

EASTERN BERKS JOINT COMPREHENSIVE PLAN



**DISTRICT TOWNSHIP
ROCKLAND TOWNSHIP
TOPTON BOROUGH**

RESOLUTION NO. 09-2026

**A RESOLUTION OF THE BOARD OF SUPERVISORS
OF DISTRICT TOWNSHIP, BERKS COUNTY,
PENNSYLVANIA, ADOPTING THE EASTERN BERKS
JOINT COMPREHENSIVE PLAN, A MULTI-
MUNICIPAL JOINT 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 Rockland Township and the Borough of Tipton; and,

WHEREAS, the Plan must be revised every ten (10) years in accordance with the Municipalities Planning Code; and,

WHEREAS, Rockland Township, Borough of Tipton 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 Tipton 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, the Planning Commissions of District Township conducted a public meeting pursuant to Section 302 of the Pennsylvania Municipalities Planning Code, as amended, on July 1, 2026; and,

WHEREAS, District Township held and completed a public hearing on August 20, 2026 and has been advised by the Borough of Tipton and Rockland Township that those municipalities have adopted the Plan;

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:

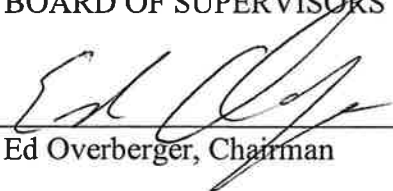
1. The Multi-Municipal Comprehensive Plan entitled "Eastern Berks Joint Comprehensive Plan" is approved and adopted as the Comprehensive Plan of District Township, Berks County, Pennsylvania. All maps, charts, textural matters, and other documents intended to form in whole or in part of the Plan as designated in the Table of Contents. All tables, charts, figures, plans, and text of the Joint Comprehensive Plan are incorporated herein by reference.

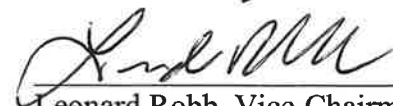
2. All Resolutions or parts of Resolutions inconsistent with this Resolution are repealed insofar, but only insofar as the same are inconsistent herewith.

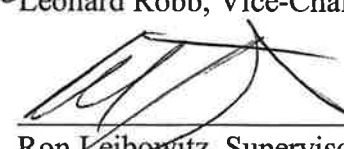
RESOLVED and ADOPTED by the Board of Supervisors of District Township, Berks County, Pennsylvania, in lawful session duly assembled, this 20th day of August, 2026.

DISTRICT TOWNSHIP
BOARD OF SUPERVISORS

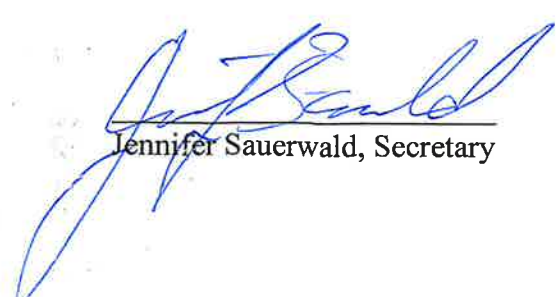
BY:


Ed Overberger, Chairman


Leonard Robb, Vice-Chairman


Ron Lebowitz, Supervisor

Attest:


Jennifer Sauerwald, Secretary

RESOLUTION #2026-11

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 June 15, 2026, 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.

NOW, THEREFORE, BE IT RESOLVED that the undersigned do hereby rescind the previous Joint Comprehensive Plan adopted on April 16, 2015 and agree to be guided by the updated Eastern Berks Joint Comprehensive Plan adopted June 15, 2026 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 15th day of June, 2026.

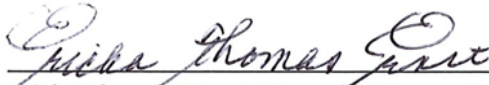
BOARD OF SUPERVISORS OF
ROCKLAND TOWNSHIP,
BERKS COUNTY, PENNSYLVANIA



David Wartzenluft, Chairman

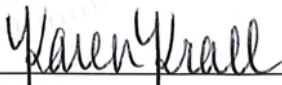


Nathan Ohlinger, Vice Chairman



Ericka Thomas-Ernst, Township Supervisor

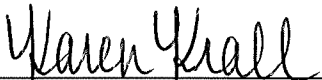
Attest:



Karen Krall, Secretary

CERTIFICATE

I hereby certify that the foregoing is a true and accurate copy of a Resolution of the Board of Supervisors of Rockland Township, Berks County, Pennsylvania, which was fully adopted at a public meeting held pursuant to notice as required by law on the 15th day of June, 2026.


Secretary of Rockland Township

Dated: June 15, 2026

**BOROUGH OF TOPTON
BERKS COUNTY, PENNSYLVANIA**

RESOLUTION NO. 18-2026

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 Tipton, 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 Tipton, 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, the school district, and the Berks County Planning Commission met in public sessions throughout 2025 to prepare a final draft of the 2026 Eastern Berks County Joint Comprehensive Plan;

WHEREAS, the draft plan was presented to the Planning Commissions of the Borough of Tipton and the Townships of District and Rockland on December 31, 2025, at which time there was comment received and revisions suggested by the Planning Commission members;

WHEREAS, in accordance with the MPC, the Berks County Planning Commission distributed the revised Eastern Berks County Joint Comprehensive Plan to the Planning Commissions of the Borough of Tipton and the Townships of District and Rockland as well as the contiguous municipalities, the school district, and Berks County Planning Commission on March 4, 2026, for public review; and,

WHEREAS, after public notice was given in accordance with the MPC, a public hearing of the Borough of Tipton Borough Council was held on June 1, 2026, to receive public comment and vote on the adoption of the Eastern Berks County Joint Comprehensive Plan.

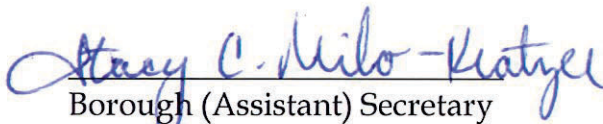
NOW THEREFORE, BE IT RESOLVED, by the Borough Council of the Borough of Tipton, Berks County, Pennsylvania:

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 Tipton, subject to the textual revisions as discussed and agreed by the Borough Council of the Borough of Tipton in the public hearing held on June 1, 2026.

Approved this 1st day of June, 2026.

ATTEST:

BOROUGH OF TOPTON


Borough (Assistant) Secretary


(Vice) President of Council

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Introduction

More than 20 years ago municipal stakeholders in the Eastern Berks Region joined together to formulate a regional comprehensive plan, pursuant to the Pennsylvania Municipalities Planning Code (MPC) Act 247 of 1968. For more than two decades, the municipalities forming this Joint Comprehensive plan have worked together to implement these planning goals and community vision. This Plan continues that effort.

COMMUNITY VISION

The Eastern Berks County Region continues to prepare for the future with an updated planning effort that will allow for modest and targeted smart growth and redevelopment while protecting the Region's rural community character. Based on input from the surveys, public meetings, and other outreach efforts, this Plan aims to protect the Region's natural resources and rural areas that have a mixture of prime agricultural soils, wooded areas, wetlands, farms, open spaces, wildlife habitat corridors, and pristine water resources. At the same time, the plan also seeks to strengthen downtown Topton that serves as the Region's hub for commercial, community, and cultural activities and events.

We review this plan to account for any changes gleaned from our surveys, stakeholder meetings, public meetings, and other outreach efforts, the best way to further and enhance the interests of all our communities.

WHY JOINT PLANNING

In 2004, municipalities that form the Eastern Berks region recognized explosive population and housing growth from the 1960s up until then– roughly doubling the Region in growth. Working together, the municipalities could complement one another with development pressures centered or near existing infrastructure while preserving environmentally sensitive areas. In 2015 the Plan was then updated to reflect then–current trends.

In early 2023, Staff and elected officials from the Eastern Berks region then determined the need for a third iteration of the comprehensive plan. Partnering with Brandywine Heights Area School District, the plan update formally kicked off in July of 2024.

DEMOGRAPHICS

	District	Rockland	Topton	Plan Region	Berks
2020 Population (Persons)*	1,378	3,646	2,041	7,065	428,849
% Change 10–20*	3.1%	–3.5%	–1.4%	–1.7%	4.2%
Land Area (Sq. Mi.)*	11.64	17.06	0.68	29.38	865.3
2020 Population Density (Pers./Sq. Mi.)*	118.4	213.7	3,001.5	240.5	495.6
2020 Median Household Income (2020 \$)**	\$84,526	\$83,839	\$75,078	\$81,148	\$66,154
2020 % Below Poverty Level**	3.2	3.2	4.6	3.7	11.7

Data Sources: *2010 and 2020 Decennial Censuses, **2010 and 2020 5–year American Community Surveys

The Region experienced historic population growth from the 1960s through the 1990s that then leveled out during the housing bubble burst between 2000–2010. Since then, the population for the Region has slightly declined. Like Berks County as a whole, the Region is growing older and the student–aged population is getting smaller. However, the Region statistically is older than the County average, more notably in the Townships while the Borough is only slightly above average. As the Region ages, consideration should be taken into account for aging in place as well as its healthcare, senior living, and other services for older residents. Conversely, the future of the Region's next generation will need to be taken into account from housing to educational needs to assure opportunity for multiple generations continue to grow within the community.

	District	Rockland	Topton	Plan Region	Berks
2020 Median Age (Years)	50.9	49.6	41.0	47.2	40.4
2010 <18 (Persons)	255	855	477	1,587	98,136
2020 <18 (Persons)	201	682	427	1,310	95,184
2010 65+ (Persons)	191	475	287	953	59,558
2020 65+ (Persons)	308	744	341	1,393	77,530

Data Sources: 2010 and 2020 Decennial Censuses

PLAN DEVELOPMENT

Twelve advisory committee meetings were held beginning in July 2024, and responsibilities of the committee included: supplying requested information on the communities represented, providing input on draft documents, promoting transparency and public outreach throughout the planning process, engaging directly with their communities to seek input, and periodically dispersing information to their respective governing bodies. Progress updates and survey solicitation were shared via social media, municipal webpages, and municipal and school district newsletters and publications.

SURVEY

A 19-question public digital and paper survey was launched on September 8, 2024. Approximately 40 flyers advertising the survey were distributed among the three municipalities, concentrating heaviest within the Borough where there were more business and public spaces for placement. The survey was also advertised on social media through BCPC, Topton Borough, and Brandywine Heights Area School District as well as through the school's distribution list and all participating municipalities' websites. The survey closed on January 31, 2025. 89 residents responded;

Top areas of concerns include:

- **Roads and sidewalks in disrepair**
Many residents elaborated in the open response on the survey that the roads and sidewalks are in poor condition. While the majority of sidewalk references were regarding Topton, it is important to note that complaints regarding the condition of the roadways was spread across all three municipalities surveyed. Potholes were frequently cited.
- **Lack of nearby retail, restaurants, and entertainment**
Residents expressed frustration with nearby large-scale industrial and warehousing businesses creating traffic and safety concerns within the Region. However, restaurants and small Main Street-type businesses such as local pharmacies, bakeries, and family entertainment were most frequently cited as desirable in the written response.
- **Lack of affordable housing options**
Approximately 40% of responses indicated that the diversity of housing is "OKAY". Nearly half of the 89 respondents to the survey elaborated with a written response regarding housing: trends with requests like affordable housing, duplexes, multifamily units, and smaller-scale single homes appeared frequently.
- **More diverse recreation options**
Respondents often focused on Topton Park, citing the closure of the Borough's pool as a loss to the community. Many suggestions for improvements were made including a story walk, skatepark, bandshell, tennis, volleyball, community gardens, and frisbee golf. Regionally, there were several requests for more public open space and hiking trails as well.

Top area assets include:

- **Natural, rural setting**
Residents rave about the beautiful views, the prevalence of both open space and farmlands, and the protection the Region's forested areas provide. There is a near unanimous agreeance that open space conservation and agricultural preservation is important to this Region.
- **Safety**
Most residents expressed that crime is low in this Region. This was largely seen as due to the rural nature of the study area and its surrounding areas. Some residents expressed a need for better police coverage, citing problems with response times from Pennsylvania State Police and suggesting a need for a local police force.

PUBLIC MEETINGS

A public meeting was advertised and held on January 14, 2025 at Brandywine Heights Intermediate School from 6:30 – 8:00 pm. Twelve were recorded in attendance, the majority of which were advisory committee members. Background regarding the plan's purpose and key issues identified were presented and questions centered largely around the interrelationship between the joint comprehensive plan and the future of the surrounding communities was discussed.

OTHER PUBLIC INPUT

On September 17, 2024 from approximately 11:00am to 3:00pm, Berks County Planning Commission spent time walking Tipton Borough's community including the residential areas, proposed Main Street Square, and Tipton Park. BCPC distributed flyers for the community survey and spoke to approximately 10 people including residents outside their properties, dog walkers, a local business owner, and out-of-area bicyclists who utilized the PA Bike Route L to ride from the nearby Velodrome to stop for coffee in Tipton's downtown. All community members stressed that they enjoy that Tipton is a peaceful and safe community. They were enthusiastic and curious about the Borough and its partners working together to continue planning for their communities. The bicyclists reported some blind curves and hills lacking adequate shoulder room for them. They suggested painted lines on the route to discourage motorists from driving in the shoulders as well as more signage/reminders for vehicles to share the roads with bicyclists.

November 21, 2024 an Advisory Committee member attended a senior event at the Ray A Master American Legion Post 217 to raise awareness of the Plan Update. There were approximately 50 people in attendance; paper copies of the community survey were distributed; none were returned at the event.

Community Goals and Objectives

This section lists 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.

The following presents an overall narrative visions of the desired future followed by a detailed listing of specific planning goals for the Region.

Natural Features:

Continue to protect the Region's most sensitive features.

- Continue preservation of the Region's wellheads and watersheds, including protection of exceptional value designated waterways including the Perkiomen, Pine, Oysterville, Sacony, Swamp, and Manatawny creeks; and environmentally sensitive water resources that are increasingly critical for our community, as well as to our downstream neighbors here in Berks County and beyond.
- 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.
- Protect the Pennsylvania State Game Lands.
- Seek cost-effective ways of preserving historic buildings, including providing information and advice to property owners
- Protect the blend of steep slopes, woodlands, watersheds, wetlands, and elevations and natural habitats within the Region.

Historic:

Protect and preserve the most important historical structures. Encourage appropriate reuse and historic rehabilitation of older buildings, as well as encouraging new construction that is consistent with historic surroundings.

- Establish realistic goals to implement suitable preservation guidelines and standards.
- Identify 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.
- Add regulations into zoning ordinances that will help achieve historic preservation goals, like the review of demolitions, design guidelines for infill construction, Historic Overlay Zones, incentives for adaptive reuse, and demolition by delay.
- Update existing zoning regulations to resolve conflicts with historic preservation goals like incompatible uses, excessive setbacks, required off-street parking, and reduced lot coverage.
- Develop partnerships with community groups and organizations to facilitate a public education initiative about local history and the historic resources in each municipality.
- Seek cost-effective ways of preserving historic buildings, including providing information and advice to property owners.

Public Facilities

Schools

Work together with the School District municipalities to plan for growth and local residential school recreational facilities use.

- Communicate residential development approvals to school district for projected growth needs
- Create a joint agreement with municipalities and the school district that allows the local population to utilize school recreation facilities

Police Protection

Maintain and plan for continued satisfactory police services.

- Annually assess police coverage trends and needs
- Work together on grants to fund police coverage assessment – highlighting future projected needs

Fire & Ambulance Services

Create an Emergency Services Alliance, which works towards these targeted goals:

- Recruit firefighters/EMTs who live within and outside of the Region and work for businesses located in the region.
- Maintain and increase policies with local governments and businesses that enable their employees to respond to daytime emergencies.
- Design ongoing recruitment strategies for new resident volunteers and retention strategies for existing volunteers; and,
- Maintain and continue the offering of a “junior” firefighting curriculum within the Public School Districts as a means of developing interest and expertise among potential future volunteers.

Once established, but prior to actual recruiting, the Alliance should complete the following evaluation process:

- Determine the need by local fire/ambulance chiefs for more volunteers from any of the preceding sources within their respective companies;
- Establish policies within the Region’s fire and ambulance companies that allow for nonresidents to become members of their respective companies;
- Identify those local and nonresident volunteers who work for companies within the Region who could potentially respond to daytime emergency calls;
- Determine the level of competence of potential volunteers and/or training needed to “run” with local companies;
- Establish ongoing working agreements with local businesses for the release of volunteer firefighters/EMTs during daytime emergencies;
- 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,
- Establish an ongoing mechanism that periodically reinitializes the recruitment process.

Establish municipal recognition & funding criteria

- To help spread awareness of fire and ambulance services, 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 encourage others to offer support. 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.
- 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, helping to support local volunteer efforts, rather than allowing for complete failure of the volunteer system which would then be replaced by a completely-paid force.

Update local ordinances to address needs

- Update emergency access standards in local ordinances, including:
 - 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.
- Increase Dry Hydrant Installation – 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
- Annually update mapping records to accurately reflect emergency access to existing infrastructure

Emergency Medical Provider (EMP) Initiative

Action Items from The Center for Excellence in Local Government

- **Mutual Aid**
 - All EMS providers must be compelled to utilize GIS based dispatching if municipal financing is provided.
 - EMS providers should be compelled to share anticipated staffing schedules with adjacent providers and in particular last-minute changes to anticipated unit deployment or unit service levels when they are reduced due to staffing or out of service equipment so that surrounding agencies have the opportunity to upstaff to mitigate the shortage.
 - The County and EMS providers must work to modify the dispatching model to incorporate the primary dispatch of intermediate ALS (IALS) units, as well as non-transport/squad ALS to better stretch access to limited ALS personnel.
- **Staffing/Recruitment and Retention Training**
 - Elected officials from local, county and state levels must work together with community educational resources such as the colleges and universities, as well as technical and healthcare training schools to ensure an adequate availability of EMS educational programming. This should include training to executives and management personnel.
- **Compensation/Benefits**
 - While the current crisis calls for an immediate improvement in pay, a long-term solution can only be established subsequent to a comprehensive salary and benefit analysis to fully detail the process to establish EMS as a bona fide career and ensure positions in the Berks County geography are market competitive.
- **Funding**
 - Develop a campaign to educate federal and state elected and appointed officials about the lack of insurance funding, the inconsistent application of funding rules, and the ability of private insurance companies to compel EMS providers to accept reduced reimbursements in order to accept direct payments and the reimbursement inequity for direct reimbursement verses payment from the patient. CELG will coordinate the effort.
 - Each EMS provider must meet with the municipalities in their service areas to establish an appropriate annual actual subscription rate/per household contracted cost. Each municipality must commit to paying that rate.
 - If a municipality is providing in-kind services, these services must be monetized, and the value used to offset agreed upon annual municipal subscription costs.
 - The above referenced subscription program, inclusive of the recognition of in-kind services should be established through an intergovernmental cooperation agreement similar to regional police and fire operations.
- **Reporting**
 - Where any public funding is provided, within an EMS service area:
 - a. There should be a standardized reporting process to report planned and actual staffing of units including the level of service delivery.
 - b. Request for funding, especially those that exceed a prior year's request, should be substantiated fully. Why does the agency need more money? The present model is that all that a municipality sees is a request for additional funding. Generally, the "justification" provided is in the form of a shortfall from existing funding for a single call versus actual cost/call, or the cost of staffing a single ambulance annually, or the cost of some single piece of equipment like an ambulance. This falls short of the process generally required for a department of government making a budget presentation for a funding increase.
 - c. If municipal funding is being requested, a detailed operational budget with staffing and a separate capital budget, shall be provided to the municipality no later than October 1 of the preceding year, or within the process established by the municipality for its own budget.
 - d. Quarterly operational and financial updates must be provided to each municipality. These reports should address financial viability of the EMS provider and, where EMS providers are larger than the local Berks County area being served, whether the cost of the local operation in the form of budgeted versus actuals, is being properly supported by local revenues. CELG will work with EMS providers where assistance is needed.
 - e. The budget should be supportive of their funding request and uniformly spread among all the municipalities in the service area.

- **Agency Consolidation**
 - All EMS agencies need to develop interagency cooperation agreements to foster better service delivery. Areas of opportunity include billing, purchasing including capital items, scheduling, and physical asset and personnel sharing.

Brandywine Community Library

Seek additional funding for increased services

- Apply for grants and seek funding opportunities to provide staff with benefits, increase space/capacity, and close any funding gaps.

Energy Conservation & Sustainability

Work with regional partners (public, private, non-profit) who seek to increase energy efficiency and sustainability.

- Assist the Brandywine School District with obtaining new energy audits to increase energy efficiency

Update local ordinances to incentivize targeted energy efficiency and sustainability practices

- Amend Zoning and Subdivision and Land Development Ordinances to incentivize individual residential energy efficiency project proposals and commercial/industrial building rehabilitation projects by waiving certain fees associated with development.

Parks and Recreation

- The municipalities should prepare and submit an application to PA DCNR for a peer grant to determine the feasibility of creating a Regional Recreation Board (RRB).
- Enhance local ordinances and provide public education on riparian buffers
- Newsletter articles should be used occasionally to introduce these concepts and feature successful implementation examples as they occur.
- Educate the local population, especially those residences near high value streams and creeks, about the USDA Natural Resources and Conservation Service's 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.
- Assemble and organize local groups, such as the sportsmen/sportswomen and youth environmental students/groups to help educate and spread the importance of riparian buffers to the public.
- The School District should continue to 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.
- 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.

Housing and Local Economy

Protect Pockets of Farmlands

- Continue to implement Effective Agricultural Zoning in District and Rockland Townships.
- Continue to maintain, and add to when appropriate, Agricultural Security Areas every seven (7) years.
- Discourage residential developments abutting protected farmlands.

Discourage Large-Scale Industrial Uses

- Encourage expansion of smaller scale and existing industries by permitting uses in EDAs targeted for growth that are compatible with the nearby homes and complementary to the community's needs.
- Seek out funding opportunities to make Topton's commercial core more identifiable– improvements such as lighting upgrades, wayfaring signs, and planters create a more defined and inviting space for potential consumers.

Foster Growth of Commercial Development that Supports Residents

- Topton Borough should connect with the Pennsylvania Downtown Center regarding the creation of a Main Street downtown area (formally or informally). Consider whether Nature Based Placemaking might be a good fit for the Borough.
- Poll residents to explore the community's wants and needs and organize to seek out volunteers for organizing downtown events and communication.
- Seek out funding opportunities to make Topton's commercial core more identifiable– improvements such as lighting upgrades, wayfaring signs, and planters create a more defined and inviting space for potential consumers.

Encourage Smart Residential Growth

- Explore developing and adopting Accessory Dwelling Unit regulations to allow the Region's retiring population to age in place while providing available housing to the community's next generation to stay locally.
- Support infill development that matches the density and character of the surrounding properties.
- Refer long-term vacant and/or blighted properties to the County Blighted Property Review Committee (BPRC) for consideration for redevelopment

Public Utilities

Maintain and upgrade public utilities

- Seek funding and grants to help maintain current infrastructure, and plan for future updates to existing infrastructure.

Regulate for Pipeline Work in the Region:

- 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.
- Update ordinances to address 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.
- 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.
- Encourage regional fire and EMS services to attend annual pipeline emergency response training

Transportation

Roads and Bridges: Maintain and improve the safety and operation of roads and bridges when financially feasible.

- Evaluate conditions on local-owned transportation infrastructure.
- Implement low-cost improvements where such measures provide an immediate impact.
- Collaborate and coordinate improvements and/or rental of necessary equipment to focus limited funding on the most effective solutions while maximizing the potential for cost sharing and savings.
- The municipalities should have a united voice when petitioning legislators and applying for funding for the benefit of transportation issues within the Region and when communicating requests for improvements to RATS through the TIP and LRTP process.

Congested Corridors: Preserve corridor capacity along Main/Weis Street (SR 1010).

- Consult the RATS Congestion Management Process and coordinate with PennDOT and RATS when considering new development or improvements along the Main/Weis Street (SR 1010) corridor to ensure detrimental access issues, increased congestion, and safety issues are not created.

Freight: Ensure freight accommodation while keeping other travelers safe.

- Maintain an open line of communication with local business owners and operators of regional commercial and industrial facilities, specifically regarding issues with regular truck movements and designated routes.
- Stay aware of any roadway, equipment, and/or safety issues at At-Grade Railroad Crossings, communicate any issues with At-Grade Railroad Crossings with Norfolk Southern, the US DOT Federal Railroad Administration, and PennDOT.
- Improve the intersection of Weis Street (SR 1010) and Haas Street to accommodate left turn truck movements onto Haas Street.
- Explore addition of "local truck only" signage and truck prohibition ordinances on select Tipton Borough streets.

Safety: Keep travelers of all modes safe and secure throughout the region.

- Promote driver education programs in the region such as online driver education courses through municipal mailings and work with any local organizations that are interested in hosting an in-person course.
- Maintain a relationship with those that police the region, informing them of areas of concern or repeat offenses to help mitigate undesirable driving behaviors.
- Communicate to RATS, through the TIP and LRTP process, any safety issues along state routes or at the intersection of local roads and state routes.
- Implement low-cost safety improvements where such measures provide an immediate impact on safety.
- Create safe links between residential areas and popular destinations, such as schools, parks, and shopping centers in an attempt to minimize the amount of crashes involving pedestrians and bicyclists.
- Consider safety improvements such as widening of shoulders, filling gaps in the sidewalk network and the addition of ADA ramps, crosswalk painting, and signage to help achieve a safer transportation system.

Transit: Promote the use of transit when available.

- Explore the possibility of restoring regularly-scheduled bus service to the region by working with SCTA/BARTA early in the process of their Transit Development Plan should desire arise to restore regularly-scheduled bus service to the region determined by evaluation of public interest.
- Encourage use of available transportation services by promoting programs that provide transportation assistance and ride sharing such as programs that can be applied to through PennDOT Find My Ride Apply such as the Medical Assistance Program, Senior Shared Ride Program, Persons with Disabilities Program, and Americans with Disabilities Program.
- Promote carpooling by informing residents and new businesses of the Commute PA Program to allow them to take advantage of this free service.
- Encourage the development of regional transportation serving this region to primary destinations of Philadelphia, Allentown, Scranton, and beyond.

Active Transportation: Promote safe and accessible active transportation.

- Ensure that local ordinances and regulations include requirements for active transportation accommodations into and within all new developments.
- Encourage new land developments and subdivisions, especially ones served by public sewer and water utilities, to have sidewalks on one side of all streets when within two (2) miles of a school, or half (0.5) of a mile of a greenway, park, shopping center, business complex, transit stop, or when there is an existing sidewalk network adjacent to the proposed development.
- Examine existing active transportation infrastructure for strengths and weaknesses and devise plans for improvements throughout the region to address maintenance needs, completion of missing links, safety, and accessibility improvements focusing on accessibility to schools, parks, shopping and business centers.
- Consider the development of an Active Transportation Plan that identifies community needs and provides guidance for an interconnected system of pedestrian and bicyclist improvements.
- Adopt and enforce Complete Streets policies to ensure the entire public right-of-way is available for users.
- Encourage businesses to provide bike racks for visitors and storage facilities for employees; seek or support funding where applicable.
- Be aware of grant funding opportunities and apply when appropriate, receiving letters of support from all Eastern Berks municipalities, appropriate parties, and planning agencies.
- Engage with PennDOT officials and RATS staff during the PennDOT Connects process on all state roadway projects to ensure active transportation infrastructure is included in projects where appropriate.

Alternative Fuels: Support the travel of alternative fuel vehicles throughout the region.

- Refer to documents such as the Berks County Planning Commission Electric Vehicle Charging Infrastructure Planning Advice Plan when considering updates to zoning, building codes, and parking requirements to better accommodate and expedite the development of alternative fuel infrastructure.
- Consider adding EV charger infrastructure along heavily traveled roads in the region, such as Weis Street (SR 1010) and at identified ideal public destinations such as libraries, schools, parks, and shopping centers in the Borough of Topton.
- Work with state agencies such as PennDOT and PA DEP to obtain funding to support the addition of alternative vehicle infrastructure when available.

Safe Routes to School

Increase physical activity, health, and safety for students of the Brandywine Heights Area School District.

- Use public input to identify safety concerns and infrastructure improvement opportunities on routes where students walk or bike followed by a walk audit covering those locations.
- Better identify the existing route to school through low-cost improvements such as signage and/or paint.
- Brandywine Heights Area School District should engage the community and student population to inform and draw support for an official Safe Routes to School Program.
- The municipalities should pass a resolution, or the School District should create a Safe Routes to School Plan expressing need and support for Safe Routes to School, incorporating the Six E's and detailing specific commitments and implementation steps.
- The school district should provide bike racks and storage facilities for employees and students.
- Be aware of grant funding opportunities and apply when appropriate, receiving letters of support from all Eastern Berks municipalities, appropriate parties, and planning agencies.
- Engage with PennDOT officials and RATS staff during the PennDOT Connects process on all state roadway projects to ensure safe routes to schools districtwide are included in projects where appropriate.

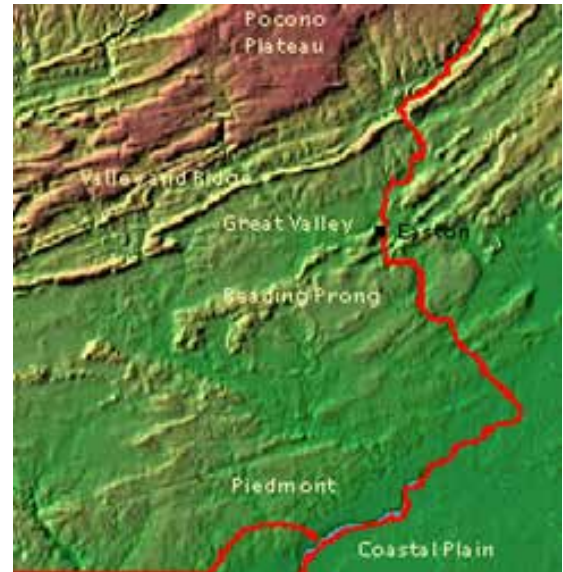
NATURAL FEATURES

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.

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 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.



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 (Figures 01-02) illustrate 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.

The EBCR 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.

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 metamorphosized 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 denser and more 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.



Landscape of Gneiss formation

Several other minor occurrences of geology are also represented within the EBCR. 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.)	Cal	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 [Berk 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.

GEOLOGIC FORMATION CHARACTERISTICS					
Formation Name (Composition)	Symbol	Porosity & Permeability	Ease of Excavation	Foundation Stability	Groundwater
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 (Medium grained; light pink to green; largely quartz, feldspar, and mica; commonly gneissic.)	ggd	Joints produce a secondary porosity of low magnitude; low permeability.	Difficult; large surface and near-surface boulders hamper excavation; slow drilling rate.	Good; should be excavated to sound material.	Yield of 10 gal/min or less may be expected; yields of 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; large 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 gal/min; water-yielding fractures are seldom found below 200 feet; water is usually soft and of good quality; iron may be a problem.
HORNBLLENDE 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.)	Civ	Joint openings and solution channels provide 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, silty 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 Rittenhouse Gap, Berks County.)	md	Joint-plane openings provide a very shallow and low secondary porosity; low permeability; 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 EBCR 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 falls 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 softener 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 • Rifle and pistol ranges	WASTE MANAGEMENT • 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 handling 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.

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 gneiss 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** (Figure 03). 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.



Prime farmlands of Duffield Soils

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 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 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 (and mapped on Figure 04):

Soil Symbol	Soil Name and Slope	Soil Class	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

Soil Symbol	Soil Name and Slope	Soil Class	Hydric	Drainage Classification
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

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 (Figure 05).

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.***

The **Oysterville Creek watershed** occupies the western/southwestern portion of District Township and works its way down into Pike Township and other surrounding municipalities. ***Oysterville Creek is designated as an Exceptional Value waterway.***

The **Swamp Creek watershed** occupies the southern portion of District Township and extends down into Washington Township. ***Swamp Creek is designated as a High-Quality Cold-Water Fishery.***

Overall, the Region's drainage pattern exhibits a coarse 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**.

It is estimated that the majority of the Region consists 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.***

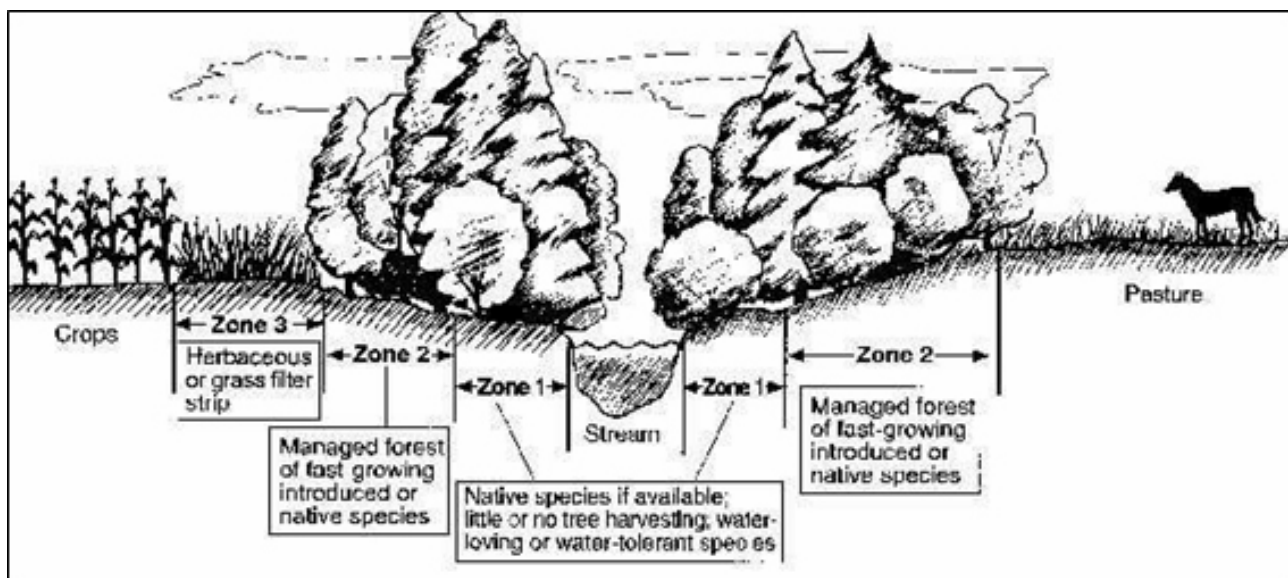
While protection of floodplains and wetlands are widely accepted land use management techniques, recent awareness of diminishing surface water quality suggests the need for more protection. Studies conducted by the U.S. Forest Service demonstrate that riparian buffers offer real advantages in the removal 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.***

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



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.

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



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. Riparian buffer overlay districts were adopted throughout the Region as a result of recommendations in the prior iteration of this Plan. 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 acres 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 about 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 is 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.***

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.

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 surficial features commonly associated with wetlands. This inventory tends to identify the larger wetland areas only. These include a combination of scattered palustrine and riverine wetlands. Palustrine 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 Maps (Figures 04-05) contained earlier in this Chapter.

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.

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.

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.

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.

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.

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 Borough 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. One of the important characteristics of this region is the low volume of impervious surfaces. When coupled with the fact that the region contains the headwaters for many of the County's watersheds, this makes the area highly beneficial in managing stormwater for the watersheds. 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.

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

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.

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.

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.

An additional consideration for stormwater management is the increase in extreme weather events. Many places, including this region, have experienced changes in rainfall, resulting in more floods, droughts, or intense rain. Strengthening water conservation programs, upgrading stormwater systems, and preparing for stronger storms through better emergency preparation and response strategies are a few adaptation measures that the municipalities can work together on to help alleviate the negative outcomes from these extreme weather events.

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 of 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.

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.



CHARACTERISTICS			
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	Frederickville	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.
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.
N/A	West Branch of Pine Creek Seeps	Rockland	High-gradient clear water creek and exceptional value watershed
N/A	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.
N/A	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.

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.***

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.

Important Plant & Wildlife Habitats

"Invasive species are a threat to Pennsylvania's economy, environment, and health and well-being of its citizens. Commonwealth citizens pay millions of dollars to identify, prevent, eradicate, and control invasive species each year. These invaders threaten our native plants and wildlife by outcompeting with them for resources and habitat. Invasive species are the cause of costly damages to agricultural crops and infrastructure. Some even impact human health directly by vectoring diseases such as the West Nile Virus. The value of Pennsylvania's natural and economic resources and the need to protect the health of Commonwealth citizens demands a comprehensive response to the threats posed by invasive species.

Key Invasive Species in the Region

Spotted Lanternfly

First discovered in Berks County in 2014, the spotted lanternfly is a hitchhiking pest that is native to Asia. It lays its eggs on any hard surface including grills, vehicles, trailers, firewood, outdoor furniture, bikes and toys. It feeds on a wide range of plants, including grapes, hops, stone fruits, and hardwood trees. When the spotted lanternfly feeds, it excretes a sticky, sugary fluid that causes sooty mold, which can further damage plants. It's favorite plant is the Tree of Heaven – an invasive species itself. Identification and eradication measures have been established to help stop the spread of this invasive insect. Quarantine areas and measures have been created, and there are numerous resources available to help educate the public about mitigation practices. The Berks County Conservation District has a webpage that provides more information on the Spotted Lanternfly and contains links to further resources, which can be found here: <https://berkscd.com/insect-mgmt-2/spotted-lanternfly/>

Sources: <https://extension.psu.edu/tree-of-heaven>; <https://berkscd.com/insect-mgmt-2/spotted-lanternfly/>; <https://www.aphis.usda.gov/plant-pests-diseases/slf>

Emerald Ash Borer

The emerald ash borer (EAB), an invasive wood-boring beetle from Asia, is responsible for the death and decline of tens of millions of ash trees in North America. EAB lays its eggs in the bark crevices of ash trees. The eggs hatch and the larvae burrow into the tree where they feed. This feeding is what damages the trees. EAB is difficult to detect early when pest populations are small because damage to the trees is hidden under the bark and tree decline is gradual. The beetle is well-suited to our climate, is a good flyer, and spreads naturally. People contribute to the long-distance spread of the beetle when they move EAB-infested ash firewood, logs or nursery stock. EAB was first detected in North America in 2002 in southeast Michigan. One of the key mitigation techniques for this invasive species is to only buy local firewood or certified heat-treated firewood. There are some treatment options available at local retail outlets, and you can contact your local Penn State Cooperation Extension office for further information and resources on managing the Emerald Ash Borer.

Sources: <https://www.aphis.usda.gov/plant-pests-diseases/eab>

Beech Leaf Disease (BLD)

This disease kills and causes dieback of American beech trees in North America. First discovered in Ohio in 2012, it is caused by a microscopic worm, or nematode, that was recently discovered. Early signs of BLD include dark stripes or bands between lateral veins of leaves in the spring. While there is not a strong solution to treat this disease at this time, some agencies have had success with a chemical used to fertilize turf grass called PolyPhosphite 30. It is thought that this increases resistance in the tree. There are currently no large-scale treatment methods for this disease within forests – treatment is limited to individual trees. More research and funding is needed to study this disease to learn how to manage and eradicate it.

Sources: <https://www.fs.usda.gov/inside-fs/delivering-mission/sustain/beech-leaf-disease-emerging-forest-threat-eastern-us>; <https://extension.psu.edu/beech-leaf-disease>

Mitigation measures

The municipalities in the region have actively worked to identify and eradicate invasive species, and they continue to promote public education and awareness of invasive species and the threats they cause. They routinely collaborate with other agencies within the region to further these efforts.

PA Governor's Invasive Species Council

The Governor's Invasive Species Council works to identify invasive plant, insect, and animal species that currently threaten or could potentially threaten Pennsylvania's natural and agricultural resources and the industries they support. The Council develops and works to implement the Commonwealth's invasive species management plan, a document which provides a framework for the prevention and control of invasive species at the state level. The Council also advises the Governor on invasive species policy development, facilitates coordination between agencies and organizations to address invasive species threats, and conducts outreach and education. The Council recommends adoption of a Partnerships for Regional Invasive Species Management (PRISM) approach to more effectively manage invasive species in Pennsylvania. The goal of a PRISM program is to minimize the harmful ecological, economic, and human health impacts of invasive species by preventing and managing their introduction and dispersal in and from Pennsylvania.

The Governor's Invasive Species Council is comprised of seven state agencies and 14 non-governmental organizations, and The Pennsylvania Governor's Invasive Species Council has identified about 300 invasive plants, insects, pathogens, and animals as having the greatest current or potential negative impacts for Pennsylvania. Invasive species can be found within aquatic and terrestrial ecosystems, and may include plants, plant pathogens, insects, aquatic animals, aquatic animal pathogens, mollusks and other land invertebrates, and birds and mammals."

For a full inventory of invasive species of concern, please refer to the Pennsylvania Governor's Invasive Species Council website, found at: <https://www.pa.gov/agencies/pda/about-pda/boards-commissions/governors-invasive-species-council.html>
Source #7, #8

Pennsylvania State Game Lands

The Pennsylvania State Game Commission owns and administers State Game Lands 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.

Therefore, each municipality has made these required changes within their respective Zoning Ordinance. 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.

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 windbreaks and shade from direct sunlight.

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.

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 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.***

Goals:

Continue to protect the Region's most sensitive features.

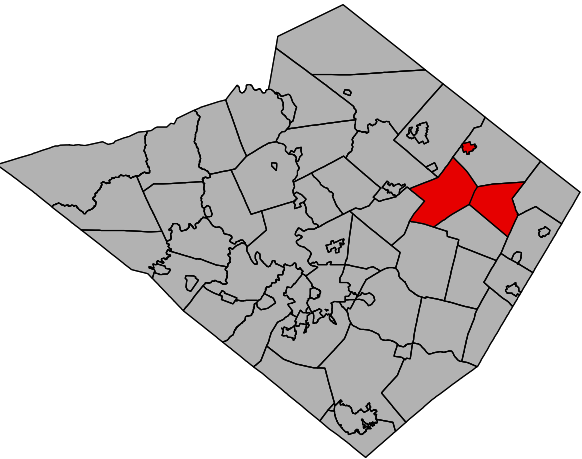
- Continue preservation of the Region's wellheads and watersheds, including protection of exceptional value designated waterways including the Perkiomen, Pine, Oysterville, Sacony, Swamp, and Manatawny creeks; and environmentally sensitive water resources that area increasingly critical for our community, as well as to our downstream neighbors here in Berks County and beyond.
- 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.
- Protect the Pennsylvania State Game Lands.
- Protect the blend of steep slopes, woodlands, watersheds, wetlands, and elevations and natural habitats within the Region.

Sources:

1. NOAA. What is a watershed? National Ocean Service website, <https://oceanservice.noaa.gov/facts/watershed.html>, 06/16/24.
2. EPA. Basic Information about Source Water Protection. Environmental Protection Agency website, <https://www.epa.gov/sourcewaterprotection/basic-information-about-source-water-protection>, February 21, 2024
3. https://www.dep.state.pa.us/dep/deputate/watermgt/wc/subjects/srceprot/source/final_whpp.htm#APPENDIX_A
4. https://www.pa.gov/content/dam/copapwp-pagov/en/pda/documents/plants_land_water/plantindustry/gisc/documents/Five-Year%20Plan%2009.19.17.pdf
5. <https://www.pa.gov/en/agencies/pda/about-pda/boards-commissions/governors-invasive-species-council/invasive-species-of-concern-for-pennsylvania.html>

FIGURE 01

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026



Geology

Geologic Period

-  Cambrian
-  Ordovician
-  Precambrian
-  Roads
-  Railroads
-  Streams and Water Bodies
-  Municipal

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

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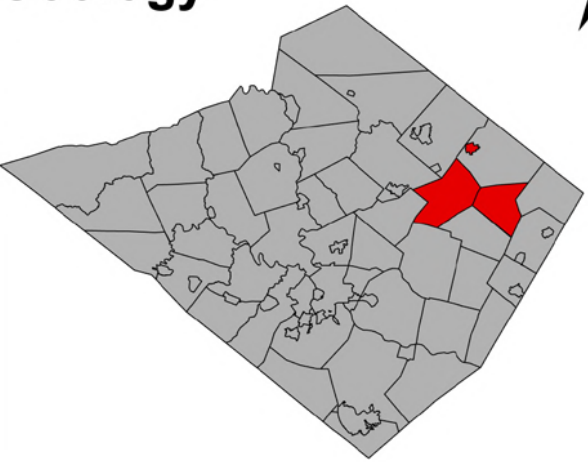


0 0.5 1 Miles

FIGURE 02

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

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
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries

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

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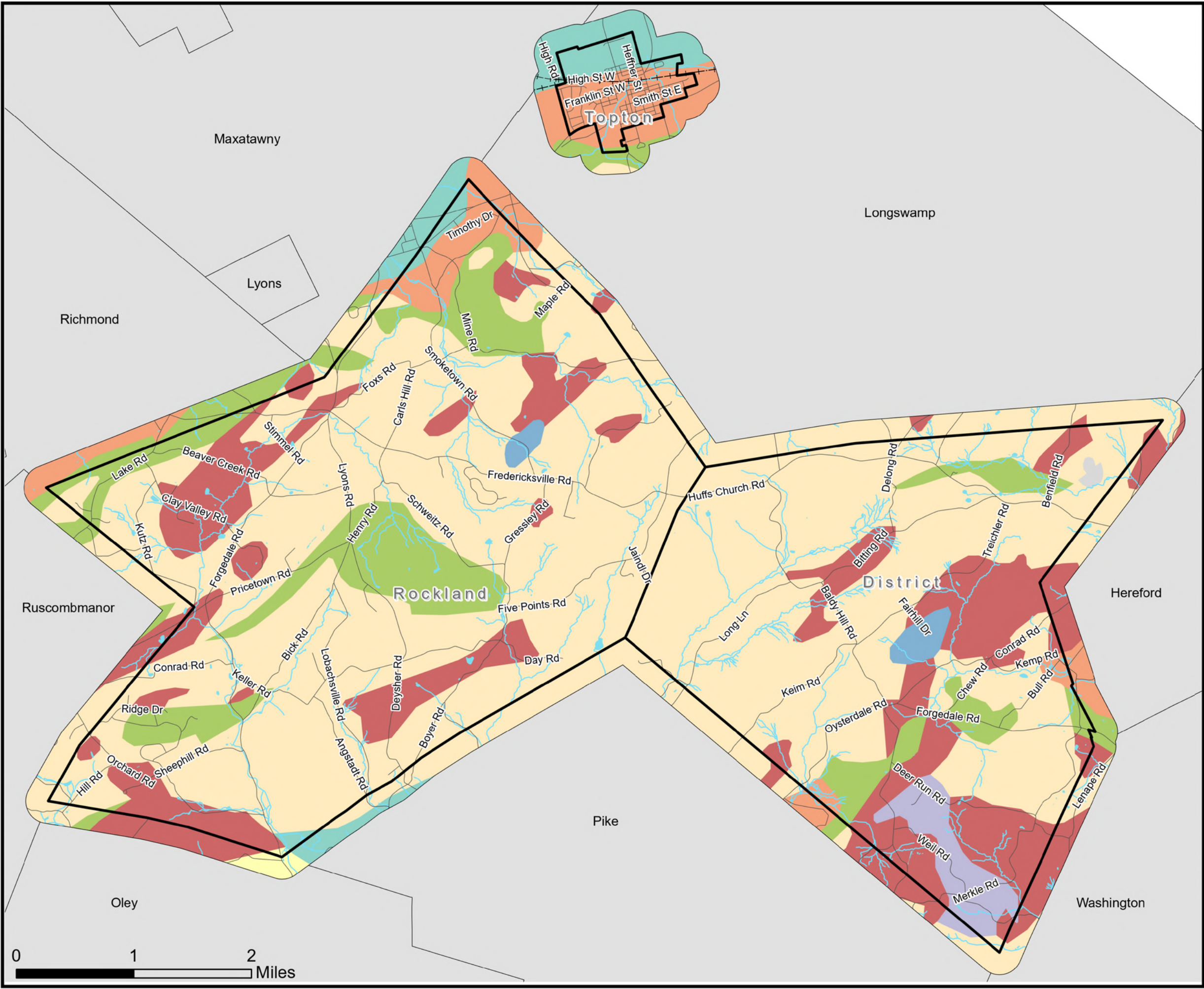
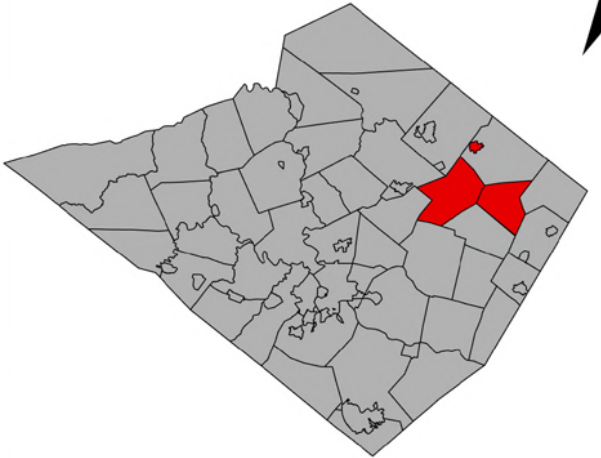


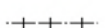
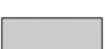
FIGURE 03

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Prime and Poorly Drained Soils



Legend

-  Class 1 Soil
-  Class 2 Soil
-  Class 3 Soil
-  Class 4-8 Soil
-  Poorly Drained Soils
-  Railroads
-  Streams and Water Bodies
-  Municipal Boundaries

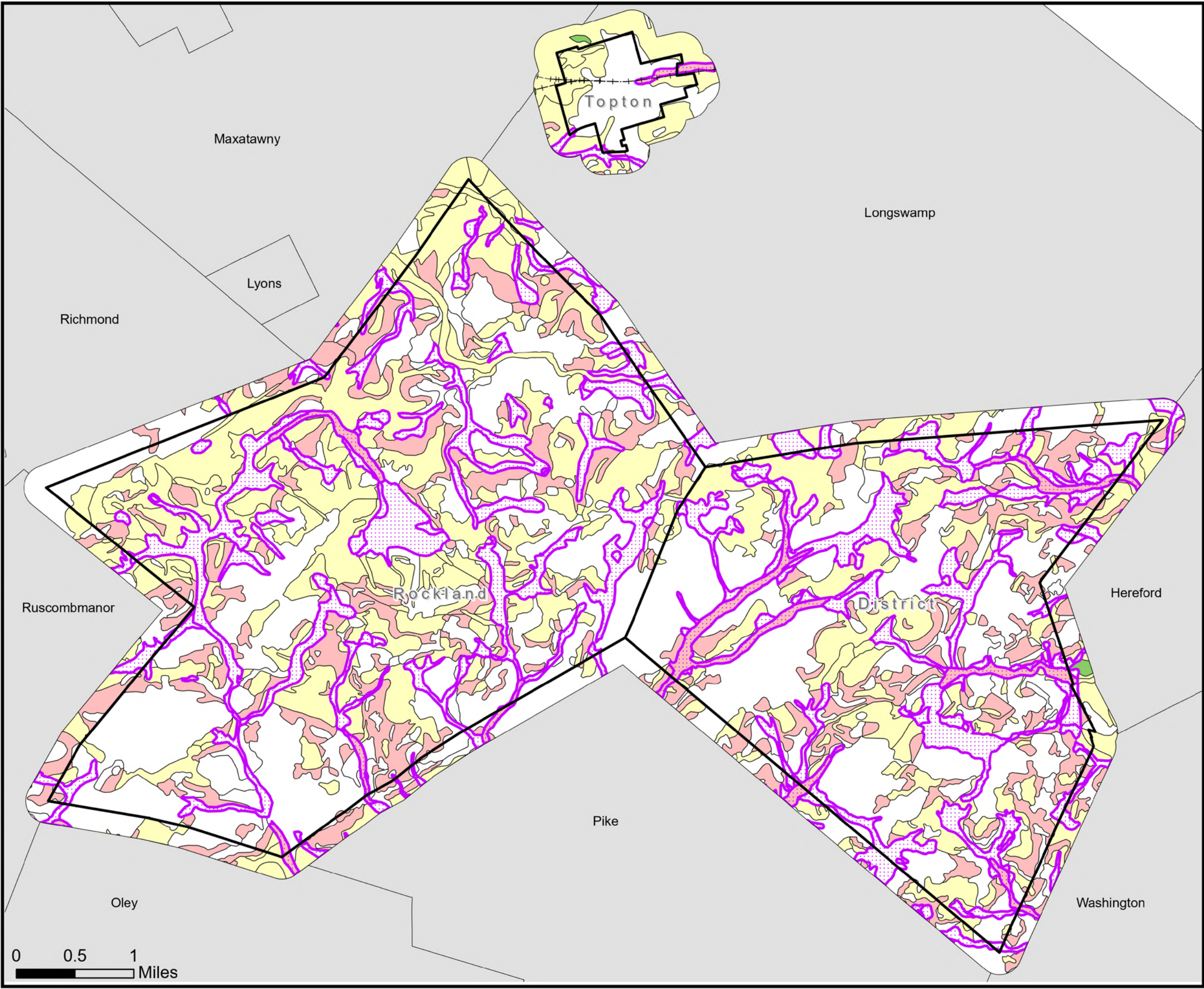
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA NRCS

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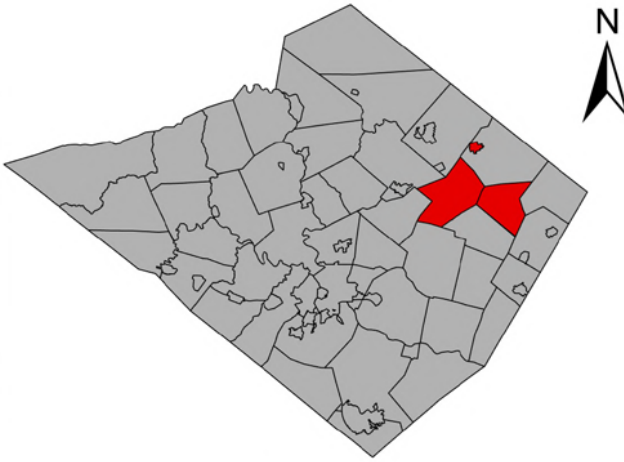


0 0.5 1
Miles

FIGURE 04

Rockland Township, District Township, and Topton Borough
Joint Comprehensive Plan Update: August 20, 2026

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		

- Roads
- Railroads
- Municipal Boundaries

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

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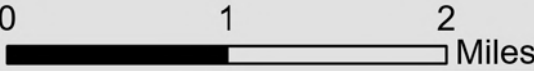
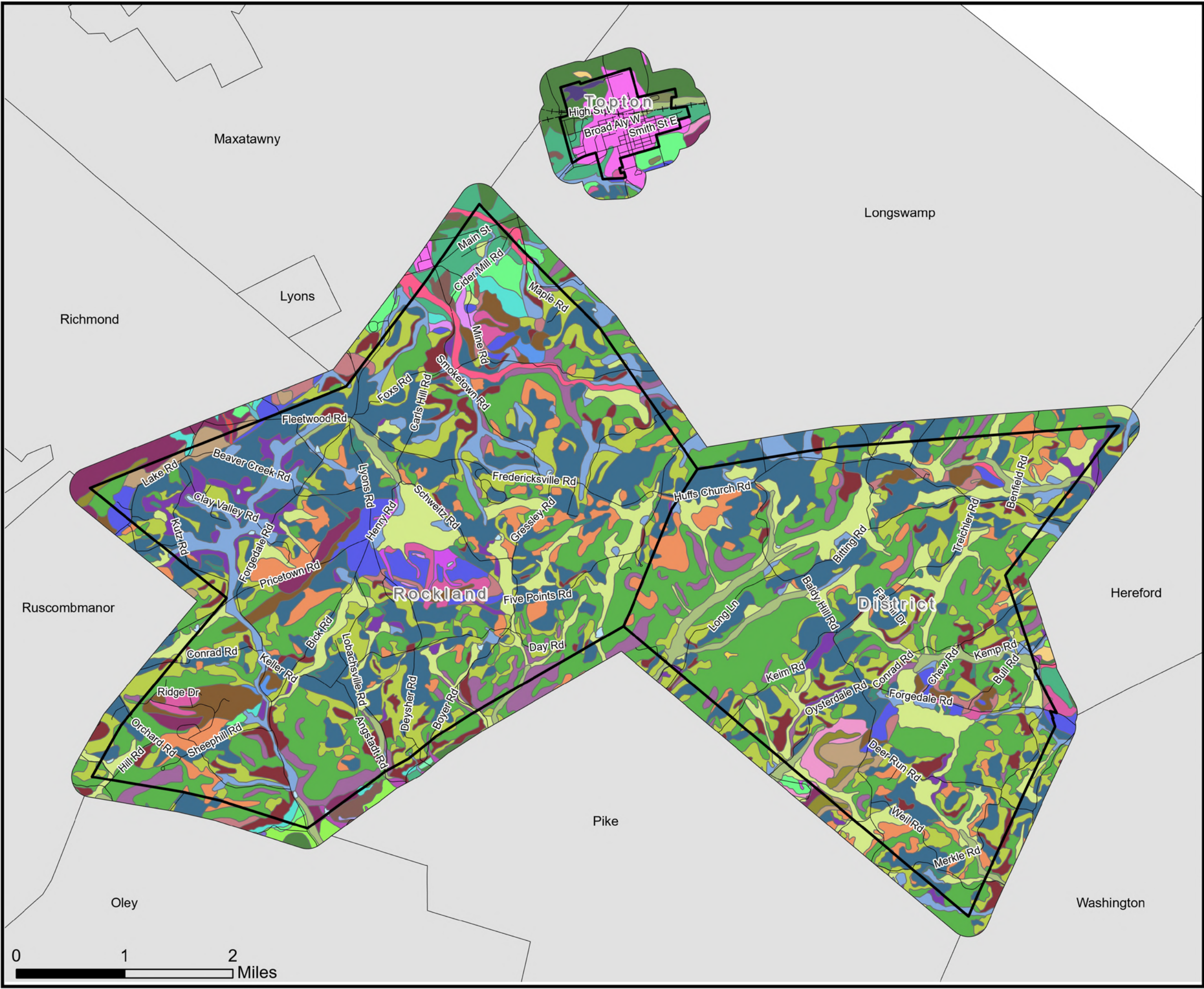
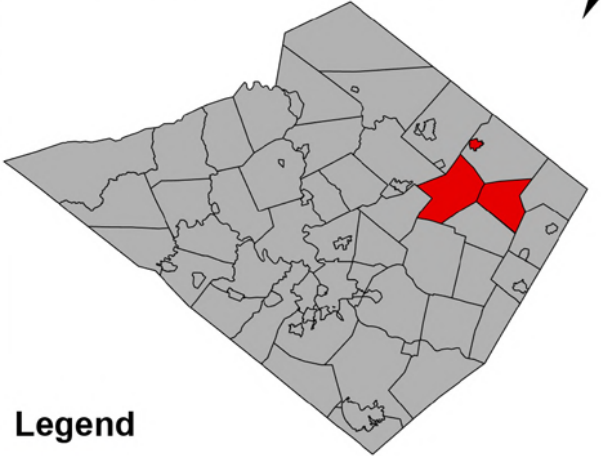


FIGURE 05

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Natural Resources



Legend

- Saony Creek Watershed
- Manatawny Creek Watershed
- Maiden Creek Watershed
- Little Lehigh Creek Watershed
- Perkiomen Creek Watershed
- Swamp Creek Watershed
- Subwatersheds
- 0.2% Floodplain
- 1% Floodplain
- Wetlands
- Exceptional Value Streams
- High Quality Streams
- Streams and Water Bodies
- Railroads
- Municipal Boundaries

* All Watersheds Drain to Delaware River

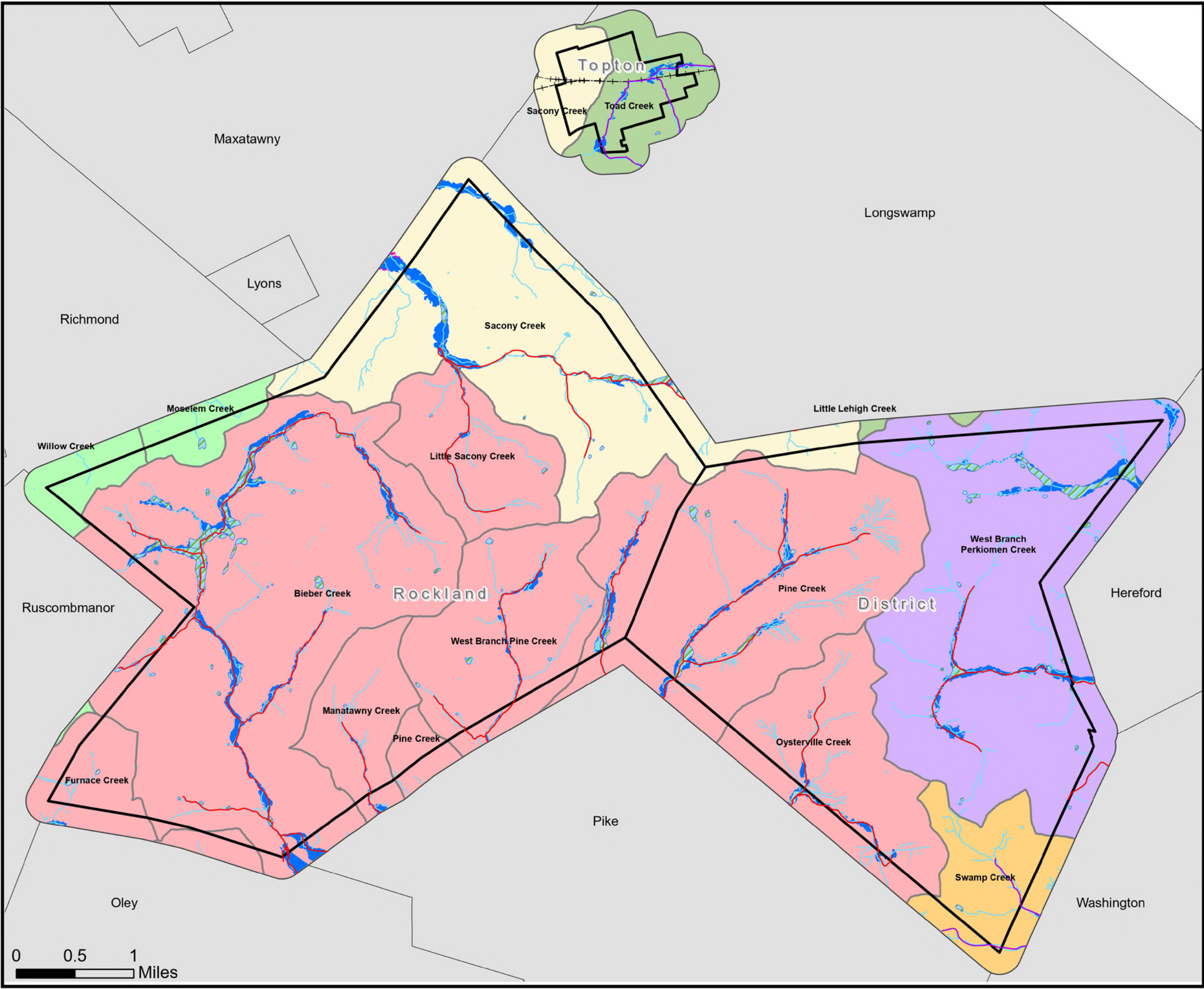
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, FEMA, NWI, Eastern PA Coalition for Abandoned Mine Reclamation

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HISTORICAL BACKGROUND

The Eastern Berks Region possesses a rich historical heritage that was influenced by its rugged terrain and remote location. The land 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. Tipton 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. To celebrate the historical and cultural development of the Region, Tipton Borough Centennial Exhibition Committee developed a historic tour of the Borough to commemorate the Tipton Borough Centennial in 1976. The walking tour, beginning and ending at the High School Athletic Field, highlights 50 locations in Tipton Borough that influenced the economy and development of the Borough, and ultimately the Region.

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.

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 multiple identified resources that vary in National Register Eligibility status but remain important from a local, State, and National perspective. The National Register of Historic Places is the federal government's official list of sites, buildings, structures, districts, and objects that are deemed worth of preservation for their historical significance. 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 Township Historic Resources			
Resource ID	Historic Name	Source	National Register Status*
1722	Fredericksville Hotel	PHMC	Undetermined
1725	Landis Store Hotel	PHMC	Undetermined
1730	Old Landis Farm	PHMC	Undetermined
1726	Village of Landisville	PHMC	Undetermined
1719	David L. Stokes Property	PHMC	Undetermined
1735	Weidner Farm	PHMC	Undetermined
1723	Landis Farm	PHMC	Undetermined
1736	Weller Farm	PHMC	Undetermined
1728	Leshner Cabin	PHMC	Undetermined
1734	Treichler Orchard	PHMC	Undetermined
1721	District Furnace; German Furnace	PHMC	Undetermined
1729	Leshner Forge	PHMC	Undetermined
1718	Bechtel–Benfield Farm	PHMC	Undetermined
1724	Landis Hotel	Meiser	Unknown
1727	Landisville School	Meiser	Unknown
1732	Spohn House	Conservancy	Unknown
6523	Schaefer Barn	PHMC	Undetermined
5917	die Nuturfrunde –German Social Camp; Marker Property	Conservancy	Unknown

Rockland Township Historic Resources			
Resource ID	Historic Name	Source	National Register Status*
5034	James Lengel Property	PHMC	Undetermined
5041	New Jerusalem Hotel; Alexander's	PHMC	Undetermined
5042	Nicholas Niess Property; Deer Hill Farm	PHMC	Undetermined
5038	Moyer Farm	PHMC	Undetermined
5054	Sally Ann Furnace Complex	PHMC	Listed
5024	Delong Bridge	PHMC	Undetermined
5047	Reinert Equipment Shop	PHMC	Undetermined
5027	Dry Store	PHMC	Undetermined
5045	Paddock Property	PHMC	Undetermined
5032	Hertzog School	PHMC	Undetermined
5022	Anthony Mickey Deoliveira Property	PHMC	Undetermined
5051	Rockland Forges #1 And #2	PHMC	Undetermined
5053	S.R. Burkholder Property	PHMC	Undetermined
5025	Delong Farm	PHMC	Undetermined
5050	Rockland Forge Farm	PHMC	Undetermined
5049	Robert & Sue Hollowbush Property; Corriedale Farm	PHMC	Undetermined
5028	Farmers & Drovers Hotel; Dryville Hotel	PHMC	Undetermined
5052	Rupperts School	PHMC	Undetermined
5055	Stanley Nieznay Property	PHMC	Undetermined
5043	Norman Burkholder Property	PHMC	Undetermined
5031	Guinther Farm; Guinther's Head Rock	PHMC	Undetermined
5037	Luke Snyder Property	PHMC	Undetermined
5023	Bieber Creek Church; Christ (Mertz) Evangelical Lutheran Church	PHMC	Undetermined
5029	Forgedale Road Property	PHMC	Undetermined
5048	Richard & Eleanor Shaner Property	PHMC	Undetermined
5030	Grim's Mill; Grim Homestead	PHMC	Ineligible
5021	Angstadt Homestead	PHMC	Undetermined
5040	New Jerusalem ChurchNew Jerusalem Evangelical Lutheran Church	PHMC	Undetermined
5035	Jerome Lendacki Property	PHMC	Undetermined

Rockland Township Historic Resources			
Resource ID	Historic Name	Source	National Register Status*
5020	Alfred Huff Property	PHMC	Undetermined
5026	Dr. C.P. Dent Property	PHMC	Undetermined
5058	Wayne Readinger Property	PHMC	Undetermined
5044	Oyster Forge	PHMC	Undetermined
5056	Stonehill	PHMC	Undetermined
5046	Paul & Deborah Stolz Property	PHMC	Undetermined
5036	Lex Meldrum Property; Original Hertzog Farm	PHMC	Undetermined
6613	Bridge	PHMC	Ineligible
6614	Rockland Bridge	PHMC	Ineligible
6615	Bridge	PHMC	Ineligible
5033	Hoch Road Bridge	PHMC	Undetermined
5945	Old Stage Coach Stop	Survey	Unknown
6926	30 Bowers Road; Barn	PHMC	Undetermined
7195	Yaz-Fleetwood_Main House	PHMC	Undetermined

Topton Borough Historic Resources			
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	Mrs. Harry Eisenbrown Property; Ziegler Hotel	PHMC	Undetermined
5372	Philadelphia & Reading Railroad Station; Railroad Station and Freight Station	PHMC	Undetermined
5373	Rohrbach Gristmill	Meiser	Unknown
5374	St Peters Union Church	PHMC	Undetermined
5375	Village of Topton	Meiser	Unknown
5376	Topton Furnace	PHMC	Ineligible
5377	Topton House; Railroad Crossing Inn	PHMC	Undetermined

Rockland Township Historic Districts			
Resource ID	Historic Name	Source	National Register Status*
5039	Village of New Jerusalem	PHMC	Undetermined
5057	Village of Stony Point	PHMC	Undetermined

Topton Borough Historic Districts			
Resource ID	Historic Name	Source	National Register Status*
6305	Philadelphia and Reading Railroad	PHMC	Eligible

***National Register Status Defined**

Listed: Historical site/district is listed on the National Register.

Eligible: Historical site/district is considered eligible for the National Register according to the PA State Historic Preservation Office.

Ineligible: Historical site/district is considered not eligible for the National Register according to the PA State Historic Preservation Office.

Undetermined: The PA State Historic Preservation Office has record of the historical site/district, but it has never been evaluated to determine if the site/district should or should not be considered for the National Register of Historic Places.

Unknown: This is not a National Register Status. This status signifies a historical site/district identified by George Meiser, IX or surveys returned to the Berks County Planning Commission that are not identified in the National Register database or by the PA State Historic Preservation Office but are still historically significant to Berks County.

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. Mapped on Figures 06-08 are historic features throughout the Region.

HISTORIC PRESERVATION GOALS AND OBJECTIVES

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.

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 goals and objectives that can better incorporate historic preservation within the Region.

Goal 1: Protect and preserve the most important historical structures.

Goal 2: Encourage appropriate reuse and historic rehabilitation of older buildings, as well as encouraging new construction that is consistent with historic surroundings.

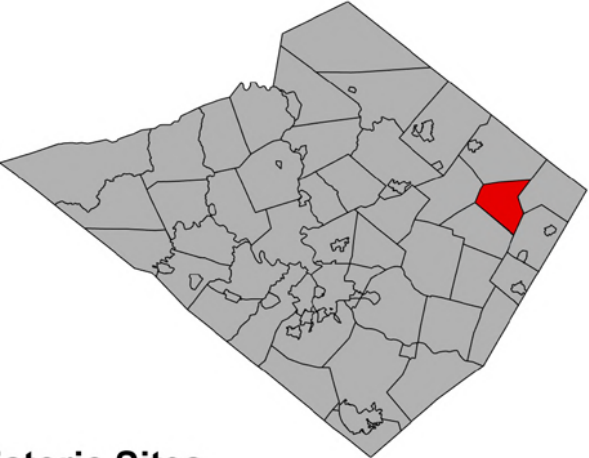
Objectives:

- Establish realistic goals to implement suitable preservation guidelines and standards.
- Identify 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.
- Add regulations into zoning ordinances that will help achieve historic preservation goals, like the review of demolitions, design guidelines for infill construction, Historic Overlay Zones, incentives for adaptive reuse, and demolition by delay.
- Update existing zoning regulations to resolve conflicts with historic preservation goals like incompatible uses, excessive setbacks, required off-street parking, and reduced lot coverage.
- Develop partnerships with community groups and organizations to facilitate a public education initiative about local history and the historic resources in each municipality.
- Seek cost-effective ways of preserving historic buildings, including providing information and advice to property owners.

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026



Historic Resources District Township



Historic Sites

- National Register Listed
- National Register Ineligible
- Other Historic Sites*
- National Register Listed Districts
- National Register Eligible Districts
- National Register Ineligible Districts
- Other Historic Districts*
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries

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

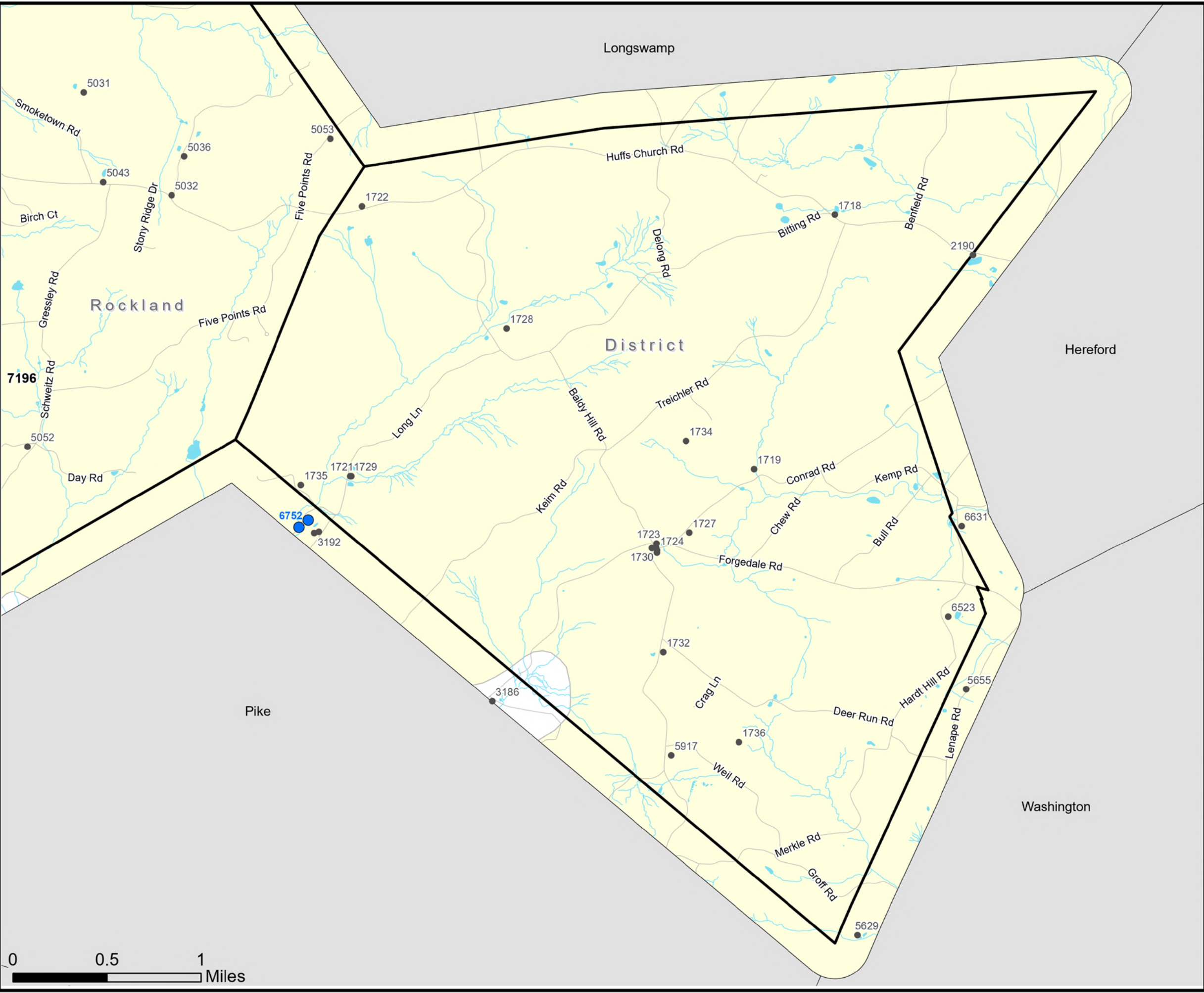
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PHMC, Municipal Historic Surveys

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BAB 8/26

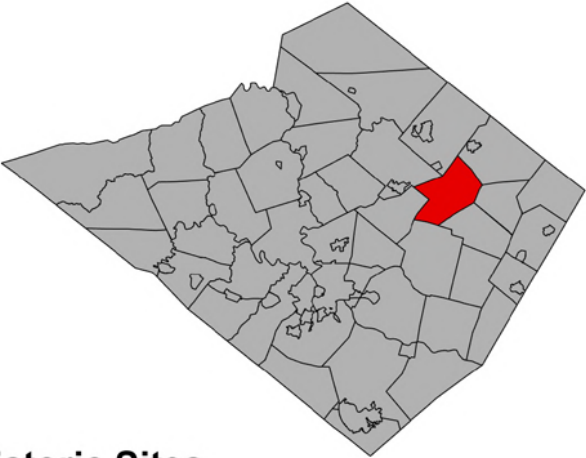


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Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Historic Resources Rockland Township



Historic Sites

- National Register Listed
- National Register Ineligible
- Other Historic Sites*
- National Register Listed Districts
- National Register Eligible Districts
- National Register Ineligible Districts
- Other Historic Districts*
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries

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

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PHMC, Municipal Historic Surveys

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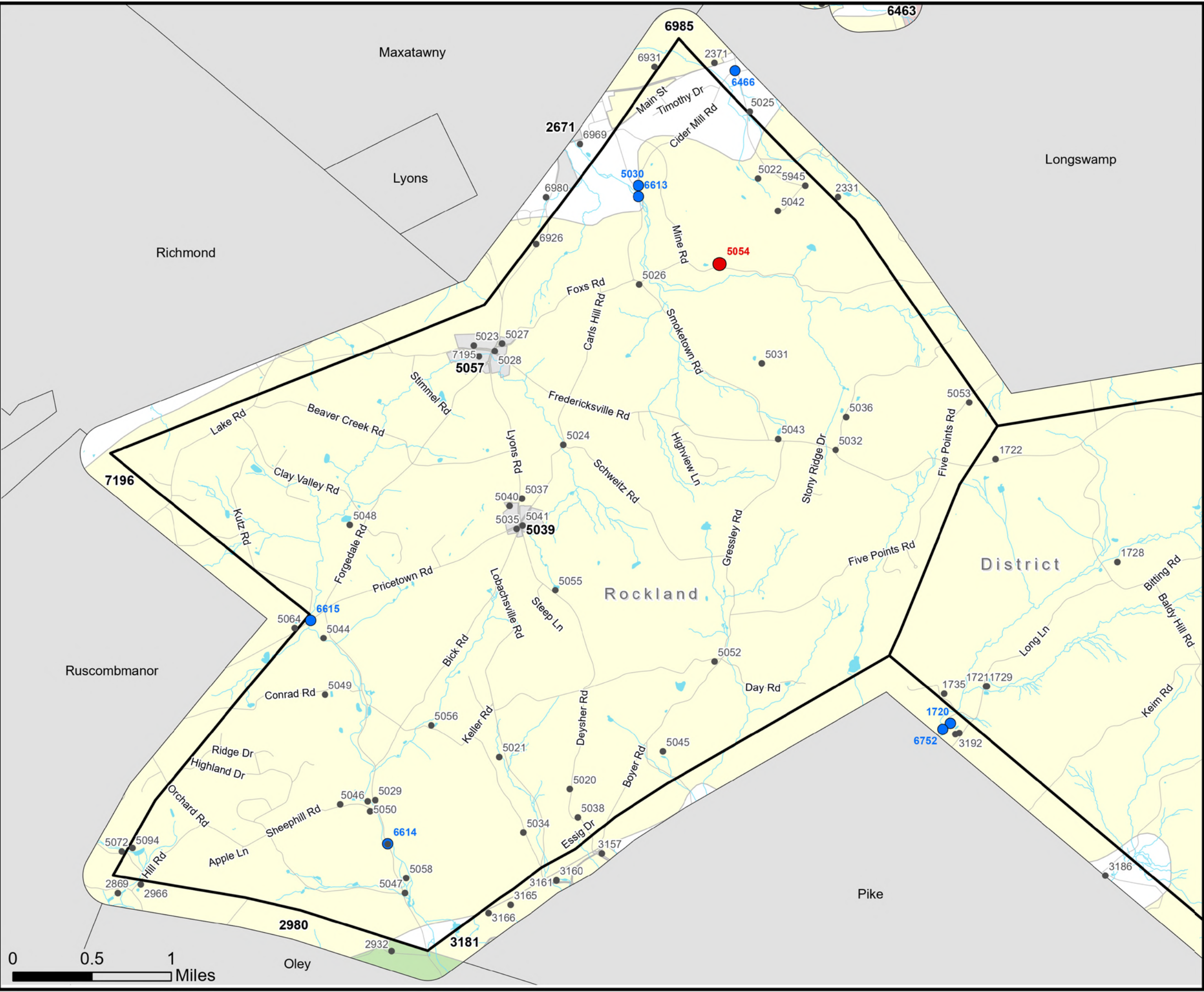
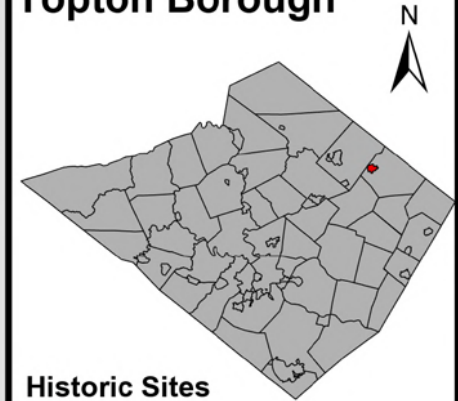


FIGURE 08

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Historic Resources Tipton Borough



Historic Sites

- National Register Listed
- National Register Ineligible
- Other Historic Sites*
- National Register Listed Districts
- National Register Eligible Districts
- National Register Ineligible Districts
- Other Historic Districts*
- Roads
- +— Railroads
- ~ Streams and Water Bodies
- Municipal Boundaries

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

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PHMC, Municipal Historic Surveys

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PUBLIC FACILITIES

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. **The Eastern Berks County Region Public Facilities Map (Figure 09)** 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.

The Brandywine Heights Area School is comprised of one elementary building, one intermediate and middle school building, one high school, and a virtual academy serving approximately 1,218 students. Brandywine Heights Elementary serves approximately 343 students. The Elementary School offers Full Day Kindergarten and two (2) preschool classrooms which is offered free to families. Each classroom serves 16 students: 32 students' total. Additionally, the District has developed a Birth-to-5 Liaison position to bridge the connection with school and young families providing resources, free books to students, and emphasizing the important of early childhood literacy.

The Brandywine Heights Intermediate School was developed in 2011 as an age-appropriate building which transitions students from a very supportive primary elementary school environment to a supportive environment with emphasis on independence and the development of greater responsibility. The Intermediate School houses approximately 60 students in fourth and fifth grade. The Middle School is comprised of 301 students in grades sixth, seventh and eighth grades. Coupled with a rich academic program, there is a strong emphasis on peer collaboration and interpersonal skills.

The High School, which was recently constructed in 2003, accommodates our ninth, tenth, eleventh, and twelfth grade students. The school instructs approximately 414 students with a rich academic program. The High School has strived to develop educational/career pathways for students. Currently, over 20% of students attend the career and technical school. The District has a robust music/arts program, a STEM/engineering program, computer science pathway, a science/medical pathway and a new Agriculture Education program. In 2025, the District will be building an expansion on the High School for the woodshop program and a greenhouse for the agriculture program.

Located within the High School, the Virtual Academy serves approximately 200 students. The virtual academy began back in 2009 to offer families within the district opportunities to learn virtually from home. Today, students can choose to participate fully in a cyber-education or engage in a blended approach where they attend school for some courses and partake in others virtually in their home.

Finally, the District Athletic program has over 50% of the student body (7th to 12th grades – PIAA eligible) participate in a sport. Aside from traditional sports, the District participates in partnership agreements with surrounding school districts to enhance opportunities. The District also offers unique programs like an ESPORTS program and Rifle Team. The District is in the process of creating a new athletic complex at the High School with a turf field, new track with the goal to create this space both as an athletic facility and community use space.

Source: <https://www.bhasd.org/page/profile>



Brandywine Heights Area School District
athletic fields and existing Middle School

The following tabulates general information of the School District's 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	2024–2025 Enrollment
Brandywine Heights Elementary School	1960	1980, 1990, 5 Classroom and 3 ancillary support rooms addition, New Gymnasium, New Office Space, Relocated and New Library and Common learning areas in 2021	10	Good	PRE–K–3	473	345
Brandywine Heights Intermediate School	1955	1968, 1995, Hallway, Common learning areas, cafeteria, Gymnasium and Auditorium Upgrades in 2022	32	Good	Intermediate School – 4–5	1190	457
Brandywine Heights High School	2003	Athletic Stadium Construction with improvements to Softball field, New Synthetic Track and New Turf Field in 2025	61	Good	9–12	800	414
Virtual Academy (Online/High School)	N/A	N/A	N/A	N/A	N/A	N/A	38 Full Time Students 115 Students taking at least one online course

Source: School District

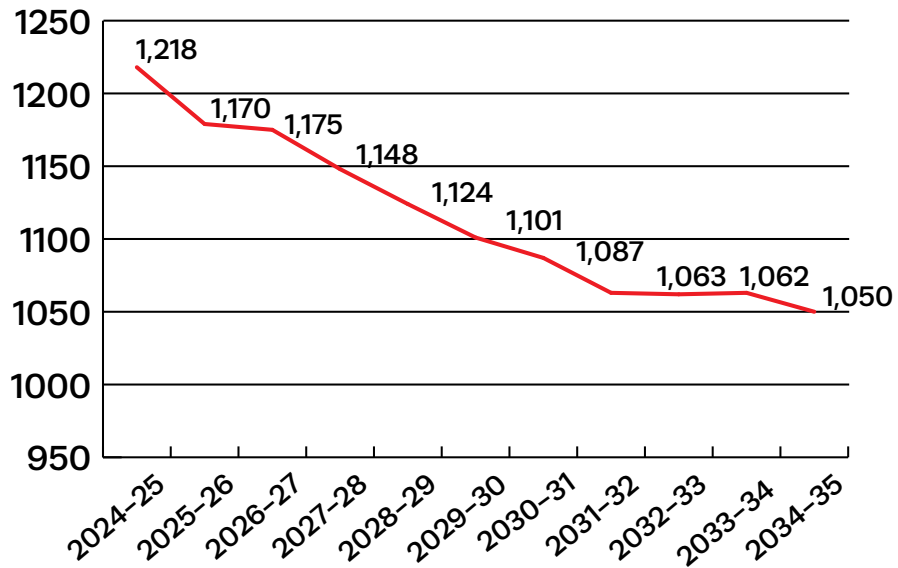
Over the past decade, the District has experienced a decline in student enrollment. This trend led to the closure of two smaller, rural elementary schools in 2010 and 2011. Census data from the Eastern Berks Comprehensive Plan region reflects an aging population and a decreasing number of children, contributing to a reduced population of school-aged students. Additionally, a shift toward more rental properties in the area has resulted in increased mobility, which has helped to stabilize enrollment numbers in recent years.

At the same time, the District has seen a significant rise in poverty levels, with the percentage of students living in poverty increasing from 18% districtwide to 35% today. In some grade levels, poverty now affects more than half of the students. In response, the District has prioritized collaboration with community partners to support families in need. These efforts include providing free summer meals, holiday meals, weekend food assistance, and access to a community mobile food market through a partnership with Helping Harvest. These initiatives are part of a broader network of outreach programs designed to ensure students and their families receive the resources they need. The District is carefully monitoring enrollment trends and constantly making adjustments as necessary with staff and resources to match the needs and enrollment in particularly programs, buildings and overall districtwide impact.

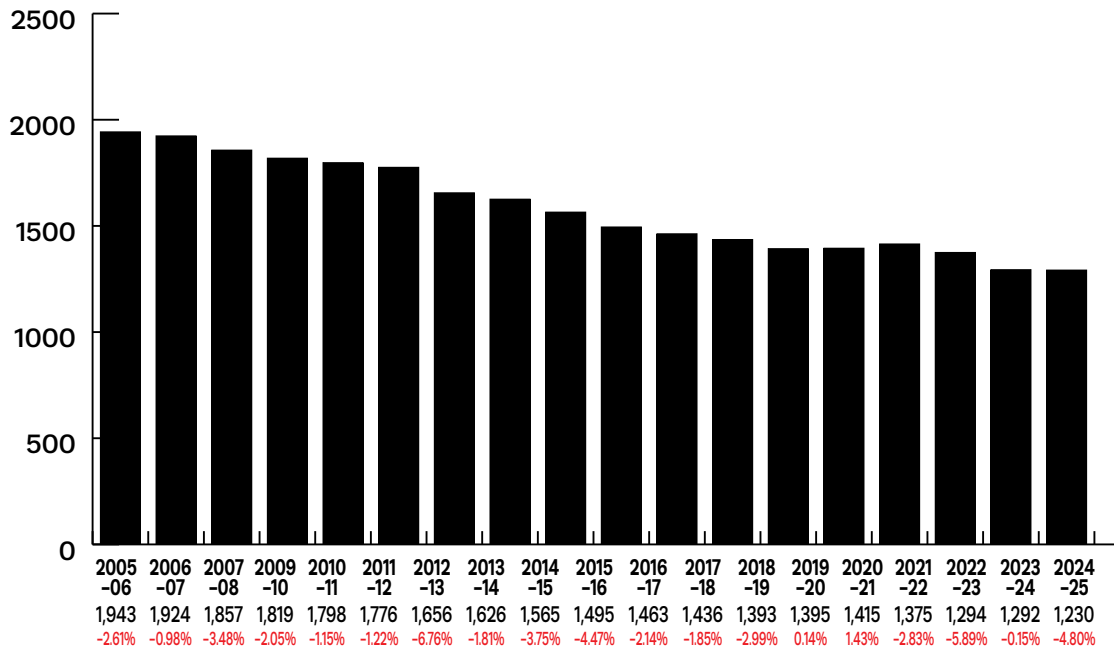
Brandywine Heights Area School District Enrollment 10-Year History and 10-Year Projection

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
K	100	95	103	84	100	92	93	84	84	84	84	80	80	80	80
1	80	96	104	101	93	109	93	75	88	77	85	84	80	80	80
2	119	81	101	105	104	99	102	81	83	88	81	85	84	80	80
3	105	118	83	103	103	110	93	96	84	80	93	81	85	84	80
4	118	99	115	81	105	105	104	88	100	83	79	93	81	85	84
5	116	120	105	114	85	108	106	102	91	100	81	79	93	81	85
6	92	111	119	107	114	85	110	103	104	91	104	81	79	93	81
7	120	93	118	118	107	119	87	105	107	106	94	104	81	79	93
8	120	121	96	124	122	112	120	88	104	100	103	94	104	81	79
9	129	125	130	101	130	136	116	119	94	108	104	103	94	104	81
10	129	119	118	121	94	123	127	110	115	85	107	104	103	94	104
11	155	122	111	120	120	96	125	124	110	111	84	107	104	103	94
12	112	163	133	114	118	121	99	119	128	117	119	84	107	104	103
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Total	1,495	1,463	1,436	1,393	1,395	1,415	1,375	1,294	1,292	1,230	1,218	1,179	1,175	1,148	1,124
% Change	-4.47%	-2.14%	-1.85%	-2.99%	0.14%	1.43%	-2.83%	-5.89%	-0.15%	-4.80%	-0.98%	-3.20%	-0.34%	-2.30%	-2.09%
Ave Grade	115	113	110	107	107	109	106	100	99	95	94	91	90	88	86

Future Enrollment Projection



District Enrollment Trend



Police Protection

The Pennsylvania State Police, Troop L, provides police protection to the region. Troop L is headquartered at 600 Kenhorst Blvd., Reading, PA 19611

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.

Police Protection

As a rural area develops, local officials find it challenging to invest the tax base in increased level of public facilities and services to the community. This is often caused by the difference in opinion of community members who desire to maintain the status quo while newer members of the community wish to increase public facilities and services. This often can lead to conflicts in planning that are only resolved by the election of new public officials.

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.

Fire Protection and Ambulance Service

Fire protection & Ambulance service are basic public safety services that are important to the Region. 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. 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 pages summarize fire protection and ambulance services within the Region, respectively. Much of the data was taken from the previous comprehensive plan and is noted accordingly.

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. (*2015) Mutual Aid	Topton Volunteer Fire Co. # 1
First Call Service Areas Within the Region (see Public Facilities Map)		District, Bally, Bechtelsville, Washington, Pike	Rockland, Lyons & Maxatawny	District , Oley & Pike	Ruscombmanor	District, Hereford, Longswamp	100% Longswamp 100% Topton 15% of Maxatawny
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, Rockland	As dispatched	5% Maxatawny Kutztown Lyons Rockland Hereford District Upper Macungie Lower Macungie Alburtis Weisenberg
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	600 State Street Mertztown, PA
Avg. No. of Volunteers		30 active	20 active 7 support staff	30 active 4 fire polic	7active , 3 part-time 2 fire police	20 active	Operations – 29 Scene Support – 15 Fire Police – 5 Fundraising Support – 24
1st Due Calls 2021-2023	2021	300 avg.	2020 Total Calls = 295 2021 Total Calls = 283 2022 Total Calls = 303 2023 Total Calls = 302 2024 Total Calls = 358	N/A	150 avg.		321
	2022	350 avg.		N/A	150 avg.		428
	2023	400 avg.		N/A	150 avg.		449
Mutual-Aid Calls 2021-2023	2021	50 avg.		N/A	150 avg.		22
	2022	75 avg.		N/A	150 avg.		64
	2023	100 avg.		N/A	150 avg.		62
Avg. Emergency Response Time*		10 mins. or less	5 – 8 mins.	4 mins.	10 minutes or less	> 5 mins.	2 Minutes 30 Seconds
Major Equipment		• Hurst Rescue Tools & Air Bags • 5" hose • Class A & B Foam • 2 Engines 1500 gpm • 2 Tankers 2000 gal. • 3 Brush Trucks • Attack • Utility • ATV	• New 2024 Pierce Rescue Engine • 2025 Pierce Tanker 3,000 Gallons • 2003 4x4 Brush Truck • 2012 Utility Truck	• 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 Intl. Chassis KME Tanker w/2000 gal water tank & 1250 GPM pump. Assorted 1-3/4 & 2-1/2" attack lines & 2500 gal porta-tank • 2000 F450 BRUH Truck W450 GPM / 175 GAL Water Tank, Booster Lines, and other Hand Lines	• 2 pumpers • 2 tankers • brush truck	• 02 E-One Quint • 13 E-One Rescue/ Engine • 18 Spartan / Rescue 1 Heavy Rescue • 19 Fouts Bros. Tanker • 99 Ford Brush Truck • 23 Ford Utility (U21) • 92 Ford Utility (U21-1)

Summary Characteristics of Ambulance Companies Serving Eastern Berks County Region

Ambulance Company		Bally Community	Life Lion EMS (*2015)		Oley (*2015)		Topton	
Service Area		District, Douglass, Hereford, Longswamp, Upper Hanover, Pike, Washington; Bally, Bechtelsville	Rockland (portion), Fleetwood, Portions of Oley, Pike, Richmond, Ruscombmanor		District, Rockland, Alsace, Amity, Earl, Oley, Pike & Ruscombmanor		All of Topton, Longswamp, Maxatawny, Kutztown, and Lyons. Part of Rockland, District, Greenwich, Albany, and Richmond	
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, and 127 Quarry Road Kutztown PA 19530	
Average No. of Volunteers/Paid Staff		5 full-time staff 20 part-time staff	9 full-time staff 25 part-time staff 7 volunteers		15 full-time volunteers 10 part-time volunteers		14 Full time, 19 Part Time, 8 Volunteers	
Coverage Periods		24/7	24/7		24/7		24/7/365	
No. of Ambulance Responses (2011–2013)	Type of Response	Emergency	Overall	Rockland	Emergency	Non-Emergency	2023 911 Dispatches	2024 YTD 911 Dispatches
	2011	(2023) 1,549 (2024) 1,463	1669	107	N/A	N/A	2,345	3,458
	2012	27 N/A			N/A	N/A		
	2013	80			N/A	N/A		
Average Emergency Response		NA	2 mins		10 mins		3 mins	
Major Equipment		· 3 EMS Units	–2001 Chevrolet Tahoe – ALS Squad Vehicle –2003 Ford E-450 Ambulance –2007 Ford E-450 Ambulance –2009 Ford E-450 Ambulance		· 4 EMS Units		6 Transport Capable Ambulances, 1 Squad	

Future Volunteer Manpower

There is always a concern over declining numbers of volunteers. This is particularly true of the next generation of emergency service providers. Given the projected growth within the Region, future demands will rise and more manpower will be needed. Nationally, volunteerism is declining. As reported by The National Volunteer Fire Council, some of the challenges that Fire & Ambulance services face are that many local volunteer fire departments are struggling to meet staffing needs, the age of volunteer firefighters is increasing, small and mid-sized communities rely heavily on volunteer firefighters, and firefighting and emergency medical equipment is very expensive.

Source: <https://www.nvfc.org/wp-content/uploads/2022/12/NVFC-Volunteer-Fire-Service-Fact-Sheet.pdf>

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.

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. 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. While District Township has a fire tax, and Tipton Borough has a fire and ambulance tax, additional fundraising and grant efforts will be needed in the future. Additionally, Rockland Township is in the process of applying for a Local Share Account Statewide Program Grant, on behalf of Tipton Community Ambulance, for approximately \$362,000.00 for the purchase of a new ambulance.

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. Currently, District and Rockland Township both have one Dry Hydrant.

The Center for Excellence in Local Government EMS Study

The leadership of the Center for Excellence in Local Government at Albright College (CELG), through newsworthy happenings as well as through normal interactions with member municipalities became aware of a crisis developing in the delivery of (EMS) services in Berks County. Minimal research was necessary to understand that this problem exists almost universally throughout Pennsylvania and even throughout most of the nation. Lobbying and professional organizations representing both EMS and local government have published on the issue with efforts to both describe the problem as well as provide solutions. The County Commissioners Association of Pennsylvania undertook a project in 2022 to examine the "EMS Crisis" in PA and published a 2023 report on the matter. Even the PA Senate has convened hearings to examine the issue.

In an effort to better understand and characterize the problems locally, CELG representatives met twice with all of the 17 EMS organizations that provide primary coverage within Berks County in a group discussion format. Sensing that there was more information to be garnered that would be shared in a group environment, additional private meetings were conducted with each of the organizations.

This report efforts to summarize the information collected and provide the CELG member municipalities clarity about the extent and urgency of the issue. Additionally, it suggests priorities or focus points that should, in the view of the authors, become the next steps in working to harden and improve our local system of EMS delivery.

The recommendations and action steps from this study have been included in the goals section of this chapter, which align with the needs of the local fire and EMS agencies that cover this region.

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. The recommendations and action steps from this study have been included in the goals section of this chapter, which align with the needs of the local fire and EMS agencies that cover this region.



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, Tuesday, Thursday, Friday 8 a.m. – 4 p.m. Wednesday; 8AM-12PM

Office Email: smilo@toptonborough.com

Website: <https://toptonborough.com/>

Municipal Staff: The Borough currently has seven employees which include a Borough Manager, Borough Treasurer, Administrative Assistant, Sewage and Water Operators, Road and Public Works Staff. The operators, road, and public works staff divide their time between roles.

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.

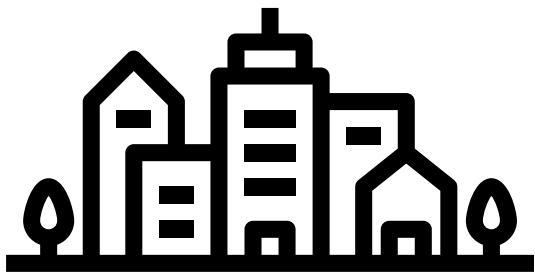
Borough Council: Borough Council is the elected governing body of the Borough. The 7-member Council meets on the 2nd & 4th Mondays of the month, in the Borough Hall. They serve 4-year terms, review issues involved in operating the municipality, address resident concerns and set future policy standards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

Planning Commission: Members are appointed by Borough Council for 4-year terms. The 5 member board meets in the Borough Hall quarterly. 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, in existence.



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.

Office Email: office@districttownship.org

Website: <https://districttownship.org/>

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

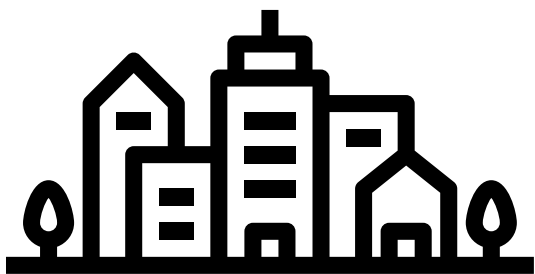
Board of Supervisors: Board of Supervisors is the elected governing body of the Township. The 3-member Board meets in the Municipal Building on the 3rd Thursday of the month, at 7:00 p.m.

Planning Commission: Members are appointed for 4-year terms. The five members meet in the Municipal Building on the 1st Wednesday 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: (Inactive)

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.



ROCKLAND TOWNSHIP



Office Address: 41 Deysher Road, Fleetwood, PA 19522

Office Phone Number – (610) 682-6311

Office Fax Number – (610) 682-4717

Office Hours: Monday–Friday; 9 a.m. – 4 p.m. (Closed 12:00PM – 1:00PM)

Office Email: rocktwp1@ptd.net

Website: <https://rocklandtownshipberks.org/>

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 three part-time road crew are responsible for the maintenance/repair of Township roads.

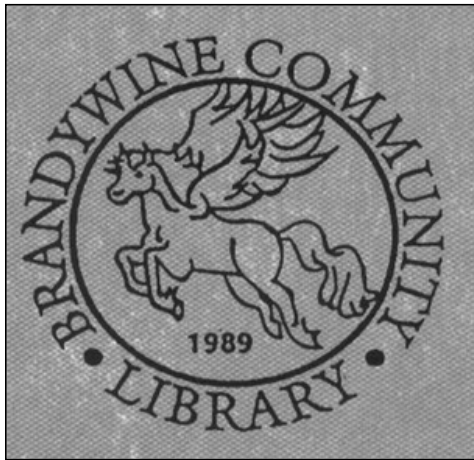
Board of Supervisors: Board of Supervisors is the elected governing body of the Township. Members are elected for 6-year terms. The three member Board meets at the Township Office on the 2nd Monday of each month. Duties include governing and execution of legislative, executive and administrative powers 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 Wednesday 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



Office Address: 60 Tower Drive, Tipton, 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

Email: bcl@brandywinelibrary.org

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

Tipton Borough

District Township Longswamp Township

Rockland Township

Outreach program to Lutheran Home at Tipton

Population – 12,863 12,632 (using 2020 census numbers)

Hours of Operation – Monday and Tuesday 10 AM– 7 PM, Wednesday and Thursday 10 AM– 5PM, Friday 10 AM– 4 PM, Saturday 9 AM– 4 PM

Personnel – Library Director, Youth Services Coordinator, 5 circulation clerks

Facilities Inventory – 7 rooms, 8 computers, 30,741 collection size & DVDs, music CDs, video games, audio books, children's early literacy workstation, newspapers, magazines, board games, library of things (tools/household/yard games), ebooks, eaudiobooks, Public Wireless Network, Fax service, copy, scan and print services

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

Funding and Budget – 2024 Local Municipality Support: District Township \$3,350 (\$2.50 per capita), Longswamp Township \$14,000 (\$2.51 per capita), Rockland Township \$6,200 (\$1.70 per capita) and Tipton Borough \$15,000 (\$7.00 per capita) with average per capita \$3.06

Adopted for 2025: District Township \$3,350 (\$2.50 per capita), Longswamp Township \$14,000 (\$2.51 per capita), Rockland Township \$6,200 (\$1.70 per capita) and Tipton Borough \$5,122 (\$2.51 per capita) with average per capita \$2.28 which will also reduce county funding since under 2.50 average per capita

Operating Income (2024)		% of Total
State of Pennsylvania	\$61,458.58	30.89 %
Berks County	\$40,943.00	20.58 %
Local Municipalities	\$38,550.00	19.38 %
Other Local Sources	\$57,991.32	29.15 %
TOTAL	\$198,942.90	

Operating Expenses (2024)		% of Total
Salaries and Benefits	\$114,297.14	64.88 %
Collection Expenses	\$21,245.80	12.06 %
Operating Expenses	\$40,631.09	23.06 %
TOTAL	\$176,174.80	

Goals:

Schools

Work together with the School District municipalities to plan for growth and local residential school recreational facilities use.

- Communicate residential development approvals to school district for projected growth needs
- Create a joint agreement with municipalities and the school district that allows the local population to utilize school recreation facilities

Police Protection

Maintain and plan for continued satisfactory police services

- Annually assess police coverage trends and needs
- Work together on grants to fund police coverage assessment – highlighting future projected needs

Fire & Ambulance Services

Create an Emergency Services Alliance, which works towards these targeted goals:

- Recruit firefighters/EMTs who live within and outside of the Region and work for businesses located in the region.
- Maintain and increase policies with local governments and businesses that enable their employees to respond to daytime emergencies.
- Design ongoing recruitment strategies for new resident volunteers and retention strategies for existing volunteers; and,
- Maintain and continue the offering of a “junior” firefighting curriculum within the Public School Districts as a means of developing interest and expertise among potential future volunteers.

Once established, but prior to actual recruiting, the Alliance should complete the following evaluation process:

- Determine the need by local fire/ambulance chiefs for more volunteers from any of the preceding sources within their respective companies;
- Establish policies within the Region’s fire and ambulance companies that allow for nonresidents to become members of their respective companies;
- Identify those local and nonresident volunteers who work for companies within the Region who could potentially respond to daytime emergency calls;
- Determine the level of competence of potential volunteers and/or training needed to “run” with local companies;
- Establish ongoing working agreements with local businesses for the release of volunteer firefighters/EMTs during daytime emergencies;
- 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,
- Establish an ongoing mechanism that periodically reinitializes the recruitment process.
 - Partners: All existing regional fire and ambulance services, Berks County Department of Emergency Services

Establish municipal recognition & funding criteria

- To help spread awareness of fire and ambulance services, 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 encourage others to offer support. 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.
- 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, helping to support local volunteer efforts, rather than allowing for complete failure of the volunteer system which would then be replaced by a completely-paid force.

Update local ordinances to address needs

- Update emergency access standards in local ordinances, including:
 - 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.
- Increase Dry Hydrant Installation – 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
- Annually update mapping records to accurately reflect existing emergency access existing infrastructure

Action Items from The Center for Excellence in Local Government Emergency Medical Provider (EMP) Initiative

- **Mutual Aid**
 - All EMS providers must be compelled to utilize GIS based dispatching if municipal financing is provided.
 - EMS providers should be compelled to share anticipated staffing schedules with adjacent providers and in particular last-minute changes to anticipated unit deployment or unit service levels when they are reduced due to staffing or out of service equipment so that surrounding agencies have the opportunity to upstaff to mitigate the shortage.
 - The County and EMS providers must work to modify the dispatching model to incorporate the primary dispatch of intermediate ALS (IALS) units, as well as non-transport/squad ALS to better stretch access to limited ALS personnel.
- **Staffing/Recruitment and Retention Training**
 - Elected officials from local, county and state levels must work together with community educational resources such as the colleges and universities, as well as technical and healthcare training schools to ensure an adequate availability of EMS educational programming. This should include training to executives and management personnel.
- **Compensation/Benefits**
 - While the current crisis calls for an immediate improvement in pay, a long-term solution can only be established subsequent to a comprehensive salary and benefit analysis to fully detail the process to establish EMS as a bona fide career and ensure positions in the Berks County geography are market competitive.
- **Funding**
 - Develop a campaign to educate federal and state elected and appointed officials about the lack of insurance funding, the inconsistent application of funding rules, and the ability of private insurance companies to compel EMS providers to accept reduced reimbursements in order to accept direct payments and the reimbursement inequity for direct reimbursement verses payment from the patient. CELG will coordinate the effort.
 - Each EMS provider must meet with the municipalities in their service areas to establish an appropriate annual actual subscription rate/per household contracted cost. Each municipality must commit to paying that rate.
 - If a municipality is providing in-kind services, these services must be monetized, and the value used to offset agreed upon annual municipal subscription costs.
 - The above referenced subscription program, inclusive of the recognition of in-kind services should be established through an intergovernmental cooperation agreement similar to regional police and fire operations.
- **Reporting**
 - Where any public funding is provided, within an EMS service area:
 - a. There should be a standardized reporting process to report planned and actual staffing of units including the level of service delivery.
 - b. Request for funding, especially those that exceed a prior year's request, should be substantiated fully. Why does the agency need more money? The present model is that all that a municipality sees is a request for additional funding. Generally, the "justification" provided is in the form of a shortfall from existing funding for a single call versus actual cost/call, or the cost of staffing a single ambulance annually, or the cost of some single piece of equipment like an ambulance. This falls short of the process generally required for a department of government making a budget presentation for a funding increase.
 - c. If municipal funding is being requested, a detailed operational budget with staffing and a separate capital budget, shall be provided to the municipality no later than October 1 of the preceding year, or within the process established by the municipality for its own budget.
 - d. Quarterly operational and financial updates must be provided to each municipality. These reports should address financial viability of the EMS provider and, where EMS providers are larger than the local Berks County area being served, whether the cost of the local operation in the form of budgeted versus actuals, is being properly supported by local revenues. CELG will work with EMS providers where assistance is needed.
 - e. The budget should be supportive of their funding request and uniformly spread among all the municipalities in the service area.

- **Agency Consolidation**

- All EMS agencies need to develop interagency cooperation agreements to foster better service delivery. Areas of opportunity include billing, purchasing including capital items, scheduling, and physical asset and personnel sharing.

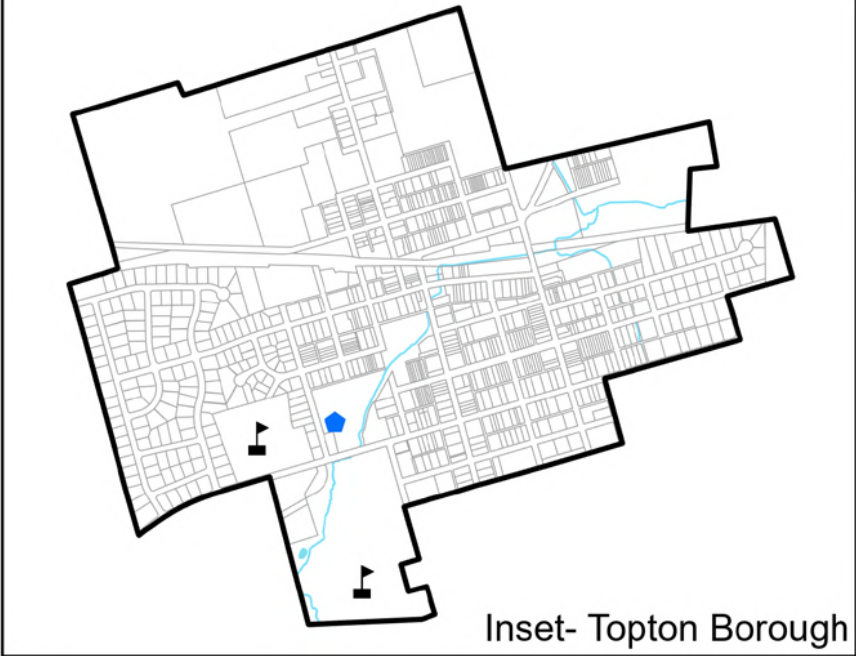
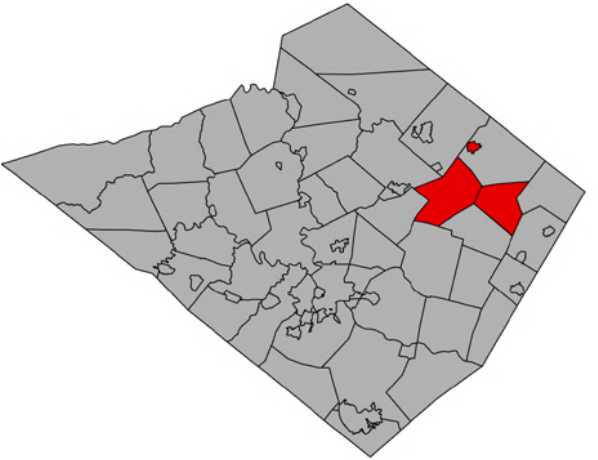
Brandywine Community Library

Seek additional funding for increased services:

- Apply for grants and seek funding opportunities to provide staff with benefits, increase space/capacity, and close any funding gaps.

Rockland Township, District Township, and Topton Borough
Joint Comprehensive Plan Update: August 20, 2026

Community Facilities



Inset- Topton Borough

Legend

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

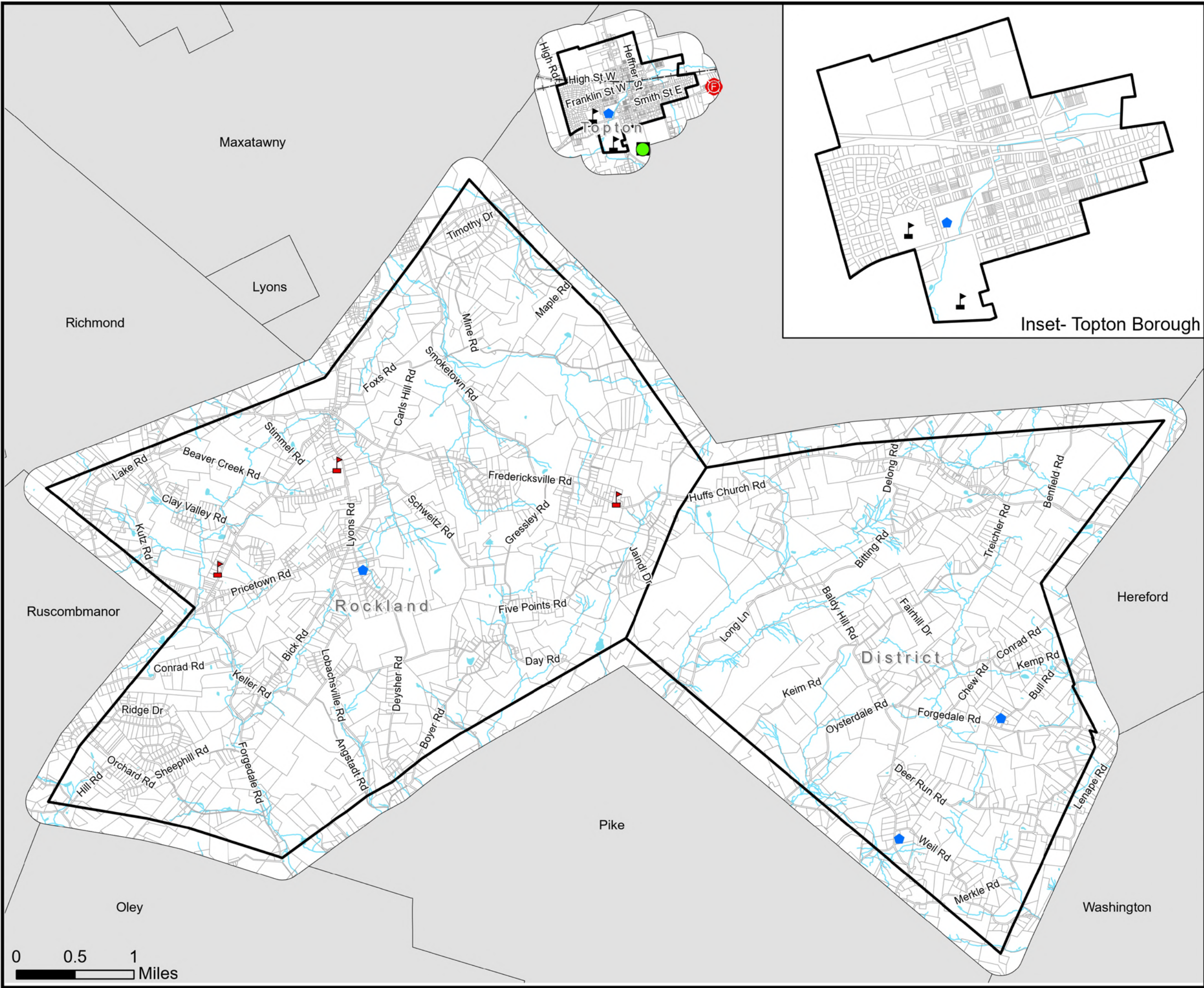
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission

BAB 8/26



www.berkspa.gov/planning



Energy Conservation & Sustainability

Energy conservation and energy sustainability go hand in hand when planning for the future. Energy conservation is the prevention of the wasteful use of energy. Energy sustainability is energy that meets present needs without compromising the ability of future generations to meet their own needs.” “Efficiency and conservation measures can help to directly lower consumers’ energy bills and potentially reduce greenhouse gas emissions associated with energy use. Consumers also benefit indirectly when reducing their electricity consumption helps to reduce demand on the electric system. High electricity demand often results in higher costs for generating and transmitting electricity that may be passed on to utility customers.” As municipalities plan for the future and consider energy usage and infrastructure, it will be beneficial to consider ways to reduce costs, increase sustainability, and lower the demand on energy infrastructure systems.

For more information, click [here](#)¹.

Renewable and Clean Energy Sources

Harnessing the kinetic energy from wind movement, light energy from the sun, and heat energy from inside the earth can save on energy production and reduce the amount of non-renewable resources needed to create energy. Wind, solar, and geothermal are forms of renewable and clean energy. The use of these renewable and clean energy sources reduces the amount of pollution created from burning non-renewable resources and fossil fuels.

Although the conversion of biomass into energy and the capture of energy from flowing water are considered renewable, they are not clean. The generation of these types of energy produce greenhouse gases. These are gases in the atmosphere that absorb energy, slowing or preventing the loss of heat to space. They act like a blanket, making the earth warmer than it would otherwise be. This process, commonly known as the “greenhouse effect,” is natural and necessary to support life. However, the recent buildup of greenhouse gases in the atmosphere from human activities has changed the earth’s climate and resulted in dangerous effects to human health and welfare and to ecosystems. However, these energy sources only produce a fraction of the greenhouse gases that burning fossil fuel does. As defined by the Environmental Protection Agency (EPA) Fossil Fuels are a general term for organic materials formed from decayed plants and animals that have been converted to crude oil, coal, natural gas, or heavy oils by exposure to heat and pressure in the earth’s crust over hundreds of millions of years. The EPA notes that “the largest source of greenhouse gas emissions from human activities in the United States is from burning fossil fuels for electricity, heat, and transportation.” By studying the environmental impact, and planning the location of these energy sources, the drawbacks of using these energy sources can be reduced.

One of the key resources that is available to assist with the planning of renewable energy initiatives is The National Renewable Energy Laboratory (NREL). This is a national laboratory of the U.S. Department of Energy (DOE), Office of Efficiency and Renewable Energy. NREL provides decision support, technical assistance, resources, and tools to help municipalities plan for and implement clean energy solutions.

Building Considerations

Green (or “sustainable”) building involves using practices and techniques through all the phases of the development process that minimize and reduce negative environmental impact. The development process includes everything from siting and design, to maintenance, renovation, and demolition. Green buildings reduce negative impacts on human health, minimize air pollution generated during all phases of development, and minimize waste. In addition, they reduce negative impacts by efficiently using energy, water, and other resources.

In the region, the Brandywine Heights school district has worked with Energy Service Companies (ESCOs) to perform energy audits and has made upgrades to systems to help with that process. The school district is open to an energy audit to help conserve and find areas to improve their energy efficiency.

Incentives

The increase on energy dependent devices adds into higher energy consumption rates. Incentives help encourage the public to transition from energy demanding habits to energy conserving habits. According to the U.S. Energy Information Administration, the average Pennsylvania family consumes more than 10,000 kilowatt-hours (kWh) of electricity annually and spends more than \$2,000 per year on energy bills. To mitigate these costs there are renewable energy and energy efficiency financial incentives to help at the residential level.

Through Act 129, the Pennsylvania Public Utility Commission (PUC) ensures that electric utilities throughout the state provide energy efficiency and conservation programs to customers. Residential electric energy efficiency measures through this program that are available to residents of the region include those regarding LED lamps and fixtures, energy efficient appliances, HVAC programs, home and online energy efficiency audits, new home constructions, appliance recycling, thermostat upgrades, and insulation/weatherization. Programs are also available to teachers to help develop and disseminate curricula about important issues.

¹ <https://www.eia.gov/energyexplained/use-of-energy/efficiency-and-conservation.php>

Incentives are also provided by the Pennsylvania Department of Environmental Protection (PA DEP) and the Department of Community and Economic Development (PA DCED). These incentive programs are available for school districts, municipal authorities, political subdivisions, nonprofit entities, corporations, limited liability companies or partnerships incorporated or registered in Pennsylvania. These incentives include rebate, loan, and grant programs, solar alternative energy credit programs, as well as tax credits and deductions.

The separation of land uses that require more driving and the underuse of public transportation promote pollution. Using energy efficient vehicles can reduce the amount of non-renewable resources being consumed. The state provides a cash rebate to consumers that purchase a new plug-in hybrid, plug-in electric, natural gas, propane, or hydrogen fuel cell vehicle through the Alternative Fuel Vehicle Rebate Program. The Plug-In Electric Drive Motor Vehicle Federal Tax Credit is another incentive for those making the switch to an electric vehicle. Fleet electrification incentives are also available through the PA DEP Alternative Fuels Incentive Program and the Alternative Fuels Technical Assistance Program.

Goals:

Work with regional partners (public, private, non-profit) who seek to increase energy efficiency and sustainability.

- Assist the Brandywine School District with obtaining new energy audits to increase energy efficiency
- Seek and identify targeted funding opportunities that regional partners can take advantage of for energy efficiency needs and desires

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.

Parks and Recreation Administration

Presently each of the individual participants (municipalities and school districts) acquire, develop and program their parks independent from one another.

The Parks and Recreation Maps (Figures 10–11) utilize 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
<i>Topton Borough</i>	<i>28.46</i>
Brandywine Heights Intermediate and Middle School (Recreational Areas)	11.91
Brandywine Heights Elementary School (Recreational Areas)	3.92
Topton Community Park	10.17
Brandywine Youth Baseball Association	2.46
<i>District Township</i>	<i>235.43</i>
Gordon Park	53.72
Game Lands 315	137.84
Pine Creek Valley Open Space	43.87
<i>Eastern Berks County Region</i>	<i>263.89 acres</i>

The 2022 Berks County Greenway, Park and Recreation Plan is an update to the 2007 Plan. This plan sets specific goals for the direction Berks County should take to provide future open space, greenways, and recreation for its citizens. The 2022 Plan provides information for the development of future recreational facilities and the preservation of the greenway system which the County, municipalities and nonprofit organizations should use to seek and apply for various grants and funding. This plan is to be used as a guideline by the County and municipal officials for how this can be achieved.

For the Greenway plan, the mapping analysis was completed using a Geographic Information System (GIS). GIS is a software program system that creates, manages, analyzes, and maps all types of data. The components of the 2007 Greenway network served as one component of the base data layers for examining what has changed to the County Greenway system over the last fifteen years. Additionally, there are several other data layers that were used in the overall analysis, which include: Berks County parcel data, Municipal Recreation plans, the Berks County Comprehensive Plan Update 2030 Future Land Use, Trail data, DCNR 10 Minute Walking data layer, Natural Heritage Area Core Habitats, and Important Bird Areas. The 2022 Greenway, Hubs and Nodes Analysis was conducted for the entire County. Additionally, maps for each of the County's five planning regions have been created to further capture in more detail what the greenway system looks like in any one region. In 2007, a thorough analysis was completed to identify the greenway network in the County. The greenway network is composed of a system of hubs, nodes and corridors that highlight the County's significant ecological habitats as well as our historic, cultural, and recreational resources. Each of these components are defined to capture the specific contribution they bring to the Greenway network. The 2007 Greenway Hubs are defined as anchors for the greenway network which have concentrations of cultural, historic, and local recreational resources. Greenway Hubs are primarily large areas of significant natural resource value that support native species, maintain vital ecological functions, and protect significant geologic features. Additionally, the greenway hubs provide habitat for wildlife moving to or through them. The 2007 Corridors are linear features that link together the greenway hubs and nodes. The 2007 Nodes are primarily county boroughs which provide support services to the recreational amenities and greenway systems. Specifically, trail heads, restaurants, points of interest, and lodging. It is important to note that the greenway network does not require or imply public ownership of all the land in the system. Privately-owned land will play an important role, particularly in the future conservation of the greenway hubs, nodes and corridors.

Below is a table that shows the Greenway plan features found in each municipality in the region:

<u>Municipality</u>	<u>Greenway Plan Feature</u>
District Township	Destination Hub, Destination/Ecological Hub, Future Greenway System, Ecological Hub, Priority 1 & 2 Corridor
Rockland Township	Ecological Hub, Priority 1, 2, & 3 Corridor
Topton Borough	Destination Hub, Priority Corridor

**Source: BCPC Greenway, Parks, Recreation Plan & GIS Mapping*

Important Greenway plan features to note in the region –

- Corridor Expansion #5 is located in District Township. This expansion area would provide a connection between two existing Secondary Connection Greenway Corridors and is approximately 410 acres. This area also overlaps with a large Ecological Greenway Hub and is directly adjacent to a Primary Connection Greenway Corridor. A majority of this area is preserved with Conservation Easements allowing for limited development in the future which would assist with preserving the newly added Corridor.

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. The National Recreation and Park Association's (NRPA) minimum standard for local parklands is 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.

Goals/Action Steps

- The municipalities should prepare and submit an application to PA DCNR for a peer grant to determine the feasibility of creating a Regional Recreation Board (RRB).

Enhance local ordinances and provide public education on riparian buffers

- Newsletter articles should be used occasionally to introduce these concepts and feature successful implementation examples as they occur.
- Educate the local population, especially those residences near high value streams and creeks, about the USDA Natural Resources and Conservation Service's 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.

- Assemble and organize local groups, such as the sportsmen/sportswomen and youth environmental students/groups to help educate and spread the importance of riparian buffers to the public.
- The School District should continue to 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.
- 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.

FACILITIES INVENTORY

The following inventories are a series of tables which list 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.

NAME	Gordon Park	Game Lands 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			X	
FISHING		X	X	
HANDICAP ACCESSIBLE				
HIKING		X		
HUNTING	X	X		
MUSEUM HERITAGE			X	
NATURE STUDY	X			
OPEN FIELD	X		X	
PICNIC AREA	X		X	
SOFTBALL			X	
SWIMMING			X	
TENNIS	X		X	
TOT LOT PLAYGROUND	X		X	
VOLLEYBALL	X			
RESTROOM	X		X	
PAVILION	X		X	

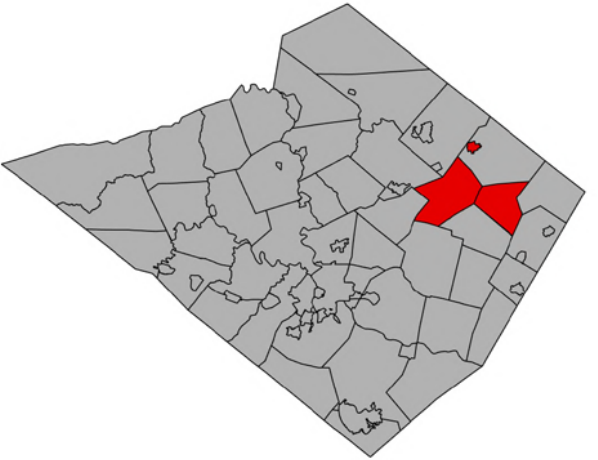
SCHOOL FACILITIES INVENTORY			
NAME	Middle School	Elementary School	Hogan Learning Academy
MUNICIPAL	Topton	Topton	Rockland
OWNERSHIP	School	School	Private School
ACREAGE	11.9	3.9	10.0
TYPE	School Park	School Park	School Park
BASEBALL	X	X	
BASKETBALL		X	
FIELD HOCKEY	X		X
HANDICAP ACCESSIBLE	X	X	X
NATURE STUDY	X	X	X
OPEN FIELD	X	X	X
PICNIC AREA	X	X	X
SOCCER	X	X	X
SOFTBALL	X		
TENNIS	X		
TOT LOT PLAYGROUND		X	
TRACK	X	X	X
VOLLEYBALL	X	X	X
OTHER	X	X	X
RESTROOM	X	X	X
PAVILION	X		X

INDOOR FACILITIES INVENTORY			
SITE NAME	High School	Middle School	Elementary School
GYMNASIUM	X	X	X
FULL BASKETBALL COURT	X	X	X
LOCKER ROOMS	X	X	
WEIGHT ROOM	X	X	
WRESTLING ROOM	X	X	
MULTIPURPOSE ROOM	X	X	X
AUDITORIUM (NO. OF SEATS)	825	525	
MUSIC ROOM	X	X	
GYMNASTICS ROOM (EQUIPMENT)	X	X	
LIBRARY	X	X	X
MEETING ROOM	X	X	X
COMPUTER LAB	X	X	X

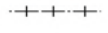
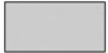
FIGURE 10

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Parks and Recreation



Legend

-  State Recreation Land
-  Municipal Recreation Land
-  Nonprofit Recreation Land
-  School Recreation Land
-  Railroads
-  Municipal Boundaries

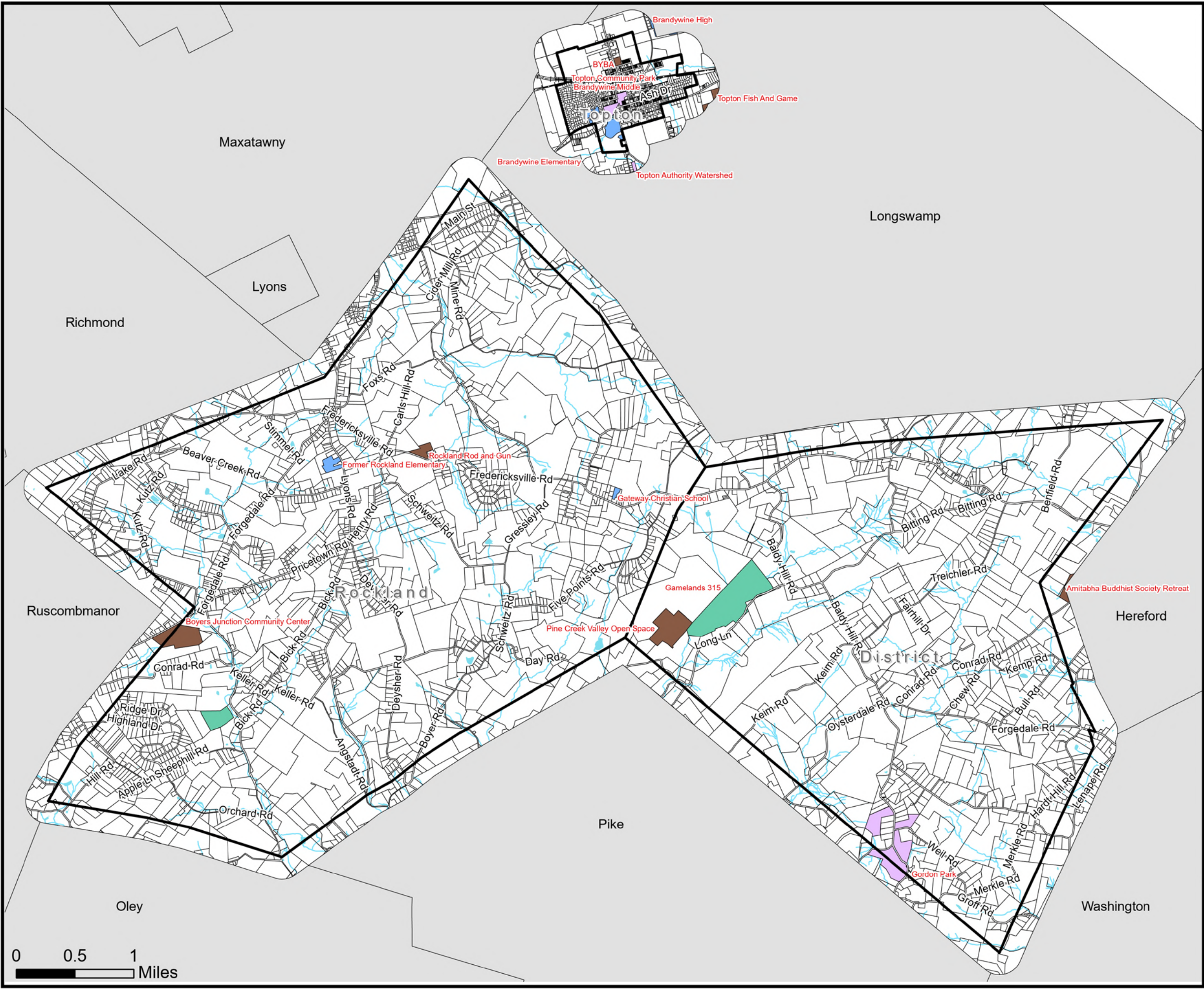
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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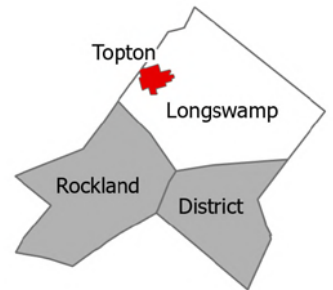
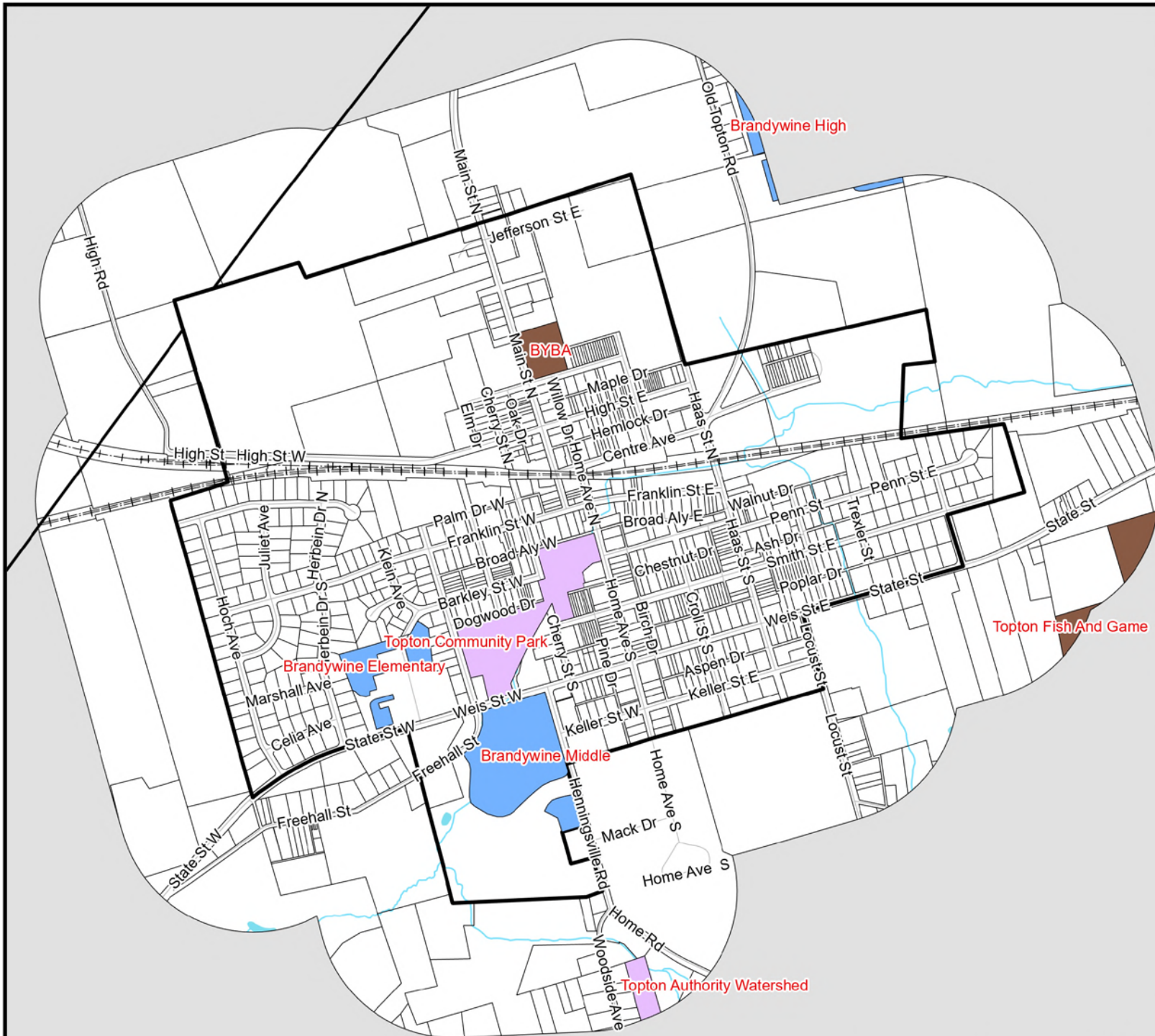


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FIGURE 11

Rockland, District, Tipton
Joint Comprehensive Plan Update
August 20, 2026

Tipton Borough Parks and Recreation



Legend

- State Recreation Land
- Municipal Recreation Land
- Nonprofit Recreation Land
- School Recreation Land
- Tax Parcels
- Municipal Boundaries

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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HOUSING AND ECONOMIC DEVELOPMENT

Housing Profile

The municipalities within the Eastern Berks County Region all have a stable housing stock with very low vacancy rates. A healthy vacancy rate is between 5–8% generally. Under 5% can indicate that there is a greater demand for housing than supply offered. As demand rises, often prices rise as well, and which could also make it difficult for tenants to afford their rental units. Conversely, too high of a vacancy rate, and a community risks an increase blight as unoccupied homes potentially fall into disrepair.

The Parks and Recreation Maps (Figures 10–11) utilize 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.

Profile of Housing Characteristics								
Type	District			Rockland			Topton	
	#	%		#	%		#	%
HOUSING OCCUPANCY								
Total housing units	591			1,435			953	
Occupied housing units	570	96.4%		1,435	100.0%		916	96.1%
Vacant housing units	21	3.6%		0	0.0%		37	3.9%
1–unit, detached	526	89.0%		1,364	95.1%		414	43.4%
1–unit, attached	4	0.7%		23	1.6%		333	34.9%
2 units	0	0.0%		15	1.0%		60	6.3%
3 or 4 units	0	0.0%		9	0.6%		27	2.8%
5 to 9 units	0	0.0%		0	0.0%		79	8.3%
10 to 19 units	0	0.0%		0	0.0%		40	4.2%
20 or more units	0	0.0%		0	0.0%		0	0.0%
Mobile home	61	10.3%		24	1.7%		0	0.0%
Boat, RV, van, etc.	0	0.0%		0	0.0%		0	0.0%

US Census American Community Survey 2017–2022 DP04

According to an analysis done by the Reading–Berks Association of Realtors (RBAR), pre-COVID home sales in 2019 were dramatically lower in 2024. This is a trend shown nationwide, but in the Eastern Berks Region, a highly desirable community with already limited housing stock, the effect of less than half the amount of homes on the market has caused more than half of the homes sold in 2024 in Topton and Rockland in particular to sell higher than the peak pricing in 2019.

Age of Current Housing Stock						
YEAR STRUCTURE BUILT	District		Rockland		Topton	
Total housing units	591		1,435		953	
Built 2020 or later	0	0.0%	0	0.0%	0	0.0%
Built 2010 to 2019	36	6.1%	22	1.5%	0	0.0%
Built 2000 to 2009	83	14.0%	112	7.8%	15	1.6%
Built 1990 to 1999	99	16.8%	357	24.9%	79	8.3%
Built 1980 to 1989	101	17.1%	271	18.9%	80	8.4%
Built 1970 to 1979	70	11.8%	261	18.2%	82	8.6%
Built 1960 to 1969	58	9.8%	69	4.8%	60	6.3%
Built 1950 to 1959	20	3.4%	136	9.5%	116	12.2%
Built 1940 to 1949	15	2.5%	18	1.3%	46	4.8%
Built 1939 or earlier	109	18.4%	189	13.2%	475	49.8%

US Census American Community Survey 2017–2022 DP04

The housing stock in the EBCR, like much of the Northeast, is aging. Most notably, the majority of the homes predating the year 2000. Approximately half of the homes in Topton Borough are more than 85 years old. No homes were built in this Region from 2020 to the time of ACS data collection.

Tax Bases

From the perspective of municipal administration, the Region's tax base drives the ability to invest in amenities, infrastructure, and professional services that the residents rely on and expect. From a resident's perspective, a given Region's tax burden influences their decision on where they move and how long they stay in a given area, whether they invest in properties, and where they develop businesses. The existing and future real estate of the municipalities provides both opportunities and constraints for maintain and attracting homeowners, businesses, and jobs. Overall, the key to economic stability or growth is to optimize the tax base by making every acre of land as productive as it can be without compromising the community's wants and needs and without infringing on the Region's characteristic natural and environmental resources that have made this community such a desirable place to live, work, and play in.

Tax Collection on Market Value of Tax Base				
Municipality	2003	2013	2023	% Change 03–23
District	107.2%	65.5%	60.9%	–46.3%
<i>Longswamp</i>	<i>106.8%</i>	<i>69.4%</i>	<i>63.6%</i>	<i>–43.2%</i>
Rockland	105.7%	68.5%	62.6%	–43.1%
Topton	106.2%	74.0%	62.1%	–44.1%
Average	106.5%	69.3%	62.3%	–44.2%

Source: Pennsylvania State Tax Equalization Board Market Value Reports 2003, 2013, 2023

In the three municipalities (as well as Longswamp Township, which is not included in the study but is within the Brandywine Heights Area School District), the market value and the assessed value of the tax base have both increased, but at very different rates (see Housing and Economy Appendix for more information). Topton Borough saw very little change in the assessed value of its tax base at just under 6% difference from 2003 to 2023 while the Townships saw an increase by 15–25%. This is in stark contrast to the Region as a whole seeing an increase of their market value of over 100%. There are three primary factors, combined, that typically drive this incongruence. One, Berks County has not done a reassessment since 1994. The longer the period between reassessments generally means less of the “market” value of the base will be collected over time. Secondly, any number of successful reassessment appeals further decreases that assessed tax base. Thirdly, when property values decline, the tax base upon which the tax is levied shrinks. However, the data suggests that at the present, values have rebounded from the recession of 2007–2009 and thus should not be a factor at the time of publication.

Eastern Berks Workforce						
	District		Rockland		Topton	
	#	%	#	%	#	%
Total Resident Workers	810		2,051		1,304	
Agriculture, forestry, fishing and hunting	3	0.4%	41	2.0%	0	0.0%
Mining, quarrying, and oil and gas extraction	0	0.0%	0	0.0%	5	0.4%
Construction	81	10.0%	178	8.7%	110	8.4%
Manufacturing	154	19.0%	548	26.7%	265	20.3%
Wholesale trade	18	2.2%	0	0.0%	18	1.4%
Retail trade	60	7.4%	100	4.9%	123	9.4%
Transportation and warehousing	11	1.4%	14	0.7%	80	6.1%
Utilities	19	2.3%	15	0.7%	5	0.4%
Information	21	2.6%	40	2.0%	5	0.4%
Finance and insurance	23	2.8%	52	2.5%	40	3.1%
Real estate and rental and leasing	9	1.1%	0	0.0%	18	1.4%
Professional, scientific, and technical services	57	7.0%	38	1.9%	80	6.1%
Management of companies and enterprises	8	1.0%	0	0.0%	0	0.0%
Administrative/support and waste management	23	2.8%	35	1.7%	94	7.2%
Educational services	83	10.2%	261	12.7%	74	5.7%
Health care and social assistance	116	14.3%	329	16.0%	180	13.8%
Arts, entertainment, and recreation	14	1.7%	55	2.7%	2	0.2%
Accommodation and food services	21	2.6%	124	6.0%	63	4.8%
Other services, except public administration	64	7.9%	150	7.3%	113	8.7%
Public administration	25	3.1%	71	3.5%	29	2.2%

U.S. Census Bureau, 2018–2022 American Community Survey 5–Year Estimates, S2403

A largely blue-collar community, most of the EBCR works in manufacturing, healthcare, or education. With the majority of residents' commutes exceeding 15 minutes, with the exception of Rockland, data suggests the majority of residents work outside of the Region. Berks County analyzed trends in activity with residents in the Region using Placer.ai software that analyzes mobility in a given geography; The low point of activity for the Region was during the hours around a standard lunchtime, supporting this conclusion. Residents tended to return later than average, suggesting a high proportion of those shopping, dining, and going to the gym elsewhere before returning home.

TRAVEL TIME TO WORK			
	District	Rockland	Topton
Less than 10 minutes	6.1%	7.4%	13.6%
10 to 14 minutes	10.3%	32.8%	8.0%
15 to 19 minutes	14.5%	8.9%	18.1%
20 to 24 minutes	15.0%	11.4%	10.9%
25 to 29 minutes	11.3%	4.7%	4.6%
30 to 34 minutes	15.0%	18.8%	17.0%
35 to 44 minutes	9.0%	5.4%	10.1%
45 to 59 minutes	11.6%	7.8%	10.9%
60 or more minutes	7.4%	2.7%	6.8%

US Census American Community Survey 2017–2022 S0802

Agriculture

Agriculture plays an important role in the identity of this Region. While Topton has maintained approximately one quarter of its tax revenue from commercial and industrial uses located in the Borough, District and Rockland predominantly rely on agriculture/agribusiness as a source of income. However, like commercial and industrial development, agricultural uses tend to require far less tax revenue (when considering local and school taxes together) than they generate as opposed to residential where costs can equal or even exceed revenue (Penn State Extension Fiscal Impacts of Different Land Uses: The Pennsylvania Experience in 2006 [Updated 2017], See Housing and Economy Appendix).

Percentage Breakdown of Tax Base by Category								
	Municipality	Residential	Trailers	Lot	Industrial	Commercial	Agriculture	Land
2023	District	72.1%	2.1%	1.4%	0.0%	2.3%	21.3%	0.8%
	Rockland	82.8%	1.5%	1.0%	0.0%	1.6%	12.8%	0.3%
	Topton	76.7%	0.1%	0.2%	9.1%	13.9%	0.0%	0.0%
2013	District	74.6%	2.0%	1.6%	0.0%	2.6%	18.4%	0.8%
	Rockland	82.3%	1.2%	1.6%	0.0%	1.6%	12.9%	0.4%
	Topton	77.0%	0.0%	0.1%	8.9%	14.0%	0.0%	0.0%
2003	District	77.8%	–	3.4%	0.0%	2.7%	14.8%	1.4%
	Rockland	84.5%	–	1.5%	0.0%	1.8%	11.6%	0.5%
	Topton	75.0%	–	1.3%	9.5%	14.2%	0.0%	0.0%
% Change 03-23	District	5.6%	–	1.9%	0.0%	0.4%	–6.5%	0.6%
	Rockland	1.8%	–	0.5%	0.0%	0.2%	–1.2%	0.2%
		–1.7%	–	1.1%	0.4%	0.3%	0.0%	0.0%

Source: Pennsylvania State Tax Equalization Board Market Value Reports 2003, 2013, 2023

It's imperative that a Region so heavily invested in farming continue **to protect pockets of productive farmlands** in District and Rockland Townships through the continued implementation of effective agriculture zoning, maintenance of the Township's Agricultural Security Areas enrollment, and support of easement preservation. For ACE and ASA properties, see Figure 14.

Eastern Berks County Region Farmland & Conservation Easement Preservation Status					
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	2,903	268	1,171	335	5,106
Topton Borough	–	–	–	–	0
Rockland Township	3,936	275	786	2,883	6,998
Region wide	6,839	543	1,957	3,218	12,104

Source: Berks County GIS, BCPC

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

Earlier in this chapter, a need for housing, not just in this Region, but nationwide exists. If residents intend to continue raising generations of their families locally, they will need places to live. For the Borough, most of the residential development proposed would likely be small scale infill and redevelopment using already-existing infrastructure. Infill development should match the density and character of the neighborhood; if the infill lot is nonconforming, consideration could be given to reducing the setback requirements to the average setback of the surrounding home lots (Encourage Infill Development Sustainable Development Code). Infill development will allow more housing for future generations to live locally while reducing the tax burden of residential properties through connections to existing infrastructure. Infill in the Borough also reduces suburban sprawl in the more rural Townships, providing places to live in already-developed neighborhoods.

The municipalities should consider adopting and maintaining ordinances that address accessory dwelling units in residential areas. Rockland Township has current regulations in place for the construction and subsequent decommissioning of accessory dwelling units that can be reviewed and modeled if deemed appropriate within the other municipalities' residential areas. An accessory dwelling unit (ADU) is a smaller, independent residential dwelling unit located on the same lot as a stand-alone (i.e., detached) single-family home (American Planning Association Knowledgebase Collection). The secondary unit, also known as in-law suites and granny flats, can be converted portions of the existing homes, standalone accessory structures, or portions converted of existing accessory structures. For more information on ADU zoning regulations, see See Housing and Economy Appendix AARP Government Affairs Accessory Dwelling Units Model State Act and Local Ordinance 2021.

Industry

Residents also require quality jobs preferably nearby that will also provide services to the community to continue to maintain the quality of life characterized in this Region. With severely constraining landscapes and lacking access to major transportation routes, this Region is not a likely candidate for any large-scale industrial or commercial uses. However, there is potentially room for growth in small-scale business and rural-supporting industries. In the Berks County Comprehensive Plan 2030 Update adopted in January of 2020, the northern areas of Tipton on both the east and west sides of Main Street (and into neighboring Longswamp Township) were identified as potential Economic Development Areas (EDAs). These parcels neighbor current industry in the Borough and have nearby access to infrastructure already in place. They leave room for expansion of the existing businesses within Tipton while minimizing impact on the neighboring community.

District, Rockland, and Tipton should continue to discourage most large-scale industrial development unless the use would have sufficient road access and other infrastructure in place to support the industry. Maintaining high water quality should be a top concern in any proposed developments in the future.

Main Street Program

While District and Rockland contain marginal amounts of commercial development due to their topology and lack of public sewer and water infrastructure, Tipton Borough offers the widest range of commercial uses and the largest potential for expansion of commercial services to both residents of the Borough and the surrounding area. The square in Tipton around North Main Street, Franklin Street, North Home Avenue, and Center Avenue has perhaps the greatest potential for a Main Street Program. The Pennsylvania Downtown Center (PDC) offers various levels of support for those municipalities experiencing social or financial difficulties to provide tools to reclaim their vitality. Designating a Main Street area in the Borough can potentially draw investors, create jobs, increase the local tax base, promote civic pride, and increase community involvement while utilizing already-in-place infrastructure and buildings. A vibrant downtown can offer local services to residents that won't necessarily compete with larger offerings found in Kutztown, Allentown, Reading, or Wyomissing where many residents now travel for services, but can provide a small-town convenient alternative in their own backyard. Communities do not necessarily need to become accredited Main Streets to take advantage of the many opportunities offered by the PDC. For more information on Tipton's Main Street recommendations, see CHAPTER 12 Future Land Use.

Goals:

Protect Pockets of Farmlands

- Continue to implement Effective Agricultural Zoning in District and Rockland Townships.
- Continue to maintain, and add to when appropriate, Agricultural Security Areas every seven (7) years.
- Discourage residential developments abutting protected farmlands.

Discourage Large-Scale Industrial Uses

- Encourage expansion of smaller scale and existing industries by permitting uses in EDAs targeted for growth that are compatible with the nearby homes and complementary to the community's needs.
- Focus on large-scale growth only where there is sufficient road access to support the industry and existing infrastructure nearby.

Foster Growth of Commercial Development that Supports Residents

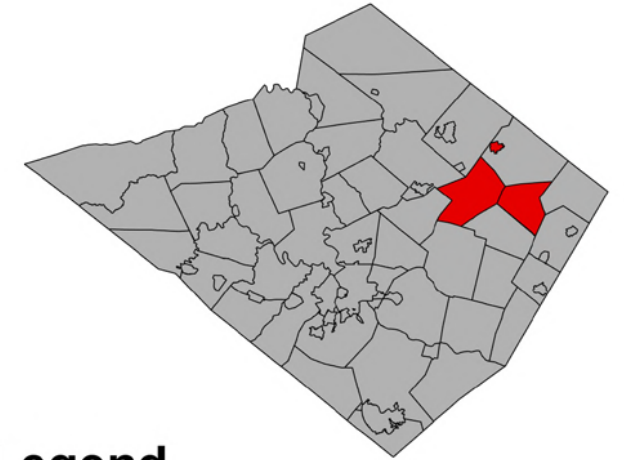
- Topton Borough should connect with the Pennsylvania Downtown Center regarding the creation of a Main Street downtown area (formally or informally). Consider whether Nature Based Placemaking might be a good fit for the Borough.
- Poll residents to explore the community's wants and needs and organize to seek out volunteers for organizing downtown events and communication.
- Seek out funding opportunities to make Topton's commercial core more identifiable– improvements such as lighting upgrades, wayfaring signs, and planters create a more defined and inviting space for potential consumers.

Encourage Smart Residential Growth

- Explore developing and adopting Accessory Dwelling Unit regulations to allow the Region's retiring population to age in place while providing available housing to the community's next generation to stay locally.
- Support infill development that matches the density and character of the surrounding properties.
- Refer long-term vacant and/or blighted properties to the County Blighted Property Review Committee (BPRC) for consideration for redevelopment

**Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026**

Existing Land Use



Legend

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

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

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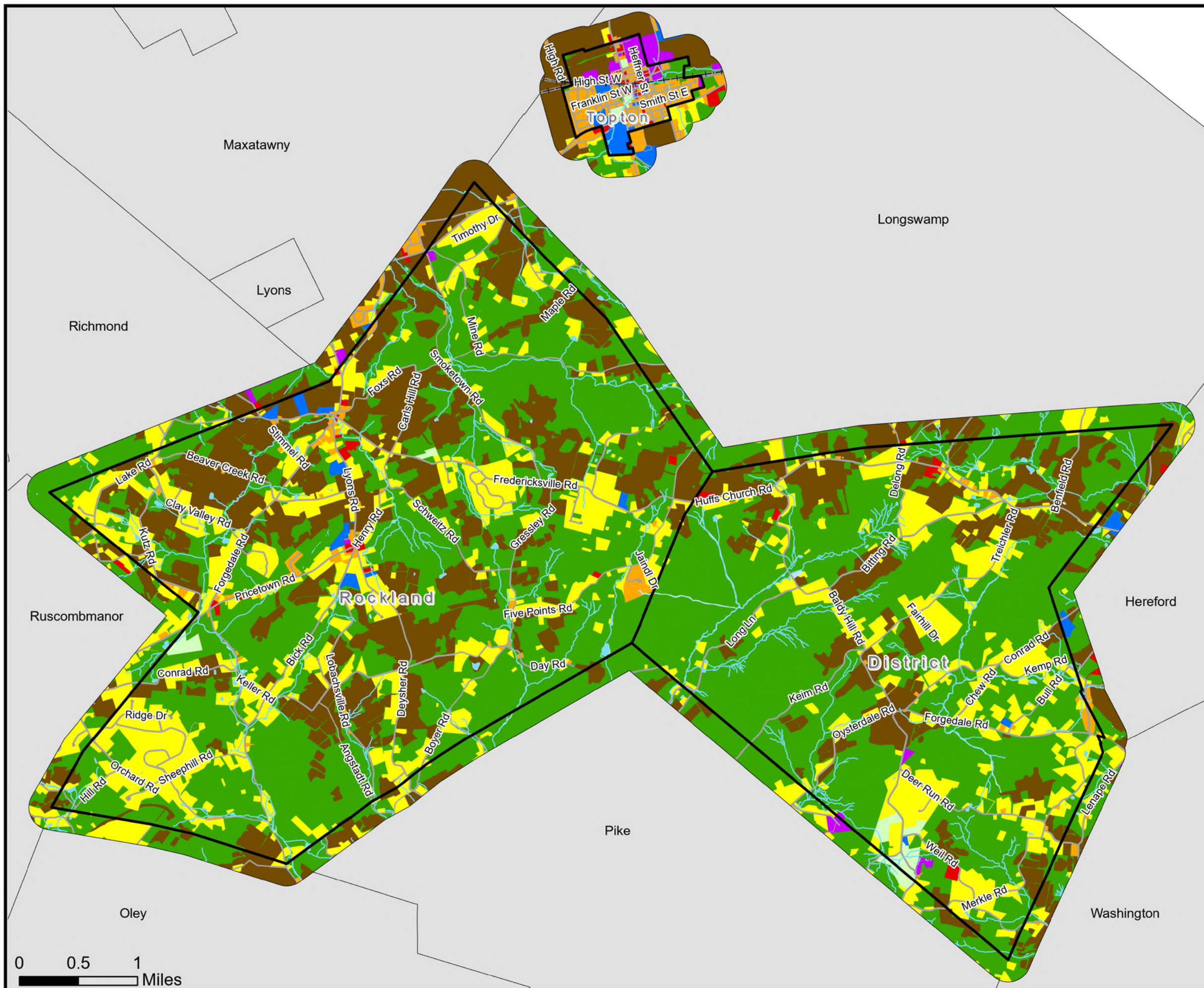
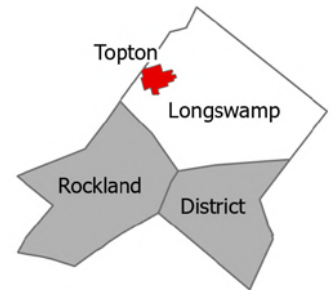


FIGURE 13

Rockland, District, Tipton
Joint Comprehensive Plan Update
August 20, 2026

Tipton Borough Existing Land Use



Legend

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

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

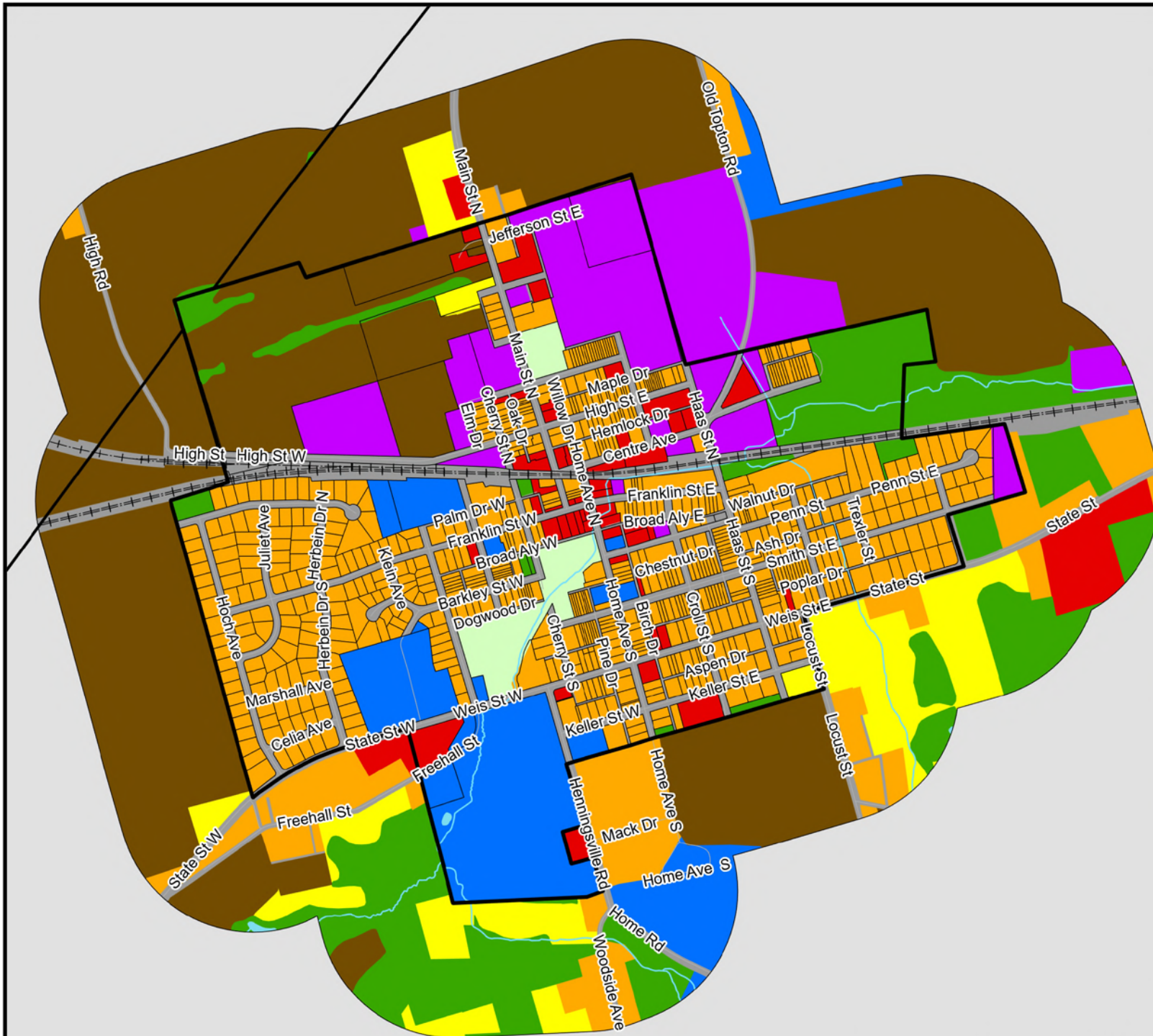
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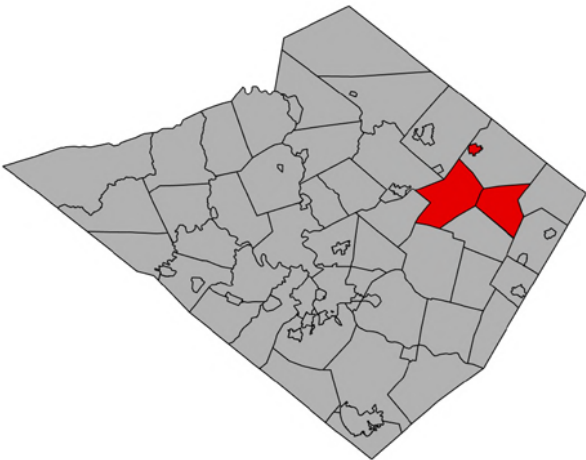
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Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Protected Lands



Legend

- Berks County Agricultural Conservation Easements
- Conservation Easements
- Agricultural Security Areas
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries

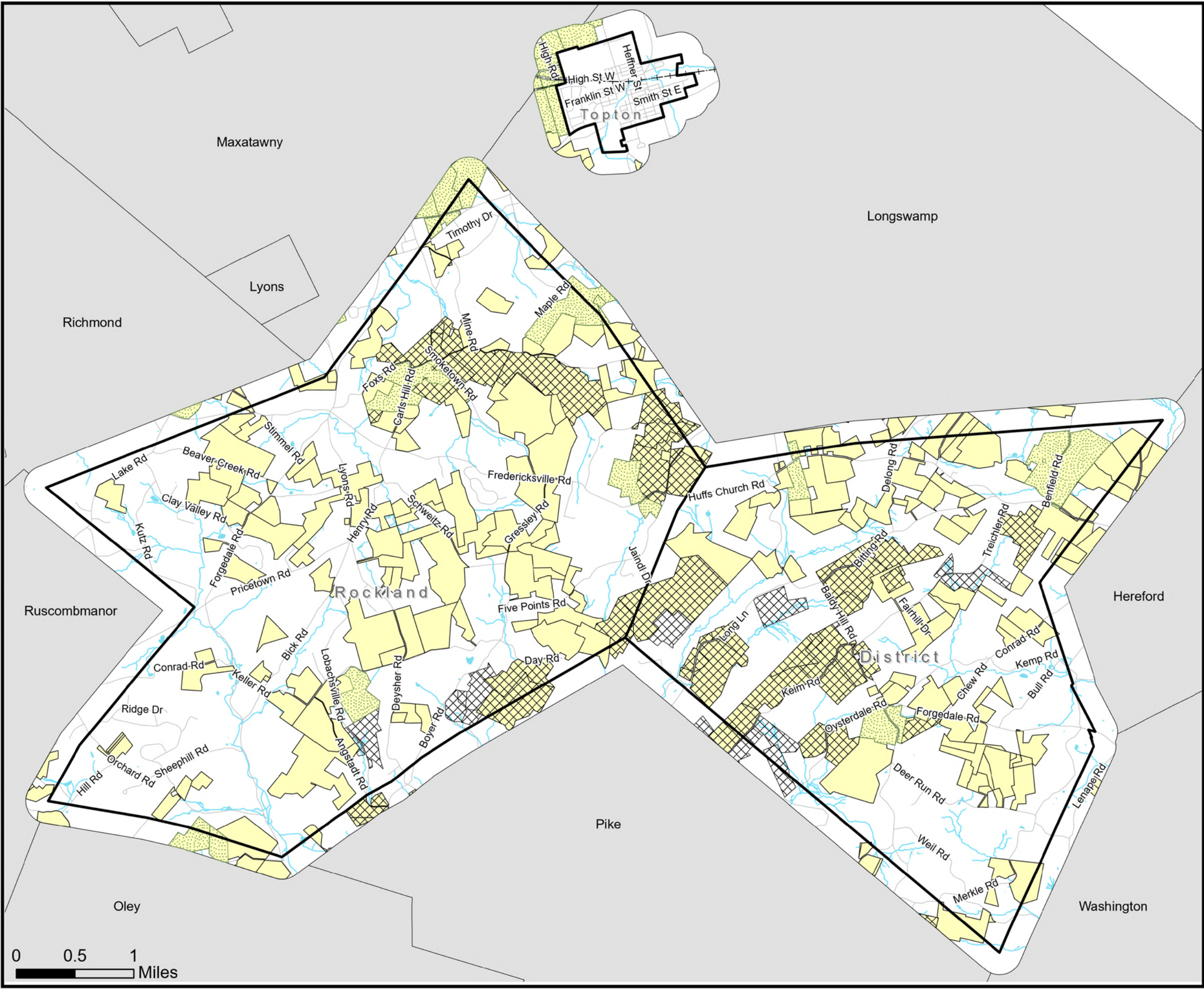
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PUBLIC UTILITIES

Public Sewer Service

Public sewer service is provided within the Eastern Berks County Region by Tipton Borough. The Borough's Official Act 537 Sewage Facilities Plan was prepared and adopted in March 2000. The location of public sewage facilities is plotted on the Public Utilities Maps (Figures 15–16).

System History

The system originated in 1961 when the Commonwealth issued a permit for the former Tipton 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 when it was taken over by the Borough as part of a refinancing of the original bond issue. Then in 2002 the Authority was reinstated to provide service outside of Tipton's municipal boundaries. Modifications were made to the plant and the system from 2018 through 2020, and compromised sewer lines were replaced. The treatment plant was upgraded in 1976, 1990, 2000, and 2020.

Existing Service Areas

Today the system serves all "developed" areas of Tipton 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;
- The Lutheran home only has sewer, not water. It is proposed for two buildings to receive water, and they currently have their own well.
- Service is extended along Old Tipton Road to the new High School located in Longswamp Township;
- Service is provided to properties along State St. including a trailer park and bus company
- 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 Dekka & East Penn Manufacturing sites located to the northeast of the Borough.

Treatment Processes and Capacity

The Borough of Tipton 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. 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. 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.

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:

<u>Land Use</u>	<u>No. of Connections</u>	<u>Average Effluent Generated (Gallons Per Day)</u>
Residential	843	Unknown
Commercial/Industrial	63	Unknown
Total	906 (includes 1 bulk customer)	145,000 gpd, or (0.145 MGD)

1 Borough of Topton Berks County, PA Act 537 Sewage Facilities Plan Update, March, 2000, Great Valley Consultants

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. This pump station is slated to be replaced by a modern facility in 2025. 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 station is slated to be replaced by a modern facility in 2025. This pump has a design capacity of 115,000 gpd. The average daily sewage flow from Brandywine Meadows is 15,000 gpd in 2013. The Brandywine Meadows facility is currently serving 72 units and handled 6,729 gallons per day in 2024.

As is with most systems of similar age, Inflow and Infiltration (I&I) is a chronic problem at the Topton collection, conveyance and treatment facilities. In order to combat this, Topton has invested in an annual sewer rehabilitation and repair project program. This involves televising of sewer lines, and continual repair of manholes and pipelining efforts. In 2013 the Borough began user connection 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

In the late 1990s and early 2000s, Topton Borough invited Longswamp Township to participate 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. The borough now requires a sewer connection inspection for all customers prior to sale of any property.

The Toad Creek is a tributary of the Little Lehigh Creek and is part of a High-Quality Watershed. As such, special protection regulations are applied by the State in permitting and limiting discharge. 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 wastewater system, and residents have expressed a desire to add capacity. These two factors, taken into consideration indicate that any significant outside need for sewer treatment would require the design and upgrade of the Topton sewer system and would require additional sources of funding to achieve.

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.

Public Water

History and Service Area

Public water within the Region is furnished by the Tipton 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 160,000 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. Currently, a secondary well is being considered at the Tipton Volunteer Fire Company No. 1. Tipton is conducting preliminary water testing.

Treatment, Storage & Conveyance Facilities

The Borough's Water Treatment Plant 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 and regularly tested to adequately filter raw water and maintain proper Federally regulated drinking water levels. In 2024, a generator was added at the Water Plant which enables the continued ability to complete testing and help the plant remain in compliance with requirements.

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 is following the PADEP guidelines for identifying all service lines and are scheduling replacement of lead and galvanized steel lines.

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.

Tipton Borough intends to actively pursue funding opportunities to support critical infrastructure improvements, including upgrades to sewer, water, and road systems. As part of this effort, the Borough will explore potential partnerships and financial assistance through public programs such as PENNVEST and the Commonwealth Financing Authority, as well as other state and federal sources tailored to rural communities. In addition, Tipton will seek out private investment and grant opportunities to ensure a resilient and sustainable infrastructure network that meets the long-term needs of its residents.

MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

The EPA defines an MS4 a state, city, town, borough, county, parish, district, association, or other public body which has a drainage system which conveys only stormwater (i.e. curbs, gutters, basins, storm pipes, ditches, swales, municipal streets). The MS4 does not include pipes that convey sanitary sewage, nor does it include the stormwater entering the system that receives treatment prior to entering local waterways.

Municipalities that are designated MS4 communities (municipal separate storm sewer systems) by the Environmental Protection Agency (EPA) and the Department of Environmental Protection (DEP) are required to control stormwater runoff through six minimum control measures.

The six minimum control measures (mcms) are: 1. Public education, 2. Public participation, 3. Illicit discharge detection and elimination, 4. Construction site storm water runoff control, 5. Post-construction storm water management in new development and redevelopment, and 6. Pollution prevention/good housekeeping for municipal operations maintenance.

In addition to the six minimum control measures, permittees must have an act 167 stormwater management ordinance as well as pollution reduction plan (prp) or total maximum daily load plan (tmdl) for impaired streams.

In the region, Tipton Borough is a designated MS4 community. However, they currently have a permit waiver that expires on 03/31/2029. Tipton does have ordinances that address the regulations of the MS4 program, including:

- The Little Lehigh Creek Watershed Act 167 Stormwater Management Plan
- The Sacony Creek Watershed Act 167 Stormwater Management Plan
- Tipton Stormwater Management Ordinance
- Tipton Source Water Protection Plan

**Source: BCPC Comp Plan 2030 Update, DEP Website, Tipton Borough*

Solid Waste Disposal

All the Region's municipalities rely upon private haulers for garbage collection and disposal. Curbside recycling is described as prevalent within Tipton Borough, limited in Rockland Township and infrequent in District Township. In the last few years, Tipton Borough developed and begun a mandatory curbside recycling program.

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. 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 Maps (Figures 15–16).

Pipelines

The municipalities recognize the existence of pipelines that currently exist running through portions of the Region and acknowledge 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.).

Goals/Action Steps:

Maintain and upgrade public utilities

- Seek funding and grants to help maintain current infrastructure, and plan for future updates to existing infrastructure.

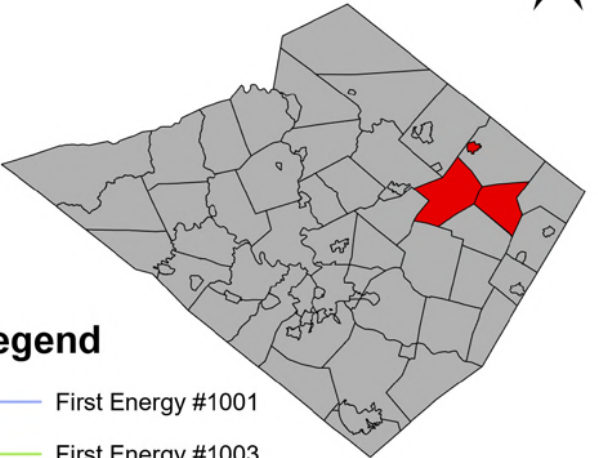
Regulate for Pipeline Work in the Region:

- 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.
- Update ordinances to address 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.
- 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.
- Encourage regional fire and EMS services to attend annual pipeline emergency response training.

FIGURE 15

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Public Utilities



Legend

- 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
- Existing Public Water Plant
- Existing Public Sewer Plant
- Existing Sewer Pump Stations
- Existing Public Water Service
- Existing Public Sewer Service
- Proposed Public Sewer Service
- Natural Gas Pipeline
- Non-Highly Volatile Liquids Pipeline
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries

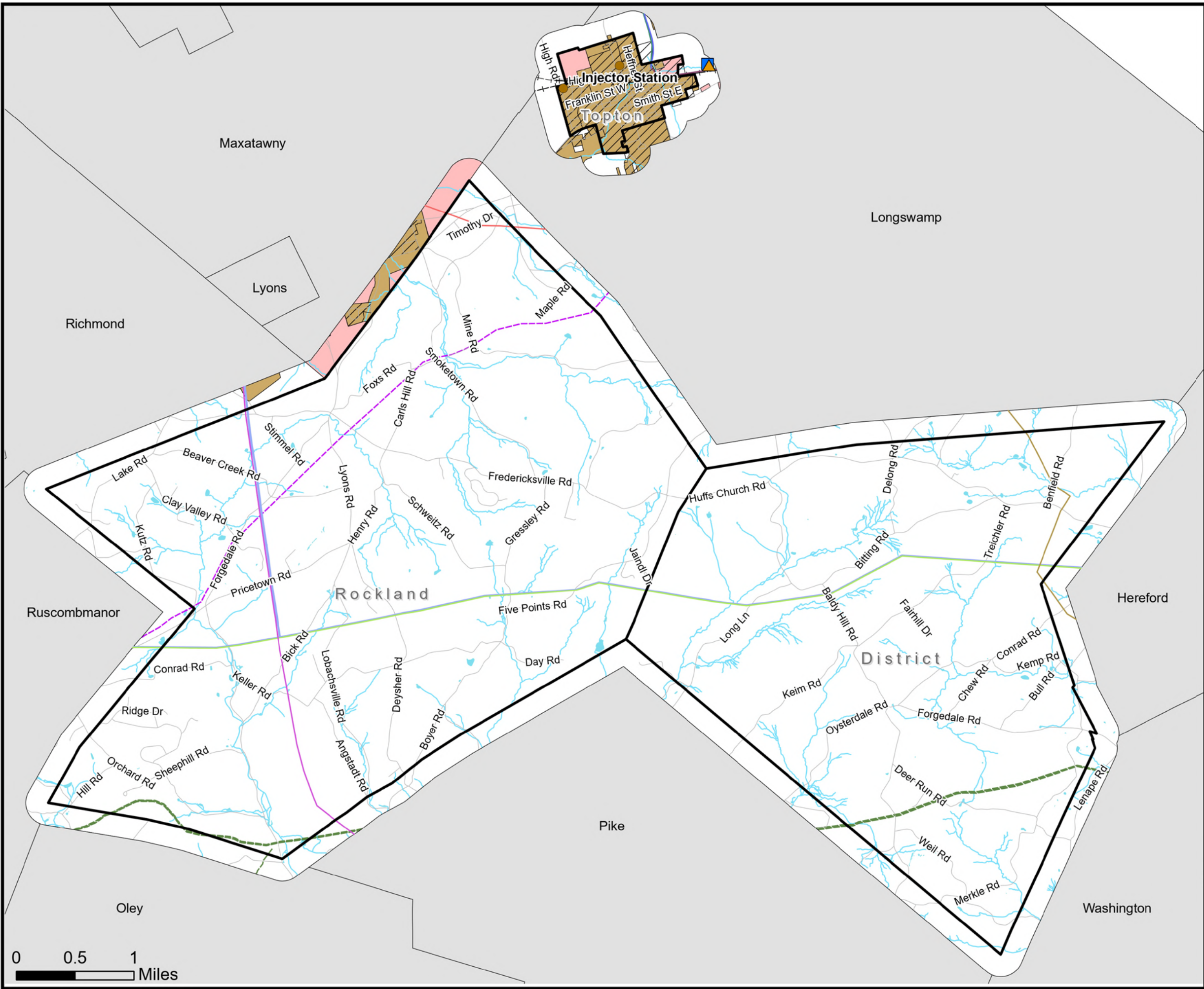
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, National Pipeline Mapping System

Published by the Berks County Planning Commission

BAB 8/26



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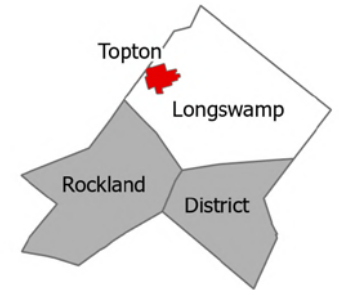


0 0.5 1
Miles

FIGURE 16

Rockland, District, Tipton
Joint Comprehensive Plan Update
August 20, 2026

Tipton Borough Public Utilities



Legend

- 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
- Existing Public Water Plant
- ▲ Existing Public Sewer Plant
- Existing Sewer Pump Stations
- Existing Public Water Service
- Existing Public Sewer Service
- Proposed Public Sewer Service
- +— Railroads
- ~ Streams and Water Bodies
- Municipal Boundaries

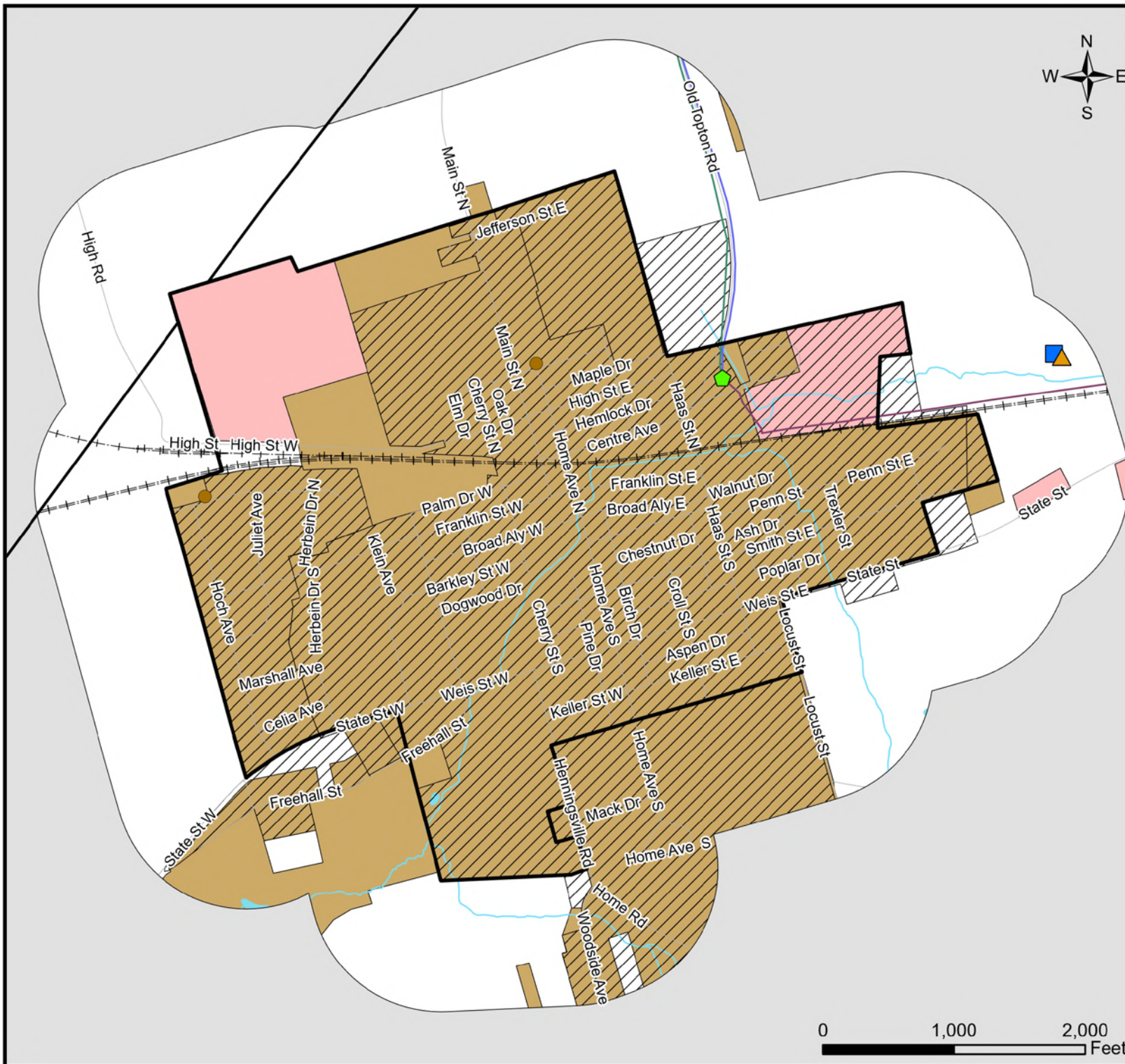
Source data: Berks County Planning Commission GIS,
Berks County GIS/IS, Berks County Mapping,
Berks DES

Published by the Berks County Planning Commission

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TRANSPORTATION PLAN

Moving into, around and through the Eastern Berks planning area is reliable and predictable. The area is connected to Berks and surrounding counties, enabling local and regional access for businesses and neighborhoods. These municipalities are served by an extensive transportation system comprised of roads, bridges, rail, sidewalks, and trails. The roads and bridges accommodate thousands of trips every day.

It is important to remember that there is a direct correlation between land use and transportation needs. As residential, commercial, and industrial land is developed, more and more people use the roads, and the roads become congested for longer periods of time. This is particularly true for rush hours. In response, as roads are improved to address the traffic congestion, the adjoining land becomes easier and more lucrative to develop, and more traffic is generated.

The overall goal of the transportation section of this plan will be to continue to maintain and improve the existing transportation infrastructure that supports the movement of people and goods where financially feasible while maintaining the character of the municipalities.

TRANSPORTATION PLANNING CONTEXT

A key aspect of transportation planning is effective coordination between the different government agencies responsible for maintaining the various parts of the transportation infrastructure. In addition to the Eastern Berks planning area, these include the Reading Area Transportation Study (RATS), the Pennsylvania Department of Transportation (PennDOT), Berks County, and neighboring communities. As part of the process of preparing this transportation chapter, the RATS FFY 2023-2045 Long Range Transportation Plan (LRTP) was reviewed and considered. This section of the plan will focus on the local transportation infrastructure. Details on the PennDOT owned infrastructure can be found in the RATS Transportation Improvement Program (TIP) and the LRTP.

RATS is the regional transportation planning organization for the Reading, Pennsylvania metropolitan area, which covers all of Berks County. Working with PennDOT and the Federal Highway Administration (FHWA), RATS facilitates and is responsible for prioritizing annual funding to advance transportation improvement projects throughout the county. PennDOT, South Central Transit Authority (SCTA), and the 72 municipalities in the County are responsible for project implementation.

Capital Improvement Plans

Capital Improvement Plans (CIP) outline a schedule of public service expenditures over a certain period of years. The CIP does not address all the capital expenditures for the municipality, but provides for large, physical improvements that are permanent, including the basic facilities, services and installations needed for the functioning of the community. These include utilities, municipal facilities and other miscellaneous projects.

ROADS and BRIDGES

According to Berks County DES centerline GIS data, the Eastern Berks planning area has approximately 101.4 miles of roads, including approximately 39 miles of state-owned routes, 52 miles of municipal roads, 3 miles of alleys, 0.4 miles of lanes, and 7 miles of private lanes.

Roads owned by the municipalities are part of the Pennsylvania State Liquid Fuels Programs that provides state payments to the municipalities for road maintenance and reconstruction based on population and miles of roads meeting PennDOT specifications. A municipality may also use up to 20% of their net allocation for the purchase of major equipment every year. However, the Liquid Fuels Funds (LFF) comprise only a small part of the municipal maintenance budgets and do not cover the cost of long-term maintenance and reconstruction.

Shown below is a comparison of the liquid fuels allocations in 2020 and 2024. The amount of money allocated to each municipality decreased and overall, LFF in the Eastern Berks planning area decreased 5.96%. This decrease is primarily due to slightly decreased funding. The difference in percent change over this time period between each municipality is due to the different rate of population growth or decline each municipality experienced, with District being the only municipality with population growth during this period. Municipalities will focus on continued maintenance, including resurfacing, and monitor the need to correct specific drainage problems and add shoulders based on available funding. Paving projects are scheduled annually based on street/road condition and available funding.

Liquid Fuels Net Allocations by Municipality 2020 & 2024						
2020			2024			
Municipality	Miles	Allocation	Municipality	Miles	Allocation	% Change
District	12.58	\$67,635.48	District	12.58	\$64,862.48	-4.10%
Rockland	34.04	\$186,088.29	Rockland	34.04	\$174,024.41	-6.48%
Topton	7.88	\$65,996.69	Topton	7.88	\$61,790.42	-6.37%

Source: PennDOT Bureau of Municipal Services MLF Allocation Report, 2020 & 2024

Figures 17–18 shows the federal functional classifications assigned to roads in the area. The functional classification of a roadway may change over time based on changing traffic conditions. Classification of a road is based on an analysis of the volume of traffic using the facility, the type of trip provided, the length of trip, and the speed of the trip. The only arterial in the region is State Route 1010, known as Main Street in Rockland Township and Weis Street in Topton Borough.

Eastern Berks Arterial and Collector Roadway Characteristics				
Road Name	Route #	Municipality	Estimated 2021 ADT	Speed Limit
Main Street	1010	Rockland	10,186	50
Weis Street	1010	Topton	7,129 to 10,186	35
Pricetown Road	2026	Rockland	1,774	45
Forgedale Road	1021	Rockland	2,257	40
Lyons Road	1021	Rockland	3,036	40
Lobachsville Road	1023	Rockland	773 to 1,963	35–45
Fleetwood Road	1022	Rockland	1,655	40
Fredericksville Road	1022	Rockland	2,326	40
Bowers Road	1013	Rockland	2,866	45
Huffs Church Road	1022	District	2,326 to 2,484	40
Centennial Road	1024	District	449	30
Oysterdale Road	1030	District	976	40
Forgedale Road	1030	District	423	40
Henningsville Road	1024	Topton	835	35
Home Avenue, Franklin Street, Main Street	1024	Topton	3,080	25

Source: PennDOT Roadway Management System, Functional Classification 2023 & AADT 2021

Arterials provide the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control. These roads are typically classified as principal arterials (sub-grouped by Interstate, Freeway/Expressway, and other principal arterials) and minor arterials.

Collectors provide a lower level of service at a slower speed. They provide service for shorter distances by collecting traffic from local roads and connecting them with arterials. These roads provide access to individual properties and serve short distance, low speed trips.

Average Annual Daily Traffic (AADT) is the total number of vehicles traveling on a road on an average day. Annual average daily traffic (AADT) volumes provide an overview of the traffic flow in the Eastern Berks planning area for planning purposes. An important point to remember is that AADT does not reflect daily and seasonal traffic volumes that can far exceed AADT. The proportionate increase in daily and seasonal counts can be significant. PennDOT conducts traffic counts on state roads, and the counts provide the means to assess the overall traffic conditions in the area. Figures 17–18 illustrate 2021 AADT on area roadways. The heaviest traveled road is State Route 1010, known as Main Street in Rockland Township and Weis Street in Topton Borough.

Roadway surfaces in the area are mostly comprised of paved surface roadways. Of the paved surface roadways, pavements are either asphalt or concrete. PennDOT assesses pavement surface conditions using a variety of metrics that include International Roughness Index (IRI). IRI measures pavement roughness in terms of the number of inches per mile that a laser, mounted in a specialized van, jumps as it is driven along highway – the lower the IRI, the smoother the ride. PennDOT uses IRI in its pavement condition performance measures, Figure 19 shows the condition of pavement on state roads in the area.

The topography and hydrology of the area provide ample recreational activities and commercial activities, but also create a transportation challenge to safely and efficiently move people and freight over them in Berks County. Overall, the bridges in the Eastern Berks planning area are in fair condition. As of January 2024, there are thirteen (13) bridges in the area, with the majority (10 bridges) owned by PennDOT. These bridges are those that require inspections – state bridges longer than eight (8) feet and local bridges longer than twenty (20) feet. Figure 19 shows the approximate location and condition of these bridges in the area. The following table displays the thirteen (13) bridges in this planning area.

Eastern Berks Inspected Bridges				
Municipality	Feature Carried	Feature Intersected	Owner	Condition
District	Long Lane/SR 1026	Branch of Pine Creek	State	Fair
District	Baldy Hill Road/ SR 1043	Pine Creek	State	Fair
Rockland	Fleetwood Road/Main Street/SR 1010	Tributary to Sacony Creek	State	Fair
Rockland	Forgedale Road/ SR 1021	Bieber Creek	State	Good
Rockland	Forgedale Road/ SR 1021	Tributary to Bieber Creek	State	Fair
Rockland	Lyons Road/SR 1021	Bieber Creek	State	Fair
Rockland	Lobachsville Road/ SR 1023	Tributary to West Branch Pine Creek	State	Fair
Rockland	Smoketown Road/ SR 1029	Little Sacony Creek	State	Fair
Rockland	Smoketown Road/ SR 1029	Little Sacony Creek	State	Poor (bridge being replaced in 2026)
Rockland	Pricetown Road/ SR 2026	Bieber Creek	State	Poor
Rockland	Sheep Hill Road	Bieber Creek	Township	Fair
Rockland	Conrad Road	Bieber Creek	Township	Fair
Rockland	Beaver Creek Road	Bieber Creek	Township	Fair

Source: PennDOT BMS2 Website Berks County State and Local Bridge Condition Report: Poor1/16/2024

Load posting a bridge is required by the National Bridge Inspection Standards when a bridge is not capable of safely carrying a legal load. If a bridge is deemed deficient, officials will post a maximum load for the bridge. Bridges may be posted for other load-capacity restrictions including speed and number of vehicles permitted on the bridge. There is only one (1) load-posted bridges in the area, located in Rockland Township on Beaver Creek Road.

Poor condition bridges are characterized by deteriorated conditions of the major components of a bridge. This may include cracked concrete, the bridge deck, the support structure, or the entire bridge itself. A poor designation does not imply that a bridge is unsafe. However, such bridges typically require significant maintenance and repair to remain in service and would eventually require major rehabilitation or replacement to address the underlying deficiency. Both bridges in poor condition in this region are located in Rockland Township and are state-owned. One of the bridges is the bridge on Smoketown Road which is currently planned to be replaced in 2026. The other poor condition bridge is located on Pricetown Road.

Roads and Bridges Goal: Maintain and improve the safety and operation of roads and bridges when financially feasible.

- Evaluate conditions on local-owned transportation infrastructure.
- Implement low-cost improvements where such measures provide an immediate impact.
- Collaborate and coordinate improvements and/or rental of necessary equipment to focus limited funding on the most effective solutions while maximizing the potential for cost sharing and savings.
- The municipalities should have a united voice when petitioning legislators and applying for funding for the benefit of transportation issues within the Region and when communicating requests for improvements to RATS through the TIP and LRTP process.

CONGESTED CORRIDORS

RATS adopted the most recent Congestion Management Process (CMP) in November 2023 which included an examination of 33 congested corridors in the County. These corridors were identified using the following 8 factors: National Highway System Designation, High Volume/Capacity (V/C) Segments, Travel Time Index (TTI), Planning Time Index (PTI), High Crash Corridors, Freight and Intermodal Corridors, Bottlenecks, and Transit Routes. Of the 33 congested corridors examined in Berks County, one (1) has been identified with at least a portion in the Eastern Berks planning area. Special consideration should be given to planning and any future development along this corridor. Strategies to preserve the corridor capacity are provided on page 84 of the Congestion Management Process document.

Corridor	Peak TTI	AADT	Length (Miles)	Truck %
SR 1010	>1.20 and <1.49	6,048 – 17,200	13.42	4–10

Source: RATS Congestion Management Process, 2023

Congested Corridors Goal: Preserve corridor capacity along Main/Weis Street (SR 1010).

- Consult the RATS Congestion Management Process and coordinate with PennDOT and RATS when considering new development or improvements along the Main/Weis Street (SR 1010) corridor to ensure detrimental access issues, increased congestion, and safety issues are not created.

FREIGHT

Trucks move a great majority of freight (in terms of both tonnage and value) within and through Berks County, illustrating the importance of the county's highway network. From Berks County, business can reach nearly 40% of the United States population and 50% of Canadian customers within a one-day drive. Berks County has one of the largest manufacturing concentrations of the surrounding counties and serves as a major conduit between warehousing hubs elsewhere in Pennsylvania.

Land use and zoning should help determine where to locate these industries as last mile truck traffic can sometimes find its way onto local roads and through residential communities. The municipalities should examine their current zoning ordinance and potentially update to accommodate truck generating industries in locations such as those convenient to highway access while restricting them in areas that could potentially create a nuisance in residential neighborhoods. This only addresses future land use and is not a foolproof strategy. To deal with present issues, the municipalities can sign local roads to discourage use. The municipalities can benefit from having open communication with the facility itself, asking them to consider more appropriate routes through the community when possible. A major producer of truck traffic through this region is East Penn Manufacturing. Maintaining an open line of communication with the department in charge of transportation routes and logistics through this region is imperative to ensure these trucks are utilizing the desired route that was built to properly accommodate truck traffic.

Pennsylvania is a rail-intensive state. Railroads play a major role in moving freight within and throughout the state and across the country. Norfolk Southern's Reading Line, Class I Railroad runs through Topton as well as a small portion of East Penn Railroad's Kutztown Branch, Short Line Railroad. A railroad at-grade crossing is an intersection where a roadway crosses railroad tracks at the same level (grade). At-grade crossings can also have significant impacts on the transportation network. The "gate-down delay" creates delays caused when passing trains block the crossing. In addition, grade crossings can reduce road capacity. The uneven surfaces at grade crossings require vehicles to cross at lower speeds and passing trains can preclude coordinating nearby traffic signals as they pass through that area.

There are three at-grade crossings in Topton along Norfolk Southern's Reading Line, Class I Railroad, all experiencing zero accidents over the prior five years. Out of the 109 at-grade crossings in Berks County, these rank 30th, 41st, and 42nd at the end of 2023 for Predicated Accidents per Year at Public Highway-Rail Crossings in Berks County as shown in the US DOT Federal Railroad Administration, Accident Prediction Report for Public At-Grade Highway-Rail Crossings. Thirty (30) to fifty-eight (58) trains travel through these crossings per day at a maximum allowable speed of 60 miles per hour.

The accident prediction formula is based upon two variables which include: (1) basic data about a crossing's physical and operating characteristics, and (2) the last full five years of accident history data available at the crossing. This data can be used when nominating crossings for physical safety improvements or enhancements. Note that changes to railroad operations may

increase or decrease rail traffic at a crossing, affecting type of capital and safety improvement needs. Demand for rail service can change with the arrival or departure of industrial customers on the line. These and other economic changes can affect the volume, location, and timing of rail traffic.

Given the regional nature of airport development and support, this Comprehensive Plan calls for no specific regard to air and instead adopts the RATS FFY 2023–2045 Long Range Transportation Plan in regard to this mode as reference.

Freight Goal: Ensure freight accommodation while keeping other travelers safe.

- Maintain an open line of communication with local business owners and operators of regional commercial and industrial facilities, specifically regarding issues with regular truck movements and designated routes.
- Stay aware of any roadway, equipment, and/or safety issues at At-Grade Railroad Crossings, communicate any issues with At-Grade Railroad Crossings with Norfolk Southern, the US DOT Federal Railroad Administration, and PennDOT.
- Improve the intersection of Weis Street (SR 1010) and Haas Street to accommodate left turn truck movements onto Haas Street.
- Explore addition of "local truck only" signage and truck prohibition ordinances on select Tipton Borough streets.

SAFETY

Maintaining a safe transportation system is essential to sustaining and enhancing the quality of life for Berks County residents. Deaths and injuries resulting from traffic crashes are a public health concern and impact local communities with medical costs, lost wages, insurance costs, taxes, police, fire, and emergency medical services, legal and court costs, and property damage. Safety is always a concern for residents, municipalities, and commuters while traveling within and through the Eastern Berks planning area. Due to this concern, transportation improvement projects will continue to occur that address the safety of the transportation system.

As part of its safety program, PennDOT collects traffic crash data for the entire state and reports data at the state, county, and municipal level. For the purposes of this plan, county crash data for Berks County was analyzed. Motor vehicle crashes generally involve multiple contributing factors that may be related to drivers, the roadway, or the vehicle(s) involved, thus making transportation safety a multidisciplinary concern.

Analyzing crash trends and areas of multiple crashes allows PennDOT, RATS, and the municipalities of District, Rockland, and Tipton to focus on setting goals to improve upon those trends by programming safety improvements to the road system itself or encouraging greater emphasis on education and enforcement. A recently completed project in the area addressed a stretch of Huffs Church Road that saw multiple crashes by including low-cost systemic safety countermeasures to address lane departures on Huffs Church Road (SR 1022).

Berks County has been attempting to reduce the significant number of crashes occurring on the roads. According to the 2023 Pennsylvania Crash Facts and Statistics released by PennDOT, Berks County ranked seventh in the state in the number of overall crashes and sixth in the number of fatal crashes in 2023. During the time period of 2019 through 2023, there were 270 crashes in the Eastern Berks planning area. Approximately 44.9% of crashes occur on state roads, 19.3% on local roads, and 35.9% at intersections of state and local roads. Between 2019 and 2023, crashes decreased by 9.1% in the area. During this same period there were no fatal crashes in the Eastern Berks planning area.

The table below shows the total number of crashes in each municipality for the years 2019 through 2023. Differences in the number of crashes per municipality does not indicate one has safer roads than the other. Tipton experiences very little crashes, which can be attributed to the miles of roadway, and the lower speeds present in the borough. It is also of note that there were no fatal crashes occurring in this region over these 5-years.

Total Number of Crashes in the Eastern Berks Planning Area								
Municipality	2019	2020	2021	2022	2023	Total	% of Total	% Change
District	16	19	8	8	16	67	24.9%	0.0%
Rockland	44	32	30	26	37	169	62.6%	-15.9%
Tipton	6	5	9	7	7	34	12.6%	16.7%
Total	66	56	47	41	60	270	100%	-9.1%

Source: PennDOT, Pennsylvania Crash Information Tool, 2019–2023

Additional concern exists for the safety of motorcyclists and horse and buggy drivers in the Eastern Berks Region. From 2019 through 2023, fifteen (15) crashes occurred involving a motorcycle, none of the crashes resulted in fatality, with two (2) of the crashes resulting in suspected serious injury. During the same period, two (2) crashes occurred involving horse and buggies, both in Rockland Township on State Route 1010, with one (1) resulting in suspected serious injury. This state route is frequently used by horse and buggies and as such, the combination of signage and wider shoulders should be incorporated into this route in an attempt to provide a safer network for these road users.

Number of Crashes Involving Motorcycles in the Eastern Berks Planning Area						
Municipality	2019	2020	2021	2022	2023	Total
District	0	3	2	0	2	7
Rockland	1	2	0	1	1	5
Topton	0	0	1	1	1	3
Total	1	5	3	2	4	15

Source: PennDOT, Pennsylvania Crash Information Tool, 2019–2023

Number of Crashes Involving Horse and Buggies in the Eastern Berks Planning Area						
Municipality	2019	2020	2021	2022	2023	Total
District	0	0	0	0	0	0
Rockland	0	0	0	1	1	2
Topton	0	0	0	0	0	0
Total	0	0	0	1	1	2

Source: PennDOT, Pennsylvania Crash Information Tool, 2019–2023

Vulnerable road users are non-motorists that are walking, bicycling, rolling, or using a mobility device such as a wheelchair. For the purpose of this plan, vulnerable road users will be referred to as pedestrians and bicyclists.

The chart below shows there were three (3) crashes involving pedestrians from 2019 to 2023. All three of the crashes involving pedestrians occurred on roadways located in Topton. The borough streets in Topton are more conducive to pedestrian travel, therefore see more pedestrian traffic than the larger, less dense townships. There were two (2) crashes involving a bicycle during the same period. All but one of crashes involving pedestrians and bicyclists between 2019 and 2023 occurred in during daylight, dry conditions. Of concern, one (1) of the pedestrian and one (1) of the bicyclist crashes occurred bordering the school property, also one (1) of the pedestrian crashes occurred in the commercial area of Topton on Centre Avenue. None of the pedestrian or bicyclist crashes resulted in fatality or suspected serious injury.

Number of Crashes Involving Pedestrians in the Eastern Berks Planning Area						
Municipality	2019	2020	2021	2022	2023	Total
District	0	0	0	0	0	0
Rockland	0	0	0	0	0	0
Topton	1	0	0	2	0	3
Total	1	0	0	2	0	3

Source: PennDOT, Pennsylvania Crash Information Tool, 2019–2023

Number of Crashes Involving Bicycles in the Eastern Berks Planning Area						
Municipality	2019	2020	2021	2022	2023	Total
District	0	0	0	0	0	0
Rockland	0	0	0	0	1	1
Topton	0	0	1	0	0	1
Total	0	0	1	0	1	2

Source: PennDOT, Pennsylvania Crash Information Tool, 2019–2023

Safety Goal: Keep travelers of all modes safe and secure throughout the region.

- Promote driver education programs in the region such as online driver education courses through municipal mailings and work with any local organizations that are interested in hosting an in-person course.
- Maintain a relationship with those that police the region, informing them of areas of concern or repeat offenses to help mitigate undesirable driving behaviors.
- Communicate to RATS, through the TIP and LRTP process, any safety issues along state routes or at the intersection of local roads and state routes.
- Implement low-cost safety improvements where such measures provide an immediate impact on safety.
- Create safe links between residential areas and popular destinations, such as schools, parks, and shopping centers in an attempt to minimize the amount of crashes involving pedestrians and bicyclists.
- Consider safety improvements such as widening of shoulders, filling gaps in the sidewalk network and the addition of ADA ramps, crosswalk painting, and signage to help achieve a safer transportation system.

TRANSIT

Public transportation is provided by both non-profit and for-profit organizations, supplying fixed route and demand response services. The principal provider of public transportation services in Berks County is the South Central Transit Authority (SCTA) overseeing their Berks Area Regional Transit Authority (BARTA) division. The BARTA fixed route services 33 Berks County municipalities and carried over 2.2 million passengers from June 2023 through June 2024. BARTA does not currently provide fixed route service to this planning region, however demand response services are available to residents of the area through BARTA's Special Services Operations.

Route 122 currently provides service between Reading and East Penn Manufacturing in the neighboring municipalities of Richmond Township and Lyons Borough. This route recently became a long-distance regional route, extending service north from East Penn Manufacturing to also serve downtown Kutztown and Kutztown University. Should desire arise to connect to this regional transit system, officials should approach SCTA/BARTA prior to the development of their next Transit Development Plan.

Special Services Operations

BARTA's Special Services Division is responsible for operating and administering most human service transportation in Berks County. These services including the Shared Ride, ADA, and Medical Assistance Transportation Program (MATP) programs, and are specialized, demand-responsive paratransit service and provide public transportation to persons whose disabling condition prevents the use of fixed route transit.

Taxi Service and Ride Sharing

Other transit options exist for residents of this planning region despite the lack of BARTA service. One option is to receive transportation through one of the eight taxicab operators that provide 24 hour/7-day service in Berks County. The Public Utility Commission lists the following taxi operators as active in Berks County: Reading Checker Cab Inc., La Mexicana Express Service LLC, Fleetwood Cab Services LLC, Grab A Cab Inc, Reading Checker Cabs LLC, Reading Yellow Cab Inc., Reading Metro Taxi Cab Inc, and Dominicana Taxi Express LLC. Ride sharing has also emerged as a popular mode of transportation when personal transportation does not exist to an individual. Berks County has been serviced by Uber since operations began in 2015, shortly followed by Lyft.

Commute PA

Berks County joined Commute PA, a program of the nonprofit Susquehanna Regional Transportation Partnership in 2009. The program covers 13 counties. It is locally sponsored by RATS, BARTA, and Greater Reading Chamber of Commerce and Industry and offers transportation demand management strategies and assistance to employers and individuals for finding options other than driving alone to work. 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. Participation in the program has been successful – increasing involvement and reducing Vehicle Miles Traveled since 2009. The program is funded with federal Congestion Mitigation & Air Quality (CMAQ) funds through the Reading Metropolitan Planning Organization (MPO) and other participating MPO's.

Commute PA can provide free assistance in tailoring programs to meet employer's needs and aid in building a program that works at getting employees out of their individual vehicles and/or rush hour traffic. Benefits to employers from working with Commute PA can include recruiting and retaining workers, savings on payroll taxes, reducing parking costs and/or spaces, getting

employees to work on time, improving attendance, improving morale, and achieving environmental benefits. These benefits can be provided through working with Commute PA to achieve plans specific to each employer. Options tailored to employers can include carpooling/vanpooling, transit promotion, Emergency Ride Home program, preferential parking, active transportation options, teleworking, staggered shifts, compressed work weeks, payroll tax savings, and promotional/educational activities.

Not only do employers have an option to partner with Commute PA, but communities can as well. Community Partners work with the Commute PA program to provide commute option assistance to their member organizations, residents, and other interested parties within their communities.

Transit Goal: Promote the use of transit when available.

- Explore the possibility of restoring regularly-scheduled bus service to the region by working with SCTA/BARTA early in the process of their Transit Development Plan should desire arise to restore regularly-scheduled bus service to the region determined by evaluation of public interest.
- Encourage use of available transportation services by promoting programs that provide transportation assistance and ride sharing such as programs that can be applied to through PennDOT Find My Ride Apply such as the Medical Assistance Program, Senior Shared Ride Program, Persons with Disabilities Program, and Americans with Disabilities Program.
- Promote carpooling by informing residents and new businesses of the Commute PA Program to allow them to take advantage of this free service.
- Encourage the development of regional transportation serving this region to primary destinations of Philadelphia, Allentown, Scranton, and beyond.

ACTIVE TRANSPORTATION

Active transportation is defined as any form of human-powered transportation that engages individuals in healthy, physical activity while traveling from place to place. These trips take place on a variety of different facilities, some reserved exclusively for non-motorized users such as sidewalks and trails, while others take place on multi-function transportation facilities such as bike lanes on streets. Walking and biking are important parts of the area's overall transportation system as they are two of the most basic and affordable forms of transportation available.

Most pedestrian trips are short; therefore, sidewalks along key corridors connecting residences to nearby amenities have the greatest influence on creating viable pedestrian transportation networks. Sidewalk networks provide a safe means for residents to access nearby attractions such as schools, parks, and adjacent subdivisions. The area has a diverse active transportation system. Active transportation facilities in the region can be viewed on Figure 20. The mix of rural roads in the townships to borough streets in Tipton, and the 0.3 miles of trails and 13 miles of sidewalks in Tipton provide bicyclists and pedestrians with varied routes.

Active transportation is an important means of traveling throughout Tipton Borough providing many benefits for residents and visitors of the downtown. Tipton completed a project in 2023 involving the creation of a path through Tipton Borough Community Park, and included sidewalks, crosswalks, and ADA ramps along West Weis Street and Callowhill Street. This project was completed using Transportation Alternatives Set-Aside (TASA) funding through the Reading MPO and PennDOT. Maintaining and improving upon the current active transportation infrastructure should be a priority in the borough.

The Berks County Planning Commission updated their Greenway, Park and Recreation Plan in 2022 identifying greenway hubs, nodes, and connection corridors. All three of these elements dominate the landscape throughout the Eastern Berks Region. These corridors are integral in connecting residents and visitors of the area to trails and recreation throughout the greenway system. The inclusion of streetscape improvements in hubs such as Tipton and wider shoulders in planned roadway work along the corridors should be considered to further develop and promote connections to recreation facilities, trails, schools, residential developments, shopping centers, and the greenway system throughout the planning region and Berks County.

Bicycle PA Route L runs through all municipalities in the Eastern Berks plan region following Oysterdale Road (SR 1030), Lobachville Road (SR 1023), Lyons Road (SRs 1023 and 1021), Bowers Rd (SR 1013), Main and Weis Streets (SR 1010). Although this route only totals 6 miles through the planning region, the southern terminus is at the Delaware state line and the northern terminus is located at the New York state line, totaling approximately 230 miles through the state of Pennsylvania. Although the Bicycle PA Routes are intended to be used by experienced road bicyclists who may undertake long distance cycle touring trips, accommodating improvements should be considered as an addition to work planned along these roadways. Such improvements include wider road shoulders, striping of bike lanes or addition of sharrows, bicycle friendly drainage grates, and "cyclist may use the full lane" signs.

RATS updated their Bicycle and Pedestrian Transportation Plan in 2020 and identified potential projects based on public, municipal, and non-profit survey responses. Potential projects identified in the Eastern Berks planning area included the wider shoulders along Main and Weis Streets (SR 1010) to better accommodate bicyclists. Sidewalk connections were identified along Weis Street, Henningsville Road, and Home Road.

For more information on bicycle and pedestrian access, refer to the Berks County Bicycle and Pedestrian Transportation Plan 2020 located at <https://www.berkspa.gov/departments/planning-commission/transportation-reading-mpo/plans-and-programs/bicycle-and-pedestrian-planning>.

Complete Streets is an approach to planning, designing, building, operating, and maintaining streets that enables safe access for all users including those traveling by active transportation. The design of Complete Streets considers people and place and varies by user need, but safety for all users is always priority. Ensuring Complete Streets integration into future projects can be done through the adoption and enforcement of Complete Streets Policies.

On November 15, 2021, the Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58), also known as the “Bipartisan Infrastructure Law” (BIL), was signed into law. Section 11206 of the BIL, titled Increasing Safe and Accessible Transportation Options (ISATO), requires certain funds to be used on Complete Streets planning activities as part of the transportation planning process. Potential projects that increase safe and accessible transportation options were identified to fulfill this requirement. These potential projects are elaborated on in the Future Projects section. The methodology used for ranking these projects along with a complete prioritized listing can be found in the Transportation Appendix. Visual representations of potential projects including Complete Street elements have also been provided and can be found in the Future Land Use Chapter of this plan.

Active Transportation Goal: Promote safe and accessible active transportation.

- Ensure that local ordinances and regulations include requirements for active transportation accommodations into and within all new developments.
- Encourage new land developments and subdivisions, especially ones served by public sewer and water utilities, to have sidewalks on one side of all streets when within two (2) miles of a school, or half (0.5) of a mile of a greenway, park, shopping center, business complex, transit stop, or when there is an existing sidewalk network adjacent to the proposed development.
- Examine existing active transportation infrastructure for strengths and weaknesses and devise plans for improvements throughout the region to address maintenance needs, completion of missing links, safety, and accessibility improvements focusing on accessibility to schools, parks, shopping and business centers.
- Consider the development of an Active Transportation Plan that identifies community needs and provides guidance for an interconnected system of pedestrian and bicyclist improvements.
- Adopt and enforce Complete Streets policies to ensure the entire public right-of-way is available for users.
- Encourage businesses to provide bike racks for visitors and storage facilities for employees; seek or support funding where applicable.
- Be aware of grant funding opportunities and apply when appropriate, receiving letters of support from all Eastern Berks municipalities, appropriate parties, and planning agencies.
- Engage with PennDOT officials and RATS staff during the PennDOT Connects process on all state roadway projects to ensure active transportation infrastructure is included in projects where appropriate.

ALTERNATIVE FUELS

The introduction of alternative fueled vehicles, primarily liquid propane gas (LPG) and electric have been somewhat of a novelty in the past, but over recent years the growth of this sector has had dramatic impacts on the environment by lowering emissions. PennDOT has been working with the federal government and other stakeholders to designate numerous interstates for the Federal Highway Administration’s (FHWA) Alternative Fuel Corridor (AFC) Program. This program was designed to expand the nation’s alternative fueling network for electric, propane, and natural gas vehicles. Although the planning area does not contain any designated AFCs, it is important to consider the potential for alternative fuel infrastructure throughout the planning area to support travel of these vehicles.

Grant programs have been made available to aid in the development of alternative fuel infrastructure and to educate and communicate the existence of this infrastructure to promote increased alternative vehicle usage. Federally, the Infrastructure Investment and Jobs Act, signed into law in November 2021, contains specific funding to support the development of infrastructure supporting the expansion of EVs making it the most transformative investment in EV charging in United States history.

Electric Vehicle registrations are recorded by county and zip code. As of July 2024, 0.62% of all vehicles registered in Berks County are EVs, which ranks Berks as 20th in the percentage of EVs registered out of the 67 counties in Pennsylvania. Nearby to this region, Lehigh and Montgomery Counties are ranked 2nd and 9th. There are eight zip codes present throughout the planning region which have all experienced growth in the number of electric vehicles registered from December 2022 through July 2024 all ranking within the top half of EV registrations by zip code in Pennsylvania.

Planning for additional alternative fueling stations should be considered to aid in the reduction of greenhouse emissions and support transportation electrification for not only personal vehicles, but transit, fleets, and freight. Consideration to time spent in a location should be given when planning Level 2 EV charging stations to ensure a convenient, reliable, affordable, and equitable charging experience for all users.

Alternative Fuels Goal: Support the travel of alternative fuel vehicles throughout the region.

- Refer to documents such as the Berks County Planning Commission Electric Vehicle Charging Infrastructure Planning Advice Plan when considering updates to zoning, building codes, and parking requirements to better accommodate and expedite the development of alternative fuel infrastructure.
- Consider adding EV charger infrastructure along heavily traveled roads in the region, such as Weis Street (SR 1010) and at identified ideal public destinations such as libraries, schools, parks, and shopping centers in the Borough of Tipton.
- Work with state agencies such as PennDOT and PA DEP to obtain funding to support the addition of alternative vehicle infrastructure when available.

FUTURE PROJECTS

Figure 17 shows the location of the proposed projects and their corresponding project numbers as shown in the RATS FFY 2025–2028 Transportation Improvement Plan, as well as other significant potential and upcoming projects.

Smoketown Road over Little Sacony Creek – PennDOT Project ID 116478

This project involves the replacement of the state-owned, poor condition, Smoketown Road (SR 1029) Bridge over Little Sacony Creek in Rockland Township with an estimated completion date of Fall 2026. This bridge is being completed using PROTECT funds and will include significant stream relocation and bank stabilization to attempt to minimize future stream impacts to the bridge.

Potential Projects

Maintenance and improvements to the transportation system that serves the Eastern Berks planning area are imperative to achieve the transportation goals listed in this chapter. Future potential projects for the betterment of the transportation system were identified and prioritized as part of this plan. The listing of prioritized potential projects and the methodology used for ranking can be found in the appendix of this plan.

Potential improvements were broken out from overall projects to provide the municipalities with smaller portions to tackle if funding is not available to complete an entire project in one phase. Twenty (20) separate potential projects were identified that directly involve safety and accessibility in active transportation. These were then grouped into four (4) overarching projects and two (2) standalone projects. These projects include SR 1010 Safety, Accessibility and Streetscape Improvements; Tipton Gateway – Home Avenue Safety, Accessibility, and Safety Improvements; BHASD Safe Routes to School Project; and Tipton Community Park Accessibility Improvements. The two standalone projects are focused on directional signage within Tipton Borough and speed control/traffic calming on Callowhill Street.

In addition to maintenance projects already planned, additional projects to improve travel on these assets were added including studies regarding trucks on local roads, truck turning movements at identified intersections, safety at Tipton's three at-grade railroad crossings, drainage issues, and local bridge improvements. Unfortunately, the combination of municipal revenue and liquid fuel funds often does not cover the entirety of maintenance in as timely a manner as travelers expect, let alone improvements to increase vulnerable road user safety and accessibility. Additional funding is often sought after by the municipalities to increase available funds.

Funding

Focusing on the potential active transportation projects previously listed, public-private partnerships should be sought by the interested municipality. Local businesses, organizations, corporations, individuals and schools are possible sources for additional funding. Large scale improvements can be expensive, but private contributions could be used for small yet significant improvements such as bicycle racks, street trees, and benches. Local organizations and businesses that have close ties with the community or are interested in gaining more bicyclist and walk-in business may be more than willing to assist in making these types of improvements to benefit the community they serve.

State based entities such as DCED, DCNR, and PennDOT are often used as sources for funding. Most state funding programs require local matching funds. Some are set up as a reimbursement program. Grants are provided from the Multimodal Transportation Fund (MTF) by the Pennsylvania Department of Community and Economic Development (PA DCED) and PennDOT to encourage economic development and ensure that a safe and reliable system of transportation is available to residents. PennDOT also runs the PA Infrastructure Bank program providing low-interest loans to help fund transportation projects.

Another funding program administered by PennDOT is the Automated Red Light Enforcement (ARLE) program. ARLE grant funds may be used for planning, pre-construction, and construction costs. Types of projects funded include traffic control signal improvements; roadway capacity, mobility, and safety upgrades; bicycle and pedestrian improvements; and Local Technical Assistance Program (LTAP) projects.

The Tipton Community Park trail runs through the entirety of the park as an important active transportation asset to the

community. The development of this trail was assisted with funding through Transportation Alternatives Set-Aside (TASA), which is a set-aside of federal funds. The Reading Area Transportation Study (RATS) staff administers this program within Berks County. No applicant match is required for these awards; however, project sponsors must pay for pre-construction activities such as project design, pre-construction permits, and clearances. The funds from TASA are awarded biannually. There are many types of eligible transportation related projects beyond active transportation including stormwater and vegetation management.

The Pennsylvania Department of Conservation and Natural Resources (PA DCNR) provides multiple grants to assist local governments with funding for projects related to parks, recreation, and conservation. Funding for active transportation improvements that improve safety around and accessibility to the Tipton Community Park could be considered through these DCNR programs as well as the DCED Greenways, Trails, and Recreation program.

WalkWorks is an initiative between the Pennsylvania Department of Health and the Pennsylvania Downtown Center. This organization provides grants that municipalities can use to develop active transportation plans, complete streets policies, and vision zero policies. This grant money helps communities implement policy and infrastructure improvements that will optimize physically active lifestyles for residents, such as increasing active transportation and connectivity to common destinations.

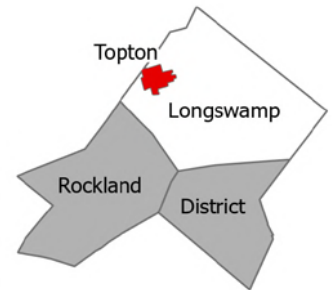
Other longstanding grant opportunities that could assist in community safety and accessibility include America Walks Community Change grants. This program aims to create healthy, active, and engaged communities that support walking as transportation, health, and recreation. The American Association of Retired Persons (AARP) administers the AARP Community Challenge grant program. Applications are accepted under this program that improve housing, transportation, public space, technology, civic engagement, and more.

Despite knowing the areas in need of improvements, what type of improvement is needed, and what funding streams to apply to, there are still technical hurdles to overcome in addition to financial needs. Many of the state agencies listed in this funding section also provide technical assistance in addition to running grant programs. Transportation specific technical assistance includes the AARP Walk Audit Tool Kit to help communities assess pedestrian safety in their neighborhood and advocate for improvements. PennDOT provides technical assistance through the Local Technical Assistance Program (LTAP) for local transportation issues. Municipalities can request an onsite visit from a technical expert to assess the concern and provide a full report of what was observed, recommendations, and resources related to the request through the LTAP program.

FIGURE 18

Rockland, District, Tipton
Joint Comprehensive Plan Update
August 20, 2026

Tipton Borough Road Classifications and Average Daily Traffic



Legend

- Rural Local
- Rural Minor Arterials
- Rural Minor Collectors
- Rural Major Collectors
- Urban Minor Arterial
- Urban Collectors
- 555- Traffic Volume
- + + + Railroads
- Roads
- Municipal Boundaries

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

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0 1,000 2,000
Feet

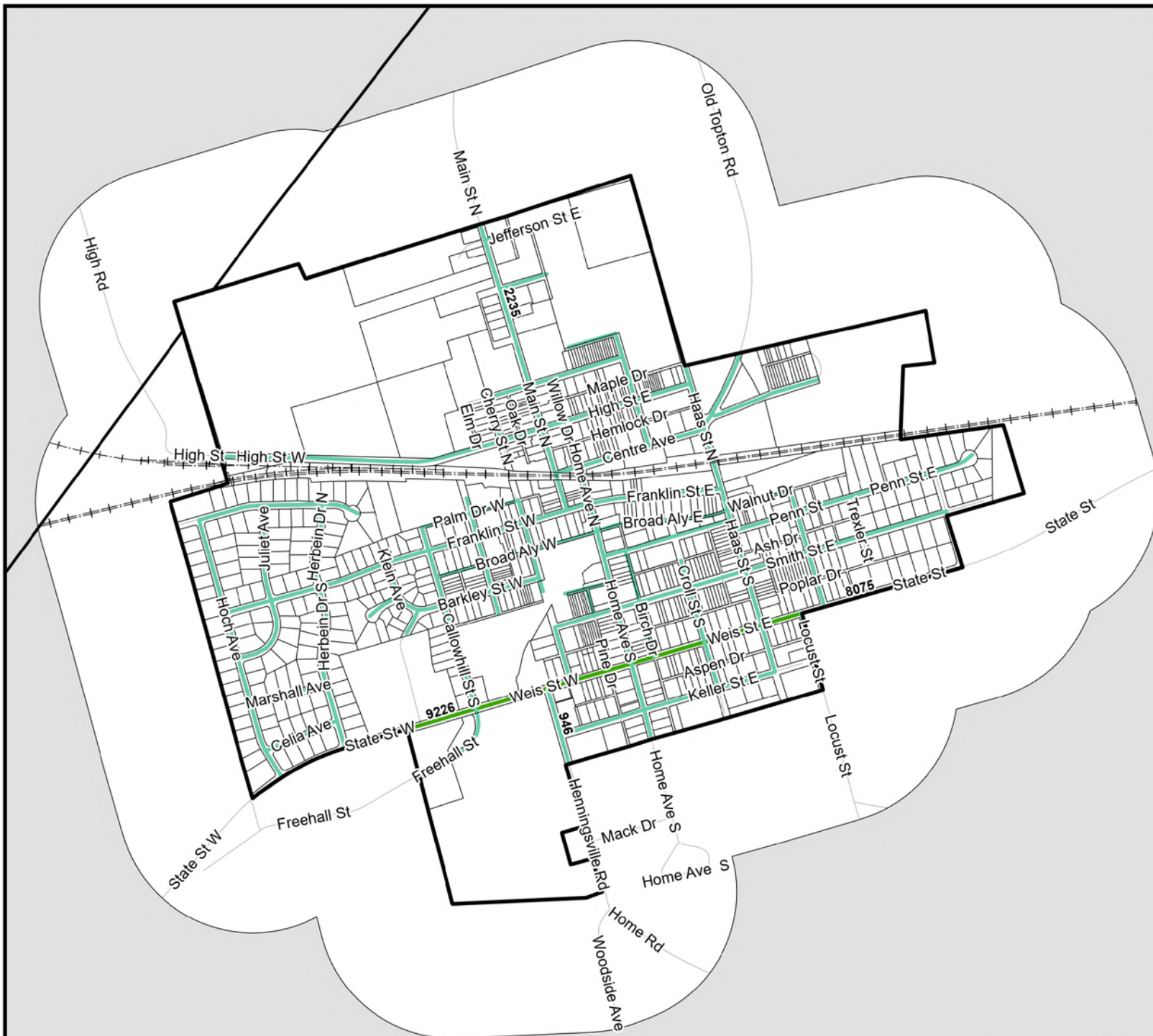
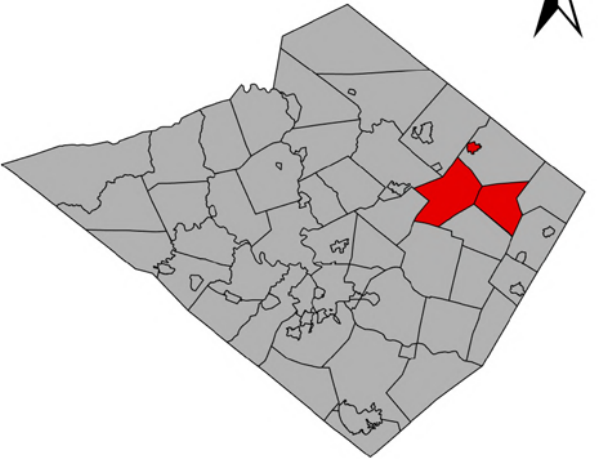


FIGURE 19

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Bridge and Pavement Conditions



Legend

- State Bridge- Good Condition
- State Bridge- Fair Condition
- State Bridge- Poor Condition
- Municipal Bridge- Fair Condition
- State Bridge Closed
- Posted Bridges
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries

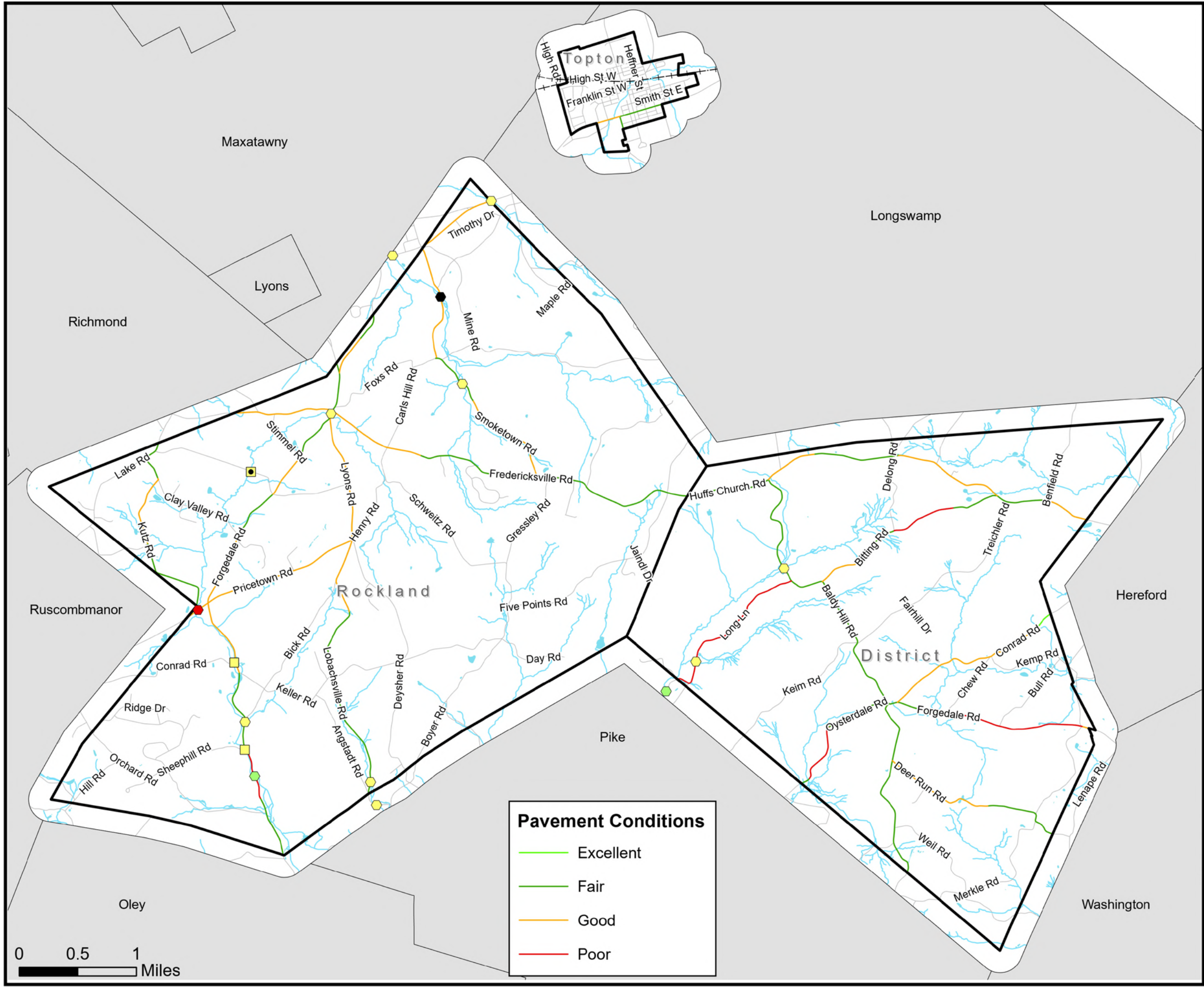
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT

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Pavement Conditions

Excellent

Fair

Good

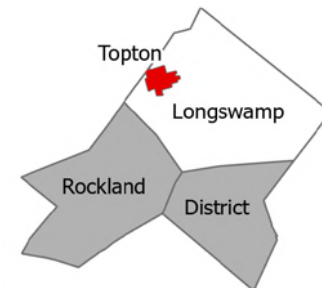
Poor

0 0.5 1 Miles

FIGURE 20

Rockland, District, Tipton
Joint Comprehensive Plan Update
August 20, 2026

Tipton Borough Active Transportation



Legend

- Sidewalks
- Existing Trails
- Proposed Trails
- Railroads
- Roads
- Municipal Boundaries

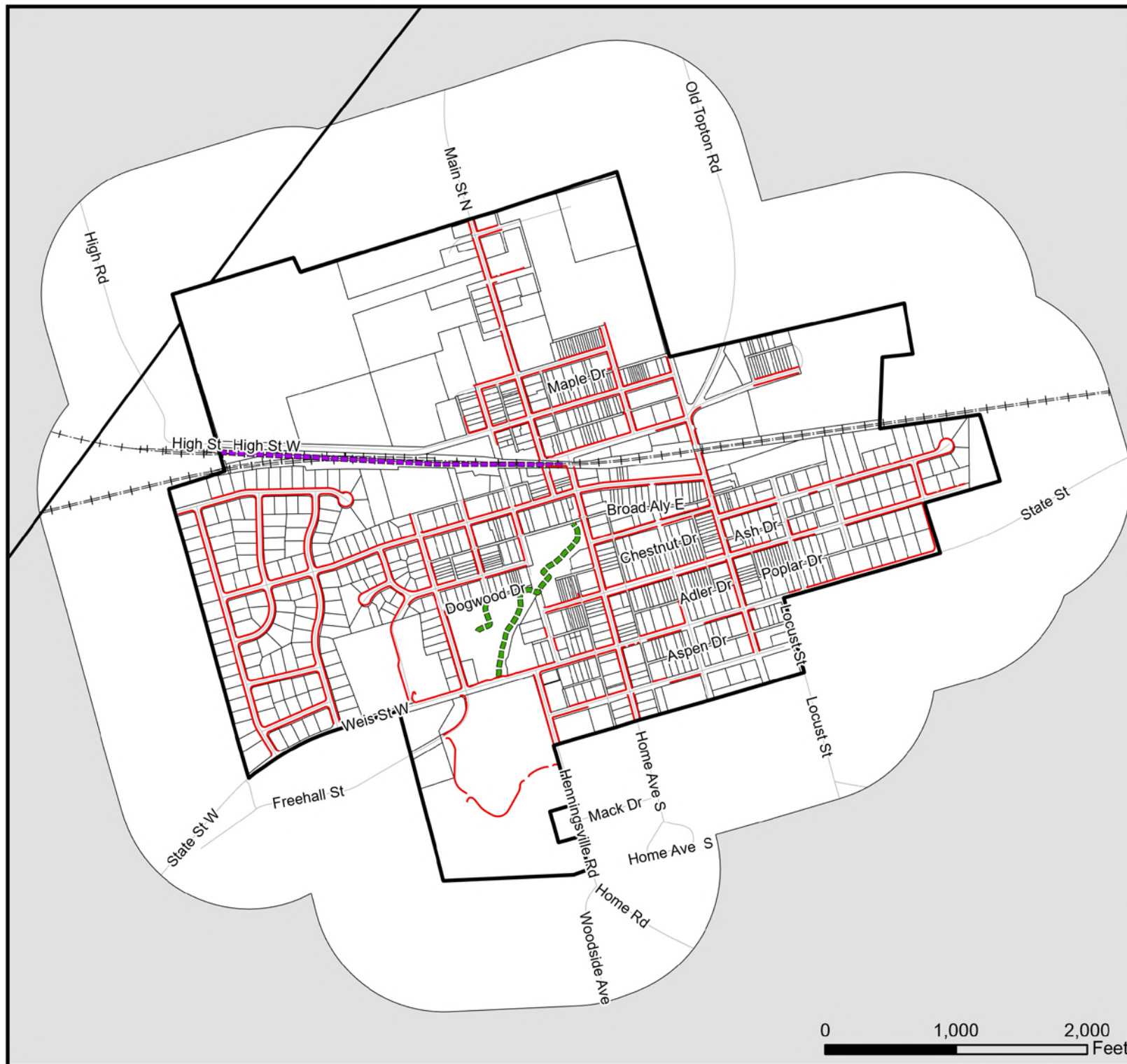
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Berks County GIS/IS, Berks County Mapping, Berks
DES, PennDOT

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SAFE ROUTES TO SCHOOL

Safe Routes to School Programs aim to make it safer and easier for students to walk and ride to school. The first federally funded Safe Routes to School program was created in 2005 and variations continue to date. Brandywine Heights Area School District partnered with Tipton Borough to create a safer route to the schools in the Borough. This route is currently designated through the painting of crosswalks. However, more options should be explored to improve the awareness of this route and the safety it offers to students.

The importance of a diverse active transportation system was explored in the active transportation section. It was also stated that sidewalks should be provided on at least one side of every street that is within two (2) miles of a school. Many active transportation concepts and benefits are closely associated with Safe Routes to School Programs. These programs have many benefits for the student age population as well as the residents in the surrounding communities. The U.S. Public Health Agency, Centers for Disease Control and Prevention (CDC), recognizes Safe Routes to School Programs as cost effective programs that show significant population health impacts within the first five (5) years.

Benefits of the program include cost savings to residents using their cars less and to schools by cutting down on busing costs. Traffic safety is improved through road safety education and reduced dangers for students and community members through street improvements near schools. Climate benefits and cleaner air occur through reduced tailpipe emissions due to reduced congestion at drop off and pick up times. Students can become healthier by strengthening muscles, bones, and joints through active transportation methods, which also aid in reducing chronic disease, obesity, and diabetes. Students are also said to perform better academically through improved attendance, focus, and concentration. Community benefits also include increased safety through better lighting, infrastructure design, and community connectedness.

The most successful Safe Routes to School programs incorporate the Six E's: engagement, equity, engineering, encouragement, education, and evaluation. These summarize the key components of a comprehensive, integrated approach.

Safe Routes to School Goal: Increase physical activity, health, and safety for students of the Brandywine Heights Area School District.

- Use public input to identify safety concerns and infrastructure improvement opportunities on routes where students walk or bike followed by a walk audit covering those locations.
- Better identify the existing route to school through low-cost improvements such as signage and/or paint.
- Brandywine Heights Area School District should engage the community and student population to inform and draw support for an official Safe Routes to School Program.
- The municipalities should pass a resolution, or the School District should create a Safe Routes to School Plan expressing need and support for Safe Routes to School, incorporating the Six E's and detailing specific commitments and implementation steps.
- The school district should provide bike racks and storage facilities for employees and students.
- Be aware of grant funding opportunities and apply when appropriate, receiving letters of support from all Eastern Berks municipalities, appropriate parties, and planning agencies.
- Engage with PennDOT officials and RATS staff during the PennDOT Connects process on all state roadway projects to ensure safe routes to schools districtwide are included in projects where appropriate.

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 throughout the document. ***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.***

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 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.

Future Land Use Analysis

Methodology

The Future Land Use Plan was created digitally using a Geographic Information System (GIS). The existing land use and zoning GIS data was used as the foundation to create the Future Land Use Maps. Additional GIS data such as public water and sewer areas, slopes, floodplains, tax parcels, and preservation easements were overlaid onto the existing land use. The combination of all the different GIS data allowed an analysis to be performed which determined areas that are currently developed, areas where growth should occur at different densities, conservation areas, recreation, as well as areas where industrial and commercial development should occur.

This Plan is designed to address future conditions until the year 2035. 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 2035.

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.

Third, it is based upon regional goals to concentrate certain types of development in Tipton 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 and sensitive natural features. Accordingly, the Plan promotes conservation design techniques that are more fully described as part of the Rural Conservation land use designation description. Regionally, the Plan attempts to distinguish between urban/suburban 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. The Future Land Use Plan depicts the pattern of projected land use, targeting areas that are appropriate for urban growth and reinvestment, as well as areas that should be preserved/conserved for their agricultural, recreational, or natural resource assets.

The Future Land Use Plan is divided into twelve (12) categories:

1. Low Density Residential
2. Medium Density Residential
3. High Density Residential
4. Mobile Home Park
5. Mixed Residential / Commercial
6. Agriculture
7. Rural Conservation
8. Commercial
9. Industrial
10. Public / Institutional
11. Recreation
12. Transportation Network

The following describes the twelve (12) land use categories portrayed in the Future Land Use Plan:

1. Low Density Residential

This category is primarily intended to provide for single family detached development. With on-lot well and septic systems, a one or one-and-a-half-acre minimum should be required depending on the municipality. With central water and sewage services, a lot size of approximately 1/2 acre to 1/3 acre would be appropriate in most areas.

There are currently no Low-Density Residential properties within the planning area. However, a small amount of acreage from neighboring Ruscombmanor is depicted in the buffer area of the map provided at the end of this Chapter.

2. Medium Density Residential

This category is primarily intended to provide for single family detached homes and twin houses. With central water and sewage services, an average of approximately 4 to 5 homes per acre would be appropriate without open space preservation. The Open Space Development option could provide for approximately 1/4- or 1/6-acre average lot sizes with 30 percent of the tract preserved as open space.

The Medium Density Residential category accounts for approximately 0.6% of the land use or 111 acres within the region entirely found in Tipton Borough.

3. High Density Residential

This category is intended to provide for a mix of housing types at densities at over 6 homes per acre. Higher densities (such as 8 to 12 homes per acre) could be appropriate if the housing was limited to persons aged 55 and older or through transfer of development rights. These areas should allow for all housing types. These areas are particularly important to meet obligations under State law to offer opportunities for all types of housing. It also is important to provide opportunities for various housing types to meet the needs of different types of households, such as empty nesters, singles, low income and senior citizens. All apartment and townhouse developments (except the smallest) should be required to include some recreation or open space area for residents. Within the Borough, these neighborhoods are fitted with public sewer and public water as well as a host of other public amenities, facilities and services.

High Density Residential can be found in Tipton Borough, accounting for 0.2% of the land use or 40 acres in the Region.

4. Mobile Home Park

Mobile home parks can be considered a high-density type of residential development and can be proposed for a similar density as described above. Careful consideration should be given when locating and regulating mobile home parks within a specific area.

The Eastern Berks Region has two areas of mobile homes in the Townships. The larger area is a mobile home park within District Township. Future mobile home park development will largely be limited to expansion of this existing park. Mobile home parks are allowed under special exception within Rockland Township as well, though there are no mobile home parks presently located there. Of note, there is small concentration of mobile homes within Rockland built on single family lots that are not associated with a mobile home park. These areas collectively provide for the Region's mobile home housing stock.

The implementation agreement developed for this Plan should require referral to each of the municipalities informing them of

any amendment to the Comprehensive Plan or subsequent zoning ordinance that would eliminate fair share as there may be a need to coordinate in order to provide for this use elsewhere within the Region. This recommendation only applies to mobile home parks as freestanding mobile homes such as those referenced in Rockland are protected under Federal law as single-family detached dwellings and can be placed anywhere “stick-built” homes can be.

Mobile home parks tend to have unique settings that conflict with traditional regulations levied on residential properties. It is recommended that Mobile Home Park Zones be applied to any existing parks. This will continue to provide flexibility for such uses while concentrating parks to where they already have the resources required for their neighborhoods to thrive.

Mobile home parks comprise 0.1% of the total planning area of the Region adding up to 27 acres.

5. Mixed Residential / Commercial

This category is intended to provide for a mix of light businesses and a mix of housing types. These areas should provide for retail stores, offices, personal services, day care centers, banks, exercise clubs and similar uses. The intent is to prohibit the heaviest commercial uses that are most likely to spur demolition or create nuisances for neighbors, such as 24-hour convenience stores, gas stations, vehicle repair, adult bookstores, restaurants with drive-through service and vehicle sales.

In the Boroughs and older villages, development should be encouraged that complements, rather than detracts from, the existing character of historic areas. In older areas, new buildings should be placed with setbacks from the road/street that are like nearby older buildings. To the maximum extent feasible, parking should be located to the rear or side of buildings.

Consideration should be given to strongly encouraging forms of “traditional neighborhood development” in this category. This involves extending the best features of the older areas into new neighborhoods, especially as development occurs around the Borough. As discussed later in this Chapter, this concept also involves making sure that development or redevelopment of lots within older neighborhoods occurs in a way that fits within the “urban fabric” of the surrounding community.

Traditional neighborhood development primarily involves the following:

- Street trees should be planted to eventually provide a canopy of shade over streets. Studies show that mature street trees can increase the value of homes up to 10 percent. If it is not appropriate to have shade trees in the right-of-way, they can be required immediately outside of the right-of-way.
- Requiring that new streetlights meet a certain design standard that is similar to older styles of streetlights.
- Sidewalks should be provided (or asphalt paths along main roads in rural areas). There should be an orientation to pedestrians, with an ability to walk or bicycle to stores, schools and parks. Overly wide residential streets and intersections should be avoided to discourage speeding and to make it easier for pedestrians to cross the street.
- A modest density should be encouraged that is similar to the typical development that occurred during the 1930s through 1940s. This density (such as 5 to 8 homes per acre) should make best use of available land, while avoiding overly dense development and parking problems.
- Whenever practical, parking should be located to the rear or side of buildings, so that the front yard can be landscaped. At best, parking and garages would be placed to the rear of lots, with access using alleys. This design avoids conflicts between sidewalks and vehicles backing into the street and allows the entire curbside to be available for on-street parking.
- If rear access to garages is not practical, then garages should enter onto the side of homes whenever possible, particularly on corner lots. If a front-entrance garage is proposed, it should be designed so that it is not an overly prominent part of the street. For example, a one lane driveway can pass along the side of a house and then widen to enter a two-car garage that is setback from the front of the house. “Snout” houses should be avoided that have a front entrance garage as the home’s most prominent feature.
- Care is needed to discourage new twin and townhouse development that have numerous driveways entering directly onto a street from the front. Garage doors should not be an overly prominent part of the views of housing from the front. Where garages and parking cannot be avoided in the front yard, larger lot widths should be required to make sure that there is green space in the front yard. Regulations are needed to make sure that the majority of the front yards of housing developments are not covered by paving.
- Buildings should be placed relatively close to the street, with front or side porches, to encourage interaction among neighbors. On a corner lot, a side porch can have the same effect. If residents spend time on their front porch, they can help oversee the neighborhood increasing safety in such communities.

This concept can be used to maintain the character of older residential areas, especially within the boroughs and villages. For example, driveways requiring access onto alleys or side streets, as opposed to having front garages and driveways, avoid conflicts between sidewalks and vehicles backing into the street. They also allow the entire curbside to be available for on-street parking; conversely, new front facing driveways may remove as many parking spaces as they create. Aesthetically, with parking to the rear or side of the main building on the lot, it is the building and not parked cars that is the most visible feature along the street.

New buildings can also be required to have a maximum setback from the street that is similar to other buildings on the block. New buildings can also be required to include front porches. Front porches encourage interaction among neighbors, which builds more of a community spirit. If residents spend time on their front porch, they can help oversee the neighborhood and report suspicious activity to the proper authorities.

New street trees can be required by a zoning ordinance as part of the construction of any new principal building, instead of only being required for new subdivisions. Neighborhood character can also be established with older styles of streetlights and street name signs.

Under the State Planning Code, a municipality can require some of these features in zoning ordinances, or alternatively a municipality could offer density incentives for this type of traditional development.

In the planning area this designation encompasses 0.1% of the total land area or 25 acres. This land use designation is in the more densely populated areas that are serviced by existing sewer and water infrastructure.

6. Agriculture

Throughout history, agriculture has played a primary role within Berks County, Pennsylvania and the Region; today, this is still true as evidenced in the Housing and Local Economy Chapter. As the Soils and Geology Map contained within 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.

One, if not the most important, goal for this area is to avoid a dense residential subdivision in the middle of active farmland – to protect the investment of the adjacent farmers.

In general, the desire is to preserve large contiguous areas of prime farmland, mainly through encouraging landowners to sell conservation easements to the County or other entity.

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.

Over the years, communities have seen the rise 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 ensure 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 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. In addition to discouraging large numbers of homes in prime agricultural areas, it is also desirable to carefully locate new homes on a tract to minimize conflicts with agricultural activities. New homes should be placed as far as is reasonable from farming operations.

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.

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 already in place::

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 with the assistance of organizations like Berks County Department of Agriculture, Berks County Conservation District, Berks Nature, the Schuylkill Action Network, and National Resources Conservation Service.** In some cases, funding is available for these projects for farmers in need.

With few zoning approval and change requirements for agricultural uses, local municipalities have little leverage to require riparian buffer installation and use. Nonetheless, these areas are often the most critical in determining local surface water quality. Therefore, the municipalities should continue to review their existing riparian buffer ordinances for any needed revisions and continue to implement a riparian buffer ordinance in those overlay districts. 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 fundraising and actual riparian buffer construction.

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.

The Agriculture land use designation is the second largest land use category in terms of acreage. Agricultural activities comprise 3,039 acres of land in the Eastern Berks region. This equates to 16% of the land being utilized for some form of agricultural production.

7. Rural Conservation

This category is intended to emphasize conservation of important natural features. This area is not proposed to be served by central sewage systems. These lands are characterized by low density development, prominent forest cover, and may contain slopes greater than 15%, as well as fragmented areas of farmland and land eased for agriculture, open space, natural resource or woodland conservation. Development should be subject to flexible siting standards, conservation design standards, and disturbance limitations designed to avoid the most critical environmental constraints and allow land to be developed efficiently with the least degree of environmental impact.

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 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, in 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. The Eastern Berks Region's concentration and wealth 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, zoning in the Rural Conservation land use designation should enable the development of detached homes at a rate of one per each 3 to 5 acres.**

The locations of various conservation features have been depicted on the Natural Features Map contained in Figure 05 of this Plan. Similarly, the Soils and Geology Maps (Figures 01–04) depicts soils with severe development constraints for buildings and on-lot sewers. All 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 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.

In addition to the Conservation areas depicted on the Future Land Use Map, FEMA Floodplains and USDI Wetlands 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.

Next, the use of accessory businesses should be permitted within the Rural Conservation 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 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 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.**

The Rural Conservation category is by far the largest category in the Future Land Use analysis. Rural Conservation accounts for over 75% of the region's total acreage or 14,281 acres.

8. Commercial

This category is intended to provide for a wide range of commercial development mostly 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. 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 shops, hair salons, photographic, art, and dance studios, tailors, laundromats, and drycleaning 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, eliminate unwanted nonconforming uses through attrition 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.**

1.7% or a total of 324 acres of the region includes this Commercial designation.

9. Industrial

The Industrial areas are intended to provide for a wide range of industrial uses. These areas are particularly important to meet obligations under State law to provide opportunities for all types of business uses, including some uses that are less desirable. **Zoning should allow for small, start-up business and light industry as permitted uses.** The heaviest industrial uses should need special exception from the zoning hearing board or conditional use approval from the boards of supervisors/borough council.

Because this plan involves multiple municipalities, it will not be necessary for each municipality to provide for all types of industrial uses. It is recommended that the heavier industrial uses be concentrated around the existing industrial areas within the region. 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.

A high-quality setting will help to attract additional desirable types of business development and higher paying types of jobs. In newer industrial areas, a set of site design regulations should be used to promote light industrial/office parks in a well-landscaped campus-like environment. Truck parking and outdoor storage areas should be required and should be screened from view from roads. The majority of the first 30 feet along a road should be landscaped, with truck loading docks and truck parking located to the side or rear of buildings.

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.***

The municipalities should review and update their SALDO and Zoning Ordinances to ensure that new and emerging high intensity uses are appropriately regulated for the region. Some high intensity uses, such as Logistics Centers, Warehouses, and Data Centers, may require significant energy resources, water usage, medium to large lot sizing, and have varying impacts on nearby parcels. Appropriate considerations for noise, dust, air and water pollution, utility capacity, and roadway infrastructure should be incorporated into the ordinances for these high intensity uses.

Within Tipton, 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.

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.

Approximately 136 acres or 0.7% of the region's total land area is reserved for Industrial use.

10. Public / Institutional

This category recognizes existing large public, semi-public and institutional uses, such as hospitals, schools and municipal buildings. Much of the Region's public and nonprofit designation is comprised of public parks. 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.

A total of 122 acres (0.6%) are designated as Public/Institutional within the planning area.

11. Recreation

Recreation land provides space and facilities for people to engage in active and passive recreation activities. These include playgrounds, parkland, state gamelands/forests, as well as recreation land owned by non-profit recreational groups (i.e. sportsman clubs, and little league organizations) and commercial recreation (i.e. golf courses, miniature golf courses, campgrounds).

Recreation makes up 122 acres or 1.5% of the total land area of the region.

12. Transportation Network

Land in this category contains roads and railroads. While the network of transportation modes that serves Berks County also includes air service, bus and motor freight services, these land uses, as well as parking garages are included in the commercial category.

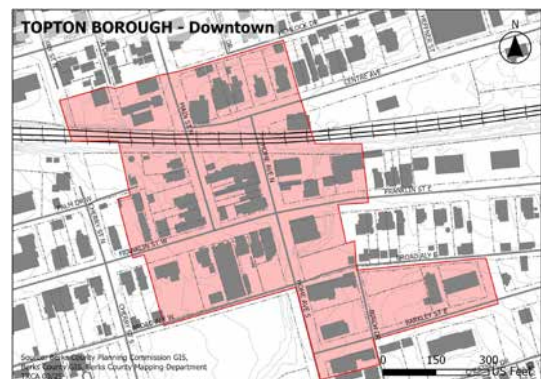
Further discussion of the transportation network within the Region can be found in the Transportation section of this plan.

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.

Main Street Commercial Core in Topton Borough

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 (Figure 23).

The Borough shall consider a more selective approach 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. ***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 but are not limited to:



card, book, and music shops; specialty food stores; bakeries; delicatessens; pet shops, groomers, and veterinarian clinics; wine shops; clothing boutiques; barber shops and hair salons; sporting goods and musical instrument shops; pharmacy, doctors office and other healthcare; hardware, and 5 and 10 cent stores; restaurants, taverns, ice cream parlors, and outdoor cafes; bed and breakfasts; photographic, art and dance studios; legal, tax, and accounting offices; 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, 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 (Figures 24–27).

All commercial signs should be limited to reflect their pedestrian orientation. Within this Downtown, 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 Tipton, 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 as discussed earlier under the Industrial Designation 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. Local officials should enthusiastically market their willingness to cooperate and work through specific difficulties that jeopardize reinvestment when possible. This will require an ongoing demonstration of this commitment over repeated developer requests. Over time, local entrepreneurs and Borough officials can forge partnerships in the reinvestment of the community and Region.

Borough Council should encourage the reorganization of the Tipton Borough Business Owners Association or other Main Street group 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.

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. 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.**

Upgrades to Downtown Tipton’s infrastructure and nearby areas could encourage an even more walkable environment for residents and guests alike. Investments in modern crosswalks with ADA accessible ramps and bumpouts can make pedestrians feel more comfortable when crossing South Home Avenue. Proposed are three crossings in key areas with such provisions (Figures 24–26). *Figure 24* is in the heart of the Downtown at the intersection of North/South Home Avenue and East/West Franklin Street. Here, a compact bumpout should have little impact on the parking in the Borough but would shorten the distance to cross and slow down traffic as well as provide small areas for beautification such as native plantings, bench seating, and historic-style lighting. Similarly, Figures 25 and 26 depict crossings at the current post office and Lutheran church. Adding similar infrastructure, as well as potentially including rectangular rapid flashing beacons can help create a more pedestrian-friendly neighborhood, connecting those destinations and surrounding community to the Downtown as well as Tipton Park. Additionally, narrowing South Home Avenue would encourage slower traffic and discourage large trucks from traveling through Downtown Tipton where current infrastructure doesn’t support them.

Despite Tipton 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, visitors will be less likely to frequent the Borough if they cannot find places 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.**

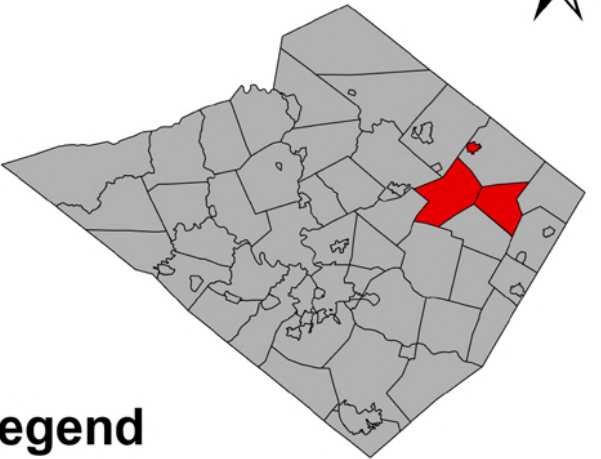
Today, the on-street parking appears to be sufficient to serve the existing businesses with their modest level of commercial activity. However, with increased success and activity in the downtown will come an increasing demand for services, including parking.

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 Tipton Community Park.**

FIGURE 21

Rockland Township, District Township, and Tipton Borough
Joint Comprehensive Plan Update: August 20, 2026

Future Land Use



Legend

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mobile Home Park
- Mixed Residential / Commercial
- Agriculture
- Rural Conservation
- Commercial
- Industrial
- Public / Institutional
- Recreation
- Transportation
- Railroads
- Streams and Water Bodies
- Tax Parcels
- Municipal Boundaries

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

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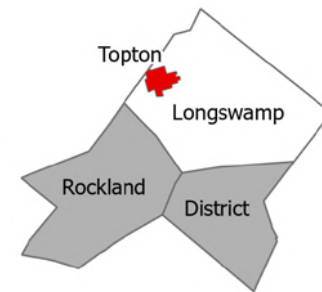
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FIGURE 22

Rockland, District, Tipton
Joint Comprehensive Plan Update
August 20, 2026

Tipton Borough Future Land Use



Legend

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mobile Home Park
- Mixed Residential / Commercial
- Agriculture
- Rural Conservation
- Commercial
- Industrial
- Public / Institutional
- Recreation
- Transportation
- Streams and Water Bodies
- Railroads
- Tax Parcels
- Municipal Boundaries

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

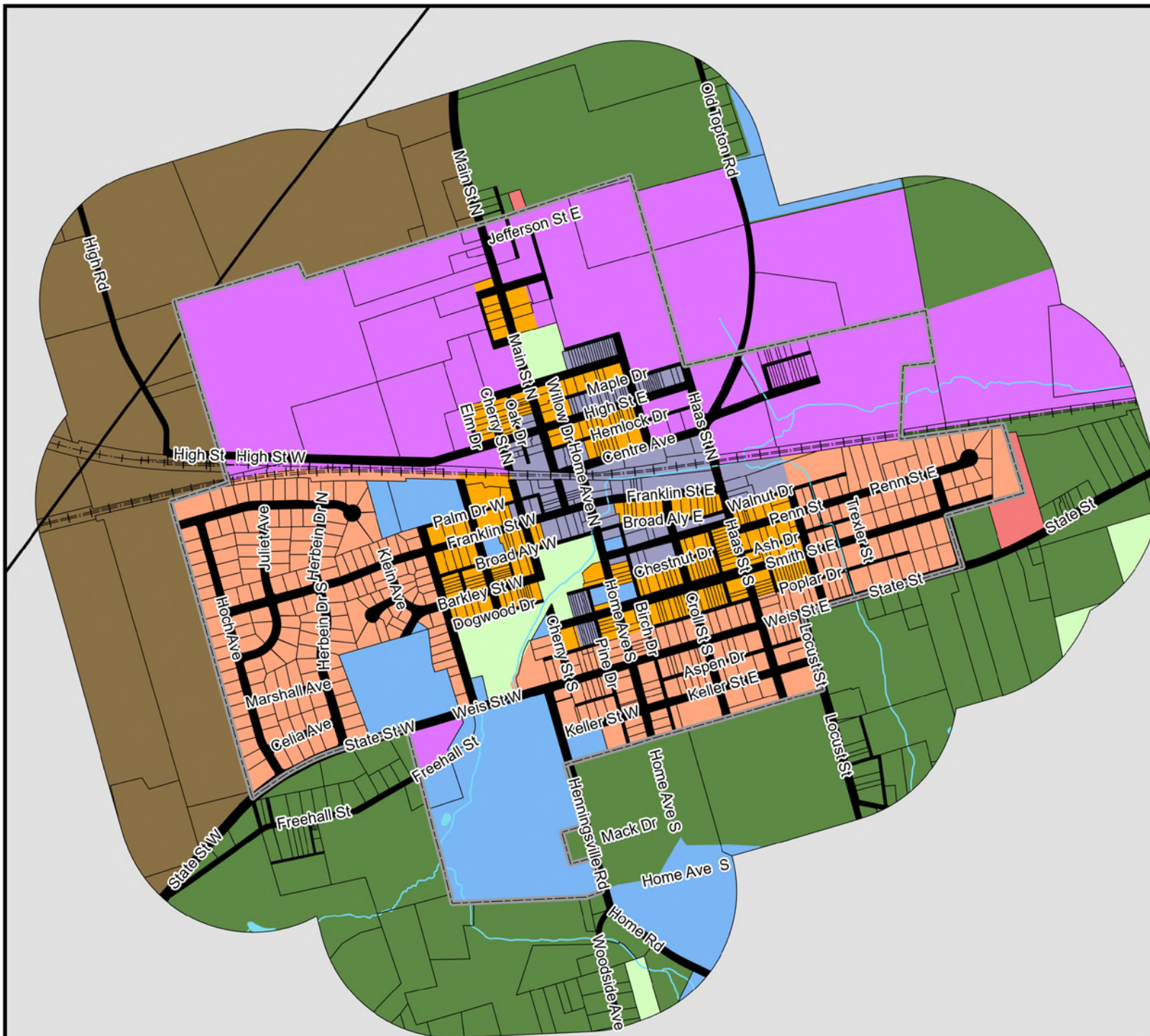
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Feet



TOPTON BOROUGH Downtown Plan

LEGEND

- Residential
- Commercial
- Mixed Use *
- Institutional
- Proposed Urban Design solutions
- Riparian Buffer Maintenance/Replanting
- Pedestrian Routes to School

- 1 BOTH SIDES SAFE RAILROAD CROSSING + FENCING + LANDSCAPING + CROSSWALK + ADA RAMP + BENCH/RECYCLE BINS/STREET LIGHT
 - 2 BOTH SIDES SAFE RAILROAD CROSSING + FENCING + LANDSCAPING + CROSSWALK + A DA RAMP + BENCH/RECYCLE BINS/STREET LIGHT/BI-CYCLE RACKS + PUBLIC ART + HISTORIC SITES SIGNS
 - 3 CORNER BUMPOUTS INFILL DEVELOPMENT + TREE PLANTING + LANDSCAPING + CROSSWALK + ADA RAMP + BENCH/RECYCLE BINS/STREET LIGHT/BI-CYCLE RACKS + HISTORIC SITES SIGNS
 - 4 SIDEWALK CONNECTION TO THE PARK TRAIL + CORNER BUMPOUTS + TREE PLANTING + LANDSCAPING + CROSSWALK + ADA RAMP + RECY-CLE BINS/STREET LIGHT/BI-CYCLE RACKS + PUBLIC ART
 - 5 BUMPOUT + RECTANGULAR RAPID FLASHING BEACONS + TREE PLANT-ING + LANDSCAPING + CROSSWALK + ADA RAMP + BENCHES/RECYCLE BINS/STREET LIGHT/BI-CYCLE RACKS
- A UPPER LEVEL ADDITION - MIXED USE DEVELOPMENT
 - B INFILL DEVELOPMENT - MIXED USE
 - C INFILL DEVELOPMENT - MIXED USE/CORNER STORE
 - D INFILL DEVELOPMENT - MIXED USE OR CULTURAL/MUSEUM
 - E MIXED USE DEVELOPMENT WITH PRIVATE PARKING
 - F TOWNHOUSES OR MIXED USE DEVELOPMENT

* The proposed mixed uses could include business such as a day care, a small gym, a general store, an antique store, a pharmacy, a museum and other supportive businesses.

Figure 24

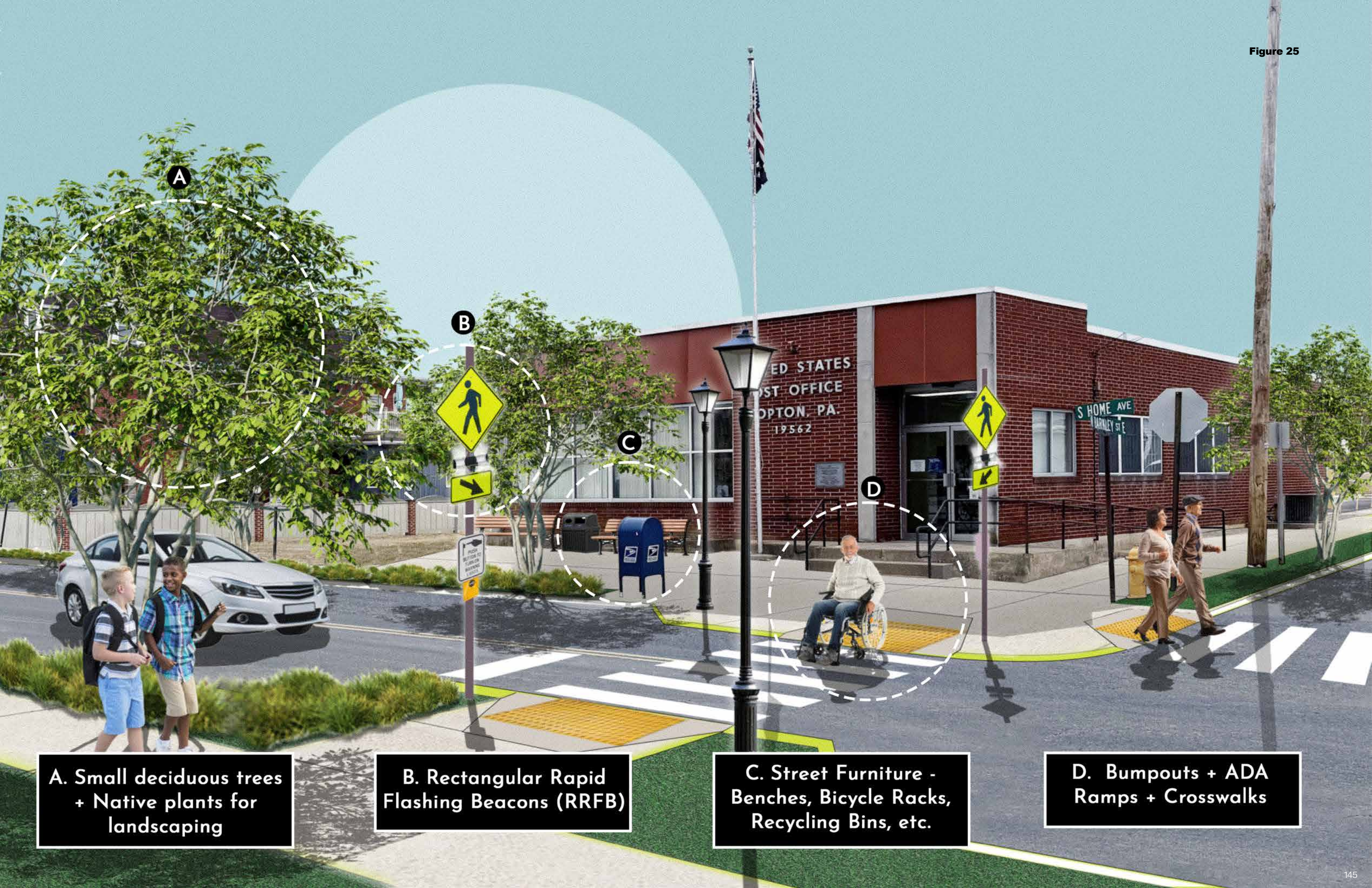


A. Bumpouts + ADA
Ramps + Crosswalks

B. New Business
in vacant buildings +
Mixed Uses

C. Street Furniture -
Benches, Bicycle Racks,
Recycling Bins, Etc.

D. Street Lighting



A. Small deciduous trees + Native plants for landscaping

B. Rectangular Rapid Flashing Beacons (RRFB)

C. Street Furniture - Benches, Bicycle Racks, Recycling Bins, etc.

D. Bumpouts + ADA Ramps + Crosswalks

Figure 26

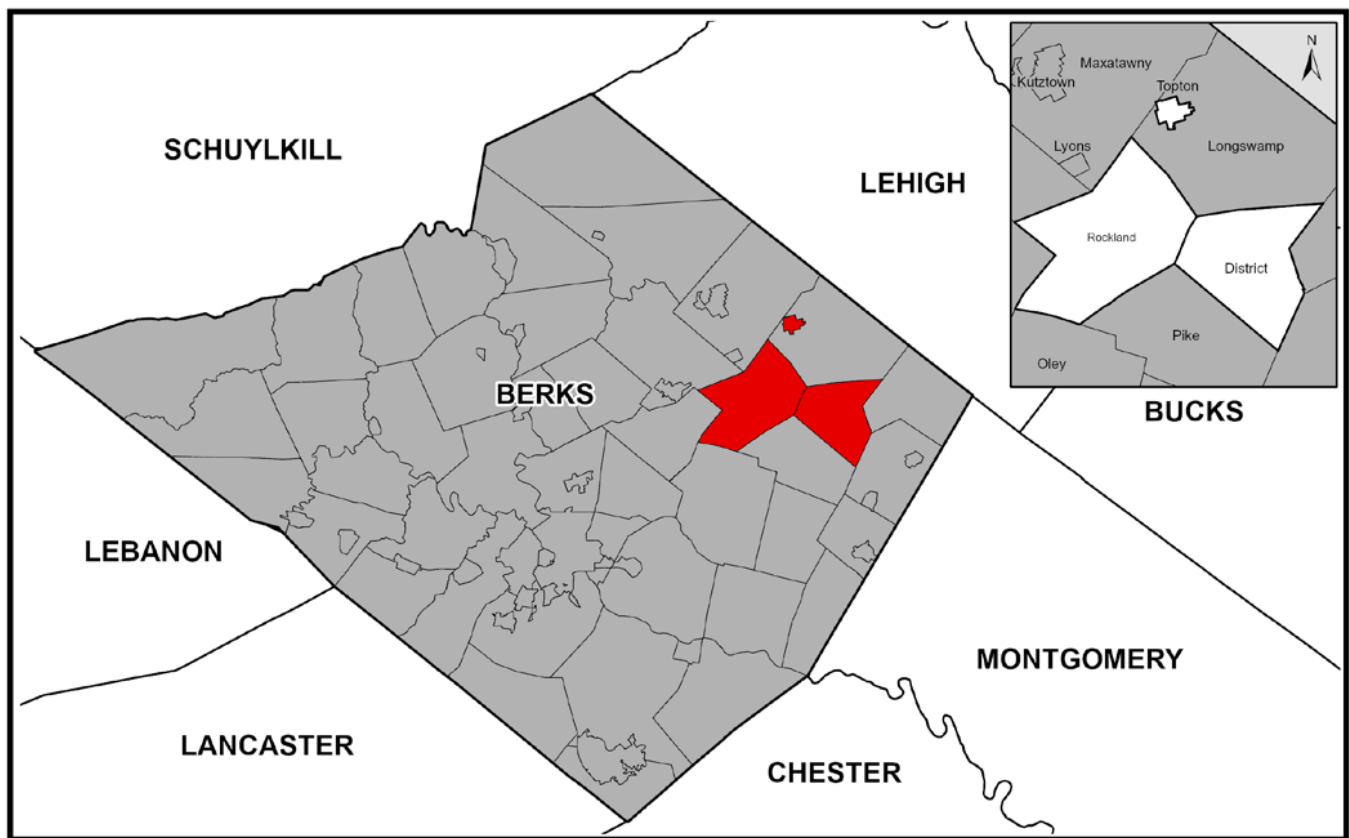


Existing
Parking lot

A. Bumpouts + ADA
Ramps + Crosswalks

B. Rectangular Rapid
Flashing Beacons (RRFB)

C. Small deciduous trees
+ Native plants for
landscaping



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 Maps contained in Figures 12–13, depict the current land uses in the Region as well as adjoining municipalities. As can be seen, many adjoining areas have adopted similar growth indicative to the rural/natural features of the Region.

The following is a brief summary of those communities' future land uses planned for each municipality bordering the Region:

- A. Hereford–Washington Joint Comprehensive Plan** –The Hereford–Washington Joint Comprehensive Plan was adopted in August of 2018. It depicts Rural Conservation and Agriculture in both Hereford and Washington Townships in the area adjoining eastern District Township. Rural Conservation intends to protect agriculture, open space and environmentally sensitive conditions such as steep slopes, woodlands and important headwaters, while Agricultural Preservation aims to prevent the conflict of dense suburbs intermingled within active farmlands. Nearly three quarters of both municipalities fall into one of these two categories.
- B. Boyertown–Colebrookdale–Pike Joint Comprehensive Plan** – 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 in 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.

C. Alsace–Oley–Ruscombmanor Joint Comprehensive Plan – 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 western edge of Rockland Township adjoins Ruscombmanor Township. It depicts Rural and Low-Density Residential uses adjoining the Region. Low Density Residential includes single family detached residences at a density of about 1 to 1-1/2 acres. The Alsace–Oley–Ruscombmanor Joint Comprehensive Plan was adopted in April 2009.

D. Fleetwood–Maidencreek–Richmond Joint Comprehensive Plan – 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.

At the time of this publication, Richmond is currently updating this plan with its neighbors.

E. Maxatawny Township Comprehensive Plan – Maxatawny Township adjoins Rockland and Longswamp Townships along the Region's western boundary. The Maxatawny Township Comprehensive Plan was adopted in January 2010. It depicts three different planned land uses adjoining the Region. At the southern tip of Maxatawny where it borders Rockland Township, there is a small pocket of Low Density Residential with another small pocket of Village. These areas are logical outward migrations from the neighboring Borough of Lyons and would reflect existing sewer and water infrastructure either within (in the case of the Village designation) or nearby (as with Low Density Residential). The third designation, Agricultural comprises the majority of Maxatawny's southeaster border, including that with Rockland Township and Tipton Borough. Here the Township hopes to preserve its agricultural economy and rural lifestyle and discourage nonfarm developments with infrastructure investment.

At the time of this publication, Maxatawny is in negotiations with its neighbors to develop a joint comprehensive plan.

F. Longswamp Township – Longswamp Township adjoins District and Rockland Townships on their northern and northeastern boundaries and almost entirely surrounds Tipton Borough. Longswamp Township withdrew from the Eastern Berks Region Comprehensive Plan in 2014 and adopted its own Comprehensive Plan in October of 2015. Along Longswamp's border where it shares infrastructure with Tipton Borough, it has designated much of its economic development areas with adjacent Industrial and Residential designations as well as nearby Highway Commercial areas. A small portion of the Longswamp's northwestern border, including with Rockland Township, is designated Agriculture Preservation. A majority of its land area, much like this Plan, however, is designated for Conservation, including the remainder of its border with Rockland and the entirety of its southern border with District.

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

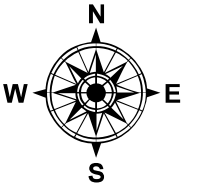
The purpose of the Berks County Comprehensive Plan update is to revise certain aspects of the Comprehensive Plan of 2013, and subsequent Plan documents. This revision serves as a set of recommendations rather than a regulatory document. It acts as a guide to growth and development and assists the Berks 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 alter the Plan. At the time of this publication, Berks County Planning Commission is in the process of updating this Plan. Figure 28 depicts the Future Land Use Plan for the Region and neighboring municipalities taken from the Berks County Comprehensive Plan.

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 Tipton Borough. Another smaller designated/future growth area is depicted along the northern 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 12 generally follows the County's suggested land use scheme.

Berks County Comprehensive Plan Update
Adopted: January 23, 2020

Oley Hills Region Future Land Use Berks County, Pennsylvania



Legend

- Existing Development
- Designated Growth
- Future Growth
- Rural Conservation
- Agricultural Preservation
- Permanent Open Space and Rec
- Environmental Hazard
- Transportation Network
- Planning Region Boundary
- Municipal Boundaries
- Limited Access Highway
- Railroads
- Interchanges
- Public Airports

Source: Berks County Planning Commission, Berks County GIS,
Berks County Mapping, Berks County Department of Emergency Services,
FEMA

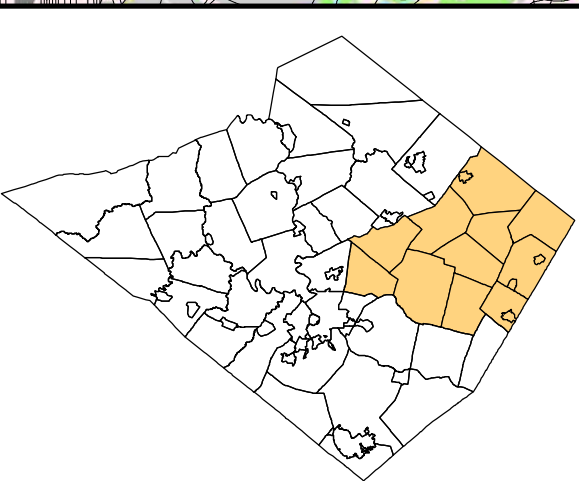
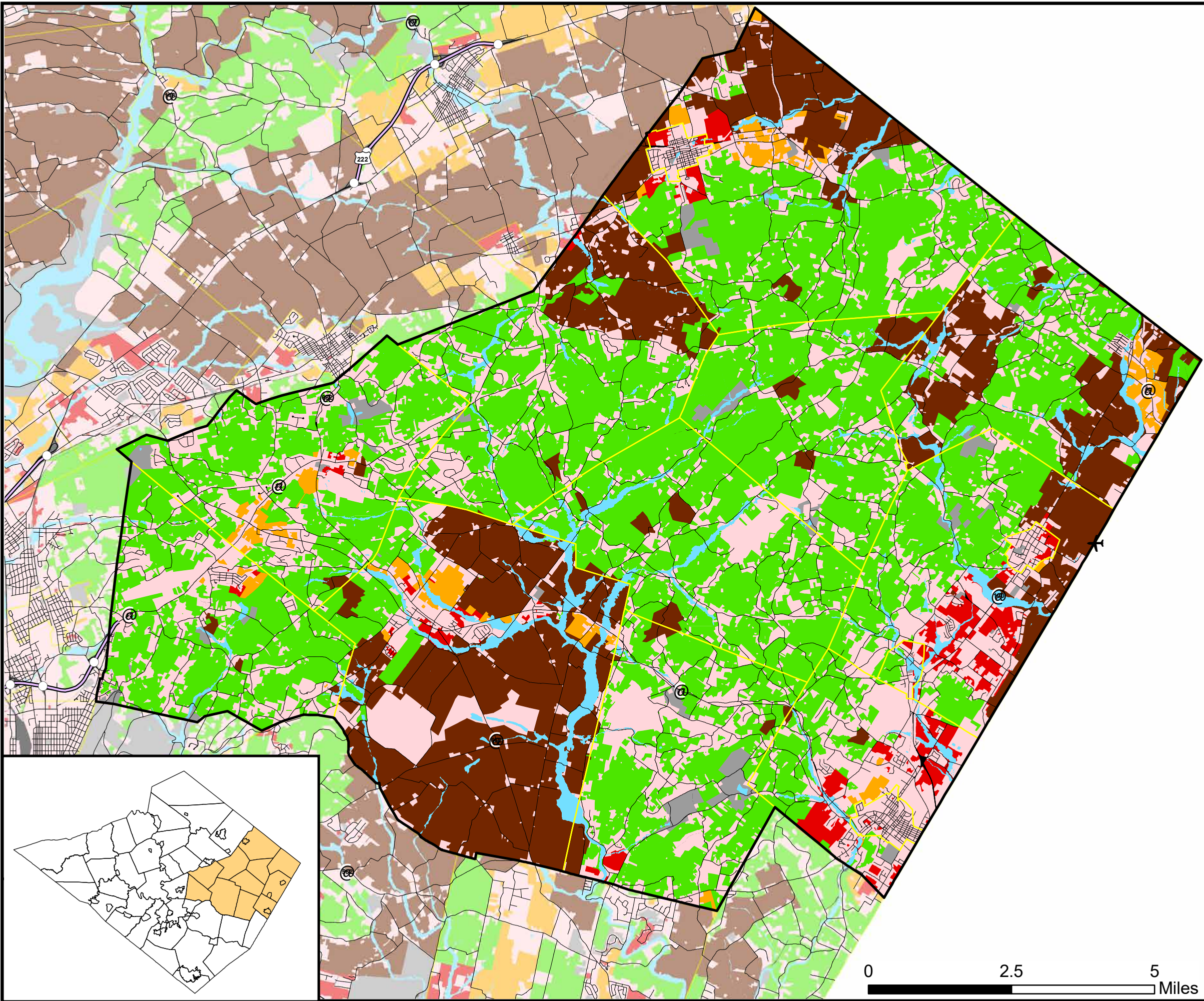
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The Berks County Planning Commission would like to acknowledge those members of the Advisory Committee who contributed to and oversaw the preparation of this Plan update:

District Township: Mike Carr, Eugene Orlando Jr. Esq., Ed Overberger, Piper Sherburne
Rockland Township: Michele Albright, Karen Krall, William McFadden, David Wartzenuft
Topton Borough: Bruce Meitzler, Maryellen Monaghan, Julie Pummer, Leo Scott
Brandywine Heights Area School District: Andrew Potteiger

All maps and aerals 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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