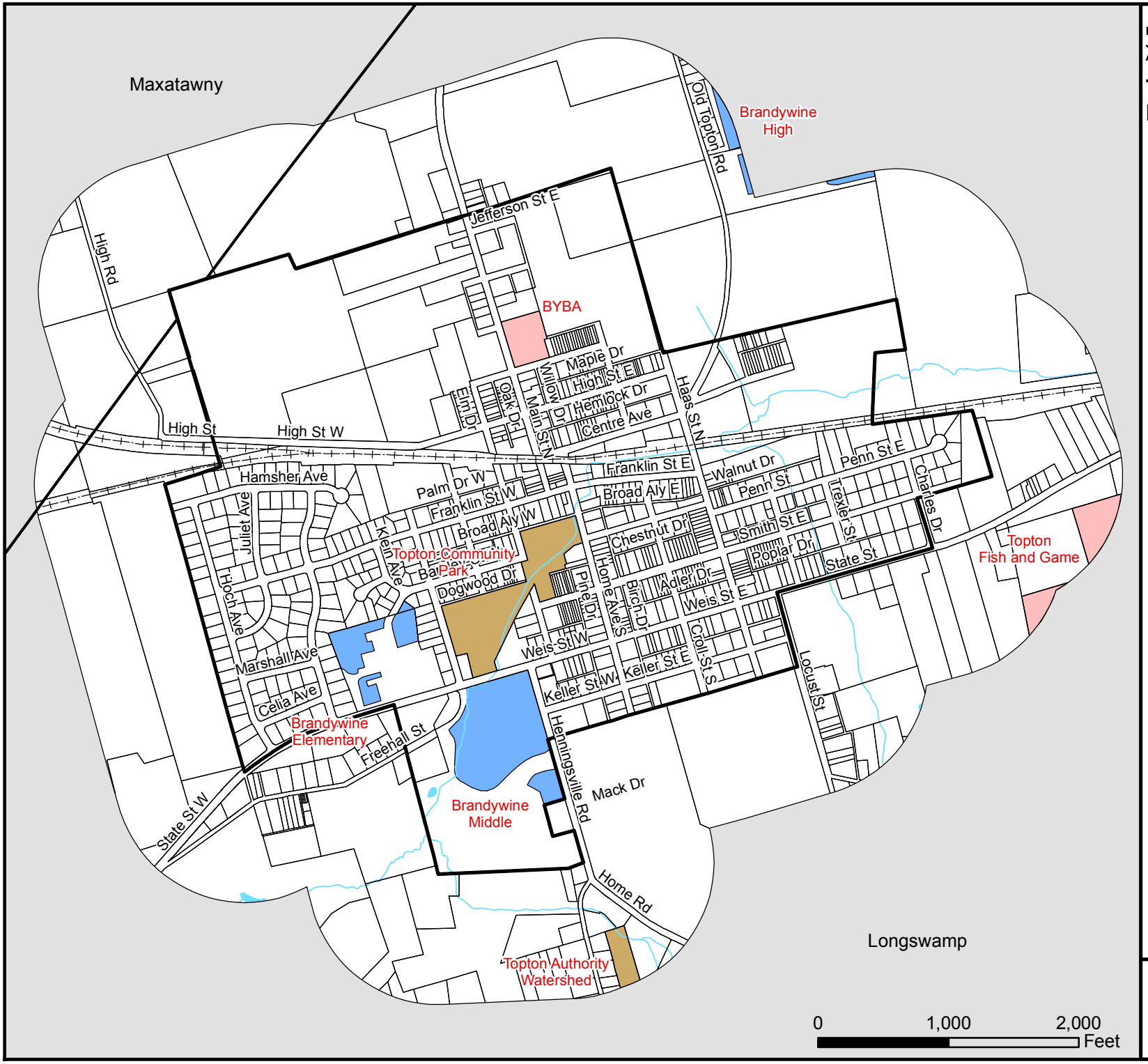
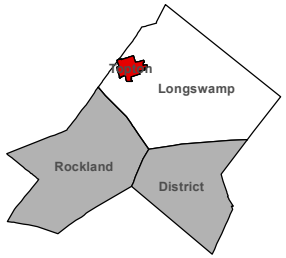


FIGURE 6-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Parks and Recreation



Legend

- State Recreation Land
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Source data:
Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Department of Emergency Services

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VII. THE LOCAL ECONOMY

The health of the Region's economy has an obvious major impact on the overall welfare of the community. A healthy economy provides not only needed goods and services, but employment opportunities and tax revenues which pay for public facilities and services. There are a number of measures of the health of a community's economy, among them the employment rate, the tax base and the diversity of the local economy. The following will examine the three principal components of the Region's economy.

A. Agriculture

Agriculture is the leading industry in the Commonwealth of Pennsylvania. It also continues to be an important part of the economy of Berks County, which ranks third in the value of farm products sold throughout the State. Land in farms was estimated to make up 233,744 acres, or 42%, of the County's land area in 2012. With 2,039 farms, the County had the third highest number of farms of all counties in the State; average farm size is 115 acres. However, over the last half century or so the County has lost over 88,238 acres, or a little over a 1/3 of the land area devoted to farms in 1959. This equates to a loss of about 1,665 acres per year. However, during the mid-to-late 1990s this rate of loss had dramatically declined due to a change in the Census definition of what constitutes a farm, which accounted for additional acreage being allocated to farms. Also, with the increased demand for certain farm products the County has seen a rise in the acreage of land in farms since 2002. The average market value of agricultural products sold from farms in Berks County has increased from $367,840,000 in 2007 to $528,711,000 in 2012.

While about 80% of the County's farmland is in crop production, most of the crop products are fed to livestock. Therefore most of the cash value of the County's agricultural products relates to livestock operations. Berks County was ranked 98th nationally for agricultural cash receipts in 2012. The following table summarizes the County's agricultural products for 2012.

Berks County Agricultural Products (Source: 2012 Census of Agriculture)		
Major Animal Product	**No. of Animals**	**No. of Farms**
Dairy	24,701	296
Poultry (layers)	2,683,591	344
Poultry (broilers)	13,027,727	68
Cattle & Calves	42,091	765
Swine	66,645	101
Sheep	2,303	144

Berks County Agricultural Products (Source: 2012 Census of Agriculture)		
Major Crops	**Acres**	**No. of Farms**
Corn (grain)	52,813	795
Corn (silage)	21,530	450
Hay (alfalfa)	25,040	720
Hay (all hay)	56,385	1,005
Wheat	10,880	364
Barley	4,201	191
Oats	1,390	141
Soybeans	31,936	578
Vegetables	1,197	162

In addition to providing an abundance of farm products, agriculture also supports a wide range of farm supply, and food processing and distribution industries. Snack foods, milk and ice cream, candy, baked goods, and packaged meats are among the many foods processed in the County. While not shown above other farm products grown in the County include; strawberries, apples, peaches, mushrooms, silvicutlure and nursery/greenhouse. It is estimated that in 2006, according to the *Berks County's Food and Fiber System* brochure, that Berks County agriculture related businesses had over 213,586 employees in over 2,826 businesses and create an over 5,800 farmers.

Agriculture also generates substantial taxes that benefit local residents. A 2006 Penn State study found that farms and other types of open land can actually subsidize local government by generating more in property taxes than they demand in services. In Pennsylvania townships studied, farm and open land required between two and twenty-seven cents worth of services for every tax dollar raised; compared to residential which required between $0.94 and $1.48 dollars' worth of services for every tax dollar raised.

Agriculture is also important within the Eastern Berks County Region. The following tabulates the Region's municipalities' participation on the various farmland preservation programs available within Berks County:

Eastern Berks County Region Farmland & Conservation Easement Preservation Status (Source: Berks County GIS, BCPC)					
Municipality	**Acres Enrolled in Agricultural Security Areas**	**Acres under County's Agricultural Conservation Easements**	**Acres under Other Easement Program***	**Acres under Effective Agricultural Zoning**	**Acres enrolled in Clean & Green Tax Assessment Program**
District Township	2,805	47	1,077	338	4,818
Topton Borough	-	-	-	-	0
Rockland Township	3,757	335	713	2,883	6,534
Region wide	**6,562**	**382**	**1,790**	**3,221**	**11,352**

*Easements held by the following: Wildlands Conservancy, Berks County Conservancy, PA DCNR, The Greater Pottstown Foundation, PA DCNR Bureau of Forestry

It is no wonder that the local officials representing this Region have expressed one of the goals of this plan:

"Protect pockets of productive farmlands."

The following lists those techniques used to protect the farming economy and landscape; each of the Townships should look to incorporate these measures in suitable areas. The Future Land Use chapter will identify these areas later in this Plan.

INGREDIENTS FOR SUCCESSFUL FARMING

./ ***Protection of farm soils*** – The Region contains prime soils and soils of statewide importance. The same characteristics that make these soils productive make them better to build upon. Therefore they are subject to greater development pressure and hence are more vulnerable.

./ ***Critical mass*** – The trend in agriculture today is toward larger farms as farmers compete in international markets. At the same time, there is a greater focus in some areas on the production of higher value crops which can be raised on less land. Commercial farming operations of all sizes need to be part of a large critical mass of farmland that will assure the continued presence of area farm suppliers and processors in the future. The subdivision of land into parcels larger than that needed for a home site, but too small to effectively farm increases the price of land, making it prohibitive for farmers to purchase land. Areas characterized by scattered sprawl type development and "farmettes" rarely are able to retain any significant agriculture activity.

./ ***Freedom from adjacent conflicting residential uses*** – Commercial farm operations need to be able to operate free from residential uses and the nuisance complaints, traffic and vandalism they can generate. Such pressures lead to a cycle of farmland conversion, rather than reinvestment in farm operations. The Eastern Berks County Region should carefully steer residential growth areas away from active farms.

./ ***Profitability*** – Agriculture needs to be profitable for farmers to continue farm operations over the long run. To this end, farmers may benefit from a wider range of permissible farm occupations and farm-related businesses, and the possible creation of local outlets or farmer's markets for locally-grown/raised products.

./ ***Effective agricultural zoning*** – Farmland preservation has been affirmed through the State court system as a legitimate governmental goal, as long as implementing ordinances are substantially related to that goal. Not only is it necessary to severely limit the number of nonagricultural uses in an area intended to be preserved for agricultural use, it is also necessary to insure that subdivision for nonagricultural uses should be confined on small lots, leaving a large residual tract for agricultural use. Large-lot subdivision must be prohibited.

./ ***Agricultural Security Area*** – Some of the Region's farmers have demonstrated their long-term commitment to the future of farming by voluntarily enrolling 8383 acres in an Agricultural Security Area. Landowners within areas planned for continued agriculture within this Plan, should be encouraged to enroll in this program.

./ ***Clean and Green farm tax deferral*** - This is another incentive program for continued agricultural use. Farmers may voluntarily enroll in this State program, which provides a tax reduction for as long as the property remains in farm use. If the property is developed, back taxes for up to seven years are due. Any farmers within areas planned for continued agricultural use who don't already participate should be encouraged to enroll in the Clean and Green program, to further reduce the possibility of increased taxes. Presently some 16,837 acres are enrolled.

Local officials hope to continue to protect the Region's agricultural base. They recognize that Berks County and other non-profits have paid monies to local landowners to permanently preserve their farms with agricultural conservation easements or other type of conservation easement. ***In response, conservation subdivision design and other conservation design standards are recommended to minimize disruption on adjoining active farming operations among other design priorities. More explanation of this technique is provided in Chapter XII (Future Land Use) of this Plan.***

B. Industry

In early times this Region's industry was limited to mines, furnaces and mills. As discussed earlier, this Region has historically lacked transportation access to support large-scale industry. Nonetheless several industries have operated here for years. Probably the largest industry to occupy the Region was the 100-acre Caloric plant site which closed in 1991 and was later purchased by East Penn Manufacturing, which employs 928 persons on-site.

Major Industrial Uses and Employees				
Municipality	1998		2000	
	Industrial Uses	Employees	Industrial Uses	Employees
Topton Borough	2	278	1	220
District Township	0	0	0	0
Rockland Township	1	200	1	200
Region	3	478	2	420

While the Region did incur job losses in the past, the addition of East Penn Manufacturing in Topton and the expansion of their facilities west of the Region have helped employment in the area. Given the Region's rural location and distance from major traffic arteries, it is no wonder that many residents must travel outside the Region for daily employment. The following tabulates the Region's larger industries as reported in the *InfoUSA, 2010* Data:

Major Industrial Employers Within Eastern Berks County Region
(Industries with more than 15 Employees)
(Source: *InfoUSA, 2010 Data)*

Industry Name	Municipality	Employees	Products
Rockland Embroidery	Topton Borough	56	Textiles
Graphite Machining	Topton Borough	73	Carbon and graphite fabrication/machining
Electro Space Fabricators	Topton Borough	69	Metal fabrication
East Penn Manufacturing	Topton Borough	928	Batteries

An Industrial Site Assessment report completed in April 2001 (commonly known as the "Leak-GoForth" study) made suggestions on how industrial sectors could be strengthened and new sites located throughout Berks County.

First, the characteristics of the County and its current stock of industries suggest that the following eight types of industry are particularly well-suited within Berks County:

1. Food and beverage products;
2. Packaging materials and equipment;
3. Drugs and biotechnology;
4. Communications equipment and electronics;
5. Industrial parts and equipment;
6. Medical equipment and supplies;
7. Corporate and information systems; and,
8. Distribution and warehousing

In addition to these principal industries, other secondary spin-off businesses, suppliers and subsidiaries would also find favorable conditions within the County.

Although the Leak-GoForth Study went on to make recommendations about targeted areas for industrial expansion, no such recommendations apply within the Eastern Berks County Region. Admittedly the Region's rural location, severely constrained landscape and lack of transportation infrastructure make it an illogical site for large-scale industry; therefore, it's not surprising that it was not identified for industrial growth. However, ***rural occupations and small-scale industries could be permitted to allow for local employment so long as such activities do not interfere with nearby homes. Moreover any potential businesses should be limited to ones that pose no threat to local water quality by reason of waste disposal or the applicant must demonstrate adequate means for proper waste disposal to avoid water pollution.***

To pursue appropriate industrial opportunities and press an economic development agenda throughout the County, the study recommended that four separate agencies be involved. These entities work together to promote, retain and encourage economic growth and development as described below:

Greater Reading Economic Partnership. (GREP) A public private partnership organization with lead responsibility for driving the countywide economic development agenda and for all general internal communications and external marketing activities. GREP continues to work with both developers and municipalities marketing sites within the County and also helping business retention.

Greater Berks Development Fund. (GBDF) continues as the lead organization for funding, developing, marketing, and managing urban office and industrial properties, with particular attention to redevelopment and revitalization in Reading and other smaller urban communities in the County.

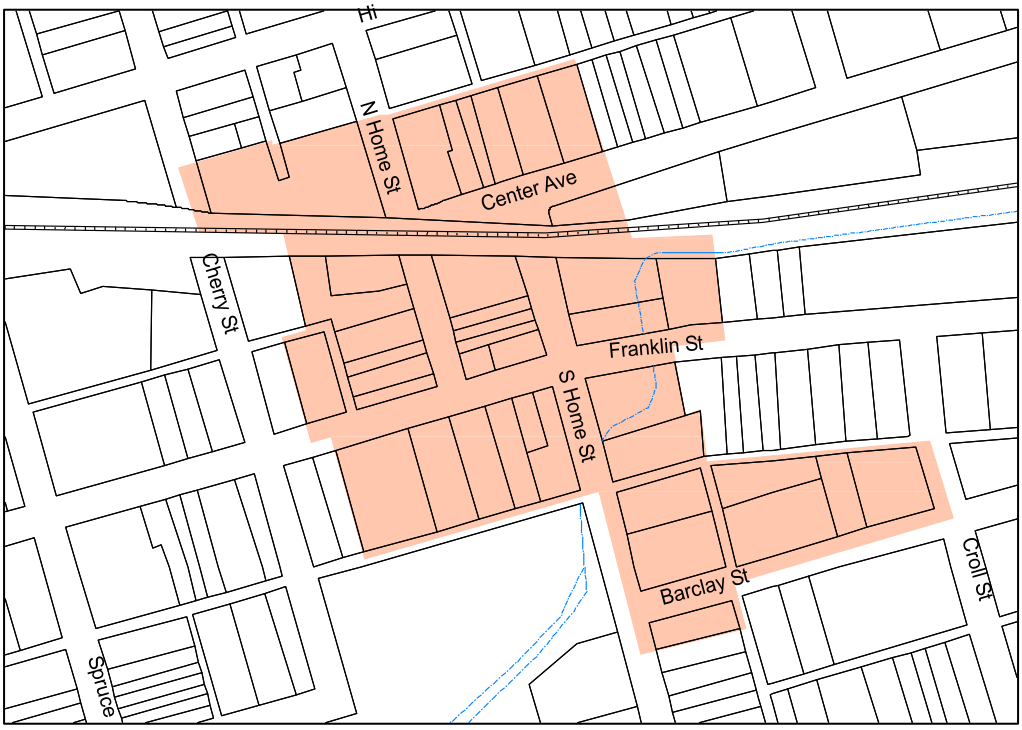
Berks County Industrial Development Authority. (BCIDA) This agency takes on the additional role of acquiring and developing industrial parks and sites in suburban and rural fringe areas of the County which may otherwise be too speculative for private developers and outside the normal realm of the Greater Berks Development Fund. The BCIDA finished a very successful project in North Western Berks County, Berks Park I-78 and is now working on another project on land surround the Reading Airport.

Workforce Investment Board. This organization continues its efforts in helping to prepare the Berks County labor force to meet the needs of existing large industries, while at the same time identifying demands and training workers for new technology-based industries. The Workforce Investment Board, in cooperation with the other agencies, developed the Careers in Two-Years Program with the Reading Area Community College. This program encourages persons to train for specific skilled jobs that are needed by area businesses.

While the County appears to be actively pursuing economic development strategies and programs, these efforts are currently focused on other areas of the County that are better-suited for such uses. Local officials within the EBCR have specifically articulated one of the goals of this plan to "*discourage large-scale commercial and industrial developments except where there is sufficient road access and other infrastructure in place.*" Instead, they hope to rely upon rural businesses for employment opportunities and an expanded tax base.

C. Commerce

Of the Region's municipalities, Topton Borough offers the widest range of commercial uses to residents. The pattern of development is scattered and interspersed with many residences and other civic uses. Most uses front along several of the Borough's major roads (e.g. Home, Center, Franklin, and Barclay). The Borough appears to lack a thriving central business district; however, the following map depicts an area with the greatest concentration of commerce as listed in the tax parcel land use classification records:



In this area the character of development is highly variable with some historic sites and buildings and other more contemporary settings. This area of Topton Borough would be conducive to the idea of creating a "Main Street Program".

"Developed by the National Trust for Historic Preservation, the Main Street Model is based on a comprehensive strategy of work, tailored to local needs and opportunities, in four broad areas:

(1) **Organization:** encouraging a community-wide, volunteer-based effort that builds consensus and cooperation toward common goals;

(2) **Promotion**: marketing the unique characteristics of the downtown to shoppers, investors, new businesses and visitors;

(3) **Design**: getting Main Street into top physical shape and creating an inviting atmosphere; and

(4) **Economic Restructuring**: helping existing businesses expand and recruiting new ones that fit with the identified market.

"The Main Street program is designed to improve all aspects of the downtown district, producing both tangible and intangible benefits. Improving economic management, strengthening public participation, and making downtown a fun place to visit are as critical to Main Street's future as recruiting new businesses, rehabilitating buildings, and expanding parking. It is a comprehensive effort!

"Pennsylvania is one of only a handful of states that support local main street efforts with both technical assistance and financial resources. The Pennsylvania Main Street Program, one of the strategies that came out of the Department of Community and Economic Development (DCED), is administered by the Pennsylvania Downtown Center, a statewide non-profit group. The five-year program encourages leveraging of private dollars and requires ongoing, local support through the establishment of an organization (with working committees) and documented financial commitment from the community.

"Recent changes to the Main Street Program include the ability of communities to seek designation as a Main Street Affiliate. This designation includes many of the same benefits and resources as a full-blown Main Street Program without working toward the hiring of a Main Street Manager and the need to raise matching funds.

Topton Borough should investigate all Main Street opportunities through DCED and apply this successful program to the benefit of local businesses and the Region's residents.

Another area of commerce is found along the southern edge of Borough along Weiss and State Streets which run east/west. These uses are more contemporary in design and oriented to the highway that extends out of town eastward. These businesses cater to the market created by the nearby public school campus, Borough Hall and local parks.

In the outlying rural areas, commerce is generally limited to some small nodes of locally-oriented uses at village crossroads. Small country markets, restaurants and delis, hotels and inns, offices and auto services are typical. Again these sites exhibit a variety of designs ranging from historic and tightly-knit to sprawling with abundant parking.

The specific goals for this Plan seek to limit commerce in much the same way as industry. Local officials hope to attract local stores, services and restaurants that can serve the Region. They don't want these businesses to compete with the large-scale developments in other nearby urban areas, but merely provide for basic products locally. More specific recommendations on how to accomplish these objectives is presented in the Future Land Use chapter of this Plan.

D. Future Economic Development Potential

The EBC Region has a limited local economy. Agriculture is expected to continue as this plan will focus growth within compact growth areas and seek to protect outlying farming. ***Productive farmlands located in District and Rockland Townships should continue to use effective zoning that favors agricultural activities and operations over proposed residential developments.***

Also, while reviewing new development within the conservation areas, local officials should emphasize the need to protect agricultural productivity and avoid designs that would disrupt adjoining farming operations. Other techniques such as farm-related businesses should be permitted to help the farmer continue to prosper in the off-season and in difficult crop-producing years. Since much of the County's agricultural economy is based upon livestock products, each Township should ensure that zoning regulations imposed upon Concentrated Animal Feeding Operations (CAFOs) are compliant with applicable nutrient management regulations and do not adversely affect existing developed areas.

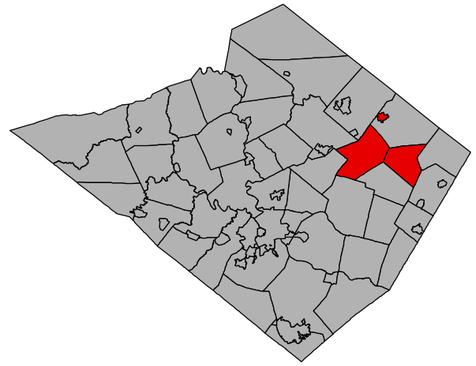
Topton Borough should be the Region's location for concentrated industry and retail goods and services. Borough officials should adopt a proactive and cooperative approach with local business owners and prospective business owners. It should seek to provide for expanded commercial/industrial opportunities by applying shared solutions to problems (e.g., shared access, parking, signs and loading) and more traditional design themes (tightly-knit store fronts, outdoor cafes, sidewalk display bins, etc.) within pedestrian friendly settings. More information about these is presented in the Future Land Use chapter of this Plan.

Outlying rural areas should only provide for local commercial nodes at select locations in the vicinity of existing Villages or developed areas. Design standards and the types of permitted uses should reflect this small-scale orientation and residential context. Strict design standards should protect adjoining homes. Rural and farm occupations can provide for small-scale local entrepreneurship provided local groundwater and surface waters are protected from improper handling of materials and disposal of wastes.

FIGURE 7-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Agricultural Preservation and Conservation Easements



Legend

- Berks County Agricultural Conservation Easement
- Agricultural Security Areas
- Agricultural Easement
- Conservation Easement
- Tax Parcels
- Municipal Boundaries
- Railroads
- Streams

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Conservancy, Wildlands Conservancy, PA DCNR Bureau of Forestry

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Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Hereford
Ruscombmanor
Pike
Washington
Oley
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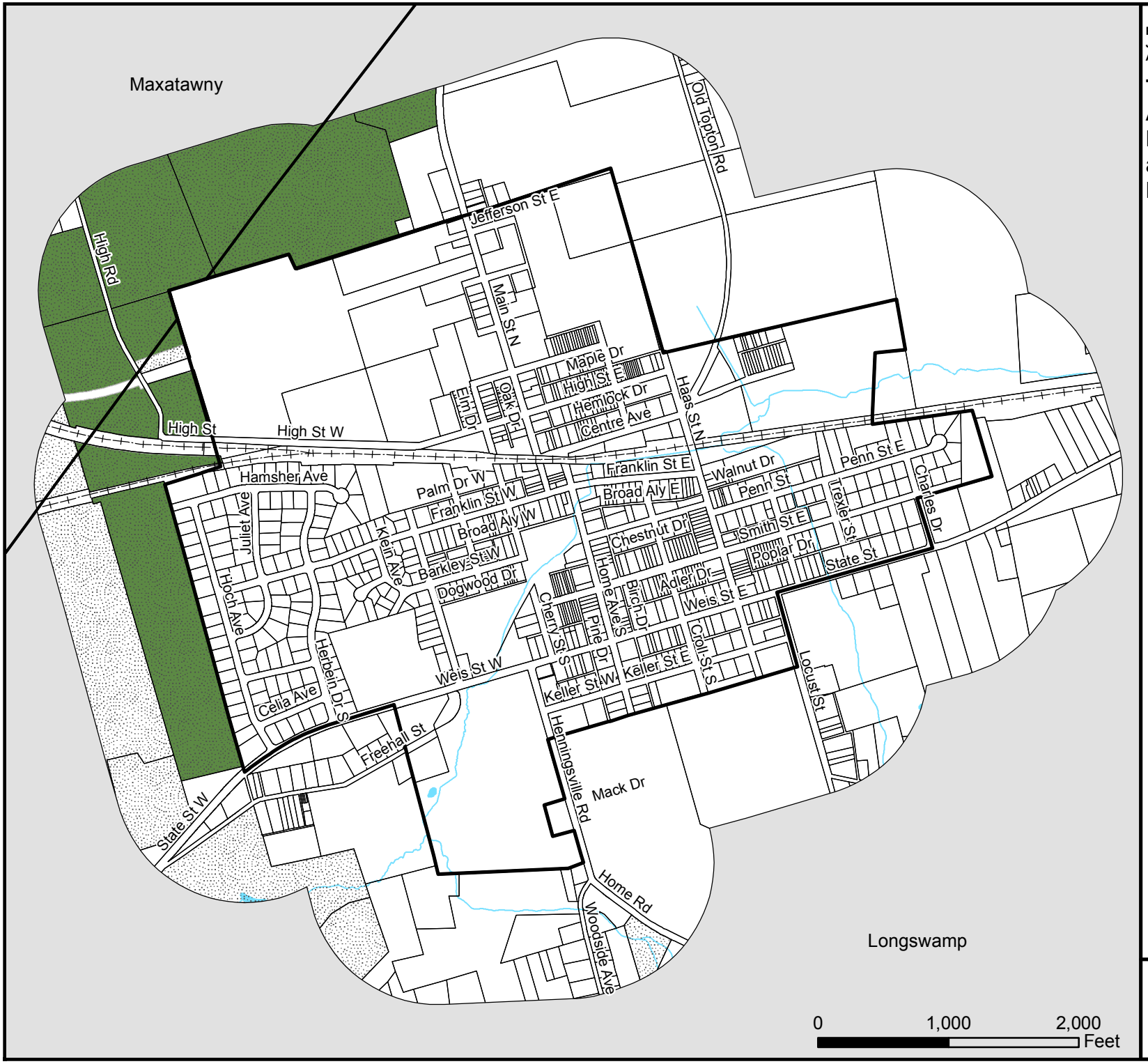

0 1,000 2,000 Feet

FIGURE 7-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Agricultural Preservation and Conservation Easements

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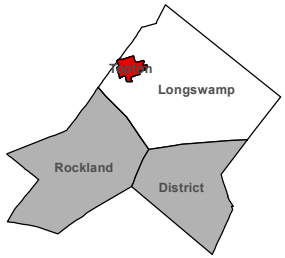
W E
S



Legend

- Berks County Agricultural Conservation Easement
- Agricultural Security Areas
- Tax Parcels
- Municipal Boundaries
- Railroads
- Streams

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

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VIII. EXISTING LAND USE

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

A. Rural – Open Space

Approximately 9,723 acres have been identified by the Berks County Planning Commission as rural in character. These areas are characterized by a lack of building development, non-tilled surface and woodlands. Typically these areas form the foothills, and more steeply-sloped woodlands. Also several of the Region's major utility transmission lines appear as narrow and long bands of rural land use bisecting woodlands and agriculture.

As expected, the steep slopes of the Region's mountains and hillsides are largely wooded, with only scattered rural residences on large lots. Many of the lots in this area are uncharacteristically deep when compared with other residences; this suggests that these lots may be used to harvest firewood. In addition, some of these lots are located away from any public road and appear land-locked; these lots would not be permitted under today's subdivision regulations. This land use category includes brush-land, evergreen, hardwood, mixed, and wetland forests. District and Rockland Townships both have large swaths of woodlands.

B. Agriculture

Farming is a very important category of land use within the Region. About 3,936 acres comprise this use. Livestock farming was also observed to a lesser extent with cows, bulls and sheep. The Region appears devoid of large-scale intensive livestock and commercial produce operations.

C. Low Density Residential

Nearly 3,623 acres of land within the Region contain low density residential uses; this represents about 19.37% of the total land area. Given the way the County records its tax parcel data, this category includes all of the non-farm detached residences within the Region plus a couple of residences located within Topton Borough. Densities within this category range from about 1 to 5 acres per dwelling units. Clearly, most of the homes located within the rural landscape are vastly different than those located within the Borough.

Rural home sites are generally larger than one-acre and often have a deep driveway; however, at the crossroad villages homes can be located close together and near the road. In short development within the rural areas varies widely except within several of the more recent subdivisions that have more uniform layouts and appearances. Each township has considerable scattered “strip” roadside housing throughout its rural landscape. This rural housing also contains many home and rural occupations that provide for close-to-home employment opportunities. Generally rural homes are well-kept aside from an occasional mini- junkyard. Sidewalks are not provided within these settings.

D. Residential High

There are a few areas within the older developed region of District and Rockland Townships that are in this category. They include scattered crossroads, villages and the two mobile home parks. There are 151 acres in this category, a percentage of 1.63% of the area. On the other hand, a majority of the neighborhoods within the Borough are included in this designation and vary widely in style and density. Suburban style homes on ¼ acre lots with spacious front-yard driveways can be found at the Borough’s western periphery. In town, row homes and duplexes are located upon narrow yet deep lots with as little as 2000 square feet, minimal front and side yard setbacks and on-street/alley parking. Some denser neighborhoods also have rows of garages across an alley or street that appears to serve nearby homes. Within the Borough sidewalks are present in most neighborhoods.

To get a more defined sense of the characteristics of these varied residential uses “typical” residential uses were sampled and analyzed to determine relevant site traits. The locations of such settings are noted to verify their suitability. Because zoning requirements are generally expressed by minimum required standards, within each particular setting, traits that would be shared by most of the properties were noted. These traits often represent a low common denominator among the properties within the setting, so as not to suggest design standards that would create zoning non-conformity. The table below presents the results of this analysis.

"TYPICAL" DESIGN CHARACTERISTICS OF SINGLE FAMILY RESIDENCES								
Municipality/Setting/ Location & (Unit Type)	**Min. Lot Size**	**Min. Lot Width**	**Front setback**	**Side setback**	**Rear setback**	**Parking Location**	Sidewalks	**Notes**
Rockland/Forest Ridge (SFD)	1 ac.	150 ft.	50 ft.	30 ft.	50 ft.	Front/side	No	
Rockland/Stony Ridge Estates (SFD)	1 ac.	200 ft.	75 ft.	50 ft.	50 ft.	Front/side	No	
District/Landis Store Rd. (SFD)	2 ac.	200 ft.	50 ft.	50 ft.	50 ft.	Front/side	No	
Topton/Hoch Ave. (SFD)	10,000 sf.	100 ft.	40 ft.	20 ft.	30 ft.	Front	Yes	
Topton/Center Ave (SFD)	4500 sf.	30 ft.	10 ft.	1 ft.	0 ft. garage	Street and alley	Yes	
Topton/Washington St. (2FD)	3600 sf.	24 ft.	5 ft.	2 ft.	O ft. garage	Street & alley	Yes	
Topton/Washington St. (Rowhouse)	2700 sf.	18 ft.	5 ft.	0 ft.	O ft. garage	Street & alley	Yes	Pedestrian access between units
Topton/Main St. North (Rowhouse)	2880	24 ft.	0 ft.	0 ft.	0 ft. garage	Street & alley	Yes	Front build-to lines




Hoch Ave. **Center Ave.** **Washington St.** **Main St. North**

E. Multi Family Residential

Different sites within the Region house multi-family residences. These range from converted farmhouses in the rural landscape to garden apartment complexes within Topton Borough. According to the US Census Bureau the Region had 149 multi-family housing units in the year 2010 comprising 20.3% percent of its total housing stock. However, it is important to understand that mobile home parks are not included within this category, but it does include two-family units.

Municipality	**Multi-family units**
Topton Borough	144 (19.4%)
District Township	5 (0.9%)
Rockland Township	0
Regional Totals	149 (20.3%)

An apartment building in Topton Borough

"TYPICAL" DESIGN CHARACTERISTICS OF MULTI-FAMILY RESIDENCES							
Municipality /Location	**Min. Lot Size**	**Min. Lot Width**	**Front Setback**	**Side Setback**	**Rear Setback**	**Parking Location**	**Sidewalks**
Topton / Franklin St.	NA	200 ft.	35 ft.	25 ft.	30 ft.	Street/parking lot	Yes

F. Mobile Home Parks

One Mobile Home Park can be found within the Region. These sites differ from mobile homes that are located on separate lots which are considered single family detached residences. The Mobile Home Park about 27 acres of land and contain about 36 units. The Mobile Home Park is located within District Township with potential space for additional units depending upon infrastructure requirements.

G. Commercial

Just over 84 acres within the Region are devoted to commercial use; this represents about 0.45% of the total land area. Each municipality has some commercial development.

Topton Borough has the most defined central business area within the Region. This core area generally straddles Main Street North and South Home Street and hints of the small-town bustle of times past. In addition several scattered businesses line Weiss Street. Aside from several freestanding commercial buildings which have been built more recently (convenience store, drive-thru restaurant, offices, etc.) the uses within this area inhabit first-floor store fronts of 2 and 3-story historic buildings. Existing uses include a convenience store, bank, flower shop, beauty salons, barber shop, fast-food and sit-down restaurants, tavern, hardware store, sporting goods store, hotel, medical clinics, auto repair garages, beverage distributor, carpet store, Laundromat, funeral home, car wash and various offices.

Aerial photo of downtown Topton Borough

On-street parallel parking spaces generally line both sides of the street, as do sidewalks with shade trees, banners and overhead street lights. While many of the buildings exhibit historic architecture, their commercial adaptations don't reflect the same integrity. Business signs are typically flat wall, wall projecting or canopy signs. Certainly, Topton Borough's CBD has enjoyed a more active and vital past when the train station was active; however, it appears to function quite well, despite today's more highway-oriented commercial economy.

District and Rockland Townships have very limited commerce. District has two historic hotels and one operating and another vacant auto repair garage. Rockland has several nodes of commerce within its villages and along its major roads. In New Jerusalem are a deli, auto dealership, and auto repair garage. In Dryville there is a restaurant/tavern. A rural convenience store and gas station and florist are located along Pricetown Road west of New Jerusalem. Another auto repair garage is located along Five Points Road. These rural businesses often lack contemporary design features (parking, loading, landscaping, screening, etc.) that improve site function and appearance.

H. Industrial

Just over 68 acres within the Region are devoted to industrial use; this represents about 0.37% of the total land area. Each municipality has some industrial development.

Topton Borough provides the greatest extent of industry within the Region. Within the Borough industry is principally located on the north sides of the railroad tracks along the eastern and western edges of the Borough. The Deka/East Penn Manufacturing Distribution Center is the largest industrial site within the Borough; however, its vehicular access is provided along Old Topton Road within Longswamp Township. Other uses include Electrospace fabricators, mill working, warehousing, Lehigh Industries, an embroidery shop, a contractor yard and mini-warehouses.

Electro-Space Fabricator in Topton Borough

As with commercial development, industry is limited within District and Rockland Townships. Within District Township is a factory-like building used to raise laboratory animals along Landis Store Road. Further south along Weil Road are a vacant garage and warehouse. An excavating contractor is located on the north side of Huffs Church Road to the west of Dogwood Drive. Likewise in Rockland Township industry is scarce and scattered. Two auto salvage yards are located on the south side of Five Points Road and in the Village of New Jerusalem, respectively. An ironworks shop is located along Pricetown Road just west of New Jerusalem and a vacant garage/warehouse is located within Dryville.

With the exception of Electrospace Fabricators in Topton Borough, many industries within the Region lack contemporary design features (improved parking, loading, landscaping, screening, etc.) that improve site function and appearance. However, these industries provide needed employment and tax revenue for the area.

I. Public / Institutional

Within the Region public and Institutional uses comprise 150 acres or about 0.80% of the total land area. Several of these are large parks and open spaces including the PA State Gamelands located within District Township and an adjoining quasi-public conservation area.

In addition to these open grounds this category includes properties owned and operated by the Brandywine Heights Area School District and each of the Region's municipalities.

Finally this category reflects many numerous governmental uses, post offices, public utilities, parks, maintenance sheds, communication towers, churches, cemeteries, and rectories.

J. Transportation - Roads & Railroad Rights-of-Way

About 640 acres are devoted to the Region's roads and railroad rights-of-way, which equals 3.42% of the area. More information about these is contained within Chapter XI (Transportation) of this Plan.

K. Water

This category depicts the Regions ponds and lakes. This category does not include streams and creeks. About 81 acres of the Region are within a pond or lake. This equates to about 0.43% of the area.

The above information is depicted on the Existing Land Use Map.

L. Approved Land Developments

In planning for future land uses and calculating acreage needed to accommodate projected growth, it is important to know the location and types of developments within the Region that have been approved for development, but have not yet been fully developed. This information will also ensure that future planned uses are consistent or compatible with those already approved for construction. The following lists, by municipality, those developments which have been approved but not yet constructed or still have buildable lots. Currently, there are 53 approved single family detached building lots approved.

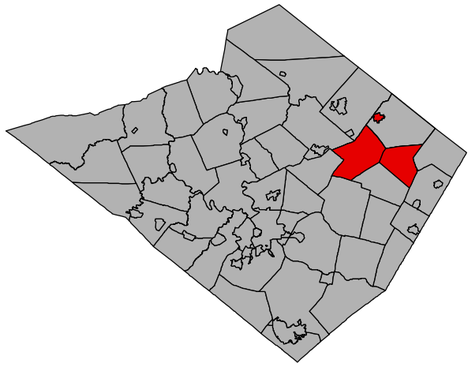
Approved Development Plans		
Topton Borough		
Unknown	SFD	3, Freehall Street
District Township		
Weise Estate – 2013	SFD	2, Merkle Road
Forgedale Properties - 2010	SFD	2
Solt – 2008	SFD	1
Kegel – 2007	SFD	1, Deer Run Road
Fredericksville Farms – 2006	SFD	7, Huffs Church Road
Esterly – 2005	SFD	1
Fairhill Section II – 2004	SFD	1
Stonehedge -2002	SFD	1, (Lot #4), Groff Road
Luft – 1999	SFD	1
Gardner – 1999	SFD	1
Hobert – 1996	SFD	1, Baldy Hill Road
Hobert – 1990	SFD	1, Baldy Hill Road
Sycamore Hill II – 1996	SFD	2, Treichler Road
Gee-Elwell	SFD	1
Kegg – 1995	SFD	1, (Lot #8), Deer Run & Kegg Lane
Roscher – 1995	SFD	5
Smit – 1995	SFD	1
Jensen Estate – 1992	SFD	1
Pinder – 1991	SFD	1
Pinder – 1993	SFD	1

Harrowgate Farms – 1991	SFD	2, (Lot #3 & 6), Hardt Hill Road
Echo Glen – 1990	SFD	1
Meba – 1988	SFD	1, (Lot #2), Benfield Road
Greenwood – 1987	SFD	1, (Lot #4), Delong & Bitting Roads
Rockland Township		
Berkey – 2010	SFD	1, (Lot #2), Lobachsville Road
Schlegel – 2008	SFD	2, (Lot #3 & 4), Lake Road
JJB – 2008	SFD	1, (Lot#3), Mine Road
Stonefield Heights – 2006	SFD	2, (Lot #10 & 7), Steep Lane
FELD-3 – 2006	SFD	3, (Lot #22, 19 & 25) Cider Mill Road
Rockland Manor Estates - 2004	SFD	2, (Lot #15 & 7), Beaver Creek Road
Brandywine Crossing – 2003	SFD	1, (Lot #4), Black Bear Run
Total	**SFD**	**53**

FIGURE 8-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Existing Land Use



Legend

- Residential Low
- Residential High
- Commercial
- Industrial
- Public / Institutional
- Recreation
- Open Space
- Agriculture
- Water
- Transportation
- Tax Parcels
- Municipal Boundaries
- Railroads

Source data: Berks County Planning Commission GIS, Berks County Mapping, Berks County GIS/IS, Berks County Department of Emergency Services

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Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Ruscombmanor
Hereford
Pike
Washington
Oley

N
W
E
S

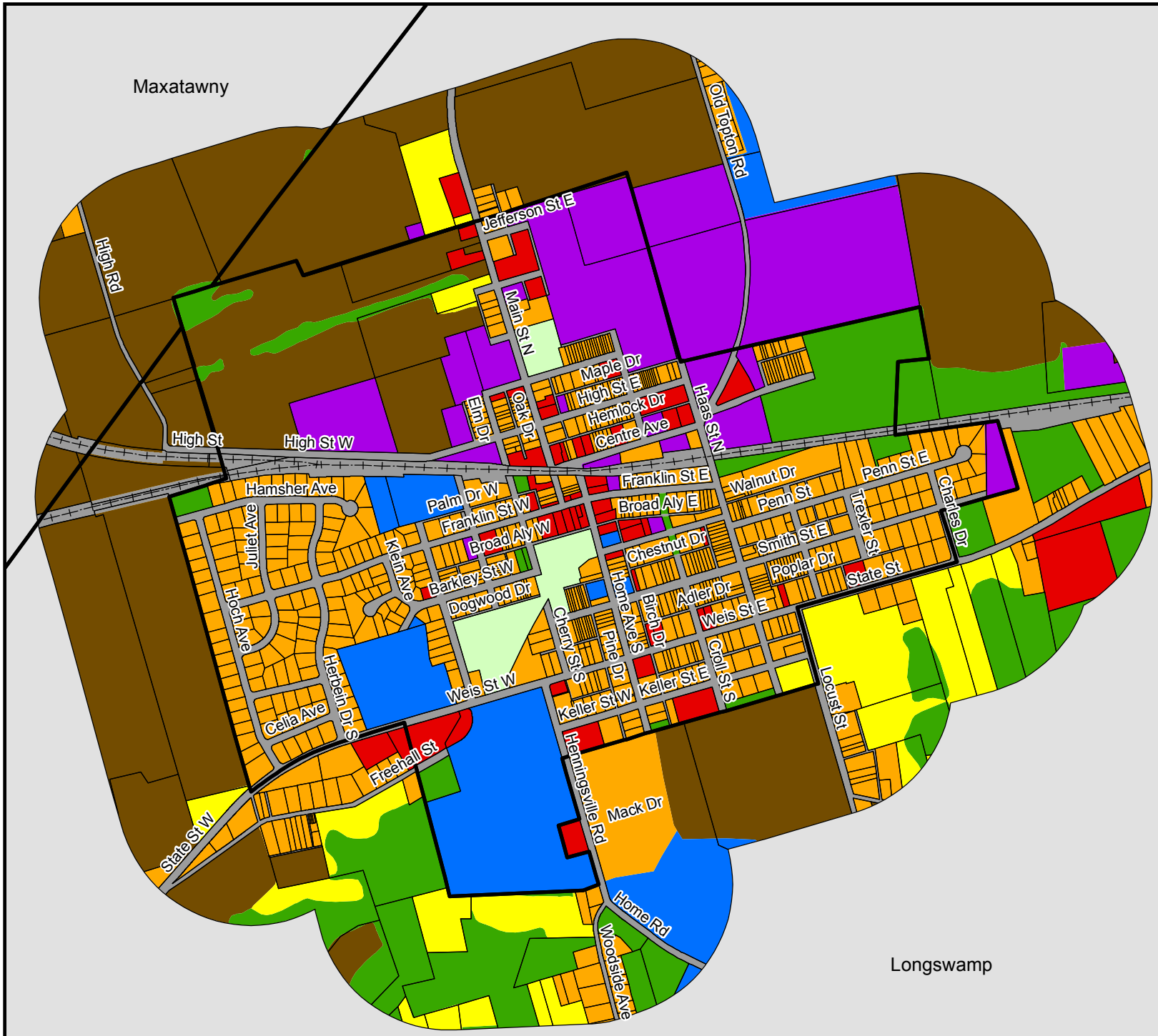
Main St
Smoketown Rd
Forest Rd
Mine Rd
Maple Rd
Bowers Rd
Foxs Rd
Sally Ann Furnace Rd
Fleetwood Rd
Gails Hill Rd
Beaver Creek Rd
Lake Rd
Clay Valley Rd
Kutz Rd
Forgedale Rd
Pricetown Rd
Lyons Rd
Highway 5
Fredericksville Rd
Cressley Rd
Five Points Rd
Huffs Church Rd
Steep Ln
Rocky Ln
Bick Rd
Conrad Rd
Keller Rd
Schweitz Rd
Day Rd
Ruppert School Rd
Weidner Rd
Long Ln
Ridge Dr
Orchard Rd
Highland Dr
Sheephill Rd
Hill Rd
Lobachsville Rd
Angstadt Rd
Deysher Rd
Boyer Rd
Dogwood Dr
Delong Rd
Benfield Rd
Bitting Rd
Treichler Rd
Baldy Hill Rd
Fairhill Dr
Keim Rd
Conrad Rd
Chew Rd
Kemp Rd
Bull Rd
Oysterdale Rd
Forgedale Rd
Landis Store Rd
Deer Run Rd
Hardt Hill Rd
Lutz Rd
Weil Rd
Merkle Rd
Groff Rd

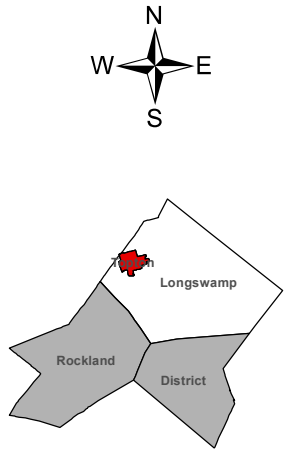
0 1 2 Miles

FIGURE 8-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Existing Land Use





Legend

- Residential Low
- Residential High
- Commercial
- Industrial
- Public / Institutional
- Recreation
- Open Space
- Agriculture
- Water
- Transportation
- Tax Parcels
- Municipal Boundaries
- Railroads

Source data:
Berks County Planning Commission GIS, Berks County Mapping, Berks County GIS/IS, Berks County Department of Emergency Services

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IX. ADJACENT & REGIONAL PLANNING

The preparation of any comprehensive plan must always consider and, if possible, complement the planning policies in effect in adjoining communities. The highest level of consideration could include a cooperative planning effort of several adjoining municipalities, such as that of this Regional study. At a minimum such effort should seek to coordinate land use activities across municipal boundaries to assure compatibility and function. This Chapter presents this analysis and findings of general consistency with the stated planning policies of Berks County for the Region.

The Existing Land Use and Adjacent Planning Map, following Section VIII, depicts the planned land uses in municipalities that adjoin the Region. As can be seen, many adjoining areas too recognize the rural/natural features of the Region. The following is a brief summary of those land uses planned for each municipality bordering the Region.

A. Hereford Township – Adjoining the eastern edge of the Region along the District Township boundary is Hereford Township. The Hereford-Washington Joint Comprehensive Plan was adopted in January, 2006. It depicts Rural Resource Protection and Airport Overlay land use. The Rural Resource Protection category intends to protect agriculture, open space and environmentally sensitive conditions such as steep slopes, woodlands and important headwaters. The average densities of future development are expected at about 3-5 acres. The Airport Overlay category is designated to protect airspace flight path and have an average density for future development of 2 acres.

B. Washington Township – Adjoining the southeast tip of the Region and District Township is Washington Township. The Hereford-Washington Joint Comprehensive Plan was adopted in January, 2006. Here the Future Land Use Plan depicts only one adjoining land use category – Rural Conservation. This category intends to protect agriculture, open space and environmentally sensitive conditions such as steep slopes, woodlands and important headwaters. The average densities of future development are expected at about 3-5 acres.

C. Pike Township – Adjoining the southern border of the Region along District and part of Rockland Township is Pike Township. The Boyertown-Colebrookdale-Pike Joint Comprehensive Plan was adopted March, 2005. Within adjoining Pike Township future land uses are mostly Rural with a very small area of Industrial. Within the Rural areas regulations should discourage dense developments because of sensitive environmental conditions and agricultural areas. New homes should have a minimum lot area of 3 acres or if using Open Space subdivision 1-1/2 – 2 acres. There is also a small section of Industrial designated area that allows for a variety of industrial uses.

D. Oley Township – The southwestern tip of Rockland Township and the Region adjoin an area of Oley Township planned for Rural and Agriculture land uses. Here regulations should treat agriculture as an industry and farmland as a resource. Strict agricultural zoning should site non- farm uses away from productive soils, minimize land use friction, maintain agricultural vitality, avoid utility extensions and visual intrusions and preserve historic farm structures. Rural includes agriculture, woodlands, open space and low density residential at very limited low densities. The Alsace-Oley-Ruscombmanor Joint Comprehensive Plan was adopted April, 2009.

E. Ruscombmanor Township – The western edge of Rockland Township adjoins Ruscombmanor Township. The Oley-Alsace-Ruscombmanor Joint Comprehensive Plan was adopted in April, 2009. It depicts Rural and Low Density Residential uses adjoining the Region. Rural includes agriculture, woodlands, open space and low density residential at very limited low densities. Low Density Residential includes single family detached residences at a density of about 1 to 1-1/2 acres.

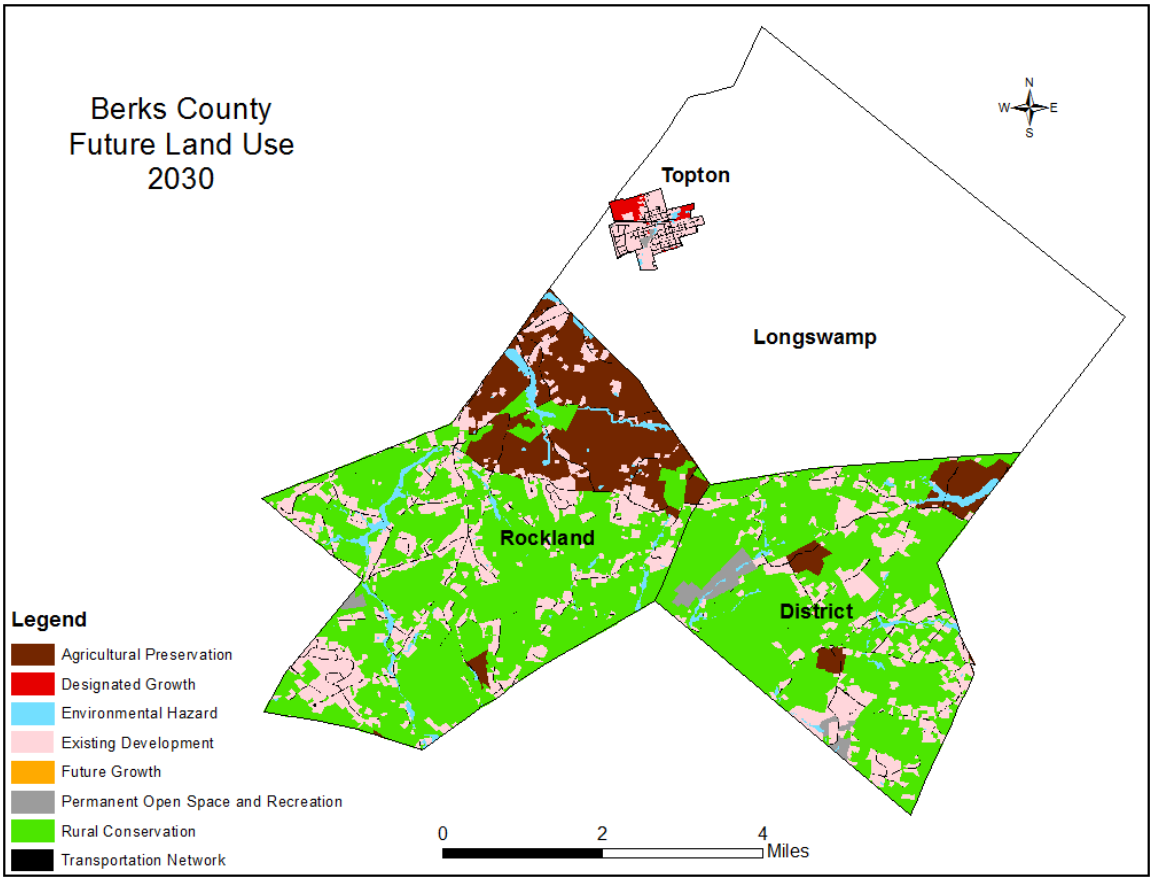
F. Richmond Township – Rockland Township's western border also abuts Richmond Township. The Fleetwood-Maidencreek-Richmond Joint Comprehensive Plan was adopted in September, 2011. It plans Rural Conservation land uses next to the Region recognizing the landscape's steep slopes and thick woodlands. Here low-density residences and farming should be the predominate activities. Residences should be required to have larger lot sizes as slopes increase and the use of clustering should be permitted if at least 40% of the site is preserved in open space and reforested.

G. Maxatawny Township - Maxatawny Township adjoins Rockland and Longswamp Townships along the Region's western boundary. The Maxatawny Township Comprehensive Plan was adopted October 6, 1996. It depicts four different planned land uses adjoining the Region. First at the extreme north and south are two nodes of Residential use. These areas are intended for single family detached and semi-detached dwelling units on 1- acre lots. Also near the southern tip of the Township is an area depicted as Village Institutional where infill developments should be promoted at similar designs and densities as the existing uses in and around the Borough of Lyons. Finally, a large band of Agriculture is planned along the area of Topton Borough's northwest boundary line. Here the Township hopes to preserve its agricultural economy and rural lifestyle and discourage nonfarm developments with infrastructure investment.

H. Longswamp Township – Longswamp Township adjoins District and Rockland Townships on their northern and northeastern boundaries and almost entirely surrounds Topton Borough. Longswamp Township withdrew from the Eastern Berks Region Comprehensive Plan in 2014 and is in the process of adopting its own Comprehensive Plan.

I. Berks County Comprehensive Plan – Berks Vision 2030 is the official Comprehensive Plan for Berks County as prepared by the Berks County Planning Commission.

The purpose of the Berks County Comprehensive Plan, known as Berks Vision 2030, is to revise and update certain aspects of the Comprehensive Plan of 2003, and subsequent Plan documents. This revision serves as a set of recommendations rather than a regulatory document. It acts as a guide to growth and development and assists the Berks County Planning Commission in evaluating various development proposals and requests for financial assistance by local agencies to County, State, and Federal agencies. This Plan is a general guide and does not reflect in detail the location for all future development nor the precise boundary of such development. This revision is not a fixed or rigid document, but will be modified by the Commission when changes in the development of Berks County indicate the need to update the Plan. Berks Vision 2030, unless otherwise noted, completely supersedes the Comprehensive Plan Vision 2020. The following depicts the Future Land Use Plan for the Region:



Unsurprisingly, this County-wide Plan recognizes the importance of the Region's unique and sensitive natural features. Accordingly the Plan calls for the preservation of its Rural/Conservation landscape throughout much of the Region. Agriculture preservation is planned in the northern portion of Rockland Township due to its soils and geology and in smaller areas of District Township where there is currently land in farming and agricultural preservation easements. Floodplains, parks and open spaces are scattered throughout the Region as they exist. Similarly, scattered settlement patterns are reflected as existing developments throughout the rural areas. However, designated and future growth areas are principally confined to areas within Topton Borough and in the Villages of Rockland Township. Another smaller designated/future growth area is depicted along the northwestern boundary of Rockland Township with Maxatawny Township. This designation appears to be related to development potential around the Village of Bowers in Maxatawny Township.

The Future Land Use Plan contained in Chapter XII generally follows the County's suggested land use scheme.

X. PUBLIC UTILITIES

A. Public Sewer Service

Public sewer service is provided within the Eastern Berks County Region by Topton Borough. The Borough has been working towards compliance with a Consent Order and Agreement with the PA Department of Environmental Protection to resolve wet weather flow problems and hydraulic overloads. As part of this effort an update to the Borough's Official Sewage Plan was prepared and adopted in March 2000. The location of public sewage facilities is plotted on the Public Utilities Map.

System History

The system originated in 1961 when the Commonwealth issued a permit for the former Topton Municipal Authority to construct the Borough's treatment plant, pump station and interceptor. The Authority operated the system for over 20 years until in 1987 it was taken over by the Borough as part of a refinancing of the original bond issue. Then in 2002 the Authority was reinstated so that the Borough could properly manage the delivery of public sewer outside of its municipal boundaries into Longswamp Township. The treatment plant was upgraded in 1976, 1990 and 2000.

Existing Service Areas

Today the system serves all "developed" areas of Topton Borough with "undeveloped" areas expected to be served as needed. In addition the following lists areas served outside of the Borough:

- Two sewer lines extend south into Longswamp Township to serve the Lutheran Home which is the system's largest customer;
- Service is extended along Old Topton Road to the new High School located in Longswamp Township;
- Another sewer collection line extends south into Longswamp Township along Woodside Avenue where it serves several dwellings along this road;
- A fourth sewer line extends along Freehall Street to the southwest of the Borough in Longswamp Township to serve several dwelling units; and,
- Service is provided to Deka & East Penn Manufacturing sites located to the northeast of the Borough.

Treatment Processes and Capacity

The Borough of Topton Wastewater Treatment Facility is located adjoining the north side of Toad Creek just east of the Borough in Longswamp Township. The Plant outfalls into the Toad Creek under National Pollutant Discharge Elimination System (NPDES) Permit No. 0020711. The original plant utilized a contact stabilization process and was constructed in 1962. It was

updated in 1976 with the addition of an aeration tank and again in 1990 with the addition of reed beds for sludge management.[1] During the 2000 expansion/upgrade of the plant, the design was changed from a grinder type system to a screen type system for filtering out foreign materials. The plant also uses an extended aeration variation of activated sludge process that provides for primary and secondary treatment of sanitary sewage and acceptable pretreated industrial wastes.[2] Specifically the plant incorporates the following:

- Comminution;
- Duplicate aeration tanks with approximately 9 hours detention;
- Variable speed and fixed speed pumps;
- Duplicate secondary aeration tanks;
- Duplicate settling tanks;
- Dechlorination;
- Aerobic digestion of sludge;
- Liquid sludge loading; and,
- Dewatered sludge reed bed sludge management.[3]

The 2000 upgrade to the treatment plant achieved compliance with a Consent Order and Agreement between the Borough and the PA Department of Environmental Protection. In so doing the treatment capacity of the plant has been expanded to 250,000 gallons per day or 0.25MGD. The average 2010 sewage flow to the treatment plant is depicted below:

Land Use	No. of Connections	Average Effluent Generated (Gallons Per Day)
Residential	792	130,000 gpd
Commercial/Industrial	67	17,000 gpd
Public/Institutional	5	53,000 gpd
Total	864	200,000 gpd, or (0.20 MGD)

[1] Borough of Topton Berks County, PA Act 537 Sewage Facilities Plan Update, March, 2000, Great Valley Consultants, pg.8
[2] Borough of Topton Berks County, PA Act 537 Sewage Facilities Plan Update, March, 2000, Great Valley Consultants, pg. 1.
[3] Borough of Topton Berks County, PA Act 537 Sewage Facilities Plan Update, March, 2000, Great Valley Consultants, pg. 8.

Conveyance Facilities

The sewer collection system was largely constructed in 1962. Most of the local collection lines are 8-inch diameter vitrified clay pipe that flow by gravity and follow street and alley rights-of-way. Some limited 10-inch diameter trunk lines also run along East & West Franklin, North Haas, North Heffner and East High Streets. A 15-inch diameter interceptor links the entire collection system with the treatment plant; it runs between North Haas Street along the north side of Toad Creek and the plant. The system has two pump stations. The first is located on the north side of Washington Street on the Brandywine Youth Baseball Association ball field. This pumphouse generally collects sewage flows from the uses north of High Street and conveys it via force main to the 10-inch trunk line located in East High Street. This facility has 2 ejector-type pumps with a combined design capacity of 86,400 gpd with an average daily flow of about 15,031 gpd in 2013. The second pump station is a submersible pump installed during the

development of Brandywine Meadows in the late 1980s. This facility is located at the northern terminus of Hoch Avenue near the western edge of the Borough. It collects sewage from this development and pumps via force main in a southeasterly direction to the 10-inch trunk line located along West Franklin Street. This pump has a design capacity of 115,000 gpd. The average daily sewage flow from Brandywine Meadows is 15,000 gpd in 2013.

There has been a chronic problem with infiltration and inflow at the Topton collection, conveyance and treatment facilities. An annual sewer rehabilitation and repair project program has been implemented to internally televise the lines, repair manholes and line pipes. In 2013 the Borough began an inspection program for each sewer customer. Approximately 180 homes were inspected for illegal connections. Any improper connections were identified and the homeowners were instructed to correct these connections. The Borough plans to continue this program in the future.

Future Public Sewer Needs

During the last process of update to the Topton Borough Official Sewage Plan conducted in the late 1990s and early 2000s, Topton Borough specifically invited Longswamp Township's participation in the design and financing of a treatment plant with sufficient capacity to meet the future sewer needs of both municipalities. At that time two separate design alternatives were presented that involved a joint effort between the Borough and Township. After consideration, Longswamp Township opted out of the process and the Borough proceeded to implement the option that best fit its individual needs.

However, another impediment looms prominent. The Toad Creek is a tributary of the Little Lehigh Creek and is part of the High–Quality Watershed as described in Chapter 3 of this Plan. As such special protection regulations are applied by the State in permitting sewage outfall to protect this important resource. However, the goals of this plan are quite clear that additional public utilities will be provided to serve compact future growth areas just outside of Topton Borough. In addition, some residents of Longswamp Township are currently on the Topton waste water system, and residents have expressed a desire to add capacity. Absent such efforts, increased and undue development pressure will be exerted upon the agricultural and conservation landscapes for rural housing. In turn, the Plan's deliberate and proactive strategy to concentrate residential growth in planned utility service areas will be invalidated by its lack of infrastructure to support this strategy. The Townships of the Region are much more likely to have their effective agricultural/conservation zoning regulations upheld if a judicial body can determine that the Region has adequately projected growth and advanced a deliberate strategy for its accommodation. The obligation of communities to plan extends beyond the mere placement of zones on a map; legal precedents have established that the provision of necessary public services and infrastructure are equally binding.

B. Public Water

History and Service Area

Public water within the Region is furnished by the Topton Borough Municipal Authority. This Authority also oversees the public sewer system. The Authority consists of 5 members who are appointed by the Borough Council to serve 4-year terms. They meet on an as-needed basis. The original system was dug and installed as part of the Work Projects Administration (WPA)

during the 1940s. Service was later extended into Longswamp Township to serve a few properties on Woodside and Freehall Streets in the early 1980s. The water treatment plant was renovated in 1997.

Water Sources

For many years the system has relied upon 34 protected springs located at the Borough's watershed property along Woodside Avenue in Longswamp Township south of the Borough. Currently, 33 springs are active and one is inactive. These springs are encased under steel doors to protect their integrity and situated amid a wooded setting that is maintained to ensure good water quality. The springs generate between 60,000 gpd during dry seasons to 100,000 gpd during wetter periods.

In addition, two wells supplement the Borough's source water. Well No. 1 is located at the northern edge of the watershed property in close proximity to the Borough's treatment plant and storage reservoirs. A second well, known as Well No 2 is located on the east side of Henningsville Road (which becomes Woodside Avenue in Longswamp Township) just south of West Keller Street. Water from this well is pumped up Henningsville Road over ½ mile to the treatment plant and reservoirs located on the watershed property. Combined these wells have a rated capacity of 360,000 gpd. The Borough has adopted wellhead protection measures in place to protect these sources. Currently, Well No. 2 is the only one being used.

Treatment, Storage & Conveyance Facilities

The Borough's Water Treatment Plan is located along the northern edge of the watershed property located on the east side of Woodside Avenue about 3100 feet south of the Borough boundary. This site is located at an elevation above all areas served by the system and enables gravity flow throughout the Borough. A major treatment plant upgrade was completed in 1997. This upgrade was precipitated by a discovery of giardia cyst bacteria in one of the system's supply springs. Specifications of this treatment plant list it as a 2-stage filter system capable of filtering 237,600 gpd. It is designed to adequately filter raw water and maintain proper Federally-regulated drinking water levels according to the following criteria:

- Turbidity;
- Particles in 4 size ranges;
- MS-2;
- Coilpahge virus;
- Giardia lamblia cysts;
- Cryptosporidium Parvum Oocysts;
- Algae; and,
- Sediment.

The plant also incorporates many monitoring and system control devices to ensure optimal plant operation and performance with automated safety systems that activate when adequate performance is compromised. Sodium hypochlorite is used to chlorinate the finished water and soda ash is used to maintain proper pH balance. Raw water storage occurs in two 330,000 gallon covered reservoirs located on the same site and a separate covered 1,000,000 gallon reservoir is used to store finished water that has already been treated. With an average daily consumption of about 184,000 gpd, these reservoirs furnish ample water supply for about 5.5 days of reserve capacity. A general rule-of-thumb suggests that reserve water capacity of 2.5

days is desirable; therefore the Borough has an abundance of reserve water storage capacity. Main water lines are constructed of cast iron and are generally 12 inches in diameter. Residential tap lines are constructed of various materials depending upon their time of installation and are 2-6 inches in diameter. Most of the water lines were installed in the 1940s and are susceptible to failure due to age. The Borough does not have a program for replacement of these lines at this time.

Future Public Water Needs

As discussed earlier for future public sewer needs, the goals of this plan advocate that additional public utilities will be provided to serve compact future growth areas in this plan. These compact growth areas are to accommodate the bulk of the Region's residential development over the next 20 years.

C. Solid Waste Disposal

All of the Region's municipalities rely upon private haulers for garbage collection and disposal. Curbside recycling is described as prevalent within Topton Borough, limited in Rockland Township and infrequent in District Township. Topton Borough is in the process of developing a mandatory curbside recycling program that is anticipated to start in 2015.

D. Other Utilities

Aside from the public sewer and water utilities described earlier in this section, several other utility lines pass through the Eastern Berks County Region. Many of the rights-of-way (ROW) associated with these utilities have distinct implications for future land use and proposed activities. This analysis inventories and maps major utility lines. ***Potential land developers and residents living near ROW should use the PA One Call System at 811 to contact representatives of the various utility companies with regard to any proposed projects.*** The locations of the ROWs are plotted on the *Public Utilities Map*. The following describes these major rights-of-way:

Pipelines

The municipalities recognize the existence of pipelines that currently exist running through portions of the municipality and acknowledges the potential for additional pipelines running concurrently with existing pipelines or in other areas. Such transmission pipelines provide opportunities to meet the energy demands of the Atlantic seaboard but also pose tremendous risk for those communities potentially affected should a pipeline failure occur. Under normal circumstances, underground pipelines are relatively benign; however, where emergencies such as failures do occur, varied threats to public health, safety and welfare can be significant, from direct impacts such as resident injury or death, severe property damage, debris management, contaminated soils and groundwater pollution to indirect impacts associated with cleanup (expanded access points, groundwater recovery and remediation facilities, expanded soil disturbance, etc.). As such, the municipality should monitor existing and future pipeline activity and enact, where feasible, regulations complimentary to the Pennsylvania Oil and Gas Act and the Federal Energy Regulatory Commission designed to protect the public health, safety and

welfare and regulate land uses in conformance with the Pennsylvania Municipalities Planning Code, Act 247, as amended.

Among the needs to address are those surface land uses affiliated with transmission pipelines, appropriate access provisions for pipeline rights-of-way, and buffering and setback standards appropriate to reduce adverse impacts to residents of new development should a pipeline failure occur. In addition to buffers and setbacks, the municipality should examine the feasibility of increased communication with pipeline operators, particularly as related to new development proposals within proximity of transmission pipelines, and investigate measures to protect new land uses with high on-site populations. The municipality should also continue to coordinate its activities with those of the County and State when and if new pipelines are proposed and application proceed through the permit review and construction phases.

Sun Pipe Line Company

Sun Pipe Line Company owns a 3" underground petroleum pipeline through Rockland and Longswamp Townships as depicted on the Public Utilities Map. The pipeline was constructed of welded steel in the early 1930's to transport petroleum products from Reading to Allentown. Fifty-foot-wide private right of way and easement agreements were purchased from the landowners whose property was crossed by the pipeline. The pipeline has been out of service for many years and has been cut out and removed in various locations. However, Sun still maintains the right of way and has no future plans to give this right of way up. The following lists the general restrictions enforced by the company around active lines. Since the subject line is not active, the company selectively enforces the restrictions that enable preservation of the right-of-way.

1. Detailed plans for proposed construction must be submitted to Sunoco Pipeline L.P.'s Engineering Department for review to determine to what extent, if any, the pipeline or right-of-way will be affected by the proposed construction and/or development.
2. A driveway or roadway may cross the right-of-way and pipeline perpendicularly but at no time will it be parallel to, over and within the right-of-way.
3. Buildings, trees, shrubs or any obstruction of a permanent nature shall not be constructed, planted or placed closer than (25') feet to any existing pipeline (50' easement).
4. Wells, leach beds, cesspools or sewer systems of any type shall not be placed within the right-of-way.
5. All underground facilities crossing the right-of-way shall cross under the existing pipeline with a minimum of one-foot clearance. This includes sewer drain lines.
6. The earth cover over the pipelines shall be maintained and never changed in any manner without the express permission of Sunoco Pipeline L.P.
7. Any parking area placed over the pipeline with permission of Sunoco Pipeline L.P. shall be subject to an amendment to agreement entered into by subject parties prior to construction of same.
8. If heavy equipment is to cross the existing pipeline for any reason, it will be necessary for the owner to provide a ramp of sufficient material to protect said pipeline. Sunoco Pipeline L.P. will make the decision as to how much fill will be required for the ramp. Upon completion of construction and discontinuation of heavy equipment passage over the pipeline, the ramp may be removed.

9. A Sunoco Pipeline L.P. inspector must be present at the time that any work is done within Sunoco Pipeline L.P.'s right-of-way.
10. No blasting is permitted within 300 feet of the pipeline. Anything less than 300 feet must have the approval of and instruction from Sunoco Pipeline L.P.'s Engineering Department.
11. Should you have any questions or need additional information on the aforementioned Paragraphs 1 through 10, please call Sunoco Pipeline L.P.'s Right-of-Way Department at 610-670-3309.

Spectra Energy Gas Transmission (Texas Eastern Transmission, LP)

Texas Eastern Transmission, LP has an approximately 150-feet-wide right-of-way in extreme southern Rockland Township. This ROW was obtained through the acquisition of private easements and contains 4 underground parallel natural gas lines with a maximum allowable operating pressure of 1050 psi. The following describes those design and construction guidelines associated with this ROW:

1.0 PURPOSE

1.1 This guideline presents the requirements for construction in the vicinity of a Duke Energy Gas Transmission (herein referred to as Company) pipeline(s) or pipeline right-of-way. These requirements are general in nature whereby specific circumstances may necessitate special considerations. The following areas are addressed:
1.0 Purpose
2.0 Company Notifications
3.0 General Requirements
4.0 Excavation and Blasting
5.0 Utility and Foreign Line Crossings

1.2 If any of the conditions stated in this document cannot be satisfied, the Company representative shall be advised immediately.

2.0 COMPANY NOTIFICATIONS

2.1 The Company considers it essential that developers and contractors know the exact location and depth of the Company's pipeline(s) and requires that the pipeline(s) be shown on the contractor's plans.

2.2 The Company will field locate and stake its pipeline(s) at selected points in accordance with state and local requirements at no cost to the developer or contractor. However, the cost to excavate the pipeline and restore surface improvements (e.g., pavement, landscaping, and sidewalks) shall be the responsibility of the developer or contractor. Note: A Company representative must be present during the excavation to expose the pipeline.

2.3 Copies of any proposed plans or drawings for road crossings within the pipeline right-of-way shall be submitted to the Company for review at least 30 days prior to the commencement of work.

2.4 The Company shall be given at least three (3) working days advance notice prior to the actual commencement of any work or excavation over or near its pipeline right-of-way so that the Company may locate its pipeline(s) and have a field representative present during excavation or construction activities.

2.5 In addition to complying with the above Company requirements, developers, contractors, utility companies, and landowners shall comply with the provisions of all

state and/or local one-call regulations relating to excavation and demolition work in the vicinity of underground facilities.

3.0 GENERAL REQUIREMENTS

3.1 No buildings, structures or other obstruction may be erected within, above or below the pipeline right-of-way. If requested, the Company will furnish pipeline easement information which describes the pipeline right-of-way width.

3.2 Wire fencing and decorative fencing that can be easily removed and replaced may cross the pipeline right-of-way at or near right angles.

3.3 Planting of trees is not permitted on the pipeline right-of-way.

3.4 Planting of shrubs, bushes or other plants associated with landscaping on the pipeline right-of-way is subject to Company approval and shall not exceed 4 feet in height.

3.5 No drainage swells and no reductions in grade are permitted on the pipeline right-of-way. Limited additional fill may be deposited with prior written approval from the Company.

3.6 A Company representative must give prior approval for heavy equipment to cross the Company pipeline(s) at any location. Minimum cover and other requirements will be determined by the Company on an individual basis.

3.7 Parking areas should be planned so as to avoid covering the pipeline right-of-way if possible.

3.8 No roads, foreign lines, or utilities may be installed parallel to the pipeline within the pipeline right-of-way.

3.9 All foreign lines, roads, electrical cables and other utilities must cross the pipeline right-of-way at an angle as near to 90-degrees as practical.

3.9 If, in the sole judgment of the Company, the utility's, owner's and/or developer's proposed plans necessitate the installation of casing pipe and/or other alterations to protect the Company's pipeline(s), the utility, owner and/or developer shall pay the Company the estimated cost prior to the Company beginning the alterations. Once the actual costs have been incurred and tabulated by the Company, the Company and the utility, owner and/or developer shall settle any cost variances.

4.0 EXCAVATION AND BLASTING

4.1 Excavation operations shall be performed in accordance with the guidelines set forth below.

4.1.1 When a contractor excavates near Company pipelines, the Company representative must be on site at all times to locate the pipeline(s), to determine the depth of cover before and during the excavation (see Section 2.4) and to witness the excavation and backfilling operations. The contractor shall not perform any excavation, crossing, backfilling or construction operations unless the Company representative is on site. **The Company representative shall have full authority to stop the work if it is determined that the work is being performed in an unsafe manner.**

4.1.2 Excavation by a third party backhoe or other mechanical equipment shall not be permitted within the Company pipeline right-of-way until an excavation plan has been reviewed and approved by the Company representative. The excavation plan may be a written document produced by the contractor or a verbal discussion between the contractor and the Company representative. As a minimum, the excavation plan shall include but not be limited to the following:

- *Backhoe set-up position in relationship to the pipeline*

- *Need for benching to level backhoe*
- *Required excavation depth and length*
- *Sloping and shoring requirements*
- *Ingress/egress ramp locations*
- *Minimum clearance requirements for mechanical equipment*
- *Verify bar has been welded onto backhoe bucket teeth and side cutters have been removed*
- *Pipeline location and depth*
- *Spoil pile location*
- *Compliance with OSHA regulations*

4.1.3. No mechanical excavation equipment shall be used within 6" of the pipeline(s). Hand shovels shall be used to push the dirt directly above the pipeline(s) into the ditch.

4.1.4 Federal regulations require that the Company's pipe be inspected whenever it is exposed. OSHA regulations pertaining to excavations must therefore be met to ensure the safety of the Company representative who must enter the excavation.

4.2 Blasting operations shall be performed in accordance with the guidelines set forth below.

4.2.1 The Company shall be advised of any blasting proposed within 200 feet (500 feet for large scale quarry-type blasting) of its facilities. No blasting is permitted within the pipeline right-of-way, and no blasting shall occur outside the pipeline right-of-way if the Company determines that such blasting may be detrimental to its facilities.

4.2.2 The Company reserves the right to require that the party responsible for blasting furnish a detailed blasting plan at least three (3) working days prior to blasting to allow for evaluation and to make arrangements for witnessing the blasting operation. Blasting codes shall be followed in all cases.

5.0 UTILITY & FOREIGN LINE CROSSINGS

5.1 All buried foreign lines must be installed as noted below and as stated in Section 3.9, as appropriate.

5.1.1 Foreign lines must be installed below the Company's pipeline(s) with a minimum of 12" of clearance except as noted in Section 5.1.2. Additional separation may be required in marshy areas or other areas where the 12" of clearance would have a potential to cause future problems.

5.1.2 Foreign lines may be installed above the Company's pipeline(s) with prior approval from the Company representative. All such lines shall be installed with a minimum of 12" of clearance. The Company will not be responsible for any damage or required repairs which are caused by the Company's operating and maintenance activities when foreign lines are installed above the pipeline(s). Protective measures such as a concrete encasement, ditch marking tape, and/ or above ground markers may be required as deemed necessary by the Company representative.

5.1.3 Suitable backfill shall be placed between the foreign line and the Company's pipeline(s).

5.1.4 All metallic foreign lines must have test leads (two No. 12 THW black insulated solid copper wires) attached at the point of crossing for corrosion control monitoring. Test wires shall be routed underground and terminated at a point specified by the Company.

5.2 The following requirements shall be met for fiber optic cables which encroach upon the pipeline right-of-way.

5.2.1 The fiber optic cable shall be installed in a rigid non-metallic conduit or covered in 6-8" of concrete which has been colored with an orange dye extending across the entire pipeline right-of-way.

5.2.2 The fiber optic cable must be installed a minimum of 12” below the Company’s pipeline(s) across the entire width of the pipeline right-of-way, unless approved by the Company representative.

5.2.3 Orange warning tape must be buried a minimum of 18” directly above the fiber optic cable across the entire width of the pipeline right-of-way, where practical.

5.2.4 The fiber optic cable crossing must be clearly and permanently marked with identification signs on both sides of the pipeline right-of-way.

5.3 The information listed below shall be furnished to the Company for all proposed electrical cables which will encroach upon the pipeline right-of-way. Specific installation requirements for cables carrying less than 600 volts shall be determined by the Company on a case by case basis. Cables which carry 600 volts or greater shall adhere to the installation requirements described in Section 4.4.

- Number, spacing and voltage of cables
- Line loading and phase relationship of cables
- Grounding system
- Position of cables and load facilities relative to pipeline(s)

5.4 The following installation requirements shall be met for electrical cables carrying over 600 volts but less than 7,600 volts. The Company will determine the installation procedures for electrical lines carrying voltages over 7,600 volts on a case by case basis.

5.4.1 The electrical cable shall be installed in a rigid non-metallic conduit covered in a minimum thickness of 2” of concrete which has been colored with a red dye extending across the entire pipeline right-of-way.

5.4.2 The electrical cable must be installed a minimum of 12” below the Company's pipeline(s) across the entire width of the pipeline right-of-way, unless approved by the Company representative.

5.4.3 The neutral wires shall be externally spirally wound and grounded on each side of the pipeline right-of-way.

5.4.4 Red warning tape must be buried a minimum of 18” directly above the electric cable across the entire width of the pipeline right-of-way, where practical.

5.4.5 The electric cable crossing must be clearly and permanently marked with identification signs on both sides of the pipeline right-of-way.

5.5 Overhead power line and telephone line installations shall be reviewed by the Company on an individual basis. As a minimum requirement, overhead lines shall be installed with a minimum clearance of 25 feet above the grade of the pipeline right-of-way. The installation of poles will not be permitted on the pipeline right-of-way

First Energy Corporation

First Energy Corporation has seven overhead electrical transmission lines that pass through the Region. In addition they operate their Eastern Topton Electrical Substation on the north side of Furnace Street within the Borough. These transmission lines have the following characteristics:

Line No. See Map	Voltage	Right-of-Way Width
75	69KV	60 ft.
872	69KV	60 ft.
873	69KV	60 ft.
877	69KV	60 ft.
1001	230KV	180 ft.
1003	230KV	180 ft.
5009	500KV	200 ft.

The following present the General Restriction and Requirements for uses along these transmission lines, although potential users must obtain permission from First Energy and the private landowner before new uses are established:

Basic Restrictions for Requested Uses

1. No buildings, fences, swimming pools, or other structures may be erected.
2. No excavation, trenching, or changes to existing grades (cuts or fills) are allowed without Licensor prior approval based on review of detailed drawings. Contours along access routes and near structures may not be steeper than 5:1. Raising grade reduces conductor clearance and could create a safety hazard. Grade changes can also affect access or lead to drainage problems.
3. Earth must be left undisturbed and open space maintained for a minimum distance of 50 feet (100 preferred) from the edge of towers and 25 feet (50 preferred) radius around poles, guy wires, and anchors. At no time shall fill be placed around structures or over guy wire anchors. Licensee to install construction barriers around Licensor facilities at these distances during grading and construction operations to protect Licensor facilities and maintain existing grade. Notes and details to be shown on all grading drawings.
4. No rights will be assigned within 150 feet longitudinally on either side of a line angle or dead end structure for the full width of the right-of-way (depending on the height and type of structure, terrain, proposed encroachment, etc distance may be reduced to 50 feet). This area must be reserved for structures and guys of potential adjacent lines and wire set-ups at dead ends.
5. Longitudinal occupations are generally restricted to the outer ten feet of the easement area, subject to review. Crossings perpendicular to the right-of-way are strongly preferred provided required clearances can be met. Longitudinal and paved occupations are limited since they disrupt future structure placement.
6. Storage of flammable, explosive, or hazardous material is prohibited. No fueling operations are permitted.
7. Any blasting must be performed by a fully licensed and insured firm and must be reviewed with Licensor in advance. Blasting is not permitted within 100 feet of Licensor structures. Blasting mats or equivalent protection must be used to protect the conductors and insulators. Licensee is responsible for any damage caused to any Licensor facility.
8. Licensor reserves the unrestricted rights of ingress and egress for line maintenance or other work. Access to Licensor facilities shall at no time be impeded.
9. If buried ground wires (which generally run parallel to the transmission line and 12 to 18 inches below grade) are severed or any other Licensor facility is damaged, the damage shall be reported immediately to Licensor and will be corrected by Licensor at the responsible party's expense.
10. Licensor reserves the right to monitor construction and correct deficiencies at Licensee expense if these requirements are not met. Billing may be at full overtime rates including travel time plus overheads.

11. Licensor reserves the rights to reconstruct the line(s), add facilities, and construct additional lines.
12. Licensor shall be relieved of all responsibility for damage or injury resulting from construction on or use of Licensor property or right-of-way. Any such situation shall be resolved without expense to Licensor and with the approval of and to the satisfaction of property owner(s) and all-appropriate local, state and federal agencies.
13. Erosion and sedimentation control must be installed and maintained by Licensee. All disturbed areas must be seeded and maintained by Licensee until sufficient growth exists to prevent erosion. Visible ground settlement must be restored by Licensee.
14. Extreme caution must be used when working in the vicinity of Licensor facilities. Any contact or damage shall be reported immediately to Licensor. Posting and maintaining signs warning of overhead high voltage lines are recommended.
15. Twenty feet minimum clearance (based on current OSHA regulations) must be maintained between the conductors and any equipment.

Line Operating Voltage	**Minimum Clearance**
69kV & below	15 feet
115kV	15 feet
230kV	20 feet
345kV	25 feet
500kV	30 feet

345KV & 500KV LINES

16. Licensee (is/has been) advised of the potential for exposure to electric discharge from metal objects located under or along 345/500 kV lines. Licensee (is/was) advised to consult with technical experts to determine if this condition could affect any activities or operations planned. Electrical charges are the result of electrostatic induction from the line(s) and reduce rapidly with distance from the line. High resistance grounding of metal objects has been effective.

BASIC RESTRICTIONS FOR INSTALLATION OF PARKING AREAS OR STREETS:

17. Parking lots for short-term parking are generally permitted provided that clearance is sufficient and provision is made for future line additions and rebuilds. Licensor facilities located within or near the parking area must be suitably protected from vehicular damage with removable barriers approved by Licensor and installed by Licensee at least 5 feet from the facility.
18. Area lighting structures over 10 feet high located on the right-of-way must be evaluated individually for safe clearance so that workers installing or maintaining the lighting facilities are not placed within dangerous proximity to present or proposed Licensor transmission facilities. If distribution facilities are attached to the transmission structures, additional restrictions may be imposed.
19. Licensor reserves the right to restrict parking or use of roadways during performance of maintenance or other work.
20. New roads and high traffic volume drives may not be constructed within 25 feet of a pole, guy, or the face of a tower. May allow low volume drives as close as 10 feet with removable barriers approved by Licensor and installed by Licensee at least 5 feet from the structure. Minimum only applies if final grade is the same as existing grade so adverse slope does not affect structure access or drainage. All grade changes must be

evaluated. Anchors are generally installed at a 45-degree angle and extend 10 feet into the ground.

21. Concrete or bituminous paved roads, drives, sidewalks, and parking areas are required to meet the H20-44 (32,000 lb axle load) highway specification for heavy equipment travel and must not create an obstacle for equipment access along the right-of-way. Gravel surfacing is strongly preferred.
22. When roads, drives, sidewalks, or parking lots are built at an elevation different from the existing elevation of the right-of-way, access ramps to the right-of-way must be provided.
23. Licensor reserves the rights to add, replace, or relocate facilities without any obligation to restore surfacing or relocate barriers.
24. Sloped curbing or curb cuts 16 feet wide must be provided for Licensor vehicle access to the right-of-way.

BASIC RESTRICTIONS FOR INSTALLATION OF BURIED PIPELINES (Sewer, Water, Gas, etc.) AND UNDERGROUND TELEPHONE AND ELECTRIC CABLES:

25. All underground facilities shall be installed to a depth or have sufficient strength to withstand an axle load of 30 tons without damage when traversed by heavy equipment.
26. All underground facilities shall be visibly marked in the field where they enter and leave the right-of-way and at any angle points. Markers to identify the facilities shall also be placed on the right-of-way at line of sight intervals not to exceed 200 feet.
27. Manholes may not be more than 6 inches above grade.
28. Horizontal separation shall be maintained from the centerline of the underground facility to the nearest parallel overhead line conductor to provide a safe working space during construction and maintenance of underground facility.
29. Licensee shall install and maintain any cathodic protection that may be required at no expense to Licensor. Proper grounding procedures must be followed during installation, operation, and maintenance of the pipeline to assure no one is affected by induced currents.
30. Pipelines generally shall not encroach more than 5 feet from the edge of the right-of-way (10 feet depending on the fight-of-way width). No valves are allowed on the right-of-way. Use is specifically restricted to a centerline easement for a single or specified number and specified diameter pipeline(s) with a 10 or 20 feet surface right-of-way for construction and maintenance.
31. As-built plans signed and sealed by a PLS or PE locating the pipeline within Licensor right-of-way and referencing existing Licensor structures must be submitted to Licensor upon completion of the project. Deviation from approved plans may require relocation of Licensee pipeline. Failure to provide as-built drawings will result in forfeiture of License and removal of Licensee facilities at Licensee expense.
32. Licensee must comply with all provisions of the State one-call system.
33. Underground sewage disposal beds shall not be located on the right of way. Hardship exception: If owner provides a letter signed and sealed by a licensed Professional Engineer or sewage enforcement officer confirming that testing has been performed and the property will not perc anywhere except in the easement area. Conductor clearance and access to the line and structures must be maintained. The proposed underground sewage bed shall be identified and protected with vertical bollards (4 inch by 8 foot concrete filled steel pipes embedded 3.5 feet) at corners and at intervals between corners not exceeding 8 feet.

BASIC RESTRICTIONS FOR PLANTING TREES AND SHRUBBERY:

34. Licensor reserves the right to trim or remove any tree or shrub that interferes with maintenance or operation of Licensor's facilities without any further obligation. Plantings shall not block or limit access to or along the right-of-way or to facilities.
35. No planting or growth shall be allowed to exceed a maximum mature height of 10 feet and no trees shall be planted under wires.

BASIC RESTRICTIONS FOR INSTALLATION OF FENCES AND GATES:

36. Fences are not permitted on the right-of-way unless approved by Licensor. Where fencing is installed, Licensor right-of-way access must be maintained.
37. Metal fences on the right-of-way must be grounded by Licensee to driven 8 feet long 5/8 inch copper-clad rods at the following locations as a minimum: gate posts, corner posts, and 40 foot maximum intervals overall.
38. Gates that limit access to the right-of-way shall have a double lock arrangement so Licensor is able to unlock and gain access to the right-of-way. 16 feet wide gates are required.

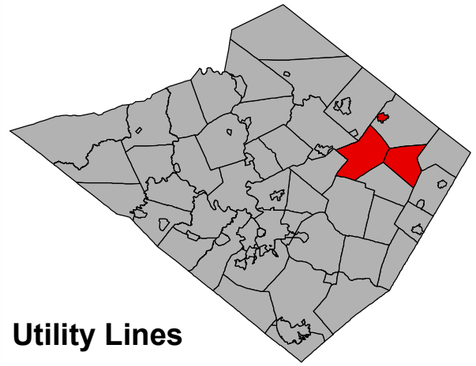
ADDITIONAL RESTRICTIONS FOR SURFACE MINING:

39. Earth should be left undisturbed and open space maintained for a minimum distance of 100 feet from the edge of towers and 50 feet radius around poles, guy wires, and anchors. Licensee to install construction barriers around Licensor facilities at these distances during grading and mining operations to protect Licensor facilities and maintain existing grade. Notes and details to be shown on project drawings.
40. One to one (45-degree) slopes, or equivalent benching, must be left in place around structure support mounds. Licensor will consider alternative support provisions based upon review of an independent registered Engineer's or Geologist's report of stability of underlying strata paid for by Licensee.
41. A 20 feet wide access ramp suitable for vehicular access with slope no steeper than 5:1 must be left in place to each structure.
42. A copy of the DEP final permit must be provided to Licensor.
43. At no time shall fill or other materials be placed around structures and guy wire anchors or under wires.
44. Notify Licensor in writing at least 30 days prior to start of back-filling operations. Licensor reserves the right to have a representative on site.
45. Care must be exercised when back-filling and establishing final grades to insure safe ground clearance is maintained to wires. No fill is permitted on the right-of-way which would decrease original conductor to ground clearance without Licensor prior approval based on review of detailed drawings. Back-filling must be completed in compacted layers. Finish grade must match grade preserved around facilities, provide for facility access, and prevent run-off from affecting Licensor facilities.
46. Licensee shall provide a topographical survey for the area of mining disturbance on the right-of-way as soon as practical after any phase of final back-filling is completed. Survey must include ground elevations under all conductors and reference ground line elevations at each structure. Survey to be performed by a Professional Land Surveyor. Licensor can provide this service at Licensee expense if requested.

FIGURE 9-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Public Utilities



Utility Lines

- First Energy #1001
- First Energy #1003
- First Energy #5009
- First Energy #75
- First Energy #872
- First Energy #873
- First Energy #873 & 877
- First Energy #877
- Natural Gas Pipeline- Texas Eastern Transmission Line
- Inactive 3" Sunoco Pipeline
- Utility Substation
- Public Water Areas
- Existing Public Sewer Areas
- Proposed Public Sewer Areas
- Municipal Boundaries
- Roads
- Railroads
- Streams

Source data: Berks County Planning Commission GIS, Berks County Mapping, Berks County GIS/IS, Berks County DES, Berks County Water and Sewer Association, Sunoco Pipeline L.P.

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Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Ruscombmanor
Hereford
Pike
Washington
Oley

5009
Mine Rd
Smoketown Rd
Foxs Rd
Carls Hill Rd
Lyons Rd
Lake Rd
Beaver Creek Rd
Kutz Rd
Schweitz Rd
Gressley Rd
Five Points Rd
Benfield Rd
Bitting Rd
873
1001
1003
Treichler Rd
Long Ln
Forgedale Rd
75
Bick Rd
Deysher Rd
Day Rd
Conrad Rd
Kemp Rd
Keim Rd
Chew Rd
Bull Rd
Ridge Dr
Hill Rd
Orchard Rd
Boyer Rd
Landis Store Rd
Weil Rd
Merkle Rd

0 1 2 Miles

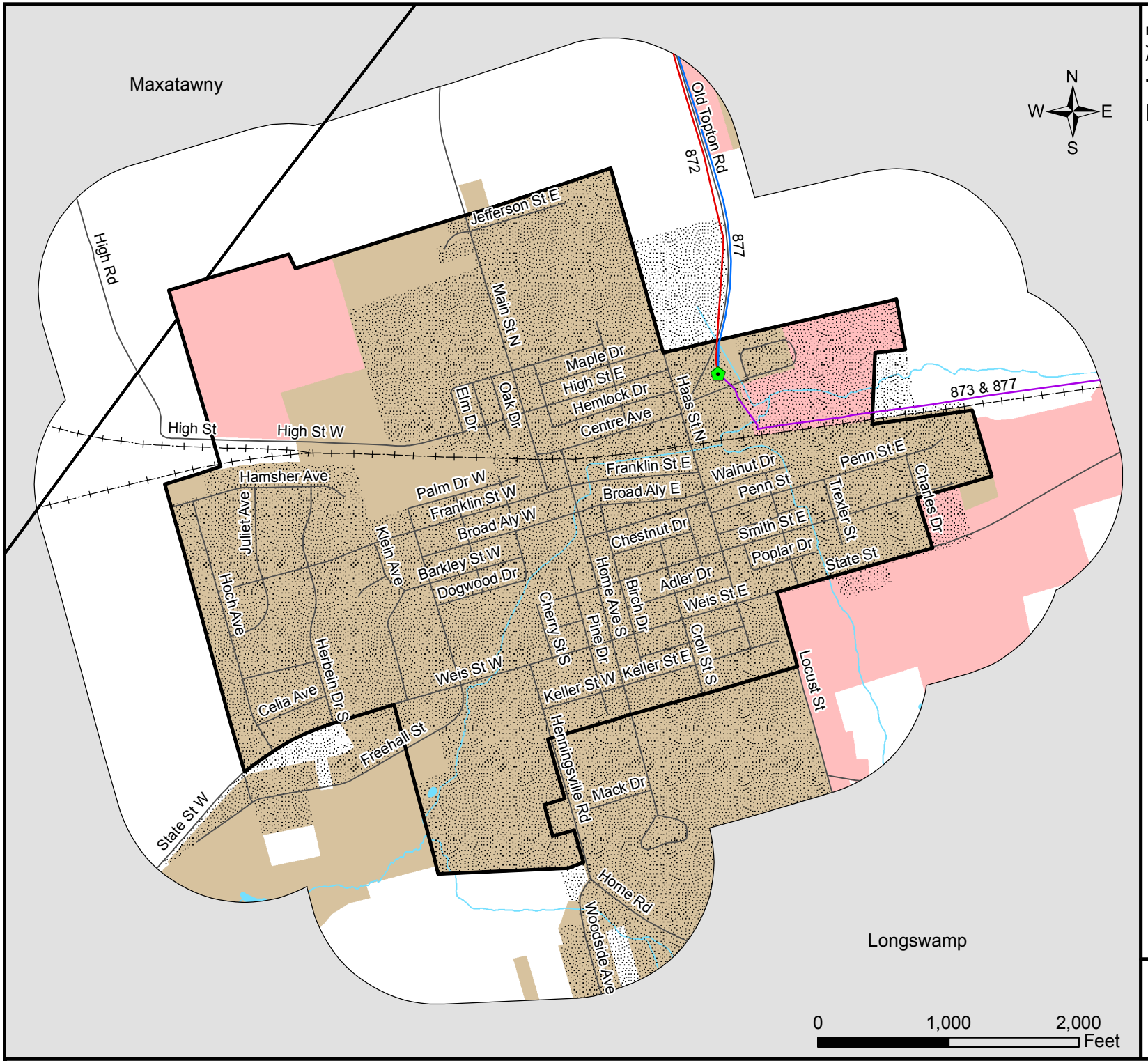
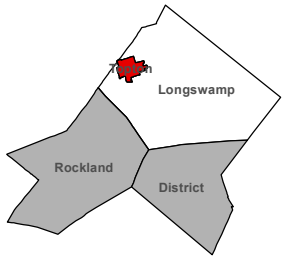


FIGURE 9-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Public Utilities



Utility Lines

- First Energy #1001
- First Energy #1003
- First Energy #5009
- First Energy #75
- First Energy #872
- First Energy #873
- First Energy #873 & 877
- First Energy #877
- Utility Substation
- Public Water Areas
- Existing Public Sewer Areas
- Proposed Public Sewer Areas
- Municipal Boundaries
- Roads
- Railroads
- Streams

Source data:
Berks County Planning Commission GIS, Berks County Mapping, Berks County GIS/IS, Berks County DES, Berks County Water and Sewer Association, NPMS

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XI. TRANSPORTATION

Mobility has become one of the most sought-after qualities of life of the century. The widespread use and development of automobiles, trucks and their road networks have enabled motorists to travel independently with great flexibility as to origins and destinations. Only recently, with increased congestion, has society begun to realize that the extensive use of the automobile may, in fact, be threatening both mobility and safety. This realization has led to efforts to better understand the relationship between transportation planning and land use planning, and has created renewed interest in alternative modes of transportation.

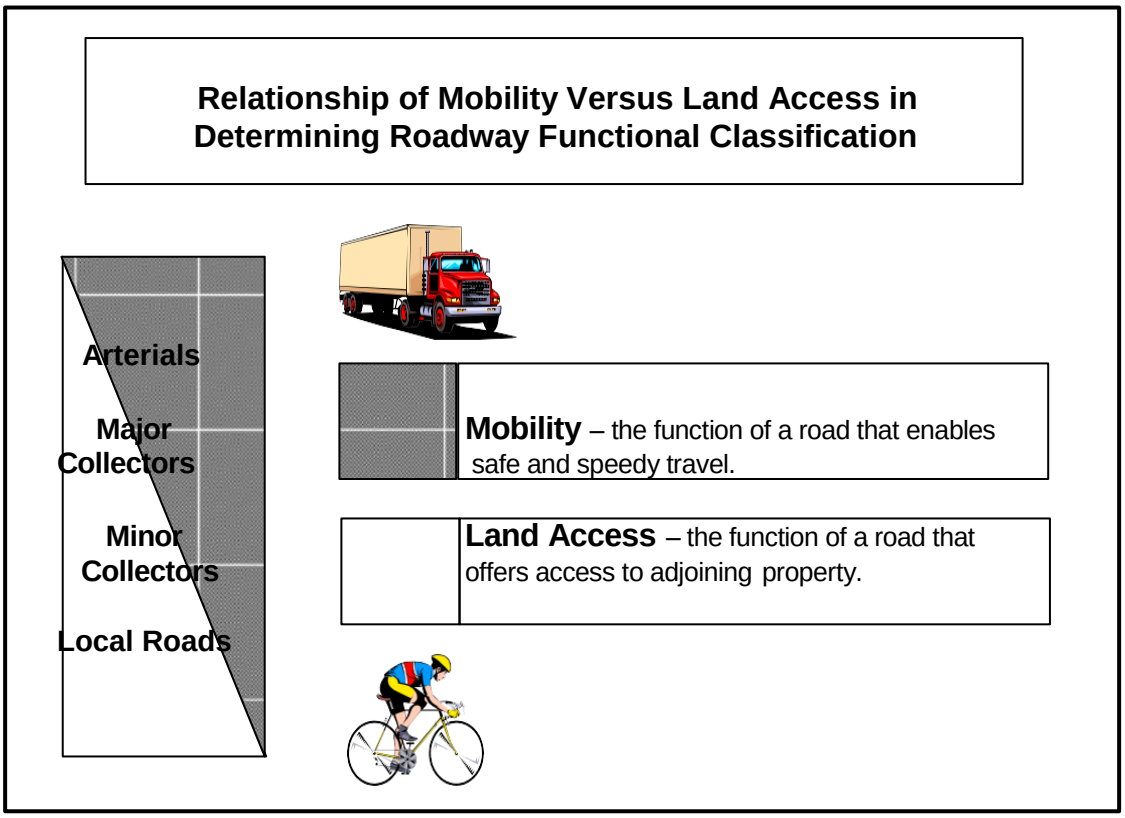
The Transportation system of this region, or any region for that matter, serves a wide range of functions. These functions include the delivery of goods and services necessary for commerce and the movement of people for work, recreation, and social activities. The availability of transportation affects the use of the Region's land. To function properly, each municipality must have adequate access to the transportation system. Each part of the transportation system must function as an interdependent part of the whole, to provide access throughout the region and into neighboring municipalities. Regular maintenance and rehabilitation can prevent the greater cost of complete replacement. When transportation infrastructure elements exceed their useful lifecycle, those elements should be replaced.

This chapter will inventory the Region's transportation system, beginning by categorizing roadway functional classifications, as determined by the Pennsylvania Department of Transportation (PennDOT) and the Berks County Planning Commission, and presenting available traffic volume data. A brief discussion of regional traffic impacts is followed by description of alternative modes of transport and railway access. All of this data is then analyzed and applied to the Region's development objectives and other available plan information to form the basis for the chapter's recommendations on future transportation needs, land use scenarios and implementation strategies.

A. Roadway Functional Classification

Functional classification of roadways refers to a system by which roads are described in terms of their utility. Classification of a highway's function is based on an analysis of the volume of traffic, the type of trip, and the speed of the trip. Transportation experts use these characteristics to determine a road's functional classification.

The diagram on the following page depicts the relationship between roadway mobility and roadway land access for each of the three general road types. Roads that provide for greater mobility provide for reduced land access, and vice versa. This important relationship should always be considered when allocating future land uses along existing or planned roads. The following diagram illustrates three road types: arterials, collectors and locals. These road types can be further subdivided into any number of different categories, depending upon the complexity of the roadway network. However, for the purpose of this study, the Region's roadway network can be described as consisting of minor arterials, major collectors, minor collectors, and local roads. The roads within the Region are classified and identified on the ***Transportation Map***.



Arterials

Arterials are intended to provide for a greater degree of mobility than land access and provide for the movement of large volumes of traffic over longer distances. However, these highways generally operate at slower speeds due to the presence of traffic control devices and access points. They can be sub-classified as Principal Arterials, which serve inter-city traffic, and Minor Arterials, which link smaller developed areas within large areas of the County.

Arterials generally convey between 10,000 and 25,000 average daily traffic (ADT) for distances greater than one mile. Arterials often connect urban centers with outlying communities and employment or shopping centers. Consequently, arterials are often primary mass transit routes that connect with “downtown” areas of nearby communities. As of the date of adoption of this plan there are no arterials within the Region; however, PennDOT is in the process of updating functional classifications of roadways throughout the state. This reclassification is slated to be formally adopted in January 2015, as such, Main Street/Weis Street (SR 1010) in the northern portion of Rockland Township and through Topton Borough will be changed from a Collector to a Minor Arterial.

The following table summarizes the characteristics of the Region's Minor Arterial roadways:

MINOR ARTERIAL ROADWAY CHARACTERISTICS							
Road Name	Route No.	Municipality	Est. ADT (2012)	No. Lanes	Cartway Width	Shoulders L/R	MPH
Main Street	1010	Rockland	8100	2	28	4/4	55
Weis Street	1022	Topton	6700	2	22-30	4/4	35

Major and Minor Collectors

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of functional classification, collectors are broken down into two categories: Major Collectors and Minor Collectors. Until recently, this division was considered only in the rural environment. Currently, all Collectors, regardless of whether they are within a rural area or urban area, may be sub-stratified into major and minor categories. The determination of whether a given roadway is a Major or Minor Collector is frequently one of the biggest challenges in functionally classifying a roadway network.

In the rural environment, such as this region, Collectors generally serve primarily intra-county travel (rather than statewide) and constitute those routes on which (independent of traffic volume) predominant travel distances are shorter than on Arterial routes. Consequently, more moderate speeds may be posted.

The distinctions between Major Collectors and Minor Collectors are often subtle. Generally, Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts. Careful consideration should be given to these factors when assigning a Major or Minor Collector designation. In rural areas ADT and spacing may be the most significant designation factors. Since Major Collectors offer more mobility and Minor Collectors offer more access, it is beneficial to reexamine these two fundamental concepts of functional classification. Overall, the total mileage of Major Collectors is typically lower than the total mileage of Minor Collectors, while the total Collector mileage is typically one-third of the Local roadway network.

Major Collectors, as opposed to Minor Collectors, provide for a higher level of movement between neighborhoods within a large area. Major Collectors provide for medium length travel distances (generally less than one mile) and convey between 1,500 and 10,000 ADT. Major Collectors also provide land access to major land uses such as regional shopping centers, large industrial parks, major subdivisions, and community-wide schools and recreation facilities. Major collectors primarily serve motorists between local streets and community-wide activity centers or arterial roads.

The following table summarizes the characteristics of the Region's Major Collector roadways:

MAJOR COLLECTOR ROADWAY CHARACTERISTICS							
Road Name	Route No.	Municipality	Est. ADT (2012)	No. Lanes	Cartway Width	Shoulder L/R	MPH
Huff's Church Road	1022	District	1600-1800	2	22	2/2	40
Fleetwood Road	1022	Rockland	1400-1700	2	20-22	2/2	40
Forgedale Road	1021	Rockland	3500-4000	2	20-22	2/2	55
Fredericksville Road	1022	Rockland	1700	2	22	2/2	40
Lyons Road	1023	Rockland	1900	2	21-22	2/2	45
Pricetown Road	2026	Rockland	1700	2	20	2/2	40-45
Haas Street	1031	Topton	NA	2	NA	NA	NA
Main Street North	1024	Topton	3700	2	34	2/2	35
South Home Street	1024	Topton	NA	2	NA	NA	NA

Minor Collectors provide for equal amounts of mobility and land access. These streets can serve as the main circulation roads within large residential neighborhoods. Trip lengths tend to be shorter in "developed" neighborhoods, like that of a borough, due to the presence of nearby destinations or higher order roads. Minor Collectors function to collect traffic within an identifiable area and serve primarily short distance travel. However, within the rural areas of the Region these roads travel greater distances.

The following table summarizes the characteristics of the Region's Minor Collector roadways:

MINOR COLLECTOR ROADWAY CHARACTERISTICS							
Road Name	Route No.	Municipality	Est. ADT (2012)	No. Lanes	Cartway Width	Shoulders L/R	MPH
Forgedale Road	1030	District	650-800	2	20	2/2	55
Oysterdale Road	1030	District	800	2	16	NA	40
Woodside Avenue	1024	District	500	2	20	2/2	30
Bowers Road	1013	Rockland	3000	2	23	0/0	55
Henningsville	1024	Topton	NA	2	NA	NA	NA

Many of the Region's roads were constructed prior to the issuance of current design standards. Therefore, they may not meet minimum design criteria set forth by PennDOT. The region's municipalities and PennDOT should work collectively over time to correct these deficiencies where necessary and as funding permits. Roads with higher traffic volumes should be given priority status over roads with less volume.

In addition, as new developments are proposed along these highways, developers should be required to provide improvements to the existing roads that bring them in line with suitable design standards. The region should develop standard road design criteria that can be used to ensure seamless road corridors as one moves from one municipality to the next.

As important as road design is land use access. As discussed earlier in this Chapter, an effective conveyor of traffic cannot provide for unlimited land access. Each driveway or roadway intersection introduces conflicting traffic movements that reduce a road's ability to convey traffic quickly and safely. **Therefore, new connections to the collector road system should be minimized to avoid unnecessary driveway and road cuts. Local officials must enforce strict policies that will minimize such connections to ensure efficient traffic flow.**

Local Roads

Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. Bus routes generally do not run on Local Roads. They are often designed to discourage through traffic, as public roads, they should be accessible for public use throughout the year.

Local Roads are intended to provide immediate access to adjoining land uses. They provide access to individual properties and serve short distance, low speed trips. These roads are generally short and narrow, and comprise the bulk of road area within rural areas like the Region. Local roads are intended to only provide for transportation within a particular neighborhood, or to one of the other road types already described. Local Roads are often classified by default. In other words, once all Arterial and Collector roadways have been identified, all remaining roadways are classified as Local Roads.

Hence, all of the Region's roads that are not classified as Arterials or Collectors are considered Local Roads.

B. Regional Traffic Patterns

Analysis of the average daily traffic volumes for the Region's roads provides some insight into the Region's role as a destination or thoroughfare.

First, clearly Topton Borough is the primary destination within the Region. Traffic to-and-from this area, travel the State Street/Weiss Street East/Main Street corridor daily. Many vehicles travel to the east into adjoining Longswamp Township (Mertztown area) and Lehigh County and the more developed Hereford and Washington Townships. In addition many vehicles appear directed towards the US Route 222 corridor via, Main Street North, Old Topton Road and Valley Road. Finally a large number of vehicles travel to the west into Rockland Township via Main Street/Bowers Road/Lyons Road/Pricetown Road, presumably towards the City of Reading.

Another heavily-traveled corridor serves as east/west traffic flow through the Region. The Huff's Church Road/ Fredericksville Road/Fleetwood Road corridor conveys nearly 2000 vehicles per day, many of whom travel through the Township from adjoining municipalities. This corridor will likely convey even greater volumes that are generated outside of the Region from the more developed surrounding communities.

C. Programmed Transportation Improvements

The Reading Area Transportation Study Coordinating Committee (RATS) is responsible for development of the County's Long Range Transportation Plan (LRTP) and its Transportation Improvement Programs (TIP). The most recent version of the TIP does not have any projects proposed within the region.

Although the most recent version of the TIP does not include any projects within the region, municipalities plan and program local road projects utilizing their State Liquid Fuels allotment. The following is a list of future road improvements for the region:

Programmed/Planned Road Improvements Projects			
Road Name	**Project Description**	**Begin date**	**Cost and funding source***
Rockland Township			
Schweitz Road	Replace pipe	2015	$2500 - TWP
Heffner Road	Overlay & Widen	2015	$30,000 - SLF
Day Road	Overlay	2016	$40,000 - SLF
District Township			
No Major Projects Planned			
Topton Borough			
No Major Projects Planned			
* Funding Source Codes: SLF – State Liquid Fuels / TWP - Township			

D. Railroad Access

Presently the Pennsylvania Lines, LLC owns a rail freight line between the Cities of Reading and Allentown. This line is operated by Norfolk Southern which also allows Canadian Pacific trains to pass through the area. This is Norfolk Southern's main railroad line between Reading and Allentown. On either end it connects with other lines that serve even larger cities and areas. Consequently this line is heavily used with between 40 to 60 trains passing through the Region per day. The number of trains increases later in a typical week. Train length varies between 20 and 120 railroad cars. Goods conveyed include the widest variety of freight goods plus inter-modal truck trailers. As a result of this heavy use, Norfolk Southern, as well as the County, fully supports any efforts to grade-separate this line from adjoining roads and sidewalks.

E. Pedestrian and Bicycle Access

One of the themes of this Comprehensive Plan is to distinguish between "urban" areas where a full range of public services and utilities are provided, and "rural" areas where the protection of the natural environment is given priority over, and protected from, development. Consequently, areas depicted for growth and development should include conveniently accessible schools, churches and parks. These "urban" areas will also, by function, include higher relative densities. Fortunately Topton Borough has an extensive system of sidewalks that blanket its settings.

It may not be necessary to line both sides of every street with sidewalks, but some basic system that enables children to travel throughout the community would be a good gauge. Also, linear paths can replace sidewalks in built-up areas that are highly improved along the street. This approach will better integrate residents and reduce their automobile dependency.

The *Bicycle and Pedestrian Transportation Plan for Berks County* identifies the Main Street/Weiss Street East/State Street/Longswamp Road corridor as an existing on-road bicycle route that extends from Fleetwood to the eastern County line. **The Region should lobby the County Planning Commission and PennDOT's Maintenance Manager to widen road shoulders to allow for a bicycle/pedestrian path along the cartway with proper striping of bike lanes. This could be done as an addition to work already being performed on area roadways. Should this action exceed the scope of a "maintenance task" then the Region should apply for the project under PennDOT's Betterment Program as part of the County's Transportation Improvement Program. This would create an inviting environment that would encourage use of alternatives to the automobile. This may also be particularly beneficial to link the existing bicycle route along Weiss Street East through the Borough's neighborhoods to the high school campus on Old Topton Road. Additional improvements that aid cyclists are bicycle-friendly drainage grates, and "Share the Road" signs.**

"Bicycle PA" is the movement to sign and designate multiple intrastate bicycle routes in Pennsylvania. The Bicycle PA effort was initiated by the Pennsylvania Pedal Cycle and Pedestrian Advisory Committee (PPAC) and involves the development of six cross-state, "border-to-border" bicycle routes. The six Bicycle PA routes use public roads and some rail trails to guide bicyclists through the state. Each of the six routes has an appointed "route development coordinator" who is in charge of soliciting input from knowledgeable individuals and designing a good route for bicyclists. The routes are designed for competent road bicyclists who may undertake a long distance cycle touring trip. Not all Bicycle PA routes will have perfect shoulders or be entirely free of truck traffic.

Bicycle PA includes two routes that run through Berks County, the Route "L" southern east-west route, and Route "Y", the eastern North-south route. Route "Y" travels through the Eastern Berks County Region entering Rockland Township from Pike Township and travels along Lobachsville Road (SR 1023), Lyons Road (SR 1023, SR 1021), Bowers Road(SR 1023), Main Street (SR 1010), Store Street, State Street, Valley Road (SR 1035), and Mertztown Road (SR 1935) before crossing into Lehigh County.

F. Mass Transportation

Mass transportation services provided by either the public or private sector serves three essential functions:

- It provides a means of transportation to those who cannot afford to purchase their own private vehicle.
- It provides an alternate means of transportation to those who do have a choice.
- It lowers the total number of vehicles using the highway system which reduces congestion,

adverse effects on the environment, and decreases the pressure for highway expansion.

The principal provider of mass transportation services in Berks County is the Berks Area Regional Transportation Authority (BARTA). BARTA offers regularly-scheduled fixed-route bus service throughout Berks County. BARTA operates 22 routes within 34 municipalities reaching an estimated population of nearly 300,000. Presently, no such bus service extends into the Region. However, paratransit service is offered to the elderly and disabled throughout the entire County on an upon-request basis. BARTA periodically revises its routes to maximize ridership and coverage. As the Region grows, local officials may want to initiate bus service in and around Topton Borough, particularly if a large employer locates within the Region.

Commuter Services

Commuter Services of Pennsylvania, a program of the nonprofit Susquehanna Regional Transportation Partnership, currently provides services in Berks County and eight additional counties in south-central Pennsylvania. The program, sponsored by the regional transportation planning agencies, transit authorities and chambers of commerce, offers transportation demand management strategies and assistance to employers and individuals for finding options other than driving alone to work. These can include public transportation, car or van pools, telecommuting, biking or walking. The program goal is to reduce the number of vehicle miles traveled and to increase the efficiency of the highway system by reducing congestion and improving air quality. Participation in the program is free and is funded by the Federal Highway Administration through PennDOT and regional planning agencies.

G. Berks County Transportation Improvement Program

Every two years the Reading Area Transportation Study Coordinating Committee (RATS) prepares its Transportation Improvement Program (TIP). The TIP is a prioritized list of transportation projects that require federal funding or non-federally funded projects of regional significance. The TIP lists projects for the following 4 years with projected costs and schedules for their completion. Inclusion of a project in the TIP represents a serious commitment to its implementation. The total cost of any TIP is limited by the amount of funds expected for the County and each project competes for inclusion. While project listing in the TIP is an important step, it does not guarantee funding, final scheduling or an implementation of the project. The TIP-listing represents a collective authorization by Berks County to seek funding for the project and a consensus among regional and State officials as a short-term priority.

Every other year, RATS solicits transportation projects from Berks County municipalities for consideration for the TIP. Standard forms are mailed-out for completion and return. Then RATS evaluates respective applications for their importance and consistency with the County's Long Range Transportation Plan. Once evaluated and determined that they meet the aforementioned criteria, projects are then selected for inclusion on the current TIP.

Rockland, District, Topton
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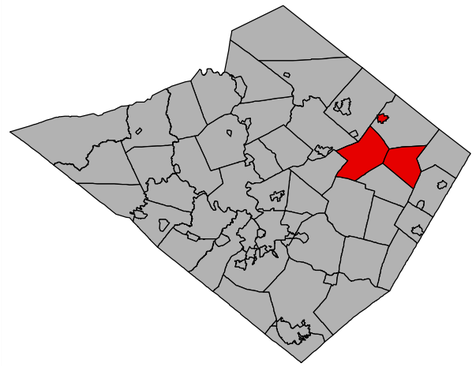
FIGURE 10-A

Transportation



Legend

- Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Rural Local
- 727 Traffic Volume
- Existing Bike Route- PA Route L
- Proposed Bike Route
- Municipal Boundaries
- Roads
- Railroads
- Streams

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

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Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Hereford
Washington
Pike
Ruscombmanor
Oley
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Miles
Main St
Fleetwood Rd
Lake Rd
Beaver Creek Rd
Stimmel Rd
Clay Valley Rd
Kutz Rd
Forgedale Rd
Pricetown Rd
Lyons Rd
Foxs Rd
Carls Hill Rd
Snoketown Rd
Mine Rd
Forest Rd
Maple Rd
Sally Ann Furnace Rd
Frederickssville Rd
Highview Ln
Gressley Rd
Five Points Rd
Rocky Ln
Steep Ln
Schweitz Rd
Ruppert School Rd
Day Rd
Bick Rd
Keller Rd
Conrad Rd
Ridge Dr
Highland Dr
Sheephill Rd
Orchard Rd
Hill Rd
Deysher Rd
Lobachsville Rd
Angstadt Rd
Bover Rd
Huffs Church Rd
Dogwood Dr
Delong Rd
Bitting Rd
Treichler Rd
Benfield Rd
Long Ln
Fairhill Dr
Keim Rd
Baldy Hill Rd
Chew Rd
Bull Rd
Kemp Rd
Oysterdale Rd
Deer Run Rd
Weil Rd
Merkle Rd
Groff Rd
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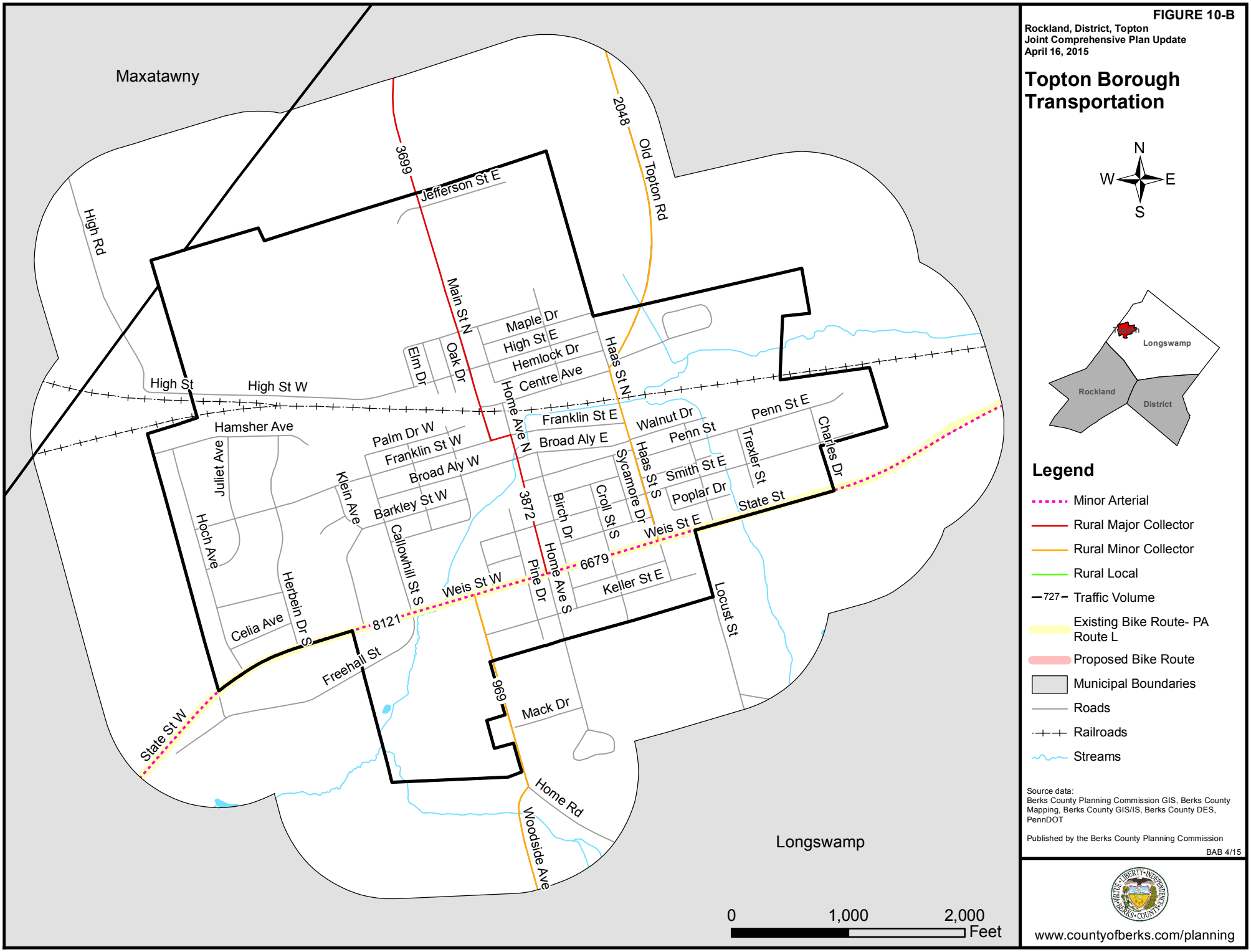

FIGURE 10-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Transportation

Legend

- Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Rural Local
- 727 Traffic Volume
- Existing Bike Route- PA Route L
- Proposed Bike Route
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Source data:
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XII. FUTURE LAND USE

One element important to the comprehensive planning process is the charting of appropriate future land uses and growth areas. This effort embodies all of the background information collected regarding natural features, public facilities and utilities, existing land use, population studies, and traffic patterns. Then, these resources are allocated in a manner that responds to the Region's desires, as expressed in the Community Planning Goals in Chapter II. ***What results is a future land use map that should be used to adjust zoning boundaries, and help properly locate future municipal investments to maximize their efficiency. This chapter should be used in conjunction with the Future Land Use Map.***

The preparation of the Future Land Use Map was accomplished according to several "ground rules"; an understanding of these "ground rules" will lead to a better understanding of the Plan's recommendations.

First, this Plan is designed to address future conditions until the year 2025. Accordingly, future growth areas have been generally located and sized to accommodate the growth that is projected during this time frame. This results in a "staged" future land use scheme that (1) reduces the pressure to develop productive farmlands and sensitive natural features, (2) identifies target development areas so that public improvements and services can be provided efficiently, (3) focuses infill development around existing settlements and (4) enables natural resources and productive farmland to be preserved during the course of development through the use of conservation subdivision techniques. ***The benefits of this approach are significant, but require that the municipalities commit to the Plan's updating on or before the year 2025.***

Second, a great deal of emphasis was placed on existing land uses in developed areas. In some limited cases, existing development types were recommended for changes to another land use category to enhance compatibility. In rare instances, existing uses were not reflected to portray a future vision for that locale toward which regulatory efforts can strive. Similarly, isolated land uses within the rural landscape are not identified unless they are large enough in scale to represent regional consequence. This helps to convey the Plan's overall approach towards targeted growth in designated growth areas and conservation of outlying natural features and farms. Furthermore, this document deals with future land use on a property-by-property basis. In rural settings individual home sites are not reflected as they are considered a part of the rural landscape. Overall, this emphasis on existing land use will keep the Plan practical and should make it more useful to local officials in their evaluation of future land use decisions.

Third, it is based upon regional goals to concentrate certain types of development in Topton Borough where public utilities exist or are anticipated. Most of the remaining future growth is located throughout the remaining areas of District and Rockland Townships at lower densities. Therefore, policies applied to these areas must recognize their considerable development potential yet offer protection to adjoining farming operations. Accordingly, the Plan promotes conservation design techniques that are more fully described as part of the Conservation land use category description. Regionally, the Plan attempts to distinguish between "urban" areas in which planned growth will be served by a wide range of public utilities and services, and rural areas in which farming and natural features will be spared the burden of suburban encroachment.

This Chapter establishes a cornerstone of this Plan and will directly implement one of the goals articulated at the outset of this planning process by local officials as follows:

> ***"Structure the Plan and its policies to enable a regional allocation of various land uses through the future development of one regional or individual zoning ordinances."***

The regional allocation of land use is available within Pennsylvania. The Municipalities Planning Code (MPC) has two applicable sections that enable this technique:

1. Section 811-A. of the MPC specifically authorizes a regional allocation of land use when a regional plan is adopted and implemented through a joint zoning ordinance of the participating municipalities. It states:

   > *"**Area of Jurisdiction for Challenges.** In any challenge to the validity of the joint municipal zoning ordinance, the court shall consider the validity of the ordinance as it applies to the entire area of its jurisdiction as enacted and shall not limit its consideration to any single constituent municipality."*

2. Section 916.1. (h) Of the MPC specifically authorizes a regional allocation of land use when a regional plan is adopted and individual zoning ordinances generally implement the Plan. It states:

   > "*Where municipalities have adopted a multimunicipal comprehensive plan pursuant to Article XI but have not adopted a joint municipal ordinance pursuant to Article VIII-A and all municipalities participating in the multimunicipal comprehensive plan have adopted and are administering zoning ordinances generally consistent with the provisions of the multimunicipal comprehensive plan, and a challenge is brought to the validity of a zoning ordinance of a participating municipality involving a proposed use, then the zoning hearing board or governing body, as the case may be, shall consider the availability of uses under zoning ordinances within the municipalities participating in the multimunicipal comprehensive plan within a reasonable geographic area and shall not limit its consideration to the application of the zoning ordinance on the municipality whose zoning ordinance is being challenged."*

These sections authorize this Plan's use of a regional allocation of land use to be implemented either through a joint zoning ordinance for all of the municipalities or through individual zoning ordinances that are administered in a manner generally consistent with this Plan. This Chapter presents recommended land use categories that are meant to specifically guide subsequent zoning policies. These categories correspond to those depicted on the Future Land Use Map.

A. Agriculture Zone

Throughout history, agriculture has played a primary role within Berks County, Pennsylvania and the Region; today, this is still true as evidenced in Chapter VII (Local Economy). As the Soils and Geology Map contained within Chapter II (Natural & Cultural Features) of this Plan reveals, the Region contains a generous amount of prime agricultural soils and agricultural soils of statewide importance. However, many of these farm soils are scattered by steeply sloped woodlands that are also abundant within the Region.

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Both District and Rockland Townships have areas of concentrated farming. Here active farming operations have long existed upon productive farmlands that weave amid more steeply sloped and wooded hills.

In planning for agricultural land, the local officials from District and Rockland Townships should adopt a philosophy and policy not to consider agricultural land as "undeveloped farmland awaiting another use". Rather it is viewed as "developed land" that is being used to produce a valuable product. Farming is a land-intensive, manufacturing process that converts raw materials into a product, comparable to other industrial operations, with occasional accompanying impacts of noise, odor and dust. Therefore, this plan advocates a position that this agricultural area not be considered as a holding zone, but as a zone having a positive purpose of utilizing the Region's natural and non-renewable resources for the benefit of the entire community and beyond. This agricultural area should be protected by strict zoning regulations that prevent interference by incompatible uses which weaken the ability to conduct normal farming practices and introduce influences that erode its critical mass.

Traditionally, farming has involved the growing of crops for either sale off of the farm or for consumption by animals on the farm with the subsequent marketing of either meat or milk. Thus, the viability of the farming operation was very much tied to the productivity of the land.

Recent years have seen the advent of concentrated animal feeding operations (CAFOS). These involve the concentration of large numbers of cows, hogs or poultry on a single tract of land with the feed being bought off-site. Because the food these animals eat is often not grown on the tract of land where they are housed, very high animal concentration can be achieved. These highly concentrated operations often create acute odor impacts on neighboring residents. These odors can arise from the animals themselves, but more often from their waste products, both at the site where produced and where they are land-applied. Strict zoning regulations are needed to insure that these operations, should they come into the area, will not adversely affect their immediate neighbors, nor the community at large. However, the municipalities must keep their regulations consistent with the Pennsylvania Nutrient Management Laws.

Finally, past lenient zoning policies have enabled the development of several clusters of rural homes within the area. These homes are not proposed for public utilities nor would they be permitted once this Plan is adopted and implemented via resulting effective agricultural zoning. ***Nonetheless, these homes exist and future zoning regulations should specifically permit them as permitted uses within this Zone.*** In so doing, the homes avoid the classification as nonconforming uses. This will enable residents to make logical adjustments to these lots/homes without the need to gain approval from a local zoning hearing board for variances or expansions to nonconforming uses.

To manage these issues in District and Rockland Townships, it is recommended that effective Agricultural Zone continue to be applied to this area with the following components:

1. ***A deliberately worded purpose statement that cites the valid public purpose to protect and preserve prime agricultural soils and valuable farming operations in compliance with Section 604.(3) of the Municipalities Planning Code;***
2. ***A "hands-off" and "by-right" regulatory approach to farms conducting normal farming operations;***
3. ***Severely restricted development potential (ex. 1 lot for every 20 acres of lot area);***
4. ***A minimum and maximum lot area of 1 and 2 acres in Rockland Twp. and 1 and 3 acres for District Township, for nonfarm uses, or the minimum needed for on-lot septic based upon environmental factors;***
5. ***Liberal accessory use regulations that specifically include farm occupations, roadside stands and other rural pursuits, provided that these uses have little impact and that adequate provision is made for the safe disposal of wastes;***
6. ***Separate provisions of concentrated animal feeding operations (CAFOs) that ensure proper siting, operation and disposal of wastes;***
7. ***Siting standards for future dwelling units proposed that protect sunlight easements/equipment turning radii onto adjoining farms and locate homes so as to minimize land use conflict;***
8. ***Language that specifically authorizes existing homes as permitted uses; and,***
9. ***An Agricultural Nuisance Disclaimer that informs prospective residents of potential impacts associated with normal farming practices that are protected under the PA Right to Farm Law.***

Although effective agricultural zoning ordinance can preserve farmlands in the short run, certain legal principles on accommodating growth can threaten their long-term integrity. Therefore, the Region should continue to support the County's Agricultural Conservation Easement Program and the respective Township's Agricultural Security Area programs. Certainly, easement funds are limited and not all prime lands can be purchased immediately. Therefore, local officials should commit to the preservation of farmlands through zoning until easements can be purchased through this program.

Last, the areas within the Township's Agricultural Zones are mostly located within the exceptional value and high quality watersheds. Historically, intensive agricultural production has created surface water degradation due to erosion and the application of fertilizers. ***It is critical that deliberate actions be taken by local officials to prevent surface water degradation in these areas. Local officials should employ a variety of techniques that encourage farmers to install riparian buffers along the creek and its tributaries.***

Unfortunately, farmers generally have little interest in installing riparian buffers as they reduce land available for crops and pasturing and it requires funding, which some farmers may not have available. Furthermore, ongoing farming operations have little need for zoning approvals and change; therefore, local municipalities have little leverage to require their installation and use. Nonetheless, these areas are often the most critical in determining local surface water quality. ***Therefore, local officials should adopt and implement a riparian buffer ordinance in this Zone and others. District Township should review their existing riparian buffer ordinance for any needed revisions. Then compliance should be required whenever a zoning permit is needed. Required Natural Resource Conservation Service (NRCS) conservation plans should also be fitted to include riparian buffers. Farmers should also be educated about the Federal Conservation Resource Enhancement Program (CREP) and income tax deductions that are made available to property owners who***

place conservation easements upon their properties for riparian buffers. Local watershed groups should target important farms that can offer the best improvement to surface water quality. These sites should become local priorities for fund-raising and actual riparian buffer construction.

A sample riparian buffer ordinance is presented later in this Chapter and additional discussion can be found on pages VI-13 through 16 of this Plan. ***In addition, all farms must always conduct their operations in compliance with approved Conservation and Nutrient Management Plans, as applicable. Local officials and staff should quickly notify the Berks County Conservation District of suspected violations.***

Finally, this Zone is likely to permit activities that are only provided for in this area within the Region. Airports, heliports and intensive livestock/produce operations are some examples of these uses. Consequently, this Zone is regionally significant, as it will accommodate uses found nowhere else within the Region. ***Therefore, the implementation agreement developed for this Plan should require referral of any amendment to the Comprehensive Plan or subsequent zoning ordinance that would eliminate this Zone or prohibit these uses to all of the Region's municipalities.***

B. Conservation Zone

The Eastern Berks County Region is blessed with greater natural diversity in its landscape than the rest of Berks County. Much of this landscape takes the form of rocky and wooded hillsides and ridges that are difficult to develop yet offer protection of surface water quality. At the same time these areas present significant natural habitats and passive recreation opportunities. Other lower-lying areas contain valuable wetlands and sensitive floodplains; these areas, too, hold the same value. It is not surprising that protection of these resources is foremost in the minds of many local officials and residents.

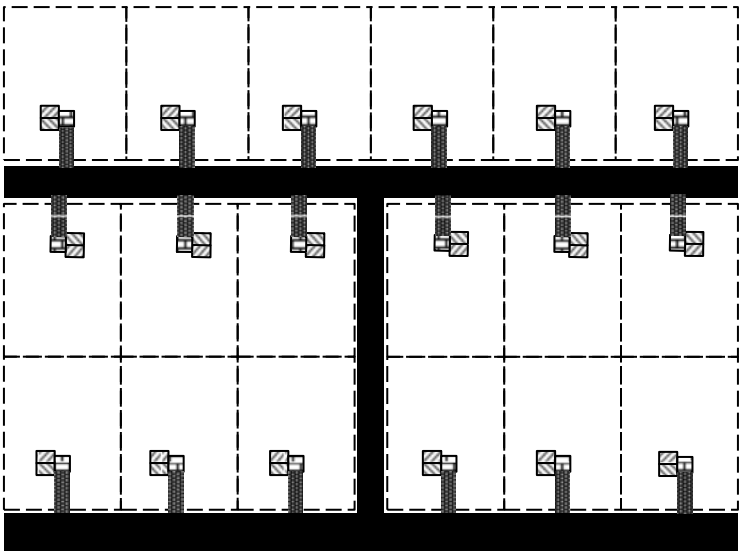
Both of the Townships within the Region share in these critical areas. Current case law suggests the limitation of residential development within these areas at 1 dwelling unit per each 3 acres. This precedent is based upon a case in which a municipality sought to impose a minimum lot size greater than 3 acres that was successfully challenged. The Court decided that requiring such a large lot size was exclusionary because it elevated the cost of building lots to a point where many would-be residents could not afford them. However, is some cases, such as District and potentially Rockland Townships, due to environmental factors the minimum lot size necessary to provide on-lot septic will be over 3 acres.

On the other hand, recent amendments to the Municipalities Planning Code emphasize the need for local governments to strengthen their protection of natural features. By applying a ratio form of zoning density (like that in agricultural zoning) where a lot is permitted based upon a prescribed number of acres, the number of new units allowed can be kept low to protect the overall setting while at the same time keeping the cost of lot ownership reasonable. This approach has the added benefit of reducing the impacts to the natural areas by confining disturbance and clustering development in a smaller area. This enables the "critical mass" of woodlands and habitats to remain intact while not depriving prospective landowners of "reasonable use" of their land.

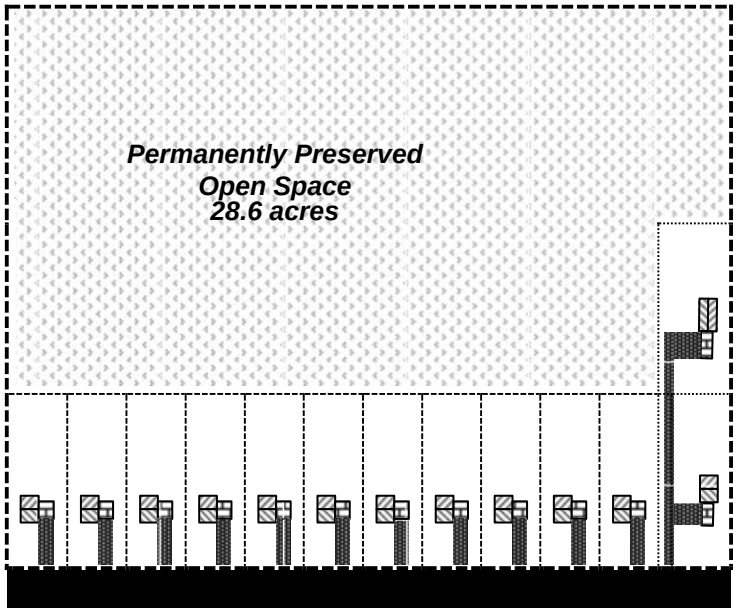
It is unknown if the legal system will support as restrictive an approach in a conservation setting as it has in an agricultural context. However, Eastern Berks County's wealth and concentration of important natural features would seem to provide the strongest argument for such an approach. Similarly, its local officials understand and are committed to the need to protect these areas in their natural state. ***For this reason, it is recommended that the Region apply this approach in its Conservation Zone. This Zone should enable the development of detached homes at a rate of one per each 3 to 5 acres.***

COMPARISON OF STANDARD 2-ACRE MINIMUM LOT AREA ZONE vs.

FIXED RATIO ZONE WITH DENSITY OF 1 LOT PER 3 ACRES & 1 ACRE MIMIMUM LOT SIZE



Max. Density - 1 lot per	2 ac.
Min. Lot Size (ac.)	2
Min. Lot Width (ft.)	200
Min. Front Setback (ft.)	50
Total Lots (Acres)	18 (36.6)
Total Street ROW (ac.)	3.4
Street Coverage (ac.)	2.03
Building Coverage (ac.)	.82
Driveway Coverage (ac.)	.41
Total Coverage (ac.)	3.26
Total Open Space (ac.)	0



Proposed Zone	C
Max. Density - 1 lot per	3 ac.
Min. Lot Size (ac.)	1
Min. Lot Width (ft.)	150
Min. Front Setback (ft.)	50
Total Lots (Acres)	13 (13.4)
Total Street ROW (ac.)	0
Street Coverage (ac.)	0
Building Coverage (ac.)	.60
Driveway Coverage (ac.)	.43
Total Coverage (ac.)	1.03
Total Open Space (ac.)	28.6

Assumptions

- 41 acre site
- 1000 square feet driveways (50 by 20 feet)
- 2000 square feet building footprints
- 60-foot street ROW with 36-foot cartway

For this approach to work optimally, it is important that several other features be integrated within the Conservation Zone. ***First, a certain amount of design flexibility should be "built-into" this Zone. While lot sizes should be at least one acre in size (in the Townships this would require the allowance of easements in the open space for on-lot sewer requirements) to accommodate on-lot sewers with primary and back-up disposal fields, lot width, and setback requirements should be kept small so that homes can be situated amid the rugged terrain without the need for variances. In addition, the use of flag lots and shared driveways can help to tuck small clusters of homes amid the "nooks and crannies" of a natural landscape thereby enabling the preservation of vast and/or inter-connected areas elsewhere on the same parcel.***

The locations of various conservation features have been depicted on the Natural Features Map contained within Chapter III of this Plan. Similarly, the Soils and Geology Map (within Chapter III) depicts soils with severe development constraints for buildings and on-lot sewers. All of these features form the basis for the assignment of the Conservation Zone. In addition, they offer some general perspective on the presence of conditions with a given locale. However, the specific location and extent of these features will require more detailed refinement and analysis during preliminary plan review of the subdivision process. Consequently, ***this Zone should apply a required environmental impact report as a prerequisite to subdivision of new lots.*** This report should require an applicant to identify important natural features on the site and keep proposed development activities away or manage impacts within acceptable levels. This will require considerable work on the part of applicants and the Townships.

In both of the Townships, this approach requires greater involvement and expertise from local officials in the review of prospective development plans. ***Often individual local planning commissioners are assigned one topic (e.g. wetlands, steep slopes, surface waters, groundwater, woodland, habitats, etc.) to become the local expert.*** Then as new lots are proposed, the respective planning commissioner assumes a prominent role in the review of the project based upon what natural features comprise the proposed site. This is a big step to take in the name of natural conservation and it requires more commitment from local officials.

An amendment to the MPC requires that forestry uses be permitted by right within every zone of every municipality within the Commonwealth. Since forestry uses typically occur within conservation settings this discussion is presented here. At about the same time, the Pennsylvania State Township Association of Supervisors (PSATS), Pennsylvania State University (PSU) and PA Department of Conservation and Natural Resources (PA DCNR) prepared a model ordinance to help regulate and monitor forestry operations. ***A slightly altered copy of this model ordinance is contained on page XII-10 and should be reviewed and adapted for use as a general zoning provision applied to every property within each municipality.***

In addition to the Conservation areas depicted on the Future Land Use Map, FEMA Floodplains, USDI Wetlands and Riparian Buffers are shown on the Natural Features Map and should be taken into consideration when reviewing development plans. While protection of floodplains and wetlands are widely accepted land use management techniques, recent awareness of diminishing surface water quality suggests the need for more protection for surface water. Since most of the Region contains State-designated "High-Quality" or "Exceptional Value" watersheds, this is an important local topic.

Studies conducted by the U.S. Forest Service demonstrate that 60-to-95-foot wide riparian buffers offer real advantages in the removal of harmful nutrients and sediment from storm water before it enters the stream. These same riparian buffers can increase the food supply and create interconnected natural systems of movement for local wildlife. Riparian buffers are areas adjoining streams where naturally successive vegetation is provided and protected. More information about this subject can be found in Section III and Section VI, and a model ordinance is contained on Page XII-10 of this Chapter. ***Local officials should adopt a Riparian Buffer Overlay Zone and apply it throughout the Region, particularly within its state-designated watersheds.***

Next, the use of accessory businesses should be permitted within the Conservation Zone to offer close-to-home employment. Home occupations should be confined to uses that can be adequately conducted from within the dwelling unit itself with limited non-resident employees; these uses can be permitted by right. Rural occupations expand on the home occupation concept and enable other more intensive uses that can make efficient use of rural outbuildings and outdoor storage. Here impacts of noise, light, dust, hours, screening and odor should be scrutinized prior to approval to ensure that adjoining properties are not adversely affected. Farm occupations should be confined to larger farms and can be conducted in barns. Here local residents from the site and its neighborhood can engage in non-farm activities provided the impacts are contained upon the site and the operator continues to farm. In all cases (home, rural and farm occupations), the applicant should demonstrate safe means of waste disposal that does not threaten the environment. Rural and farm occupations are best administered with a special exception to ensure a proper scale and orientation of the use.

Finally, past zoning policies have enabled the development of many scattered rural homes within the area. These pre-existing homes should specifically be permitted by right within the Conservation Zone. This avoids their classification as nonconforming uses and will enable residents to make logical adjustments to these lots/homes without the need to gain approval from a local zoning hearing board for variances or expansions to nonconforming uses.

In summary, it is recommended that a Conservation Zone be applied to this area with the following components:

1. ***A deliberately worded purpose statement that cites the valid public purpose to protect and preserve important natural features in compliance with Section 604.(1) of the Municipalities Planning Code;***
2. ***A "hands-off" and "by-right" regulatory approach to farms conducting normal farming operations;***
3. ***Severely restricted development potential (say 1 lot for every 3-5 acres of lot area);***
4. ***Flexible lot design standards that enable new homes to tuck into the "nooks and crannies" of the rugged terrain;***
5. ***Provision for flag lots and shared driveways to facilitate efficient lotting and access;***
6. ***Required environmental impact report that details important natural conditions on a site and presents a strategy for their protection as a prerequisite to site design;***
7. ***Regulations governing the conduct of forestry operations in all areas of the Region;***
8. ***Regulations governing the use of riparian buffers throughout the Region;***
9. ***Requirements for 2 on-lot sewers and a domestic well prior to establishment of new homes;***
10. ***Liberal accessory use business regulations that specifically include home, rural and farm occupations, provided that these uses have little impact and that adequate provision is made for the safe disposal of wastes;***
11. ***Separate provisions of concentrated animal feeding operations (CAFOs) that ensure proper siting, operation and disposal of wastes;***
12. ***Siting standards for future dwelling units proposed that protect sunlight easements/equipment turning radii onto adjoining farms and locate homes so as to minimize land use conflict; and,***
13. ***Language that specifically authorizes existing homes as permitted uses;***
14. ***An Agricultural Nuisance Disclaimer that informs prospective residents of potential impacts associated with normal farming practices that are protected under the PA Right to Farm Law.***

Model Regulations for Forestry Uses

1. In accordance with State law, forestry uses are permitted by right in every zone, subject to the following standards:

2. **Logging Plan Requirements** - Every landowner on whose land timber harvesting is to occur shall obtain a zoning permit, as required by this Ordinance. In addition to the zoning permit requirements listed elsewhere in this Ordinance, the applicant shall prepare and submit a written logging plan in the form specified below. No timber harvesting shall occur until a zoning permit has been issued. The provisions of the permit shall be followed throughout the operation. The logging plan shall be available at the harvest site at all times during the operation, and shall be provided to the Zoning Officer upon request. The landowner and the forestry operator shall be jointly and severally responsible for complying with the terms of the logging plan and the zoning permit.
    1. **Minimum Requirements** - As a minimum, the logging plan shall include the following:
        A. Design, construction, maintenance and retirement of the access system, including haul roads, skid roads, skid trails, and landings.
        B. Design, construction and maintenance of water control measures and structures, such as culverts, broad-based dips, filter strips, and water bars.
        C. Design, construction and maintenance of stream and wetland crossings.
        D. The general location of the proposed operation in relation to municipal and State highways, including any accesses to those highways.
    2. **Map** - Each logging plan shall include a sketch map or drawing containing the following information:
        A. Site location and boundaries, including both the boundaries of the property on which the timber harvest will take place, and the boundaries of the proposed harvest area within that property.
        B. Significant topographic features related to potential environmental problems.
        C. Location of all earth disturbance activities, such as roads, landings and water control measures and structures.
        D. Location of all crossings of waters of the Commonwealth.
        E. The general location of the proposed operation to municipal and State highways, including any accesses to those highways.
    3. **Compliance With State Law** - The logging plan shall address and comply with the requirements of all applicable State regulations, including, but not limited to, the following:
        A. Erosion and sedimentation control regulations contained in Title 25 Pennsylvania Code, Chapter 102, promulgated pursuant to The Clean Streams Law (35 P.S. §691.1. et seq.).
        B. Stream crossing and wetlands protection regulations contained in Title 25 Pennsylvania Code, Chapter 105, promulgated pursuant to the Dam Safety and Encroachments Act (32 P.S. §693.1 et seq.).
    4. **Relationships of State Laws, Regulations and Permits to the Logging Plan** - Any permits required by State laws and regulations shall be attached to and become part of the logging plan. An erosion and sedimentation pollution control plan that satisfies the requirements of Title 25 Pennsylvania Code, Chapter 102, shall also satisfy the requirements for the logging plan and associated map specified in Sections 2.1. and 2.2., provided that all information required by these sections is included or attached.

3. **Required Forest Practices** - The following requirements shall apply to all timber harvesting operations:
    1. Felling or skidding on, or across, any public road is prohibited without the express written consent of the Municipality, or the Pennsylvania Department of Transportation, whichever is responsible for maintenance of the thoroughfare.
    2. No tree tops or slash shall be left within twenty-five (25) feet of any public road, or private roadway providing access to adjoining residential property.
    3. All tree tops and slash between twenty-five (25) and fifty (50) feet from a public roadway, or private roadway providing access to adjoining residential property, or within fifty (50) feet of adjoining residential property, shall be lopped to a maximum height of four (4) feet above the ground.
    4. No tree tops or slash shall be left on, or across, the boundary of any property adjoining the operation without the consent of the owner thereof.
    5. Litter resulting from a timber harvesting operation shall be removed from the site before it is vacated by the forestry operator.

4. **Responsibility for Road Maintenance and Repair; Road Bonding** – Pursuant to Title 75 of the Pennsylvania Consolidated Statutes, Chapter 49; and Title 67 Pennsylvania Code, Chapter 189, the landowner and the forestry operator shall be responsible for repairing any damage to Municipality roads caused by traffic associated with the timber harvesting operation, to the extent the damage is in excess of that caused by normal traffic, and shall be required to furnish a bond to guarantee the repair of such potential damages, as calculated by the Municipality Engineer.

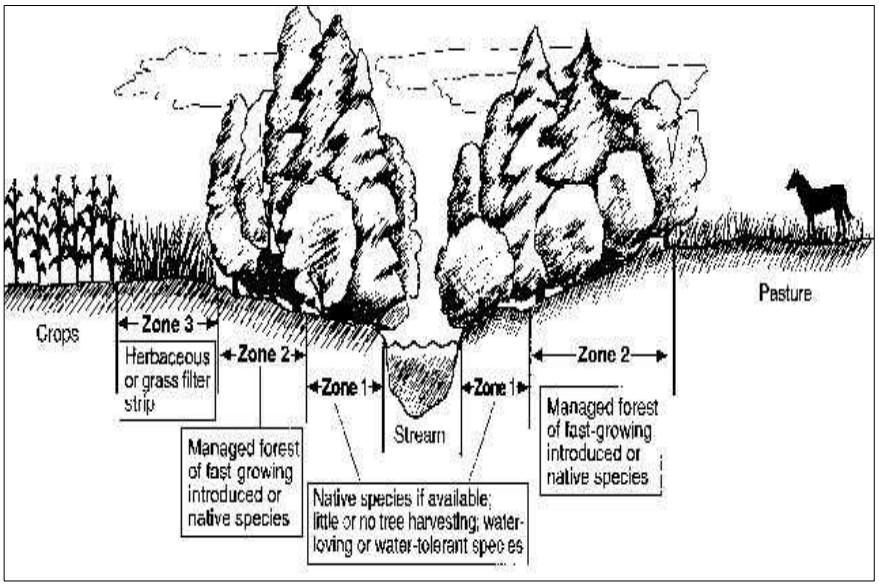
Model Regulations for Riparian Buffers

As required within this Ordinance, and as guidance to any other landowner that voluntarily proposes, streamside buffers shall be provided in accordance with the following standards:

Buffer delineation – The applicant must submit a scaled site plan that clearly depicts the streamside buffer comprised of the following three separate Zones:

Zone 1 – The landward area located between the streambank edge under typical flow conditions and the largest combined width of all of the following:

- fifteen (15) feet as measured directly perpendicular from the streambank edge;
- the 100 year floodplain;
- any adjoining identified wetlands; and/or,
- any adjoining area characterized by slopes exceeding twenty-five percent (25%).



Zone 2 – The area beginning at the inland edge of the above-described Zone 1 and extending at least sixty (60) feet inland there from; and,

Zone 3 - The area beginning at the inland edge of the above-described Zone 2 and extending at least fifteen (15) feet inland there from. Where a pasture is proposed just beyond the above-described Zone 2, no Zone 3 is required;

Buffer plantings – Each of the respective Zones of the streamside buffer shall include vegetation that already exists or will be planted and maintained by the applicant that satisfies the following design objectives. The applicant shall submit expert evidence that the existing and/or proposed vegetation satisfies such objectives:

Zone 1 – This Zone must include mature canopy trees and a ground cover of warm season grasses. New tree plantings should be selected, arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. New grass plantings should be selected and managed to filter-out pollutants and offer habitat. All vegetation within this Zone must thrive in wet conditions;

Zone 2 - This Zone must include mature canopy trees generally three rows deep and a natural undercover. New tree plantings should be selected that are rapid growing so as to intercept passing nutrients. Such trees should also be arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. Successive undercover plants should also be allowed to "evolve" with the canopy of this Zone;

Zone 3 – This Zone should be planted with warm season grasses that are allowed to mature naturally without mowing. The tall grasses ensure that overland storm water flows do not "channel" into Zone 2. New grass plantings should be selected and managed to enable controlled grazing or haying so long as the grasses are not reduced to a point where they are no longer able to effectively disperse the surface water flows.

Buffer use and maintenance – Streamside buffers must be generally undisturbed. Mature trees and long grasses absorb more nutrients than do manicured plants. Similarly the more extensive root systems retain passing sediments. These characteristics reduce pollution and yield abundant food and habitat for wildlife. The temptation to "over-maintain" the streamside must be overcome. The following lists required maintenance activities for each Zone and the applicant must present a working plan that demonstrates compliance with such activities and practices:

Zone 1 – This Zone compels requires little maintenance. As trees mature, die and decay it is important that such natural debris be allowed to decompose within the stream. This will provide important food and habitat for beneficial microorganisms, fish and amphibious animals. Streamside grasses should similarly be allowed to seasonally flourish and recede. Man-made activities should be very limited and confined to perpendicular passages from Zone 2. Intensive-used locations should be fitted with raised walkways and reinforced embankments. Streamside cleanup of junk and manmade debris is permitted. No animal watering and crossing locations are permitted.

Zone 2 – This Zone requires the most attention but not for some time after initial planting. Here the objective is to develop a stable and broad canopy of tree cover. The trees within Zone 2 are fast-growing and therefore consume many nutrients. The regular pruning and trimming of these trees will increase their nutrient consumption, but should not jeopardize the important overhead canopy of shade. The natural undercover should be undisturbed except for periodic litter cleanup. Pedestrian paths can weave through Zone 2 but should be provided with raised walkways to prevent compacted soils and root damage.

Zone 3 – This Zone also requires little maintenance. Long summer grasses should be allowed to flourish and recede with the seasons. Grazing and haying is permitted so long as the residual grass length is sufficient to disperse overland storm water flows into Zone 2 and avoid channelization.

C. Residential Zones (Medium Density through Town Center Residential Zones)

As described in Chapter VIII (Existing Land Use) of this Plan, the Region contains a wide variety of residential forms. Considerable rural housing lies in outlying areas on large lots with on-lot utilities. Most of these are scattered along the Region's roads but some larger neighborhoods have also evolved. These rural homes are **not** part of this discussion but are covered by their respective previous land use categories (Agriculture or Conservation) depending upon their location.

This Section and category focus upon previously developed areas and those specifically planned for residential growth. These areas are confined to Topton Borough. Within the Borough, these neighborhoods are to be fitted with public sewer and public water as well as a host of other public amenities, facilities and services.

Chapter IV (Demographics) of this Plan analyzed population and housing trends within the Region by municipality and for the Region as a whole. Since the Region has undertaken this Plan in a cooperative manner and has established the goal to allocate growth on a regional basis, the above graphs past and projected growth across the entire Region. The net projected population growth is summarized below:

Projected Net Changes Per Decade		
Year	**2000 to 2010**	**2010 to 2020**
Population Growth	1698	3396
Housing Growth	807	1614
Persons/Unit	-0.07	-.13

The community development goal of this Plan is to direct planned growth into compact neighborhoods with a wide range of utilities and services while accommodating less dense residential and commercial development within the Townships. New development of housing within the Region is very limited since the market downturn in 2008-2009.

Growing Greener: Conservation by Design

[1]*Growing Greener: Conservation by Design* is a conservation planning program designed to help local officials manage growth in a manner that uses the development process to their advantage, by adding land to a community-wide network of open space, each time a property is developed. Using this "conservation subdivision design" approach, a developer can build the maximum number of homes permitted under zoning, but in a less land consumptive manner. Conservation design rearranges the density on each development parcel as it is being planned, so that only half (or less) of the buildable land is consumed by houses, lawns and streets. By permitting development using conservation-based tools, a community can protect its most valued resources and special places, while still accommodating full-density growth.

To implement conservation design, zoning and subdivision ordinances are overhauled to focus not only on development-related issues (such as lot dimensions, street geometry, stormwater management, etc.), but to place equal emphasis on conserving a variety of environmental, cultural, historic and scenic features that give a community character.

To manage growth in this way most effectively, a Township should ideally document its natural and cultural resources on a *Map of Potential Conservation Lands*, which provides an overview of the community-wide open space and greenway network. This map is often contained in a community's Open Space Plan, but can also be created separately. Some of the maps contained in this Comprehensive Plan can be used as a source for needed data.[2]

These data layers could easily be combined to form the beginning of a *Map of Potential Conservation Lands*. Additional information that would help complete the map includes steep slopes, hedgerows and scenic views. Finally, judgments would have to be made as to which of the potentially buildable lands should be conserved. ***It is recommended that if either of the Townships decide to enact "Conservation by Design" that they eventually create such a map, as it would prove invaluable in making development and conservation decisions.***

The *Map of Potential Conservation Lands* provides an overview of the Township-wide network, but the details have to be worked out as development (or acquisition) occurs. This is accomplished by requiring the developer to provide a detailed *Existing Resources and Site Analysis Plan* early in the review process. This plan would reflect a thorough understanding of the site, so that even the location of large trees or unusual geologic formations could be identified. It tells reviewers virtually everything they need to know about the property to make informed conservation and development decisions. As the most important document in the subdivision design process, it provides the factual foundation upon which all design decisions are based.

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[1] Launched in 1996, *Growing Greener: Conservation by Design* began as a collaborative effort of Natural Lands Trust, a non-profit land conservation organization based in Media, PA; the Pennsylvania Department of Conservation and Natural Resources (DCNR); and the Pennsylvania State University Cooperative Extension. Many other state agencies, conservation organizations, private practitioners and municipalities have participated in the program. The Governor's 1999 statewide environmental funding initiative shares the same *Growing Greener* name, but is a separate program focused on watershed restoration.

[2] For example, floodplain, wetlands and PNDI sites can be taken from the Natural Features Map; the proposed greenways for the Little Lehigh and Sacony Creeks can be taken from the Public Parks Map; woodlands can be taken from the Existing Land Use Map; historic sites can be taken from the Cultural Features Map; and existing protected lands can be taken from the Agricultural Preservation Map.

When local land use regulations require developers to design around special natural and cultural features, developers can become the Township's greatest conservationists, at no cost to the community and with no loss of profit to the developer. ***To achieve this, a few procedural changes to the subdivision ordinance are needed. These include a pre- application meeting between the applicant and Township officials, a site visit by Township representatives, a strongly encouraged sketch plan based on the Existing Resources/Site Analysis Map, and a Four-Step Design Process that requires the plan to be designed around the conservation features, as well as other provisions. Local officials should also seek to preserve agricultural productivity and minimize disruption of adjoining farming operations as one of its "conservation by design" priorities when reviewing new neighborhoods that adjoin active and preserved farms in this area. For this reason, properties with Agricultural Conservation easements have been identified on the Future Land Use Map.***

Revisions to the zoning ordinance are based on a multi-optioned approach relating density to the provision of open space, offering a range of density incentives to encourage greater open space and density *dis*incentives to discourage lesser open space. In addition, the zoning ordinance needs to be made more flexible to accommodate development in patterns that preserve natural resources. Both the zoning and subdivision ordinances are further revised to include significant location and design standards for open space.

A "menu" of density options gives the developer a choice of several approaches toward any particular parcel of land. The *Growing Greener* model ordinance offers five choices, but the Township may choose to apply only two or three. The first option is "density neutral", with density equal to the Township's "base density" in any given zoning district. In other words, the developer would get the same number of permitted units as under conventional development. This option requires open space to total 50 percent of the buildable land plus constrained land. Other zoning options would permit a greater number of lots in exchange for additional open space. Other options would permit development with no open space, but at much reduced densities.

Additional informational material describing *Growing Greener* concepts is available from Natural Lands Trust. [3]

A Conservation by Design Zone would permit a variety of housing unit types and costs.

R-1 Residential Zone - Within the Region, the R-1 Residential Zone is largely designed around the existing "suburban-style" neighborhoods that have evolved along the eastern and western edges of Topton Borough. These newer neighborhoods are characterized by detached dwellings with sidewalks and front yard driveways. Lot widths average 100 feet and lot sizes average around 9000 square feet. These design standards are acceptable as a base density permitted within the planned R-1 Residential Zone neighborhoods.

But planning for residential growth involves more than merely assigning acres for development. Municipalities and the Region have a responsibility to provide for a wide range of housing types and costs. Development of the R-1 Residential Zone exclusively for single-family detached dwellings would continue the Region's relative lack of a variety of housing types. An analysis of housing types within Chapter IV (Demographics) recommends that the Region allocate future land use to meet the following target housing mix:

Therefore, to ensure that the Region provides for its fair-share of a wide range of housing types, this R-1 Residential Zone must do more. ***To promote a higher mixture of housing styles and costs it is recommended that the R-1 Residential Zone include an optional set of "overlay" standards. These standards could include adopting a "Traditional***

Neighborhood Design" (TND) philosophy that departs from the base suburban style.

TNDs feature designs and characteristics that resemble communities more like Topton Borough than sprawling suburbs. These communities are sweeping the nation as society recognizes the consumptive and dissociative aspects of suburban sprawl. Amendments to the Municipalities Planning Code specifically enable and encourage this new approach. This recommendation also directly responds to one of this Plan's goals:

> *"Attempt to promote more density in planned residential areas as a means of reducing development pressure on the outlying rural landscape."*

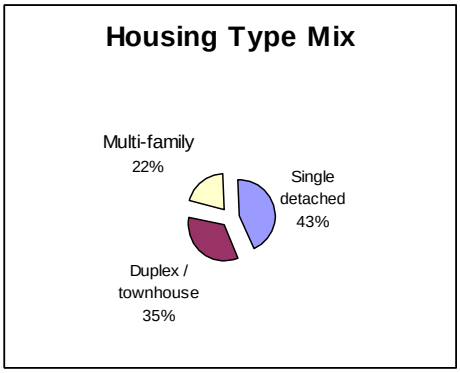
Old Towne Lancaster, a fine example of TND

In return, the community will receive neighborhoods that feature a better integration of important natural and cultural features, additional common open space, better pedestrian access and mobility, diverse housing styles, and a setting that invites neighborliness and interaction.

However, developers are often reluctant to undertake traditional neighborhood designs when **they** require special zoning reviews as conditional uses or special exceptions. They also resist strict prescribed design requirements that offer little flexibility. Consequently, very few examples of traditional neighborhood designs have been built within Berks County; although that is changing. ***It is important that the local officials of the Region invite the use of traditional neighborhood designs through a variety of short-term and ongoing actions.***

First, as part of the development of new zoning policies for the Region, local officials should participate in a joint workshop to develop a set of traditional neighborhood design regulations that meet their needs. This work should be undertaken with representatives from the BCPC staff along with a professional planning consultant. Suitable regulations should:

1. ***Require a "proper site planning process" and review early in the development review process that effectively incorporates and protects important natural and cultural features, and then provides an opportunity for developers and the community to agree on the design priorities for the site;***



2. ***Ensure a diversity of housing types, sizes, and costs, with particular emphasis on scattered-site, affordable housing opportunities at densities of up 6 units per acre. To meet County-wide figures the mixture should encourage the ratio of new unit types as reflected in the adjoining graph;***

3. ***Provide for interconnected and recti-linear narrow streets and intersection designs with on-street and rear yard off-street parking, and abundant well-lit sidewalks to promote pedestrian mobility and safety;***

4. ***Require the provision and efficient use of local infrastructure and services;***

5. ***Reflect the historic and traditional building styles of the Region;***

6. ***Reserve and feature civic uses and open spaces as community focal points;***

7. ***Invite regular and frequent social interaction among its inhabitants;***

8. ***Blend all of these above-described features in a way that promotes community identification and a "sense-of-belonging" for the residents; and***

9. ***Provide for a set of requirements that achieves the preceding designs, yet allows enough flexibility for developer ingenuity and creativity, and applies a development review process that is streamlined and can be effectively managed by local officials and staff.***

Once a draft ordinance is prepared, a series of local official training sessions to familiarize and seek feedback from would-be users of the ordinance should be conducted:

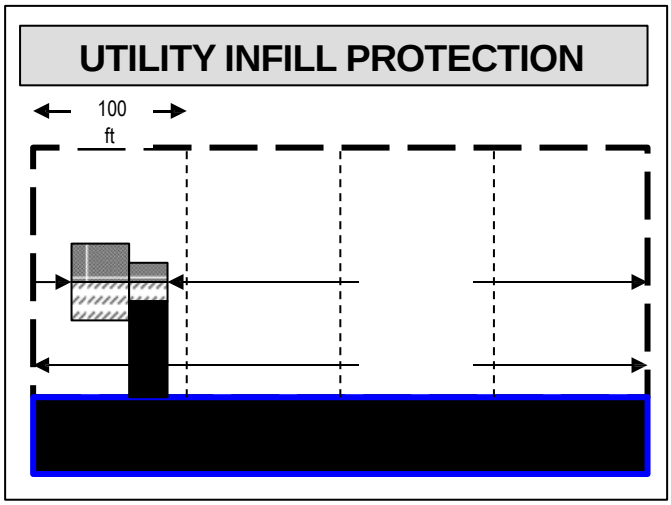
1. The first work session should be held for local staff, engineers, planning commissioners, and elected officials. Here, local officials need to be educated about the benefits of TND and trained on how they would administer the ordinance. Local officials should be shown with actual or hypothetical examples of how the ordinance is applied. Feedback during this process should be used to fine-tune the ordinance;

2. After local officials have had the chance to understand and refine the TND ordinance, another work session should invite review and comment from local developers. Local officials should emphasize their intent to "get serious" about TND as the preferred development form, and plainly explain that a higher standard of design is expected from all developers. Then, local officials should invite constructive review of the TND ordinance, to enable practical use by the developers. This will likely take several weeks as the developers study the ordinance and its consequences. Suggestions to streamline the review process should be incorporated, unless local officials fear a lack of control over the process and its outcome. Revisions to the design standards should be avoided, unless local officials are convinced that a better standard results; and,

3. Finally, a similar public education and awareness session should be held to explain the ordinance and its impact on respective neighborhoods. Local officials should promote the benefits of TND to citizens and homeowners groups. They should also candidly explain their intent to approve TND developments within the various neighborhoods, along with their higher densities. In this manner, local officials can forewarn would-be NIMBY opponents of the municipality's commitment to this form of development, and invite constructive neighbor involvement during the review process. This display will also assure prospective developers that local officials would not allow NIMBY opponents to prevent approval of an otherwise preferred TND.

Once these meetings have been held and the Ordinance is adopted, the real work begins. Local staff and officials need to be ever-vigilant in their desire to promote TND within the community. Initial developer resistance is likely, and unless local officials turn-away substandard plans, their TND efforts will have been in vain. Developers who miss the mark should have their plans denied firmly and quickly. Conversely, developers who attempt TND designs should be welcomed and assisted in their development review process and approval. Over time, this will "send the right message" to developers and citizens alike.

Given the prerequisite work needed by Topton Borough to offer public utilities throughout the planned R-1 Residential Zone, **public utilities are already available.**



At such times as public utilities become available these previously created lots can be re-subdivided to offer additional home sites and utility connections.

Minimum Lot Area	Minimum Lot Width	Maximum Lot Coverage	Minimum Yard Setbacks				Maximum Permitted Height
			Front	One Side	Both Sides	Rear	
43,560 sq. ft.	400 ft.	10%	40 ft.	320 ft.	330 ft.	40 ft.	35 ft.

Much of the Region's housing diversity is anchored within Topton Borough. As a result, the traditional residential pattern of development must be reflected to continue and grow. Long and narrow lots with tightly-knit houses built close to the sidewalks and on-street parking are prevalent characteristics of these areas. Garages upon narrow alleys and garages on adjoining properties are common. This Plan recognizes these areas and allows them to evolve with little municipal oversight.

Hoch Ave.	Center Ave.	Washington St.	Main St. North

These areas are entirely within Topton Borough and will have access to a full range of public utilities and services. The following lists suggested design standards based upon the prevailing designs of existing developments within these areas.

"TYPICAL" DESIGNS OF TOPTON BOROUGH'S RESIDENTAI ZONES							
Proposed Zone	**Housing Types**	**Min. Lot Size (sq. ft.)**	**Min. Lot Width**	**Front setback**	**Side setbacks**	**Rear setback**	**Parking Location**
R-1	SFD	9000	75 ft.	35 ft.	5/10 ft.	30 ft.	Front/side
R-1	SFD	6000	60 ft.	25 ft.	0/6 ft.	20 ft.	Front/side
R-1	2FD	3500	35 ft.	25 ft.	6 ft.	20 ft.	Front/side
R-1	Townhouse	2000	20 ft. 30 ft. ends	25 ft.	10 ft. ends	20 ft.	Front/side
R-2	SFD	4000	30 ft.	10 ft.	10/20 ft.	0 ft. garage	Street/ garage
R-2	2FD	4000	30 ft.	10 ft.	10 ft.	0 ft. garage	Street/garage
R-3	2FD	3200	24 ft.	5 ft.	2 ft.	0 ft. garage	Street/garage
R-3	Townhouse	2400	18 ft. 23 ft. ends	5 ft.	10 ft. ends	0 ft. garage	Street/garage
R-4	Townhouse	3200	24 ft.	0 ft.	0 ends	0 ft. garage	Street/garage
R-5	Multi-family	43,460	180 ft.	25 ft.	25 ft.	25 ft.	Street/parking lot

To accommodate logical change in these neighborhoods, zoning policies must align with the preceding design standards. This will enable residents to undertake projects that are consistent and compatible with nearby uses, without the need for variance and/or special exception applications and hearings. This will ease municipal workload and increase public acceptance of municipal practices and policies.

These neighborhoods are almost entirely "built-out"; therefore, few new buildings are expected. However, the Borough should "keep-an-open-mind" regarding the use of new and creative forms of housing within these settings, provided adequate space exists per unit and for required parking, and such housing does not alter the residential character of the site. Also, it is recommended that the Borough determine the feasibility of allowing, by Special Exception, two-family, multi-family, group homes, and personal care homes in the eastern section where there is a mix of industrial and existing housing. Two-family conversions, and outbuilding apartments provide opportunities for scattered site affordable housing that can be used as starter units for young families or empty-nest units for the elderly. These housing opportunities should be incorporated into the Borough's Residential Zones; the following presents "typical" special exception criteria imposed upon these uses*:*

Section ___ Conversion Apartments

1. Within the (R-) Residential Zone, a single-family detached dwelling may be converted into two (2) dwelling units by special exception, subject to the following criteria:
2. The applicant shall furnish evidence that an approved system of water supply and sewage disposal will be utilized;
3. No modifications to the exterior of the building (except fire escapes) that would alter its residential character shall be permitted;
4. Each unit shall have at least 400 square feet of habitable floor area and a direct means of escape to ground level;
5. The applicant must provide for two(2) new off-street parking spaces, unless the site already has required off-street parking for both units; and,
6. Two-family conversions shall only be permitted within single-family detached dwellings that contained at least two thousand (2,000) square feet of habitable floor area, or within its outbuilding that contained at least 400 square feet of habitable floor area, respectively, on the effective date of this Ordinance.

Another issue that is commonly problematic within densely developed neighborhoods relates to accessory uses. Accessory uses are structures or activities that are incidental to the primary use of a property. For example, a residential accessory structure could include a detached garage, swimming pool or satellite dish antenna. Similarly, a residential accessory activity could be a yard sale, the storage of a boat or trailer, or the repair of personal automobiles. The impacts of accessory uses are more easily absorbed in rural or suburban areas where lot-to-lot separation is greater. Within the Borough, however, such separation is impossible and neighbors are more easily affected by another's activities and actions. ***The Borough is recommended to strengthen applicable residential accessory land use regulations.***

Last, the Borough's Residential Zones are linked with the central business areas of the Borough. Consequently, these neighborhoods already include other nonresidential uses that contribute to the Borough's central role within the Region and its small-town character. These uses should be specifically accommodated. Civic uses, churches, schools, parks and playgrounds and limited day care facilities should all be permitted as they provide important services within these established neighborhoods.

Finally, these Zones provide for the diversity of the Region's housing stock and are critical to the Region providing for its fair-share of diverse forms of housing. ***The implementation agreement developed for this Plan requires referral of any amendment to the Comprehensive Plan or subsequent zoning ordinance that would eliminate this diversity of housing stock or reduce the area available for development within these Zones to all of the Region's municipalities, as there may be a need to provide for greater diversity elsewhere within the Region.***

D. Mobile Home Parks Zone

The EBC Region has two areas of mobile homes in the Townships. The larger area is a mobile home park within District Township has additional areas, which if infrastructure needs are met, and then the Region meets its fair-share burden to provide for mobile home parks. Therefore, future mobile home park development will be limited to expansion of this existing park within District. Within Rockland Township, there is a development made up of mobile homes, but it is not a mobile home park, however mobile home parks are allowed under certain conditions within the Township. Nonetheless, this provides for the Region's mobile home housing stock and is critical to the Region providing for its fair-share of this legally protected form of housing. ***The implementation agreement developed for this Plan discusses the fair share of uses and requires referral of any amendment to the Comprehensive Plan or subsequent zoning ordinance that would eliminate fair share to each of the municipalities, as there may be a need to provide for this use elsewhere within the Region.*** It is important to understand that this restriction only applies to mobile home parks as freestanding mobile homes are protected under Federal law as single-family detached dwellings and can be placed anywhere "stick-built" homes can be.

Mobile home parks have unique settings that do not mesh with regulations imposed upon their surroundings. Therefore, occupants of these parks must often apply to the Zoning Hearing Board to undertake minor expansions and adaptations of their homes. This imposes unnecessary bureaucracy and costs upon low-to-moderate income residents who can least afford the hearing and legal representation expenses. To overcome this problem it is recommended that a Mobile Home Park Zone be applied to existing parks. This will enhance the compatibility within the other adjoining zones by eliminating mobile home parks as a potential use within these unsuspecting neighborhoods. The following presents typical design standards for mobile home parks observed during the field inspection of the Existing Land Use Inventory (Chapter VIII):

"TYPICAL" DESIGN CHARACTERISTICS OF MOBILE HOME PARKS						
Min. Rd. width	**Min. Lot Width**	**Front Setback**	**Side Setback**	**Rear Setback**	**Parking Location**	**Other/Sidewalks**
30 ft.	50 ft.	30 ft.	10 ft.	20 ft.	Front pads	Sheds setback 10 ft.

E. Commercial Zones (Commercial, Town Center, Highway Commercial)

Within the Eastern Berks County Region, there are three distinct patterns of planned commerce. The first, **Commercial Zone**, aims to localize convenience goods and services in the Village of New Jerusalem and Dryville in Rockland Township. The **Town Center** within Topton Borough is intended to provide a vibrant downtown destination featuring a variety of shops, restaurants, offices and civic uses. The **Highway Commercial** uses are allowed in the Industrial Zone located within the Borough of Topton.

Commercial Zone - The majority of this category is within and between the Villages of New Jerusalem and Dryville along Lyons Road is a proposed Village Commercial Zone. There is a junction of five important roads at a central location serving rural Rockland Township. Today this area contains residential, a small auto dealership, auto repair and salvage and a restaurant. Several churches are also nearby. For the most part this area is built-out. However, the boundaries of this Zone include under-utilized parcels and residential properties that could be adapted for commercial use. Based upon the Existing Land Use Inventory (Chapter VIII) about 292 acres could be adapted for commercial use within this Zone. This area would be appropriate for uses such as small personal care homes and other businesses that would blend in with the current type and style of the existing neighborhood without taxing the roads.

The proposed configuration of this Zone reflects these existing uses and adds several other lots fronting this intersection. Should this configuration become saturated with new businesses that are contributing to the convenience of the Region's rural residents, expansion is conceivable. ***However, local officials should be mindful of the desired scale of this Zone and not invite uses that are better sited in Topton or along State Street.***

Uses permitted here should reflect a local orientation and integrate within the setting without great adverse impact. Uses should remain small and emphasize providing local daily needs to nearby rural residents. Convenience stores, personal care, small nursing home, restaurants and taverns, bed and breakfasts, offices, automobile repair, card, book, magazine, newspaper, music, and video shops, barber and beauty salons, photographic, art and dance studios, tailors, Laundromats and dry cleaning drop-off stations, flower shops, jewelry, watch and small appliance sales and various civic uses like churches, cemeteries and post offices are all appropriate.

Overall retail size per store should be limited so as not to exceed its local orientation, nor provide an incentive for the demolition of existing historic buildings in favor of more modern commercial building styles. The development of multi-shop arcades should be encouraged particularly within the adaptive reuse of existing historic buildings. Demolition of historic buildings should be discouraged. All commercial signs should also be limited to reflect their local orientation yet offer ready identification at this busy intersection.

Existing site designs, parking availability, and uses vary widely. ***Nonetheless, local officials can begin to tighten regulations in these areas and, over time, "weed-out" unwanted nonconforming uses and replace them with businesses that can coexist better within this small village. Similarly, zoning design standards should promote shared use of access drives, and off-street parking and loading spaces. Outdoor storage should be prohibited in most cases and, if allowed, effectively screened from adjoining roads and residences.***

Town Center District - Topton Borough has the most cohesive and identifiable commercial core within the Region. While this may be true, local officials hope for a better future with more activity and reinvestment. This Zone will assemble a strategy to enable "downtown" Topton to thrive as the Region's center of retail, service, civic and leisure activities. For the most part this area is built-out. However, the boundaries of this CBD include under-utilized parcels and residential properties that could be adapted for commercial use. Based upon this Future Land Use designation there are 16 acres within the proposed Town Center (mixed use) Area.

To manage this area the Borough should create a new Zone with the following characteristics.

First, the Borough should be more selective in the uses allowed in downtown areas to be pedestrian-friendly and at a proper scale. This will allow for confident reinvestment as owners will be assured of a pleasant and intimate setting that is free of more intensive and objectionable uses. Zoning requirements for this area should incorporate several important features. ***First, the zone should promote uses that are oriented toward pedestrian customers.*** This does not suggest that customers will suddenly stop visiting the area via automobile, but that "potential" uses should be ones that can serve pedestrians equally well. Such uses would have the added benefit of not requiring the frequent delivery of merchandise via large tractor-trailers, in an area lacking adequate off-street loading space. Examples of suitable uses include:

card, book, magazine, newspaper, music, and video shops; specialty food stores; bakeries; delicatessens; wine shops; clothing boutiques; barber and beauty salons, sporting goods and musical instrument shops; drug, tobacco, hardware, and 5 and 10 cent stores; restaurants, taverns, ice cream parlors, and outdoor cafes; bed and breakfasts; photographic, art and dance studios; offices; photocopy and office supplies; computer and software sales; arcades and movie theaters; tailors; Laundromats and dry cleaning drop-off stations; flower shops; jewelry, watch and small appliance sales and repair; corner grocery stores, including outdoor display, etc. In addition, various civic uses like churches, cemeteries and post offices are also appropriate. In addition, residential uses on upper floors would be appropriate.

Overall retail size per store should be limited, so as not to exceed its local orientation, nor provide an incentive for the demolition of existing historic buildings in favor of more modern commercial building styles. The development of multi-shop arcades should be encouraged, but only through the adaptive reuse of existing buildings. Demolition should be discouraged, and all structural alterations should be scrutinized by a local Historic Architectural Review Board (HARB). The HARB should also consider devising suitable standards for other streetscape amenities, such as signs, canopies, benches, light poles, and so forth.

All commercial signs should be limited to reflect their pedestrian orientation. Within this Zone, the Borough should substantially relax off-street parking requirements for suitable uses, due to their pedestrian orientation and the proximity of on-street public parking. Second-story apartments should be permitted to offer a greater variety of affordable housing options, and make efficient use of floor space that is often unusable for commercial purposes.

Zoning requirements should prohibit the placement of off-street parking and/or loading within the front yard, in favor of sidewalk "build-to" lines with outdoor cafes and limited outdoor display bins. Other outdoor storage areas should be prohibited to enhance site-to-site compatibility.

Within Topton, several industries adjoin, or are a short walk from its downtown. Today, most of these uses are active and generate local employment. Some, however, are vacant now and others may become vacant in the future. ***Consequently, local regulations governing these older structures should invite creative adaptive reuse opportunities.*** Regulations should be flexible enough to promote reinvestment but protect adjoining land uses. More discussion on this subject is contained later under the Industrial Zone of this Chapter.

To promote revitalization, local officials also need to advertise their willingness to work with local entrepreneurs to achieve the right type of development. Too often, would-be proprietors are afraid of the development review process and the NIMBY opposition that can emerge. Local officials should aggressively market their willingness to cooperate and work through any specific difficulties that jeopardize reinvestment. This is not to say that they should approve every request, but the local business community should feel as though they have an ally in the review process when the right type of use is proposed, despite some neighborhood opposition. This will require an ongoing demonstration of this commitment over repeated developer requests. Over time, local entrepreneurs will come to trust the Borough officials and feel free to exercise their creativity and entrepreneurial spirit through reinvestment to the benefit of the community and Region.

1999 Aerial Photo of Topton "downtown"

Borough Council should challenge and energize the Topton Borough Business Owners Association to oversee and nurture these areas through various programs and activities. This group should be vigilant in their advocating for these areas at all times, and keep the local officials' and public's attentions squarely on its needs over the long haul. This should be accomplished as a short-term activity that will lead to an ongoing process of improvement. Topton Borough, unlike many other Boroughs, has an important industrial base within the Region.

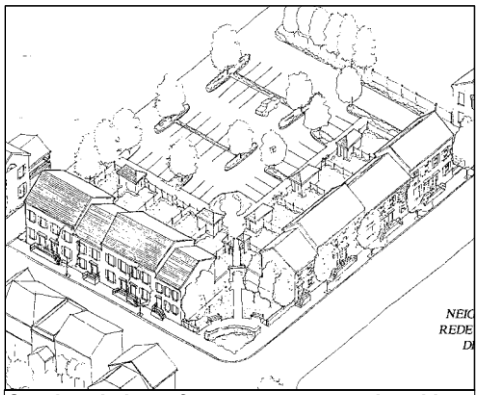
It is recommended that local businesses explore the provision of goods and services that target these employees who work here on a daily basis. Convenience goods, services, and lunchtime menus can create new customers, and intercept others who may look for similar services along State Street. This would help to capture the existing employee market that is available on a daily basis. In a related matter, the Borough also currently contains the two campuses of the School District; this creates considerable traffic through the downtown after school. ***Local merchants should seek to offer goods and services that can intercept this traffic, while parents and students commute to-and-from the school. Convenience goods and services, prepared meals, and day-care facilities would be good examples of suitable pursuits.***

Despite Topton Borough's efforts to promote a downtown that is largely accessible to pedestrians, limited off-street parking could adversely affect its ability to compete with outlying shopping areas. Furthermore, tourists will not enjoy a visit that is marred by an inability to conveniently park. ***The Borough has adopted a parking overlay district in its zoning ordinance and should revisit this occasionally to determine if revisions are necessary.***

Today, the on-street parking appears to be sufficient to serve the existing businesses with their modest level of commercial activity. However, with increased success and activity in the downtown will come an increasing demand for services, including parking.

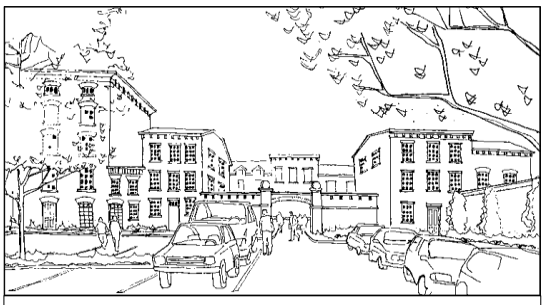
First, many civic uses are located within or adjoining the Town Center. Large church parking lots as well as nearby parkland parking can supplement "downtown" parking during periods of low use. ***The Borough should approach these civic uses to see if public parking access can be negotiated during periods of low usage. Then, if approved, modest signage should be posted at the street entrances to such parking along with times when public use is use authorized. Such signs should also be posted to inform downtown patrons of parking available along Dogwood Drive adjoining the ball fields on the Topton Community Park.***

If the preceding does not accomplish needed parking, then local officials should implement a Downtown Parking District for all of those properties within the downtown areas. As can be seen in the above aerial photograph, considerable open area exists between the principal buildings and the alleys in the rear yards. However, the narrow lot widths confound any attempts to incorporate additional off-street parking with access lanes, except those that would front directly on an adjoining alley. ***To efficiently use this space, several adjoining rear yards would need to be assembled and developed together.***



Overhead view of common rear-yard parking

The Borough Zoning Ordinance should allow for, and even encourage, such an arrangement by waiving parking setbacks and enabling shared vehicular access drives. Then, landscape screening should be applied along the alley to protect adjoining residential properties located on the other side of the alley.



Ground-level view of mid-block walkway from common parking lot toward Street.

Pedestrian access from the parking lots to the downtown streetscape should be provided by at least one mid-block landscaped walkway. Such walkways should be well lighted for safe nighttime passage and security. They should also reflect the desirable amenities of the downtown streetscape (landscaping, benches, old-style light fixtures, archways, modest directional signage, waste receptacles, etc.).

To implement this District, it is recommended that the Borough initially encourage private property owners to construct and operate the lot. Then they can offer leases to nearby businesses that need additional off-street parking to serve their proposed use. If private efforts fail, then the Borough may have to undertake a more "top- down" governmental approach. In any event, local officials will need to aggressively promote this concept within the community as part of its redevelopment campaign, and convince downtown businesses of the need to include their respective properties within the overall design. Should the Borough assume responsibility for this project, it should investigate the use of fees-in-lieu of off-street parking for uses that cannot provide for their required parking and must rely upon the common parking lot.

To potentially reduce the need for parking within the Borough, the Region should lobby the Berks Area Transit Authority to provide bus service to downtown Topton Borough. The Town Center and the Industrial/Highway Commercial Zone should be fitted with bus stops at important and regularly- spaced locations to facilitate the use of mass transit.

As discussed in Chapter VII (Local Economy)"the Borough should also explore the "Main Street Model" for application toward their downtown revitalization efforts. More discussion is contained in Section VII of this Plan.

The Town Center of Topton is in the heart of the Borough. Unfortunately, the active railroad line also runs across it. ***It is important that the Borough continuously employ state-of- the-art systems to notify and warn pedestrians and motorists within the Town Center of frequent passing trains.***

Finally, this Zone provides for the diversity of the Region's business stock and is critical to the Region providing for its fair-share of diverse forms of commerce. ***The implementation agreement developed for this Plan should require referral of any amendment to the Comprehensive Plan or subsequent zoning ordinance that would eliminate this diversity, or reduce the area available for development within this Zone to all of the Region's municipalities, as there may be a need to provide for greater commercial diversity elsewhere within the Region.***

Highway Commercial Zone – Apart from Topton Borough's Town Center, the EBCR must accommodate a wide range of commerce and businesses that are too large or intensive to adapt to a "downtown" setting. In addition, vehicle-related sales and services often involve outdoor storage that presents impact too great to integrate within the tight Borough streetscape. For this reason ***Highway Commercial is planned for accommodation within the Industrial Zone*** within the Borough. Within this Zone are vacant, under-utilized and residential properties that could be adapted or redeveloped for commercial use.

The areas have been sized and configured to allow for coordinated developments and shopping centers that share access drives, off-street parking and loading, signs and stormwater management facilities. Since many of the uses already in place have developed without these shared features, it will take time for this site coordination to spread throughout the area. ***Topton Borough should develop suitable commercial zoning regulations that require and/or strongly encourage shared development features.*** This can be done by limiting access drive locations, waiving setbacks for shared features, providing lot coverage bonuses and other design incentives for shared features, and generally communicating to prospective developers the Region's desire for these coordinated designs. ***Topton Borough should immediately incorporate these zoning requirements, then continuously advocate coordinated designs in the coming years as existing businesses seek to change and new ones emerge.***

Next, local officials believe that future concentrations of businesses, employers and residents within the Region could demand regular mass transit service. They'd prefer to see an established bus route with regular and widely-known scheduled stops at key locations within the Region (e.g., downtown Topton Borough, park-n-ride lots, major employers, Village of Mertztown). ***Local officials and key corporate officials should lobby the Berks Area Transit Authorities for this service. This action should be initiated within 5 years, but may take longer to justify as the Region more fully develops and potential ridership increases.***

To optimally regulate this area a new Highway Commercial Zone should be adopted by Topton Borough. It should include the shared design features listed above to help to beautify the corridor and reduce visual clutter. Beyond these shared features, other contemporary design features should also be used.

First, the use of front yard landscape strips should be required along the road. These strips will help to define road/site travel lanes and soften the appearance of the roadside and offer shade for pedestrians. ***A minimum 10-foot wide landscape strip should be required, along with ornamental shade trees and sidewalks where adjoining residential development.***

Off-street loading spaces and outdoor storage areas (exclusive of outdoor sales) should be screened from the roads and adjoining properties.

Sign standards should reflect the vehicle-oriented customers of the area, but should produce signs that are informative without being loud and obtrusive. It is important that signs be large enough so that motorists can easily read them at prevailing speed limits. The

number of signs should be limited so that they do not compete for driver's attention, and the use of coordinated signage is encouraged.

On-site lighting of buildings and surrounding areas should employ hooded or screened fixtures that confine glare to the site, and security lighting should be directed toward the building, rather than the area around it. Lighting levels should be established to enable the detection of suspicious movement, rather than the recognition of definitive detail.

Public address systems used in external areas should be designed to keep audible impact at ambient levels.

It is noted that a small number of scattered highway-oriented businesses exist throughout the Region. The absence of these uses within the planned Highway Commercial Zone reflects a vision of the future for the Region where such uses are confined to areas served by public utilities and services. Some of these scattered businesses could be permitted within their respective Zones (eg. Conservation & Agriculture) as they would be logical uses within those contexts. For example, a country inn or bed & breakfast are an appropriate use within the Conservation and Agricultural Zones. Similarly, a nursery and garden center can also be justified within an Agricultural Zone. Conversely, many of these uses are not consistent with Conservation or Agricultural settings unless they are limited in scale as accessory occupations (home, rural and farm occupations). In such cases, these uses should be regulated as nonconforming uses by local zoning ordinances.

Finally, this Zone provides for the bulk of the Region's planned commercial growth and is critical to the Region providing for its fair-share of growth and development. ***The implementation agreement developed for this Plan should require referral of any amendment to the Comprehensive Plan or subsequent zoning ordinance that would eliminate this Zone or reduce the area available for development within this Zone to all of the Region's municipalities, as there may be a need to provide for this "displaced" growth elsewhere.***

F. Industrial Zone

Topton Borough will provide for the Region's planned industrial growth. Within the Borough, industry is planned on the north sides of the railroad tracks. Within this Zone are vacant, under-utilized and residential properties that could be adapted or redeveloped for industrial use. Based upon the Existing Land Use Inventory (Chapter VII) about 82 acres could be developed/adapted/redeveloped for industrial use within this Zone.

Within the Region older industries often lack contemporary site designs, include outdoor storage and lack screening and buffering. ***Local officials should strive to retrofit these amenities as uses expand, change or improve. Most particularly, industries abutting existing or planned residential areas should be fitted with sight-tight fences and/or landscape screens to enhance compatibility. This process will be slow and will require patient persistence; however, now is the time to start!***

New uses proposed amid these older, industrial enclaves should be held to a higher standard of site design, and suitable zoning regulations should be adopted. This may make many features of the existing industries nonconforming; however, the nonconforming use provisions of zoning ordinances are intended to effect desired change over time. Furthermore, if

new uses are proposed, they should be encouraged to cooperate with their neighboring uses (where practical) in the sharing of vehicular access, off-street parking and loading, signage and storm water management. ***Local officials should seize every opportunity to upgrade these older industrial sites when confronted with some prospective change.***

Within Topton, several vacant industrial buildings adjoin, or are a short walk from its downtown. Some others may also become vacant in the future. ***Consequently, local regulations governing these older structures should invite creative adaptive reuse opportunities. The Borough should focus upon the potential impacts of a proposed use rather than trying to identify all potential uses that would be acceptable.*** Regulations should be flexible enough to promote reinvestment but protect adjoining land uses. The Borough should engage a conditional use review process via the Planning Commission and Borough Council, to review all proposals for change. In so doing, it should list certain prescribed objectives for the use and ask the respective developer to meet them. For example, the following could be a list of seemingly appropriate development objectives:

1. To make efficient use of the existing historic buildings located within the Borough and retain any "historic" character of the area;

2. To develop properties with uses that contribute to the economic vitality of the Borough;

3. To propose uses that are sized and designed to serve local residents and businesses and can be adequately housed within the existing building;

4. To minimize the detrimental effect on existing, sensitive and natural features and improve compatibility with adjoining uses;

5. To ensure that adequate vehicular circulation and parking are part of the proposed use;

6. To, wherever practical, make use of shared amenities with other nearby uses for parking, loading, vehicular access, signage, storm water management, etc.; and,

7. In those instances where one or more of the preceding objectives cannot be accomplished, suggest what measures could be taken by the Borough to facilitate needed change.

Many of the preceding objectives are subjective by design so that local officials can carefully evaluate the benefits of a particular land use proposal against its potential problems. Typically, zoning ordinances try to minimize such broad discretion; however, in this case, it seems the best option to consider the wide range of potential uses and their optimal designs. ***Local officials will need to carefully review each proposal with public input and begin to set precedents that best align with the stated objectives, whatever they may be. One caution deals with equal treatment. Local officials will need to be ever mindful of fairness with this approach. Legal doctrine requires that similar proposals be treated similarly and that differing treatments be explicitly explained.***

The Industrial Zone is suitable for a wide range of industrial activities that contribute to the well-

being of the Region by diversifying its economy and providing valuable employment opportunities. ***Zoning should allow for small, start-up business and light industry as permitted uses. However, more intensive uses (listed below) should require the obtainment of a conditional use:***

- Billboards;
- Heavy equipment sales, service and repair, such as excavation machinery, farm equipment, commercial trucks, buses, trailers, and other similar machinery;
- Truck or motor freight terminals;
- Warehousing and wholesale trade establishments;
- Adult-related uses;
- Junkyards;
- Quarries and mines;
- Sawmills;
- Slaughtering, processing, rendering, and packaging operations;
- Solid waste disposal, and processing facilities; and,
- Any other industrial activity that presents adverse impact to surrounding areas.

By requiring a conditional use review local officials realize the following benefits:

(1) require the developer to fully explain the nature of the proposed uses;

(2) give local citizens the opportunity to express support or concern over the use;

(3) application of specific criteria aimed at minimizing adverse impact to the community and adjoining properties;

(4) provide the Region time to engage professional review assistance of the use and its expected impacts; and,

(5) allow local officials to attach reasonable conditions of approval to mitigate any negative effects of the use.

Regulations should also limit the number of driveway cuts and freestanding signs, and manage outdoor storage, off-street loading and parking. ***Design standards should encourage functional, yet attractive, sites when viewed from adjoining properties and roads. This involves required landscaping, screening and buffering, and dumpster storage standards.***

Additionally, prospective industries should demonstrate compliance with all applicable Federal and State operations standards. Each municipality should adopt noise and lighting standards that will ensure compatibility from one site to the next.

This Plan recommends that the Borough maintain the majority of its Industrial Zoned land for Industrial and Heavier Commercial Uses. This encompasses the area on the north and northwest side of the Borough. Understanding that the area on the east that is currently zoned for Industrial may need to accommodate some additional residential uses to allow for future growth.

Finally, this Zone provides for the bulk of the Region's planned industrial growth and is critical

to the Region providing for its fair-share of growth and development. ***The implementation agreement developed for this Plan should require referral of any amendment to the Comprehensive Plan or subsequent zoning ordinance that would eliminate this Zone or reduce the area available for development within this Zone to all of the Region's municipalities, as there may be a need to provide for this "displaced" growth elsewhere.***

G. Public / Institutional

As reported in Chapter VIII (Existing Land Use) the Region's public and nonprofit uses comprise 248 acres of the total land area. Several of these are large parks and open spaces including the PA State Gamelands located within District Township and an adjoining quasi-public conservation area.

In addition to these open grounds, this category includes all of the properties owned and operated by the Brandywine Heights Area School District and each of the Region's municipalities.

Adjoining Topton Borough is a significant public/institutional use that the Region should note, even though it is not located within the boundaries of the Region. The Topton Lutheran Home provides services at a larger regional level than this Plan defines. The Home includes a 400 acre campus that offers a range of residential and nursing care facilities and services for the elderly. It is also the location of the Brandywine Area Community Library.

Finally, this category reflects many numerous governmental uses, public utilities, parks, maintenance sheds, and cemeteries. While Churches are not specifically mentioned as part of the Public/Institutional category they are anticipated to be allowed in the zones that they are currently found.

Given these uses' integration within the various settings of the Region, it is recommended that they be specifically permitted in their respective zones as depicted on the Future Land Use Plan.

H. Potential Development Acreages

Potential Undeveloped Acreage Available for Development Within Townships			
	Open Space Acreage	Acreage with Environmental Constraints*	Potential Development Acreage
District	4,425	1,700	2,725
Rockland	5,268	2,304	2,964
*Environmental Constraints include: Future Agriculture, Total 150 Ft Stream Buffer, 25% and Greater Slopes, all Eased Land and State Gamelands			

The potential undeveloped acreages available for development with the Townships are based upon the following Tables that depict existing and future land use acreages within the Region.

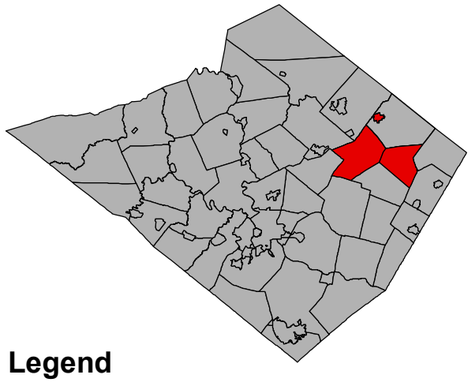
Eastern Berks Region Existing Land Use Acreages								
Existing Land Use	**Rockland**	**District**	**Topton**	**Acreage Eased Berks County ACE**	**Acreage of Eased by Other Organizations**	**Sum of Easements**	Acreage Not in Easements	% of Area by Land Use
Agriculture	2,742	1,144	50	434	325	759	3,177	19.69%
Commercial	33	29	22	0	0	0	84	0.52%
Industrial	4	15	49	0	0	0	68	0.42%
Institutional	61	42	47	0	0	0	150	0.93%
Open Space*	5,268	4,425	30	119	1641	1,760	7,963	49.36%
Recreation	35	50	13	0	0	0	98	0.61%
Residential High	113	40	151	0	0	0	304	1.88%
Residential Low	2,248	1,372	3	0	46	46	3,577	22.17%
Transportation	364	195	81	1	1	2	638	3.95%
Water	41	40	0	1	6	7	74	0.46%
Total	10,909	7,352	446	555	2,019	2,574	16,133	100.00%
Source: Berks County Assessment, Planning Commission GIS, Recorder of Deeds								
*Open Space is the undeveloped category								

Eastern Berks Region Future Land Use Acreages								
Future Land Use	**Rockland**	**District**	**Topton**	**Acreage Eased Berks County ACE**	**Acreage Eased by Other Organizations**	**Sum of Easements**	Acreage Not in Easements	% of Area by Land Use
Agriculture	2,807	471	0	312	575	887	2,391	14.43
Commercial	327	0	2	0	0	0	329	1.99
Conservation	7,348	6,485	0	4	1248	1,252	12,581	75.94
Industrial	0	0	131	1	0	1	130	0.78
Mobile Home park	0	27	0	0	0	0	27	0.16
Public	29	124	50	0	0	0	203	1.23
R-1 Medium Density Residential	0	0	107	0	0	0	107	0.65
R-2 High Density Residential	0	0	33	0	0	0	33	0.20
R-3 Urban Residential	0	0	13	0	0	0	13	0.08
Recreation	37	50	13	0	0	0	100	0.60
Town Center	0	0	16	0	0	0	16	0.10
Transportation Network	363	195	80	0	1	1	637	3.84
Total	10,911	7,352	445	317	1,824	2,141	16,567	100.00
Sources: Berks County Assessment, Planning Commission GIS, Recorder of Deeds								

FIGURE 11-A

Rockland, District, Topton
Joint Comprehensive Plan Update: April 16, 2015

Future Land Use



Legend

- Low Density Residential
- R-1 Medium Density Residential
- R-2 High Density Residential
- R-3 Urban Residential
- Town Center
- Mobile Home Park
- Village
- Agriculture
- Conservation
- Rural
- Commercial
- Industrial
- Public / Institutional
- Recreation
- Transportation Network
- Weis Street Overlay District
- Tax Parcels
- Municipal Boundaries
- Railroads

Source data: Berks County Planning Commission, Berks County Mapping, Topton Borough

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Kutztown
Maxatawny
Lyons
Richmond
Longswamp
Hereford
Ruscombmanor
Pike
Washington
Oley
N
W
E
S
0
1
2
Miles
Main St
Smoketown Rd
Forest Rd
Mine Rd
Maple Rd
Bowers Rd
Foxs Rd
Carls Hill Rd
Sally Ann Furnace Rd
Fleetwood Rd
Lake Rd
Beaver Creek Rd
Clay Valley Rd
Lyons Rd
Highview Ln
Fredericksville Rd
Five Points Rd
Huffs Church Rd
Gressley Rd
Kutz Rd
Forgedale Rd
Pricetown Rd
Steep Ln
Rocky Ln
Dogwood Dr
Delong Rd
Benfield Rd
Treichler Rd
Bitting Rd
Baldy Hill Rd
Fairhill Dr
Long Ln
Weidner Rd
Keim Rd
Conrad Rd
Chew Rd
Kemp Rd
Bull Rd
Oysterdale Rd
Forgedale Rd
Landis Store Rd
Deer Run Rd
Hardt Hill Rd
Lutz Rd
Well Rd
Merkle Rd
Groff Rd
Conrad Rd
Keller Rd
Bick Rd
Schweitz Rd
Loboshsville Rd
Deysher Rd
Ruppert School Rd
Day Rd
Boyer Rd
Angstadt Rd
Ridge Dr
Orchard Rd
Highland Dr
Sheephill Rd
Hill Rd

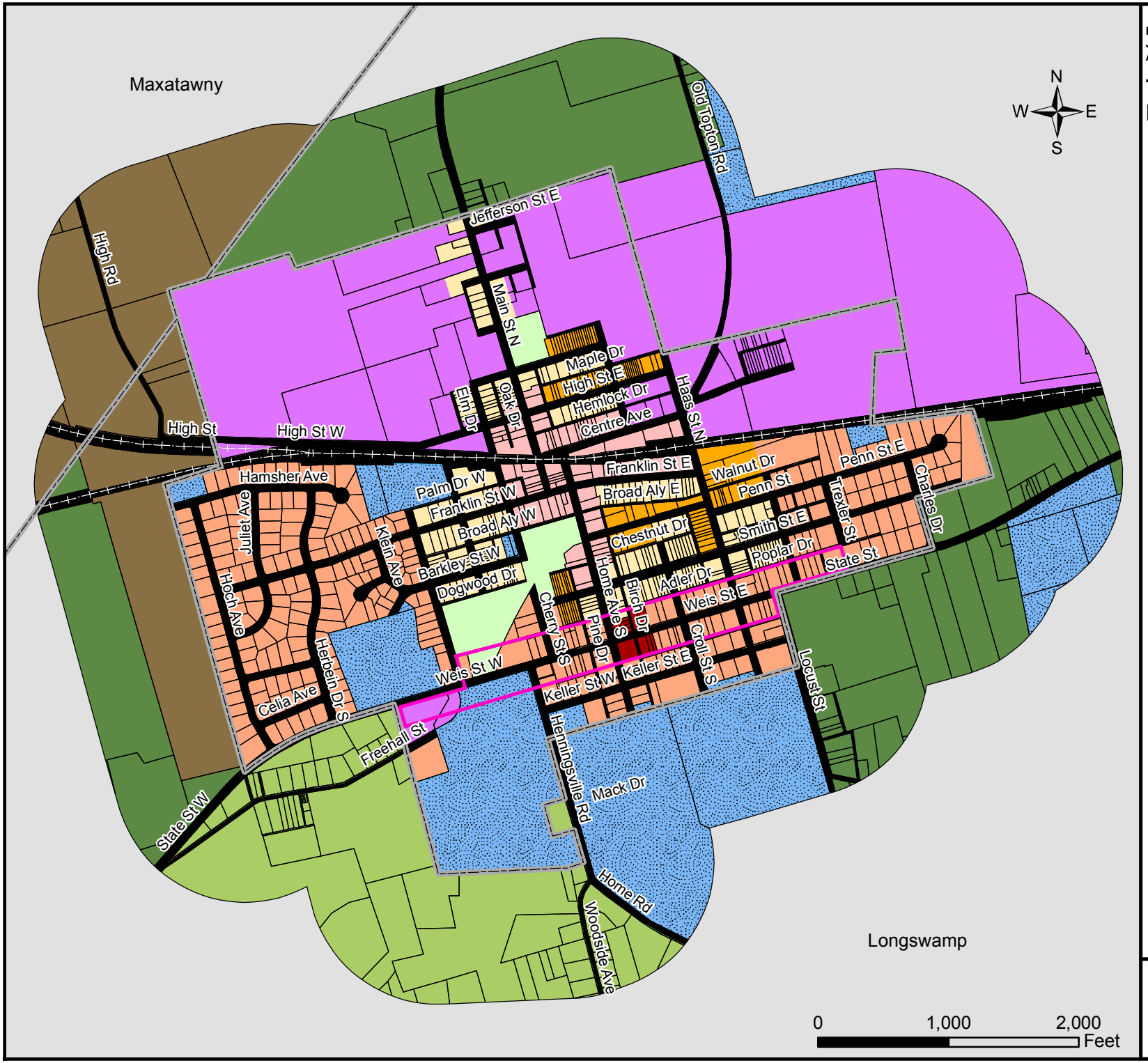
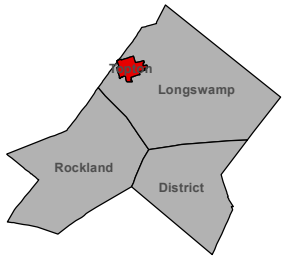


FIGURE 11-B

Rockland, District, Topton
Joint Comprehensive Plan Update
April 16, 2015

Topton Borough Future Land Use



Legend

- Low Density Residential
- R-1 Medium Density Residential
- R-2 High Density Residential
- R-3 Urban Residential
- Town Center
- Mobile Home Park
- Village
- Agriculture
- Conservation
- Rural
- Commercial
- Industrial
- Public / Institutional
- Recreation
- Transportation Network
- Weis Street Overlay District
- Tax Parcels
- Municipal Boundaries
- Railroads

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

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XIII. IMPLEMENTATION

A. Legal Requirements

The development of this Plan has been an ambitious and educational process. Goals have been considered carefully and many specific recommendations have been made. The Plan outlines a strategy, but continued action and implementation are necessary if the Plan's goals are to be achieved. This final Chapter will provide a list of tasks that must be undertaken to optimally determine the Region's future, but before actual assignments are listed, it is important to understand how each municipality within the Region is to interact in this regional undertaking.

The Municipalities Planning Code (MPC) addresses this issue directly. Article 11 of the MPC is entitled Joint Municipal Planning Commissions but it provides much more than this subject. Article 11 enables regional planning and specifies its objectives. It defines municipal versus County roles in the regional planning process. And finally, it provides for inter-municipal implementation agreements. Section 1104 states:

> *(a) In order to implement multi-municipal comprehensive plans, under section 1103 counties and municipalities shall have authority to enter into intergovernmental cooperative agreements.*
>
> *(b) Cooperative implementation agreements between a county and one or more municipalities shall:*
>
> *(1) Establish the process that the participating municipalities will use to achieve general consistency between the county or multi-municipal comprehensive plan and zoning ordinances, subdivision and land development and capital improvement plans within participating municipalities, including adoption of conforming ordinances by participating municipalities within two years and a mechanism for resolving disputes over the interpretation of the multi-municipal comprehensive plan and the consistency of implementing plans and ordinances.*
>
> *(2) Establish a process for review and approval of developments of regional significance and impact that are proposed within any participating municipality. Subdivision and land development approval powers under this act shall only be exercised by the municipality in which the property where the approval is sought. Under no circumstances shall a subdivision or land development applicant be required to undergo more than one approval process.*
>
> *(3) Establish the role and responsibilities of participating municipalities with respect to implementation of the plan, including the provision of public infrastructure services within participating municipalities as described in subsection (d), the provision of affordable housing, and purchase of real property, including rights-of-way and easements.*
>
> *(4) Require a yearly report by participating municipalities to the county planning agency and by the county planning agency to the participating municipalities concerning activities carried out pursuant to the agreement during the previous year. Such reports shall include summaries of public infrastructure needs in growth areas and progress toward meeting those needs through capital improvement plans and implementing actions, and reports on development applications and dispositions for residential, commercial, and industrial development in each participating municipality for the purpose of evaluating the extent of provision for all categories of use and housing for all income levels within the region of the plan.*
>
> *(5) Describe any other duties and responsibilities as may be agreed upon by the parties.*

(c) Cooperative implementation agreements may designate growth areas, future growth areas and rural resource areas within the plan. The agreement shall also provide a process for amending the multi-municipal comprehensive plan and redefining the designated growth area, future growth area and rural resource area within the plan.

(d) The county may facilitate convening representatives of municipalities, municipal authorities, special districts, public utilities, whether public or private, or other agencies that provide or declare an interest in providing a public infrastructure service in a public infrastructure service area or a portion of a public infrastructure service area within a growth area, as established in a county or multi-municipal comprehensive plan, for the purpose of negotiating agreements for the provision of such services. The county may provide or contract with others to provide technical assistance, mediation or dispute resolution services in order to assist the parties in negotiating such agreements[1]*.*

Based upon the preceding requirements, the Municipalities in the Region have adopted an Intergovernmental Agreement to implement the Plan. Such implementation agreement was developed with the assistance of local officials and BCPC staff. It details expectations of each municipality simple enough to be understood and not discourage involvement.

B. Schedule of Specific Requirements

In developing an implementation agreement as enabled by the MPC and recommended above, ***the following specific action tasks have been identified with bold italicized print throughout this Plan.*** The task along with its responsible parties, suggested time frame and a reference where further discussion can be found within the plan are provided in the following schedule. These tasks can be used as an agenda of action by local officials over the life of the Plan.

Recommended task:	Responsible Parties	Time-frame	Plan reference (Ch.pgs)
1. It is important for all persons involved and/or interested in the future of the Eastern Berks County Region to read and understand this Plan. Local decision-makers should keep the Plan handy when evaluating future development proposals, service adjustments or public investments.	Local staff, & officials from each municipality	ongoing	I.2-3

[1] http://www.inventpa.com/docs/MPCode.txt (1/23/03)

Recommended task:	Responsible Parties	Time-frame	Plan reference (Ch.pgs)
Recommendations related to the protection of natural & cultural features. (Chapter III)			
2. Public water supply wells should be located in the vicinity of carbonate formations to take advantage of the abundant groundwater supplies. However, such sources should be routinely monitored and treated as necessary due to the vulnerability of this groundwater from contamination via the widespread solution channels.	Topton Borough	ongoing	III.4-5
3. Implement a well-head protection plan for public water supplies .	Topton Borough	Short-term & ongoing	III.5-7
4. All known public wellhead protection areas be reserved for low intensity rural uses with limited permitted lot coverage and woodland preservation requirements that will reduce potential impact on groundwater volumes and quality.	Topton Borough	Short-term & ongoing	III.7
5. All home-based businesses or rural occupations located within known well-head protection areas should require the applicant for such uses to demonstrate the means by which he/she will properly handle materials, and dispose of any wastes, that could threaten groundwater contamination.	Topton Borough	Short-term & ongoing	III.7
6. In addition it is recommended that "Best Management Practices" (BMPs) for the control of stormwater be applied within the Region.	All municipalities	Short-term & ongoing	III.7-8 III.16-17
7. Prime farm soils should be protected by reviewing and strengthening the Townships' agricultural zones if necessary.	District and Rockland Townships	Short term	III.9
8. Local officials should emphasize the preservation of prime farmlands and active farms in the design of new developments within the Rural and Conservation Zones.	District and Rockland Townships	Short-term & ongoing	III.9
9. Review Conservation Design practices in zoning & subdivision regulations for any needed updates.	District and Rockland Townships	Short-term	III.19
10. Proposed developments should avoid soils with severe development constraints as regulated by local zoning and subdivision and land development (SLDO) ordinances.	All municipalities	Short-term & ongoing	III.9-10
11. Local officials should take active steps to preserve and protect State-designated high-quality and exceptional value watersheds from inappropriate land use and local activities that could threaten their integrity.	All municipalities	Short-term & ongoing	III.12-14
12. Local officials should develop a public/private partnership to protect stream water quality using a combination of educational, assistance and regulatory measures.	All municipalities	Short-term & ongoing	III.12-14
13. Each of the Region's municipalities should apply riparian buffer standards to developments that seek to locate within State- designated high-quality and exceptional value watersheds.	All municipalities	Short-term & ongoing	III.12-14
14. Municipal officials should consider the adoption of various measures to protect the Region's wetlands, including modified road maintenance standards, an environmental impact assessment (EIA) requirement in their respective SLDO, land use and development limitations, and a homeowner educational program.	All municipalities	Short-term & ongoing	III.14-15
15. Expand local floodplain regulations to include alluvial soils.	District, Rockland and Topton	Short-term	III.15

Recommended task:	Responsible Parties	Time-frame	Plan reference (Ch.pgs)
16. Require an Environmental Impact Assessment prior to any subdivision approval within identified natural habitat areas.	All municipalities	Short-term & ongoing	III.18-19
17. Develop and adopt sound forestry management regulations that can protect the sensitivity of wooded areas and adjoining neighbors from the deleterious impacts of uncontrolled logging uses and operations.	All municipalities	Short-term & ongoing	III.20 XII.6-7
18. Adoption of woodland preservation requirements.	All Townships	Short-term & ongoing	III.20
20. Gauge public support for voluntary historic preservation techniques.	All municipalities	Long-term	III.21-25
Recommendations related to demographics. (Chapter IV)			
21. Provide for a target mix of housing types to offer housing diversity within the Region.	All municipalities	Short-term & ongoing	IV.9
Recommendations related to the delivery of public services. (Chapter V)			
22. Closely monitor growth within the Region so as to proactively plan for facility expansion well in advance of actual demand for space.	School District	Short-term & ongoing	V.4
21. Improve the process of residential development review and allocate manpower and resources so as to properly respond to such applications and provide meaningful feedback to the municipalities.	School District	Short-term & ongoing	V.4
22. Revise subdivision and land development application requirements so that adequate and timely notification to the School District is assured.	All municipalities	Short-term & ongoing	V.4
23. Investigate the creation of a new Regional Recreation Board (RRB).	All municipalities& School District	Short-term & ongoing	V.4 & VI.1
24. Apply to the PA Department of Conservation & Natural Resources (DCNR) for a grant to prepare a Regional Comprehensive Park, Recreation and Open Space Plan.	RRB	Short-term	V.4
25. Continue to encourage Emergency Services to work cooperatively throughout the Region.	All municipalities	Short-term	V.11
26. Evaluate policies that affect availability of local volunteers.	ES	Short-term	V.11-12
27. Enhance sources of daytime volunteer firefighters and emergency medical transports (EMTs).	ES	Short-term	V.11-12
28. Formalize program of specialized training throughout the Region.	ES	Short-term	V.12
29. Consider the creation of a new Emergency Services Coordinator staff position.	ES	Long-term	V.12
30. Mount an educational and media campaign to cultivate awareness among the newly-arrived residents of the need for their financial and manpower support to sustain volunteer firefighting and ambulance services.	ES & local officials	Ongoing	V.13-15
31. Apply to the PA DCED for the preparation of a technical review, as part of its Shared Municipal Service Program, at no cost to the Region to examine the adequacy of the Region's equipment to provide adequate service.	ES & local officials	Short-term	V.14

Recommended task:	Responsible Parties	Time-frame	Plan reference (Ch.pgs)
32. Publicize the names of contributors to local volunteer emergency service agencies.	Local officials	Annually	V.15
33. Explore the partial and gradual use of "other" funding mechanisms.	Local fire and ambulance companies and local officials.	Long-term	V.15
35. Provide detailed geographic information system (GIS) mapping to each emergency service provider.	Berks County	Ongoing	V.16
36. Install dry hydrants in rural areas of the Region.	Local fire companies and local officials.	Long-term	V.16
Recommendations related to parks & recreation. (Chapter VI)			
37. Investigate the creation a new Regional Recreation Board (RRB).	All municipalities& School District	Short-term & ongoing	V.4 & VI.1
38. Apply to the PA DCNR for a peer-to-peer review.	RRB	Short-term	VI.1
39. Initiate plans to continue to allow the public use of the park at the former Rockland Elementary School.	Rockland Township	Short-term	VI.11
40. Target future growth in Topton Borough Township where abundant parklands exist to serve future residents.	Topton Borough	Ongoing	VI.11
41. Add improvements to parks to offer a wider range of activities and programs.	All municipalities & School District	Ongoing	VI.11
42. Educate landowners and developers of the importance of riparian buffers, and the Region's intent to provide for them.	Local Officials	Short-term	VI.12-14 & III.12-13
43. Mount a campaign to inform local landowners who abut creeks of the Conservation Reserve Enhancement Program (CREP).	Local Officials	Short-term	VI.14-15
44. Energize Region's youth to develop pilot riparian buffers at visible locations.	All municipalities & School District	Ongoing	VI.15
45. Investigate mandatory dedication language adoption within the SLDO.	District & Rockland Townships	Short-term	VI.16-19
46. Amend mandatory dedication standards in current SLDOs in-line with updated demographics and land values.	Topton Borough	Short-term and ongoing	VI.18-19
47. Apply revenues/parklands acquired from mandatory dedication throughout the Region.	RRB	Ongoing	VI.19
Recommendations related to the local economy. (Chapter VII)			
48. Rural occupations and small-scale industries should be permitted to allow for local employment so long as such activities do not interfere with nearby homes. Potential businesses should be limited to ones that pose no threat to local water quality by reason of waste disposal or the applicant must demonstrate adequate means for proper waste disposal to avoid water pollution.	All Townships	Ongoing	VII.5 & 8

Recommended task:	Responsible Parties	Time-frame	Plan reference (Ch.pgs)
49. Investigate and apply all Main Street program opportunities.	Topton Borough	Short-term	VII.6-7
50. Productive farmlands should be protected with effective zoning.	All Townships	Short-term	VII.8. & III.9
51. Farm-related businesses should be permitted.	All Townships	Short-term	VII.8.
52. Strengthen regulations for Concentrated Animal Feeding Operations (CAFOs).	All Townships	Short-term	VII.8.
53. Adopt a proactive and cooperative approach towards businesses.	Topton Borough	Ongoing	VII.8
54. Expand commercial/industrial opportunities with shared solutions to problems (access, parking, loading, signs, and stormwater).	Topton Borough	Ongoing	VII.8
55. Promote traditional design themes amid pedestrian friendly settings.	Topton Borough	Ongoing	VII.8
56. Offer limited local commercial nodes in outlying rural areas with restrictive design features.	Townships	Short-term	VII.8
Recommendations related to public utilities. (Chapter X)			
57. Promote adoption of wellhead protection language in regulations.	All municipalities	Short-Mid-Term	
58. Coordinate public infrastructure improvements between municipalities, developers and PennDOT.	All municipalities	Ongoing	
59. Make use of PA One-Call system with respect to use and developments proposed along the Region's overhead and underground utility rights-of-way.	Residents and developers.	Ongoing	X.8-15
Recommendations related to transportation. (Chapter XI)			
60. Adopt comprehensive traffic impact study regulations within the SLDO.	Topton Borough	Short-term	XI.1
61. Work with PennDOT to upgrade collector roads to newer recommended standards.	All municipalities	Short-term	XI.4
63. Reduce and discourage the number of driveway cuts along the Region's collector roads.	All municipalities	Long-term	XI.5-6
64. Reclassify the Huff's Church Road / Fredericksville Road / Fleetwood Road corridor as a major collector.	District & Rockland Townships & Berks County	Short-term	XI.10
65. Complete various locally-scheduled road improvements.	Townships	Short-term	XI.10-11
66. Reclassify Haas Street / Old Topton Road as a major collector.	Topton Borough & Berks County	Short-term	XI.12

Recommended task:	Responsible Parties	Time-frame	Plan reference (Ch.pgs)
69. Install sidewalks in all new planned neighborhoods.	Topton Borough	Short-term and ongoing	XI.12-13
70. Install bus stops at prominent locations.	Topton Borough	Long-term	XI.13
71. Lobby the BCPC and PA DOT's Maintenance Manager to widen designated bicycle route with proper striping or wider shoulders.	Rockland Townships and Topton Borough	Short-term	XI.13
72. Apply for improvements to designated bicycle route under PA DOT's Betterment Program.	Rockland Townships and Topton Borough	Long-term	XI.13
73. Submit a list of needed transportation projects on behalf of the entire Region to RATS.	All municipalities	Bi-annually	XI.13-14
Recommendations related to future land use. (Chapter XII)			
74. Adopt individual municipal zoning ordinances and maps that are generally consistent with the recommendations contained within Chapter XII.	All municipalities	Short-term	XII.1-2
75. Commit to reviewing the Joint Comprehensive Plan every 5 years and updating the Plan if necessary.	All municipalities	Long-term	XII.1
76. Maintain and revise if necessary the effective agricultural zones that severely restricts development in favor of normal farming operations and related secondary occupations.	District & Rockland Townships	Short term	XII.2-4
77. Local officials should emphasize the preservation of prime farmlands and active farms in the design of new developments within the Conservation and Rural Zones.	District & Rockland Township	Short-term & ongoing	XII.15
78. Maintain a Conservation Zoning that severely restricts development in favor of natural conservation and related secondary occupations, has design flexibility to tuck development amid scattered natural features and requires the submission of environmental impact reports .	All Townships	Short term	XII.5-11
80. Adopt a Riparian Buffer Overlay Zone. District Township has already adopted one.	Topton & Rockland	Short-term	XII.6-11, III.12-13, & VI.13-14
81. Assign local planning commission members primary responsibility to review specific environmental topics of proposed developments.	All municipalities	Short-term	XII.6
83. Develop a new R-1 Residential Zone in which planned neighborhoods can grow with the use of a wide range of public utilities and services.	Topton Borough	Short-term	XII.16
84. Develop a new Traditional Neighborhood Design (TND) Overlay Zone that promotes a target mixture of housing types, protects important natural features, promotes pedestrian travel, reflects historic character, features community focal points and invites regular social interaction.	Topton Borough	Short-term	XII.17-19

Recommended task:	Responsible Parties	Time-frame	Plan reference (Ch.pgs)
85. Conduct several TND workshops at various target groups.	Topton Borough	Short-term	XII.18
86. Adopt Residential Zones that align with existing neighborhood character yet enable some conversion of existing uses for expanded housing opportunities. Also enable public and civic uses here.	Topton Borough	Short-term	XII.19-20
87. Strengthen accessory use regulations within the Residential Zones.	Topton Borough	Short-term	XII.21
88. Adopt a Mobile Home Park Zone that is limited to existing parks and any future Mobile Home Parks have very strict design standards.	District & Rockland Townships	Short-term	XII.22
89. Adopt a new Commercial Zone that reflects the rural context, provides for local conveniences, discourages demolition of historic buildings, promotes shared features and manages outdoor activities.	District & Rockland Township	Short-term	XII.22-23
90. Adopt a new Town Center District that promotes pedestrian scale uses and designs, discourages demolition of historic sites, favors on- street parking, directly abuts the sidewalk, and permits 2nd story apartments.	Topton Borough	Short-term	XII.23-24
91. Promote adaptive reuse of older industrial buildings adjoining the Central Business District (CBD).	Topton Borough	Short-term	XII.25
92. Promote revitalization of CBD through demonstrated support for reinvestment.	Topton Borough	Short-term	XII.25
94. Direct commerce towards local employees and commuters to and from the School campus.	Topton Borough businesses.	Short-term	XII.26
96. Explore the creation of a CBD parking lot between Center Avenue and the railroad just east of South Home Street.	Topton Borough	Short-term	XII.27
98. Lobby the Berks Area Transit Authority to offer bus service to downtown Topton and promote the use of Commuter Services within the Region.	All Municipalities	Long-term	XII.27
100. Develop a new Highway Commercial Zone for businesses that are too large or intensive for the CBD, and encourage the use of shared design features (eg. parking, loading, signs, access, stormwater, etc.)	Topton Borough	Short-term	XII.28-30
102. Retrofit existing industrial uses with needed amenities to improve function, appearance and compatibility.	Topton Borough	Ongoing	XII.30-33
103. Allow for adaptive reuse of older industrial buildings by focusing upon potential impacts rather than uses allowed.	Topton Borough	Ongoing	XII.30-33
104. Adopt noise and lighting standards to ensure compatibility from one site to the next.	All municipalities	Short-term	XII.33

The preceding table plots an ambitious list of recommended activities. These tasks are vital if the Region is to optimally manage its growth and development and to plan and implement its "vision" for the future. The completion of many of these tasks should result in an improved quality of life within the Region.

Municipal officials are responsible to monitor and evaluate the implementation strategy aimed at achieving the locally-expressed objectives and resultant recommendations set forth in this Plan. ***It is recommended that the Region appoint a Joint Planning Committee who is responsible to meet as necessary to manage regional planning issues. One of their principal duties should be to meet at least once a year and discuss regional issues and solutions pertaining to the Region and complete a more formal review of the Comprehensive Plan every 5 years that would assess the necessity for updates.***

Cooperation among all administrative bodies and levels of government is an essential component to a streamlined and successful implementation strategy. The continued use of public participation is also a very important duty of municipal officials. If, for some reason, the recommendations of this Plan do not appear to address the, then, current conditions, municipal officials should not hesitate to amend portions of this Plan or any other policy to rectify those deficiencies.

This Plan holds a wealth of information that can be easily accessed and understood. Its implementation will help residents, businesses and visitors know the Plan is vital, and that the future of the Region is deliberate, and the result of considerable analysis and public scrutiny.

RESOLUTION NO. 15-8

A RESOLUTION OF THE BOARD OF SUPERVISORS OF DISTRICT TOWNSHIP, BERKS COUNTY, PENNSYLVANIA, ADOPTING THE EASTERN BERKS JOINT COMPREHENSIVE PLAN, A MULTI-MUNICIPAL COMPREHENSIVE PLAN WITH ROCKLAND TOWNSHIP AND THE BOROUGH OF TOPTON

WHEREAS, the District Township Board of Supervisors adopted a Multi-Municipal Comprehensive Plan along with Longswamp Township, Rockland Township and the Borough of Topton; and,

WHEREAS, the Plan must be revised every ten (10) years in accordance with the Municipalities Planning Code; and,

WHEREAS, Longswamp Township has withdrawn and the remaining municipalities, Rockland Township, Borough of Topton and District Township have revised and intend to continue with a Multi-Municipal Comprehensive Plan entitled "The Eastern Berks Joint Comprehensive Plan;" and,

WHEREAS, District Township, Rockland Township and the Borough of Topton appointed a Joint Planning Commission which has revised and updated the Eastern Berks Joint Comprehensive Plan with the assistance of the Berks County Planning Commission and have otherwise fully complied with the Pennsylvania Municipalities Planning Code, as amended; and,

WHEREAS, all the Planning Commissions of Rockland Township, Borough of Topton and District Township conducted a public meeting pursuant to Section 302 of the Pennsylvania Municipalities Planning Code, as amended, on January 28, 2015; and,

WHEREAS, Rockland Township, Borough of Topton and District Township held and completed a public hearing on April 16, 2015.

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

1. The Multi-Municipal Comprehensive Plan entitled "Eastern Berks Joint Comprehensive Plan" with the clarifications and textural additions discussed at the public hearing is approved and adopted as the Comprehensive Plan of District Township, Berks County, Pennsylvania. All maps, charts, textural matter, and other documents intended to form in whole or in part of the Plan as designated in the Table of Contents. All tables, charts, figures, plans, and text of the District Township Joint Comprehensive Plan are incorporated herein by reference.

SBM 4-16-15

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

RESOLVED and ADOPTED by the Board of Supervisors of District Township, Berks County, Pennsylvania, in lawful session duly assembled, this 16th day of April, 2015.

DISTRICT TOWNSHIP
BOARD OF SUPERVISORS

BY: _____
Bruce Latshaw, Chairman

Attest:

_____
Ed Overberger, Vice-Chairman

SBM manwiller, secretary
Susan Manwiller, Secretary

_____
Leonard Robb, Supervisor

RESOLUTION #2015-07

A RESOLUTION OF THE BOARD OF SUPERVISORS OF ROCKLAND TOWNSHIP, BERKS COUNTY, PENNSYLVANIA ADOPTING THE EASTERN BERKS JOINT COMPREHENSIVE PLAN

WHEREAS, District Township, Rockland Township and Topton Borough have joined together for the purpose of mutual cooperation through regional planning; and

WHEREAS, the municipalities of the Eastern Berks Region joined together to prepare a regional comprehensive plan that would serve as a guide for future growth and development; and

WHEREAS, the governing bodies of District Township, Rockland Township and Topton Borough having reviewed said Plan have found it to constitute a suitable plan for guiding the Eastern Berks Region's growth and development, and

WHEREAS, on April 16, 2015, said Plan has been the subject of a public hearing.

NOW, THEREFORE, BE IT RESOLVED that the undersigned do hereby adopt the Eastern Berks Joint Comprehensive Plan prepared by the Berks County Planning Commission (draft February 2015) with textual modifications and grammatical corrections as discussed at the joint public hearing held on April 16, 2015.

NOW, THEREFORE, BE IT RESOLVED that the undersigned do hereby rescind the previous Joint Comprehensive Plan (Ordinance #2004-19) and agree to be guided by the updated Eastern Berks Joint Comprehensive Plan adopted April 16, 2015 on all matters relating to land use planning.

DULY ADOPTED by the Board of Supervisors of Rockland Township, Berks County, Pennsylvania, in lawful session duly assembled on the 16th day of April, 2015.

BOARD OF SUPERVISORS OF
ROCKLAND TOWNSHIP

Harold Meadway, Chairman

Duane Bennetch, Vice Chairman

Walter Hafer, Supervisor

Attest:

Karen Krall, Secretary

BOROUGH OF TOPTON
BERKS COUNTY, PENNSYLVANIA

RESOLUTION # 5-2015

WHEREAS, Article III of the Pennsylvania Municipalities Planning Code ("MPC"), authorizes municipalities to adopt a multi-municipal comprehensive plan;

WHEREAS, in 2004, the Borough of Topton, and the Townships of District, Rockland, and Longswamp became signatories to the Eastern Berks County Joint Comprehensive Plan, which was a multi-municipal comprehensive plan for land uses in the four constituent municipalities;

WHEREAS, in 2013, Longswamp Township announced its intentions to withdraw from the Eastern Berks County Joint Comprehensive Plan;

WHEREAS, the Borough of Topton, and the Townships of District and Rockland determined it to be in their best interests to remain in the Eastern Berks County Joint Comprehensive Plan, and, with the assistance of the Berks County Planning Commission, formed a joint committee of Planning Commission Members and elected officials to revise and update the Eastern Berks Joint Comprehensive Plan;

WHEREAS, the committee of officials of the three municipalities and the Berks County Planning Commission met in public sessions throughout 2014 to prepare a final draft of the 2015 Eastern Berks County Joint Comprehensive Plan;

WHEREAS, the draft plan was presented to the Planning Commissions of the Borough of Topton and the Townships of District and Rockland on January 28, 2015, at which time there was comment received and revisions suggested by the Planning Commission members and members of the public present;

WHEREAS, the Berks County Planning Commission, in February 2015, distributed the revised Eastern Berks County Joint Comprehensive Plan to the municipalities for public review; and,

WHEREAS, after public notice was given in accordance with the MPC, and copies of the proposed Plan were distributed to adjacent municipalities, a joint public hearing of the governing bodies of the three municipalities was held on April 16, 2015 to receive public comment and vote on the adoption of the Eastern Berks County Joint Comprehensive Plan.

NOW THEREFORE, BE IT RESOLVED, by the Borough Council of the Borough of Topton, Berks County, Pennsylvania:

The Eastern Berks County Joint Comprehensive Plan, as prepared by the Berks County Planning Commission in its entirety, and including all text, maps, charts and plans contained therein, is approved and adopted as the comprehensive plan of the Borough of Topton, subject to the textual revisions as discussed and agreed by the Borough Council of the Borough of Topton and the Boards of Supervisors of the Townships of District and Rockland in the public hearing and meeting of the governing bodies held on April 16, 2015.

Approved this 16th day of April, 2015.

ATTEST:

Borough (Assistant) Secretary

BOROUGH OF TOPTON

(Vice) President of Council