

Southern Berks Joint Comprehensive Plan

Birdsboro
Borough

Caernarvon
Township

Robeson
Township

Union
Township



Adopted August 2020

ACKNOWLEDGEMENTS

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

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

This Plan update was prepared by:



Berks County Planning Commission Staff

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**BOROUGH OF BIRDSBORO
BERKS COUNTY, PENNSYLVANIA**

RESOLUTION 2020-21

**A RESOLUTION OF THE BOROUGH COUNCIL OF THE BOROUGH OF
BIRDSBORO, BERKS COUNTY, PENNSYLVANIA TO ADOPT THE
SOUTHERN BERKS JOINT COMPREHENSIVE PLAN OF 2020**

WHEREAS, the Borough of Birdsboro in conjunction with Caernarvon, Robeson, and Union Townships (hereinafter referred to as the Participating Municipalities), all of which are municipalities located within Berks County, Pennsylvania, have joined efforts with the County of Berks, as part of its Joint Comprehensive Plan Program, and

WHEREAS, the County of Berks in conjunction with the Participating Municipalities have selected the consulting team to prepare, at the direction of the Participating Municipalities, the maps, charts, textual matter, photographs, and all other materials within the Southern Berks Joint Comprehensive Plan, and

WHEREAS, the Southern Berks Joint Comprehensive Plan has been prepared pursuant to the provisions specified under Article III of the Pennsylvania Municipalities Planning Code (MPC), and

WHEREAS, the Southern Berks Joint Comprehensive Plan was financed by a grant from the Commonwealth of Pennsylvania, Department of Community and Economic Development, and

WHEREAS, copies of the proposed Southern Berks Joint Comprehensive Plan have been forwarded to the Berks County Planning Commission, the Daniel Boone School District, the Twin Valley School District, and the adjacent school municipalities for review and comment in accordance with the provisions of the MPC, and

WHEREAS, copies of the proposed Southern Berks Joint Comprehensive Plan were made available to the residents and property owners of the participating municipalities in accordance with the provisions of the MPC, and

WHEREAS, the Participating Municipalities Planning Commissions held a public meeting pursuant to public notice in accordance with the provisions of the MPC, and have provided a recommendation to their respective Governing Bodies, and

WHEREAS, the Governing Bodies of the Participating Municipalities have conducted a public hearing pursuant to public notice in accordance with the provisions of the MPC.

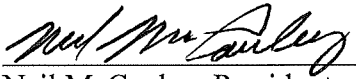
NOW THEREFORE BE IT RESOLVED that after considering the recommendations and comments presented as part of this public hearing, the Borough Council of the Borough of Birdsboro does hereby adopt the Southern Berks Joint Comprehensive Plan of 2020, which is


comprised of maps, charts, textual matter, photographs, and all other materials constituting a part thereof.

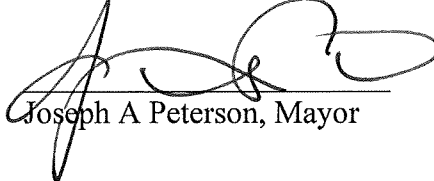
FURTHER, RESOLVED, that this Resolution shall become effective immediately.

DULY PRESENTED AND ADOPTED by the Council of the Borough of Birdsboro on the 8th day of September, 2020.

**COUNCIL OF THE
BOROUGH OF BIRDSBORO**

BY: 
Neil McCauley, President

ATTEST: 
Bonnie L. Frisco, Secretary


Joseph A Peterson, Mayor

RESOLUTION NO. 2020-22

**A RESOLUTION OF THE BOARD OF SUPERVISORS
OF THE TOWNSHIP OF CAERNARVON, BERKS COUNTY, PENNSYLVANIA
ADOPTING THE UPDATED SOUTHERN BERKS JOINT COMPREHENSIVE PLAN AS ITS
OFFICIAL JOINT COMPREHENSIVE PLAN**

WHEREAS, Section 302 of the Pennsylvania Municipalities Planning Code, authorizes the adoption of municipal, multi-municipal and county comprehensive plans and plan amendments and provides that the same shall be adopted by Resolution in the name of the municipality, and duly enacted by the governing board of said municipality, and

WHEREAS, on August 10, 2004, the Township of Caernarvon, Berks County, Pennsylvania (the "Township of Caernarvon") adopted the Comprehensive Plan for the Township of Caernarvon, Township of Robeson, Township of Union and Borough of Birdsboro (the "2004 Southern Berks Regional Comprehensive Plan"); and

WHEREAS, the 2004 Joint Comprehensive Plan was intended to address the long-term development and preservation of the participating municipalities, to provide a solid foundation for development regulations, to provide coordination of development, infrastructure and traffic across municipal borders, and to guide other public policies within the Southern Berks Region; and

WHEREAS, as a result of many changes, the Planning Commission of the Township of Caernarvon (the "Planning Commission"), the Township of Robeson, the Township of Union, the Borough of Birdsboro, the Berks County Planning Commission, and the Southern Berks Joint Comprehensive Plan Committee have participated in the preparation of a revised Southern Berks Joint Comprehensive Plan (the "Joint Comprehensive Plan");

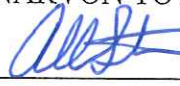
WHEREAS, the Planning Commission has recommended the adoption of the Joint Comprehensive Plan to the Board of Supervisors of the Township of Caernarvon; and

WHEREAS, the Township of Caernarvon has complied with the requirements and procedures as set forth in Section 302 of the Pennsylvania Municipalities Planning Code for adopting the Joint Comprehensive Plan.


NOW, THEREFORE, BE IT RESOLVED AND ENACTED by the Board of Supervisors of the Township of Caernarvon, Berks County, Pennsylvania, that the Township of Caernarvon hereby acknowledges its July 14, 2020 adoption of, and hereby re-adopts and reaffirms, as its official Joint Comprehensive Plan the Southern Berks Joint Comprehensive Plan, last revised April 2020, which is incorporated herein by reference, made a part hereof and attached hereto as Exhibit A.

DULY ENACTED THIS 28th Day of July 2020, by the Supervisors of Caernarvon Township, Berks County, Pennsylvania.

CAERNARVON TOWNSHIP

BY: 

Allen Styer, Chairman


SEAL
ATTEST: 
Joan Bair, Township Secretary

TOWNSHIP OF ROBESON, BERKS COUNTY, PENNSYLVANIA

RESOLUTION NO. 2020 - 11

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF ROBESON, BERKS COUNTY, PENNSYLVANIA, APPROVING THE REVISED AND UPDATED SOUTHERN BERKS JOINT COMPREHENSIVE PLAN

WHEREAS, a Joint Comprehensive Plan was prepared for Southern Berks County municipalities consisting of the Borough of Birdsboro, Township of Robeson, Township of Union and Township of Caernarvon, and the school districts of Daniel Boone and Twin Valley in 2004; and

WHEREAS, with the passage of time and changes in population of the stated municipalities and school districts, and for various other reasons, it has become desirable to revise and update the Southern Berks Joint Comprehensive Plan; and

WHEREAS, the Joint Planning Commission consisting of representatives from the four municipalities, under the guidance and direction of Matthew F. McGough, Intergovernmental Planner with the Berks County Planning Commission, met from time to time and prepared a revised Southern Berks Joint Comprehensive Plan in accordance with Article III of the Pennsylvania Municipalities Code (Act 247 of 1968, as amended); and

WHEREAS, a governing body public hearing was held on August 18, 2020, in accordance with the Pennsylvania Municipalities Code (Act 247 of 1968, as amended).

NOW, THEREFORE, BE IT RESOLVED, that the Board of Supervisors of the Township of Robeson, Berks County, Pennsylvania hereby adopts the revised and updated Southern Berks Joint Comprehensive Plan attached hereto as Exhibit A. Pursuant to the MPC, Section 302(c), it is specifically found that the following maps, charts, textual matter, and other matters listed are intended to form the Southern Berks Joint Comprehensive Plan:

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FURTHER RESOLVED, that if any provision, sentence, clause, section, or part of this Resolution shall for any reason be found to be unconstitutional, illegal or invalid, such determination shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts of this Resolution, and it is hereby declared to be the intent of the Board of Supervisors of the Township of Robeson that this Resolution would have been adopted had such unconstitutional, illegal or invalid provision, sentence, clause, section or part not been included herein.

FURTHER RESOLVED, that all Resolutions or parts of Resolutions inconsistent with this Resolution are hereby superseded.

FURTHER RESOLVED, that this Resolution shall become effective immediately.

CERTIFICATE

I hereby certify that the foregoing is a true and accurate copy of a resolution of the Board of Supervisors of Robeson Township, Berks County, Pennsylvania, which was fully adopted at a public meeting held pursuant to notice as required by law on the 18 day of August, 2020.

Dale L. Brown
Secretary of Robeson Township

Dated: August 19, 2020

IN WITNESS WHEREOF, the Board of Supervisors of Robeson Township, Berks County, Pennsylvania has caused this Resolution to be adopted this 18 day of August, 2020.

BOARD OF SUPERVISORS
OF ROBESON TOWNSHIP,
BERKS COUNTY, PENNSYLVANIA

[Signature]
Chairman

[Signature]
Member

[Signature]
Member

[Signature]
Member

[Signature]
Member

Attest: [Signature]
Secretary

TOWNSHIP OF UNION
BERKS COUNTY, PENNSYLVANIA
RESOLUTION NO. 2020- 12

A RESOLUTION OF THE TOWNSHIP OF UNION, Berks County, Pennsylvania, adopting the 2020 Southern Berks Joint Comprehensive Plan Update.

WHEREAS, Union Township, in conjunction with Birdsboro Borough, Caernarvon Township, and Robeson Township (hereinafter the “Participating Municipalities”), adopted by Resolution the Southern Berks Regional Comprehensive Plan of 2004.

WHEREAS, in 2006, the Participating Municipalities also enacted ordinances, which authorized each individual municipality to enter into an intergovernmental agreement with each other to implement the Comprehensive Plan of 2004.

WHEREAS, in 2018, the Participating Municipalities, based on the implementation agreement, likewise entered into an agreement to update the Comprehensive Plan of 2004, utilizing the Staff of the Berks County Planning Commission to facilitate the preparation of the 2020 Southern Berks Joint Comprehensive Plan Update (hereinafter the “2020 Plan Update”).

WHEREAS, at public meetings of the Union Township Planning Commission, and the Union Township Board of Supervisors from 2018 through 2020, the proposed sections of the 2020 Plan Update were discussed as they were being developed by County Planning Staff and representatives of each of the Participating Municipalities.

WHEREAS, at a public meeting on February 6, 2020, the Union Township Planning Commission took action to forward a complete draft of the 2020 Plan Update to the Union Township Board of Supervisors for its consideration.

WHEREAS, the draft 2020 Plan Update, after consideration, was authorized by the Board of Supervisors to be circulated to the County Planning Commission, contiguous municipalities, and the school districts for their review and comment.

WHEREAS, comments were received from the County of Berks, which were considered by both the Union Township Planning Commission and the Union Township Board of Supervisors.

WHEREAS, the draft 2020 Plan Update, as revised to address comments, was made available to the public by the Township through links on the Township website.

WHEREAS, the Union Township Planning Commission, at its July 2020 meeting, recommended the revised 2020 Plan Update for consideration for adoption by the Union Township Board of Supervisors.

WHEREAS, at the July 2020 meeting of the Union Township Board of Supervisors, the advertising of a public hearing was authorized, to accept any final comments from the public before consideration of adoption of the 2020 Plan Update.

WHEREAS, the public hearing of the Union Township Board of Supervisors has now been held to accept comment.

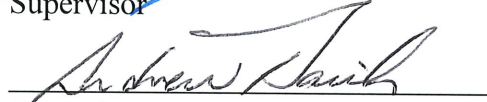
NOW THEREFORE, BE IT RESOLVED, AND IT IS HEREBY RESOLVED by the Board of Supervisors of the Township of Union, that after considering the draft 2020 Plan Update, as well as all comments provided, and consistent with the recommendation of the Union Township Planning Commission, the Union Township Board of Supervisors hereby adopts the 2020 Southern Berks Joint Comprehensive Plan Update, which is comprised of maps, charts, textural material, and all other materials constituting a part thereof.

Adopted and effective this 17th day of AUGUST, 2020, by the Board of Supervisors of the Township of Union.

BOARD OF SUPERVISORS OF
THE TOWNSHIP OF UNION


Chairman


Supervisor


Supervisor

ATTEST:

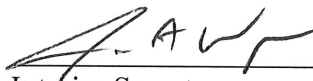

Interim Secretary

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INTRODUCTION

What is the Comprehensive Plan?

This Comprehensive Plan is intended to establish overall policies for the development and conservation of the Southern Berks region over the next 15 years. The region includes Birdsboro Borough and the Townships of Caernarvon, Robeson and Union. Public education in the region is served by the Daniel Boone and Twin Valley School Districts. This Plan is not by itself a regulation, but is intended to provide the policy direction for changes to the municipalities' development regulations.

The Comprehensive Plan includes the following major elements:

- The Overall Vision and Goals of the Plan
- The Demographics and Housing Overview
- The Natural Features and Agricultural Conservation Plan
- The Community Facilities and Services Plan
- The Historic Preservation Plan
- The Economic Development Plan
- The Transportation Plan
- The Existing Land Use Plan
- The Future Land Use Plan
- The Implementation Plan
- The Action Program

How Was this Plan Developed?

The Southern Berks Regional Comprehensive Plan was originally prepared with the assistance of many groups, organizations and individuals. In March of 2001, the County of Berks in cooperation with Birdsboro Borough, Caernarvon Township, Robeson Township and Union Township selected the professional consulting team of Hawk Valley Associates, ARRO Consulting and RothPlan to prepare the Regional Comprehensive Plan. After three years of meetings and gathering of information from the stakeholders in the region the plan was adopted by the municipalities in 2004.

After approximately 14 years since the adoption of the 2004 iteration of the Plan the municipalities determined that it was time for an update to the original document. The Berks County Planning Commission was chosen by the municipalities to work on updating the Plan and began work on the update in the fall of 2018.

Since the 2004 Plan many things have changed in the Region. For instance, the extension of sewer service to the Geigertown area, zoning amendments, and new demographics, economic and housing information has been made available. After 14 years it is a good time to assess the current joint comprehensive plan and amend it to make it compatible with the issues and conditions that are impacting the municipalities today. Because of this the municipalities decided to pursue an update to their multi-municipal comprehensive plan.

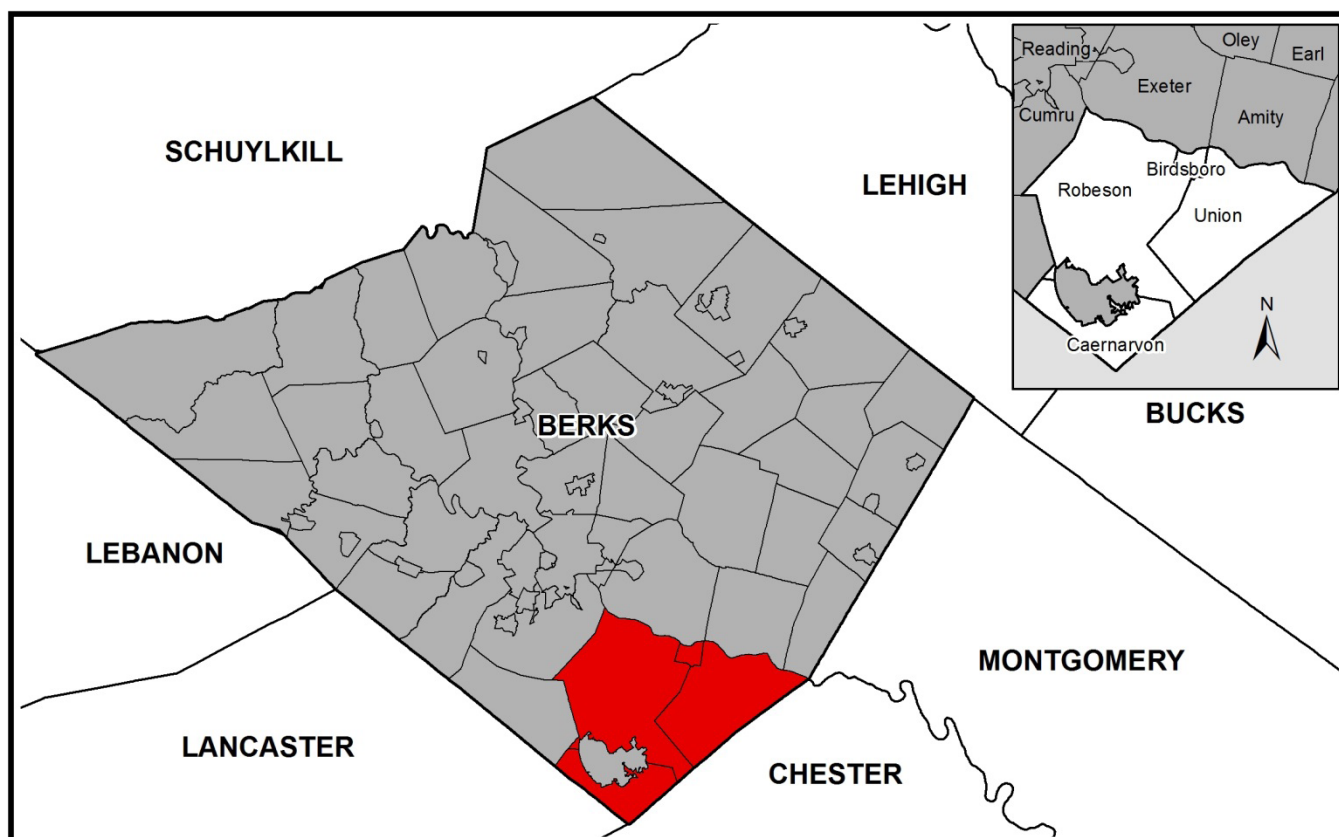
The first step in the process was the identification of major issues and concerns that needed to be addressed. The next step was an analysis and mapping of the existing conditions and trends. The mapping started with computerized information provided by the Berks County Planning Commission. A survey was sent out to a sample of residents of the region to gauge their thoughts on the community.

Chapter 1 - Introduction

An “overall vision” was prepared and a set of goals were written to provide overall direction for the Plan. Then a series of alternatives were considered to guide development in different areas of the Region. The Land Use Plan was prepared, followed by recommendations concerning Community Facilities, Transportation, Economic Development, Historic Preservation and Natural Features. All of these elements were produced and reviewed by the Planning Committee at monthly meetings advertised and open to the public. Public hearings were then held. After making revisions to respond to public input, the Plan was adopted by the elected officials of each municipality.

Regional Location

The municipalities composing the Southern Berks Region include Birdsboro Borough, Caernarvon Township, Robeson Township, and Union Township. These four (4) municipalities are located within the southeastern portion of Berks County. The regional planning area consists of 43,439.85 acres of land (67.88 square miles) with a total population of 19,888 residents (2010 Census). The center of the Southern Berks Region is located approximately seven (7) miles to the southeast of the City of Reading, 34 miles to the southwest of the City of Allentown, 42 miles to the northwest of City of Philadelphia, 28 miles to the east of the City of Lancaster, and 57 miles to the west of the City of Harrisburg. The map below depicts the geographic proximity of the Southern Berks Region within Berks County.



THE VISION AND GOALS OF THIS PLAN

The Overall Vision of this Plan

As we look to the future, hopefully the best features of older development in the region will have been preserved and extended into new development.

Birdsboro and Morgantown will continue to serve as active business hubs and support the higher density housing needs of the region.

Historic buildings should be preserved and many restored in a sensitive manner, with appropriate new uses. Older neighborhoods will remain strong and stable, with a high percentage of homes being owner-occupied.

New business development should occur in ways that fit into the character of the community. This should include reuse of older buildings and sites and construction of newer commercial buildings only where it is appropriate.

Large areas will continue to be farmed and substantial areas of woodlands preserved, providing attractive visual relief between developments, recreational opportunities and further promoting the rural nature of the region that residents are used to.

The creek valleys will be preserved, some in public greenways and trails. Plentiful high-quality groundwater supplies will remain available, with large amounts of stormwater recharging into the ground. The creeks will also continue to have high water quality, with the benefit of careful erosion controls. Conservation easements will have ensured the permanent preservation of large areas of open land.

Most new development should be served with public water and sewage service that will minimize the total amount of land that is consumed. Substantial areas of open space will have been preserved within most new development. "Cookie-cutter" subdivisions sprawling across the rural landscape will have been avoided.

Unsightly and inefficient "strip" commercial development of new commercial businesses with individual driveways along long stretches of major roads will have been avoided. Extensive landscaping will add to the attractiveness of new development.

Traffic will increase but should be carefully managed, with improvements to smooth traffic along major corridors and existing choke points. Coordinated driveways and interconnected parking lots will be provided between adjacent businesses. Wider shoulders should be provided on roads to increase safety and promote bicycling and walking.

Signs will be of modest size and height. Lighting will be controlled to avoid nuisances to neighbors and motorists.

A wide variety of recreation opportunities will be available and the Daniel Boone and Twin Valley School Districts will continue to be known for high quality education.

Direction: The Major Goals of This Plan

The following goals provide overall direction for this Plan. The recommendations work to carry out these goals. More on these goals can be found in the corresponding chapter of the plan.

Overall Goal: Continually strive to make the region an even greater place in which to live, work, learn, visit, shop and play, with a strong sense of community, scenic preserved open spaces, an attractive historic character, a vibrant economy, and an excellent quality of life.



Housing in Birdsboro

Chapter 2 - The Vision and Goals of This Plan

Natural Features and Agricultural Conservation

- Protect important natural features, with a special emphasis upon the Hopewell Big Woods, the Schuylkill River, French and Hay Creeks, other creek valleys, wetlands and steeply sloped woodlands.
- Seek to maintain and protect agricultural activities within the region.
- Protect the Birdsboro Watershed area.
- Protect the amounts and quality of groundwater and creek waters.
- Protect natural resources and regional open space from utilities.
- Encourage smart growth practices and low impact development to protect water quality.
- Incorporate regulations into the zoning and SALDO ordinances which encourage riparian buffers, environmental protection overlays and smaller street widths to support stormwater management.
- Include regulations into the zoning and SALDO ordinances for stormwater Best Management Practices (BMPs) and green infrastructure.
- Adopt policies for the maintenance of stormwater management facilities and encourage municipal ownership.

Community Facilities and Services

- Provide high-quality community facilities and services in the most cost-efficient manner, including addressing needs for future growth. Seek to provide public facilities and services on a regional basis to avoid duplication of efforts.
- Provide central water and sewage services in the most cost-efficient manner, with regular investments to provide reliable services.
- Continue to improve parks and playgrounds to meet a wide variety of recreational needs.
- Emphasize full coordination of municipal and emergency services across municipal borders.

Historic Preservation

- 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.

Economic Development

- Focus on providing high quality, fundamental public services.
- Prioritize infrastructure improvements.
- Encourage regulatory alignment/consistency in all municipalities.
- Boost the diversification of the local economy.
- Support the creation and growth of local businesses.
- Attract and cultivate a skilled workforce.

Chapter 2 - The Vision and Goals of This Plan

- Consider developing and sponsoring a summer jobs program for high school students in the Daniel Boone and Twin Valley school districts.
- Make sure ordinances address industry trends and the needs of retail businesses and retail development.

Transportation

- Continued efforts should be made to vote or petition legislators for the benefit of transportation issues within the region and communicate unified requests for improvements to the Reading Area Transportation Study (RATS) through the Transportation Improvement Program (TIP) and Long Range Transportation Plan (LRTP).
- Pursue preliminary technical evaluation of transportation priorities and share recommendations with the appropriate municipalities and agencies.
- Collaborate on a regular basis to focus limited funding on the most effective solutions and to maximize the potential for cost sharing and savings.
- Each municipality should implement low-cost safety improvements where such measures provide an immediate impact on safety.
- The municipalities should ensure future development does not create detrimental access issues, increase congestion, or create safety problems.
- Consider more specific access management strategies for growth areas and designated roadways or corridors.
- Communicate with the operators of commercial and industrial facilities regarding issues with regular truck movements and designated routes.
- Coordinate with Norfolk Southern to maximize the utility of the rail line in spurring appropriate economic development within the planning area, including coordination of land use planning, in conjunction with the rail line.
- Consider the development of a regional trail/pedestrian/bicycle plan that provides guidance for an interconnected system of pedestrian improvements between the municipalities.
- Ensure municipal subdivision and land development ordinances contain requirements for sidewalks in appropriate locations.
- Encourage the addition of sidewalks within the planning area especially where there are missing links or where sidewalks would facilitate appropriate connections to existing or future neighborhoods and destinations (such as schools, parks, recreation facilities, major job generators, or shopping centers).
- Communicate with SCTA\BARTA regarding future bus routes, shuttles, and other transit opportunities.

Land Uses and Housing

- Provide for orderly patterns of development that provide compatibility between land uses, particularly to protect the livability of existing residential areas.
- Seek to extend the best features of older development into newer development.
- Maintain an attractive rural character in the region. Use the “Open Space Development” process to cluster development on the most suitable portions of a tract, in order to permanently preserve important natural features and open spaces.

Chapter 2 - The Vision and Goals of This Plan

- Direct most development to locations that can be efficiently served by public water and sewage services, in order to minimize the total amount of land that is consumed by development and to direct most housing away from agricultural areas.
- Direct new commercial uses to selected locations that allow for safe and efficient traffic access, as opposed to long strip commercial development along major corridors with individual driveways.
- Strengthen older commercial areas, particularly in Birdsboro and Morgantown, and continue to reuse or redevelop older industrial sites.
- Promote pedestrian-friendly “human scale” development that is not overly dense and that includes substantial landscaping.
- Strengthen residential neighborhoods, with an emphasis on encouraging home-ownership, rehabilitating older buildings, and avoiding incompatible development.
- Continue to further improve the visual attractiveness of the region, with an emphasis upon the most highly visible corridors, and with an emphasis upon street trees, landscaping and preserved creek valleys.
- Stress a strong diversified economy that generates stability, sufficient tax revenues and wide employment opportunities.
- Emphasize tourism that is built upon the area’s heritage, arts and culture, and recreational assets.
- Encourage appropriate reuse and historic rehabilitation of older buildings, as well as encouraging new construction that is consistent with historic surroundings.
- Make sure that obligations are met under State law to provide opportunities for all types of housing and all legitimate types of land uses.

Putting this Plan into Action

- Update municipal development regulations to carry out this Plan, and periodically update the Plan and regulations as needed.
- Continually work to put this Plan into action - through a program of updated planning and many short-term actions within a long-range perspective.
- Promote substantial citizen input, including making sure residents are well-informed about community issues and encouraging volunteer efforts to improve the community.
- Maximize communications, coordination and cooperative efforts between the municipalities, the school districts, adjacent municipalities, the County and other agencies and organizations.

The Survey

As part of the process of updating this joint comprehensive plan a community survey was prepared to gauge the public’s perception of the planning region and to inquire about possible future planning initiatives in the municipalities. The twelve question digital survey was distributed to households via a link on each municipality’s quarterly newsletter as well as advertised using social media and municipal websites. The survey was available starting in November 2018 and was closed in February 2019. Because the initial response rate was low it was decided to let the survey open for additional time to market it for more responses. Unfortunately, during this timeframe the planning committee only received 148 responses. The following are the main takeaways from the community survey:

Chapter 2 - The Vision and Goals of This Plan

- The majority of responses were from residents of Caernarvon Township (40%). Union Township followed second (35%), Robeson Township (13%) and Birdsboro (8%). 3% of respondents did not live in any of the municipalities within the Southern Berks Joint Comprehensive Plan region.
- Approximately 33% of respondents were 60 years or older in age.
- The overwhelming majority (98%) owned their home as opposed to renting.
- Overall, residents who answered the survey believed the quality of life in the region is good (59%).
- Roughly 56 percent of respondents indicated that high taxes is the top issue facing the region. Lack of recreational opportunities and too many vacant commercial buildings tied for second with 36% of respondents thinking these items were important issues for the municipalities. Traffic congestion and transportation came in third at 35%.
- Respondents reported that the roads in the region are good (47%) and/or fair (40%).
- Almost 49 percent of respondents felt strongly that it is important to preserve farmland in the rural parts of the region. 42 percent of respondents strongly believe that the Southern Berks region needs to attract new business development to generate additional tax revenue in order to reduce the tax burden on the residents.
- The majority of respondents think that road/street repair and economic development/job creation should be the highest priorities for municipalities when spending municipal tax dollars.
- 56 percent of respondents believe that beautification projects such as streetscapes or road corridor improvements benefit the region by attracting new businesses to the area.
- 63 percent of the respondents indicated that they use the recreational opportunities available to them in the community.
- One question asked respondents to express their thoughts on what they perceived as being the assets of the community. The majority of respondents enjoyed the quiet, rural nature of the region and the abundant opportunities for recreational activities.

DEMOGRAPHICS PROFILE

Population

As of 2016, The Southern Berks planning area is home to 20,190 residents. Since 2000, the area’s population grew almost 14% or by nearly 2,500 residents, exceeding both county and state figures. The area added the majority of these new residents between 2000 and 2010.

Since 2010, population growth has significantly decreased which is consistent with slow population growth in both Berks County and Pennsylvania. Between 2010 and 2016, the area added only 274 new residents.

Robeson Township has the largest number of residents with 7,357. However, Caernarvon Township added the most residents between 2000 and 2016 (1,758). Caernarvon Township saw a 76% increase in population between 2000 and 2016, far surpassing the other three municipalities in the region. Birdsboro Borough and Union Township saw very limited population growth between 2000 and 2010 at 2% and 1.4% respectively. Between 2010 and 2016 Birdsboro Borough actually lost approximately 21 residents or .4% of their population.

Population									
Municipality	2000	2010	2016	2000-2010 # Change	2000-2010 % Change	2010-2016 # Change	2010-2016 % Change	2000-2016 # Change	2000-2016 % Change
Birdsboro Borough	5,064	5,163	5,142	99	2.0%	-21	-0.4%	78	1.5%
Caernarvon Township	2,312	4,006	4,070	1,694	73.3%	64	1.6%	1,758	76.0%
Robeson Township	6,869	7,216	7,357	347	5.1%	141	2.0%	488	7.1%
Union Township	3,453	3,503	3,593	50	1.4%	90	2.6%	140	4.1%
Southern Berks Area	17,698	19,888	20,162	2,190	12.4%	274	1.4%	2,464	13.9%
Berks County	373,638	411,905	413,016	38,267	10.2%	1,111	0.3%	39,378	10.5%
Pennsylvania	12,281,054	12,702,379	12,758,729	421,325	3.4%	56,350	0.4%	477,675	3.9%

Source: U.S. Census 2000 and 2010 and 2012-2016 American Community Survey

Population Projections

Population projections can help the area plan efficiently for future land use and community service needs. The area is expected to add nearly 2,174 residents by 2040. The increase in population is pretty evenly distributed among the four municipalities. Robeson Township is projected to see the biggest increase in residents by the year 2040.

Population Projections										
Municipality	2010 Base	2020	2030	2040	2010-2020 # Change	2010-2030 # Change	2010-2040 # Change	2010-2020 % Change	2010-2030 % Change	2010-2040 % Change
Birdsboro Borough	5,163	5,334	5,524	5,722	171	361	559	3.3%	7.0%	10.8%
Caernarvon Township	4,006	4,149	4,297	4,451	143	291	445	3.6%	7.3%	11.1%
Robeson Township	7,216	7,465	7,731	8,008	249	515	792	3.5%	7.1%	11.0%
Union Township	3,503	3,618	3,748	3,881	115	245	378	3.3%	7.0%	10.8%
Southern Berks Area	19,888	20,566	21,300	22,062	678	1,412	2,174	3.4%	7.1%	10.9%
Berks County	411,905	425,447	440,656	456,409	13,542	28,751	44,504	3.3%	7.0%	10.8%

Source: United States Bureau of Census, 2010 Census; Berks County Planning Commission 2016 Estimates

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Population Density

The United States Census Bureau defines places “urban” as territory that has a population density of at least 1,000 people per square mile. By this definition, only Birdsboro Borough is considered urban.

Population Density				
Municipality	Size (Sq.Mi.)	2016	Density	Urban
Birdsboro Borough	1.3	5,142	3,955.4	Yes
Caernarvon Township	8.9	4,070	457.3	No
Robeson Township	33.9	7,357	217.0	No
Union Township	23.2	3,593	154.9	No
Southern Berks Area	67.3	20,162	299.6	No

Source: U.S. Census, 2012-2016 American Community Survey; Berks County Planning Commission



Twin Valley School District

School Enrollment

Two school districts serve the planning area. The Daniel Boone School District serves Birdsboro Borough and Union Township. It has three (3) elementary schools, one (1) middle school, and one (1) high school. As of 2017, the district has over 3,400 students. Between 2013 and 2017, the district’s student population declined by 1.0%.

The Twin Valley School District serves Caernarvon and Robeson Townships. It has three (3) elementary schools, one (1) middle school, and one (1) high school. As of 2017, the district has 3,358 students. Between 2013 and 2017, the district’s student population declined by 48 students or 1.4%.

School District Enrollment by Building - 2013-2017							
Daniel Boone School District Building Name	2013	2014	2015	2016	2017	# Change 2013-2017	% Change 2013-2017
Daniel Boone Area High School	1,181	1,199	1,175	1,232	1,210	29	2.5%
Daniel Boone Middle School	952	897	875	870	882	-70	-7.4%
Amity Elementary Center	660	626	555	736	753	93	14.1%
Birdsboro Elementary Center	356	403	411	288	165	-191	-53.7%
Monocacy Elementary Center	366	303	279	318	417	51	13.9%
River Rock Academy*	*	47	39	46	54	*	*
Total	3,515	3,475	3,334	3,490	3,481	-88	-1.0%

Twin Valley School District Building Name	2013	2014	2015	2016	2017	# Change 2013-2017	% Change 2013-2017
Twin Valley High School	1,008	1,020	1,085	1,106	1,108	100	9.9%
Twin Valley Middle School	1,106	1,080	1,057	1,074	1,079	-27	-2.4%
Twin Valley Elementary Center	479	465	443	416	388	-91	-19.0%
Robeson Elementary Center	397	399	401	390	392	-5	-1.3%
Honey Brook Elementary Center	416	398	390	415	391	-25	-6.0%
Total	3,406	3,362	3,376	3,401	3,358	-48	-1.4%

*Note: The Daniel Boone School District first purchased student slots at River Rock Academy in 2014.
Source: Pennsylvania Department of Education

Households

Bucking the general trend toward smaller families and the increasing prevalence of single parent (or even single person) households, the average size of households in the planning region are generally larger than both county and state averages. Caernarvon Township has both the largest number of people per household (PPH) and average family size in the region.

Union Township, in terms of demography, is the oldest community in the planning area and that is reflected in the chart below. It has the least amount of households with people under the age of 18 and the most with people over the age of 65. Birdsboro and Caernarvon have the most families with children. Birdsboro has the largest number of residents who live alone.

Households & Families								
Municipality	Households	Population	PPH	Municipality	Average Family Size	Percent With People Under 18	Percent With People Over 65	Percent Living Alone
Birdsboro Borough	1,990	5,142	2.59	Birdsboro Borough	2.93	40.3	20.0	21.4
Caernarvon Township	1,440	4,070	2.81	Caernarvon Township	3.21	42.1	19.7	19.1
Robeson Township	2,649	7,357	2.76	Robeson Township	3.05	33.6	23.0	16.6
Union Township	1,361	3,593	2.60	Union Township	2.91	29.2	29.2	18.4
Berks County	153,307	413,016	2.69	Berks County	2.60	32.9	10.8	24.7
Pennsylvania	4,940,581	12,758,729	2.58	Pennsylvania	3.10	29.1	11.9	29.6

Source: U.S. Census, 2012-2016 American Community Survey; Berks County Planning Commission



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Age

Age distribution is an important indicator of future population dynamics. For example, a large concentration of children could mean a coming boom of young children or a high concentration of baby boomers may suggest out-migration as people in that demographic move elsewhere after retirement. Birdsboro and Caernarvon are the “youngest” municipalities in the region with almost the exact same median age. Union Township is the oldest, with a median age of 45.6. Both Robeson Township and Union Township exceed the county and state median age.

Age Composition						
Age Group	Birdsboro	Caernarvon	Robeson	Union	Berks	PA
Under 5 years	6.4	8.2	5.4	5.0	5.9	5.6
5 to 9 years	7.1	9.5	7.0	5.8	6.4	5.8
10 to 14 years	7.6	8.3	6.2	5.7	6.5	6.0
15 to 19 years	8.6	5.8	6.9	5.7	7.2	6.6
20 to 24 years	5.3	3.5	4.9	4.5	6.9	6.8
25 to 29 years	6.2	5.0	4.2	4.6	6.1	6.6
30 to 34 years	6.4	7.0	5.0	4.9	5.8	6.2
35 to 39 years	6.7	8.9	6.4	5.3	5.5	5.7
40 to 44 years	7.9	8.7	7.3	7.3	6.4	6.1
45 to 49 years	9.5	9.1	9.7	9.0	7.0	6.7
50 to 54 years	7.6	6.2	10.0	8.4	7.5	7.4
55 to 59 years	4.9	5.4	8.8	9.5	7.0	7.3
60 to 64 years	5.5	4.2	6.0	8.0	6.0	6.4
65 to 69 years	3.2	3.3	4.1	5.8	4.9	5.2
70 to 74 years	1.9	2.4	3.0	3.5	3.6	3.8
75 to 79 years	1.9	2.2	2.1	3.3	2.8	2.9
80 to 84 years	1.5	1.4	1.7	2.3	2.3	2.3
85 years +	1.7	0.7	1.2	1.2	2.2	2.5
Median Age	36.8	36.7	42.7	45.6	39.8	40.6

Source: 2012-2016 American Community Survey (DP-1; S0101)

Below, we compile the above age data into three specific groups. They are:

Under 10: This group represents young children. Communities with high numbers in this category may see future demand for education and recreation services.

25-64: This age group represents the working age adults. This age group will generally consist of core taxpayers in their prime earning years that generate and spend income on goods and services.

65+: This group represents largely retired adults. Communities with high numbers in this category may reflect a growing number of residents and taxpayers on fixed incomes with growing demand for healthcare and social assistance services.

Comparison of Major Age Groups Between Municipalities, County and State						
Age Group	Birdsboro	Caernarvon	Robeson	Union	Berks	PA
Under 10	13.5	17.7	12.4	10.8	12.3	11.4
25-64	54.7	54.5	57.4	57.0	51.3	52.5
65+	10.2	10.0	12.1	16.2	15.8	16.7

Source: 2012-2016 American Community Survey

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- Three out of the four municipalities have either a similar or a larger percentage of “Under 10” residents than the county and state. Only Union Township has less.
- The four municipalities have larger percentages of working age (25-64) residents than the county and state.
- Three of the four municipalities have a less percentage of residents age 65 and above compared to the county and state. Union Township has a larger percentage of residents age 65 and above compared to the county but a lower percentage than the state.

Mobility

Over 90% of all households in the planning area were living in their same house or apartment as the year before. This low mobility rate is indicative of stable communities.

Percentage of households that lived in the same house/apartment one year prior - 2016			
Geography	Stayed	Total	Percent That Stayed
Birdsboro	4,665	5,124	91.0%
Caernarvon	3,761	3,992	94.2%
Robeson	6,645	7,191	92.4%
Union	3,257	3,499	93.1%
Southern Berks Area	18,328	19,806	92.5%
Berks County	350,734	395,988	88.6%
United States	264,022,218	306,740,517	86.1%

Source: U.S. Census 2012-2016 American Community Survey (B07013)

Educational Attainment

Compared to Berks County and the state, Caernarvon and Robeson Townships have higher percentages of residents age 25 and up that have a bachelor’s degree. Conversely, Caernarvon Township has the lowest percentage of residents age 25 and older that are high school graduates, well below county and state levels.

Educational Attainment of the Resident Population (25 and Older)						
Level	Birdsboro	Caernarvon	Robeson	Union	Berks	PA
Less than 9th Grade	1.4	2.1	2.8	0.2	5.6	3.4
High School, No Diploma	8.3	3.7	2.5	11.7	8.9	7.0
High School Graduate	45.3	28.8	39.9	46.1	38.1	36.0
Some college, no degree	16.0	20.9	19.3	15.2	15.9	16.2
Associate’s degree	9.9	7.3	10.9	6.9	8.0	8.0
Bachelor’s degree	12.6	25.8	18.1	13.6	15.3	17.8
Graduate or Professional degree	6.5	11.6	6.5	6.2	8.4	11.5

Source: U.S. Census 2012-2016 American Community Survey (S1501)

Race

In all four municipalities, the majority of the residents are white. Union Township has the largest black and Hispanic populations. Caernarvon has the largest Asian population.

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Racial Composition - Percent of Resident Population						
Race	Birdsboro	Caernarvon	Robeson	Union	Berks	PA
White	95.6	94.2	95.4	92.8	83.6	81.4
Black	0.6	0.5	1.0	6.4	4.8	11.0
Hispanic or Latino	1.8	0.0	3.5	3.7	18.8	6.6
American Indian	0.0	0.0	0.0	0.0	0.9	0.2
Asian	0.8	3.2	1.0	0.0	1.4	3.1
Pacific Islander	0.0	0.0	0.0	0.0	0.0	0.0
Some Other Race	0.2	0.0	1.5	0.5	4.2	2.0
Two or More Races	2.9	2.1	1.2	0.3	5.1	2.2

Source: U.S. Census 2012-2016 American Community Survey (DP05)

Poverty

In 2016, Berks County has the highest overall poverty rate of the surrounding six (6) counties and presently exceeds the state poverty level. The poverty rate in the planning area is much lower and below both the county and state averages. Highest overall poverty is in Birdsboro and the lowest is in Robeson. Birdsboro also has the highest rate of family poverty. Caernarvon has the highest rates of “single mother” and elderly poverty.

Poverty Composition of the Resident Population in 2016				
Municipality	Overall Poverty Level	Families	FHNHP	Elderly
Birdsboro	9.7	7.0	12.6	7.6
Caernarvon	4.1	3.3	18.9	12.0
Robeson	2.6	0.7	0.0	4.0
Union	3.3	3.6	0.0	1.1
Berks County	14.3	10.4	32.8	8.0
Pennsylvania	13.3	9.1	28.0	8.1

Source: 2012-2016 American Community Survey (DP03)

FHNHP: Female Household with family, no husband present
Elderly: Residents that are 65 years of age or over

Free/Reduced Lunch Enrollment by School/School District

Another indicator of poverty is examining enrollment in the free/reduced lunch program at school. Children from families with incomes at or below 130% of the poverty level, and children in families receiving Temporary Assistance for Needy Families (TANF) and children in families receiving food stamp benefits are eligible for free lunches. Children in families whose income is between 130% and 185% of the poverty level are eligible for reduced price lunches.

Percent Free/Reduced Lunch Enrollment by School Building: 2017						
Daniel Boone School District Building Name	Enrollment	Free Eligible	Reduced Eligible	% Free Enrollment	% Reduced Enrollment	% Free / Reduced Enrollment
Daniel Boone Area High School	1,210	228	34	18.8%	2.8%	21.6%
Daniel Boone Middle School	882	195	29	21.1%	3.3%	24.4%
Amity Elementary Center	753	173	19	23.0%	2.5%	25.5%
Birdsboro Elementary Center	165	41	8	24.8%	4.8%	29.6%
Monocacy Elementary Center	417	117	19	28.1%	4.5%	32.6%
River Rock Academy*	54	32	3	77.7%	5.5%	83.3%
Total	3,481	786	112	32.3%	23.4%	36.2%

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Percent Free/Reduced Lunch Enrollment by School Building: 2017						
Twin Valley School District Building Name	Enrollment	Free Eligible	Reduced Eligible	% Free Enrollment	% Reduced Enrollment	% Free / Reduced Enrollment
Twin Valley High School	1,108	264	27	23.8%	2.4%	26.2%
Twin Valley Middle School	1,079	288	22	26.7%	2.0%	28.7%
Twin Valley Elementary Center	388	115	3	29.6%	0.8%	30.4%
Robeson Elementary Center	392	96	12	24.5%	3.1%	27.6%
Honey Brook Elementary Center	391	114	18	29.1%	4.6%	33.7%
Total	3,358	877	82	26.7%	2.6%	29.3%

*Note: The Daniel Boone School District first purchased student slots at River Rock Academy in 2014
 Source: PA Department of Education - Division of Food and Nutrition, National School Lunch Program (NSLP), 2017 data.

Overall, in 2017, the Daniel Boone and Twin Valley School Districts rank 10th and 18th respectively out of all county school districts in students enrolled in the program. While the district enrollment numbers are favorable compared to the overall county and state, it is important to note the share increase in enrollments in each district since 2009. Daniel Boone had the largest increase out of any school district in the county since 2009. This rising trend could signal challenges ahead.

Percent Free/Reduced Lunch Enrollment by School District: 2009 and 2017			
School District	2009	2017	% Change
I-Lead Charter School	**	100.0	**
Reading School District	89.6	100.0	11.6%
Muhlenberg School District	36.6	55.6	51.9%
Antietam School District	36.1	52.0	44.0%
Governor Mifflin School District	23.9	42.4	77.4%
Berks Career and Technology Center	21.8	41.7	91.3%
Conrad Weiser Area School District	26.3	40.8	55.1%
Hamburg Area School District	29.8	39.9	33.9%
Tulpehocken Area School District	32.0	37.9	18.4%
Daniel Boone Area School District	15.3	36.3	137.3%
Brandywine Heights Area School District	16.5	32.2	95.2%
Wilson School District	19.6	32.1	63.8%
Schuylkill Valley School District	20.3	31.1	53.2%
Fleetwood Area School District	17.5	30.5	74.3%
Oley Valley School District	18.2	30.0	64.8%
Wyomissing Area School District	22.6	29.8	31.9%
Boyetown Area School District	15.8	29.5	86.7%
Twin Valley School District	20.4	29.3	43.6%
Kutztown Area School District	20	29.0	45.0%
Exeter Township School District	17.8	28.5	60.1%
Upper Perkiomen Area School District	22.1	27.9	26.2%
Berks County Average	21.1	41.7	97.8%
Pennsylvania Average	38.8	56.6	45.9%

Source: Pennsylvania Department of Education - Division of Food and Nutrition, National School Lunch Program (NSLP), 2009 and 2017 data

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Veterans

The area has nearly 1,500 veterans of the nearly 26,000 in Berks County – with the majority serving during the Vietnam War era. Caernarvon Township has the most veterans from recent conflicts while Robeson Township has the highest concentration of World War II veterans.

Veteran Composition - Percent of Veterans Residing in Municipality					
Period of Service	Birdsboro	Caernarvon	Robeson	Union	Berks
Gulf War (9/2001 or later) veterans	8.8	12.0	5.9	0.0	9.5
Gulf War (8/1990 to 8/2001) veterans	14.9	25.6	0.2	18.8	11.6
Vietnam era veterans	29.2	39.7	46.8	42.9	33.8
Korean War veterans	10.1	16.7	8.8	16.9	12.6
World War II veterans	3.7	0.0	7.4	3.1	7.8
Total Veterans	455	234	524	261	25,822

Source: U. S. Census 2012-2016 American Community Survey (S2101)

HOUSING PROFILE

The four communities in the planning area have a stable housing stock with very low vacancy rates. Vacancy rates are an important indicator of supply and demand. A low rate of vacant-for-sale units can show a positive correlation of lack of supply and high demand.

The type of housing each community provides differs, however. In Birdsboro, the housing stock is diverse as the majority of units are single detached and duplex units. In Robeson and Union Townships, the majority of homes are detached units. As no surprise, Birdsboro contains the largest amount of multi-unit dwellings. Robeson and Union Townships also contain the largest amounts of mobile homes.

Profile of Housing Characteristics - 2016								
Type	Birdsboro		Caernarvon		Robeson		Union	
	#	%	#	%	#	%	#	%
Total Units	2,067		1,553		2,810		1,556	
Occupied housing units	1,990	96.3%	1,482	95.4%	2,650	94.3%	1,506	96.8%
Vacant housing units	77	3.7%	71	4.6%	160	5.7%	50	3.2%
1-unit, detached	1,113	53.8%	1,084	69.8%	2,576	91.7%	1,412	90.7%
1-unit, attached	692	33.5%	303	19.5%	69	2.5%	79	5.1%
2 units	42	2.0%	42	2.7%	50	1.8%	0	0.0%
3 or 4 units	52	2.5%	68	4.4%	0	0.0%	0	0.0%
5 to 9 units	56	2.7%	28	1.8%	14	0.5%	9	0.6%
10 to 19 units	37	1.8%	0	0.0%	0	0.0%	0	0.0%
20 or more units	75	3.6%	19	1.2%	0	0.0%	0	0.0%
Mobile home	0	0.0%	9	0.6%	101	3.6%	56	3.6%
Boat, RV, van, etc.	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Source: U. S. Census, 2012-2016 American Community Survey (DP04)

Caernarvon Township saw a significant period of construction activity in 2000 decade. In Robeson Township, housing construction has been spread across several decades. In Birdsboro and Caernarvon, there has been no new housing construction since 2010. With the exception of Robeson Township, the four communities have seen no construction growth since 2014.

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Year of Housing Construction								
Type	Birdsboro		Caernarvon		Robeson		Union	
	#	%	#	%	#	%	#	%
Built 2014 or Later	0	0.0%	0	0.0%	20	0.7%	0	0.0%
Built 2010 to 2013	0	0.0%	0	0.0%	11	0.4%	21	1.3%
Built 2000 to 2009	80	3.9%	695	44.8%	383	13.6%	131	8.4%
Built 1990 to 1999	216	10.4%	122	7.9%	439	15.6%	128	8.2%
Built 1980 to 1989	350	16.9%	194	12.5%	585	20.8%	164	10.5%
Built 1970 to 1979	234	11.3%	101	6.5%	407	14.5%	364	23.4%
Built 1960 to 1969	62	3.0%	155	10.0%	256	9.1%	176	11.3%
Built 1950 to 1959	145	7.0%	71	4.6%	231	8.2%	169	10.9%
Built 1940 to 1949	192	9.3%	14	0.9%	66	2.3%	59	3.8%
Built 1939 or earlier	788	38.1%	201	12.9%	412	14.7%	344	22.1%

Source: U. S. Census, 2012-2016 American Community Survey (DP04)

Housing Values

The planning area's housing stock comes in at a variety of affordability levels. The median value of homes in the communities varies. The median value of homes in Caernarvon, Robeson, and Union Townships exceed the county median value (\$169,000).

Values of Housing Units								
Type	Birdsboro		Caernarvon		Robeson		Union	
	#	%	#	%	#	%	#	%
\$50,000 to \$99,999	285	13.8%	0	0.0%	192	6.8%	114	7.3%
\$100,000 to \$149,999	366	17.7%	131	8.4%	399	14.2%	233	15.0%
\$150,000 to \$199,999	522	25.3%	213	13.7%	461	16.4%	306	19.7%
\$200,000 to \$299,999	314	15.2%	503	32.4%	763	27.2%	362	23.3%
\$300,000 to \$499,999	43	2.1%	371	23.9%	461	16.4%	189	12.1%
\$500,000 to \$999,999	0	0.0%	0	0.0%	64	2.3%	96	6.2%
\$1,000,000 or more	0	0.0%	8	0.5%	14	0.5%	10	0.6%
Median (dollars)	\$157,100		\$254,500		\$214,000		\$198,000	

Source: U. S. Census, 2012-2016 American Community Survey (DP04)

Only Caernarvon Township has seen an increase in median housing value since 2010. Comparatively, low home purchase prices represent a selling point to would-be buyers in the area and could attract young families to the area. However, rising valuation is desirable from a municipal perspective in maintaining a viable and sustainable tax base.

Median Housing Values Between 2010 and 2016				
Municipality	2010	2016	\$ Change	% Change
Birdsboro	174,600	157,100	-17,500	-10.0%
Caernarvon	246,500	254,500	8,000	3.2%
Robeson	235,500	214,000	-21,500	-9.1%
Union	212,700	199,800	-12,900	-6.1%
Berks County	170,400	169,000	-1,400	-0.8%

Source: U.S. Census, American Community Survey (DP04)

Chapter 3 - Demographics and Housing

Owner Profile

The relationship between tenure (owner or renter occupancy) and vacancy rates typically corresponded with the availability of and demand for housing. Owner-occupied homes are often regarded to be a more desirable land use because they retain a higher resale value and are generally more likely to be well maintained than the rental units.

In all four municipalities, the majority of units are owner occupied and exceed the County's number of owner occupied units (71.8%). Robeson Township has the most overall units. Most residents moved to their communities in the 2000 decade.

Owner Profile									
Type	Birdsboro		Caernarvon		Robeson		Union		
	#	%	#	%	#	%	#	%	
Total Units	2,067		1,553		2,810		1,556		
Owner-occupied	1,552	75.1%	1,235	79.5%	2,413	85.9%	1,435	92.2%	
Renter-occupied	438	21.2%	247	15.9%	237	8.4%	161	10.3%	
Moved in 2015 or later	78	3.8%	44	2.8%	14	0.5%	21	1.3%	
Moved in 2010 to 2014	454	22.0%	302	19.4%	563	20.0%	252	16.2%	
Moved in 2000 to 2009	645	31.2%	774	49.8%	767	27.3%	353	22.7%	
Moved in 1990 to 1999	398	19.3%	195	12.6%	561	20.0%	279	17.9%	
Moved in 1980 to 1989	204	9.9%	90	5.8%	384	13.7%	217	13.9%	
Moved in 1979 or earlier	211	10.2%	77	5.0%	361	12.8%	384	24.7%	

Source: U. S. Census, 2012-2016 American Community Survey (DP04)

The chart below shows the change in owner and renter units between 2006-2010 and 2012-2016. All but Union Township have a negative change in owner-occupied housing. Birdsboro has had a relatively sizable decline in homeownership and a rise in renters.

Change in Owner/Renter Profile Between 2010 and 2016				
Type	Birdsboro	Caernarvon	Robeson	Union
	% Change	% Change	% Change	% Change
Owner-occupied	-8.4%	-4.2%	-3.3%	5.0%
Renter-occupied	4.7%	-0.4%	-2.4%	-2.5%

Source: U.S. Census, 2006-2010 and 2012-2016 American Community Survey (DP04)

Shown below are the monthly costs of mortgages and rents in the four municipalities. In all four communities the monthly median mortgage exceeds the county average and all but Birdsboro's rent is lower than the county average.

Median Monthly Mortgages and Rents in 2016 in Dollars		
Municipality	Mortgage	Rent
Birdsboro	1,528	916
Caernarvon	2,081	998
Robeson	1,615	1,370
Union	1,717	688
Berks County	1,469	870

Source: U.S. Census, 2012-2016 American Community Survey (DP04)

NATURAL FEATURES AND AGRICULTURAL CONSERVATION

Natural features and resources are the components present or produced by the physical and natural environment including geology, soils, hydrology, topography, biology, and botany. It is essential to identify these important natural features, as well as environmentally-sensitive land areas within the Southern Berks Region to guide development towards sustaining and protecting them.

Geology

The geological features underlying the Southern Berks Region have a significant factor in determining the suitability for land use. The geology of a given area has a direct correlation with the soil suitability, topographic constraints, and hydrologic features which play a vital role in determining groundwater quality and quantity. The existing land use patterns within the Southern Berks Region were developed as a result of favorable geological conditions associated with slope, drainage, porosity, permeability, stability, and the supply of groundwater.

The geologic features of the Southern Berks Region are essentially divided into two (2) prominent geographic sectors. For the purposes of this Plan, we shall identify them as the “northern geological sector” and the “southern geological sector”. The northern geological sector extends from the northern municipal border of both Caernarvon Township and New Morgan Borough northward to the Schuylkill River. This area is essentially underlain by geological formations associated with the Triassic Period, which primarily consists of conglomerates, shale, and sandstone. A narrow band of diabase extends through Robeson and Union townships in the vicinity of Gibraltar Hill, Seidel Hill, Sheep Hill, Cedar Hill, Long Mountain, Brush Hill, and Chestnut Hill. In general, the more-resistant diabase, conglomerates, sandstones, and shales underlie the hills, while the less-resistant shales and sandstones underlie the valleys. The southern geological sector extends from the northern municipal border of both Caernarvon Township and New Morgan Borough southward to Lancaster and Chester counties. This area is essentially underlain by geological formations associated with the Cambrian Period, which primarily consists of limestone, dolomites, and quartzite. A narrow band of Triassic Diabase does divide the southern geological sector, as an intrusion after the geological formations of the Cambrian Period were formed. In general, the more-resistant diabase and quartzite features underlie the hills, while the less-resistant limestone, dolomites, and sandstones underlie the valleys.

Soils

Soils form primarily from weathered bedrock and because of this; have characteristics similar to those of the underlying rock formations. The Southern Berks Region is basically covered with shallow to deep, well drained, rolling soils weathered from shale, siltstone limestone, and dolomites.

The developed areas of Birdsboro, Morgantown, Gibraltar, Monocacy, Joanna, Kulptown, and Beckersville have soils associated with slight to moderate limitations for construction and land development activity. These areas have capabilities and infrastructure to support subdivision and land development activity in the future.

The rural villages of Green Hills, Plowville, Unionville, Geigertown, Plowville, Hopewell, and Scarlets Mill have a composition of soils associated with moderate to severe limitations for construction and land development activity. These areas have limited capabilities to support subdivision and land development activity.

Construction, subdivision, and land development activity should be carefully planned and consideration should be provided for soils with severe limitations. Areas that are prone to sinkholes, pinnacles, bedrock, wetness, poor drainage, steep slopes, low structural stability, cemented pan, and frost action should be thoroughly investigated by a certified geotechnical engineer and soil scientist as part of the subdivision and land development application.



Chapter 4 - Natural Features and Agricultural Conservation

Prime Agricultural Soils

The capability classification is a grouping of soils to show, in a general way, their suitability for most kinds of farming. It is a practical classification based on limitations of the soils, the risk of damage to the soils when used, and the way they respond to treatment. The United States Department of Agriculture (USDA) National Resource Conservation Service (NRCS) defines and rates the agricultural capabilities of soils as follows:

Capability Class I:	Soils that have few limitations that restrict their use. The Southern Berks Region contains 80 acres of Class I soils representing 0.33 percent of the overall total land area.
Capability Class II:	Soils have some limitations that reduce the choice of plants or require moderate conservation practices, or both. The Southern Berks Region contains 10,713 acres of Class II soils representing 44.37 percent of the overall total land area.
Capability Class III:	Soils have some limitations that reduce the choice of plants or require special conservation practices, or both. The Southern Berks Region contains 8,589 acres of Class III soils representing 35.57 percent of the overall total land area.
Capability Class IV:	Soils have very serious limitations that restrict the choice of plants, require very careful management, or both. The Southern Berks Region contains 4,762 acres of Class IV soils representing 19.72 percent of the overall total land area.
Capability Classes V-VIII:	Soils have little or no erosion hazard, but have other limitations that limit their use. Soils have severe limitations that make them unsuitable for cultivation and limits their use to pasture. Soils have very severe limitations that make them unsuitable for cultivation and limits their use to grazing. Soils have limitations that preclude their use for commercial plant production and restrict their use.

In addition to the classifications supplied by the NRCS, the Pennsylvania Municipalities Planning Code (MPC) identifies and considers Class I, II and III soils as “prime agricultural soils.”

Figure 2 depicts the locations of the “prime” soils within the Southern Berks Region. Significant pockets of “prime agricultural soils” can be found in the following areas of the Southern Berks Region:

- Within the northern portion of Robeson Township in the lowland valleys of Seidel Creek, Indian Corn Creek, and the tributaries to the Schuylkill River. The prime agricultural soils found within this vicinity are associated with the Abbottstown, Birdsboro, Joanna, Penn, and Gibraltar series.
- Within the northern portion of Union Township in the lowland valleys of Six Penny Creek, and the tributaries to the Schuylkill River. The prime agricultural soils found within this vicinity are associated with the Birdsboro, Reaville, Raritan, Readington, Joanna, and Penn series.
- Within the southeastern portion of Union and Robeson townships and northern portion of Caernarvon Township in the upland valleys of Hay Creek, Pine Creek, and French Creek. The prime agricultural soils found within this vicinity are associated with the Joanna, Ladig, Reaville, and Roland series.
- Within the western portion of Robeson Township in the upland valley of the Allegheny Creek. The prime agricultural soils found within this vicinity are associated with the Joanna, Buchanan, and Reaville series.
- Throughout Caernarvon Township in the upland valleys of the Conestoga Creek. The prime agricultural soils found within this vicinity include Duffield, Brecknock, Joanna, Clarksburg, Glenville, and Neshaminy series.

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Birdsboro Borough: 284 acres of land are considered prime agricultural land. The majority of these acres are Class II and III soils.

Caernarvon Township: 3,459 acres of land are considered prime agricultural land. Class II soils are the majority soil class within the Township.

Robeson Township: 9,209 acres of land are considered prime agricultural land. Class III soils are the majority soil class within the Township.

Union Township: 6,428 acres of land are considered prime agricultural land. Class II soils are the majority soil class within the Township.

Agricultural Conservation Easements (ACE)

Berks County has established the Agricultural Conservation Easement (ACE) Program, through which the development rights of prime agricultural land areas are purchased. Since 1988, the County of Berks has purchased easements on a total of 746 farms which totals 73,111 acres of prime farmland through the ACE Program. To date, there have been a total of 1,317 acres of agricultural conservation easements purchased in the Southern Berks Region. The majority of eased acres is found within Caernarvon Township and equals 887 acres. Based upon the amount of prime agricultural land area within the Southern Berks Region, qualified property owners should be encouraged to apply for the ACE Program.

Agricultural Security Districts

Under Pennsylvania Act 43 of 1981 (as amended), local government units may create agricultural security areas consisting of at least 250 acres upon petition of interested landowners. Once an agricultural security area is established, it entitles the participating landowners to special consideration from local and state governments. The local government may neither enact regulations that unreasonably restrict farm structures or practices, nor may normal farming operations be termed a nuisance when carried out properly. State government agencies must modify their administrative regulations and procedures in agricultural security areas and special reviews are required whenever local authorities propose condemning agricultural land. Since its enactment, many communities in Berks County have utilized Act 43, striving to conserve and protect their valuable farmland. These agricultural



Preserved farm in Caernarvon Township

security areas comprise over 164,906 acres within Berks County. Within the Southern Berks Region, there are 6,249 acres of land currently enrolled or are proposed to be included within an agricultural security district. Figure 3 depicts the locations of the existing agricultural security districts.

Natural Resources

A complete inventory of natural features and resources goes beyond studying the geology, soils, hydrology, and topography of a given area. Natural resources provide scenery and important flora and fauna habitat which give the community its own identity.

Chapter 4 - Natural Features and Agricultural Conservation

Natural Heritage Areas

In 1991, the Pennsylvania Science Office of the Nature Conservancy prepared the Berks County Natural Areas Inventory, a list and mapping of rare and endangered plants, animals and natural habitats in Berks County. In 2014, the Berks County Planning Commission had the inventory updated through the Pennsylvania Natural Heritage Program (PNHP) at the Western Pennsylvania Conservancy. PNHP collects and stores location and baseline ecological information about rare plants, rare animals, unique plant communities, significant habitats, and geologic features in Pennsylvania. The information and maps presented in the inventory provides a useful guide for planning residential or commercial developments, recreational parks or trails, for conserving natural areas, and for setting priorities for the preservation of the most vulnerable habitats.

A Natural Heritage Area (NHA) is an area containing one or more plant or animal species of concern at state or federal levels, exemplary natural communities, or exceptional native biological diversity. NHAs include both the immediate habitat and surrounding lands important in the support of these elements. They are mapped according to their sensitivity to human activities, with designations of Core Habitat and Supporting Landscape areas. The sensitivity of each designation varies significantly according to the particular plant, animal or natural community habitat that the area represents and is discussed in detail in each NHAs Site Description. **Core Habitats** are defined as areas representing critical habitat that cannot absorb significant levels of activity without substantial negative impacts to elements of concern. **Supporting Landscape** are defined as areas directly connected to Core Habitats that maintain vital ecological processes and/or secondary habitat that may be able to withstand some lower level of activity without substantial negative impacts to elements of concern.

There are several core habitats which exist in the planning region. In Union Township there are five core habitats. The largest of these is found along the eastern border with Chester County within the French Creek Watershed. Robeson Township has a linear core habitat along Beaver Run. These Natural Heritage Areas are depicted on the Natural Resources map, Figure 4. These maps do not pinpoint the exact location of the species of concern but rather represent a conservation zone that is critical to the preservation of the site (core habitat), and a zone of potential impacts within the site's watershed (supporting landscape) where applicable.



Hopewell Lake at French Creek State Park

Significant Natural Features

French Creek State Park: Set amidst the old, quaint, and picturesque farmland of southeastern Berks County, French Creek State Park offers two lakes (Hopewell and Scotts Run), extensive forests, and almost 40 miles of hiking trails as shown on Figure 6, Community Facilities and Recreation. The primary purpose of Pennsylvania State Parks is to provide opportunities for enjoying healthful outdoor recreation and serve as outdoor classrooms for environmental education. In meeting these purposes, the conservation of the natural, scenic, aesthetic, and historical values of parks should be given first consideration. Stewardship responsibilities should be carried out in a way that protects the natural outdoor experience for the enjoyment of current and future generations. The heavily-forested scenic hills of French Creek State Park provide habitat for plants and animals in the ever-expanding urban environment of southeastern

Pennsylvania. Large trees (oak, poplar, hickory, maple, and beech) cover much of the park, with a sparse under-story of mountain laurel, rhododendron, and other brushy plants. Wetlands and pristine streams flowing through rich, damp creek valleys offer additional habitats for plants and animals. This large, diverse environment supports many animals that take advantage of the high quality of the resources found at French Creek State Park. Numerous recreation opportunities are provided to the general public, including camping, fishing, boating,

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swimming, picnicking, hiking, biking, disc golfing, and hunting, and an amphitheater is also provided to provide entertainment.

Birdsboro Water/Preserve: This property spans east and west along the border of Union and Robeson Township as shown on Figure 6. Protection of this land is necessary to maintain the quality of water used for residents in Birdsboro Borough. The facility is owned, operated, and maintained by the Birdsboro Municipal Authority.

Green Hills Preserve: Green Hills Preserve is a bucolic mixture of gently rolling farm fields, woodlands, and wetlands. The preserve is situated along the northwest border of Robeson Township and Cumru Township as shown on Figure 3, Protected Lands. A tributary to Allegheny Creek, a state-designated “Cold Water Fishery” stream, bisects the preserve. The Preserve is situated within the Schuylkill Highlands, a region at the nexus of two landscapes that have been prioritized for protection: the Highlands (as defined by the US Congress) and the Schuylkill River watershed. The area’s importance derives from the need to protect water quality, conserve habitat, and develop recreational opportunities in a region set for considerable growth over the next 20 years.

State Game Land 43: Portions of State Game Land 43 are located in the southeastern portion of Robeson and Union townships, and within the northeastern portion of Caernarvon Township as shown on Figure 6, Community Facilities and Recreation. The area provides heavily-forested scenic hills and provides habitat for plants and animals. Hiking, biking, and hunting opportunities are offered to the general public.

State Game Land 52: A small portion of State Games Land 52 are located in the northwestern portion of Caernarvon Township shown on Figure 6, Community Facilities and Recreation. The area provides heavily-forested scenic hills and provides habitat for plants and animals. Hiking, biking, fishing, and hunting opportunities are offered to the general public.

Water Resources

Water is an essential resource within the Southern Berks Region. It is essential to life, shapes our landscape, and has a direct influence on subdivision and land development patterns. Proper management of our hydrologic resources is vital to meet growing demands, while protecting water quality and quantity from degradation and depletion.

A watershed is a regional area bounded peripherally by water parting and ultimately draining into a particular watercourse or body of water. The boundaries of a drainage basin/watershed are defined by natural ridge lines, which separate one drainage basin from another. The Southern Berks Region is located within the Schuylkill River Drainage Basin and the Susquehanna River Basin. The Southern Berks Region is comprised of three (3) major watersheds, which are geographically depicted on Figure 4 of this Plan.

The Hay Creek Watershed is an essential source of drinking water, exceptional wildlife habit and recreational haven for residents and visitors, the 22-square-mile Hay Creek Watershed lies within south central Berks County and includes portions of Brecknock, Caernarvon, Robeson and Union townships, as well as the boroughs of Birdsboro and New Morgan. The watershed drains water to the Schuylkill River from both public and private lands that include a mixture of woodlands, fields, active agriculture, suburban settings and urban areas. The Hay Creek Watershed is a sub-watershed of the larger Schuylkill Watershed, that then enters the Delaware River, which eventually flows into the Atlantic Ocean.

The Conestoga River Watershed is located within Caernarvon Township. The Conestoga River is a major tributary to the Susquehanna River Basin. The Department of Environmental Protection (DEP) has classified the Conestoga River as a Warm Water Fishery.

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The French Creek Watershed is located in the southeastern portion of Union Township and southeastern portion of Robeson Township. French Creek is a major tributary to the Schuylkill River Basin. DEP has classified the French Creek as an Exceptional Value Waterway.

The Schuylkill River Watershed is located in the northern portion of the Robeson, Birdsboro, and Union. The Schuylkill River Drainage Basin consists of numerous named tributaries (Allegheny, Seidel, Indian Corn, Hay, Six Penny, and French) and un-named tributaries. The Schuylkill River has been designated as a Pennsylvania Scenic River, which are considered to be free-flowing and capable of supporting water-based recreation, fish, and aquatic life.

The Pennsylvania Department of Environmental Protection (DEP) develops water quality standards for all surface waters of the state. These standards, which are designed to safeguard Pennsylvania's streams, rivers, and lakes, consist of both use designations and the criteria necessary to protect those uses. As part of the water quality standards program, DEP conducts stream use designation evaluations on an ongoing basis. Evaluations may be conducted on streams or stream segments that are found to be missing from the water quality standards (Title 25, Chapter 93 of the Pennsylvania Code), or on streams or segments DEP considers to be improperly classified. The redesignation of evaluations may also be conducted at the request of the Pennsylvania Fish and Boat Commission (PFBC). In addition, any person, agency, group, organization, municipality, or industry may submit a rulemaking petition to the Environmental Quality Board (EQB) to request a stream redesignation.

All surface waters within the Commonwealth of Pennsylvania are protected for a designated aquatic life use as well as a number of water supply and recreational uses. The use designation shown in the water quality standards is the aquatic life use. These uses are Warm Water Fishes (WWF), Trout Stocking (TSF), Cold Water Fishes (CWF), and Migratory Fishes (MF). In addition, streams with excellent water quality may be designated High Quality Waters (HQ) or Exceptional Value Waters (EV). The water quality in an HQ stream can be lowered only if a discharge is the result of necessary social or economic development, the water quality criteria are met, and all existing uses of the stream are protected. EV waters are to be protected at their existing quality; meaning the water quality shall be maintained as is and shall not deteriorate.

Each major watershed contains several tributaries. The following are the tributaries found within the three major watersheds of the region as depicted on Figure 4:

Allegheny Creek: This tributary is located in the northwestern portion of Robeson Township. The Allegheny Creek is a major tributary to the Schuylkill River Basin. DEP has classified the Allegheny Creek as a Cold Water Fishery.

Beaver Run: This tributary is located within the southern portion of Robeson Township. Beaver Run is a major tributary to the Hay Creek in the Schuylkill River Basin. DEP has classified Beaver Run as a High Quality Cold Water Fishery.

Hay Creek: This tributary is located along Robeson Township's southern border with New Morgan Borough. Hay Creek is a major tributary in the Schuylkill River Basin. DEP has classified Hay Creek as Exceptional Value.

Indian Corn Creek: This tributary is located along the northern portion of Robeson Township. Indian Corn Creek is a tributary in the Schuylkill River Basin. DEP has classified Indian Corn Creek as Cold Water Fishery.

Pine Creek: This tributary is located along the southeastern border of Union Township. Pine Creek is a tributary to the Schuylkill River Basin via French Creek. DEP has classified Pine Creek as Exceptional Value.

Scotts Run: This tributary is principally located in the southeastern portion of Union Township. Scotts Run is a major tributary to Pine Creek which is a major tributary to the French Creek in the Schuylkill River Basin. DEP has classified Scotts Run as Exceptional Value.

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Seidel Creek: This tributary is located in the northcentral portion of Robeson Township. Seidel Creek is a major tributary to the Schuylkill River Basin. DEP has classified Seidel Creek as a Warm Water Fishery.

Six Penny Creek: This tributary is located in the northcentral portion of Union Township. Six Penny Creek is a major tributary to the Schuylkill River Watershed. DEP has classified the Six Penny Creek as a High Quality-Cold Water Fishery.

Lakes and Other Surface Water Features

The Southern Berks Region also contains a number of prominent lakes and other significant surface water features including:

Green Hills Lake: This lake is located within the western portion of Robeson Township east of Interstate 176. Green Hills Lake is formed by two (2) separate tributaries of the Allegheny Creek, formed on lowlands with a dam breast on the north side, and discharges and continues as the Allegheny Creek. Green Hills Lake provides boating and fishing opportunities to the residents of the Green Hills Development.

Birdsboro Reservoir: This reservoir and watershed is located within the western portion of Union Township. The Birdsboro Reservoir is formed by springs and tributaries of Hay Creek. The facility is owned, operated, and maintained by the Birdsboro Municipal Authority, and is intended to be the primary drinking water source for Birdsboro Borough.

Scotts Run Lake: This 22-acre lake is located within the southeastern portion of Union Township in the French Creek State Park. Scotts Run Lake is formed by headwaters of Scotts Run, formed on lowlands with a dam breast on the south side, and discharges and continues as Scotts Run. The Scotts Run Lake provides boating, fishing, camping, and other recreation opportunities to the general public. This cold water lake offers excellent trout and other cold water species fishing, Hatcheryraised trout are stocked pre-season, during the season, and in the winter.

Hopewell Lake: This 68-acre lake is located within the southeastern portion of Union Township in the French Creek State Park. Hopewell Lake is formed by Scotts Run, formed on lowlands with a dam breast on the east side, and discharges and continues as the French Creek. Hopewell Lake provides boating, fishing, camping, and other recreation opportunities to the general public. A wide variety of Pennsylvania warm water species are found at Hopewell Lake, including northern pike, chain pickerel, bass, walleye, muskellunge, and many species of panfish. This lake is designated as a big bass lake and specific regulations apply.

Six Penny Abandoned Quarry Site: This abandoned quarry site is located in the central portion of Union Township near Kulptown. Based upon the geological characteristic (Diabase Formation) of the area, this site was utilized as a quarry until it was abandoned. Subsequently, the groundwater and springs filled the abandoned quarry site and supplies surface water to the Six Penny Creek during overflow conditions. This abandoned quarry site is not utilized for any specific purpose.

Floodplains

Floodplains provide ecological, aesthetic, and recreational benefits, while at the same time imposing constraints to development. The primary function of a floodplain is to provide an area that will accommodate the floodwaters of a given storm. As shown on the Natural Resources map, Figure 4, the 1% floodplain areas are those areas that, on average, have a one in one hundred chance of flooding in a given year, according to the Federal Emergency Management Agency (FEMA). Within the Southern Berks Region the largest area of 1% floodplain is found along the corridor of the Schuylkill river at the northern boundaries of Robeson and Union Township and

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Birdsboro Borough. Besides providing natural habitat, floodplains carry flood waters and help moderate flood heights. Interfering with these natural functions can result in more severe flooding, costly property damage and possibly the loss of life. The 0.2% floodplain is an area that is expected to be covered by water once every 500 years according to FEMA. Similar to the 1% floodplain area, the majority of the 0.2% is found along the corridor of the Schuylkill River.

Wetlands

Wetlands are recognized as being highly productive ecosystems, providing critical wildlife habitats, and important storage areas for surface and groundwater. Wetlands are areas that have vegetation and soil characteristics of a permanently or frequently saturated environment, including swamps, marshes, bogs and similar environments. Wetlands are important groundwater recharge areas that support wildlife, fish and other aquatic life. Wetlands also reduce flooding by detaining storm water. Besides protecting against floods, slowing storm water discharge helps filter impurities that can contribute to surface water and groundwater pollution.

Wetland areas are depicted on the Natural Resources map, Figure 4.

Given the uses and functions of a wetland, it is important that they be conserved and protected from destruction. The knowledge of a wetland's characteristics is important to allow even the most unnoticeable wetland areas to be identified. Another important factor is the type of land use allowable in and around a wetlands area. By enacting regulations, the municipalities of the Southern Berks Region control the land use in and around wetlands. Wetland margins or fringe areas that act as protective buffers should also be established to help protect the function of wetlands.

Stormwater Management

The water that runs off the land into low land, valleys, and surface waters during and immediately following a rainfall event is referred to as stormwater. In a developing watershed, the volume of stormwater resulting from a particular rainfall event increases due to the amount of impervious surface that is required to support the improvements. The conversion of natural land and topography to residential, commercial, industrial, institutional, and even agriculture and recreation, results in decreased infiltrations of rainfall and an increased rate and volume of stormwater.

As subdivision and land development activity occurs, the increased quantity of stormwater must be properly addressed. Failure to do so can result in greater flooding, stream channel erosion, sedimentation, and reduced groundwater recharge. Provisions for stormwater management must be addressed in every subdivision and land development application within the Southern Berks Region. Past efforts to manage stormwater have usually focused upon controlling the rate of discharge on a municipal basis. This focus is changing to consider stormwater impacts on a watershed-wide basis.

Individual subdivision and land development projects are often viewed as separate incidents, and not necessarily as part of the bigger picture. Even if a municipality takes a comprehensive review of the proposed subdivision or land development plan application, its focus usually does not extend beyond municipal borders. However, the cumulative nature of individual subdivision and land development applications dramatically affects flooding conditions. This cumulative effect includes flooding, stream bank erosion, sedimentation, and property damage, which sometimes result in expensive repairs or even loss of life. Therefore, given the disturbed and cumulative impacts of development, a regional comprehensive approach must be taken if a reasonable management approach is to be successfully implemented for the Southern Berks Region.

Recognizing the need to resolve serious problems associated with flooding, the Pennsylvania General Assembly enacted Act 167, the Pennsylvania Stormwater Management Act.

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Act 167 changed the local stormwater management theories to 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 watershed within the county, as designated by the Pennsylvania Department of Environmental Protection (DEP). Most importantly, 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.

All proposed watershed management plans within the Southern Berks Region should be developed in accordance with the following criteria:

1. They should be consistent with the Southern Berks Regional Comprehensive Plan;
2. They should conduct a comprehensive evaluation of the local and regional hydrological conditions of the watershed;
3. The standards and criteria should be developed from sound technical evaluations performed in the planning process; and
4. The standards and criteria should be adopted by each municipality once completed.

The final product of the Act 167 watershed planning process is to be comprehensive, practical, and developed considering the overall needs of the municipalities within the watershed.

In October of 1999, the National Pollution Discharge Elimination System (NPDES) Phase II Stormwater Permitting Regulations were signed into law. The Environmental Protection Agency's objective in Phase II regulations include:

1. Provide a comprehensive stormwater program that designates and controls additional sources of stormwater discharges to protect water quality.
2. Address discharges of stormwater activities not addressed in Part I, including:
 - Construction activities disturbing between 1 and 5 acres;
 - Light industrial activities not exposed to stormwater;
 - Municipal separate storm sewer systems (MS4s); and
 - Municipally-owned industrial facilities previously exempt under Phase I.
3. Facilitate and promote watershed planning as a framework for implementing water quality programs whenever possible.

While certain activities and facilities are easily defined, MS4s are defined as stormwater conveyance or a system of conveyances owned by a state, county, or municipality that discharges into the waters of the United States of America and is not a combined sewer or part of a publicly-owned treatment system. Townships and Boroughs are determined to be an MS4 based on census data which uses urbanized area populations. As shown on Figure 5, MS4 Areas in Union and Robeson Township as well as Birdsboro Borough have been identified as municipal MS4s. The three municipalities are required to address the following six (6) minimum control measures:

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1. Public education and outreach to the general public concerning stormwater impacts;
2. Public participation in the development of the stormwater management program;
3. Detection and elimination of illicit discharges, including the development of storm sewer map showing the location of all facilities and topographic features;
4. Management of stormwater runoff from subdivision and land development sites;
5. Management of post-construction stormwater runoff from new subdivision and land development sites; and
6. Pollution prevention and good housekeeping practices at municipal operations.

Best Management Practices (BMPs) are techniques that have been shown to be most effective for stormwater management associated with subdivision and land development activity, in a manner that is more consistent with the natural characteristics of the receiving watershed resources. BMPs are a broad series of land and water management strategies designed to minimize the adverse impacts of subdivision and land development activity. These BMPs provide varying levels of watershed protection and are becoming more widely utilized within southeastern Pennsylvania. Stormwater and watershed management is fundamentally concerned with developing programs to protect the natural resources in order to sustain the diverse needs of our community. BMPs provide opportunities to reduce impacts associated with subdivision and land development activity in a manner that endorses conservation management.

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. Non-structural BMPs are generally implemented through the enactment of municipal ordinances that specify site design and construction activities for all subdivision and land development plan applications.

In addition to the discussion above regarding minimum control measures and BMPs, municipalities which have High Quality or Exceptional Value streams have even more requirements to fulfill. Some municipalities may have a Total Maximum Daily Load or a Pollution Reduction Plan as part of their MS4 permit. Both of these additional requirements set limits on the amount of nutrients and sediment which enter the waterbody via the stormwater system as well as how much needs to be removed from the system before entering the water body. Within the Southern Berks Region, both Birdsboro Borough and Robeson Township have to fulfill these additional requirements.

Woodlands

Woodlands are wildlife habitats that, if destroyed, take decades to replace. The root systems of trees and other vegetation stabilize the soil against erosion, particularly in steep areas. Woodlands are also a scenic resource that provides visual relief from the built environment. Woodlands are the largest riparian buffers for the local water resources. Groundwater and surface water benefits that woodlands provide include cooling of water, saturation of pollutants which would otherwise be carried to the waterways.

Woodlands account for 25,250 acres in the Southern Berks Planning Region. These areas are primarily located on areas of steep slopes, floodplains, and other areas that are unsuited for agriculture, subdivision, and land development activity. Woodlands are a vital resource and provide a number of community benefits, including:

Chapter 4 - Natural Features and Agricultural Conservation

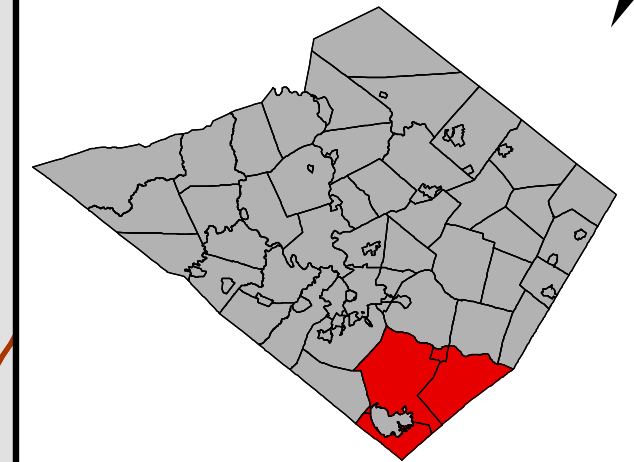
1. Minimize erosion on areas of steep slopes and stream banks;
2. Improve groundwater quality and quantity by filtering out pollution and sediment;
3. Provide wildlife habitats for plants and animals;
4. Provide effective stormwater management and erosion control;
5. Provide shade from direct sunlight and reduce temperatures;
6. Stabilize adverse climate conditions by providing buffer and wind breaks;
7. Provide active and passive recreation opportunities;
8. Enhance the scenic characteristics; and
9. Absorb pollutants that may be found in ambient air.

Hopewell Big Woods

The largest area of woodlands in the Southern Berks Region is the Hopewell Big Woods. This area contains the largest contiguous block of forest in southeastern Pennsylvania (the “big woods”). This conservation area encircles French Creek State Park and the Hopewell Furnace National Historic Site, and is greatly valued as an asset for public recreation. An expanse of over 73,000 acres, or 110 square miles, Hopewell Big Woods is a rarity in our landscape. The Hopewell Big Woods Partnership, led by Natural Lands Trust, is a group of over 30 government agencies, private non-profits, and municipal entities which maintain the area. The Partnership is seeking to conserve at least 4,000 acres of old growth, 15,000 acres of unbroken forest, and the watersheds supported by this forest. The Partnership aims to attain the following conservation goals:

1. The permanent protection and stewardship of at least 15,000 acres of unbroken forest in and around French Creek State Park.
2. The conservation of water quality and quantity in the watershed of the Upper reaches of French Creek, the entirety of Hay Creek and the smaller watershed within the Hopewell Big Woods. The primary indicator for watershed conservation is retaining impervious cover below 6% in these watersheds.
3. The conservation of state and federally listed as well as other species, occurring within the Hopewell Big Woods.
4. The promotion of recreational resources located in and around the Woods.
5. The encouragement of compatible economic development within the Hopewell big woods that is consistent with the other conservation goals.
6. The protection of historic and cultural resources occurring within and nearby the Woods.

Geology



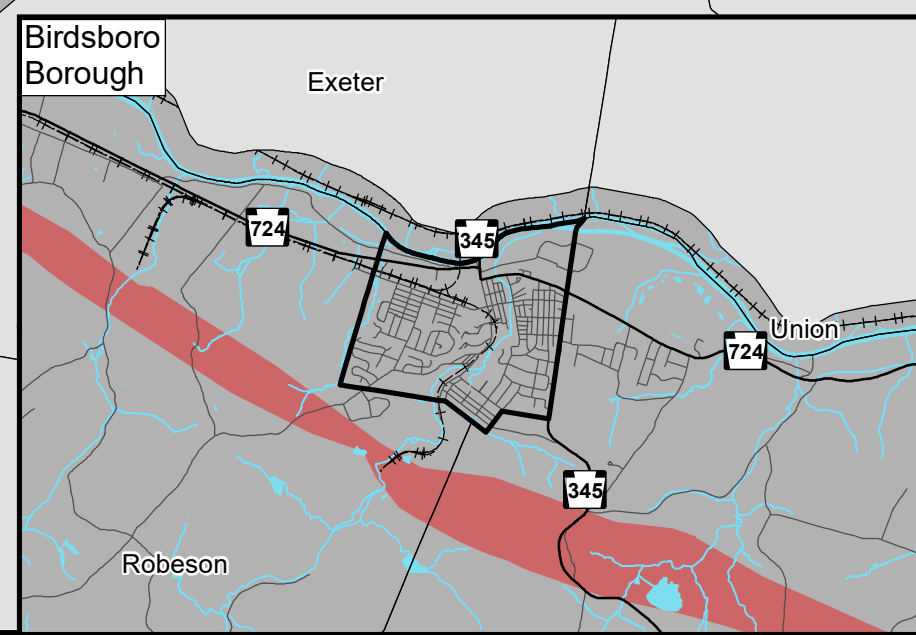
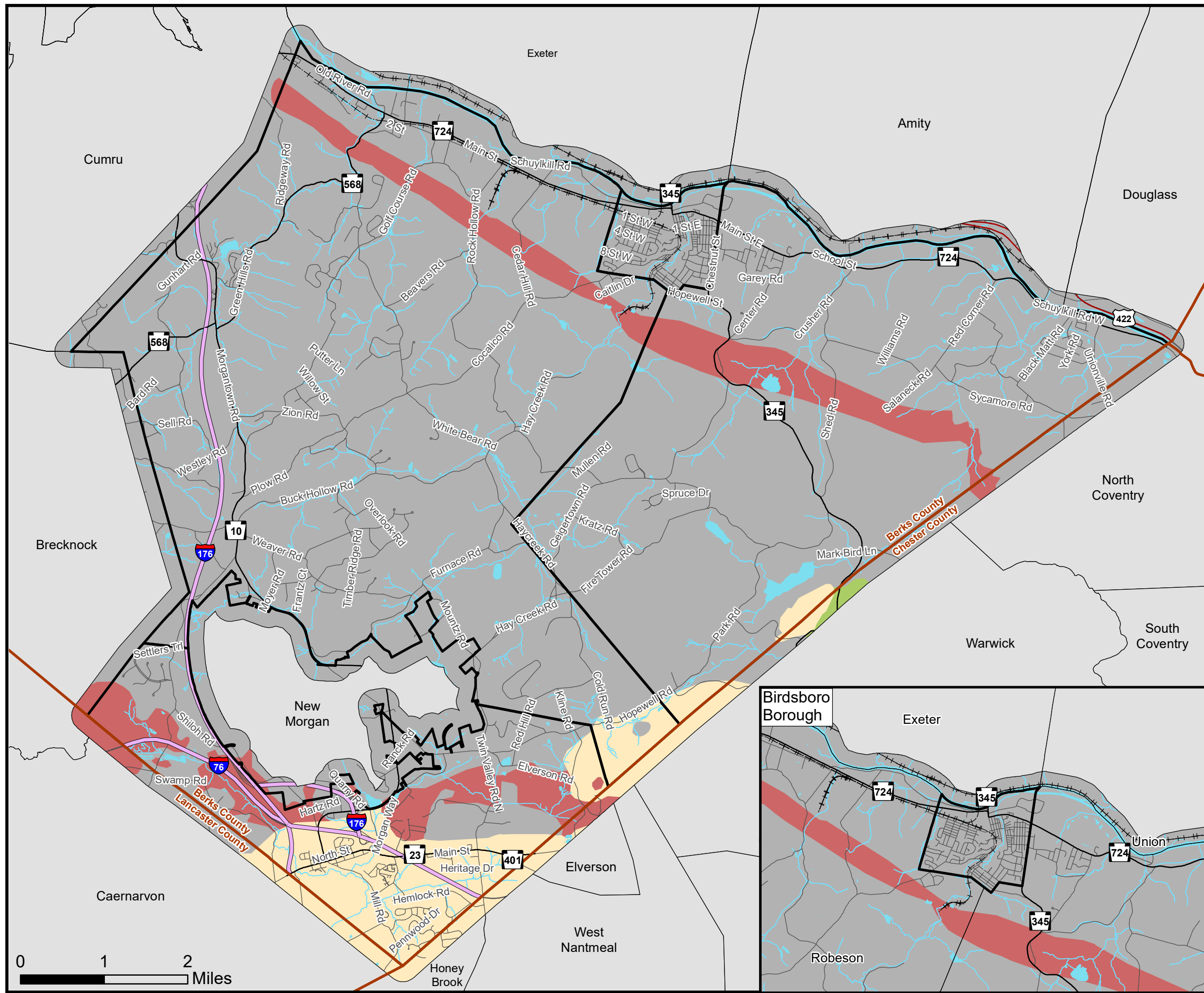
Geologic Period

- Precambrian
- Cambrian
- Ordovician
- Triassic
- Jurassic
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

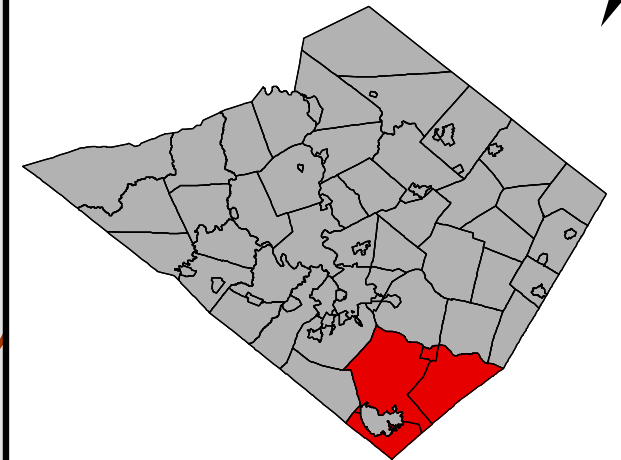
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA NRCS

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Soils



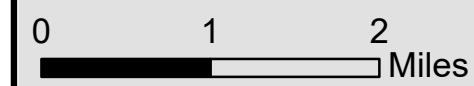
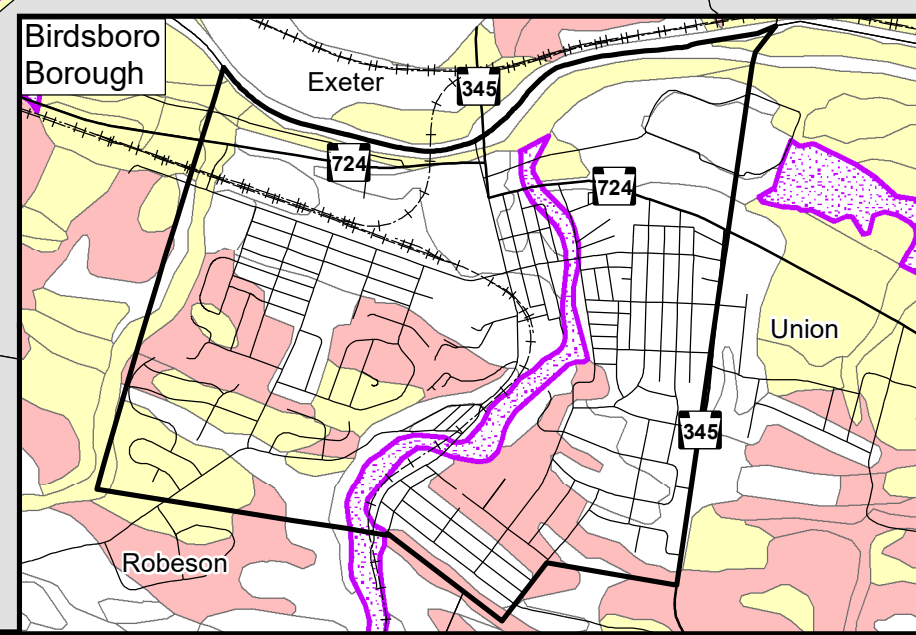
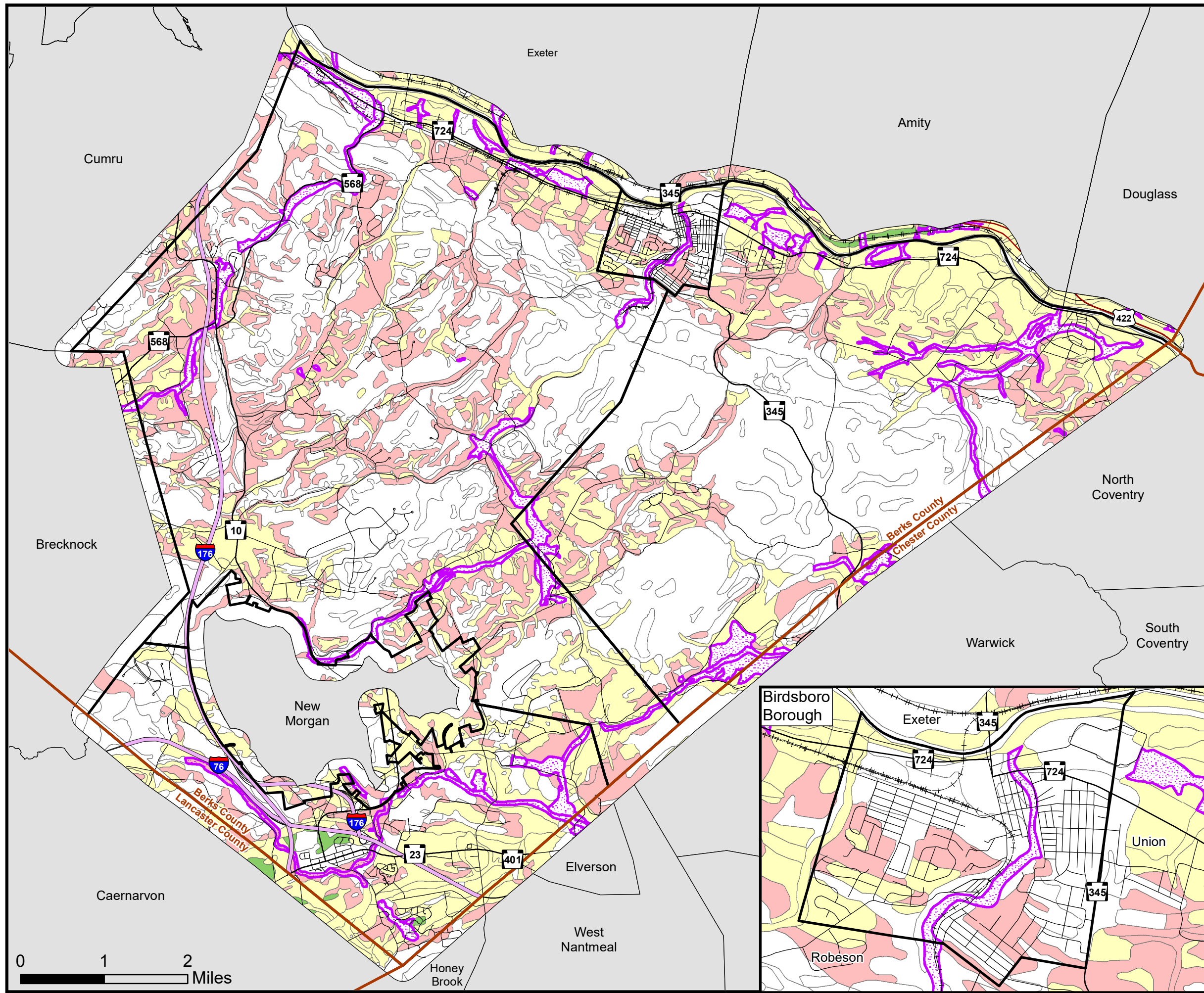
Legend

- Class 1 Soil
- Class 2 Soil
- Class 3 Soil
- Class 4-8 Soils
- Poorly Drained Soils
- Roads
- Interstate
- US Route
- State Route
- Railroads
- Municipal Boundaries
- County Boundaries

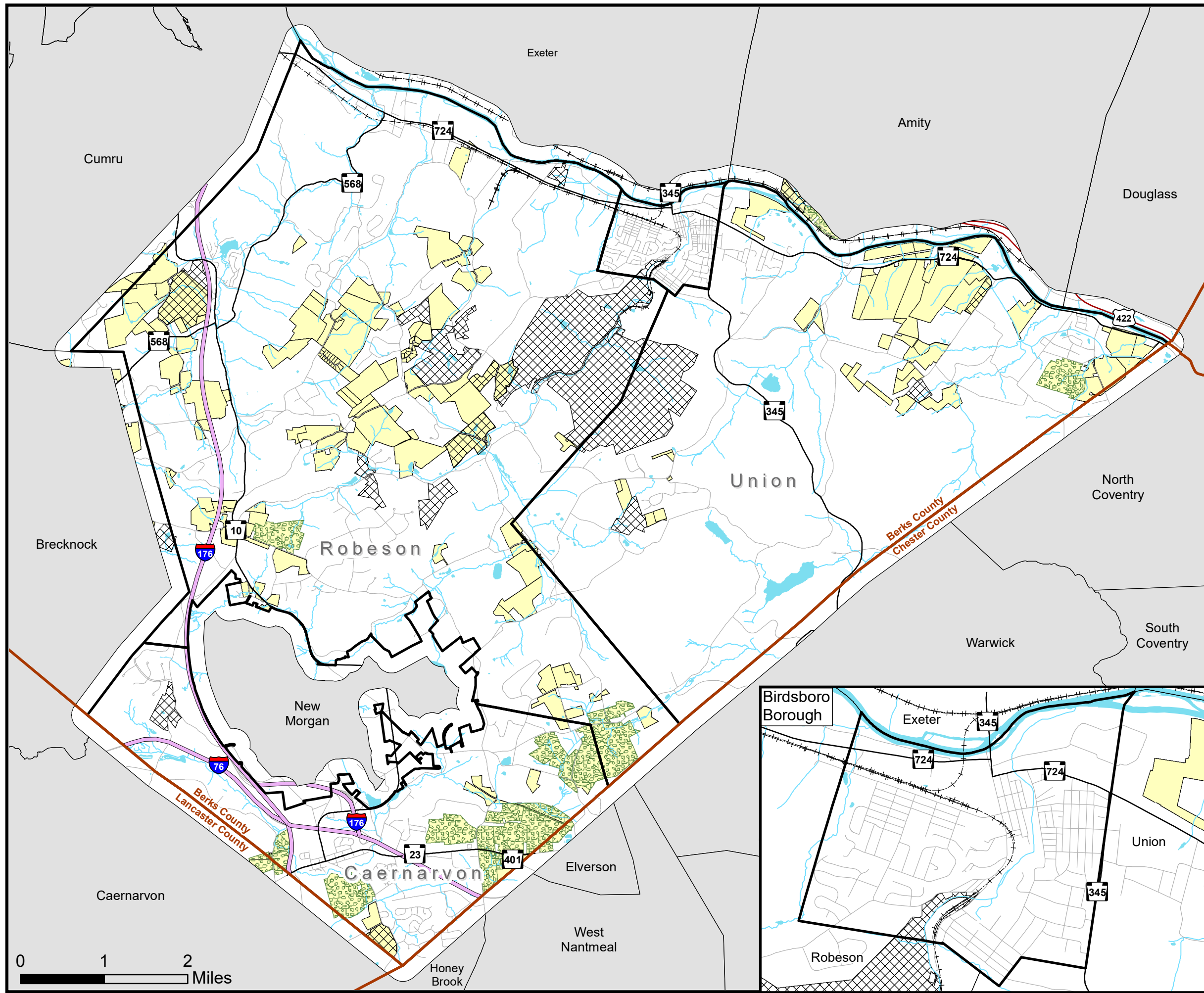
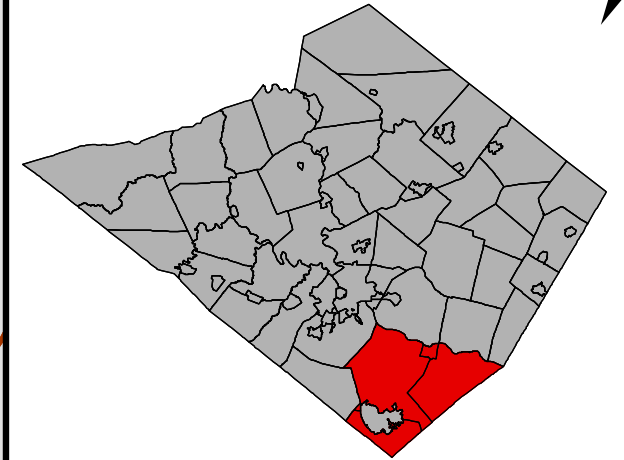
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA NRCS

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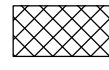
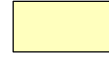

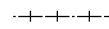


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Protected Lands



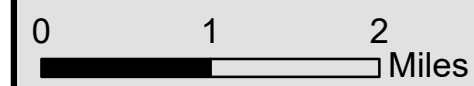
Legend

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

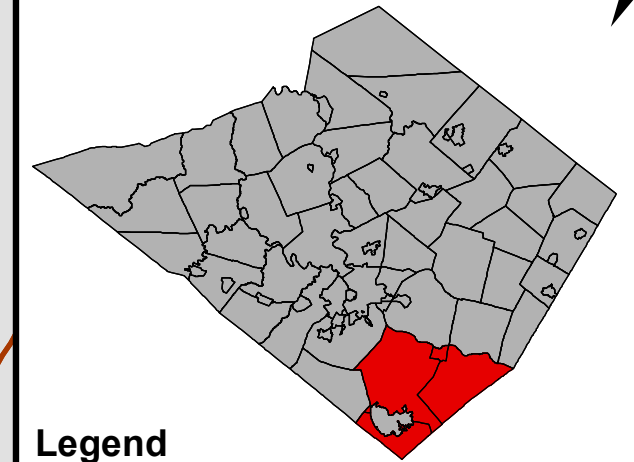
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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Natural Resources

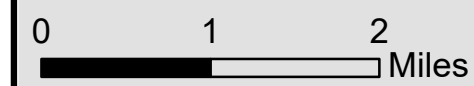
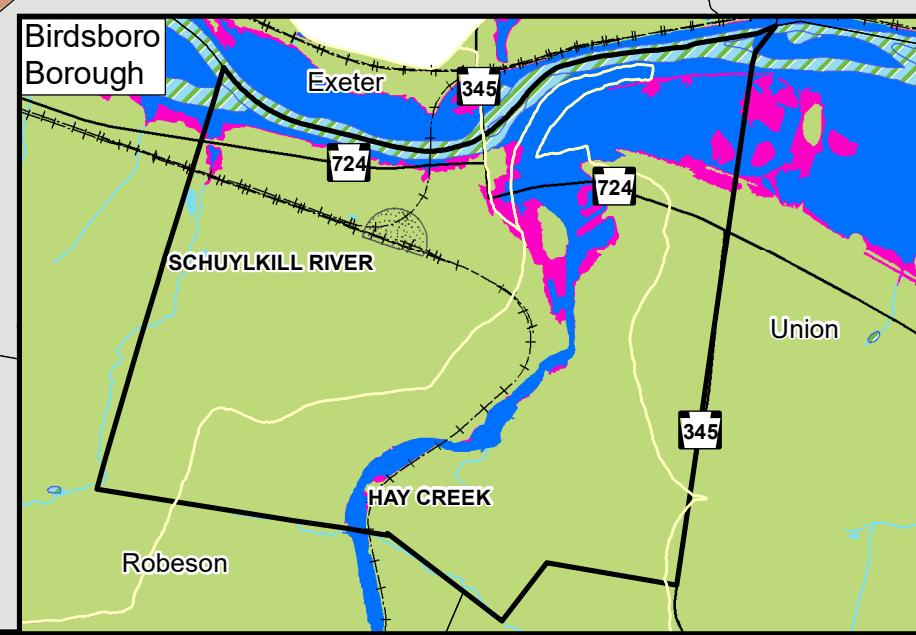
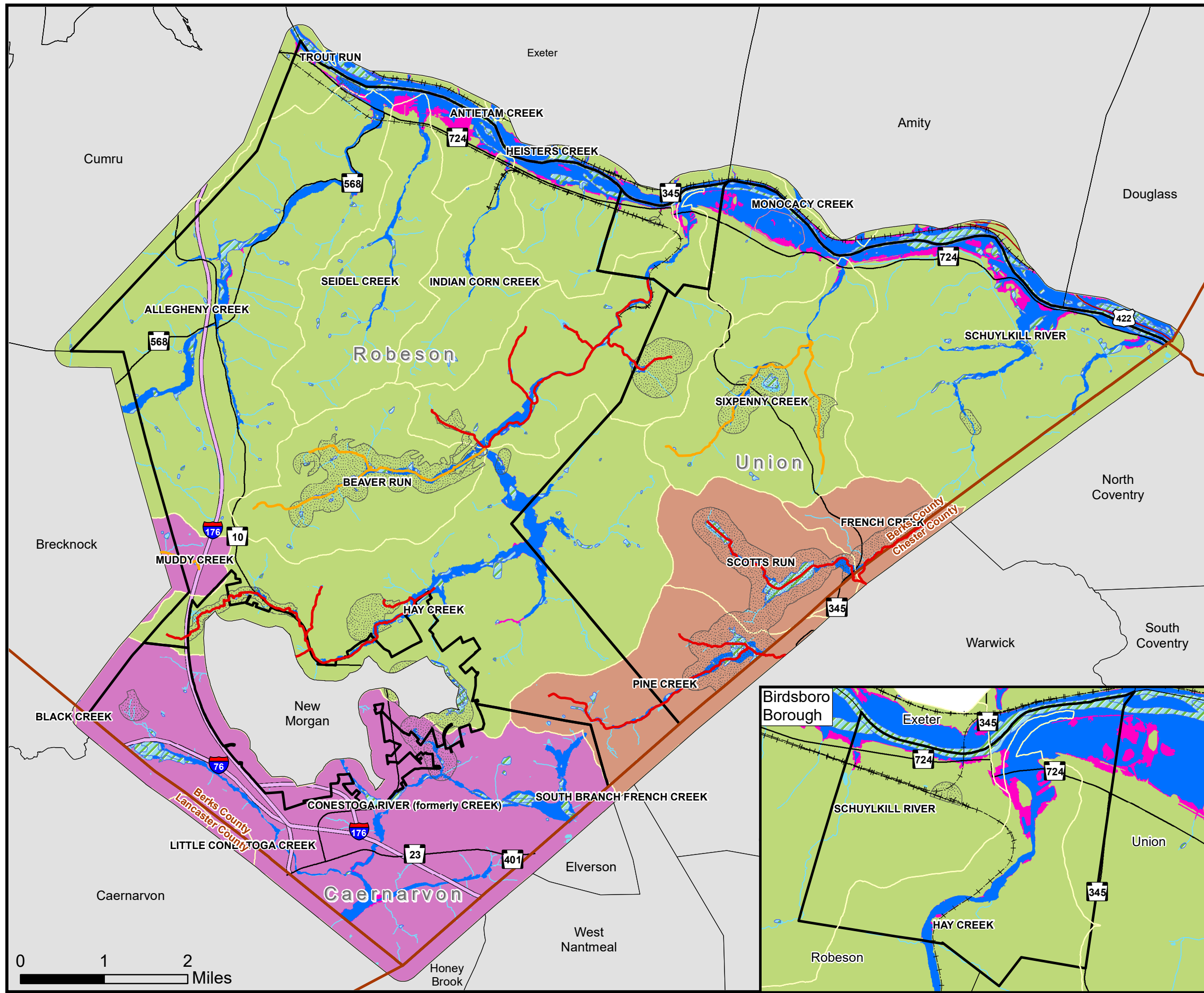


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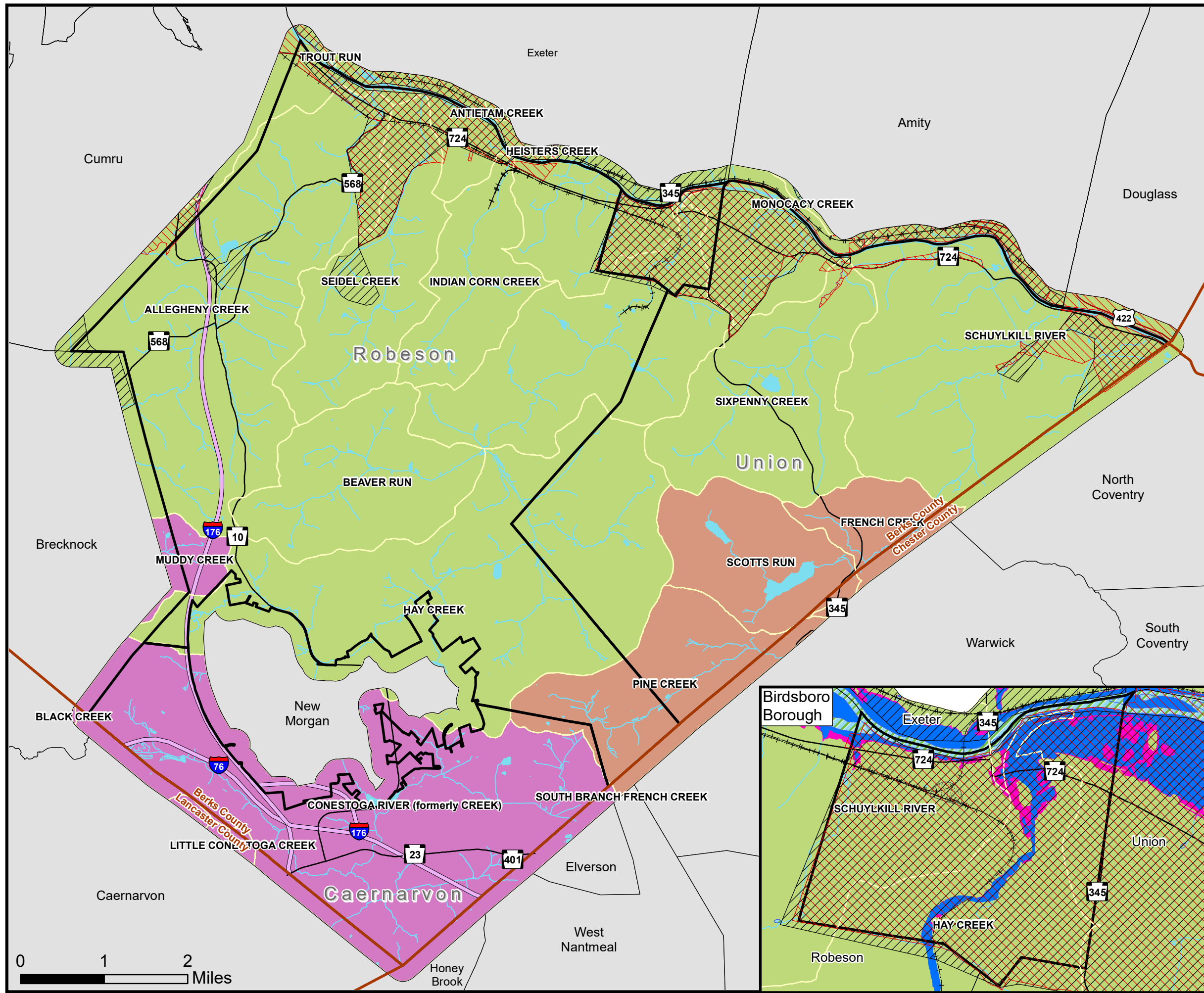
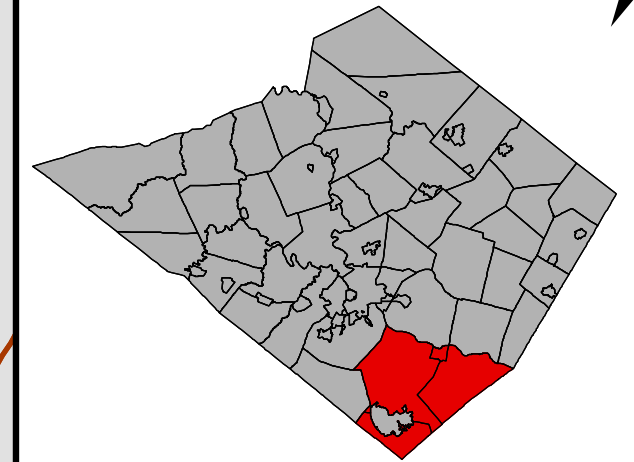
- Schuylkill Watershed*
 - French Creek Watershed*
 - Conestoga River Watershed**
 - Subwatersheds
 - 1% Floodplain
 - 0.2% Floodplain
 - Wetlands
 - Natural Heritage Area- Core Habitat
 - Exceptional Value Streams
 - High Quality Streams
 - Streams and Water Bodies
 - Interstate
 - US Route
 - State Route
 - Railroads
 - Municipal Boundaries
 - County Boundaries
- * Drains to Delaware River
** Drains to Susquehanna River

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES
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MS4 Areas

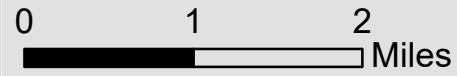


Legend

- Urbanized Area 2000
 - Urbanized Area 2010
 - Schuylkill Watershed*
 - French Creek Watershed*
 - Conestoga River Watershed**
 - Subwatersheds
 - Streams and Water Bodies
 - Interstate
 - US Route
 - State Route
 - Railroads
 - Municipal Boundaries
 - County Boundaries
- * Drains to Delaware River
** Drains to Susquehanna River

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, U.S. Census Bureau
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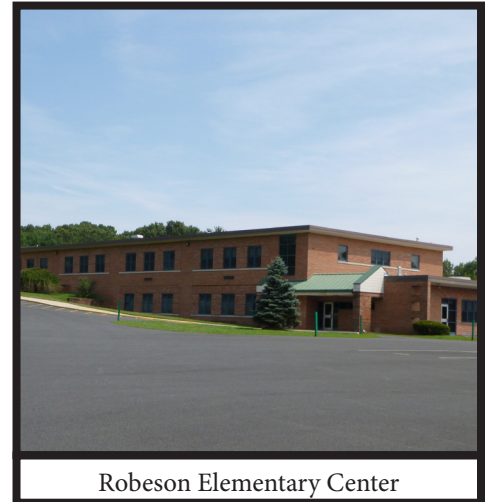


COMMUNITY FACILITIES AND SERVICES

Community facilities include schools, police and fire stations, municipal buildings, libraries, parks and similar facilities. Community services include police and fire protection, sewage and water services and municipal government.

Schools

The opportunity for a high quality education is commonly held as a top priority when choosing a place to live. Historically, school districts have planned in the short term when it came to forecasting future demands for school district facilities. This forecasting is what drives the decision making process with regard to building expansions, construction, consolidations, and closures. School district planning can both affect and 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 communities losing population. At the same time, long-range municipal land use planning may designate new growth areas that are not close to existing school facilities. It is for these reasons that it is very important that there is strong coordination between school district planning and the municipal comprehensive planning processes to assure that existing and future schools and planned community growth occur hand-in-hand.



The Southern Berks Region is served by two public school districts. The Daniel Boone School District serves Birdsboro Borough and Union Township within the Southern Berks Region, plus Amity Township within Berks County. The Twin Valley School District serves Caernarvon and Robeson Townships, plus other municipalities within Chester County. Both school districts are governed by a nine-member school board, and board members serve 4-year terms with no compensation. In addition, the High Point Baptist Academy is a private school that is located within Robeson Township. Another private school called Immaculate Conception Academy is located in Union Township just south of the Daniel Boone High School site. The Live N Learn Smile Center is a private school located within the Borough of Birdsboro on Main Street. The Community Facilities and Recreation Map (Figure 6) illustrates the location of Southern Berks Region's public and private school sites. The remainder of this section will focus upon conditions at the public schools within the Southern Berks Region.

Presently, Daniel Boone School District employs the following grade format:

- Daniel Boone Area Primary Center: Kindergarten through Grade 2
- Daniel Boone Area Intermediate Center: Grades 3 through 5
- Daniel Boone Middle School: Grades 6 through 8
- Daniel Boone High School: Grades 9 through 12

Presently, Twin Valley School District employs the following grade format:

- Twin Valley Elementary Center: Kindergarten through Grade 4
- Robeson Elementary Center: Kindergarten through Grade 4
- Honey Brook Elementary Center: Kindergarten through Grade 4
- Twin Valley Middle School: Grades 5 through 8
- Twin Valley High School: Grades 9 through 12

Chapter 5 - Community Facilities and Services

The following tabulates and graphs conditions at each of the Daniel Boone School District's six school sites:

Summary of Daniel Boone District Facilities							
School Name	Year Built	Renovation Dates	Site Size (acres)	Rated Condition	Grades Housed	Rated Capacity	2018-2019 Enrollment
Daniel Boone Area Primary Center	2007	–	N/A	Good	K-2	600	623
Daniel Boone Area Intermediate Center	2002	–	N/A	Good	3-5	750	723
Daniel Boone Area Middle School*	1967	–	N/A	Good	6-8	1003	807
Daniel Boone Area High School*	1966	1971,1997,2009	N/A	Excellent	9-12	1442	1120

*located at one site
Source: Daniel Boone School District

All of the above schools serve the Southern Berks Region. Furthermore, the 54-acre Daniel Boone Middle/High School Complex is located just east of Birdsboro Borough in Union Township along Chestnut Street; this facility serves students from the entire school district. Southern Berks Region's kindergarten and elementary-aged students attend Daniel Boone Primary Center. The Southern Berks Region's schools are depicted on Figure 6 (Community Facilities and Recreation Map).

As the previous table reveals, the following lists the residual capacity in each of the schools that serve the Southern Berks Region:

Residual Capacity of Schools Serving Southern Berks Region			
School	Rated Capacity	2018-2019 Enrollment	Residual Capacity
Daniel Boone Primary Center	600	623	-25
Daniel Boone Intermediate Center	750	723	27
Daniel Boone Middle School	1003	807	196
High School	1442	1120	322
Total Residual Capacity			520

Based upon the preceding figures, the schools serving the Southern Berks Region have very good residual capacity, with the exception of the Daniel Boone Primary Center.

Goal: Municipalities should work with school districts to adequately plan for increased demands on the districts caused by large scale developments coming into the area.

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

Summary of Twin Valley School District Facilities							
School Name	Year Built	Renovation Dates	Site Size (acres)	Rated Condition	Grades Housed	Rated Capacity	2018-2019 Enrollment
Twin Valley Elementary*	2005	-	118*	Good	K-4	557	344
Robeson Elementary	1954	1993	15	Very Good	K-4	475	386
Honey Brook Elementary	1995	-	25	Very Good	K-4	550	385
Middle School*	1991	2008	118*	Very Good	5-8	1415	1027
High School*	1958	1966/2000/2007	118*	Very Good	9-12	1339	1063

* located at one site
Source: Twin Valley School District

Chapter 5 - Community Facilities and Services

All of the Twin Valley School District's schools, except the Honey Brook Elementary School, are located within the Southern Berks Region. The largest facility combines the Twin Valley Elementary, Middle, and High Schools on a 118-acre campus prominently located atop Clymer Hill just northeast of Morgantown in Caernarvon Township. The Robeson Elementary School is located on the east side of White Bear Road in northern Robeson Township. This district covers a large geographic area and the vast majority of all students are bused to their schools.

Two separate elementary schools serve Caernarvon Township and Robeson Township. First, the Twin Valley Elementary School serves students from the small area southeast of State Route 82 and east of I-176. The larger area within the Southern Berks Region buses their elementary students to Robeson Elementary School. These service areas are depicted on Figure 6 (Community Facilities and Recreation Map).

From the previous table, the following lists the residual capacity in each of the schools that serve the Southern Berks Region:

Residual Capacity of Schools Serving Region			
School	Rated Capacity	2018-2019 Enrollment	Residual Capacity
Twin Valley Elementary	557	344	213
Robeson Elementary	475	386	89
Middle School	1,415	1027	388
High School	1,339	1063	276
Total Residual Capacity			966

Based upon the preceding figures, the Twin Valley School District is generally in very good shape with regards to residual capacity. All facilities in the district are filled below their residual capacity.

Using 2017 population projections, the number of school-aged children within the Southern Berks Region totaled about 3,446, or 17.3% of the total population. Assuming a similar future ratio, the following tabulates the number of new school-aged students that are projected based upon population growth:

Year	Total Population	Total Children Ages 5-19
2000	17,698	3,610
2010	19,888	4,201 (+591)
2017 Estimate	20,134	3446 (-755)

The planning goals for this Plan suggest that Caernarvon Township and Robeson Township will bear most of the planned development potential within the Southern Berks Region. Therefore, it would appear that residual capacity within the existing schools can adequately accommodate planned growth for about the next decade; however, it may require grade shifting and redistricting that could prove difficult. Furthermore, the initiation of school expansion is a major project that often takes several years to undertake.

Goal: In order to create a vibrant future for the Southern Berks Community, the School Districts should provide a high quality education for all students, regardless of social or economic status.

- It is apparent that both school districts could benefit from an improved process of residential development review. By learning of proposed developments early, the districts can better prepare for needed school expansion and bus routing.
- Each municipality within the Southern Berks Region should revise its subdivision and land development application requirements so that adequate and timely notification to the school districts is assured. Similarly,

Chapter 5 - Community Facilities and Services

the school districts should allocate manpower and resources so as to properly respond to such applications and provide meaningful feedback to the municipalities by coordinating development within the region with public school capacity.

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

Goal: The stakeholders of the Southern Berks Region should work together to create a new Regional Recreation Board (RRB). This RRB should include at least two voting members from each municipality/school district who have demonstrated interest in parks and recreation.

- Recreation and parks boards play an important role as the “watchdog” and in many cases the administrator of the municipal recreation and parks services. As a function of municipal government, the board has a responsibility to review the total recreation and parks system including the services provided by all of the agencies in the community, to insure that all residents’ needs are met.

A recreation and park board benefits your community by:

- Being aware of the needs and viewpoints of their neighbors, friends and fellow citizens. They help your municipality become more customer-driven by providing ongoing public input. As the eyes and ears of your community, they also know how and when to broach a subject with residents.
- Selling the worth of recreation and parks to elected officials. As citizens themselves, they carry clout and political influence. Elected officials listen to voters. Boards can gain financial support for parks and programs and can effectively negotiate with elected officials.
- Developing the recreation and parks vision of your community, helping your municipality become forward thinking and encouraging it to be proactive rather than reactive.
- Serving as an extension of elected officials, relieving them of day-to-day operations and concerns for recreation and parks, especially if your community has no staff.
- Enhancing the image and developing community pride in and support of your recreation and parks system.
- Monitoring the public expenditures of citizen tax dollars and raising funds to supplement budgeted funds.
- Serving as a buffer between citizens and elected officials on controversial issues.
- Providing continuity from year to year in the operation of your recreation and parks system.
- Helping to plan and conduct recreation programs and special events and involve more citizens as volunteers.

Police Protection

Police protection is an obvious public service benefiting residents and businesses. The traditional role of the police involves three functions: law enforcement, order maintenance, and community service. Law enforcement involves the application of legal sanctions, usually arrest, to persons who injure or deprive others of life or property. Order

Chapter 5 - Community Facilities and Services

maintenance involves the handling of disputes, or of behavior, which threatens to produce disputes. The third aspect of the police function, and the one most likely to occupy the major portion of an officer's time, varies from community to community according to tradition and local ordinances. These activities include such tasks as traffic control, rescue operations, animal control, and ambulance and first-aid services.

Police protection within the Southern Berks Region is provided by a mix of local and State Police coverage. In addition, all emergency police calls are dispatched through the Berks County "911" program. The Community Facilities and Recreation Map (Figure 6) illustrates the location of Southern Berks Region's police departments and service areas, which coincide with municipal boundaries.

Birdsboro Police Department

The following information was obtained from Robin Emerick (administrative assistant) of the Birdsboro Police Department via a telephone conversation.

This Department serves only the Borough. The department is presently housed at 200 East Main Street, Birdsboro, PA 19508. Specifications for this space include two offices, a squad room, one holding cell, and a secure garage with electric, remote control doors). Currently, the department consists of six full-time officers, one chief and one administrative assistant. The following summarizes this Department's activities over the last three years:



Birdsboro Borough Police Department Activity				
Year	Number of Total Responses	Number of Traffic Accident Responses	Number of Serious Offenses	Number of Cases Closed
2016	2,718	76	82	273
2017	2,752	81	40	314
2018	2,511	80	43	349

The Borough's Police Department provides round-the-clock coverage. The Pennsylvania State Police are only called in as back-up in a serious criminal investigation. The Department operates with three marked and one unmarked police vehicles. The Department has six computers and a server which assists officers in their daily reports, and the capability to download to, and link with, the County-wide police database. Cooperation among Southern Berks Region's emergency service providers is good. At this time, there has been no discussions to create a regional police force. The average response time is less than 5 minutes.

Caernarvon Township Police Department

The following information was obtained from Detective Corporal Chad Eberly and Teresa Peifer of the Caernarvon Township Police Department via a telephone conversation.

This Police Department serves only Caernarvon Township. The department is presently housed in the Municipal Office Building, located at 3307 Main Street, P.O. Box 52 Morgantown, PA 19543. This station contains four offices, two holding cells, one squad room, and one finger-print room, one evidence room, two interview rooms and one garage.

Currently, the department consists of a chief, sergeant, detective corporal, four full-time and two part-time officers and one office assistant. The Department calculates needed manpower based upon call statistics, and anticipated

Chapter 5 - Community Facilities and Services

demand based upon the conduct of nearby special events (e.g., drag races). The following summarizes this Department's activities over the last three years:

Caernarvon Township Police Department Activity				
Year	Number of Total Responses	Number of Traffic Accident Responses	Number of Serious Offenses	Number of Cases Closed
2016	5,554	122	98	81
2017	3,848	133	127	85
2018	5,239	158	107	84

The Township's Police Department provides 24 hr. coverage. Typically, there is one patrol car assigned per shift; however, more officers could be on duty. The Pennsylvania State Police will offer emergency call coverage when the Department is already occupied, and is called in as back-up in serious criminal investigations. The Department has an average response time of 3 to 5 minutes.

The Department has six vehicles, including four SUV's. The department is in process of replacing two sedans with SUV's and also acquiring a pickup truck. Each vehicle has a radio, cell phone and laptop computer as well as NARCAN. In addition, each officer on patrol is equipped with an AED (Automated External Defibrillator) to assist in medical emergencies. There are 14 freestanding computers within the police station. Some are connected to the County-wide system.

Cooperation among the Township Police Department and other emergency service providers is described as excellent. Detective Corporal Eberly believes that the challenges confronting this department relate to a shortage of manpower as well as the potential for future increased demand due to the construction of a proposed casino in the township. This will force new hiring, which will, in turn, likely require expansion of the Police Station. He emphasizes the need for an "ever-present working relationship with local officials, advanced training, and up-to-date policing policies."

Robeson Township Police Department

The following information was obtained from Township Manager Colleen Easterday via a telephone conversation.

This Department serves only Robeson Township, but includes a large area (some 36.6 square miles). The Department is presently housed at 2689 Main Street, Birdsboro, PA 19508. Presently, this space provides three offices, a squad room, two holding cells, an interview room, an evidence room / fingerprint room. The Department provides for 24/7/365 police coverage, with two patrol shifts per day.

Currently, the Department consists of five full-time officers, one part-time officer and one full time office assistant. Currently, the police response times can vary up to 15 minutes; however, it is noted that the Department occasionally responds to police calls in adjoining municipalities due to mutual aid agreements. The Pennsylvania State Police are only called into Robeson Township as back-up in a serious criminal investigation.

The following summarizes this Department's activities over the last three years:

Robeson Township Police Department Activity				
Year	Number of Total Responses	Number of Traffic Accident Responses	Number of Serious Offenses	Number of Cases Closed
2016	7,336	114	163	114
2017	5,710	63	127	46
2018	6,304	139	96	136

Chapter 5 - Community Facilities and Services

The Department utilizes five police vehicles. These vehicles consist of two SUV's and three sedans with four being marked and one being unmarked. All vehicles are equipped with radios, AED's and NARCAN. Three vehicles are equipped with laptops. Department communications are tied with the Berks County Communications Center which dispatches all police calls. Cooperation among Southern Berks Region's emergency service providers is described as "excellent." It is believed that the greatest police need within the Township is for additional manpower, followed by expanded office space.

Union Township – Pennsylvania State Police

The Pennsylvania State Police serves a large number of municipalities within Berks County. Specifically, the Reading station offers principal coverage for Union Township and New Morgan Borough, part-time coverage of Caernarvon Township, and upon-request back-up service to Birdsboro Borough and Robeson Township within the Southern Berks Region. The Southern Berks 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.

Future Regional Police Protection

Early discussions among the Plan Study Committee indicate that any regional police force proposed should require the conduct of a feasibility study by the Pennsylvania Department of Community and Economic Development as a prerequisite. This suggests a potential willingness to consider such a regional force; however, conversations with local police officials and municipal officials suggest otherwise. Furthermore, the future land use policies expressed for this Plan suggest focusing new growth in compact areas around planned utility service areas, and away from important natural features. These combined policies will likely preserve Union Township's rural character and make the expense of a local police force politically difficult to justify. On the other hand, officials from the Daniel Boone School District believe that a more local police presence is necessary within Union Township to safeguard the 2,000+ students who attend the Middle School and High School located here.

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

Local officials need to know and understand these pressures if they are to persevere through the transition. The question is not **if** better services and higher taxes result, but **when!** Fortunately, state programs exist to assist municipalities with these difficult studies and decisions and offer independent expert advice. Some of these programs are free, while others are offered in the form of peer-to-peer grants. In any event, these programs and grants can provide invaluable assistance to the open-minded elected official who is trying to "cut through" all of the local politics and emotion.

If the participating municipalities express interest, local officials should engage the available programs to identify the best way to offer regionalized police protection. However, at this time, this Plan does not advocate the creation of a regional police force.



Friendship Fire Company No. 1, Birdsboro

Fire Protection and Ambulance Service

Fire protection is a basic public safety service that is important to the Southern Berks Region. It is apparent, 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. Five separate fire companies have first-call responsibilities within the Southern Berks Region and other adjoining municipalities. In addition to being responsible for their primary service areas, these companies provide reciprocal, mutual-aid assistance to each other and to other surrounding fire companies as needed. Mutual-aid assistance enables neighboring fire departments to supplement manpower and equipment, and thereby respond more effectively to multiple or major calls.

Ambulance service is an obvious lifesaving benefit. Emergency ambulance service involves the pick-up of patients at the scene of an accident or other medical emergency, and their transport to 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.

Goal: To create an environment of cooperation between the Municipalities in the Southern Berks Planning Region and the corresponding emergency service agencies to make sure that there is adequate coverage as municipalities continue to grow.

- There should be regular meetings between emergency service providers to make sure that adequate coverage to citizens is maintained.
- The municipalities should consider the creation of an Emergency Services Alliance to facilitate these meetings and to maintain an open line of communication between parties.
- There should be the formalization of a program to deliver specialized training to ensure a wide and uniform coverage of specialized skills and expertise throughout the Southern Berks Region

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

Summary Characteristics of Fire Companies Located Within Southern Berks County Region						
Fire Company		Birdsboro Fire Department	Twin Valley Fire Department	Geigertown Fire Co.	Gibraltar Fire Co.	Birdsboro / Union Fire Co. – South Station
First Call Service Areas Within the Region		Birdsboro Borough	Caernarvon Township New Morgan Borough	Southern Robeson Township	Northern Robeson Township	Union Township
Mutual-Aid Service Areas		Amity/Exeter/Robeson/ Union/Mt. Penn	Robeson/Elverson/ Warwick/Caernarvon/ Honey Brook/ West Nantmeal	Birdsboro/Robeson / Union/ Caernarvon/ Elverson	Southeastern Berks	Birdsboro/Robeson/Exeter/ Amity/Douglas/ North Coventry/Elverson/ Mt. Penn/anywhere who calls
Year 2018 Contributions from Municipalities		\$181,000	\$118,749	\$118,843	\$45,000	\$118,843
Station Locations Within the Region		214 W. First Street Street Birdsboro, PA 19508	4456 Main Street Morgantown, PA 19543	3433 Hay Creek Road Birdsboro, PA 19508	3351 Main Street Birdsboro, PA 19508	1082 Chestnut Street Douglassville, PA 19518
Average No. of Volunteers		30 firefighters 6 fire police	40	26 firefighters 3 fire police	32 firefighters 6 fire police	25
First Due Calls 2016-2018	2016	N/A	264	140	425	81
	2017	100	248	110	375	85
	2018	120	270	132	460	100
Mutual-Aid Calls 2016-2018	2016	N/A	47	N/A	220	26
	2017	104	50	N/A	230	35
	2018	118	43	N/A	260	46
Average Emergency Response Time*		3-4 minutes	5 minutes	5 minutes	5-10 minutes	4 minutes
Major Equipment		<ul style="list-style-type: none"> • 2 engines • 1 rescue • 1 utility truck • 1 command truck • 1 ATV • 1 brush truck 	<ul style="list-style-type: none"> • 75-foot ladder truck • heavy rescue • 2 engines • 1 utility truck • 3 brush trucks • 3 special services / ATV • 1 each squad • 1 each chief and deputy 	<ul style="list-style-type: none"> • 1 tanker • 1 pumper / engine • 1 ladder • 1 utility • 1 attack • 1 atv / special operations trailer • 1 brush truck 	<ul style="list-style-type: none"> • 2 jeep brush trucks • 1 tanker • 1 engine/tanker • 1 rescue • 1 attack truck • 1 squad truck • 1 bobcat ATV with tank 	<ul style="list-style-type: none"> • 1 engine • 1 rescue • 1 tower truck • 1 utility truck • 1 command truck • 1 ATV • 1 brush truck

* Time that it takes the vehicle to leave the station.

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Summary Characteristics of Ambulance Companies Located Within Southern Berks County Region					
Ambulance Company		Elverson / Honey Brook Area EMS		Southern Berks Regional EMS	
First Call Service Areas Within the Region		Caernarvon, Robeson and Union Townships New Morgan Borough		Amity, Brecknock, Cumru, and southern reaches of both Robeson and Union Townships, Birdsboro, Kenhorst, Mohnton, and Shillington Boroughs	
Mutual-Aid Service Areas		NA		Western Berks area, Exeter Township, City of Reading, Caernarvon	
Year 2018 Contributions from Municipalities		NA		\$150,000 Cumru, Birdsboro \$65,700, Kenhorst \$23,100, Shillington \$39,750, Brecknock \$52,400	
Station Locations Within the Region		Station 89 - 4458 Main St, Elverson, PA 19520 Station 189 - 671 Firehouse Lane, Honey Brook, PA 19344		Station 1 – 455 East Main Street, Birdsboro, PA 19508 Station 2 – 769 Mtn. View Rd, Reading, PA 19607 (MAIN) Station 3 – 14 Church Lane, Douglassville, PA 19518	
Average Number of Volunteers/Paid Staff		NA		32 full-time paid staff 46 part-time paid staff	
Coverage Periods		NA		24/7/365	
Number of Ambulance Responses (2016-2018)	Type of Response	Emergency Calls	Routine Transports	Emergency Calls	Routine Transports
	2016	NA		5,883	2,038
	2017	NA		6,267	1,971
	2018	NA		6,205	1,468
Average Emergency Response Time*		NA		Generally 2-3 minutes	
Major Equipment		NA		<ul style="list-style-type: none"> • 10 ambulances • 6 paratransit vans • 2 EMS Squads • special operations unit equipped with an all -terrain vehicle 	
Adequacy of Ambulance Station		Excellent		Station 2&3 Good Condition. Station 1 need s renovation	

* Time that it takes the vehicle to leave the station.

Future Volunteer Manpower

Not unlike any other agency in the County, each of the fire and ambulance companies expressed a concern over declining numbers of volunteers. This is particularly true of “younger volunteers” who will become the next generation of emergency service providers. However, given the projected growth within the Southern Berks Region, future demands will rise and more manpower will be needed. Declining manpower response is most problematic during the day when many volunteers work outside of their first-due response area. Presently, 5 separate fire companies serve the Southern Berks County Region.

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

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

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

1. Determine the need by local fire/ambulance chiefs for more volunteers from any of the preceding sources within their respective companies;
2. Establish policies within the Southern Berks Region’s fire and ambulance companies that allow for non-residents to become members of their respective companies;
3. Identify those local and non-resident volunteers who work for companies within the Region who could potentially respond to daytime emergency calls;
4. Determine the level of competence of potential volunteers and/or training needed to “run” with local companies;
5. Establish ongoing working agreements with local businesses for the release of volunteer firefighters/EMTs during daytime emergencies;
6. Require the potential “daytime” employee volunteer firefighter 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;
7. Establish an ongoing mechanism that periodically reinitializes the recruitment process.

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Pennsylvania DCED's Shared Municipal Services Program offers 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 Southern Berks Region could benefit from the same type of position to carry out these same duties, as discussed in this section of the Plan.

There is a huge benefit to volunteerism when it comes to fire protection and emergency medical services. This saves each municipal tens of thousands of dollars or more each year in operating expenses. In addition, it creates a real sense of community when people work together for the common good of the area. This good will is known to spread to other areas of life such as recreation. It also helps when it comes to garnering donations for the Emergency Services as a whole. There seems to never be a surplus when it comes to the financials of fire departments and EMS. Undeniably, local volunteers have made, and continue to make, huge contributions to the safety and financial well-being of the Southern Berks Region. It is vital that their efforts continue!

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

Goal: The Region must cultivate awareness among the newly-arrived residents of the need for their financial and manpower support to sustain volunteer firefighting and ambulance services.

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

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

The new campaign should be more of an "in-your-face" effort that presents specific findings and presents hard, "credible" facts about the cost of delivering these services and the foreseeable equipment needs of the various companies. It should explain the benefits of new equipment and what it can mean to the Southern Berks Region. It should also portray the competent plans of the local companies in their attempts to ensure an adequate level of protection in the near and long-range future. Schedules for equipment replacements and upgrades should be accompanied with target financial goals to which the public can respond. Citizens should gain an understanding that local companies really need this equipment, and that they are not just "after" the newest and shiniest truck on the market.

To demonstrate these facts, the Southern Berks Region should (through the above-described Alliance) apply to the Pennsylvania DCED for the preparation of a technical review, as part of its Shared Municipal Service Program, at no cost to Southern Berks Region. This will require the preparation of a "Single Application for Assistance," The Pennsylvania DCED will examine the adequacy of Southern Berks Region's equipment to provide adequate service. Then, the results of these impartial and objective analyses should be used to program needed equipment purchases, and justify funding requests and pledge drives in the ongoing media and educational campaign. In addition, the results of the analysis can be used as justification for additional application to the Pennsylvania DCED for 50/50 matching grants for other equipment needs, like communications and dry-hydrant programs.

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

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

As a byproduct of this campaign, the municipalities should annually, publicly present the names of those businesses and individuals who contribute to the various companies. This will publicly recognize those who offered support, and potentially impose peer pressure to others who have not contributed to these important efforts. In addition, some volunteer ambulance companies have begun to affix advertising logos on the sides of their vehicles for private sponsors who contribute substantial sums each year.

Even though local volunteer firefighters are described as strong-willed, determined and fiercely independent, most agree that difficult times lie ahead. Therefore, as a long-term strategy, local volunteer fire companies and municipal officials should begin to explore the partial and gradual use of other funding mechanisms (e.g., billing for responses, fire tax, etc.), so that these measures can be phased-in, in support of local volunteer efforts, rather than allowing for complete failure of the volunteer system which would then be replaced by a completely-paid force. It is worth repeating that this Plan does not recommend the creation of regional fire or ambulance companies at this time.

Municipal Government

This section provides a description of local government structure and function in the Region's four 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.

Birdsboro Borough

Office Address: 202 East Main Street, Birdsboro, PA 19508

(TEL: 610 582-6030 FAX: 610 582-6039)

Office Hours: Monday–Friday; 8:00 a.m.–4:30 p.m.

Description of Office and Facilities: Current municipal building was constructed in 1991. The building contains 4,500 sq. ft. with 7+ offices, conference room, and a meeting room, which holds 50+ persons.

Municipal Staff: Staff currently consists of a Borough Manager (full-time), an administrative assistant (full-time), a Public Works Department (4 full-time), Water Department (4 full-time) and a Waste Water Department (3 full-time). The Borough Manager also serves as Environmental/Recycling Officer.

Mayor: The Mayor is an elected 4-year position who has a seat at the Council table and provides 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 first and third Mondays of the month, at 7:00 in the Borough Hall. They review issues involved in operating a municipality, address resident concerns and set future policy standards, which are then followed through by Borough staff.

Planning Commission: Members are appointed by Borough Council for 4-year terms. The 6 members meet in the Borough Hall on the last Tuesday of each month, at 7:00 p.m on an as-needed basis (when a plan is submitted for review). The Planning Commission is an advisory body to borough council.

Zoning Hearing Board: Members are appointed by Borough Council for 3-year terms. The 3 members and 1 alternate 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.

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Municipal Authority: The Birdsboro Municipal Authority oversees the Borough's water and sewer plants. Members are appointed for 5-year terms. The 5 members meet on the second Tuesday at 6:30 pm in the Borough Hall.

Other: Police Officers, Fire Marshall, Zoning Officer/Building Inspector, Auditors, Tax Collector.

Caernarvon Township

Office Address: 3307 Main Street, P. O. Box 294, Morgantown, PA 19543 (TEL: 610 286-1010 FAX: 610 286-1001)

Office Hours: Monday–Friday; 8:30 a.m.–4 p.m.

Description of Office and Facilities: Current municipal building was renovated in 2011. The building has offices for the Secretary, Police Department. The building is ADA compliant.

Municipal Staff: Staff currently consists of a Township Secretary (full-time), who performs all administrative functions, one part-time administrative assistant and a Maintenance Department (3 full-time and two occasional), who perform all maintenance duties in the Township including roads and lawns.

Board of Supervisors: The Board of Supervisors is the elected governing body of the Township. The 5-member Board with 6 year terms meets in the Municipal Building on the second and fourth Tuesdays of the month at 7:00 p.m.

Planning Commission: Members are appointed for 4-year terms. The 5 members meet in the Municipal Building (Main and Chestnut Streets) on the third Thursday of the month at 7:30 p.m.

Zoning Hearing Board: The 5 members are appointed for 5-year terms and meet when needed.

Recreation Board: Members are appointed for 5-year terms. The 6 members meet every fourth Monday of the month at 7:30 p.m.

Other: Police Chief, Fire Marshall, Solicitor, Engineer, Zoning Officer/Building Inspector, Sewage Enforcement Officer, Emergency Management Director, Tax Collector, Treasurer

Robeson Township

Office Address: 8 Boontown, Birdsboro, PA 19508 (TEL: 610 582-4636 FAX: 610 582-0032)

Office Hours: Monday–Friday; 7 a.m.–4 p.m.

Description of Office and Facilities: Current municipal building was purchased in 2010. The one-story building with 10 offices, 1 small conference room, a one large bay garage, and storage room. The building is ADA compliant.

Municipal Staff: Staff currently consists of a Township Manager (full-time), Administrative Assistant (full-time), Fiscal assistant and 5 road crew members (full-time).

Board of Supervisors: Board of Supervisors is the elected governing body for the Township. Members are elected for 6-year terms. The 5-member Board meets at the Township Office on the third Tuesday of every month, and the second Thursday before at 7:00 p.m. 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 7 members meet at the Township Office on the first Monday of the month at 7:00 p.m. Duties include review of submitted subdivision and land development plans, recommendation of changes to Subdivision and Land Development Ordinance.

Zoning Hearing Board: The Board consists of 3 regular members and 3 alternate members, appointed to 3-year terms. The Board meets as needed, to review variance and special exception applications submitted as per the Township's Zoning Ordinance.

Municipal Authority: The Authority consists of 5 members with 5-year terms. The Authority meets at the Township Office on the third Monday of each quarter at 7 p.m. Review issues that come before the Authority include treatment plant operation and sewage capacity for future development.

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Park and Recreation Board: Members are appointed for 5-year terms. The 5-member Board meets quarterly, at 6:00 p.m., to review issues related to recreational activities for children and Township residents (i.e., playground activities, fund-raising for special projects, maintenance of park areas).

Agricultural Zoning Advisory Committee: Members are appointed by Board of Supervisors, with no set term limits. The 5-member Board meets on an as-needed basis to review zoning issues related to agribusiness.

Union Township

Office Address: 1445 East main Street, Douglassville, PA 19518 (TEL: 610 582-3769 FAX: 610 582-4737)

Office Hours: Monday–Friday; 8 a.m.–4:00 p.m.

Description of Office and Facilities: Built in approx. 1938. Purchased in 2008. Current municipal building has 5 offices, a meeting room. Three other offices are available for lease. Public Works Building (located off site) was renovated in 2014 with a 6 bay garage housing Township equipment.

Municipal Staff: Staff currently consists of a Manager / Secretary / Treasurer (full-time, who directs all phases of accounting, day-to-day office operations, utility billing) full administrative assistant and a road crew (4 full-time members (1 part time roadmaster) who are responsible for the day-to-day maintenance/repair of streets, vehicles, park area).

Board of Supervisors: Board of Supervisors is the elected governing body of the Township. Members are elected for 6-year terms. The 3-member Board meets at the Township Office on the third Monday of each month at 7 p.m. Duties include governing the day-to-day operation of the Township.

Planning Commission: Members are appointed for 5-year terms. The 5 members meet at the Township Office on the first Wednesday of every month at either 5:30 or 7 p.m. depending on time of year. Duties include review of submitted subdivision and land development plans.

Zoning Hearing Board: The Board consists of 3 regular members and 2 alternate 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.

Municipal Authority: The Union Township Municipal Authority oversees the day-to day operation of the public water system. The Authority consists of 5 members with 5-year terms, and meets at the Township Office on the second Thursday of every month at 7 p.m.

Park and Recreation Board: Members are appointed for 5-year terms. The 5-member Board meets at the Township Office on the second Monday of every month, at 5 p.m., to review plans for land or fees in lieu of and operation of the recreation area.

Agricultural Security Area Advisory Committee: The 4-member Board, meets on an as-needed basis.

Environmental Advisory Council: Members are appointed - 5 members, 3 years. Second Wednesday of each month

Geigertown Area Joint Authority: This board consists of 2 members. They are elected to 5 year terms and meet on the second Wednesday of each month at 7:00

Other: Solicitor, Engineer, Zoning Officer/Building Inspector/Sewage Enforcement Officer, Road Master, Emergency Management Director, Tax Collector

Boone Area Library

Location: 129 n. Mill Street, Birdsboro, PA (See the *Public Facilities Map* for a graphic illustration of this location.)

Primary Service Areas (assigned by Berks County Public Library system):

Birdsboro Borough
Amity Township
Union Township

Hours of Operation: Monday, 10 a.m. to 8 p.m.
Tuesday and Thursday, 1 p.m. to 8 p.m.
Wednesday, Friday and Saturday, 9 a.m. to 4 p.m.

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Personnel: This agency consists of the Library Director, Asst. Director, 1 Library Assistant, 4 Library Aides and 1 Child / Teen Coordinator.

Facilities Inventory: Books for children (board, non-fiction, paperback). Books for adults (large print, paperback, fiction, romance, mystery, Western, nonfiction). Books on tape. Videos. Magazines. 13 computers for public use, including internet and Microsoft Word. fax services, meeting room,

Major Problems: Limited parking is a current problem.

Funding: State (\$40,791), Local (\$58,713)

Municipal Appropriations (2018)	
Birdsboro Borough	\$15,600
Caernarvon Township	\$0
Robeson Township	\$0
Union Township	\$14,757

Access PA Payments: \$230.00

Village Library

Location: 207 North Walnut Street, Morgantown, PA (See the *Public Facilities Map* for a graphic illustration of this location.)

Primary Service Areas (assigned by Berks County Public Library system):

Caernarvon Township
New Morgan
Robeson Township

Hours of Operation: Monday, 9 a.m. to 7 p.m.
Tuesday and Thursday, 9 a.m. to 5 pm
Wednesday, 9 a.m. to 6 p.m.
Friday 9 a.m. to 1 p.m.
Saturday 9 a.m. to 4 p.m.

Personnel: This agency consists of a Library Director, a Children's Librarian, 4 Library Aides.

Facilities Inventory: Books for children, adults in paperback and hard back, magazines, Several thousand Audio and Visual items: Computers: 8 public internet, 5 split between public catalog, circulation and staff use.

Major Problems: Limited space is a current problem.

Funding: State (\$19,234), Local (\$58,913)

Municipal Appropriations (2018)	
Birdsboro Borough	\$0
Caernarvon Township (Berks Co.)	\$5,000
Robeson Township	\$7,500
Union Township	\$0
New Morgan	\$0
Caernarvon Township (Lancaster Co.)	\$0

Access PA Payments: \$295.00

Parks and Recreation

Goal: Provide public parks and recreation facilities and services on a regional basis to be as efficient as possible and to avoid duplication

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.

There has never been a better time to undertake park and recreation planning on a regional basis. Various State-funded programs can help the Region design and operate a regional recreation agency fine-tuned to meet its specific needs.

Goal: The Region should appoint a Regional Recreation Board (RRB) made up of at least one representative from each municipality and school district (plus alternates) who have an understanding of the Region's recreation needs and resources. This RRB should then prepare and submit applications to the Pennsylvania Department of Conservation of Natural Resources for assistance in developing these park lands in a regional manner.

Facilities Inventory

The first step in a recreation analysis is an inventory of existing recreation facilities serving the Region's residents. The inventory on the following pages is a series of tables, which lists all identified recreation sites and their improvements within the Southern 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 under several major subheadings, including playgrounds, fields and courts, picnic facilities, pools, trails, and support facilities. A final section at the bottom of the table allows for comments concerning a particular site, or the listing of any additional improvements. The Community Facilities and Recreation Map (Figure 6) utilizes the information from the inventory to illustrate the geographic distribution of all recreation sites within the Southern Berks County Region.

Chapter 5 - Community Facilities and Services

Facilities Inventory

BACKGROUND	SITE NAME	French Creek State Park	Hopewell Village	State Game Lands No. 43
	OWNERSHIP AND MAINTENANCE	PA DCNR	Federal Government	State Government
	SITE TYPE	Regional	Regional	Regional
	SITE CONDITION	Excellent	Excellent	Undeveloped
	TOTAL ACREAGE (DEVELOPED)	7,730 ac.	848 ac.	97.3 ac.
PLAYGROUNDS	Swing Sets			
	Sliding Boards			
	Climbing Equipment			
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys			
	Big Toys			
	Hopscotch			
	Four-Square			
FIELDS AND COURTS	Baseball/Softball Fields			
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)			
	Tennis Courts			
	Volleyball Courts			
	Bleachers			
	Track			
	Media Booth			
	PICNIC	Pavilions		
Total Picnic Tables (in pavilion)				
Barbecue Pits and Grills				
Benches				
TRAILS	Walking/Exercise Trails (length)	40 mi.		
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces			
	Rest Rooms			
	Water Fountains			
	Snack Bar			
	Waste Receptacles			
	Bike Rack			
	Signs			
Other/Comments	* 200 camp sites * Hopewell Furnace National Historic Site * fishing, boating, swimming, cross country skiing, disc golf, hunting	* National Historic Site	* hunting/natural area	

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Facilities Inventory

BACKGROUND	SITE NAME	Allegheny Aqueduct	Twin Valley School Campus	Daniel Boone School Campus
	OWNERSHIP AND MAINTENANCE	Berks County	Twin Valley School District	Daniel Boone School District
	SITE TYPE	Regional	Community	Community
	SITE CONDITION		Excellent	Excellent
	TOTAL ACREAGE (DEVELOPED)	42.1 ac.	80 ac.	50 ac.*
PLAYGROUNDS	Playground Area		4	
	Sliding Boards			
	Climbing Equipment			
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys			
	Big Toys			
	Hopscotch			
	Four-Square			
FIELDS AND COURTS	Baseball/Softball Fields		7	3
	Soccer/Hockey Fields		7	2
	Football Fields		4	1
	Basketball Courts (hoops)		7	
	Tennis Courts		1	
	Volleyball Courts			
	Bleachers		✓	✓
	Track		1	✓
	Media Booth		✓	✓
PICNIC	Pavilions			
	Total Picnic Tables (in pavilion)			
	Barbecue Pits and Grills			
	Benches		14	
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces		600 approx.	
	Rest Rooms		2	
	Water Fountains			
	Snack Bar		1	
	Waste Receptacles		10	
	Bike Rack			
	Signs		4	
Other/Comments		* See Indoor Facilities.	* See Indoor Facilities.	

*These figures derived from planimetric measurement of aerial photographs.

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Facilities Inventory

BACKGROUND	SITE NAME	Union Meadows Park East and West	Robeson Township Municipal Field	Rustic Park
	OWNERSHIP AND MAINTENANCE	Union Township	Robeson Township	Birdsboro Borough
	SITE TYPE	Community	Neighborhood	Community
	SITE CONDITION	Excellent and Undeveloped	Undeveloped	Good
	TOTAL ACREAGE (DEVELOPED)	156 ac.	8 ac.	4.8 ac.
PLAYGROUNDS	Swing Sets			16
	Sliding Boards			3
	Climbing Equipment			5
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys			
	Big Toys			3
	Hopscotch			
	Four-Square			
FIELDS AND COURTS	Baseball/Softball Fields	2	✓	
	Soccer/Hockey Fields			
	Multipurpose Field	✓		
	Basketball Courts (hoops)			1
	Tennis Courts			
	Volleyball Courts			2
	Bleachers	✓		
	Track			
	Media Booth			
	Scoreboard	✓		
PICNIC	Pavilions			4
	Total Picnic Tables (in pavilion)			40
	Barbecue Pits and Grills			4 and 2 fireplaces
	Benches			
TRAILS	Walking/Exercise Trails (length)			✓
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces	gravel		
	Rest Rooms	2		4
	Water Fountains			4
	Snack Bar	1		
	Waste Receptacles	✓		8
	Bike Rack			
	Signs			
Other/Comments	* dugouts * storage shed *wetlands basin		*wooden train	

*These figures derived from planimetric measurement of aerial photographs.

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Facilities Inventory

BACKGROUND	SITE NAME	Birdsboro Elementary School	Main / Bird Park	Friendship Park
	OWNERSHIP AND MAINTENANCE	Daniel Boone School District	Birdsboro Borough	Caernarvon Township
	SITE TYPE	Neighborhood	Neighborhood	Neighborhood
	SITE CONDITION	Excellent	Excellent	Good
	TOTAL ACREAGE (DEVELOPED)	4.6 ac.*	2.78 ac.	5.4 ac.
PLAYGROUNDS	Swing Sets		6	
	Sliding Boards			
	Climbing Equipment	10	1	
	Merry Go-Rounds		1	
	Tot Lot			✓
	Sand Boxes			
	Rocking Toys			
	Big Toys		1	
	Hopscotch	5		
	Four-Square			
FIELDS AND COURTS	Baseball/Softball Fields	32		2 lighted
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)	1 lighted		
	Tennis Courts			
	Volleyball Courts			✓
	Bleachers			✓
	Track			
	Media Booth			✓
	Scoreboard			✓
PICNIC	Pavilions		1	1
	Total Picnic Tables (in pavilion)			
	Barbecue Pits and Grills			
	Benches	10	2	
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces		20	paved
	Rest Rooms			✓
	Water Fountains			
	Snack Bar			✓
	Waste Receptacles			
	Bike Rack			
Signs		1		
Other/Comments	* See Indoor Facilities.	* Creekside *fishing		* lighted fairgrounds * dugouts * storage shed

*These figures derived from planimetric measurement of aerial photographs.

Chapter 5 - Community Facilities and Services

Facilities Inventory

BACKGROUND	SITE NAME	Geigertown Fire Company	Gibraltar Playground Association	Birdsboro / Union Fire Company
	OWNERSHIP AND MAINTENANCE	Fire Company	Robeson Township	Fire Company
	SITE TYPE	Neighborhood	Neighborhood	Neighborhood
	SITE CONDITION	Good	Good	Good
	TOTAL ACREAGE (DEVELOPED)	2.9 ac.	3.75	2.4 ac.
PLAYGROUNDS	Swing Sets		✓	
	Sliding Boards		✓	
	Climbing Equipment		✓	
	Merry Go-Rounds			
	Seesaws		✓	
	Dodge Ball			
	Rocking Toys			
	Big Toys		1	
	Kickball		2	
	Four-Square			
FIELDS AND COURTS	Baseball/Softball Fields	1	1	
	Soccer/Hockey Fields		1	
	Football Fields			
	Basketball Courts (hoops)		1 lighted	
	Tennis Courts			
	Volleyball Courts			
	Bleachers	✓	✓	
	Track			
	Media Booth			
	Scoreboard			
PICNIC	Pavilions			1
	Total Picnic Tables (in pavilion)			(20)
	Barbecue Pits and Grills			1
	Benches		✓	
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces		10+	@ Fire Hall
	Rest Rooms		✓	
	Water Fountains			
	Snack Bar			
	Waste Receptacles	2	2	6
	Bike Rack		1	
Signs		1		
Other/Comments	* dugouts * storage shed	* dugouts * storage shed * Kitchen, pavilion, tables		

Chapter 5 - Community Facilities and Services

Facilities Inventory

BACKGROUND	SITE NAME	Lincoln Park	Union Township Municipal Complex Park	Highcroft Baseball Field	Morgan Circle Park
	OWNERSHIP AND MAINTENANCE	Birdsboro Borough	Union Township	Caernarvon Township	Caernarvon Township
	SITE TYPE	Neighborhood	Neighborhood	Neighborhood	Neighborhood
	SITE CONDITION	Poor	Natural	Excellent	Good
	TOTAL ACREAGE (DEVELOPED)	0.4 ac.	1.4 ac.	13.2	2 ac.
PLAYGROUNDS	Swing Sets	7	✓		
	Sliding Boards				
	Climbing Equipment	1			
	Tot Lot		✓		
	Seesaws	1			
	Sand Boxes				
	Rocking Toys	1			
	Big Toys				
	Hopscotch				
	Four-Square				
FIELDS AND COURTS	Baseball/Softball Fields			1	
	Soccer/Hockey Fields				
	Football Fields				
	Basketball Courts (hoops)				
	Tennis Courts				
	Volleyball Courts				
	Bleachers				
	Track				
	Media Booth				
	Scoreboard				
PICNIC	Pavilions				
	Total Picnic Tables (in pavilion)				
	Barbecue Pits and Grills				
	Benches	1			
TRAILS	Walking/Exercise Trails (length)				
	Biking Trails (length)				
	Fitness Trails (no. of stations)				
	Measured Path				
SUPPORT	Parking Spaces				
	Rest Rooms				
	Water Fountains				
	Snack Bar				
	Waste Receptacles				
	Bike Rack				
	Signs				
Other/Comments			* benches	*open space	

Chapter 5 - Community Facilities and Services

Facilities Inventory

BACKGROUND	SITE NAME	American Legion Post 626 Ball Field	Robeson Elementary School	Tennis and Basketball Courts
	OWNERSHIP AND MAINTENANCE	Birdsboro Borough	Twin Valley School District	Caernarvon Township
	SITE TYPE	Neighborhood	Neighborhood	Neighborhood
	SITE CONDITION	Excellent	Excellent	Excellent
	TOTAL ACREAGE (DEVELOPED)	3.2 ac.	10 ac.*	0.3 ac.
PLAYGROUNDS	Swing Sets		13	
	Sliding Boards		5	
	Climbing Equipment		5	
	Merry Go-Rounds			
	Seesaws			
	Dodge Ball		3	
	Rocking Toys			
	Big Toys		1	
	Hopscotch		1	
	Four-Square		2	
FIELDS AND COURTS	Baseball/Softball Fields	1	1	
	Soccer/Hockey Fields		1	
	Football Fields			
	Basketball Courts (hoops)		(3)	2 lighted
	Tennis Courts			2 lighted
	Volleyball Courts			
	Bleachers	✓	✓	
	Track			
	Media Booth	✓		
	Scoreboard	✓		
PICNIC	Pavilions			
	Total Picnic Tables (in pavilion)			
	Barbecue Pits and Grills			
	Benches			1
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces			24
	Rest Rooms			
	Water Fountains			
	Snack Bar	✓		
	Waste Receptacles			4
	Bike Rack			
Signs			1	
Other/Comments	* batting cage * dugouts * storage sheds * open play area	* team benches * See Indoor Facilities.		* occupy same space

*These figures derived from planimetric measurement of aerial photographs.

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Facilities Inventory

BACKGROUND	SITE NAME	Texas Baseball Field	Vest Pocket Park	John Burdy Memorial Park	Zach Saint Memorial Park
	OWNERSHIP AND MAINTENANCE	Birdsboro Borough	Birdsboro Borough	Caernarvon Twp.	Caernarvon Township
	SITE TYPE	Neighborhood	Neighborhood	Neighborhood	Neighborhood
	SITE CONDITION	Excellent	Good	Good	Good
	TOTAL ACREAGE (DEVELOPED)	5.0	1.1	0.8	0.4 ac.
PLAYGROUNDS	Swing Sets	✓	9		
	Sliding Boards	✓	1		
	Climbing Equipment	✓	4		
	Tot Lot			✓	
	Seesaws		5		
	Sand Boxes				
	Rocking Toys		2		
	Big Toys				
	Hopscotch				
	Four-Square				
FIELDS AND COURTS	Baseball/Softball Fields	1 lighted			
	Soccer/Hockey Fields				2
	Football Fields				
	Basketball Courts (hoops)				
	Tennis Courts		2 lighted		
	Volleyball Courts				
	Bleachers	✓			
	Track				
	Media Booth	✓			
	Scoreboard				
PICNIC	Pavilions	4			
	Total Picnic Tables (in pavilion)	80	1		
	Barbecue Pits and Grills	✓			
	Benches	✓	6		1
TRAILS	Walking/Exercise Trails (length)				
	Biking Trails (length)				
	Fitness Trails (no. of stations)				
	Measured Path				
SUPPORT	Parking Spaces	50		Improved	
	Rest Rooms	✓			
	Water Fountains				
	Snack Bar	✓			
	Waste Receptacles				
	Bike Rack				
	Signs				
Other/Comments	* batting cage * dugouts * storage shed	* ½ tennis wall		Storage Shed	

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Indoor Facilities Inventory

SITE NAME	Twin Valley Elementary Center	Robeson Elementary Center	Honey Brook Elementary Center
SITE TYPE	School	School	School
Gymnasium	✓	✓	✓
Full Basketball Court	✓	✓	✓
Swimming Pool			
Diving Pool			
Locker Rooms			
Weight Room			
Wrestling Room			
Multipurpose Room			
Auditorium (no. of seats)			
Music Room	✓	✓	✓
Gymnastics Room (equipment)			
Library	✓	✓	✓
Meeting Room	✓LGI	✓LGI	✓LGI
Indoor Track			
Dark Room			
Planetarium			
Computer Lab			
Industrial Arts			
Large Group Instruction	40 Folding Chairs	40 Folding Chairs	40 Folding Chairs
Other/Comments	Consider LGI as Meeting Room	Consider LGI as Meeting Room	Consider LGI as Meeting Room

Indoor Facilities Inventory

SITE NAME	Daniel Boone Primary Center	Daniel Boone Middle School	Daniel Boone High School
SITE TYPE	School	School	School
Gymnasium		2	2
Full Basketball Court	✓	✓	2
Swimming Pool			
Diving Pool			
Locker Rooms	✓	2	2
Weight Room			✓
Wrestling Room			
Multipurpose Room	✓	✓	
Auditorium (no. of seats)			✓ (1,070)
Music Room	✓	1	2
Gymnastics Room (equipment)			
Library	✓	✓	✓
Meeting Room	✓		
Indoor Track			
Dark Room			2
Planetarium			
Computer Lab	✓	2	2
Industrial Arts		1	4
Large Group Instruction		✓ (110 seats)	✓ (110 seats)
Other/Comments			

Spatial Park Analysis

With a complete inventory of parks, it becomes possible to analyze the level of park service available within the Region. Within this analysis, every publicly-owned park and/or recreation facility (township, borough, and school district) is identified. Then, its size and service area is evaluated in relation to its intended service population. Conversely, this analysis also identifies those areas of the Region that lack close, convenient, and safe access to public parkland. Typically, these evaluations are based upon prescribed standards for park size per 1,000 persons being served and also for predetermined service radii. The National Recreation and Park Association (NRPA) generally assigns such standards for various park types. It is these standards that will be applied to evaluate the allocation and spatial distribution of Region’s park system.

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

Within Berks County, several public organizations and private enterprises are involved with the provision of regional recreation facilities. Within the Region, three regional parks are located within Union Township. The table on the following page lists regional parks within Berks County, their ownership, acreage, and activities offered.

Because the size and cost usually associated with regional parks transcend the responsibilities of local government, this Plan does not recommend any specific actions associated with the acquisition and development of more regional parks. Instead, this Plan will focus upon the remaining park types within the Region beginning with community parks. However, the Berks County Greenway, Park and Recreation Plan (December 2007) designates a number of regional facilities as priorities within the Countywide system of parks. More discussion of these facilities will follow in the linear parks section of this Chapter.

Facility	Acres	Activities
Federal Facilities		
Blue Marsh	6,194.0	boating, bike trail, camping, fishing, hunting, hiking, picnic, swimming, Old Dry Road Farm Complex
Hopewell Furnace National Historic Site	848.0	horseback riding, hiking, nature study, picnic, museum
Federal Total	7,042.0	
State Facilities		
Daniel Boone Homestead	577.0	museum, picnic
Conrad Weiser Park	26.0	museum, ice skating, picnic
Felix Access Area (DEP)	7.5	boating, fishing
French Creek State Park	7,730.0	boating, bike trail, camping, fishing, hunting, horseback riding, hiking, picnic, swimming
Kaercher Creek Dam	185.0	boating, fishing, hiking, ice skating, outdoor concerts, nature study, picnic, tot lot/playground, handicapped recreation facilities available
Kernsville Recreation Area (DEP)	44.0	boating, camping, fishing

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Facility	Acres	Activities
Nolde Forest Environmental Education Center	666.0	hiking, nature study, Environmental Education Center
Schuylkill Canal – Five Locks	12.4	boating, fishing
State Game Lands #43, #52, #80, #106, #110, #182, #274, #280	19,285.0	hunting, hiking
Weiser State Forest	1,100.0	hunting
State Total	29,632.9	
County Facilities		
Antietam Lake Park / Angora Fruit Farm	665.0	Fishing, hiking, biking, horseback trails, environmental education center
Tulpehocken Creek Valley Park	375.0	
Berks Leisure Area		picnic, handicapped recreation facilities available
Gring's Mill Recreation Area		fishing, field sports (baseball, softball, soccer, etc.), ice skating, nature study, outdoor concerts, tennis, volleyball, handicapped recreation facilities available, pavilion, picnic tables, restrooms, grills, meeting space
Gruber Wagon Works and Red Bridge Picnic Area		museum, fishing
Stonecliffe Recreation Area		fishing, picnic
Union Canal and Tow Path		basketball, bike trail, fishing, field sports (baseball, softball, soccer, etc.), ice skating, tennis, tot lot/ playground, volleyball, handicapped recreation facilities available
Heritage Center		bike trail, fishing, hiking
Youth Recreation Facility and Educational Farm		museum, picnic, handicapped recreation facilities available
Allegheny Aqueduct/Schuylkill Canal	115.0	field sports (baseball, softball, soccer, etc.), picnic, educational farm
	35.0	fishing, historic aqueduct
County Total	1190.0	

Community parks usually contain 20± acres and are intended to serve a population within a 2-mile service radius. They should be sized at the rate of 5 to 8 acres for 1,000 persons served. These parks generally involve a fairly high level of improvement with multiple sets of athletic fields and courts. Sometimes swimming pools and indoor recreation centers are situated on these community-wide parks. Larger school sites (usually middle and high schools) have the facilities to qualify as community-based parks, and represent valuable recreation resources that can significantly enhance the level of recreation services offered to a given area. Finally, sometimes smaller specialized facilities (e.g., Birdsboro's Rustic Picnic Area) qualify as community parks due to their use by a larger service area than that of a neighborhood park. The table below lists all publicly-owned community parks.

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Community Parks Within the Southern Berks Region		
Park Name	Municipality	Acreage
Twin Valley School Campus	Caernarvon Township	75 acres
Daniel Boone School Campus	Union Township	50 acres
Robeson Township Municipal Field	Robeson Township	4.8 acres
Union Meadows Park East and West	Union Township	156 acres
Total Community Park Acreage within the Region		285.8 acres

The Community Facilities and Recreation Map (Figure 6) illustrates the locations of all recreation areas within the Region.

Local officials need to know how much additional community parkland is needed to meet future demand. Based upon the NRPA guideline of 5 to 8 acres of community parkland for each 1,000 residents and the population projections provided in Chapter 3 of this Plan, the table below illustrates the community parkland area needed to adequately serve the Region now and in the future:

Existing and Projected Community Parkland Needed Within the Region					
Year	Population	NRPA-Recommended Acres		Existing Acres	Projected Surplus
		5 ac. per 1000 persons	8 ac. per 1000 persons		
2010	17,698	99.4	159.1	285.8	+186.4 to +126.7
2020	20,566	102.3	164.5	285.8	+183.5 to +121.3
2030	21,300	106.5	170.4	285.8	+179.3 to +115.4

From the preceding table, it is apparent that the Region enjoys a wealth of community parklands well in excess of the NRPA-recommended minimum standards. Nonetheless, acreage is only part of the park. The other part is the existing improvements. Even though the Region/School Districts have been successful in acquiring community parkland, they should continue efforts to make improvements to these parks as new revenues are collected.

Neighborhood parks are the third park type advocated by recreation experts. These parks are generally between 1 and 20 acres in size and meant to serve a population of 2,000 to 10,000. The recommended service area for these parks is a one-quarter to one-half mile radius. As implied by the name, these parks are intended to provide close-to-home areas for limited athletic activities, playgrounds, and passive pursuits. The NRPA recommends that one to two acres of publicly-owned land be devoted to neighborhood parks for each 1,000 residents. The following table shows all publicly-owned neighborhood parks by municipality within the Southern Berks Region:

Neighborhood Parks Within the Southern Berks Region	
Park Name	Acreage
Birdsboro Borough	
Birdsboro Elementary School	4.6
Main / Bird Park	0.14
Lincoln Park	0.4
American Legion Post 626 Ball Field	3.2
Texas Baseball Field	5.0
Vest Pocket Park	1.1

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Caernarvon Township	20.3
Caernarvon Friendship Park	5.4
Morgan Circle Park	0.2
Highcroft Baseball Field	13.2
Zack Saint Memorial Park	0.4
John Burdy Memorial Park	0.8
Tennis and Basketball Courts	0.3
Robeson Township	24.6
Geigertown Fire Company	2.9
Gibraltar Playground Association	3.7
Robeson Township Municipal Field	8.0
Robeson Township Elementary School	10.0
Union Township	159.8
Birdsboro / Union Fire Company	2.4
Union Meadows Park East and West	156
Union Township Municipal Complex	1.4
Southern Berks County Region	219.14

This analysis reveals that while many of the existing neighborhoods have adequate convenient access to nearby neighborhood parks, some don't. The overall planning goals for this Plan suggest that areas planned for future growth should have access to a full range of public facilities and services. Therefore, future planned growth areas and existing neighborhoods should each have sufficient access to neighborhood park facilities. Once planned residential growth areas are known, more specific recommendations for needed neighborhood parks can be provided.

Like for community parks, local officials need to know how much additional neighborhood parkland is needed to meet future demand. Based upon the population projections for the Region as a whole, the table below illustrates the neighborhood parkland area needed to adequately serve projected growth:

Existing and Projected Neighborhood Parkland Needed Within the Region					
Year	Population	NRPA-Recommended Acres		Existing Acres	Projected Surplus
		1 acre/1000 persons	2 acres/1000 persons		
2010	19,888	19.9	39.6	219.14	+199.24 to +179.54
2020	20,566	20.5	41	219.14	+198.64 to +178.14
2030	21,300	21.3	42.6	219.14	+197.84 to +176.54

From an acreage standpoint, the Region has an adequate amount of neighborhood parkland now and in the projected future. However, its distribution does not cover all neighborhoods as suggested by NRPA standards. Hence, the Region will need to add neighborhood parklands to these existing and planned neighborhoods beyond one-half mile from an existing park. Once future residential growth areas have been identified, specific recommendations can be offered to ensure adequate service.

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Again, parks comprise more than land; improvements to the parkland are equally important. The facilities located within the Region's neighborhood parks are somewhat similar. Many have the same list of facilities, suggesting unparalleled baseball popularity. Neighborhood parks should feature facilities in high demand; so if baseball continues to dominate local recreation preferences, then everything is fine. However, many municipalities are finding that the traditional "pastimes" of old are giving way to different activities. The Region should periodically gauge recreation preferences among all age groups and ensure that the then-current preferences are accommodated by local park improvements.

Linear parks are very popular throughout the nation as less and less open space remains within developing areas. The Region has an abundance of existing and planned linear parks. The Horseshoe Trail weaves about 16.7 miles in an east-west direction across Robeson and Union townships. French Creek State Park lists some 40 miles of trails that blanket their park. The Thun Trail generally follows an abandoned railroad right-of-way along the Schuylkill River just south of the Region's northern boundary for about 10 miles through Robeson, Birdsboro, and Union. In all, the Region has some 78 miles of existing linear park trails. The NRPA does not apply park size and service area standards to linear parks, recognizing their highly-diverse character and the often "opportunistic" ways that they are acquired.



Horseshoe Trail – The Region is fortunate to have a 16.7-mile segment of the 121-mile Horseshoe Trail cross its center, on its way between Valley Forge to the east and the Appalachian Trail on Stony Mountain in Dauphin County to the west. The trail enters Robeson Township close to Sleepy Hollow Road and generally follows roads in the western half of the Township. Then, at the intersection of Buck Hollow and Zion roads, the trail moves across the county through eastern Robeson and all of Union townships. The trail also interconnects with the extensive trail system located within French Creek State Park.

Goal: Local officials within the Region should seek ways to protect and incorporate this valuable resource within the Region's overall park and open space system and programs. Development plans proposed along this trail should protect the overland alignment of the trail by reflecting the trail use and designing developments that respect its integrity. Density bonuses through zoning and cluster developments can be used to incentivize this process.

Thun Trail – The Schuylkill River Greenway Association owns and operates the 11-mile Thun Trail, which is proposed to run between the City of Reading and the Montgomery County line, where it is to connect with the proposed 25-mile Schuylkill River Trail on its way to Philadelphia. Today, the Thun Trail is open from Lancaster Avenue near Reading through all of the SBC Region. Similar to the Horseshoe Trail, local officials should incorporate this trail into its developing landscape by requiring developers to "work around" the trail and provide for logical connections to it. Again, density bonuses for development plans with these features, plus flexible cluster design standards, can help developers and local government partners in the preservation of these features. In addition, local public facilities projects (e.g., roads, drainage, parks, etc.) should similarly include measures to protect and develop the trail with suitable use and access features.

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. Each township within the Region has adopted mandatory dedication provisions within their respective subdivision and land

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development ordinances. Birdsboro Borough's relative lack of undeveloped land has prevented the Borough from undertaking this approach in the past.

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 following will provide a basis for such recalculations: The NRPA's recommended minimum standards is listed below:

NRPA Local Park Acreage Standards	
Park Type	Minimum Acres Needed per 1,000 Population
Community Park	5 to 8 acres
Neighborhood Park	1 to 2 acres
Total	6 to 10 acres

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. For this reason, this Plan will only calculate needed parklands on the higher of the NRPA standards – namely 10 acres per 1,000 people. To derive a perunit or perlot standard, the 1,000 population figure is divided by the average household size (year 2010) reported for each municipality as follows:

Mandatory Parkland Dedication Calculations (for raw land)			
Municipality	2010 Average Household Size	No. of Dwellings per 1,000 Population	Required Park Acres per Dwelling Unit
Birdsboro Borough	2.72	367	0.026 acres
Caernarvon Township	2.78	359	0.025 acres
Robeson Township	2.72	367	0.027 acres
Union Township	2.57	389	0.025 acres
Southern Berks Region	2.70	371	0.026 acres

Community and Neighborhood parks can require a high level of infrastructure and improvement. Generally, the value of these improvements equals the value of the parkland itself. Therefore, it is recommended that each municipality double the preceding acreage figures to derive needed mandatory dedication standards to effectively meet expected demand for developed parks, as listed below.

Suggested Mandatory Parkland Dedication Standards (for improved parks)	
Municipality	Required Park Acres per Dwelling Unit
Birdsboro Borough	.052 acres
Caernarvon Township	.050 acres
Robeson Township	.054 acres
Union Township	.050 acres
Southern Berks Region	.052 acres

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; and/or,
3. make improvements to existing parks that will serve existing residents and those of the proposed development.

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

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

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

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

To estimate the value of fees-in-lieu of parkland dedication, an average value of \$40,000 per acre will be used to account for the value of improved, residentially-zoned land within the Region. The following lists estimated values for fees-in-lieu of parkland dedication by municipality.

Suggested Mandatory Parkland Dedication/Fees-In-Lieu Standards		
Municipality	Required Park Acres per Dwelling Unit	Fee-In-Lieu of Parkland
Birdsboro Borough	0.052 acres	\$2,080 per unit
Caernarvon Township	0.050 acres	\$2,000 per unit
Robeson Township	0.054 acres	\$2,160 per unit
Union Township	0.050 acres	\$2,000 per unit
<i>Southern Berks Region</i>	<i>0.052 acres</i>	<i>\$2,080 per unit</i>

Utilities

Goal: The Region should update public utility planning into a comprehensive strategy to serve the entire region to the extent possible.

Utilities provisions are essential components to support growth and development. A coordinated and cooperative approach will be essential in order to properly plan utilities within planned growth areas. This section shall focus upon the existing and planned utilities within the Southern Berks Region and evaluate their ability to adequately support future growth and development.

Sewage Facilities

Goal: The Birdsboro Municipal Authority and the Union Township Municipal Authority should evaluate methods to comprehensively manage remaining capacity of both water and wastewater facilities.

- Establish sewer and water service areas, which are consistent with the Future Land Use Plan.
- Continue to monitor and correct inflow and infiltration problems.

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- Evaluate expanding wastewater treatment plants and drinking water treatment plants where required to meet the growing needs of the region.

Domestic sewage and wastewater within the Southern Berks Region are treated and disposed of by various methods, ranging from large municipally owned sewage treatment plants to community systems and individual on-site septic systems. These systems are described below:

Birdsboro Municipal Sewer System

The municipal wastewater treatment system within Birdsboro Borough is owned and operated by the Birdsboro Municipal Authority. The system consists of a wastewater treatment plant, two pumping stations and a series of gravity collection lines ranging between 8 inches to 24 inches, and a force main. The Birdsboro Wastewater Treatment Plant has a permitted capacity of 1.89 million gallons per day and an organic load capacity of 2,815 pounds per day. There is no planned upgrade within the next 5 years. The system serves all of Birdsboro and the northwestern portion of Union Township. Based upon the terms of an inter-municipal agreement between the Birdsboro Municipal Authority and Union Township Authority, Birdsboro Borough has 86 percent or 1,626,000 gallons per day of the reserved capacity and Union Township has 14 percent or 264,000 gallons per day of the reserved capacity. The Birdsboro Municipal Sewer System is operated and maintained by three (3) full time employees. The staff is responsible for daily operation and process testing of the system. The staff is also involved with routine maintenance and is capable of handling emergency situations and repairs. The limits of the service area for the Birdsboro Municipal Sewer System are depicted on Figure 7 of this Plan. The following table provides a summary of the hydraulic and organic loading data over the past five (5) years.

Birdsboro WWTP Hydraulic and Organic Loading Data (2013 – 2017)					
Parameters	2013	2014	2015	2016	2017
Average Daily Flow (gallons per day)	503,000	584,000	526,000	534,000	537,000
3 Month Maximum Flow (gallons per day)	558,000	788,000	657,000	717,000	616,000
Ratio: 3 Month Max Flow to Average Daily Flow	1.11	1.35	1.25	1.34	1.15
Average Organic Load BOD (pounds/day)	2160	3004	1380	901	989
<i>Source: Birdsboro Municipal Authority Chapter 94 Municipal Wasteload Management 2017 Annual Report</i>					

Hydraulic overloading was reported in January and December of 2013, January, February, April, May and June of 2014 and January of 2015 which prompted the Pennsylvania Department of Environmental Protection (PA DEP) to request a Corrective Action Plan from the Birdsboro Municipal Authority. The Corrective Action Plan was submitted to DEP and the Birdsboro Municipal Authority is monitoring inflow and infiltration into the municipal sewer system on a continuous basis.

According to the Municipal Wasteload Management 2017 Annual Report submitted by the Birdsboro Municipal Authority, the Birdsboro Municipal Sewer System is in fair to good condition and functions with no hydraulic overload conditions. There is some infow and infiltration issues. The Cocalico Pumping Station and River Road Pumping Station are currently working satisfactorily and can accommodate the existing flows. The capacity at the Birdsboro Wastewater Treatment Plant allows ample room for expansion. This is needed because of the Birdsboro Power LLC facility which connected to the collection system in December of 2017. There is

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an expected 350,000 gpd with a peak of 450,000 gpd. The Birdsboro Municipal Authority has projected the following hydraulic and organic loading projections for 2018 through 2022:

Birdsboro WWTP Projected Hydraulic and Organic Loading Data (2018 – 2022)					
Parameters	2018	2019	2020	2021	2022
Average Daily Flow (gallons per day)	539,000	912,100	919,200	920,100	921,000
3 Month Maximum Flow (gallons per day)	668,000	1,131,000	1,139,000	1,140,000	1,142,000
Ratio: 3 Month Max Flow to Average Daily Flow	1.24	1.24	1.24	1.24	1.24
Average Organic Load BOD (pounds/day)	1,693	1,864	1,886	1,889	1,891
<i>Source: Birdsboro Municipal Authority Chapter 94 Municipal Wasteload Management 2017 Annual Report</i>					

Based upon the existing and projected average daily flows, the Birdsboro Wastewater Treatment Plant is expected to accommodate an additional 384,000 gallons per day over the next five (5) years. Further, if additional inflow and infiltration problems continue to develop, the remaining available capacity at the Birdsboro Wastewater Treatment Plant will be lost.

These methods could be further addressed as part of a Joint Act 537 Plan between Birdsboro Borough and Union Township.

Caernarvon Municipal Sewer System

The municipal wastewater treatment system within Caernarvon Township is owned and operated by the Caernarvon Township Municipal Sewer Authority. The system consists of a wastewater treatment plant, a pumping station, a series of gravity collection lines ranging between 8 inches to 24 inches, and a force main. There are 1,361 connections. The Caernarvon Wastewater Treatment Plant has a permitted capacity of 700,000 gallons per day and there is room to expand the plant to 950,000 gallons per day. The treatment plant has an organic capacity of 2,043 pounds per day. The system has been in operation since 1978 and presently serves approximately 1,221 customers within the Village of Morgantown and the surrounding developed areas, which are currently not zoned as Effective Agricultural Preservation (EAP) and Rural Conservation (R-1, R-2 and R-3). A small area in the eastern portion of Caernarvon Township (Lancaster County) is serviced by this system and an area within the northeastern portion of Honey Brook Township (Chester County) could be serviced by this system. The existing customers consist of 56 percent residential, 44 percent commercial and industrial. The Caernarvon Municipal Sewer System is operated and maintained by three (3) full time employees and one (1) part time employee. The staff is responsible for daily operation and process testing of the system. The staff is also involved with routine maintenance and is capable of handling emergency situations and repairs. The limits of the service area for the Caernarvon Municipal Sewer System are depicted on Figure 7 of this Plan. The following table provides a summary of the hydraulic and organic loading data over the past five (5) years.



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Caernarvon WWTP Hydraulic and Organic Loading Data (2013 – 2017)					
Parameters	2013	2014	2015	2016	2017
Average Daily Flow (gallons per day)	278,000	295,000	273,000	287,000	288,000
3 Month Maximum Flow (gallons per day)	294,000	367,000	296,000	334,000	297,000
Ratio: 3 Month Max Flow to Average Daily Flow	1.06	1.24	1.08	1.16	1.03
Average Organic Load BOD (pounds/day)	504	460	590	590	807
<i>Source: Caernarvon Twp. Municipal Sewer Auth. Chapter 94 Municipal Wasteload Management 2017 Annual Report</i>					

Based upon the information contained in the chart, the Caernarvon Wastewater Treatment Plant is currently operating within the permitted capacity of 700,000 gallons per day and an organic capacity of 2,043 pounds per day. There are no reported problems associated with hydraulic overloading. In addition, the 3 month maximum flow to average daily flow ratio is very low indicating that there are no significant problems associated with inflow and infiltration. According to the Municipal Wasteload Management 2001 Annual Report, submitted by the Caernarvon Township Municipal Sewer Authority, the Caernarvon Municipal Sewer System is in good condition and functions with no hydraulic overload conditions. The Authority has established a program to monitor problems and flushes the system on an annual basis. In addition, the pumping station located within the Thousand Oaks Development is operating within its designed capacity and is currently working satisfactorily. This pumping station underwent a major renovation in 2017.

The Caernarvon Township Municipal Sewer Authority has projected the following hydraulic and organic loading projections for 2018 through 2022:

Caernarvon WWTP Projected Hydraulic and Organic Loading Data (2018 – 2022)					
Parameters	2018	2019	2020	2021	2022
Average Daily Flow (gallons per day)	367,000	428,000	478,700	508,700	524,900
3 Month Maximum Flow (gallons per day)	410,000	478,000	534,000	568,000	586,000
Ratio: 3 Month Max Flow to Average Daily Flow	1.11	1.11	1.11	1.11	1.12
Average Organic Load BOD (pounds/day)	762	888	993	1055	1089
<i>Source: Caernarvon Twp. Municipal Sewer Auth., Chapter 94, Municipal Wasteload Management 2017 Annual Report</i>					

Based upon the projected average hydraulic and organic loading data, the Caernarvon Wastewater Treatment Plant has ample capacity for the next five (5) years.

Robeson Municipal Sewer System

The municipal wastewater treatment system within Robeson Township is owned and operated by the Robeson Township Municipal Authority. The system consists of a wastewater treatment plant, two pumping stations, a

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series of gravity collection lines ranging between 6 inches to 15 inches, and force mains that are 2 inch diameter and 6 inch diameter. The Robeson Wastewater Treatment Plant has a permitted capacity of 300,000 gallons per day and an organic capacity of 580 pounds per day. The system has been in operation since 1987 and presently services the northern portion of Robeson Township. The operation and maintenance of the facilities is contracted to a consultant who is responsible for daily operation and process testing of the system. The consultant is also involved with routine maintenance and is capable of handling emergency situations and repairs. The limits of the service area for the Robeson Municipal Sewer System are depicted on Figure 7 of this Plan. The following table provides a summary of the hydraulic and organic loading data over the past five (5) years.

Robeson WWTP Hydraulic and Organic Loading Data (2013 – 2017)					
Parameters	2013	2014	2015	2016	2017
Average Daily Flow (gallons per day)	137,000	146,000	104,000	104,000	107,000
3 Month Maximum Flow (gallons per day)	175,000	233,000	149,000	137,000	140,000
Ratio: 3 Month Max Flow to Average Daily Flow	1.28	1.60	1.43	1.32	1.31
Average Organic Load BOD (pounds/day)	157	144	111	122	130
<i>Source: Robeson Township Sewer Authority Chapter 94 Municipal Wasteload Management 2017 Annual Report</i>					

Based upon the information contained above, the Robeson Wastewater Treatment Plant is currently operating well within the permitted capacity of 300,000 gallons per day and an organic capacity of 580 pounds per day. There are no reported problems associated with hydraulic overloading. In addition, the 3 month maximum flow to average daily flow ratio is considered average indicating that there are no significant problems associated with inflow and infiltration. According to the Municipal Wasteload Management 2017 Annual Report, submitted by the Robeson Township Municipal Authority, the Robeson Municipal Sewer System is in good condition and functions with no hydraulic overload conditions. In addition, both pumping stations are operating within its designed capacity and are currently working satisfactorily. The Robeson Township Municipal Authority has projected the following hydraulic and organic loading projections for 2018 through 2022:

Robeson WWTP Projected Hydraulic and Organic Loading Data (2018 – 2022)		
Parameters	2018	2022
Average Daily Flow (gallons per day)	130,530	145,730
3 Month Maximum Flow (gallons per day)	181,060	202,140
Ratio: 3 Month Max Flow to Average Daily Flow	1.60	1.65
Average Organic Load BOD (pounds/day)	145	161
<i>Source: Robeson Township Sewer Authority Chapter 94 Municipal Wasteload Management 2017 Annual Report</i>		

Based upon the projected average hydraulic and organic loading data for both scenarios, the Robeson Wastewater

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Treatment Plant should have sufficient capacity over the next 5 years. As part of the development of an Act 537 Plan, Robeson Township should consider establishing sewer districts, which are consistent with the Future Land Use Plan. The Robeson Township Municipal Authority should continue to monitor and correct inflow and infiltration problems.

Green Hills Municipal Sewer Service Area

The Green Hills Corporate Center is located within the western portion of Robeson Township and the eastern portion of Cumru Township. This office complex includes a three (3) story office building occupied by Penske Truck Leasing and Worley Parsons within Robeson Township. The wastewater from this office building is conveyed into the collection facilities owned and operated by the Cumru Township Municipal Authority before it is conveyed to the City of Reading for final treatment. No future expansion within the Green Hills Corporate Center is contemplated within the near future. However, the Villages at Green Hills Development (800 Townhouses) is located within close proximity to this service area. If future wastewater flows are to be conveyed into the collection lines owned and maintained by the Cumru Township Municipal Authority, Robeson Township in conjunction with Cumru Township should assess capacity related issues as well as the regional needs for establishing sewer districts as part of a joint Act 537 Plan.

Union-Birdsboro Municipal Sewer Service Area

The Union-Birdsboro Municipal Sewer Service Area is located within the northwestern portion of Union Township. This service area primarily consists of the unincorporated areas of Monocacy and Kulptown, the Maple Springs Development, the Hopewell Estates Development, Monocacy Woods Development, the Joni Circle Development, the Walnut Ridge Development and the Arlington Place Development. The existing collection system (in Union Township) is comprised of sanitary sewage collection lines (8 inch diameter), two (2) pumping stations and 4,200 feet of force main, which have been in operation since 1979. The system currently services 700 EDU's in Union Township with an average daily flow of 93,785 gallons per day. Based upon the terms of an inter-municipal agreement between the Birdsboro Municipal Authority and Union, there is 264,000 gallons per day of the reserved capacity at the Birdsboro Wastewater Treatment Plant. The sanitary sewer system within Union Township is owned and maintained by the Union Township Municipal Authority. The Union-Birdsboro Municipal Sewer Service Area is depicted on Figure 7 of this Plan. The following table provides a summary of the hydraulic flows over the past five (5) years

Union-Birdsboro Service Area Hydraulic Flow Data (2013 – 2017)					
Parameters	2013	2014	2015	2016	2017
Metered Average Daily Flow at Pump Station 2 (gal/day)	61,905	70,337	54,205	59,529	59,828
3 Month Maximum Flow at at Pump Station 2 (gal/day)	71,043	104,717	70,044	89,538	74,115
Ratio: 3 Month Max Flow to Average Daily Flow	1.15	1.49	1.29	1.50	1.24
Total Average Flow: Metered plus Non-Metered (gal/day)	97,937	106,524	89,923	95,851	93,785
<i>NOTE: Total Average Flow includes the Daniel Boone Area School District, Maple Springs Pool and the EDU's that are not presently metered, as identified by the Union Township Municipal Authority.</i>					
<i>Source: Union Township Municipal Authority Chapter 94 Municipal Wasteload Management 2017 Annual Report</i>					

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Based upon the information presented on the proceeding page concerning hydraulic flows, Union Township is well within the reserved capacity of 264,000 gallons per day. The collection and conveyance system has experienced problems associated with inflow and infiltration. However, steps have been taken to alleviate these issues. The Union Township Municipal Authority has undertaken an aggressive approach to identify the existing problems by installing flow meters, conducting home inspections, televising collection lines and repairing existing facilities. According to the Municipal Wasteload Management 2017 Annual Report, submitted by the Union Township Municipal Authority, the sanitary sewer collection and conveyance system is in good serviceable condition and functions in a satisfactory manner. Both pump stations are considered to be in good condition and are capable of operating within their designed capacity while meeting the projected demands for growth and development.

The Union Township Municipal Authority has projected the following hydraulic and organic loading projections for 2002 through 2006:

Union-Birdsboro Service Area Projected Hydraulic Flow Data (2018 – 2022)					
Parameters	2018	2019	2020	2021	2022
Average Daily Flow (gallons per day)	98,202	118,007	125,463	126,162	126,861
3 Month Maximum Flow (gallons per day)	130,609	156,949	166,866	167,795	164,735
Ratio: 3 Month Max Flow to Average Daily Flow	1.33	1.33	1.33	1.33	1.33
<i>NOTE: The Union Municipal Authority developed hydraulic projections utilizing different criteria for EDU values. The projections identified above are based upon the more conservative criteria of 233 gallons per day per EDU.</i>					
<i>Source: Union Township Municipal Authority Chapter 94 Municipal Wasteload Management 2017 Annual Report</i>					

Based upon the hydraulic projections presented in the chart, the Union-Birdsboro Service Area will be within its reserved capacity limits of 264,000 gallons per day. If additional inflow and infiltration problems continue to develop, the remaining available capacity at the Birdsboro Wastewater Treatment Plant could be lost. The Birdsboro Municipal Authority and the Union Township Municipal Authority should evaluate methods to comprehensively manage the remaining capacity by the following methods:

1. Establish sewer districts, which are consistent with the Future Land Use Plan;
2. Determine actual wastewater flows by installing meters at strategic locations;
3. Continuing to monitor and correct inflow and infiltration problems; and
4. Evaluate expanding or re-rating the Birdsboro Wastewater Treatment System.

These methods could be further addressed as part of a Joint Act 537 Plan between Birdsboro Borough and Union Township.

Union-Amity Municipal Sewer Service Area

Union Township adopted a new 537 Plan in 2008. The Union-Amity Municipal Sewer Service Area is located within the northeastern portion of Union Township. This service area consists of the unincorporated areas of Unionville and Gramacy Gardens. This collection system (in Union Township) is comprised of sanitary sewage collection lines (8 inch diameter), a pumping station and 1,700 feet of force main (6 inch diameter), which have

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been in operation since 1979. This system currently services approximately 248 EDU's with an average flow of 33,119 gallons per day. In 1989, Union Township reserved 200 EDU's with Amity Township to accommodate future growth and development within the immediate service area. According to the Municipal Wasteload Management 2017 Annual Report, the total reserved capacity (existing plus future flows) for Union Township at the Amity Township Wastewater Treatment Plant is 158,010 gallons per day. The sanitary sewer system within Union Township is owned and maintained by the Union Township Municipal Authority.

The following table provides a summary of the hydraulic flows over the past five (5) years:

Union-Amity Service Area Hydraulic Flow Data (2013 – 2017)					
Parameters	2013	2014	2015	2016	2017
Metered Average Daily Flow at Pump Station 3 (gal/day)	47,620	39,450	35,661	33,600	33,119
3 Month Maximum Flow at at Pump Station 3 (gal/day)	73,048	58,636	43,334	47,182	37,283
Ratio: 3 Month Max Flow to Average Daily Flow	1.53	1.49	1.22	1.40	1.13
<i>Source: Union Township Municipal Authority, Chapter 94, Municipal Wasteload Management 2017 Annual Report</i>					

Based upon the information presented on the proceeding page concerning hydraulic flows, Union Township is well within the reserved capacity of 158,010 gallons per day. The Union Township Municipal Authority has reported and corrected inflow and infiltration problems within certain segments of this collection and conveyance system. According to the Municipal Wasteload Management 2017 Annual Report, the sanitary sewer collection and conveyance system is in good serviceable condition and functions in a satisfactory manner. The pump station is considered to be in good condition and is capable of operating within its designed capacity while meeting the projected demands for growth and development. The Union Township Municipal Authority has projected the following hydraulic flow projections for 2017 through 2022:

Union-Amity Service Area Projected Hydraulic Flow Data (2018 – 2022)					
Parameters	2018	2019	2020	2021	2022
Average Daily Flow (gallons per day)	42,928	47,996	54,149	59,187	64,225
3 Month Maximum Flow (gallons per day)	57,953	64,754	73,101	79,902	86,704
Ratio: 3 Month Max Flow to Average Daily Flow	1.35	1.35	1.35	1.35	1.35
<i>Source: Union Township Municipal Authority, Chapter 94, Municipal Wasteload Management 2017 Annual Report</i>					

Based upon the hydraulic projections presented in the chart, the Union-Birdsboro Service Area will be within its reserved capacity limits of 158,010 gallons per day with Amity Township.

Geigertown Area Joint Sewer Authority

In March of 2018 work began to construct a six mile system which will connect approximately 115 properties in the Geigertown area to the Birdsboro Sewer Treatment Plant. The joint authority and subsequent project were

undertaken by Union and Robeson Townships in order to address failing septic systems in the Geigertown area. Properties within 150 feet of the sewer line will be required to connect to the system.

Private Sewage Treatment Systems

There are four (4) private sewage treatment systems within the Southern Berks Region. These private systems are described below:

French Creek State Park: This system provides wastewater treatment and service to the French Creek State Park. The treatment facility is an extended aeration system with a spray irrigation discharge point along Mount Pleasure (Berks County and Chester County). This package treatment plant has the capacity to process and treat 1.164 million gallons per day. However, this treatment system does not utilize most of its available capacity.

High Point Baptist Academy: This system provides wastewater treatment and service to the High Point Baptist Academy and Chapel. The treatment facility is an extended aeration system with a stream discharge to a point along the Hay Creek. The average daily volumes of wastewater ranges between 1,200 gallons per day to 21,000 gallons per day with an average of 8,000 gallons per day. The system accommodates 400 students plus 50 staff members during the school year. This package treatment plant has the capacity to process and treat 27,000 gallons per day.

Twin Valley Area School District: This system provides wastewater treatment and service to the Twin Valley High School, Middle School, Elementary School and Administrative Offices. The treatment facility is an extended aeration system with a stream discharge to a point along the Conestoga River. The average daily volume of wastewater treated at the plant is approximately 6,000 gallons per day during the school year providing service to approximately 2,280 students and staff members. This package treatment plant has the capacity to process and treat 27,000 gallons per day.

On-Site Sewage Treatment Systems

The areas of the Southern Berks Region that are not serviced by municipal or private wastewater treatment facilities currently utilize on-site sewage disposal technology, through individual sewage systems, as the method of sewage treatment and disposal.

Each municipality within the Southern Berks Region administers all on-site sewage disposal regulations through the Pennsylvania Department of Environmental Protection through an appointed Sewage Enforcement Officer (SEO). All policies concerning review procedures are specified within municipal ordinances adopted by each municipality. The SEO's conform to all regulations specified by Pennsylvania Department of Environmental Protections guidelines, which are specified under Chapters 71, 72 and 73 under the Pennsylvania Sewage Facilities Act. In order to comprehensively manage the review, testing, permitting and operation of on-site sewage disposal systems within the Southern Berks Region, the following policies and programs are recommended:

1. Establish a field testing policy outlining specific parameters for notification, test procedures and permitting. The field testing policy could be adopted by resolution and attached to each sewage facilities permit application.
2. Each residential and non-residential lot should be provided with an approved primary on-site sewage disposal system and an approved alternate on-site sewage disposal system. The approved primary and alternate sites should be accurately depicted on all subdivision and/or land development plans. The primary and alternate sites should be protected by a perpetual land preservation easement to protect the sites from any encroachments, disturbances and/or land development activity. The preservation easement should be properly described and recorded with the approved plan.

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3. Develop requirements for a detailed physical site analysis for all proposed subdivision or land development plans. This analysis may include an assessment of the topography, soils, geology, hydrology and groundwater of the developed area. This basis for the physical site analysis is to identify limitations and develop requirements for locating on-site sewage disposal systems.
4. Undertake an education program to improve public awareness of the causes of on-site sewage malfunctions and how the probability of a malfunction can be reduced. Information from the DEP could be distributed to residents as part of the occupancy permit for new residential construction or as part of the transfer of title for existing residential units.
5. Establish a mandatory pumping schedule requiring all residential and non-residential property owners with on-site sewage disposal systems to have their septic tanks pumped by a licensed hauler at least every three (3) years.
6. Each municipality has the legal authority to inspect on-site sewage disposal systems and order the repair of malfunctioning systems. Based upon the age of the residential homes within the Southern Berks Region, it is conceivable that there are a number of systems that were designed and installed prior to mandatory testing and permitting of on-site disposal systems. These older systems should be systematically inspected to determine if they are operating sufficiently.
7. Establish sewage management districts for the purposes of conducting periodic inspections for on-site sewage disposal systems by the SEO.
8. Develop regulations and specifications for the installation of a “capped sanitary sewer system” within developments located within planned sewer districts.
9. Conduct a periodic hydrogeological analysis of the groundwater for all areas that are dependant upon on-site sewage disposal and on-lot water supply in an effort to monitor groundwater in terms of supply, nitrates and bacteriological contaminants.
10. Adopt an Official Sewage Facilities Plan, which endorses the development of an effective “OnLot Sewage Management Program” for the purposes of monitoring the utilization of existing on-lot sewage disposal systems.

Sewage Facilities Planning

The Pennsylvania Sewage Facilities Act (Pennsylvania Act 537, as amended), enacted by the Pennsylvania State Legislature in January of 1966 requires that every municipality within the Commonwealth of Pennsylvania develop and maintain an up-to-date Sewage Facilities Plan. The purpose of the Sewage Facilities Act is outlined as follows:

- To protect the public health, safety and welfare of its citizens through the development and implementation of plans for the sanitary disposal of sewage waste.
- To promote inter-municipal cooperation in the planning, implementation and administration of such plans by local government.
- To prevent and eliminate pollution of waters of the Commonwealth by coordinating planning for the sanitary disposal of sewage wastes with a comprehensive program of water quality management.
- To provide for the issuance of permits for on-lot sewage disposal systems by local government in accordance with uniform standards and to encourage inter-municipal cooperation to this end.

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- To provide for and insure a high degree of technical competency in local government in the administration of this act.
- To encourage the use of the best available technology for on-site sewage disposal systems.
- To insure the rights of citizens on matters of sewage disposal as they may relate to this Act and the Constitution of this Commonwealth.

Pennsylvania Act 537 requires that the municipality review its Official Sewage Plan every five (5) years to determine effectiveness and/or determine the need for revisions. An update can be flexible to include the evaluation of on-site sewage disposal technology and/or the complexity of planning for the design and construction of a public sewage treatment system. An Official Sewage Plan must evaluate the existing and proposed wastewater treatment facilities to compensate the needs of the planning area.

Goal: The Southern Berks Region should rely on the requirements set forth in the Pennsylvania Sewage Facilities and act to steer sewage facilities maintenance and development throughout the region.

1. Birdsboro Borough in conjunction with Union Township should evaluate methods to comprehensively manage the remaining capacity at the Birdsboro Wastewater Treatment Plant. As part of this effort, municipal sewer districts should be established to be consistent with the growth areas defined by this Plan; both municipalities should continue to monitor and correct inflow and infiltration problems; and alternatives for the expansion or re-rating of the Birdsboro Wastewater Treatment Plant should be investigated. A joint Act 537 Plan between Birdsboro Borough and Union Township should be undertaken.
2. Caernarvon Township should continue to pursue alternatives to resolve its projected hydraulic and organic loading capacities. Recent efforts included an investigation of treatment alternatives to increase the capacity at the Caernarvon Wastewater Treatment Plant. Caernarvon Township has received approval by the PA DEP in order to address these needs. As a result, the Caernarvon Wastewater Treatment Plant will be expanded and upgraded in the near future.
3. Caernarvon, Robeson and Union Townships should establish municipal sewer districts, which are consistent with the defined growth areas contained within this Plan. Each municipality should prepare an Act 537 Plan to address how the remaining capacities will be managed over the next 5 to 10 years.
4. Caernarvon, Robeson and Union Townships should develop effective policies and programs to manage the review, testing, permitting and operation of on-site sewage disposal systems within the Southern Berks Region. These policies and programs should be outlined in further detail as part of an Act 537 Plan for each municipality.

Water Facilities

Goal: The Southern Berks Region should evaluate the needs for water service on a region wide basis and direct infrastructure development into those areas to best serve the population base where it is needed most. Also, there should be education on protection of on lot water service.

Water service within the Southern Berks Region is supplied by various methods, ranging from municipally owned systems to individual on-site wells. These systems are described below:

Birdsboro Water Supply System

The Birdsboro Water Supply System is owned, operated and maintained by the Birdsboro Municipal Authority.

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The system currently serves an estimated population of 6,000 residents with nearly 2,000 connections servicing residential, commercial, industrial and institutional uses. The service area includes all of Birdsboro, the northwestern portion of Union Township, a single multi-family connection within Robeson Township and an industrial and residential connection within Exeter Township. The average daily water consumption is approximately 520,000 gallons per day with peak volumes near 700,000 gallons per day. The water supply service areas are depicted on the Public Utilities map associated with this chapter.



Hay Creek in Birdsboro

The water supply sources include the Indian Run Reservoir, Stinson Run Reservoir, Dyers Quarry and Hay Creek. The surface water is fed to a 1.4 million gallon storage tank where it is chemically treated prior to distribution to the customers within the general service area. The existing water supply lines consist of a series of gravity, low pressure and high pressure lines ranging between 2 inches and 8 inches in diameter. In addition, the system consists of two (2) booster pumps, a series of release valves and fire hydrants. The water supply system within Birdsboro is considered to be in good condition.

The water supply system within Union Township provides water supply to the approximately 180 customers including the Maple Springs Development, Maple Springs Pool, Daniel Boone Area School District and the residential uses along State Route 724. This system is owned and maintained by the Birdsboro Municipal Authority. However, there is no inter-municipal agreement or franchise area established for municipal water supply in this region of Union Township. Based upon topographic constraints, an additional booster pump may be required to supply water to additional areas of Union Township.

In order to provide a dependable system of water supply to the existing and prospective customers of the Birdsboro Water Supply System, the following recommendations are provided:

1. The available supply of surface water within the Indian Run Reservoir, Stinson Run Reservoir and Dyers Quarry appears to be sufficient to accommodate future growth and development. However, from a qualitative and quantitative perspective, surface water is not as dependable as a reliable production well source. The Birdsboro Municipal Authority should investigate the feasibility of drilling production wells to continue an adequate supply of water to its customers.
2. A surface water protection plan should be developed between Birdsboro, Robeson and Union. As part of this effort, zoning districts and regulations should be developed that would endorse conservation management and environmental protection practices within 2,500 feet of the Indian Run Reservoir, Stinson Run Reservoir and Dyers Quarry.
3. The Birdsboro Municipal Authority in conjunction with Robeson and Union Townships should establish municipal water supply service areas, which coincide with the planned growth areas identified on the Future Land Use Map. In addition, an inter-municipal agreement should be developed outlining specific terms for ownership and maintenance of the facilities.
4. The Birdsboro Municipal Authority should continue to maintain the functional components and infrastructure of the Birdsboro Water Supply System. The maintenance staff should continue to monitor the system for leaks and conduct a systematic flushing of the system.

Caernarvon Water Supply System

The Caernarvon Water Supply System is owned, operated and maintained by the Caernarvon Township Water Authority. The system has 1,270 connections servicing residential, commercial, industrial and institutional uses. The service area primarily includes the Village of Morgantown and the southeastern portion of Caernarvon Township. In addition, a small portion of Caernarvon Township (Lancaster County) and a small portion of Honey Brook Township (Chester County) are serviced by the Caernarvon Water Supply System. In 2018, the average daily water consumption was 350,000 gallons per day with peak volumes at 380,000 gallons per day.

The authority is permitted for 675,000 gpd. Sources include three (3) production wells #6, #7, #8. Well # 7 produces 525 gpm, Well #8 produces 500 gpm and well #6 produces 135 gpm. Well #7 produces 200,000 gpd. Well #8 produces 150,000 gpd and well #6 produces 6000 gpd. There are three (3) storage tanks including a 160,000 gallon underground storage tank near Well #8; a 300,000 gallon above ground storage tank; and a 100,000 gallon above ground storage tank. The water is chemically treated prior to distribution to the customers within the general service area.

The existing water supply lines consist of pressurized lines ranging between 2 inches and 12 inches in diameter. The most common line diameter being 8 inches. The system also contains a series of release valves and fire hydrants. The water supply system within Caernarvon Township is considered to be in good condition. In 2005, the Willow Glen Water Company. was acquired by the Caernarvon Township Water Authority. This was essentially an extension of the water supply system. This area includes the existing residential units and industrial use currently being serviced.

The water supply lines extend into the northeastern portion of Honey Brook Township (Chester County) and services the Morgantown Industrial Park. An inter-governmental agreement for water supply service has been executed with each municipality. There are no immediate plans for future water supply extensions or service within Caernarvon Township (Lancaster County) or Honey Brook Township (Chester County).

An emergency interconnect with New Morgan Borough is currently under construction. This project is nearing completion with an estimated finish date of Spring 2019.

In order to provide a dependable system of water supply to the existing and prospective customers of the Caernarvon Water Supply System, the following recommendations are provided:

1. Based upon the carbonate geological characteristics (limestone and dolomite) of the Conestoga River Valley, the underlying rock formations are highly fractured allowing for rapid infiltration of surface waters into the groundwater system. Based upon recent testing conducted by the Caernarvon Township Water Authority, it has been determined that the production wells are not vulnerable to surface water influence. The Caernarvon Township Water Authority should continue to monitor the production wells and initiate a Wellhead Protection Program to protect and preserve the quality of its water supply.
2. As part of the Wellhead Protection Program, Caernarvon Township should develop a Wellhead Protection Plan to accomplish the following objectives:
 - Delineate hydrogeological protection zones considering infiltration, recharge, direct migration and inter-aquifer exchange.
 - Delineate wellhead protection zone limits considering pumping rates, bulk water consumption, hydrogeological modeling and surface water influences.
 - Identify existing and potential sources of groundwater contamination.

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- Evaluate the purchase of land areas (fee simple, condemnation or protective easements) within wellhead protection zones.
 - Develop conservation management guidelines and land use requirements for areas located within the wellhead protection zones. As part of this effort, adopt zoning amendments and recognize wellhead protection limits as an overlay zoning district.
 - Establish a contingency plan for the provisions of alternative water supplies in the event of groundwater contamination and emergency responses to incidents that may have an impact on the water supply.
 - Identify potential new water supply sources.
3. Caernarvon Township should establish municipal water supply service areas, which coincide with the planned growth areas identified on the Future Land Use Map.
 4. Caernarvon Township (Berks County) in conjunction with Caernarvon Township (Lancaster County) and Honey Brook Township (Chester County) should establish municipal water supply service areas, which coincide with their planned growth areas.
 5. The Caernarvon Township Water Authority should consider drilling additional production wells and constructing storage facilities to accommodate the projected water supply demand of future developments within the planned growth areas.

New Morgan – Thousand Oaks Corporate Center

The Thousand Oaks Corporate Center is located within the northern portion of Caernarvon Township and to the east of New Morgan Borough. This complex contains a total of twelve (12) lots of which five (7) lots are occupied by existing non-residential uses. The water supply system serving the Thousand Oaks Corporate Center is owned, operated and maintained by Morgantown Properties. In 2018, the water supply system supplied 21,070 gallons of water per day to five (5) non-residential uses within the Thousand Oaks Corporate Center. Morgantown Properties operates under a non-transient permit with a surface water intake at the Mill Pond, where the surface water is pumped and treated prior to distribution to its non-residential customers.

In addition to the infill development within the undeveloped lots within the Thousand Oaks Corporate Center, there is some expansion of the water supply service area contemplated within the next 5 to 10 years. There is currently an emergency interconnect to the Caernarvon Township Water Authority System being constructed. This is set to be completed in the Spring of 2019 and will serve as a backup water supply in the event of a problem with the Caernarvon Water Authority system. In order to provide a dependable system of water supply to the existing and prospective customers within the Thousand Oaks Corporate Center, the following recommendations are provided:

1. Morgantown Properties in conjunction with Caernarvon Township should establish municipal water supply service areas, which coincide with the planned growth areas identified on the Future Land Use Map.
2. The available supply of water within the Mill Pond appears to be sufficient to accommodate future growth and development. However, from a qualitative and quantitative perspective, surface water is not as dependable as a reliable production well source. Morgantown Properties should investigate the feasibility of drilling a production well to continue an adequate supply of water to its existing and prospective customers within the planned growth areas.

3. Morgantown Properties should continue to maintain the functional components of the Thousand Oaks Corporate Center by monitoring the system for leaks and by conducting a systematic flushing of the system.

Aqua American Incorporated – Geigertown Water Supply System

The Geigertown Water Supply System is owned, operated and maintained by Aqua America Incorporated. The system includes 80 connections servicing residential, commercial and institutional uses. The service area includes the Village of Geigertown, which is partially located within Robeson and Union Townships. In 2018, the average daily water consumption was approximately 11,500 gallons per day with peak volumes near 15,000 gallons per day. The capacity of the production well is 100,800 gallons per day. The groundwater is pumped to a treatment building where it is chemically treated prior to distribution to the customers within the general service area. The existing water supply lines consist of a series of gravity and low pressure lines ranging between 4 inch, 6 inch and 8 inches in diameter. The water supply system is considered to be in fair condition. The service area is depicted on Figure 7.

In order to provide a dependable system of water supply to the existing and prospective customers within the Village of Geigertown, the following recommendations are provided:

1. Aqua America in conjunction with Robeson and Union Townships should evaluate the need to initiate a Wellhead Protection Program to protect and preserve the quality of its water supply.
2. Aqua America in conjunction with Robeson and Union Townships should establish municipal water supply service areas, which coincide with the planned growth areas identified on the Future Land Use Map.
3. Aqua America should consider drilling an addition production well and/or constructing storage facilities to accommodate the projected water supply demand of future developments within the planned growth areas.
4. Aqua America should continue to maintain the functional components of the Geigertown Water Supply System. They should continue to monitor the system for leaks and conduct a systematic flushing of the system.

Aqua America Incorporated – Green Hills Water Supply System

The Green Hills Corporate Center is located within the western portion of Robeson Township and the eastern portion of Cumru Township. This office complex includes a three (3) story office building occupied by Penske Truck Leasing and Worley Parsons within Robeson Township. The water supply system serving the Green Hills Corporate Center is owned, operated and maintained by Aqua America Incorporated. This system includes two (2) production wells, which have the capabilities to provide 30,000 gallons per day. In 2018 Aqua America supplied an average of 6,558 gallons per day to the existing office building located within Robeson Township. The existing Aqua America service area within Robeson Township is depicted on Figure 14 of this Plan.

No future expansion within the Green Hills Corporate Center is contemplated in the near future. There have been discussions regarding possibly abandoning use of these wells in the next few years. If this occurs, this system will be tied to the Villages at Green Hills water supply system. In order to provide a dependable system of water supply to the existing and prospective customers within the Village of Green Hills, the following recommendations are provided:

1. Aqua America in conjunction with Robeson and Cumru Townships should evaluate the need to initiate a Wellhead Protection Program to protect and preserve the quality of its water supply if it is determined that these wells are to be retained.

Chapter 5 - Community Facilities and Services

2. Aqua America in conjunction with Robeson Township should establish municipal water supply service areas which coincide with the planned growth areas identified on the Future Land Use Map.
3. Aqua America should consider drilling an additional production well and/or constructing storage facilities to accommodate the projected water supply demand of future developments within the planned growth areas.
4. Aqua America should continue to maintain the functional components of the Green Hills Water Supply System if it is determined that the system will be kept on line. They should also continue to monitor the system for leaks and conduct a systematic flushing of the system.

Union Township Buckingham Preserve Development

The Union Township Municipal Authority operates a small water system that is present for one development within the Township. Two wells service the entire Buckingham Preserve Development. The system consists of two wells. They are well numbers 1 and 3. These wells have a combined allocation of 1.34 million gallons per month. Daily consumption ranges from .041 (mgd) to .062 (mgd). There is a permit present for groundwater withdrawal within the Delaware River Basin.

Well Head Protection

Wellhead protection (WHP) is defined in section 1428 of the federal Safe Drinking Water Act (SDWA) as a comprehensive program to protect wellhead protection areas from man-induced contaminants which have an adverse effect on the health of persons. A wellhead protection area (WHPA) is *"...the surface and sub-surface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield."* The act requires the State Wellhead Protection Program (WHPP) to include seven elements: identify roles and responsibilities, delineate wellhead protection areas, identify sources of contamination, develop management approaches, develop contingency plans, plan for new wells, and ensure public participation in the plan. In addition, the SDWA recognizes an approved State WHPP as fulfilling the requirements for ground-water sources under the Source Water Assessment Program.

The SDWA requires States to submit a Wellhead Protection Program to EPA for review and approval. To date, EPA has approved 47 State programs as well as programs for two U.S. territories. The Commonwealth of Pennsylvania has been actively developing a State program based on technical assistance, education and incentives for development of voluntary local WHP programs. As the forerunner of source water protection, WHP efforts have evolved proven techniques to realize the public health and economic benefits of the prevention of pollution over contamination, treatment and remediation. Consequently, a State WHPP will serve as the cornerstone of the Source Water Assessment Program for public drinking water sources which is also required under the SDWA.

The State WHPP builds upon the basic requirements for water purveyors to obtain the best available source and to take the appropriate actions to protect that source thereby ensuring a continual and safe water supply. The underlying concept of the WHPP is not new as most environmental protection programs recognize the importance of safeguarding existing and future sources of drinking water. The WHPP will also support and complement current initiatives such as pollution prevention, waste minimization, compliance assistance and public participation. As of this writing, over 150 public water systems (PWSs) and many more municipalities are developing or implementing local WHP programs in Pennsylvania. The growing success of wellhead protection in Pennsylvania is because of the recognition of the common sense and importance of pollution prevention in protecting public health and safety, and reducing the cost of compliance with the SDWA.

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The Pennsylvania Department of Environmental Protection (DEP) has primacy for the SDWA in the State and is the primacy agency for the State WHPP. Responsibility for administering the primacy program and for developing the WHPP in Pennsylvania rests with the Division of Drinking Water Management (DWM) in the Bureau of Water Supply Management (BWSM). An implemented local WHP program will serve to protect the useful life of a water supply well or spring thereby giving full return on the investment, preventing the need for capital to construct a new source or provide treatment, preventing additional operating and maintenance costs for added treatment, and preventing costly ground-water remediation. A State WHP program allows Pennsylvania to extend to approved local WHP programs an opportunity to reduce certain monitoring requirements and to take advantage of potential future alternatives to treatment for compliance with some maximum contaminant levels (MCLs). Implementation of an approved local WHP program (as described in Appendix A, Minimum Elements for Local WHP Programs) may enable a water supplier to be eligible for a waiver of synthetic organic chemical monitoring requirements if DEP determines the chosen WHP area management measures are adequate to protect the water supply source. An approved State WHPP will also allow the Commonwealth to assist communities and define minimum elements for local WHP throughout Pennsylvania.

Much of the authority and responsibility to protect public health and safety through protection of the water supply source is already in place in Pennsylvania. Not all, but many of the WHP management approaches for a comprehensive local WHP program would require local government action, cooperation or support. In Pennsylvania, there are nearly 2600 municipalities and only about half of these municipalities have passed zoning ordinances for their jurisdictions.

However, the Municipal Planning Code and a local government's powers to protect public health and safety provides authority for local governments to plan and to act to protect water supplies and the environment. Therefore, local governments are in the best position to implement these protection measures. Currently this plan is not recommending the implementation of a local well head protection program but mentions it as a useful tool in ensuring safe drinking supply of water sourced from a public well for public consumption.

Individual On-Site Wells

The areas of the Southern Berks Region that are not serviced by municipal or private water supply systems, currently utilize on-site wells for water supply. Based upon the geological and hydrological conditions within the Southern Berks Region, the continued use of on-site wells may not be the most advantageous method to support future growth and development. The capabilities and limitations for groundwater to supply an adequate supply of well water considering quantity and quality standards must be comprehensively understood since groundwater recharge rates and well yields cannot be consistently applied due to numerous variables. In order to comprehensively manage the review, testing, permitting and operation of on-site wells within the Southern Berks Region, the following policies and programs are recommended:

1. Consider the adoption of a Well Drillers Ordinance, which regulates the procedures, locations and construction of wells within the Southern Berks Region. The Well Drillers Ordinance may contain application procedures, design standards and specifications, flow requirements, well certification requirements and permit procedures.
2. Conduct a periodic hydrogeological analysis of the groundwater for all areas that are dependant upon on-site sewage disposal and on-lot water supply in an effort to monitor groundwater in terms of supply, nitrates and bacteriological contaminants.
3. Undertake an education program to improve public awareness of the importance of water conservation practices.

Chapter 5 - Community Facilities and Services

4. Consider a minimum lot size requirement of 1 acre for residential development located outside of the planned growth areas identified on the Future Land Use Map, which are dependant upon on-site wells and municipal sewage disposal service.
5. Establish parameters for requiring a preliminary hydrogeological site investigation and study for all proposed residential developments and/or non-residential developments in which the estimated average daily water demand will exceed 1,500 gallons per day. The study should be prepared by a professional hydrogeologist certifying that the proposed individual wells will be capable to supply each lot with a dependable water supply and that the proposed wells will not adversely affect the groundwater table or exiting wells near the project site. The study should also verify that the water supply is potable and free of contamination from adjacent influences.
6. Adopt effective growth management techniques, which promote the development of land areas that have the infrastructure and capabilities to support subdivision and land development activity, while preserving land areas considered environmentally sensitive, agriculturally significant and have the greatest potential for groundwater recharge.
7. Adopt effective stormwater management regulations, which promote groundwater recharge, establishing riparian buffer yards and best management practices.
8. Adopt effective floodplain management regulations, which promote the enhancement of groundwater quality and quantity.
9. Conduct periodic feasibility studies to determine if municipal water supply facilities should be extended to problem areas associated with low yields and/or contamination.

Other Utility Providers and Services

In addition to the sewage disposal and water supply facilities, the Southern Berks Region is also serviced by the following utility providers:

Electrical Service

Met-Ed (A First Energy Company formerly recognized as GPU Energy) provides electrical service to Birdsboro Borough, Robeson Township and Union Township. PPL Electric Utilities (PPL) provides electrical service to Caernarvon Township. All applications involving subdivision, land development or other major improvements should notify their electrical provider to inquire upon service, availability, land use restrictions and/or setback requirements.

Telephone Service

Windstream provides telephone service to Birdsboro Borough, Robeson Township, Caernarvon Township and most of Union Township. Verizon provides telephone service to the eastern portion of Union Township. All applications involving subdivision, land development or other major improvements should notify their telephone provider to inquire upon service, availability, land use restrictions and/or setback requirements.

Natural Gas Service

UGI Corporation provides natural gas service to each municipality in the Southern Berks Region. The service area is limited to areas with the highest concentration of development and all service lines are located below ground. All applications involving subdivision, land development or other improvements should notify UGI to inquire upon service, availability, land use restrictions and/or setback requirements.

Cable Service

Service Electric Cablevision provides cable television and high speed internet access to each municipality within the Southern Berks Region. Although the franchise areas include the total land area within each municipality, the service area is limited to areas with the highest concentration of development. All applications involving subdivision, land development or other major improvements should notify Service Electric Cablevision to inquire upon service, availability, land use restrictions and/or setback requirements.

Solid Waste Management

Solid waste management includes the collection, disposal and/or recycling of household waste, hazardous waste, sewage sludge, agricultural waste and/or industrial waste. In addition, the reclamation of contaminated areas, such as Superfund sites or Brownfield sites, are vital issues that must be addressed as part of a solid waste management plan. Although certain issues are typically addressed at the federal, state or county levels, each municipality within the Southern Berks Region must properly plan for the collection, storage, transport and disposal of solid waste.

Solid Waste Disposal

The Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act (Pennsylvania Act 101), enacted by the Pennsylvania State Legislature in 1988, placed greater emphasis upon county-wide solid waste management plans versus municipal solid waste management plans. The County of Berks updated their Act 101 Berks County Waste Management Plan in 2014.



There are no solid waste disposal facilities (landfills, resource recovery facilities or transfer stations) within the Southern Berks Region. However, there are numerous solid waste disposal facilities located within a few miles of the Southern Berks Region, including the Conestoga Landfill (New Morgan Borough), Western Berks Landfill (Cumru Township), Pioneer Landfill (Exeter Township), Pottstown Landfill (West Pottsgrove Township) and Lanchester Landfill (Caernarvon Township, Lancaster County). Based upon the combined capacity available at these facilities, there should be sufficient capacity to accommodate the municipal waste from the municipalities within the Southern Berks Region for the next 5 to 10 years.

Currently, the municipalities within the Southern Berks Region require each property owner or resident to contract with private waste haulers. Consequently, the municipalities have no control where the hauler ultimately disposes of the waste. In addition, there are no guarantees that the waste is disposed in a manner that is considered legal or within environmental guidelines. The following recommendations are provided for solid waste collection:

1. Birdsboro Borough should continue to evaluate the economic feasibility and cost-benefit ratio of establishing a municipal solid waste collection program. The residential density of the Borough is projected to be 5,156 residents per square mile for the year 2017. The economies of scale and need for a systematic method for municipal solid waste collection program should eventually exceed the privatized program.
2. Caernarvon, Robeson and Union Townships are considered rural municipalities with suburban characteristics. Higher residential densities are found within Morgantown, Gibraltar, Green Hills, Geigertown, Monocacy and Maple Springs. The municipalities (either collectively or individually) should consider selecting three (3) to five (5) licensed haulers to serve the areas with the highest residential densities.

Chapter 5 - Community Facilities and Services

Recycling

The Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act (Pennsylvania Act 101), established certain goals and objectives for recycling including: reduce the amount of municipal waste generated within the Commonwealth; recycle at least 25% of waste generated; procure and use recycled and recyclable materials in state governmental agencies; and educate the public as to the benefits of recycling and waste reduction. The benefits of recycling and waste reduction include reduced pollution risks; conservation of natural resources, energy and landfill space; and reduced disposal costs.

Pennsylvania Act 101 requires municipalities with populations of at least 10,000 residents or municipalities with populations between 5,000 and 10,000 residents and more than 300 persons per square mile to implement a mandatory curbside recycling program. Mandated municipalities must collect at least 3 of the following materials: clear glass; colored glass; plastics; aluminum; steel and bimetallic cans; high grade office paper; corrugated paper and newsprint. Commercial, municipal and institutional establishments within a mandated municipality are required to recycle aluminum, high-grade office paper and corrugated paper in addition to other materials chosen by the municipality. In order to provide financial assistance, planning grants are available to all municipalities to establish a mandatory recycling program. The following recommendations pertain to recycling programs within the Southern Berks Region:

1. Birdsboro Borough has a population of 5,163 residents (2010 Census). As a result, Birdsboro has initiated a recycling program that will include curbside collection of 3 to 5 materials. In addition, Birdsboro provides a municipal composting area.
2. Caernarvon Township currently does not have any type of recycling program or drop off facilities. Although, Caernarvon is not required by law to implement a recycling program, the economic feasibility to establish a mandatory curbside collection program should be investigated.
3. Robeson Township has a drop off center located behind the police station and they accept, glass, plastic and paper. There are no plans for any type of organized recycling program. Union Township has a paper drop off center at the township building. Presently, paper is the only material that is accepted at this facility. Like Robeson, there are currently no plans to implement any type of official recycling program. The three townships should initiate a volunteer recycling program with drop-off centers as part of this effort, a public education program should be considered in order to notify residents of the locations of the drop-off centers and inform them of the importance of a volunteer recycling program.

Superfund Sites

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by the United States Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The United States Environmental Protection Agency (EPA) administers the Superfund program in cooperation with individual state governments. The office that oversees management of the program is the Office of Emergency and Remedial Response (OERR).

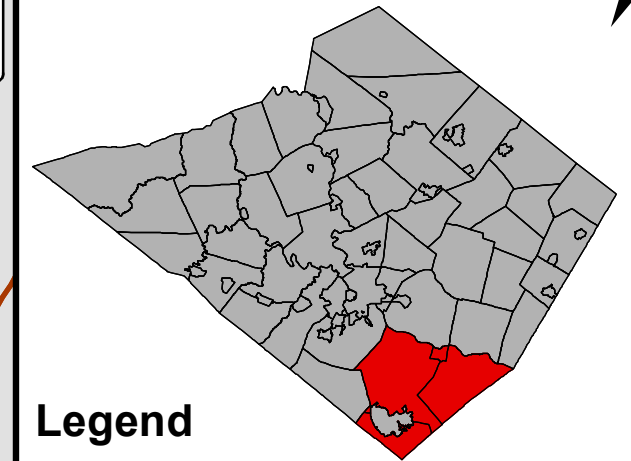
There is one (1) recognized Superfund site within the Southern Berks Region. This site, known as the "Douglassville Disposal Site" is located in northern Union Township, between the Schuylkill River and State Route 724, approximately 1,500 feet west of Red Corner Road. This 50 acre site was a waste oil recycling facility that operated from 1941 to 1986. The on-site features included the former processing equipment, storage tanks,

and waste storage lagoons. From 1941 to 1972, waste oil sludge was placed in on-site lagoons. The contents of the lagoons were washed into the Schuylkill River during flooding in 1970 and 1972. After the 1972 flood (Hurricane Agnes), the lagoons were filled and the sludge generated in the oil recycling process. In addition, over 700 leaking drums were found on site. As result, the EPA has signed a consent decree with 14 parties responsible for the contamination at the Douglassville Disposal site, which requires them to stabilize the pile of oily filter cake on site with a lime-based treatment instead of incinerating the pile.

Brownfields

The United States Environmental Protection Agency (EPA) has defined a “Brownfield site” as an area or portion thereof, which has actual or perceived contamination and an active potential for redevelopment or reuse. The EPA’s Brownfields Economic Redevelopment Initiative is designed to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and reuse brownfields. The Land Recycling Program within the Commonwealth of Pennsylvania is helping to transform vacant brownfields into bustling job-producing sites, while still protecting our environment. Through the enactment of federal and state legislation, the opportunities to recycle abandoned buildings and land areas into productive properties, that not only strengthen the economic viability of a community, but also implements goals associated with conservation planning and watershed restoration. Based upon the number of abandoned and/or deteriorating industrial buildings within the Borough of Birdsboro, these programs may provide assistance for adaptive reuse and economic redevelopment efforts within the Region.

Community Facilities and Recreation



Legend

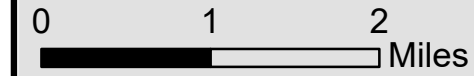
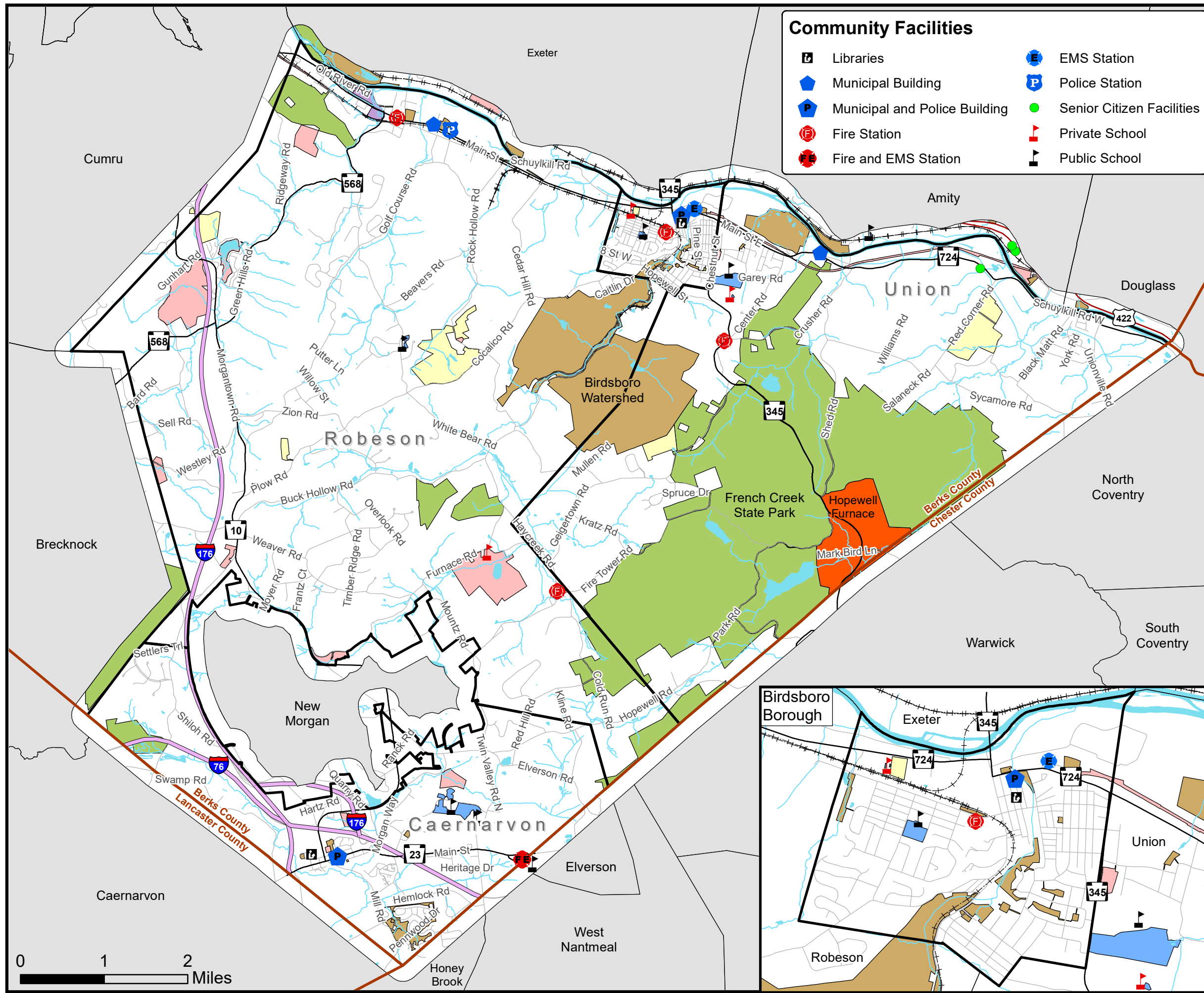
- Federal
- State Recreation Land
- County Recreation Land
- Municipal Recreation Land
- Non-Profit Recreation Land
- Private Recreation Land
- School Recreation Land
- Interstate
- US Route
- State Route
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

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

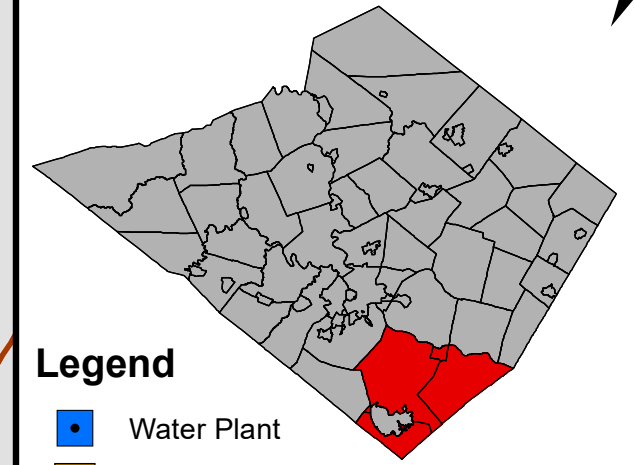
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BAB 8/20

- ### Community Facilities
- | | |
|-------------------------------|---------------------------|
| Libraries | EMS Station |
| Municipal Building | Police Station |
| Municipal and Police Building | Senior Citizen Facilities |
| Fire Station | Private School |
| Fire and EMS Station | Public School |



Public Utilities



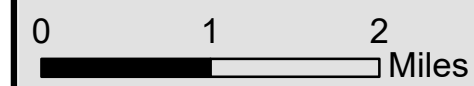
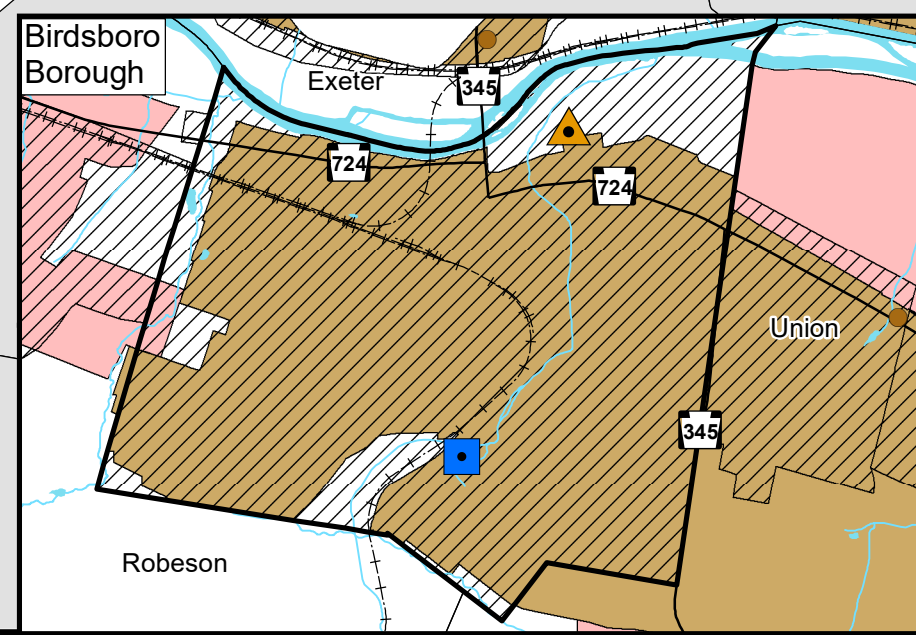
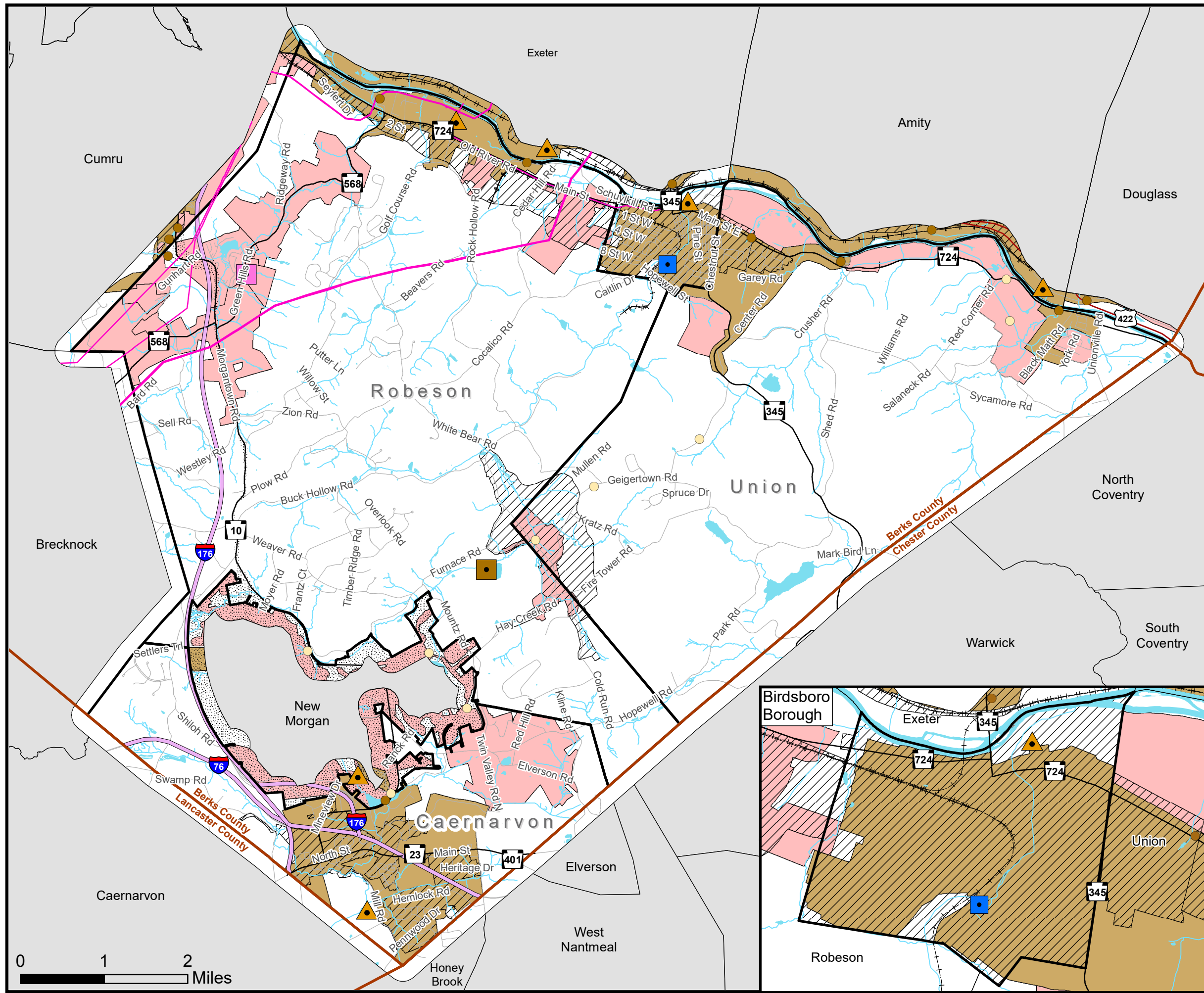
Legend

- Water Plant
- Existing Private Sewer Plant
- Proposed Private Sewer Plant
- Existing Public Sewer Plant
- Existing Sewer Pump Stations
- Proposed Sewer Pump Stations
- Existing Public Water Service
- Proposed Public Water Service
- Existing Public Sewer Service
- Proposed Public Sewer Service
- Electrical Transmission Lines
- Interstate
- US Route
- State Route
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, Act 537 Plans, Berks County Sewer and Water Assoc.

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HISTORICAL AND CULTURAL RESOURCES

The Southern Berks Region has a rich and diverse heritage that is reflected in the historic and cultural resources that are integrated within the existing land use patterns. The preservation of these historic and cultural resources is essential to establish a community bond from past generations to future generations. Since these resources are not renewable, it is essential to recognize their value and promote a future land use plan that is based upon fundamental principles in an effort to preserve, protect, and enhance their presence within the community.



Historic Moch Farm in Union Township

Historical Profiles

Birdsboro Borough: Birdsboro was named after its founder, William Bird, who took warrants for land on Hay Creek Road and later Six Penny Creek as early as 1737. On the banks of Hay Creek, he established a forge about 1740, which was followed by other forges, as well as a sawmill and a gristmill. Between 1737 and 1751, he took up warrants for about 1,600 acres of land. Marcus Bird succeeded his father by enlarging industry along Hay Creek, and by building a furnace along French Creek at Hopewell. Marcus Bird was the largest producer of iron during the Revolutionary War. When Berks County was constituted in 1762, Birdsboro was already a town of considerable size in terms of population and land area. In 1796, Matthew Brooke purchased all of the lands owned by the Bird family, including all forges and mills. The sons of Matthew Brooke became the exclusive owners in 1837 and later became organized into the E & G Brooke Iron Company, and their influence made the growth of the town possible. Birdsboro was formed from Union and Robeson townships and incorporated into a borough in 1872.

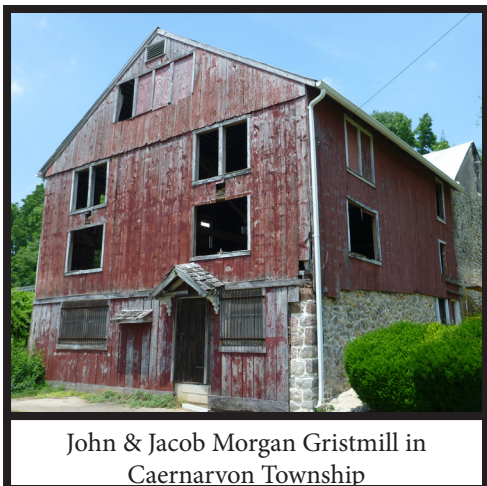
Caernarvon Township: As with so many places between Philadelphia and Lancaster, the area was first settled by the Welsh. The word “Caernarvon” is a Welsh word, based on “Caer Yr Arfon” meaning “Fort (Caer) on the River (Arfon)”. Caernarvon officially dates back to 1752, the same year Berks County was established. Caernarvon (Berks) was originally part of Caernarvon (Lancaster), but was divided to accommodate county delineation. The Village of Morgantown was named after Colonel Jacob Morgan, who laid out the town around 1770. His father, Thomas, had been a native of Wales, a captain in the French and Indian War, and owner of a large tract of choice land in Caernarvon Township. Jacob Morgan, a Philadelphia merchant, settled in this area around 1765, building a large stone house, which still stands on Hartz Road between Mineview Drive and Shiloh Road. During the late 1800’s and early to mid 1900’s, the region was well known for its iron ore production, which was utilized for numerous projects of national magnitude, including the iron ore that was utilized to manufacture the steel for the construction of the Golden Gate Bridge. Since the arrival of the Turnpike in the 1950’s, Caernarvon has changed from a quiet, mostly agrarian village, to a busy commercial and industrial center. The population has experienced a steady growth rate over the past 50 years.

Robeson Township: Andrew Robeson, a Swede was one of the first settlers of Robeson Township. He owned a significant amount of land along both sides of the Schuylkill River. Along with the Swedes, the area was also settled by Quakers and Germans. In 1729, Robeson Township was officially organized and named after Andrew Robeson. Most of the early settlements were located in close proximity to the Schuylkill River, Allegheny Creek, Hay Creek, Seidel Creek, and Indian Corn Creek. The abundance of water provided sufficient power for the operation of mills and furnaces. As industry flourished in the late 1700’s and 1800’s, the settlements grew into established villages known as Gibraltar (originally known as Seidelville), Geigertown, Beckersville, and Plowville. These villages were desirable based upon the regional transportation system, which evolved from the river

Chapter 6 - Historical and Cultural Resources

to the canal to the railroad to the automobile. As hardwood trees were removed from the valleys to support the furnaces, agricultural operations soon flourished within Robeson. During the 1900's, quarrying operations became a popular industry based upon the geology of the rolling hills in the northern and southern portions of Robeson.

Union Township: The Swedes and Germans were the first settlers of Union Township with Hans Monson taking up the first tract of land by warrant in 1684. In 1753, Union Township was established in the Court of Quarter Sessions and an initial survey was conducted of the tract. By 1759, there were an estimated 62 taxable persons in Union Township. The name of the township arose from a "union" of two sections of territory, which included a portion of Robeson Township (Berks County) and Coventry Township (Chester County). The water power along the Schuylkill River, Six Penny Creek, Hay Creek, and French Creek provided sufficient power for the operation of mills and furnaces in the early 1800's. The Hopewell Furnace and the Monocacy Furnace were considered prominent iron industries within Union. In addition, the early settlers found opportunities in agriculture, particularly in the lowland valleys of the Schuylkill River and Hay Creek. By 1824, the Schuylkill Canal was completed, providing a system for transporting coal, iron, lumber, merchandise, and produce along 108 miles between Mt. Carbon (Schuylkill County) and the City of Philadelphia. By 1870, the Schuylkill Canal became obsolete and eventually abandoned in favor of other improved transportation facilities and systems. The majority of the canals were filled in the 1950's. In 2000, the Schuylkill River was designated a National Heritage Area for the regions contribution to both the American Revolution and the Industrial Revolution.



Historical Sites and Resources

The Southern Berks Region contains numerous buildings and sites that have historical and cultural significance. Local officials recognize the value of conservation, preservation, rehabilitation, and adaptive reuse of these historic features. Well maintained historic resources can preserve the unique identity of the Southern Berks Region, as well as provide educational and tourism opportunities.

To identify the Region's specific historic resources, the Berks County Planning Commission Historic Resources Inventory was used. This inventory includes Pennsylvania Historical and Museum Commission (PHMC), Meiser, Berks Nature, and other resource data. The inventory includes 322 different sites and 21 different districts that have been identified from a local, state, and national perspective. The region has 9 National Register Listed historic resources and 21 National Register Eligible historic resources. The National Register of Historic Places is a comprehensive listing of districts, sites, buildings, structures, and objects of historical and cultural significance to the locality, state, or nation. The following table identifies by municipality the sites in the Berks County Historic Resources Inventory with their respective historic name, data source, and National Register status. The Resource ID is the corresponding number found on the Historic Resources maps for each municipality.

List of Historic Resources

(see corresponding numbers on Historic Resources Maps)

Birdsboro Borough

Resource ID	Historic Name	Source	National Register Status*
1427	looF Lodge Hall	PHMC	Unevaluated
1429	Levi Focht House	PHMC	Unevaluated
1444	Z. Williams Farm	PHMC	Unevaluated
1411	1228 & 1230 Hay Creek Road Property	PHMC	Ineligible
1410	1224 & 1226 Hay Creek Road Property	PHMC	Ineligible
1407	1208 Hay Creek Road Property	PHMC	Ineligible
1409	1216 & 1218 Hay Creek Road Property	PHMC	Ineligible
1408	1212 Hay Creek Road Property	PHMC	Ineligible
1441	Texas; South Birdsboro	PHMC	Unevaluated
1440	St Michaels Protestant Episcopal Church Complex	PHMC	Listed
1421	F.M. Brown Mill	PHMC	Unevaluated
1420	Edward Brooke II Mansion	PHMC	Eligible
1413	Alice Focht United Methodist Church	PHMC	Unevaluated
1423	Furnace Street Bridge	PHMC	Ineligible
1424	Grace United Brethern Church	PHMC	Ineligible
1418	Cora Handwork Property	PHMC	Unevaluated
1436	Wilmington & Northern Railroad: Depot	PHMC	Unevaluated
1412	420 Lincoln Avenue Property	PHMC	Unevaluated
1416	Charles & Margaret Layland Property	PHMC	Unevaluated
1428	John Hook House	PHMC	Unevaluated
1417	Sheldonia Weiler Property; A.F. Borden Property - 1876	PHMC	Unevaluated
1433	Mercantile Building	PHMC	Unevaluated
1430	Lincoln-Focht House	PHMC	Unevaluated
6493	J. Z. Albert Carriage Factory	PHMC	Ineligible
6494	Birdsboro Village Lock-Up	PHMC	Ineligible
1422	Friendship Fire Company; Birdsboro Dispatch	PHMC	Unevaluated
6495	East Main Street Bridge over Hay Creek	PHMC	Ineligible
6496	Birdsboro Steel Foundry & Machine Company Office Building	PHMC	Ineligible
6497	Bridge	PHMC	Ineligible
6498	Birdsboro Bridge Company Toll House	PHMC	Ineligible
1443	William Bird Mansion	PHMC	Ineligible
1425	Gristmill	Meiser	Unknown
1426	Hay Creek Aqueduct	Meiser	Unknown
1431	Lockhouse	Meiser	Unknown
1437	Railroad Station	Meiser	Unknown
1438	Schuylkill Navigation Lock #	Meiser	Unknown

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
4887	Village of Birdsboro	Meiser	Unknown
1432	Marian Millard Property; Samuel Rhodes Property	PHMC	Unevaluated
7059	Martinelli Property	PHMC	Unevaluated

Caernarvon Township

Resource ID	Historic Name	Source	National Register Status*
1516	Ammon Homestead	PHMC	Unevaluated
1517	Ammon's School; United Brethren Church	Meiser	Unknown
1518	Calvin Kurtz Property	PHMC	Unevaluated
1521	Colonel Jacob Morgan Homestead	PHMC	Eligible
1522	Colonel Jonathan Jones Homestead	PHMC	Eligible
1523	Conestoga Hotel; Blue Rock Post Office; Bull Hotel	PHMC	Unevaluated
1530	Graham's Mill	PHMC	Ineligible
1519	Clymer Mill; Grist Mill	PHMC	Unevaluated
1534	Harmony Church; Meeting House	PHMC	Unevaluated
1536	Ira Mast Property	PHMC	Unevaluated
1537	J. & S. Roberts Home	PHMC	Unevaluated
1551	Morgantown Hotel	PHMC	Unevaluated
1539	Jacob Mast Farm; Thomas Morgan Homestead	PHMC	Unevaluated
1540	John & Jacob Morgan Gristmill	PHMC	Eligible
1541	John Gabel House; Old Village Inn	PHMC	Unevaluated
1542	John Morgan House	PHMC	Unevaluated
1544	Kreiser Farm; George McGowan House	PHMC	Unevaluated
1546	Boy's Academy; Landmark Store	Meiser	Unknown
1547	Lyceum Hall	PHMC	Unevaluated
1548	Mary Hudson House	PHMC	Unevaluated
1552	Morgantown Methodist Episcopal Church; United Methodist Church	PHMC	Unevaluated
1553	Odd Fellows Hall	PHMC	Unevaluated
1556	Paul Dovin Property	PHMC	Unevaluated
1557	Proudfoot House	PHMC	Unevaluated
1559	Rock Baptist Church	PHMC	Unevaluated
1560	Sands Farm	PHMC	Ineligible
1561	St Thomas; Morgantown School	PHMC	Unevaluated
1554	Mt. Shiloh United Brethren Church	PHMC	Unevaluated
1543	Jones Mine	PHMC	Unevaluated
1513	Aaron Rattew House	PHMC	Unevaluated
1515	Ames House	PHMC	Eligible

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
1545	Kurtz-Beiler Farmstead	PHMC	Eligible
1549	Mill Property	PHMC	Unevaluated
6504	Bridge	PHMC	Ineligible
6505	Bridge	PHMC	Ineligible
6506	Bridge	PHMC	Ineligible
6507	Bridge	PHMC	Ineligible
1538	J. Kurtz Limekiln	PHMC	Eligible
1527	Francis Morgan House	PHMC	Unevaluated
1528	George Sheeler Farm	PHMC	Unevaluated
1524	David Morgan House	PHMC	Unevaluated
1563	Thomas Blaszuk Property	PHMC	Unevaluated
1525	Donald Zager Farm	PHMC	Eligible
1562	Stephen Kurtz Farm	PHMC	Unevaluated
1555	Nathan Stoltzfus Property	PHMC	Unevaluated
1535	Hertler House	PHMC	Eligible
1558	Ralph Hertzler Property	PHMC	Unevaluated
1514	Abraham Kurtz; Peter Fry House	PHMC	Ineligible
1526	Fingal Castle	Meiser	Unknown
1531	Graveyard	Meiser	Unevaluated
1532	Graveyard	Meiser	Unknown
7060	Shanaman House	PHMC	Ineligible
7061	Sweigard House	PHMC	Ineligible
7062	Stephen M. Beiler House	PHMC	Ineligible
7063	Morgan Trailer Manufacturing Company	PHMC	Ineligible
7064	Wallace-Lynn House	PHMC	Ineligible
7065	Delp Property	PHMC	Ineligible
7066	Chiropractic Arts Center	PHMC	Ineligible
7067	Plank Farm; Blue Springs Farm; Plank Farm Barn	PHMC	Ineligible
7068	Houck-Vieldhouse House	PHMC	Ineligible
7069	Morgan Commons	PHMC	Ineligible
7070	Volpi House	PHMC	Ineligible
7071	Smucker House	PHMC	Ineligible
7072	Samuel Jacobs Farm; Kurtland Farm	PHMC	Ineligible
7073	Yoder House	PHMC	Ineligible
7074	Renkert Property	PHMC	Ineligible
7075	Spain Property	PHMC	Ineligible
7076	El-Mor Chevrolet	PHMC	Ineligible
7077	Levi S. Beiler House; Hontz House	PHMC	Ineligible
7169	Bridge	PHMC	Ineligible

Chapter 6 - Historical and Cultural Resources

Robeson Township

Resource ID	Historic Name	Source	National Register Status*
6294	Avondale Farm	BCPC	Unknown
4882	Allegheny Aqueduct	PHMC	Listed
4883	Band Building	Meiser	Unknown
4884	Beidler House And Mill Site	PHMC	Eligible
4885	Bethel Evangelical Church	Meiser	Unknown
4888	Bitler Farm	PHMC	Eligible
4976	St John's United Church Of Christ	PHMC	Unevaluated
4983	W.R. Updike Property	PHMC	Unevaluated
4984	White Bear Tavern	PHMC	Eligible
6326	Gauger, Frank, Property	PHMC	Ineligible
6327	Bridge	PHMC	Ineligible
6328	Bridge	PHMC	Ineligible
6329	Bridge	PHMC	Ineligible
4978	Thompson Mill	PHMC	Listed
6331	S.R. 82 Bridge	PHMC	Ineligible
6332	Railroad Bridge S.R. 82	PHMC	Ineligible
6333	Bridge over Allegheny Creek	PHMC	Ineligible
6334	Bridge on S.R. 724 (Main St) over Allegheny Creek	PHMC	Ineligible
6336	Birdsboro Reservoir	PHMC	Ineligible
6337	Dyer Quarry/Birdsboro Reservoir	PHMC	Ineligible
6338	Bridge	PHMC	Ineligible
6339	Reading Railroad Bridge	PHMC	Ineligible
6340	Bridge at Station 365 and 42	PHMC	Ineligible
4889	Blanche Steinmetz Property; Planck Mill	PHMC	Unevaluated
4891	C. Gollub Property; Schoolhouse	PHMC	Unevaluated
4892	C. Hyback Property	PHMC	Unevaluated
4893	Canal Hotel	Meiser	Unknown
4896	Charles & Esther Gundy Property	PHMC	Unevaluated
4897	Charles Hamilton Property	PHMC	Unevaluated
4898	Christine Lang Property	PHMC	Unevaluated
4899	D.M. Hartranft House	PHMC	Unevaluated
4900	Daniel Siegfried Gun Factory	Meiser	Unknown
4901	David Hoffman Property	PHMC	Unevaluated
4902	Dodson Driesbach Property	PHMC	Unevaluated
4903	Dowell Forges #1 1825; Seidel;s Forges 1853	PHMC	Unevaluated
4904	Dowell Forges #2	PHMC	Unevaluated
4905	Elizabeth Scatchard Property	PHMC	Unevaluated

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
4906	Emerson Gundy Property	PHMC	Unevaluated
4908	Eugene Burkhart Property	PHMC	Unevaluated
4909	F.M Weaver Foundry	Meiser	Unknown
4910	Fanny Fry Property	PHMC	Unevaluated
4911	Forest Church; Robeson Church	PHMC	Unevaluated
4912	Forge west side of creek	Meiser	Unknown
4913	Franklin Forge; Thompson's Forge	PHMC	Unevaluated
4914	Friedens Cemetery & Church	PHMC	Unevaluated
4915	Friends Meeting House	Meiser	Unknown
4946	Mary A. Eshelman Property	PHMC	Unevaluated
4916	Shown as Grist Mill 1860	Meiser	Unknown
4917	Geiger Mill	PHMC	Listed
4918	Geoffrey Tyson Property	PHMC	Unevaluated
4919	George Sterner Property	PHMC	Unevaluated
4920	George Sterner Property	PHMC	Unevaluated
4923	Gibraltar Hotel	PHMC	Unevaluated
4924	Gristmill Henry Thompson Mill	Meiser	Unknown
4926	Graveyard	Meiser	Unknown
4927	Graveyard; Bethel Church	Meiser	Unknown
4928	Griffith Tilt Forge; Hay Creek Forge; Sands Forge	PHMC	Unevaluated
4929	H. Keinard Property	PHMC	Unevaluated
4966	Scarlet's Gristmill	Meiser	Unknown
4931	Harold Bixler Property	PHMC	Unevaluated
4932	Harold Kurtz Property	PHMC	Unevaluated
4930	Hampton Forge; Hampton Furnace	PHMC	Unevaluated
4935	Irvin Kocher Property	PHMC	Unevaluated
4937	Joanna Furnace Complex	PHMC	Listed
4938	Joanna Heights Camp Meeting	PHMC	Unevaluated
4939	John Koch Property	PHMC	Unevaluated
4940	John P. Fehr Property	PHMC	Unevaluated
4941	L. Kocher Property	PHMC	Unevaluated
4943	Log Cabin	Meiser	Unknown
4945	Lower Allegheny Schoolhouse	Meiser	Unknown
4947	Mary Yocum Property	PHMC	Unevaluated
4949	Naomi Village Hotel	Meiser	Unknown
4950	Old Allegheny School	PHMC	Unevaluated
4951	Seifrit's Grist Mill; Old Mill Inn	PHMC	Unevaluated
4952	Olga Drobeck Property	PHMC	Unevaluated
4953	Patriotic Order Sons of America Hall	PHMC	Unevaluated

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
4955	Plow Hotel	PHMC	Unevaluated
4956	Plow School	PHMC	Unevaluated
4957	Plowville Post Office & General Store	PHMC	Unevaluated
4958	Red Roofed Forge	Meiser	Unknown
4960	Robert Tuckey Property	PHMC	Unevaluated
4962	Rt. 10 House	PHMC	Unevaluated
4963	Ruth Gundy Property	PHMC	Unevaluated
4964	Sally Glass Property	PHMC	Unevaluated
4968	Schoolhouse	PHMC	Unevaluated
4969	Schuylkill Canal Aqueduct	Meiser	Unknown
4970	Seideltown School; Thompson's School	PHMC	Unevaluated
4973	Shields Property	PHMC	Unevaluated
4974	Simon Seyfert Mansion	Meiser	Unknown
4985	White Horse Hotel	Meiser	Unknown
4986	William Moyer Property	PHMC	Unevaluated
4987	Wolf Forge	Meiser	Unknown
4988	Zion Evangelical Church	Meiser	Unknown
4890	Buck Hollow Rd House	PHMC	Unevaluated
4895	listed Forge 1860	Meiser	Unknown
4907	Ethel Clouser Property	PHMC	Unevaluated
4925	Graveyard	Meiser	Unknown
4942	Larry Ketterer Property	PHMC	Unevaluated
4944	Lottie Detorre Property	PHMC	Unevaluated
4948	Moore Forge	PHMC	Unevaluated
4959	Robert Redzig Property	PHMC	Unevaluated
4965	listed as Brown's Tilt Forge	Meiser	Unknown
4934	Holiness Church at Seyfert	Meiser	Unknown
4972	Seyfert Ironworks; Seyfert Rolling Mills	PHMC	Unevaluated
4922	Gibraltar Forge #2; Seyfert Forge	PHMC	Unevaluated
4971	Seyfert Iron Forge & Rolling Mill	PHMC	Unevaluated
4967	Scarlets Mill Bridge	PHMC	Unevaluated
4921	Gibraltar Forge #1; Lewis Forge	PHMC	Unevaluated
4954	Trap Rock Bridge at Station 328 & 82	PHMC	Eligible
6723	Beckersville P.O.; Emily's Pub	BCPC	Unknown
6724	C. Hart House	BCPC	Unknown
6725	House	BCPC	Unknown
6726	Haws Farm	PHMC	Eligible
6727	Building	BCPC	Unknown
6728	Keinhard House	BCPC	Unknown

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
6729	Rock Hollow School House	BCPC	Unknown
6731	William Pierce House	PHMC	Unevaluated
6732	Building	BCPC	Unknown
6733	Mill	BCPC	Unknown
6734	Mill Site	BCPC	Unknown
6735	No Name	BCPC	Unknown
6736	J. Bower House	BCPC	Unknown
6737	No Name	BCPC	Unknown
6738	S.W. Kerst	BCPC	Unknown
6739	School House White Bear	BCPC	Unknown
6740	T.C. Bellman House; Herb Farm	PHMC	Unevaluated
6741	No Name	BCPC	Unknown
6742	Westley	BCPC	Unknown
6743	"Georgia"; Mary Miller House	BCPC	Unknown
6744	No Name	BCPC	Unknown
6745	Bitler House 2	BCPC	Unknown
6746	No name	BCPC	Unknown
6747	No Name	BCPC	Unknown
6748	No Name	BCPC	Unknown
7134	Schutz House	PHMC	Unevaluated
7135	Hay Creek Road Property	PHMC	Unevaluated
7136	Mullen Hollow Road Property	PHMC	Unevaluated
7137	Redcay Farm	PHMC	Eligible
7138	Bridge	PHMC	Ineligible
7139	Bridge	PHMC	Ineligible
7140	Middle Allegheny Bridge	PHMC	Ineligible
7141	Samuel Robeson Farm	PHMC	Eligible
7142	2133 Hay Creek Road Property	PHMC	Unevaluated
7143	Old Seton Road Property	PHMC	Unevaluated
7170	Twin Clingan Mansion	PHMC	Unevaluated

Union Township

Resource ID	Historic Name	Source	National Register Status*
5469	R. Jones Farm; Morris House	PHMC	Unevaluated
5453	Jones Farm c.1850-1860; Rigg Farm 1876	PHMC	Unevaluated
5480	St Michael's Cemetery & Chapel	PHMC	Unevaluated
5431	Black Bear Tavern	PHMC	Unevaluated
5484	Sycamore Farms	PHMC	Unevaluated

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
5454	Kerlin Property; Yocum House; Yocum Dairy Farm; J. Nyman House	PHMC	Unevaluated
5452	John & Dorothy Ratkis Property	PHMC	Unevaluated
5467	Mullen Farm	PHMC	Unevaluated
5459	Miller Farm	PHMC	Unevaluated
5476	Sixpenny Forge; Clinton Forge; Zachariah Forge	PHMC	Unevaluated
5433	Brower Farm	PHMC	Unevaluated
5482	St Paul's Mission Roman Catholic Chapel	PHMC	Unevaluated
5448	Hahn Home	PHMC	Unevaluated
5486	Unionville Aqueduct	PHMC	Unevaluated
5440	French Creek SP - Park Office	PHMC	Ineligible
5439	French Creek SP - Organized Group Camp 4	PHMC	Listed
5471	Reifsnnyder Home	PHMC	Unevaluated
5490	Wamsher's Farm	PHMC	Unevaluated
5442	Geiger Farm	PHMC	Unevaluated
5475	Six Penny Bridge	PHMC	Unevaluated
5488	Valentine Boyer Tract	PHMC	Unevaluated
5463	Monocacy Furnace; Teresa Furnace	PHMC	Unevaluated
5438	Flannery's Tavern; Brinton Lodge	PHMC	Unevaluated
5479	St James Evangelical Lutheran Church	PHMC	Unevaluated
5472	Root Farm; Brower Home Farm	PHMC	Unevaluated
5443	Geiger Farm	PHMC	Unevaluated
5485	Sycamore Farms; Wanger House	PHMC	Unevaluated
5487	Unionville Hotel; Brower's Inn	PHMC	Unevaluated
5462	Moch Farm	PHMC	Unevaluated
5489	Wamsher Farm; Forest Hunt Club	PHMC	Unevaluated
5483	Sycamore Farm	PHMC	Unevaluated
5455	Kerst Farm	PHMC	Unevaluated
5464	Monocacy Methodist Episcopal Church	PHMC	Unevaluated
5445	Geigertown Hotel	PHMC	Unevaluated
5481	St Paul's Methodist Episcopal Church	PHMC	Unevaluated
5458	Michael Lynch House	PHMC	Unevaluated
5451	J. Kelso Farm	PHMC	Unevaluated
5461	Miller House	PHMC	Unevaluated
5470	Red Corner Road Bridge	PHMC	Ineligible
5460	Miller House	PHMC	Unevaluated
5474	Schuylkill Navigation Canal Flood Gate	PHMC	Unevaluated
6783	D. Yocum Farm	PHMC	Ineligible
6784	Bridge	PHMC	Ineligible

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
6785	House at 319 Yocum Road	PHMC	Ineligible
6786	House at 53 Unionville Road	PHMC	Ineligible
6787	Bridge	PHMC	Eligible
6788	House at 315 Yocum Road	PHMC	Ineligible
6789	House at 66 Black Matt Road	PHMC	Ineligible
6790	Mickle Barn	PHMC	Unevaluated
6791	S. Yocum House and Barn Complex	PHMC	Ineligible
5432	Black Matt's Schoolhouse	Meiser	Unknown
5434	Brower Store / Post Office	Meiser	Unknown
5436	Civil War Era Foundry	Meiser	Unknown
5437	Clinton Forge	Meiser	Unknown
5446	Graveyard	Meiser	Unknown
5447	Graveyard	Meiser	Unknown
5450	Hotel / Store / Post Office	Meiser	Unknown
5465	Mt Airy Schoolhouse	Meiser	Unknown
5468	Port Union Canal Store	Meiser	Unknown
5473	Schuylkill Canal Warehouse	Meiser	Unknown
5477	St Frisby AME Church	Meiser	Unknown
5478	St Frisby Graveyard	Meiser	Unknown
5491	Warehouse Dock Boat Building Basin	Meiser	Unknown
5492	Wenger's Mill; Flannery's Mill	Meiser	Unknown
5493	William Kerlin's Gun Barrel Shop	Meiser	Unknown
7160	Bridge	PHMC	Ineligible
7161	Bridge	PHMC	Ineligible
5457	Mansion House	PHMC	Unevaluated

List of Historic Districts

(See numbers corresponding numbers on Historic Resources Maps)

Birdsboro Borough

Resource ID	Historic Name	Source	National Register Status*
1414	Birdsboro Iron Industry; E & G Brooke Ironworks	PHMC	Eligible
1415	Brooklyn	PHMC	Unevaluated
1434	Mexico (Section of Birdsboro)	PHMC	Unevaluated
1435	Mill Street Workers' Houses	PHMC	Unevaluated
6305	Philadelphia and Reading Railroad	PHMC	Unevaluated
6330	Philadelphia and Reading Railroad: Reading Beltline Railroad	PHMC	Ineligible
6335	Schuylkill Navigation Company Canal (Port Carbon to Philadelphia)	PHMC	Eligible

Chapter 6 - Historical and Cultural Resources

Resource ID	Historic Name	Source	National Register Status*
6341	Wilmington and Northern Railroad	PHMC	Ineligible
6393	Pennsylvania Railroad Schuylkill Valley Branch	PHMC	Ineligible
6499	West Main Street	PHMC	Ineligible

Caernarvon Township

Resource ID	Historic Name	Source	National Register Status*
1550	Morgantown Historic District; Old Main Street Historic District; Village of Morgantown	PHMC	Listed
6341	Wilmington and Northern Railroad	PHMC	Ineligible
6509	Pennsylvania Turnpike	PHMC	Eligible
6642	Wilmington and Northern Railroad (aggregate file)	PHMC	Unevaluated

Robeson Township

Resource ID	Historic Name	Source	National Register Status*
6305	Philadelphia and Reading Railroad	PHMC	Unevaluated
6330	Philadelphia and Reading Railroad: Reading Beltline Railroad	PHMC	Ineligible
6335	Schuylkill Navigation Company Canal (Port Carbon to Philadelphia)	PHMC	Eligible
6341	Wilmington and Northern Railroad	PHMC	Ineligible
6393	Pennsylvania Railroad Schuylkill Valley Branch	PHMC	Ineligible
6429	Pennsylvania Schuylkill Valley Railroad	PHMC	Unevaluated
6642	Wilmington and Northern Railroad (aggregate file)	PHMC	Unevaluated
7144	French Creek State Park	PHMC	Unevaluated

Union Township

Resource ID	Historic Name	Source	National Register Status*
5435	Village of Browerstown	PHMC	Unevaluated
5441	French Creek SP - Six Penny Day Use District	PHMC	Listed
5444	Village Of Geigertown; Geiger's Mill	PHMC	Unevaluated
5449	Hopewell Village National Historic Site; Hopewell Furnace	PHMC	Listed
5466	Village of Mt. Airy	PHMC	Unevaluated
6341	Wilmington and Northern Railroad	PHMC	Ineligible
6380	Schuylkill River Desilting Project	PHMC	Eligible
6393	Pennsylvania Railroad Schuylkill Valley Branch	PHMC	Ineligible
6642	Wilmington and Northern Railroad (aggregate file)	PHMC	Unevaluated
6643	Schuylkill Canal (aggregate file)	PHMC	Unevaluated
7144	French Creek State Park	PHMC	Unevaluated

*National Register Status Defined

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

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

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

Unevaluated: 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.

Historical Sites of Regional Significance

Hopewell National Historic Site: The site features a cold-blast furnace restored to its 1830s appearance. Hopewell Furnace serves as an example of an early American iron-making community. Ore for the furnace was obtained from the local area. The iron produced was used to make many items, including arms used by American patriots during the Revolutionary War period. The air needed to keep the furnace burning was provided by bellows powered by a huge water wheel that gathered its strength from the waters of French Creek. During summer months, costumed historical interpreters demonstrate, describe, and tell the story of Hopewell's iron-making years (1771-1883).

Joanna Furnace Complex: This site was originally built in 1791 as a vital iron production facility for the region for over 100 years. The Joann Furnace complex also serves as an example of an early American iron-making community. Presently, the Hay Creek Valley Association owns and maintains this complex, which was officially listed on the National Historic Registry on April 23, 1980. As restoration efforts continue at this site, a person can literally take a step back in time and visualize the integrity of the past.

Historical and Cultural Resources Planning

The Commonwealth of Pennsylvania has enacted the following two (2) laws, which provide the legal foundation for municipalities to protect and preserve historical resources:

Pennsylvania Act 167: The Pennsylvania Historical District Act (PA Act 167 of 1961) authorizes municipalities to establish local historical districts in an effort to protect and preserve the historic and architectural character through regulations for the erection, reconstruction, alteration, restoration, demolition, or razing of buildings or structures within the historical district. The Pennsylvania Historical and Museum Commission (PHMC) must certify the creation of the historical district and the municipalities are required to appoint a Historical Architectural Review Board (HARB) to advise the local governing body of building or construction activity within the historical district.

Pennsylvania Act 247: The Pennsylvania Municipalities Planning Code (PA Act 247 of 1968, as amended) authorizes municipalities to use zoning regulations to protect and preserve places of historical resources. The Pennsylvania Municipalities Planning Code specifically provides for the regulation of places having historical,

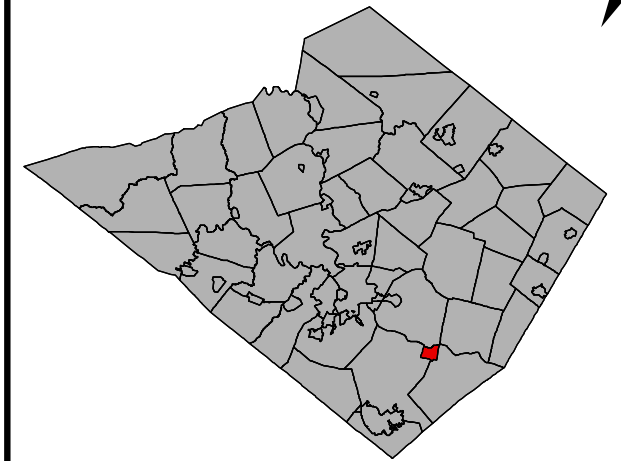
Chapter 6 - Historical and Cultural Resources

architectural, or patriotic interest or value to the community. Historic preservation zoning provisions may be applied to specific sites within a historic overlay zone. Special permits and review procedures may also be established by the municipality.

In order to implement the community planning goals for historical protection and preservation established in Chapter 2, the following strategies are recommended:

1. Formulate and adopt an official policy statement for the protection and preservation of historical resources within the Southern Berks Region.
2. Appoint a local and/or regional HARB to initially document the historical and cultural resources within the Southern Berks Region.
3. Coordinate planning efforts with the PHMC, Berks County Historic Preservation Trust, Berks County Planning Commission, Hay Creek Valley Historical Commission, Schuylkill River Greenway Association, Natural Lands Trust, and other state, county, or local groups who share similar visions for the protection and preservation of historical and cultural resources.
4. Conduct a municipal survey of all known or potential sites, buildings, structures, objects, districts, and land areas, which have historical and cultural significance. The PHMC provides local assistance in the preparation of such surveys. The recommended procedures and survey format are further documented in *Guidelines for Historic Resource Surveys in Pennsylvania*.
5. Solicit qualified consultants in the fields of historic preservation, architecture, and planning to review the results of the survey and prioritize the significance of the historical and cultural resources.
6. Develop a draft list of short-term and long-term strategies that will protect and preserve each historical and cultural resource.
7. Establish a community education program on the benefits of effective historical protection and preservation efforts. As part of this effort, meet with the owners and tenants of the historical sites with the highest significance to gain support and discuss preservation strategies.
8. Identify potential funding opportunities, which could provide financial assistance for historic preservation activities within the Southern Berks Region.
9. Consider establishing historic overlay districts for selected areas within Birdsboro, Morgantown, and Hopewell. Appoint a local or regional HARB to advise the local governing bodies of building or construction activity within the historical district. As part of this process, develop ordinances with standards and specifications for historical protection and preservation.
10. Consider the adoption of effective zoning, subdivision, and land development amendments, which consider provisions for buffer yards, scenic vistas, adaptive reuse, demolition by neglect, landscaping, signs, and other visual enhancements within historic overlay districts.
11. Promote tourism opportunities within established historical districts.
12. Promote adequate buffer areas around prominent and culturally significant historical sites to retain the character and setting of the site and minimize the encroachment of new development that may have an adverse effect on the overall integrity of the site.

Historic Resources Birdsboro Borough



Legend

- National Register Listed
- National Register Eligible
- National Register Ineligible
- Other Historic Sites*

- National Register Listed
- National Register Eligible
- National Register Ineligible
- Other Historic Districts*

- Interstate
- US Route
- State Route
- Roads
- Railroads

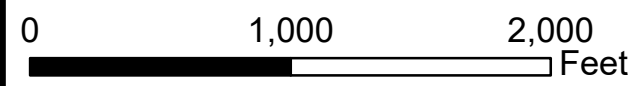
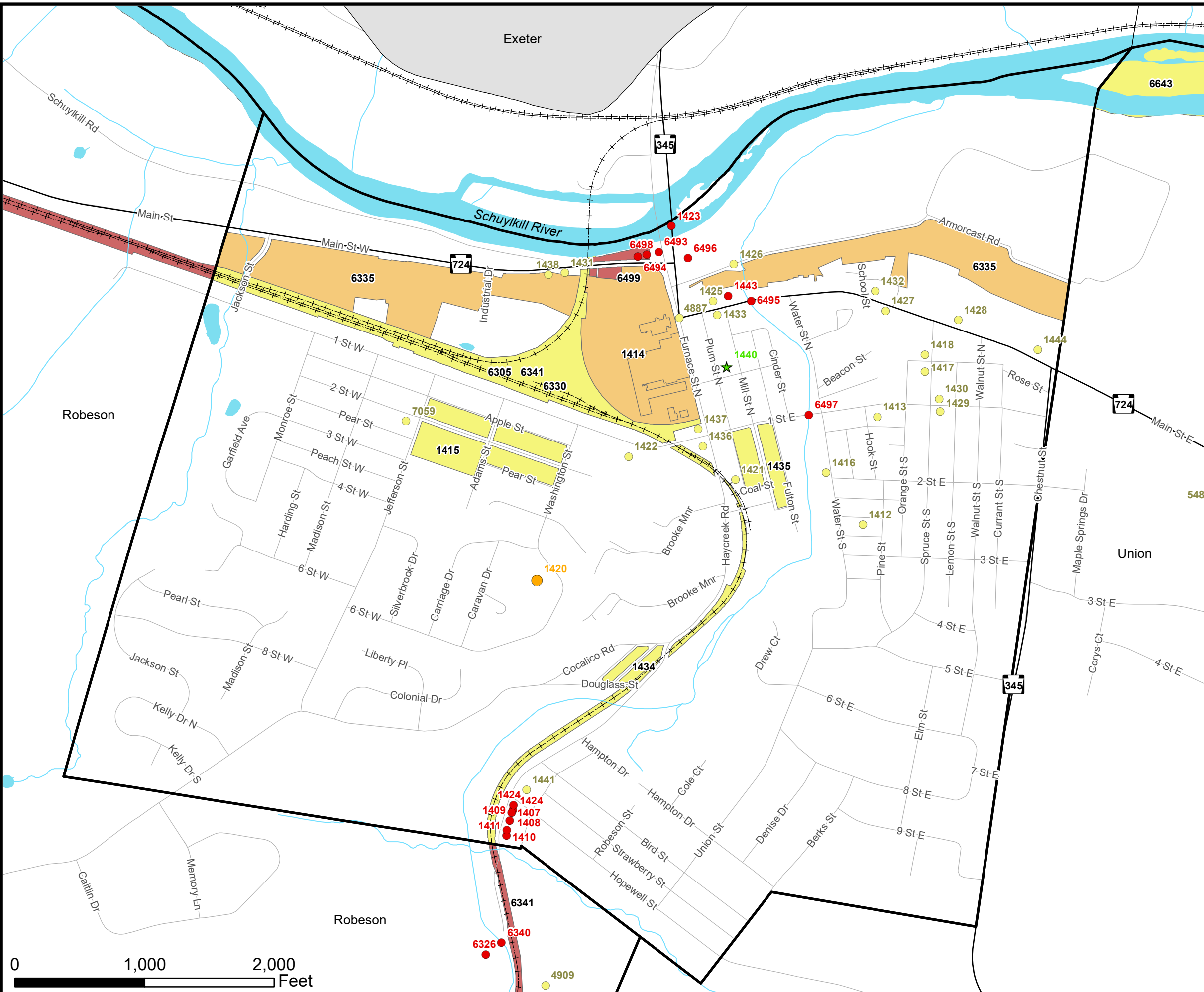
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

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

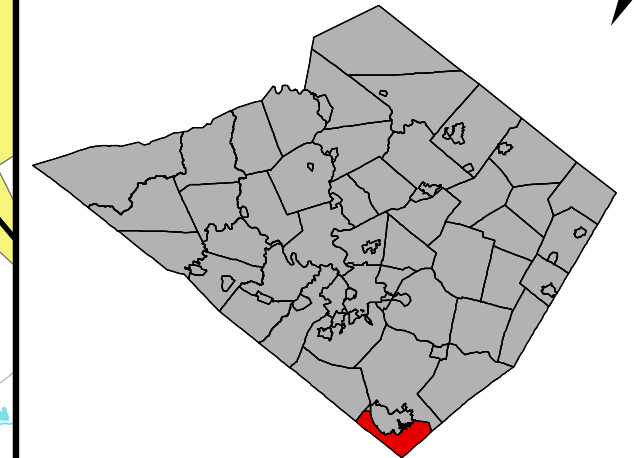
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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BAB 8/20



Historic Resources Caernarvon Township



Legend

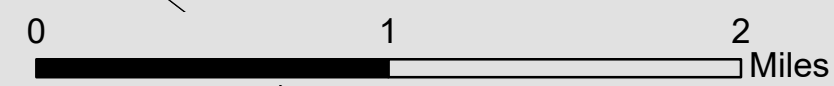
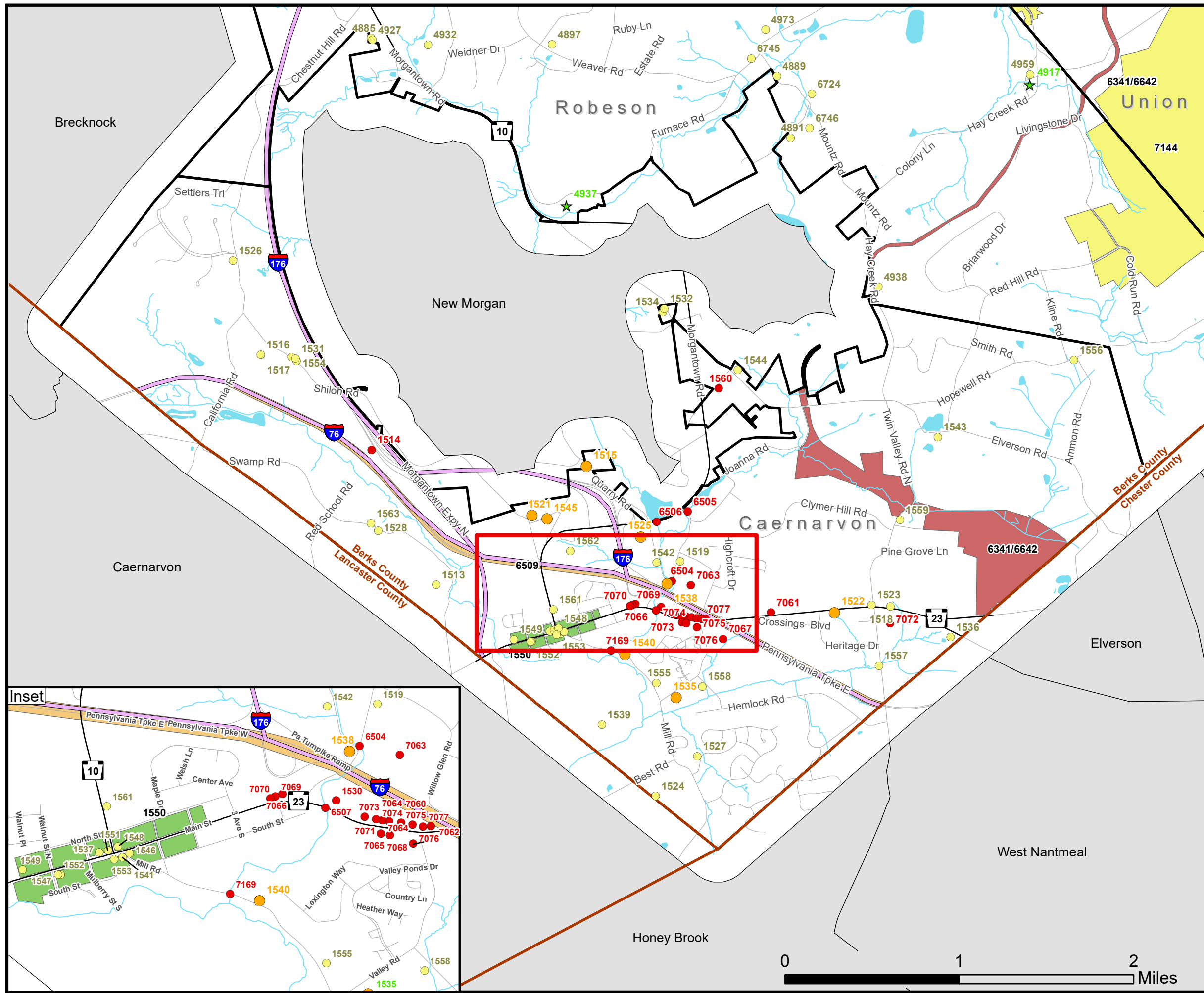
- National Register Listed
- National Register Eligible
- National Register Ineligible
- Other Historic Sites*
- National Register Listed
- National Register Eligible
- National Register Ineligible
- Other Historic Districts*
- Interstate
- US Route
- State Route
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

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

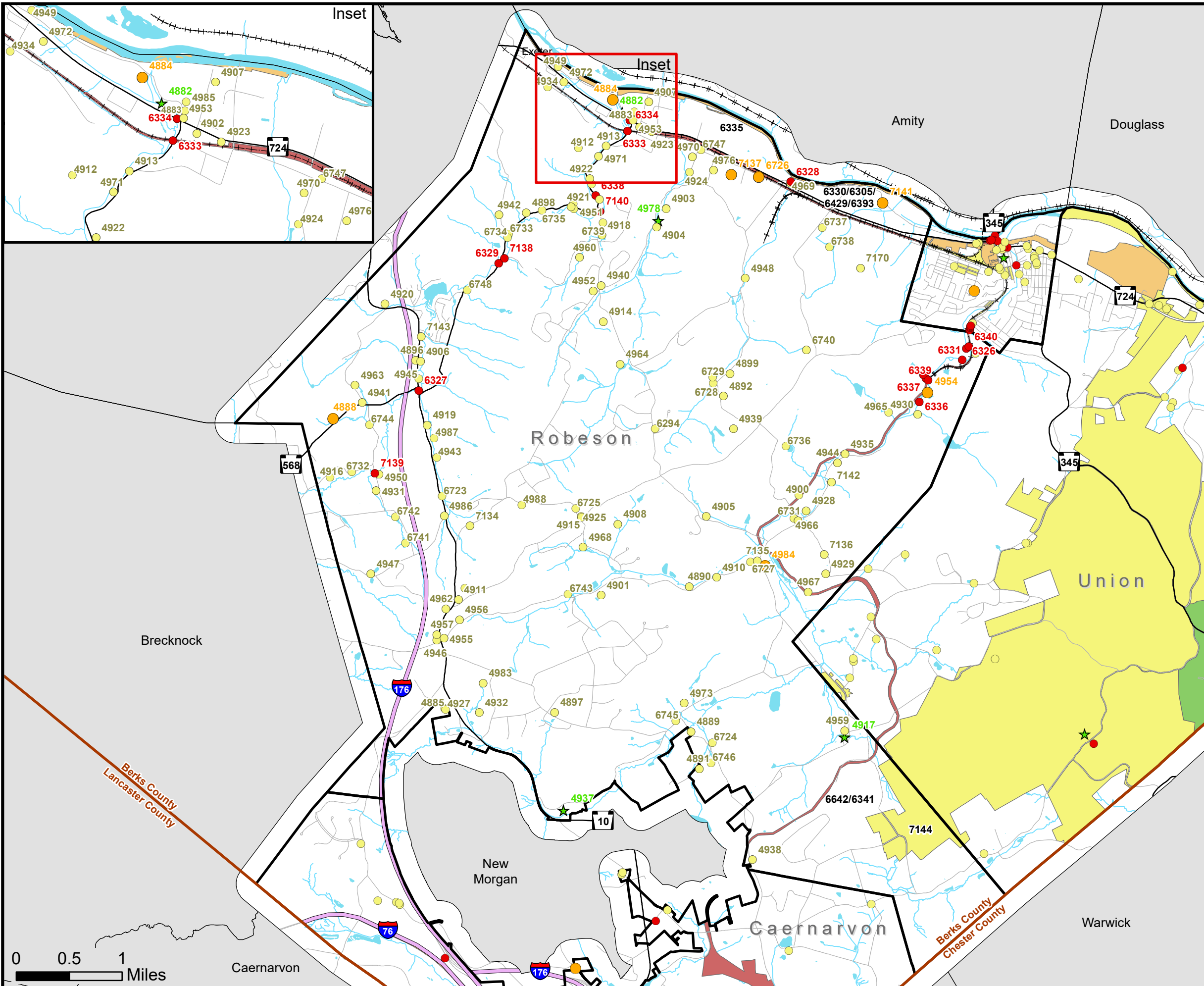
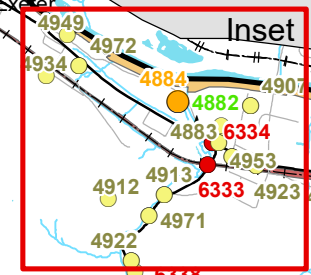
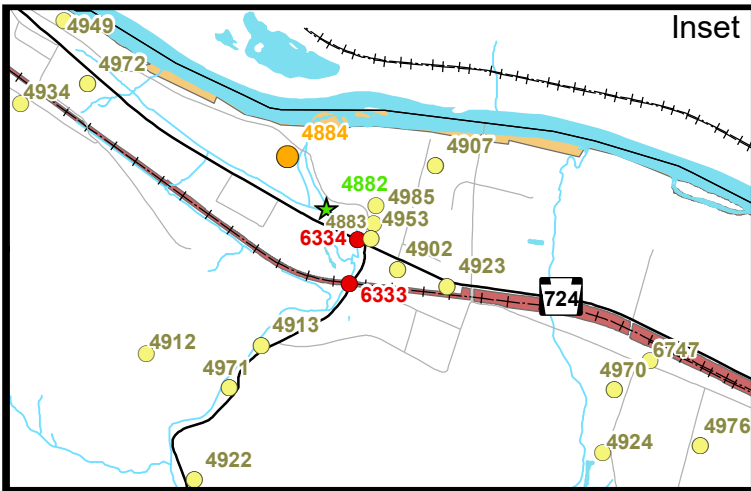
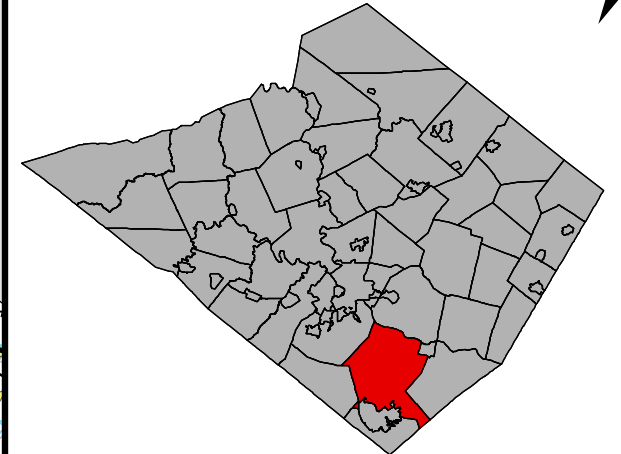
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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Historic Resources Robeson Township



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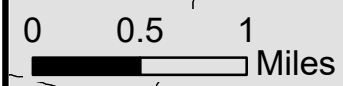
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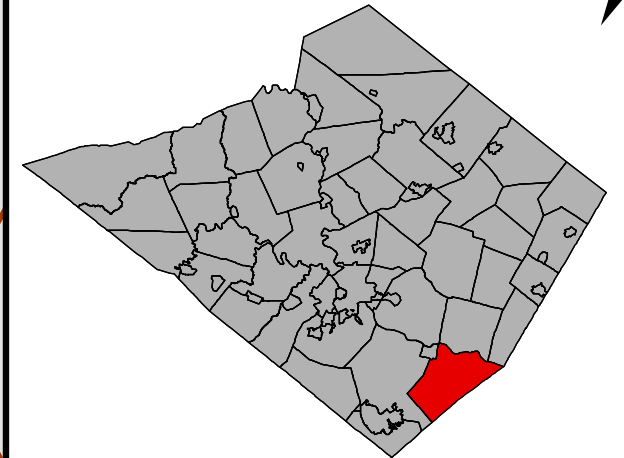
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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Historic Resources Union Township



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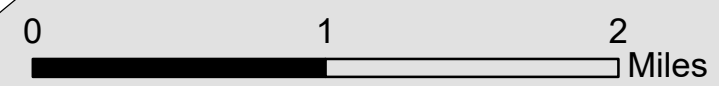
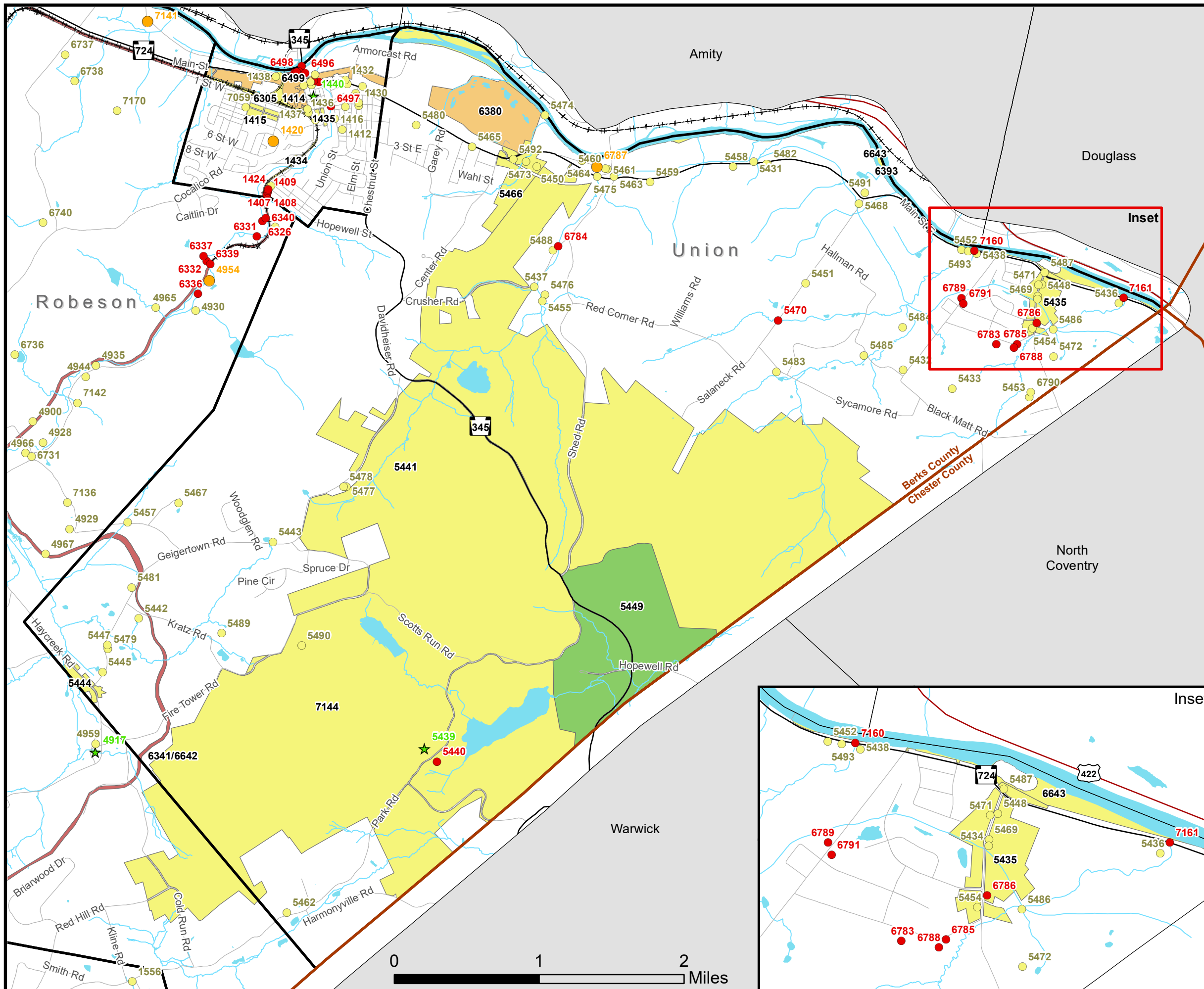
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ECONOMY

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



The Berks County Economy

The four municipalities in the planning area are part of the over \$16 billion dollar Berks County economy which, by output in dollars, ranks ninth out of the 18 metropolitan areas in Pennsylvania. The county’s manufacturing and professional business services are the largest sector contributors to GDP. Overall, service producing industries account for 60.4% of the total County GDP, goods producing industries, 39.8%, trade 12.4%, government 9.9%.

An active working-age population is a critical component to support economic growth, and the labor force participation rate – calculated as the percentage of the civilian population 16 years or older who have a job or are actively looking for one – provides a helpful measure of this activity and the health of the region’s economy.

According to the U. S. Department of Labor, Bureau of Labor Statistics in July of 2018 Berks County had a labor force of 215,757 people, of which 206,382 (or 95.6%) were currently employed and 9,375 (or 4.3%) were unemployed. The County has a labor participation rate of 65.8%, higher than the state level of 62.4%. (This means that out of those who are 16-64 years of age in the County, nearly 66% are actively working or seeking employment and 34% are not employed nor seeking employment.

Change in Real GDP by PA Metro Area Between 2001 and 2017 (millions of chained 2009 dollars)				
Ranked by GDP Output in 2017				
Metropolitan Area	2001 \$	2017 \$	# Change	% Change
Philadelphia	303,035	387,746	84,711	28.0%
Pittsburgh	109,442	131,222	21,780	19.9%
Allentown/Bethlehem/Easton	29,496	38,613	9,117	30.9%
Harrisburg/Carlisle	27,001	32,491	5,490	20.3%
Lancaster	19,061	25,170	6,109	32.0%
Scranton/Wilkes-Barre/Hazleton	19,136	20,782	1,646	8.6%
York/Hanover	13,445	16,900	3,455	25.7%
Reading	13,920	16,375	2,455	17.6%
Erie	9,660	9,678	18	0.2%
State College	5,287	8,091	2,804	53.0%
East Stroudsburg	4,536	5,311	775	17.1%
Chambersburg/Waynesboro	3,416	4,805	1,389	40.7%
Altoona	4,116	4,690	574	13.9%
Lebanon	3,390	4,474	1,084	32.0%
Williamsport	3,798	4,386	588	15.5%
Johnstown	4,009	3,690	-319	-8.0%
Bloomsburg/Berwick	2,877	3,566	689	23.9%
Gettysburg	2,328	2,999	671	28.8%
Pennsylvania	522,191	767,580	245,389	47.0%
Source: U.S. Chamber of Commerce, Bureau of Economic Analysis				
Note: The use of unchained dollars adjusts real dollar amounts for inflation over time so that numbers from different years can be compared				

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Incomes

The median household incomes in the planning area differ between the municipalities. The borough of Birdsboro has the lowest median household income in the region but still surpasses the county and state averages. All of the municipalities in the planning region saw median household incomes grow between 2010 and 2016.

Median Household Incomes (Inflation Adjusted)			
Municipality	2010	2016	% Change
Birdsboro	\$61,679	\$62,083	0.7%
Caernarvon	\$71,715	\$84,537	17.9%
Robeson	\$75,763	\$85,606	13.0%
Union	\$64,655	\$77,083	19.2%
Berks County	\$53,470	\$57,068	6.7%
Pennsylvania	\$50,398	\$54,895	8.9%

Source: U.S. Census, 2006-2010 and 2012-2016 American Community Survey (DP03)

Household Income Distribution

In all four municipalities, the majority of households have a household income from \$50,000 to \$99,999, which is on par with county and state levels. Of note, however, is that the four municipalities do have larger concentrations of higher household incomes than the state and county in several of the “upper” income bands and Caernarvon has a noteworthy number of households that make between \$150,000 to \$199,999 a year.

Household Income Distribution						
Income Group	Birdsboro	Caernarvon	Robeson	Union	Berks	PA
Less than \$10,000	6.4	5.3	0.8	1.7	6.1	6.7
\$10,000 to \$14,999	4.5	0.6	0.0	2.9	4.8	5.1
\$15,000 to \$24,999	9.9	3.4	4.7	11.0	10.1	10.5
\$25,000 to \$34,999	9.4	4.9	6.8	6.7	9.5	10.0
\$35,000 to \$49,999	12.3	10.3	10.0	15.0	13.2	13.4
\$50,000 to \$74,999	16.5	18.8	19.2	9.4	19.3	18.3
\$75,000 to \$99,999	19.0	15.8	21.1	25.0	13.9	12.6
\$100,000 to \$149,999	13.6	23.2	22.3	16.5	14.3	13.5
\$150,000 to \$199,999	5.7	11.5	9.0	6.8	5.0	5.0
\$200,000 or more	2.5	6.3	6.1	4.9	3.8	4.9
Median Income	\$62,083	\$84,537	\$85,606	\$77,083	\$57,068	\$54,895

Source: U.S. Census, 2012-2016 American Community Survey (DP03)

Sources of Household Income

The majority of households in the planning area generate income by wage and salary earnings from employment. However, there are some noteworthy differences between the municipalities. In Union Township, the higher number of households reporting income from social security and retirement shows an older, retiring population as regular payments from social security, pensions and retirement savings are an important income source for older individuals.

Households in Birdsboro report income from transfer payments such as cash/public assistance and food stamps.

While the borough is below county and state levels in regards to total income generated by transfer payments, it suggests that there are households in the borough that may be having difficulty making ends meet.

Household Income Sources by Percentage						
Income Group	Birdsboro	Caernarvon	Robeson	Union	Berks	PA
Earnings	83.8	89.3	83.2	77.5	77.4	75.4
Social Security	26.3	21.0	31.6	40.8	34.0	34.2
Retirement	16.5	15.5	22.1	25.2	20.5	20.6
Supplemental Security	4.9	1.8	4.2	4.9	5.9	5.9
Cash/Public Assistance	4.1	0.7	0.0	2.1	2.7	3.4
Food Stamps/SNAP	10.1	3.3	4.1	4.9	13.8	13.0

Source: U.S. Census, 2012-2016 American Community Survey (DP03)

Employment

In each of the municipalities, the unemployment level for teenage workers (ages 16-19) and college age workers (20-24) is relatively high and can skew numbers. If we remove those age groups from the analysis, the age bands with the highest unemployment in each municipality are shown below:

Municipality	Age Band	Unemployment Rate %
Birdsboro	25-29	13.8
Caernarvon	65-74	16.4
Robeson	25-29	15.8
Union	55-59	6.5

Source: U.S. Census, 2012-2016 American Community Survey (S2301)

Resident Employment Profile

Shown below is data on the age of the workforce in each municipality and the types of industries that residents, 16 and older, are employed in. Most residents in the planning area are employed in the healthcare and social assistance industry. The manufacturing industry employs the second largest amount of residents in the planning area.



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Resident Employer Profile - Workers 16 and Older - 2016										
Type	Birdsboro		Caernarvon		Robeson		Union		Berks County	
	#	%	#	%	#	%	#	%	#	%
Total Resident Workers	2,839		2,237		3,996		1,907		199,047	
Age 29 or younger	528	18.6%	423	18.9%	713	17.8%	286	15.0%	46,004	23.1%
Age 30 to 54	1,728	60.9%	1,417	63.3%	1,923	48.1%	993	52.1%	105,851	53.2%
Age 55 or older	583	20.5%	397	17.7%	1,359	34.0%	628	32.9%	47,195	23.7%
Agriculture, Forestry, Fishing and Hunting	27	1.0%	33	1.5%	50	1.3%	10	0.5%	3,434	1.7%
Mining, Quarrying, and Oil and Gas Extraction	17	0.6%	0	0.0%	34	0.9%	10	0.5%	303	0.2%
Utilities	38	1.3%	8	0.4%	17	0.4%	19	1.0%	2,367	1.2%
Construction	112	3.9%	216	9.7%	282	7.1%	209	11.0%	10,676	5.4%
Manufacturing	486	17.1%	309	13.8%	734	18.4%	277	14.5%	37,362	18.8%
Wholesale Trade	96	3.4%	38	1.7%	125	3.1%	20	1.0%	6,272	3.2%
Retail Trade	287	10.1%	235	10.5%	512	12.8%	200	10.5%	24,349	12.2%
Transportation and Warehousing	80	2.8%	44	2.0%	95	2.4%	121	6.3%	7,896	4.0%
Information	61	2.1%	14	0.6%	39	1.0%	80	4.2%	2,625	1.3%
Finance and Insurance	74	2.6%	197	8.8%	151	3.8%	86	4.5%	7,976	4.0%
Real Estate and Rental and Leasing	94	3.3%	9	0.4%	53	1.3%	71	3.7%	3,011	1.5%
Professional, Scientific, and Technical Services	103	3.6%	197	8.8%	360	9.0%	88	4.6%	9,799	4.9%
Management of Companies and Enterprises	0	0.0%	0	0.0%	15	0.4%	0	0.0%	132	0.1%
Administration & Support, Waste Management	169	6.0%	78	3.5%	88	2.2%	12	0.6%	7,250	3.6%
Educational Services	246	8.7%	161	7.2%	378	9.5%	82	4.3%	16,333	8.2%
Health Care and Social Assistance	564	19.9%	410	18.3%	500	12.5%	303	15.9%	29,181	14.7%
Arts, Entertainment, and Recreation	78	2.7%	31	1.4%	89	2.2%	76	4.0%	3,454	1.7%
Accommodation and Food Services	199	7.0%	140	6.3%	148	3.7%	32	1.7%	13,055	6.6%
Other Services (excluding Public Administration)	73	2.6%	37	1.7%	249	6.2%	177	9.3%	8,885	4.5%
Public Administration	35	1.2%	80	3.6%	77	1.9%	34	1.8%	4,687	2.4%

Source: U.S. Census Bureau, 2012-2016 American Community Survey

Mean Hours Worked at a Job

Residents in the planning area work a nearly 40-hour week on average. Declines in hours worked could be due to retirements, underemployment or unemployment. Full time employment is defined as working 35 hours or more per week. Residents in Caernarvon Township saw a decline in the hours worked at their jobs between 2010 and 2016 while residents in the rest of the municipalities saw small increases.

Mean Usual Hours Worked				
Municipality	2010	2016	Difference	% Change
Birdsboro	39.4	39.5	0.1	0.3%
Caernarvon	40.7	37.8	-2.9	-7.1%
Robeson	37.6	39.9	2.3	6.1%
Union	38.6	39.2	0.6	1.6%
Berks County	38.6	38.2	-0.4	-1.0%
Pennsylvania	38.4	38.3	-0.1	-0.3%

Source: U.S. Census, 2006-2010 and 2012-2016 American Community Survey (B23020)

Commute Times

More than half of the residents in both Birdsboro and Robeson work close to home, with commutes less than 10 miles to their place of employment. Caernarvon Township has the highest percentage of residents who travel 10 to 24 miles to work and Union has nearly 25% of their residents traveling 25 to 50 miles to their jobs.

Percent of Resident Workers Who Commute to Work (in miles) in 2015				
Municipality	Less than 10	10 to 24	25 to 50	50 +
Birdsboro	61.3	24.0	10.8	4.0
Caernarvon	28.9	54.8	10.3	5.9
Robeson	51.7	25.1	14.9	8.3
Union	36.5	26.3	24.3	12.9
Berks County	55.0	21.2	14.2	9.6

Source: U.S. Census LEHD, 2015

Employment Inflow and Outflow

According to the U.S. Census Bureau’s 2015 Longitudinal Employer-Household Dynamics (LEHD) data nearly 6,000 people come into the planning area per day to work while almost 9,000 daily leave the planning area for employment, making the area a net exporter of labor. A little more than 550 people both live and work in the planning area.

This is consistent with Berks County as a whole, which has more residents leave to work than those from surrounding counties who come into Berks County for employment.

Worker Flow in 2015				
Municipality	In to Work	Staying to Work	Out to Work	Difference
Birdsboro	710	116	2,622	-1,912
Caernarvon	3,581	177	1,304	2,277
Robeson	833	209	3,017	-2,184
Union	531	50	1,844	-1,313
Southern Berks Planning Area	5,655	552	8,787	-3,132
Berks County	62,629	113,739	82,587	-19,958

Source: U.S. Census LEHD, 2015

Top Industries in the Planning Area

Birdsboro has over 800 jobs inside the borough with just over 30% of those jobs in manufacturing businesses.

Distribution of All Jobs in the Municipality - Birdsboro	
Total Jobs	826
Industry	% of Total Jobs
Manufacturing	32.9%
Educational Services	18.0%
Retail Trade	5.9%
Health Care and Social Assistance	5.9%
All Others	36.8%

Source: U.S. Census LEHD, 2015

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Similar to Birdsboro, Caernarvon Township has the largest percentage of their 3,758 jobs in manufacturing. Both municipalities rely heavily on the manufacturing sector for employment opportunities within their jurisdictions. Caernarvon also has the largest number of jobs out of the four municipalities in the planning area.

Distribution of All Jobs in the Municipality - Caernarvon	
Total Jobs	3,758
Industry	% of Total Jobs
Manufacturing	43.7%
Wholesale Trade	13.2%
Retail Trade	11.5%
Educational Services	7.6%
Management of Companies and Enterprises	6.3%
All Others	17.7%
Source: U.S. Census LEHD, 2015	

In Robeson Township, the 1,042 jobs are more diversified with administration and support, waste management and remediation accounting for 22.5% of employment, construction 15.7%, transportation and warehousing with 14.4%, and nearly 48% of all the other jobs in various industries.

Distribution of All Jobs in the Municipality - Robeson	
Total Jobs	1,042
Industry	% of Total Jobs
Administration & Support, Waste Management & Remediation	22.5%
Construction	15.7%
Transportation and Warehousing	14.4%
Manufacturing	7.8%
Retail Trade	7.3%
All Others	32.4%
Source: U.S. Census LEHD, 2015	

In Union Township, like Robeson, the administration and support, waste management and remediation industry sector provides the most jobs within the township. Both municipalities have high percentages in the construction sector.

Distribution of All Jobs in the Municipality - Union	
Total Jobs	581
Industry	% of Total Jobs
Administration & Support, Waste Management & Remediation	46.1%
Construction	20.1%
Other Services (excluding Public Administration)	8.1%
All Others	25.6%
Source: U.S. Census LEHD, 2015	

Top Employers in Berks County

Listed below are the top 25 employers in Berks County as of 2018. None of these employers are located within the planning area.

Top 25 Employers in Berks County - 2009 to 2018 and Net Change in Employment				
Ranked by Number of Employees in 2018				
Company	Industry Type	2009 Employees	2018 Employees	Change
East Penn Manufacturing Company	Manufacturing	5,348	7,807	2,459
Tower Health (formerly Reading Hospital)	Health Care and Social Assistance	6,839	7,219	380
Pennsylvania government	Government	1,775	3,223	1,448
Berks County government	Government	2,500	2,330	-170
Carpenter Technology Corporation	Manufacturing	1,917	2,305	388
Reading School District	Education	2,637	1,967	-670
Penske Truck Company, LP	Rental and Leasing	1,200	1,893	693
Wal-Mart Stores	Retail	1,783	NR - 1,818 (2016)	35
Boscov's Inc.	Retail	1,400	1,750	350
Inperium Management Services Inc.	Health Care and Social Assistance	*	1,470	*
Wilson School District	Education	1,195	1,404	209
Redner's Markets Inc.	Retail	1,415	1,383	-32
Berks County Intermediate Unit	Education	1,241	1,260	19
Ashley Furniture Industries, Inc.	Manufacturing	726	1,246	520
Penn State Health St. Joseph Medical Center	Health Care and Social Assistance	1,514	1,236	-278
Bear Creek Management	Accommodation and Food Services	*	1,200	*
First Energy Corp. (Met-Ed)	Utilities	986	1,083	97
Giant Food Stores	Retail	914	1,041	127
Kutztown University	Education	1,146	1,002	-144
Gage Personnel Services	Professional Services	*	974	*
U.S. Government	Government	1,150	936	-214
Santander Bank	Finance	1,000	900	-100
Alcon Research, Ltd.	Manufacturing	*	875	*
Elwood Staffing	Professional Services	*	810	*
Boyertown School District	Education	1,066	NR - 778 (2017)	-288

Source: Reading Eagle, Berks County Planning Commission
The * denotes a company that was not ranked in the top 25 in 2009; the NR denotes Not Reported

Tax Bases

From the perspective of municipal administration, the tax base drives the ability to invest in amenities and provide quality professional services that your residents expect. From a resident's perspective, tax burden influences where people buy homes, whether they reinvest in property and where they develop businesses. The ability to raise revenue to provide infrastructure and services is affected by the tax base. The existing and future real estate of the municipality provides opportunities and constraints for maintaining 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 community wants and needs or the natural/environmental resources in the community.

The Pennsylvania State Tax Equalization Board (STEB) provides the information on the Berks County and

Chapter 7 - Economy

municipal tax bases that will be discussed in this section of the economy chapter. STEB's primary role is to determine, on an annual basis, the total market value of taxable property in all 67 counties and 2,562 municipalities in the state. This data is primarily used in the disbursement of school funds to the state's 501 school districts.

Berks County Planning Commission staff uses the STEB data to analyze tax base trends. Annually collected for every county, it allows us to analyze multi-year trends at both the municipal and county levels. We wanted to see if the municipal tax bases genuinely expanded between 2006 and 2017, so we adjusted all dollar figures to constant dollars, accounting for inflation. We do this because over time, inflation gives a false picture of monetary growth. We also have broken out the municipal tax base into several categories. The 2006 year is a good year for this analysis, as it is pre-recession.

In three of the four municipalities, the market value and the assessed value of the tax base has increased. The only exception is Birdsboro, who saw a slight decrease in the assessed value of their tax base. There are three primary factors, combined, that 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. Property values declined substantially in Berks County due to the 2007-2009 recession and have been slow to rebound to the 2006 levels.

Birdsboro Borough

In 2006, the borough was collecting taxes on a little over 96% of the market value of its tax base. However, by 2017, this has declined to 78%.

Market Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Birdsboro	180,820,800	221,414,850	40,594,050	22.4%
Assessed Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Birdsboro	173,700,600	172,965,000	-735,600	-0.4%
Tax Collection on Market Value of Tax Base				
Municipality	2006	2017	% Change	
Birdsboro	96.1%	78.1%	-18.7%	
Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 2017				

The borough saw very little growth in any of the tax base sectors. The 2006 and 2017 borough tax bases are nearly identical. Residential units make up more than $\frac{3}{4}$ of the borough's tax base.

Percentage Breakdown of County Tax Base by Category						
2006	Residential	Lots	Industrial	Commercial	Agriculture	Land
Birdsboro	86.6	0.2	4.9	7.8	0.0	0.0
2017	Residential	Lots	Industrial	Commercial	Agriculture	Land
Birdsboro	87.0	0.0	5.0	8.0	0.0	0.0
Change	Residential	Lots	Industrial	Commercial	Agriculture	Land
Birdsboro	0.4	-0.2	0.1	0.2	0.0	0.0
Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 20						

Caernarvon Township

The township was collecting taxes on 88% of the market value of its tax base in 2006. However, by 2017, this has declined to just under 74%.

Market Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Caernarvon	332,445,100	454,123,332	121,678,232	36.6%
Assessed Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Caernarvon	292,506,000	335,578,400	43,072,400	14.7%
Tax Collection on Market Value of Tax Base				
Municipality	2006	2017	% Change	
Caernarvon	88.0%	73.9%	-16.0%	
Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 2017				

The Township saw a small decrease in the commercial and agricultural sectors of the base and slight increases in the residential and industrial sectors.

Percentage Breakdown of County Tax Base by Category						
2006	Residential	Lots	Industrial	Commercial	Agriculture	Land
Caernarvon	57.1	0.3	10.0	28.3	2.8	1.0
2017	Residential	Lots	Industrial	Commercial	Agriculture	Land
Caernarvon	58.0	0.0	12.0	26.0	2.0	0.0
Change	Residential	Lots	Industrial	Commercial	Agriculture	Land
Caernarvon	0.9	-0.3	2.0	-2.3	-0.8	-1.0
Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 2017						

Robeson Township

Robeson was collecting taxes on 87.6% of the tax base in 2006. Much like their neighboring municipalities, it declined to 72.2% by 2017.

Market Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Robeson	412,484,000	556,018,951	143,534,951	34.8%
Assessed Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Robeson	361,346,600	401,360,500	40,013,900	11.1%
Tax Collection on Market Value of Tax Base				
Municipality	2006	2017	% Change	
Robeson	87.6%	72.2%	-17.6%	
Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 2017				

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The Township saw an increase in the residential sector of the base but declines in the industrial, commercial and agricultural sectors.

Percentage Breakdown of County Tax Base by Category						
2006	Residential	Lots	Industrial	Commercial	Agriculture	Land
Robeson	74.6	1.7	1.6	8.8	10.6	1.3
2017	Residential	Lots	Industrial	Commercial	Agriculture	Land
Robeson	79.0	2.0	1.0	7.0	9.0	1.0
Change	Residential	Lots	Industrial	Commercial	Agriculture	Land
Robeson	4.4	0.3	-0.6	-1.8	-1.6	-0.3

Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 2017

Union Township

In 2006, the township was collecting taxes on over 87% of the market value of the base. By 2017, this declined to 71.2%.

Market Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Union	199,567,300	271,653,188	72,085,888	36.1%
Assessed Value of Tax Base - 2006 and 2017				
Municipality	2006	2017	\$ Change	% Change
Union	175,272,800	193,364,800	18,092,000	10.3%
Tax Collection on Market Value of Tax Base				
Municipality	2006	2017	% Change	
Union	87.8%	71.2%	-19.0%	

Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 2017

The tax base overall has been steady. There was very minimal decline in the industrial, commercial and agricultural sectors of the tax base.

Percentage Breakdown of County Tax Base by Category						
2006	Residential	Lots	Industrial	Commercial	Agriculture	Land
Union	81.0	1.3	0.3	4.4	9.6	1.6
2017	Residential	Lots	Industrial	Commercial	Agriculture	Land
Union	82.0	2.0	0.0	4.0	9.0	1.0
Change	Residential	Lots	Industrial	Commercial	Agriculture	Land
Union	1.0	0.7	-0.3	-0.4	-0.6	-0.6

Source: Pennsylvania State Tax Equalization Board Land Use and Market Value Reports: 2006 and 2017

Taxes

Components of Real Estate Taxes

The chart below illustrates the change in taxes by components from 2004 to current tax rates. The Twin Valley School District saw the most change in number of mills. The Union Township municipal real estate tax saw the largest percent increase. Caernarvon has the lowest municipal real estate tax in the planning region; Birdsboro the highest.

Components of Real Estate Tax Mills - Comparison				
Unit	2004	2017-2018	# Change	% Change
Berks County Tax	5.18	7.65	2.47	47.7%
Daniel Boone School District Tax	22.00	30.20	8.20	37.3%
Twin Valley School District Tax	17.70	27.55	9.85	55.6%
Birdsboro	2.53	6.86	4.33	171.1%
Caernarvon	1.88	2.48	0.60	31.9%
Robeson	0.97	2.75	1.78	183.5%
Union	0.90	3.65	2.75	305.6%

Source: Berks County Planning Commission, Berks County Assessment Office

The chart below shows the entire millage (municipal, school district, county) combined. Between 2004 and present, Birdsboro has seen the most change for millage. Presently, Caernarvon Township has the lowest amount of millage. Birdsboro has the highest amount.

Total Tax Millage Comparison (SD, Municipal and County Together)				
Unit	2004	2017-2018	# Change	% Change
Birdsboro	29.71	44.71	15.00	50.5%
Caernarvon	24.76	37.68	12.92	52.2%
Robeson	23.85	37.95	14.10	59.1%
Union	28.08	41.50	13.42	47.8%

Source: Berks County Planning Commission, Berks County Assessment Office

Impact of Real Estate Taxes in the Planning Area

For the purpose of our analysis, we assume each municipality has a house with a 2017 fair market value of \$100,000 with no homestead exemption applied. A fixed value allows us to look solely at the tax burden in the area. Union Township residents have seen the smallest increase in real estate taxes. Residents in Birdsboro have the highest tax burden (highest amount of millage) while residents in Caernarvon Township have the lowest burden.



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Tax Bill on a \$100,000 Market Value House in 2004 and 2017-2018					
Birdsboro	Total	Assessed Value	Tax Bill	OVERALL	
2004	29.71	\$86,206	\$2,561	\$ Change	% Change
2017-2018	44.71	\$72,463	\$3,239	\$678	26.5%
Caernarvon	Total	Assessed Value	Tax Bill	OVERALL	
2004	24.76	\$86,206	\$2,134	\$ Change	% Change
2017-2018	37.68	\$72,463	\$2,730	\$596	27.93%
Robeson	Total	Assessed Value	Tax Bill	OVERALL	
2004	23.85	\$86,206	\$2,056	\$ Change	% Change
2017-2018	37.95	\$72,463	\$2,749	\$693	33.7%
Union	Total	Assessed Value	Tax Bill	OVERALL	
2004	28.08	\$86,206	\$2,420	\$ Change	% Change
2017-2018	41.50	\$72,463	\$3,007	\$587	24.3%

Source: Berks County Planning Commission

Looking at tax burden, with all Berks County municipalities having the same exact \$100,000 house, you can see in the first column that Birdsboro has the seventh highest amount of taxes in Berks County while Caernarvon has the lowest.

However, if the tax rate was applied to the assessed value based on real median housing values, the numbers change substantially. Birdsboro's tax bill is the 47th lowest. This is due to the low median housing values in the borough. Consequentially, due to the high median housing values in Caernarvon residents pay the 9th highest amount of taxes in the County.

In the case of Birdsboro, a high amount of millage is being applied to low median housing values (23rd lowest in the County).

In Caernarvon: A low amount of millage is being applied to high median housing values (6th highest in the County).

Ranking of the 2018 Tax Bill in the Planning Area Versus All Other Berks County Municipalities		
Municipality	Same \$100,000 House	Median House Value
Birdsboro	7th	47th
Caernarvon	53rd	9th
Robeson	50th	15th
Union	19th	22nd

Source: Berks County Planning Commission

Tax Exempt Parcels

There are 277 parcels in the planning area that are entirely or partially exempt from paying school, municipal and county property taxes, according to Berks County assessment data. The majority of these properties are government and state owned parkland. The most valuable exempt property is French Creek State Park in Union Township with a value over \$20 million.

Top Ten Tax-Exempt Parcels by Value in the Planning Area - 2018			
Owner	Address	Municipality	Value in \$
Commonwealth of PA	Park Road	Union	20,468,400
Twin Valley School District	N. Twin Valley Road	Caernarvon	17,266,200
Daniel Boone School District	Chestnut Street	Union	17,103,600
Birdsboro Municipal Authority	Hay Creek Road	Robeson	5,528,800
Daniel Boone School District	2nd Street	Birdsboro	5,375,900
Birdsboro Municipal Sewer Authority	Armorcast Road	Birdsboro	3,123,800
PA State Game Commission	Chestnut Street	Union	2,776,600
Hopewell Christian Fellowship	Hopewell Road	Caernarvon	2,436,600
Twin Valley Fire Department	Conestoga Road	Caernarvon	2,098,400
U.S. Government	Hopewell Furnace Trail	Union	1,803,500

Source: Berks County Planning Commission

Not only is French Creek State Park the largest tax exempt parcel in the planning area in terms of value but it is also the largest in area - 4,945 acres. Robeson Township has the most tax exempt parcels in the planning area – 72.

Top Ten Tax-Exempt Parcels by Size in the Planning Area - 2017				
Owner	Address	Municipality	Size in Acres	Value in \$
Commonwealth of PA	Park Road	Union	4,945	20,468,400
Birdsboro Municipal Authority	Hay Creek Road	Robeson	1,775	5,528,800
PA State Game Commission	Chestnut Street	Union	795	2,776,600
U.S. Government	Hopewell Furnace Trail	Union	515	1,803,500
Commonwealth of PA	Cold Run Road	Robeson	235	823,000
Commonwealth of PA - DCNR	Ridgeway Road	Robeson	232	66,500
Commonwealth of PA	Crusher Road	Union	170	592,800
Natural Lands Trust, Inc.	Gunhart Road	Robeson	166	613,900
Union Township	Route 724	Union	154	469,100
Twin Valley School District	N. Twin Valley Road	Caernarvon	113	17,266,200

Source: Berks County Planning Commission

What Does This All Mean?

Like Berks County, a significant issue for the municipalities moving forward is addressing the stagnation of the tax base. So far, in response to slow tax base growth the municipalities and school districts have had to raise the tax rate to generate needed revenue to offset growing expenditures. As stated previously in this chapter, the key to economic stability or growth is the optimization of the tax base by making every acre of land as productive as it can be without compromising community wants and needs or the natural/environmental resources in the community. Moving forward, the municipalities should look at ways to boost the tax base. This could include, but is not limited to using the tools and resources available to attract new industries to the area that offer higher paying, sustainable jobs.

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Economic Development Goals

Consider changing the goal from “development” to prosperity.

The planning area’s prosperity is influenced by the quality of the area as a place to live, the public education system, availability of capital, and the condition of both the natural (parks, open space, environmentally sensitive areas) and built environments. The planning area should not evaluate success nor be satisfied solely on single metrics such as the number of jobs created or how “nice” a building or area looks. The municipalities should make investments and attract private investment and enterprise that improves the area’s ability to weather economic changes (e.g. ecommerce and its effect on bricks and mortar retail, rise in healthcare demand) and downturns and improves prosperity for developers, business owners, and residents alike.

Focus on providing high quality, fundamental public services.

The area’s infrastructure assets are valuable and represent generations of investment. They also require maintenance, repair, and attention. Sidewalks, streets, bridges, stormwater management systems, parks and open space, and water and sewer systems ensure that business and residents can move around the area, drink clean water, and have reliable sewer service. Having an intentional investment strategy to maintain and improve these systems will continue to make the planning area an attractive location to invest, reside, and reduce the expensive consequences of deferred maintenance.

Prioritize infrastructure improvements.

Identify the infrastructure improvements needed to attract and support the growth of industries and businesses the planning area wants to have, and prioritize the completion of these improvements. Consider joint capital improvements planning to increase awareness and visibility of infrastructure needs.

Encourage regulatory alignment in all municipalities.

The planning area should strive to keep their planning and permitting processes current and streamlined, eliminating excessive or obsolete requirements, with fee structures for planning services and permitting that recover no more than the actual costs to conduct such programs and reviews.

Municipalities should monitor county, state, and national trends and maintain timely and modern zoning regulations that foster investment and redevelopment of sites in the area.

Boost the diversification of the local economy.

Encourage the development, redevelopment, and reinvestment in an array of retail, service, office, and other employment uses in all mixed residential/commercial, commercial and industrial land use areas as shown on the Future Land Use Plan. Support small business such home occupations and limited, neighborhood-serving commercial and employment uses in the (residential land use categories).

Support the creation and growth of local businesses.

Support the creation of local businesses by promoting a positive business environment by reducing the municipal barriers to opening businesses, leveraging existing programs, providing information and business resources through coordinated websites, and exploring and advertising potential incentives financial tools and resources to assist in new business establishment.

Attract and cultivate a skilled workforce.

Cultivate and attract a skilled workforce by providing access to attainable and high quality housing options, supporting vibrant, well-maintained neighborhoods and amenities, and ensuring high quality schools for families. Support the growth of businesses that employ people with advanced skills and degrees.

Tools for Economic Development

There are various tools and programs available to municipalities who want to strengthen, promote, retain and/or incentivize economic development in their respective jurisdictions. The following is a list of common programs, some of which are administered through the Pennsylvania Department of Community and Economic Development (DCED) (www.newpa.com), for municipalities to use to implement economic development initiatives:

Keystone Innovation Zone Tax Credit Program (KIZ) – This program provides tax credits to early-stage technology-oriented businesses and entrepreneurs operating in a Keystone Innovation Zone (KIZ); companies without a tax liability may sell tax credits to companies with tax liabilities for cash. Funding provides tax credits for companies that have been in operation less than 8 (eight) years, whose gross revenues have increased over the previous year, are located in a KIZ Zone, and fall under the industry sector focus.

Keystone Opportunity Zone (KOZ) – The program provides state and local tax abatement to businesses and residents locating in one of the 12 designated zones. Businesses, property owners and residents located in a KOZ are eligible to receive significant state and local tax benefits. Projects in KOZs are given priority consideration for assistance under various community and economic building initiatives. Pennsylvania businesses relocating to a KOZ must either: increase their full-time employment by 20 percent within the first full year of operation, or make a 10 percent capital investment in the KOZ property based on their prior year's gross revenues. Eligibility for benefits is based upon annual certification. In order to receive benefits, any entity applying must be compliant with all local and state taxes and building and zoning codes.

Keystone Special Development Zone (KSDZ) – The KSDZ program was established for the purpose of providing incentives to for-profit businesses that locate and operate in designated geographic zones. Pennsylvania continues to have a surplus of abandoned, deteriorated commercial and industrial sites in need of revitalization. The KSDZ program is an incentive-based tax credit program to foster redevelopment of these former industrial and commercial sites. To be eligible, sites must be located within a Special Industrial Area as of July 11, 2011, for which the PA Department of Environmental Protection (DEP) has executed a Special Industrial Area Consent Order and Agreement. Businesses that provide job-creating economic development opportunities in these sites through the expansion of existing operations or the relocation of operations to the Commonwealth of Pennsylvania may be eligible for tax credits under this program.

Local Economic Revitalization Tax Assistance (LERTA) – LERTA allows local taxing authorities to exempt new construction and improvements to a commercial, industrial, and/or business property if such property is located in a deteriorated area. In order for a LERTA to apply to a property, each taxing authority (County, Municipal and School District) must, by ordinance or resolution, exempt from real estate property taxes, the assessed value of the improvements to deteriorated properties and the assessed value of new construction within the designated deteriorated areas.

Municipal Assistance Program (MAP) – The Municipal Assistance Program (MAP) is created to help local governments efficiently and effectively plan and implement a variety of services, improvements, and soundly manage development. The program provides funding for three groups of activities – shared service, community planning, and floodplain management. The program is administered by the Governor's Center for Local Government Services (GCLGS) (www.newpa.com/local-government/) in the DCED.

Pennsylvania Infrastructure Investment Authority (PennVEST) – The program provides low-interest loans for design, engineering and construction costs associated with publicly and privately owned drinking water distribution and treatment facilities, stormwater conveyance and wastewater collection, conveyance, treatment facilities and Brownfield site remediation.

Tax Increment Financing Guarantee Program (TIF) – This program promotes and stimulates the general economic welfare of various regions and communities in the commonwealth and assists in the development, redevelopment and revitalization of Brownfield and Greenfield sites in accordance with the TIF Act. The program provides credit enhancement for TIF projects to improve market access and lower capital costs through the use

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of guarantees to issuers of bonds or other debt. Funds are used for infrastructure and environmental projects for industrial enterprises and retail establishments, infrastructure, environmental and building projects for manufacturers, hospitals, or convention centers, utilization of abandoned or underutilized industrial, commercial, military, previously mined institutional sites or buildings; or undeveloped sites planned and zoned for development in accordance with an existing comprehensive municipal plan.

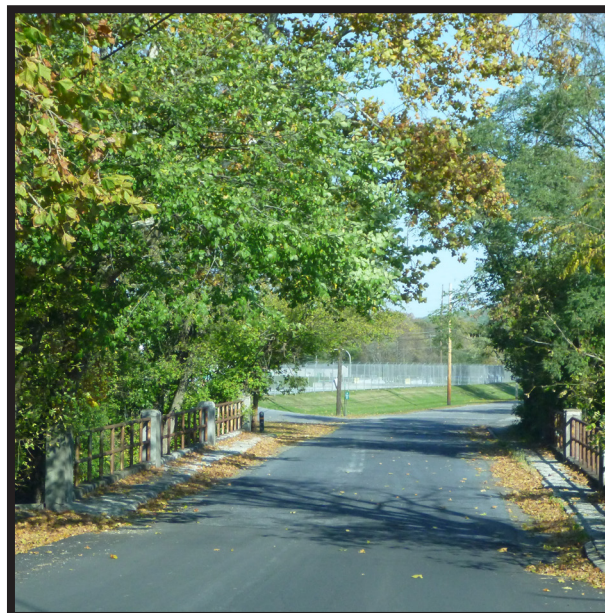
Berks County Economic Development Land Suitability Tool – Created by the Berks County Planning Commission in conjunction with the Ride to Prosperity Sites and Infrastructure Committee, this interactive web map tool is intended to guide users to the most suitable areas in Berks County for commercial and industrial uses. The heat map shows land with suitability ranges 3 through 6, with a range of 6 being the most suitable.

These are just a sample of some commonly used programs for facilitating economic development within communities. More information can be found on Pennsylvania grants and resources at PA DCED's website at www.newpa.com.

TRANSPORTATION PLAN

Moving into, around and through the Southern Berks Region is reliable and predictable. The area is connected to Berks and surrounding counties, enabling local and regional access for businesses and neighborhoods. The municipalities in the Southern Berks Region are served by an extensive transportation system comprised of roads and bridges, bus and paratransit services and rail. In addition, an extensive sidewalk and trail system serves pedestrian and bicycle travel. The roads, bridges, and public transit system accommodate thousands of trips every day.

In addition to experiencing population growth discussed in Chapter 3, the demographic and socioeconomic characteristics of the population in the Southern Berks Region have changed and will continue to change in the future. These demographic changes contain challenges for the provision of transportation facilities and services. For example, three out of the four municipalities have a larger percentage of “Under 10” residents than the county and state. This will cause a need for a viable pedestrian network connecting communities safely to parks and schools. All of the municipalities have larger percentages of working age (25-64) residents than the county and state, and as this population ages, it becomes more important to provide transportation options and services geared to their needs with more emphasis on safety improvements tailored to elderly drivers.



It is also important to remember that there is a direct correlation between land use and transportation needs. As residential and commercial 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, roads are improved to address the traffic congestion, the adjoining land becomes easier and more lucrative to develop, and more traffic is generated.

The highest priority of this plan will continue to be to preserve and maintain the existing transportation system with a primary focus on paving and upgrading existing roads and bridges.

Transportation Planning Complex

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 Southern Berks Region municipalities, 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 2017-2040 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 approximately \$80 million annually to advance transportation improvement projects throughout the county. PennDOT, South Central Transportation 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 of the capital expenditures for the municipality, but provides for large,

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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

The Southern Berks Region has approximately 286 miles of roads, including approximately 83 miles of state-owned routes, 181 miles of municipal roads and 22 miles of private lanes. Nearly all of the roads are paved or improved. All 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. However, the Liquid Fuels funds 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 2013 and 2018. The amount of money allocated to each municipality increased and overall, LFF increased 53%. Streets and roads owned and maintained by Southern Berks Region municipalities are in good condition. 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 Allocations by Municipality 2013 & 2018							
2013				2018			% Increase
Municipality	Miles	Allocation		Municipality	Miles	Allocation	
Birdsboro	16.03	\$100,673		Birdsboro	16.03	\$153,121	52%
Caernarvon	24.58	\$104,983		Caernarvon	25.59	\$162,900	55.1%
Robeson	62.1	\$228,550		Robeson	62.88	\$349,702	53%
Union	20.74	\$90,133		Union	20.74	\$136,958	51.9%
TOTAL	123.45	\$524,339		TOTAL	125.24	\$802,681	53%

Source: PennDOT Bureau of Municipal Services MLF Allocation Report, 2013 & 2018

Figure 12 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.

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. Examples of roads of this type in the area include I-76, I-176, Routes 10, 23, and 724. These roads are owned and maintained by PennDOT.

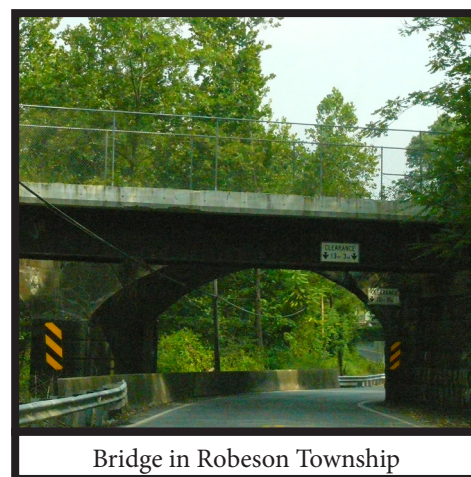
Collectors provide a lower level of service at a slower speed. They provide service for shorter distances by collecting traffic from local roads and connecting them with arterials. Collectors are classified as major collectors and minor collectors. Local roads and streets are, by far, the most numerous of the road types in the area, accounting for nearly 71 percent of all roads. These roads provide access to individual properties and serve short distance, low speed trips. Examples include Route 345/Chestnut Street, Route 568, White Bear Road, Geigertown Road, Chestnut Hill Road, and Elverson Road. These roads are owned by PennDOT and the municipalities.

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 four Southern Berks Region municipalities 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. Figure 12 illustrates 2018 AADT on area roadways. The heaviest traveled roads are the arterials in the area, namely I-76, I-176, Routes 10, 23, and 724.

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. Since PennDOT uses IRI in its pavement condition performance measures, Figure 13 shows the condition of pavement on state roads in the area.

Bridges

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 Southern Berks Region are in fair condition. In 2020, there are 66 bridges in the area, with the majority (50 bridges) owned by PennDOT. These bridges are those that require inspections – state bridges longer than eight feet and local bridges longer than 20 feet. Figure 13 shows the approximate location of bridges in the area. As the area’s bridges continue to age and deteriorate, it is sometimes necessary to close bridges unexpectedly due to problems revealed during routine inspections. Bridges closed to traffic are those structures deemed unsafe to carry any type of traffic. As of 2018, there are two closed bridges in the Southern Berks Region. Both of these bridges are located on what was State Route 82 (Hay Creek Road), which is a route now closed for travel. PennDOT has proposed removal of both of these bridges in 2026.



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 are eight (8) load-posted bridges in the area.

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. There are 13 such bridges in the area. Six bridges are owned by PennDOT, six are owned by municipalities and one is owned by Berks County. The state plans on removing two of the bridges they own in 2026 and have replacements scheduled for another two in 2021 and 2025. Hartz Mill Bridge, the bridge in poor condition owned by Berks County is scheduled for a superstructure replacement in the fall of 2019. This work was completed as of time of adoption of this plan. Figure 13 shows the location of the closed and posted bridges.

The table below shows the bridges of most concern in the region because municipalities own them and they are in poor condition as of October 2018.

Bridges of Concern							
Bridge	Location	Built	Municipality	Length	Deck Area	AADT	Condition/Issue
Thousand Oak Blvd	South of Joanna	1986	Caernarvon	61	1,933.7	150	Poor
Gunhart Road	West of I-176	1920	Robeson	45	1,125	100	Poor/Posted
Rock Hollow Road	West of SR 2082	1960	Robeson	48	1,368	100	Poor/Posted
Schuylkill Road	Schuylkill Road	1917	Robeson	43	1,075	200	Poor
Old River Road	NW of Gibraltar	1935	Robeson	56	1,344	300	Poor/Posted
Seton Road	Green Hills	1970	Robeson	59	2,460.3	200	Poor/Posted

Source: PennDOT

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Congested Corridors

RATS developed a Congestion Management Process (CMP) in May 2016 that included an examination of the 38 most congested corridors in the County. These corridors were identified using both a Travel Time Index (TTI) and the Average Annual Daily Trips (AADT) in that corridor. The TTI is the ratio of the peak-period travel time to the free flow travel time. This congested speed data, from purchased GPS information, shows peak period travel (7-9 a.m. and 4-6 p.m.) speeds as a function of free-flow (non-congested) speeds. By plotting segments with TTI greater than 1.20 (speeds 20 percent slower than free-flow averages), congested segments can be easily identified. The identification of these segments can support effective decision making when providing input into regional transportation plans. Of the 38 most congested corridors in Berks County, seven (7) have been identified with at least a portion in the Southern Berks Region.

Corridor	Peak TTI	AADT	Length (Miles)	Truck %
PA 10 (I-176 to PA 23)	1.29	4,902-7,845	1.06	7-8
PA 23	4.58	12,092-18,371	3.0	4-7
PA 401	1.93	6,398	.20	8
I-176	1.11	6,076-12,790	11.36	12-17
SR 2089	1.32	3,376-3,722	11.36	11-12
PA 724 (I-176 to Birdsboro)	1.57	8,078-11,333	5.44	4-8
PA 345 (PA 724 to U.S. 422)	1.58	4,531-6,183	1.17	5-9

Source: RATS Congestion Management Process, 2016

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.

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 allows PennDOT, RATS and Southern Berks Region municipalities 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.

Berks County has a significant amount of crashes – ranking sixth in the state in the number of overall crashes and fifth in the number of fatal crashes between 2011 and 2017. During the same span, there were 1,866 crashes in the Southern Berks Region. Approximately 51% of crashes occur on state roads, 33% on local roads, 8% on the Turnpike, and 8% on Interstate roads in the area. Between 2011 and 2017, crashes decreased by 1.4% in the area. Nineteen (19) of those crashes were fatal.

Total Number of Crashes in Southern Berks Region										
Municipality	2011	2012	2013	2014	2015	2016	2017	Total	% of Total	% Change
Birdsboro	29	25	20	19	15	26	31	165	8.8%	+6.9%
Caernarvon	93	106	88	102	107	83	102	681	36.5%	+9.7%
Robeson	105	84	101	85	102	86	83	646	34.6%	-21.0%
Union	53	62	44	51	55	49	60	374	20%	+13.2%
Total	280	277	253	257	279	244	276	1866		-1.4%

Source: PennDOT, Pennsylvania Crash Information Tool, 2011-2017

Fatal Crashes in Southern Berks Region								
Municipality	2011	2012	2013	2014	2015	2016	2017	Total
Birdsboro	1	0	0	0	0	0	0	1
Caernarvon	0	1	1	0	0	0	3	5
Robeson	0	0	1	1	1	2	4	9
Union	0	0	1	0	3	0	0	4
Total	1	1	3	1	4	2	7	19

Source: PennDOT, Pennsylvania Crash Information Tool, 2011-2017

Driving Behaviors

Unsafe driving behavior plays a significant role in crashes in Berks County. Aggressive driving and speeding are major factors, with distracted driving and tailgating as increasingly present contributors to crashes. Drivers are more distracted and more prone to speeding than we were in the 1990s or 2000s. Of note, crashes because of distracted driving in Berks County began to rise with the mass adoption of smartphones in the early-mid 2000s.

Distracted Driving Behaviors that Contributed to Crashes in Southern Berks Region								
Municipality	2011	2012	2013	2014	2015	2016	2017	Total
Birdsboro	1	4	3	4	1	2	1	16
Caernarvon	10	21	6	12	13	16	10	88
Robeson	8	2	10	7	6	7	7	47
Union	5	5	3	2	3	4	0	22
Total	24	32	22	25	23	29	18	173

Source: PennDOT, Pennsylvania Crash Information Tool, 2011-2017

Aggressive Driving Behaviors that Contributed to Crashes in Southern Berks Region								
Municipality	2011	2012	2013	2014	2015	2016	2017	Total
Birdsboro	0	3	1	3	0	0	1	8
Caernarvon	5	10	7	15	10	7	5	59
Robeson	7	4	16	8	3	7	4	49
Union	3	3	3	5	3	0	4	21
Total	15	20	27	31	16	14	14	137

Source: PennDOT, Pennsylvania Crash Information Tool, 2011-2017

Vulnerable Road Users (VRUs)

Vulnerable road users are those that are using the road without a vehicle surrounding them for protection. Most commonly, these are pedestrians, bicyclists, and motorcyclists in Berks County. The chart below shows there were nineteen (19) crashes involving pedestrians from 2011 to 2017, however none of these crashes resulted in fatalities. Of the seven (7) accidents involving a bicycle during the same time period, there was one (1) fatality in Robeson Township in 2017. From 2011 through 2017, ninety-nine (99) crashes occurred involving a motorcycle, with two (2) of the crashes resulting in fatalities. While fatality rates for vulnerable road users is low and declining, the charts below show that motorcycle crashes are by far the largest of the three classes of VRUs in the Southern Berks Region.

Chapter 8 - Transportation Plan

Crashes Involving Pedestrians in Southern Berks Region								
Municipality	2011	2012	2013	2014	2015	2016	2017	Total
Birdsboro	0	1	2	1	0	1	4	9
Caernarvon	3	0	1	0	0	1	0	5
Robeson	0	1	1	0	1	0	0	3
Union	1	0	0	0	0	0	1	2
Total	4	2	4	1	1	2	5	19

Source: PennDOT, Pennsylvania Crash Information Tool, 2011-2017

Crashes Involving Bicycles in Southern Berks Region								
Municipality	2011	2012	2013	2014	2015	2016	2017	Total
Birdsboro	1	0	0	0	0	0	2	3
Caernarvon	0	1	0	0	0	0	0	1
Robeson	0	0	0	0	1	0	1	2
Union	0	0	0	0	0	1	0	1
Total	1	1	0	0	1	1	3	7

Source: PennDOT, Pennsylvania Crash Information Tool, 2011-2017

Crashes Involving Motorcycles in Southern Berks Region								
Municipality	2011	2012	2013	2014	2015	2016	2017	Total
Birdsboro	2	2	1	1	1	2	2	11
Caernarvon	4	5	1	4	5	2	3	24
Robeson	6	4	6	2	8	3	6	35
Union	4	7	5	4	4	1	4	29
Total	16	18	13	11	18	8	15	99

Source: PennDOT, Pennsylvania Crash Information Tool, 2011-2017

Transit

Public transportation forms a key component of the Berks County transportation system. While most travel in the area is by automobile, there is a significant and growing segment of the population that relies on public transportation to fulfill their needs. Public transportation is provided by both non-profit and profit organizations, supplying fixed route, and demand response services.

The principal provider of public transportation services in Berks County is the South Central Regional Transit Authority (SCTA). This authority oversees two divisions: the Berks Area Regional Transit Authority (BARTA) that serves Berks County and the Red Rose Transit Authority (RRTA) that serves Lancaster County.

The BARTA fixed route services 33 Berks County municipalities and carries approximately 2.8 million passengers annually. Operating seven days a week, with a fleet of 50 buses, it services 39 bus shelters and 1,475 bus stops on 19 routes over 1.4 million route miles. According to BARTA, 42% of those trips are work related, followed by 23% for shopping and 14% for personal business.

Overall, major trip origins/destinations (major employers, shopping centers, post-secondary schools) are served by BARTA fixed route bus service. Route 8, which provides service between Reading and Birdsboro, had the 7th greatest weekday ridership in the BARTA system, serving 140,541 passenger trips in 2017. This route currently runs between Reading and Exeter Square on the weekends not providing weekend service to Birdsboro.

SCTA updated their Transit Development Plan in August of 2018 which included recommendations for changes to occur overtime. This plan identified proposed changes to Route 8. Route 8 would end all trips at Exeter Square and operate a new Route 8x to provide express service with limited stops between Reading and Birdsboro via Perkiomen Avenue and Lincoln Road. By creating this express route BARTA would increase AM and PM peak service frequency. SCTA also identified Birdsboro as a potential new park-and-ride area to increase access to existing service.

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.

With a fleet of 58 paratransit vehicles, BARTA provided nearly 230,000 trips in 2017. The majority of trips (41%) were for medical appointments, followed by work (18%) and accessing senior centers (11%).

Non-Motorized Transportation

Anytime you don't use your car, the bus or other motorized transport, you become a "non-motorized" traveler. 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.

The area has a diverse non-motorized transportation system. The mix of rural roads in Union and Robeson Townships to borough streets in Birdsboro, and the 100 miles of trails and 44 miles of sidewalks provide bicyclists and pedestrians with varied routes. As part of the Bicycle PA system there are two designated intrastate bicycle routes that pass through the Southern Berks Region, including "Route L" along Route 23 and "Route Y" along 345, Shed Road, and Route 724.

Most pedestrian trips are short; therefore, the Birdsboro and Morgantown areas have the greatest influence on creating viable pedestrian transportation networks. Sidewalks in the Southern Berks Region outside of these downtowns are mostly limited to subdivisions. Sidewalks provide a safe means for residents of these neighborhoods to access nearby attractions such as schools, parks, and adjacent subdivisions to the existing sidewalk network. Going forward, new land developments and subdivisions, especially ones served by public sewer and water utilities, should be encouraged to have sidewalks on one side of all streets when within two (2) miles of a school, or 0.5 miles of a greenway, park or shopping area, or when there is an existing sidewalk network adjacent to the proposed development.

Future Projects

Interstate 76 Widening

The project of widening Interstate 76 appears on the Long Range Transportation Plan. The widening of I-76 where it passes through Caernarvon would require the replacement of two of the bridges that run over I-76 including State Route 23 in Caernarvon and Twin Valley Road on the border of Caernarvon Township and Chester County.

Addition of Median Barriers on I-176 - MPMS #104435

This project will install Median Guiderail along Interstate 176 from the Turnpike Interchange to the 724 Interchange including Robeson and Caernarvon Townships. The project was begun in 2019 and has since been completed by the time of adoption of this plan.

Bridge Replacement/Rehabilitation on Main Street/(SR 0724) over Allegheny Creek - MPMS #10700

This project replaces a steel I beam bridge in Robeson rated in poor condition that was built in 1956. The project is expected to begin in 2025.

Chapter 8 - Transportation Plan

Bridge Replacement/Rehabilitation on Alleghenyville Road/(SR 3024) over I-176 - MPMS #110017

This project replaces a prestressed precast concrete box beam bridge in Robeson rated in fair condition that was built in 1962. The project is expected to begin in 2023.

Bridge Replacement/Rehabilitation on Green Hills Road/(SR 0568) over Allegheny Creek - MPMS #79086

This project replaces a steel I beam bridge in Robeson rated in poor condition that was built in 1937. The project is expected to begin in 2021.

Bridge Replacement/Rehabilitation on Mill Road/(SR 7207) over Conestoga Creek - MPMS #103141

This project replaces Hartz Mill Bridge, a prestressed precast concrete box beam bridge in Caernarvon rated in poor condition that was built in 1956. The project is expected to begin in 2019.

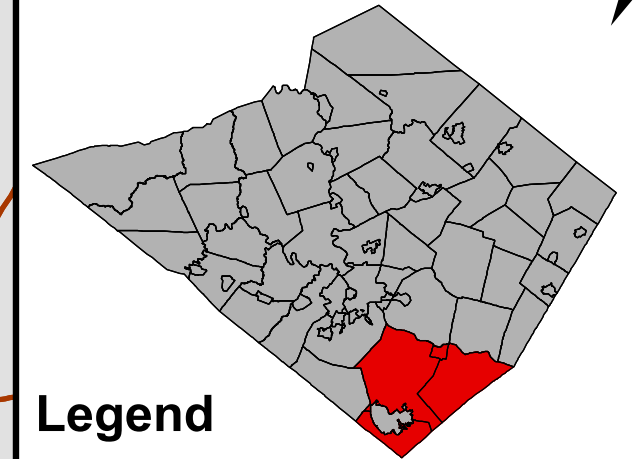
Bridge Replacement/Rehabilitation on Morgantown Road/(SR 0010) over a tributary to Conestoga Creek - MPMS #10943

This project replaces a steel I beam bridge rated in poor condition that was built in 1952. The project is expected to begin in 2022. Although this bridge is located in New Morgan it borders Caernarvon along State Route 10, the work involved will have an impact while traveling through the Southern Berks Region on State Route 10.

Airports and Railroads

Given the regional nature of airport and railroad development and support, this Comprehensive Plan calls for no specific with regard to air and rail service and instead adopts the RATS FFY 2017-2040 Long Range Transportation Plan in regards to these modes as reference.

Road Classifications and Average Daily Traffic



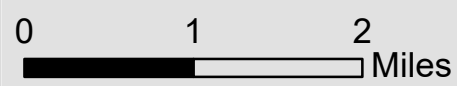
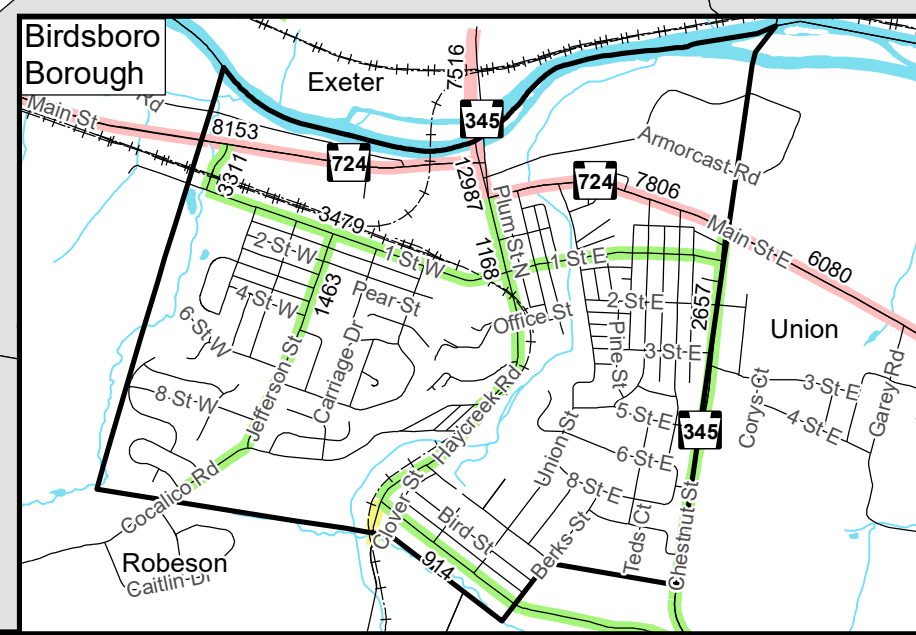
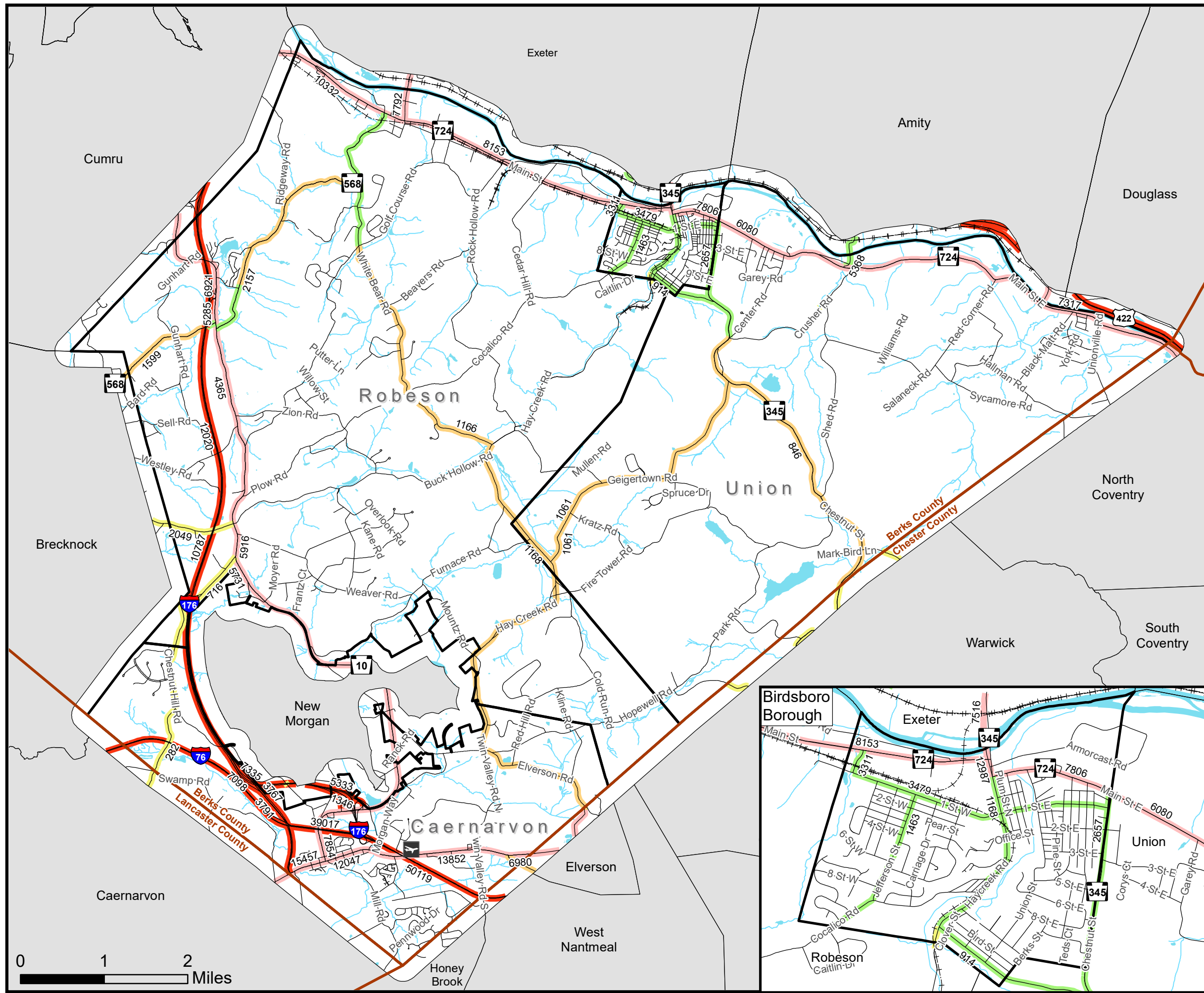
Legend

- Principal Arterials
- Minor Arterials
- Urban Collectors
- Rural Major Collectors
- Rural Minor Collectors
- Traffic Volume
- Roads
- Railroads
- Public Airport
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

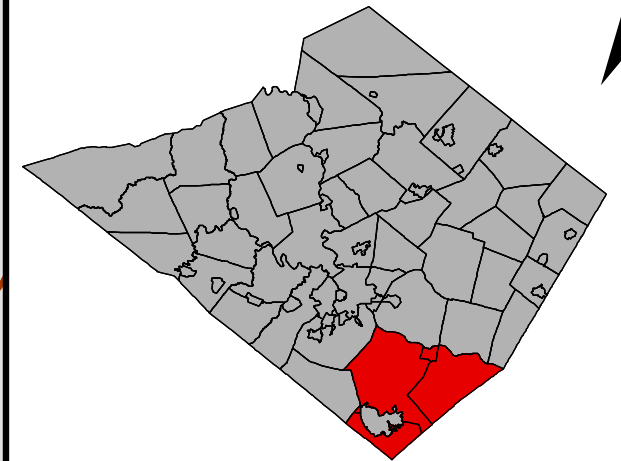
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT

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Bridge and Pavement Conditions



Legend

- State-Owned Bridges
- △ County-Owned Bridges
- Municipal-Owned Bridges
- Fair Overall Condition
- Good Overall Condition
- Poor Overall Condition
- X Closed Bridges
- Posted Bridges
- Roads
- Railroads
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

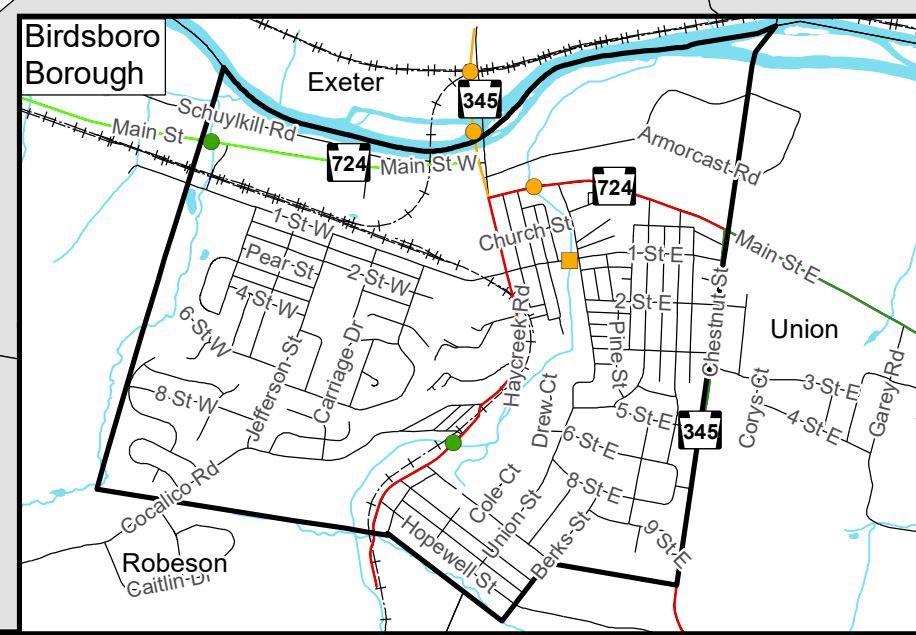
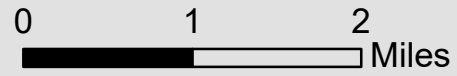
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT

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Pavement Conditions

- Excellent
- Fair
- Good
- Poor



EXISTING LAND USE PLAN

Land use is only one aspect of planning; however it is an extremely important one. Land use is the alteration of the natural environment into man-made or built environment and includes lands which are undisturbed by man. Development regulations, physical restraints and highway networks all contribute to the land use patterns within a region. Land use is used as a tool for evaluating current zoning and subdivision and land development policies as well as provides guidance for future development. Land use helps evaluate public needs, potential environmental impacts as well as prevents potential conflicts. Municipalities utilize land use planning to balance development and preserve natural resources. It serves to guide official decisions regarding the distribution and intensity of private development, reinvestment in urban centers and capital improvement programs.



Old Village Inn Restaurant and Tavern

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

Existing Land Use Analysis

1. Methodology

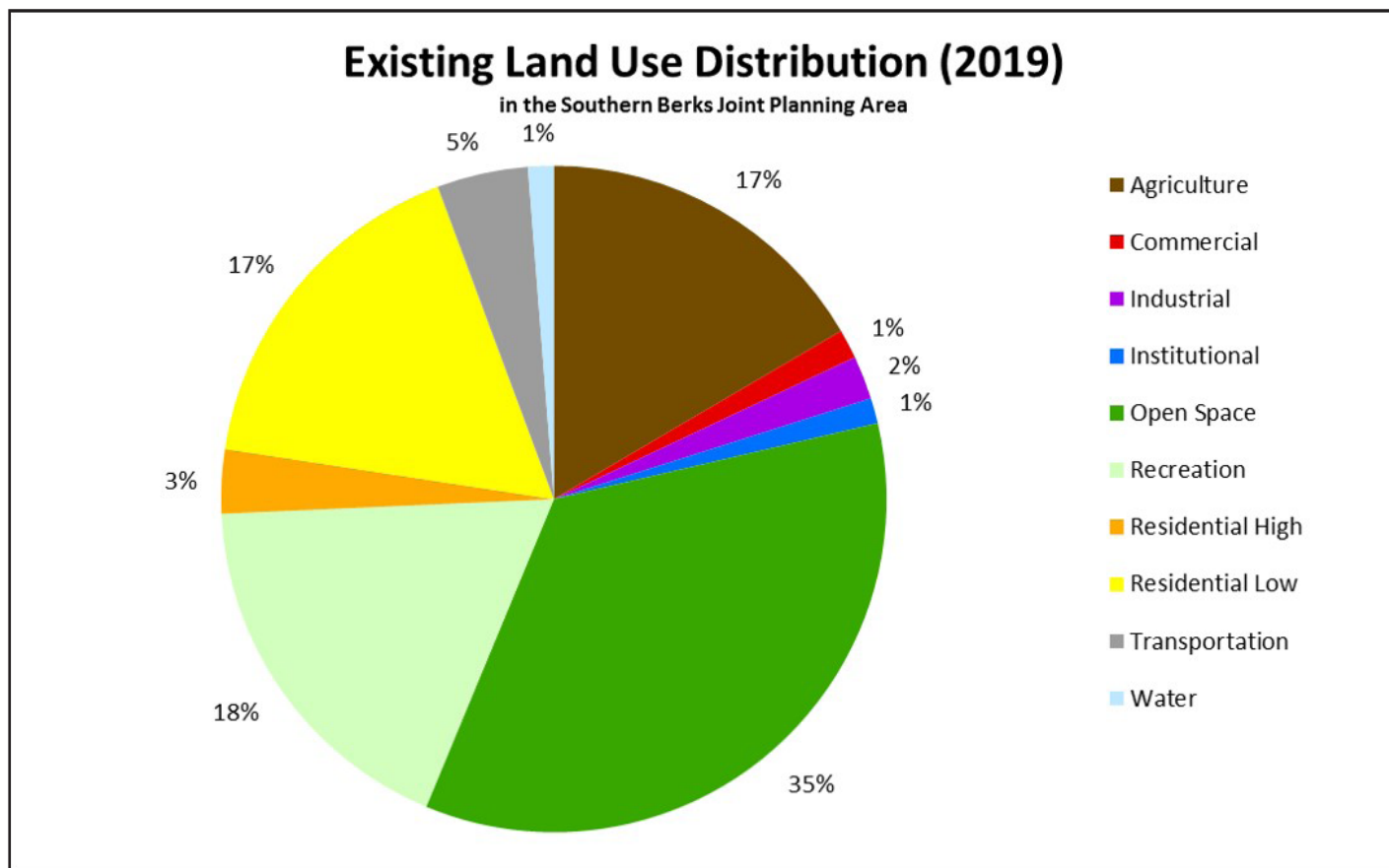
The Existing Land Use Map was created digitally using a geographic information system (GIS). The Berks County GIS tax parcel data was modified to include a specific existing land use designation for each parcel. Land use assessment codes, aerial imagery, information from Act 537 sewer plans, and other GIS data related to land use was also used in the analysis.

The table and chart below illustrate the existing land uses by acreage in the region:

Chapter 9 - Existing Land Use Plan

Existing Land Use in the Southern Berks Joint Planning Area, 2019										
LANDUSE	Joint Planning Area		Birdsboro		Caernarvon		Robeson		Union	
	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area
Agriculture	7,227	16.6%	0	0.0%	1,649	29.0%	3,361	15.3%	2,217	14.7%
Commercial	622	1.4%	50	5.8%	330	5.8%	191	0.9%	51	0.3%
Industrial	1,019	2.3%	101	11.7%	143	2.5%	555	2.5%	220	1.5%
Institutional	535	1.2%	26	3.0%	162	2.9%	181	0.8%	166	1.1%
Open Space	15,119	34.7%	127	14.7%	1,347	23.7%	10,371	47.3%	3,274	21.7%
Recreation	7,859	18.0%	11	1.3%	146	2.6%	1,103	5.0%	6,599	43.7%
Residential High	1,353	3.1%	330	38.2%	328	5.8%	332	1.5%	363	2.4%
Residential Low	7,375	16.9%	44	5.1%	1,003	17.7%	4,718	21.5%	1,610	10.7%
Transportation	1,931	4.4%	146	16.9%	539	9.5%	916	4.2%	330	2.2%
Water	542	1.2%	28	3.2%	34	0.6%	201	0.9%	279	1.8%
Total	43,582	100.0%	863	100.0%	5,681	100.0%	21,929	100.0%	15,109	100.0%

Source: Berks County Planning Commission



2. Residential Lands

Residential Low

The Residential Low category consists of primarily single-family detached dwelling units on one to five acre lots. A lot size larger than five acres was subject to more than one existing land use designation, as the residue land was typically designated as Open Space.

- Comprising 16.9% of the region's land area or 7,375 acres, Residential Low land is the third largest land use category. Robeson Township (4,718 acres) contains the most acreage of this type of residential development when compared to the other three municipalities.

Residential High

The Residential High category is characterized by a variety of dwelling unit types, including single-family detached, semi-detached, townhouses, apartments, and mobile homes within parks, at densities that exceed one unit per acre.

- At 3.1% of the planning area, this designation is ranked sixth out of all the other land uses in terms of acreage within the region. Not surprisingly, Birdsboro Borough contains the majority of the high density development within the area.

3. Commercial Lands

The Commercial lands category contains such uses as, retail, offices, utilities (electric and phone companies) as well as personal, professional and business services.

- Commercial uses comprise 1.4% of the region's total land area or 622 acres.
- The majority of the commercial uses are located within Caernarvon Township and account for 330 acres or almost 53% of commercial land use within the Southern Berks Region.

4. Industrial Lands

Industrial land uses include processing, fabrication or assembly of raw materials or component parts, wholesale trade and warehousing. Landfills, junk yards, and quarries are also included within this designation.

- Approximately 1,019 acres or 2.3% of industrial land uses encompass the land in the Southern Berks Region.
- Two large quarry operations exist in the region. Together they make up 495 acres.

5. Institutional Lands

Institutional lands are used for public services such as governmental and public safety facilities, educational facilities (including athletic fields owned by educational institutions), cemeteries and religious institutions.

- Institutional lands occupy 535 acres or approximately 1.2% of the region's land area.

6. Agricultural Land

The rich soil, aided by a favorable climate and centralized Mid-Atlantic location, has contributed to a strong agricultural tradition in Berks County. Agriculture lands are used for crops, pasture, the raising of livestock, farmsteads, barns, silos, mushroom farms, and the fields where trees and plants are harvested for nurseries.

- Agricultural lands occupy 7,227 acres or approximately 16.6% of the region's land area.

Chapter 9 - Existing Land Use Plan

- Out of those 7,227 acres, Robeson Township has the majority of land area occupied by agricultural uses. Robeson has 3,361 acres or approximately 47% of the region's agricultural production.
- Birdsboro contains no agricultural uses because of their dense residential and commercial development.

7. Recreation Lands

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. homeowners associations, sportsman clubs, little league) and commercial recreation (i.e. golf courses, miniature golf courses, campgrounds).

- Recreation lands occupy 7,859 acres or 18% of the region's total land area.
- Nearly 84% of the total land designated as recreation in the region is located within Union Township.

8. Open Space Lands

Open Space is land that is predominantly wooded or open land that does not include a structure such as meadows and fields (not farmland). Residue land associated with large residential lots over 5 acres, as well as forested land on farmland is also included in the category. The majority of this land is private except for municipal watershed lands.

- Open Space is the largest use of land at 15,119 acres or approximately 35% of the region's total land area.
- 68.1% of the total open space in the region is found in Robeson Township.

9. Transportation Lands

Transportation lands are used for roads and railroads. While the network of transportation modes that serves the region also includes bus and motor freight services, these land uses, as well as parking garages are included in the commercial category.

- The amount of land area consumed by such a network is somewhat significant (1,931 acres or approximately 4.4% of the total region's land area), due to the varying widths of rights-of-way associated with the highway and railroad modes of transportation.
- Robeson Township has the most land area covered by transportation at 916 acres or 47% of the region's total transportation land area.
- The transportation category is the fifth largest land use designation by area in the joint planning region.

10. Water

The water category is comprised of rivers, streams, ponds, and lakes.

- Water occupies 542 acres or approximately 1.2 % of the region's total land area.

Existing Land Use Patterns

The map accompanying this section illustrates the existing land uses of different areas in the region, as of 2019. The Southern Berks region encompasses a total area of 43,582 acres. Commercial development is concentrated sporadically throughout the region with higher concentrations located along Route 724 in Birdsboro Borough and the Morgantown area of Caernarvon Township. There is also some commercial development located in northwestern Robeson Township along the Route 10 corridor. The commercial uses in these areas range from office complexes to local and regional shopping centers.

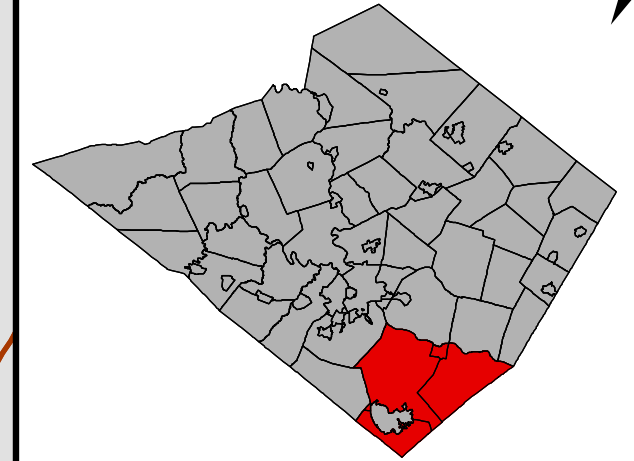
The area has some industrial properties. The bulk of these industrial uses are located in Birdsboro Borough. There are two quarry operations within the region, one in Robeson Township and the other straddles the border between Robeson and Union Townships.

There are a number of Institutional uses in the region. Institutional land use designations include municipal buildings, schools, churches and hospitals. The school districts provide the bulk of the Institutional land within the region.

The denser areas of residential development have been limited to areas where central sewage service has been available and where it was allowed by zoning. These areas include within and around Birdsboro Borough, as well as the village of Morgantown.

For the most part, the region remains relatively rural. Scattered throughout the Townships are a mix of open space, agriculture and low density housing. Approximately half of the land use in Union Township is occupied by French Creek State Park.

Existing Land Use



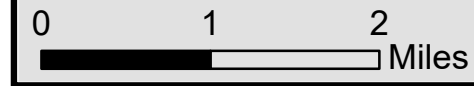
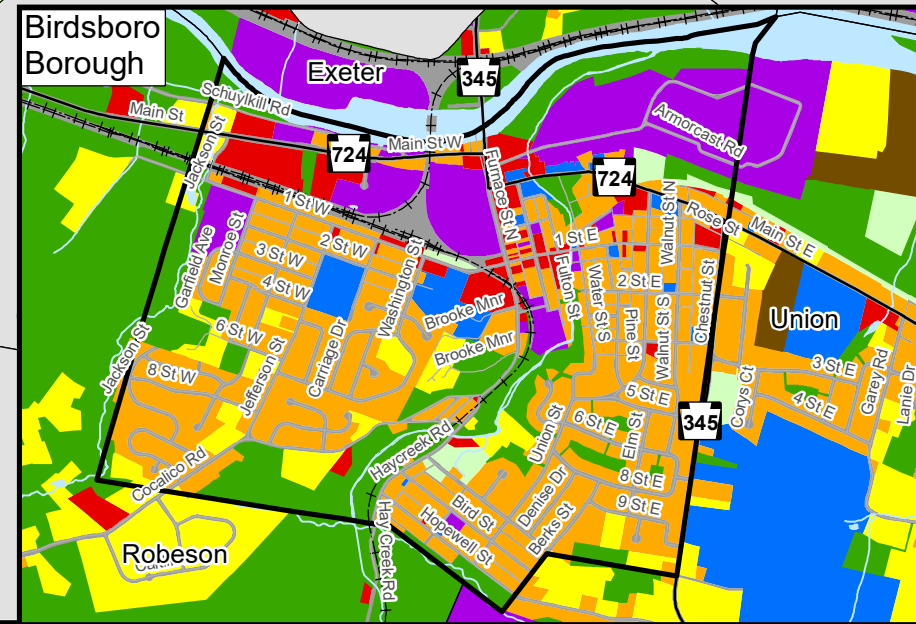
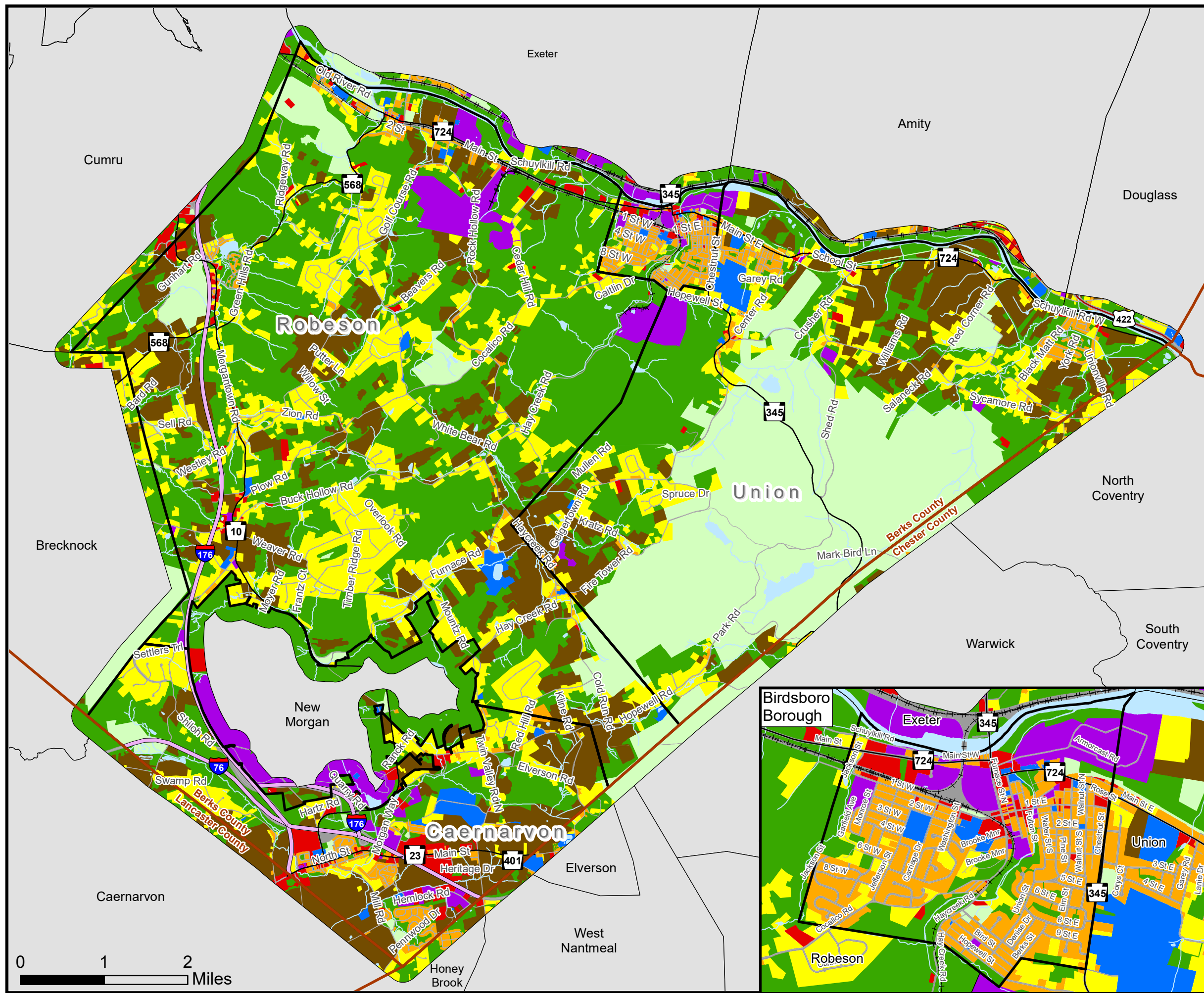
Legend

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

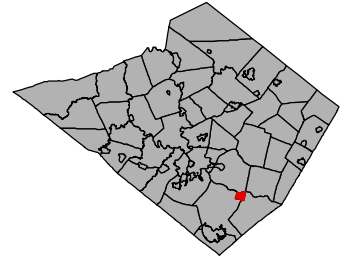
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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Existing Land Use Birdsboro Borough



Legend

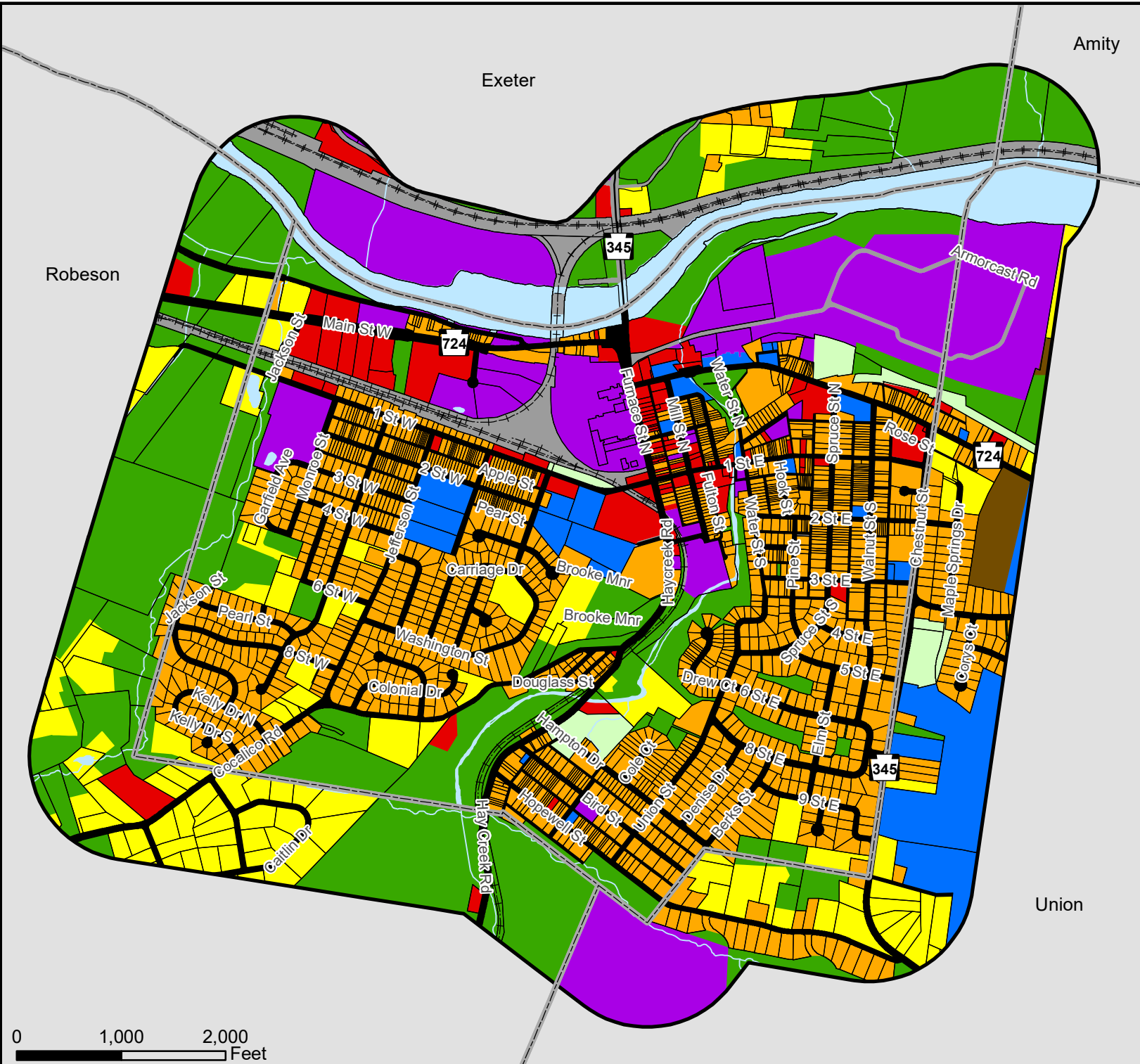
- Residential Low
- Residential High
- Commercial
- Industrial
- Institutional
- Recreation
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- Transportation
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Source data:
Berks County Planning Commission GIS, Berks County
GIS/IS, Berks County Mapping, Berks DES

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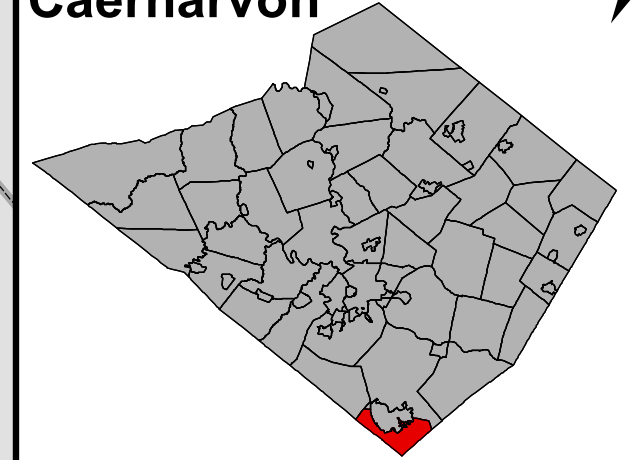


www.countyofberks.com/planning



0 1,000 2,000
Feet

Existing Land Use Caernarvon



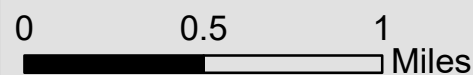
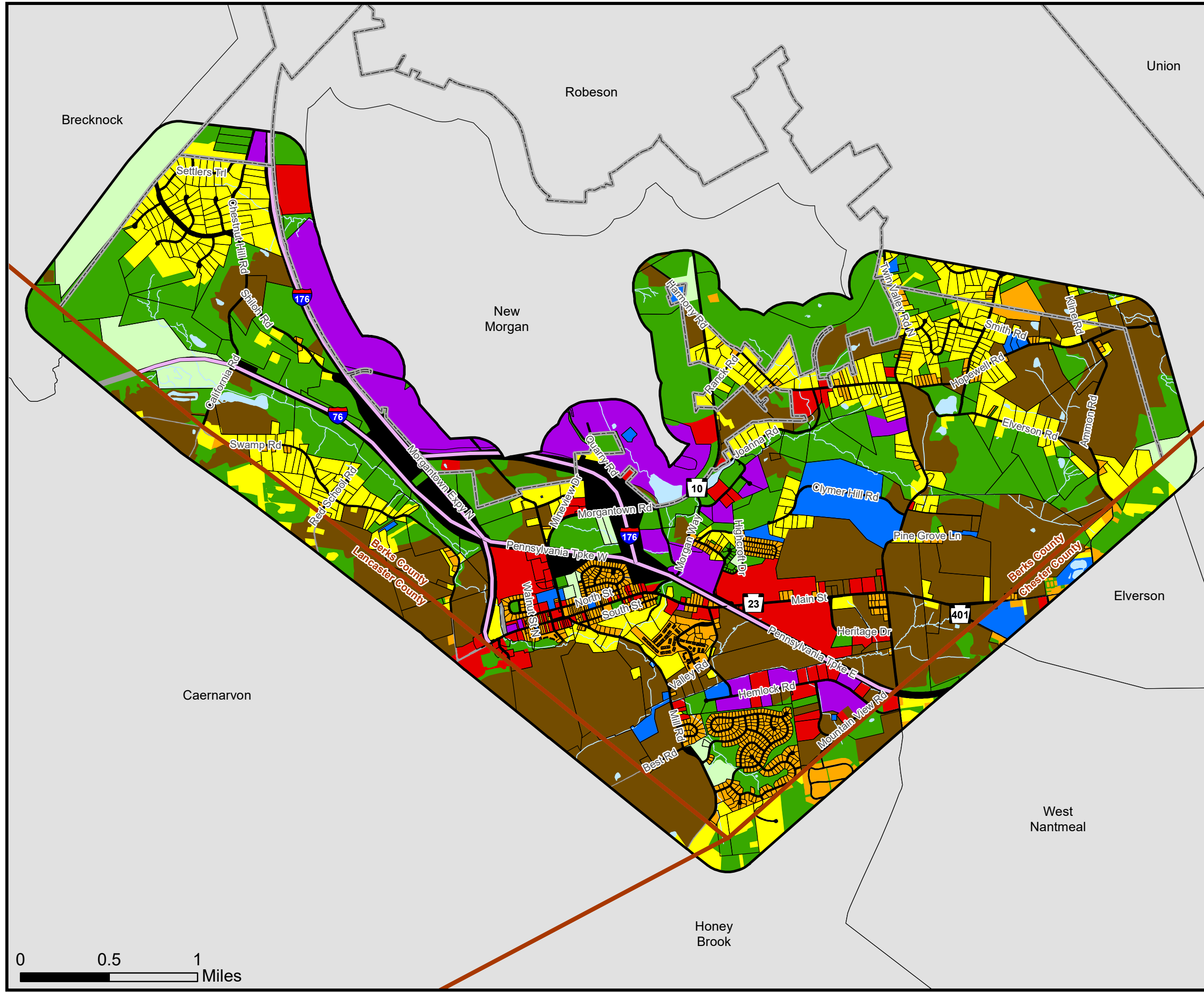
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- Residential Low
- Residential High
- Commercial
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- Railroads
- Municipal Boundaries

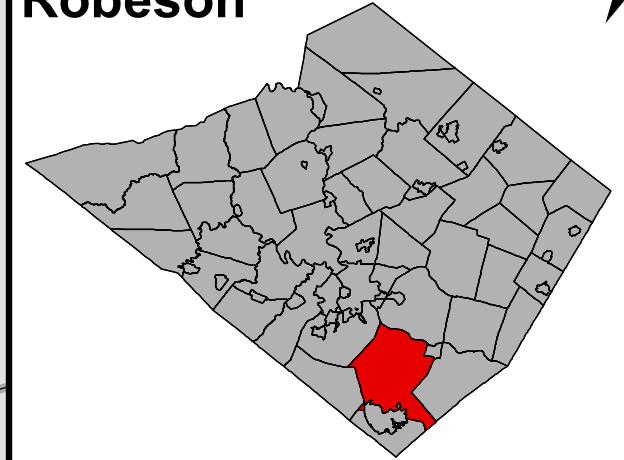
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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Existing Land Use Robeson



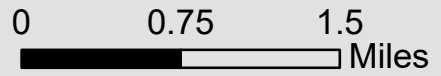
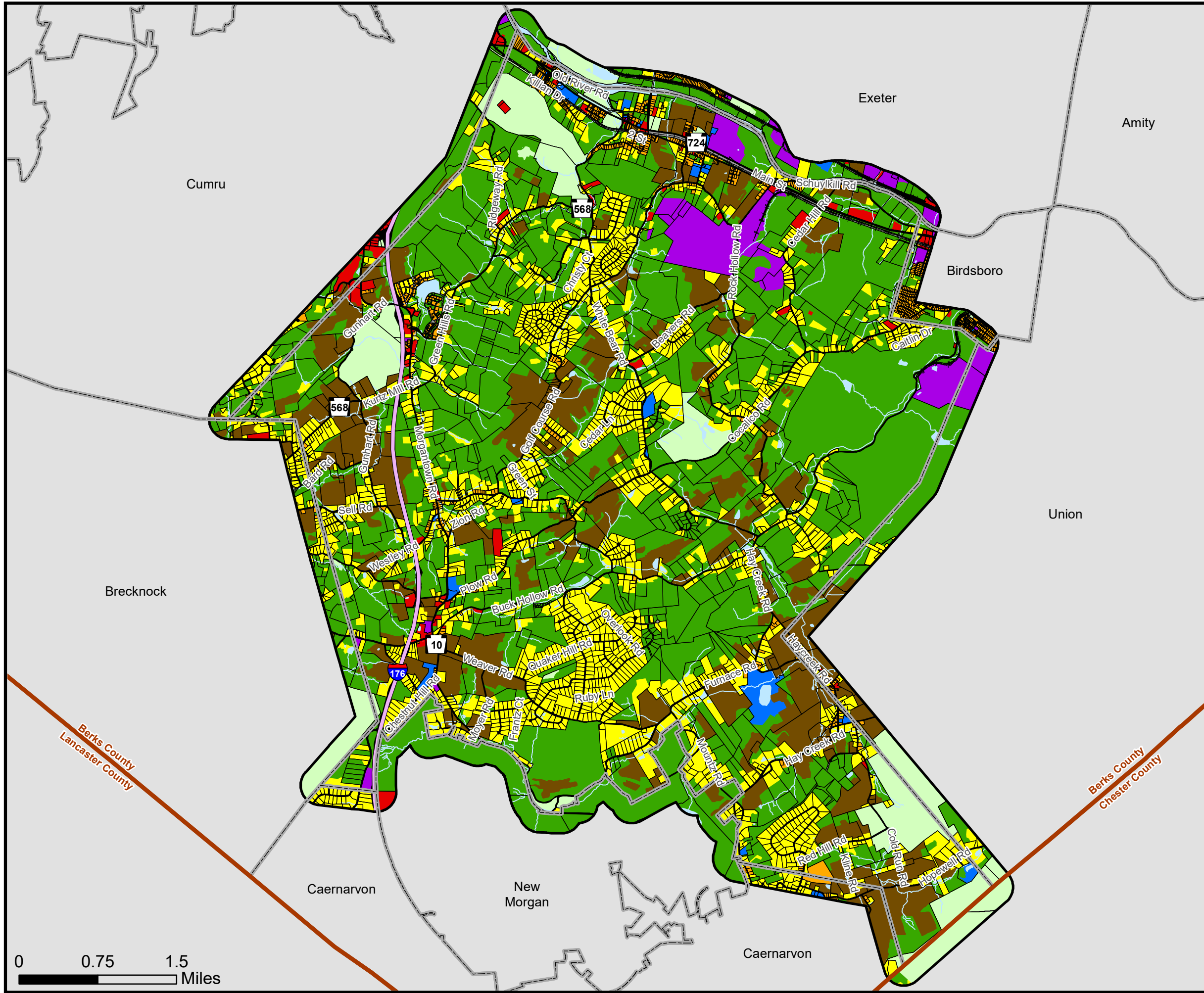
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- Residential Low
- Residential High
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- Water
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- Railroads
- Municipal Boundaries

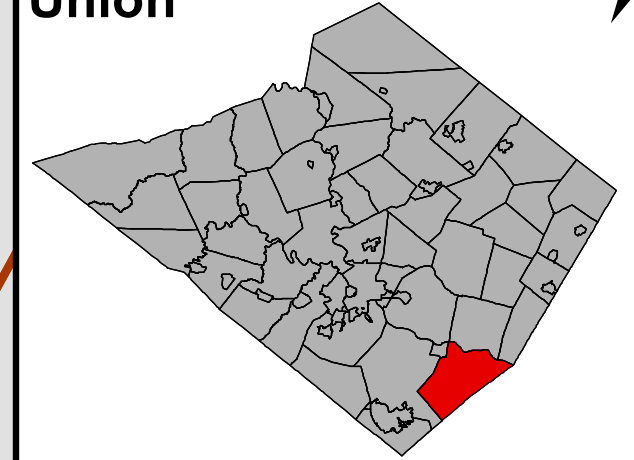
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

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Existing Land Use Union



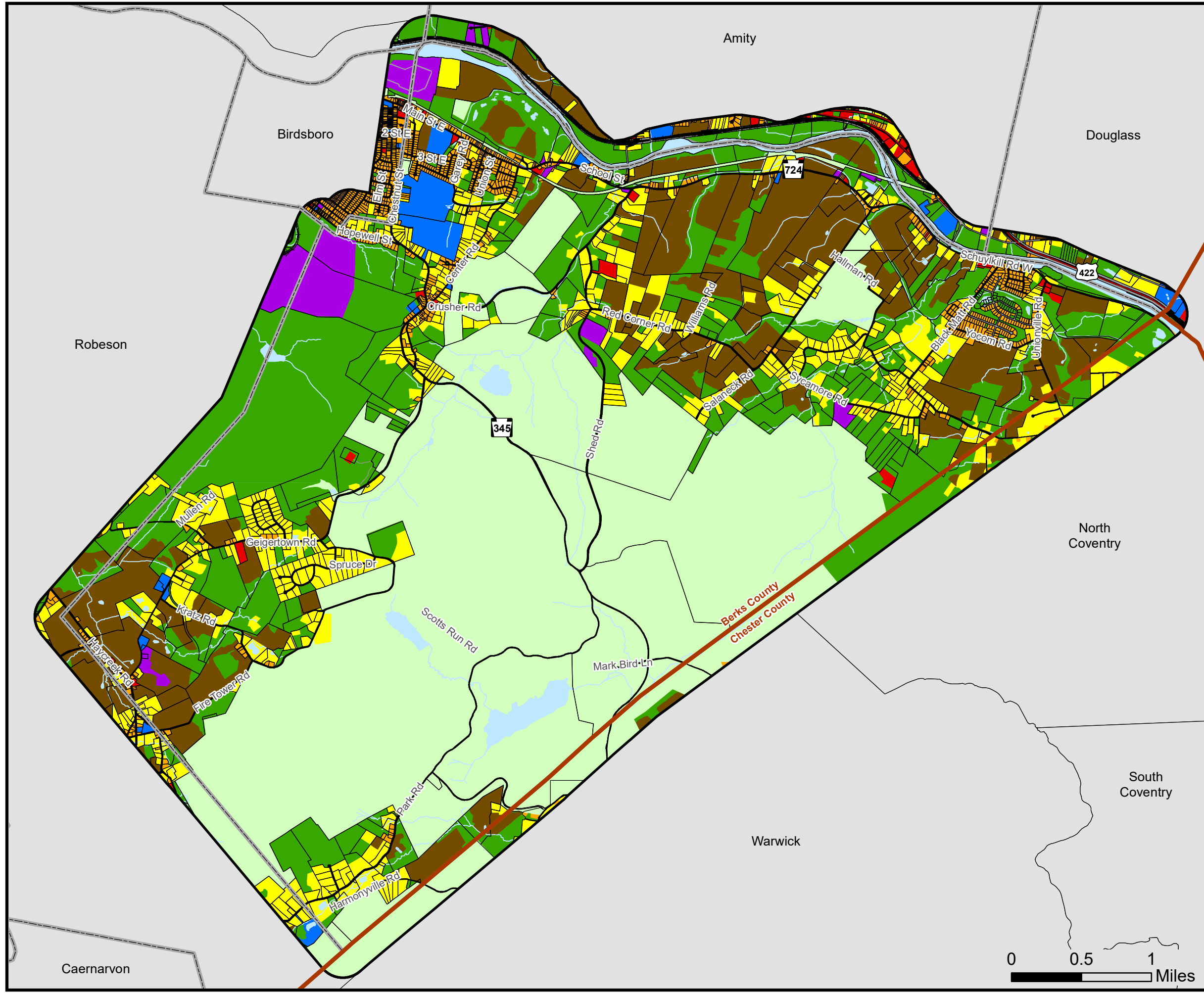
Legend

- 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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FUTURE LAND USE PLAN

The Future Land Use Plan emphasizes land use planning that accommodates projected community and economic growth, directs growth to areas of existing or planned infrastructure, and protects sensitive resources from development and its impacts. The core purpose of the Future Land Use Plan is to manage the amount, intensity, character and timing of development.

Future Land Use Plan Recommendations

The following describes land use categories, as shown on the Future Land Use Plan Maps. In most cases, these categories are intended to generally relate to zoning districts. The Future Land Use Plan is primarily intended to:



- a) protect existing residential neighborhoods,
- b) moderate the rate of housing construction to avoid overloading the public school system, roads, utilities and groundwater supplies,
- c) coordinate development across municipal borders, including municipalities that are not part of the Southern Berks Regional Comprehensive Plan,
- d) avoid serious traffic congestion and safety problems, particularly by avoiding new commercial strip development along major roads,
- e) promote new business development in appropriate locations, including the strengthening of older business areas, with careful attention towards the types of businesses allowed in areas near homes, and
- f) make sure development properly relates to the natural features of the land, particularly to protect steeply sloped areas, major water supplies and creek valleys.

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.

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.

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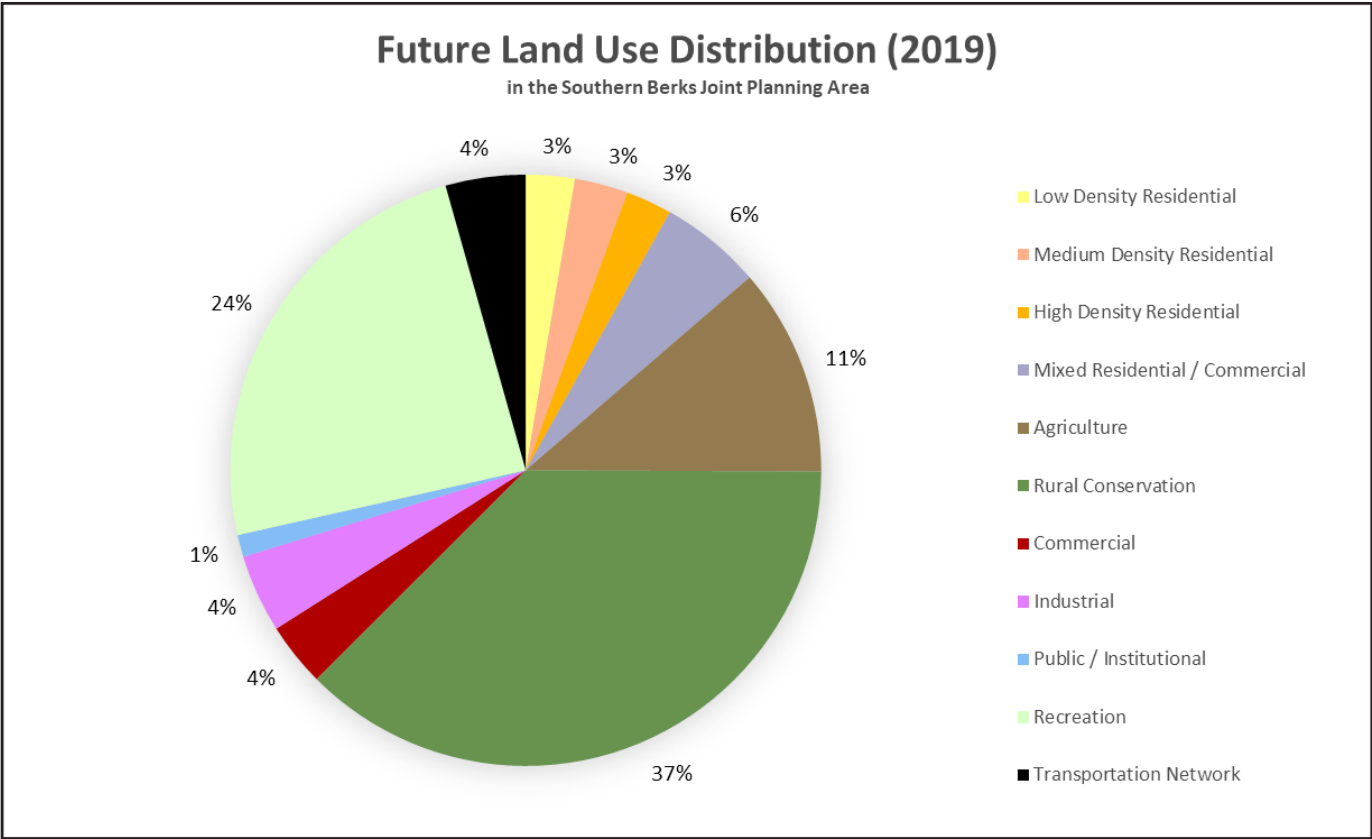
The Future Land Use Plan is divided into eleven (11) categories:

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

The table below shows the acreage for each Future Land Use category for the Region:

Future Land Use in the Southern Berks Joint Planning Area, 2019										
LANDUSE	Joint Planning Area		Birdsboro		Caernarvon		Robeson		Union	
	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area
<i>Low Density Residential</i>	1,164	2.7%	0	0.0%	340	6.0%	824	3.8%	0	0.0%
<i>Medium Density Residential</i>	1,271	2.9%	277	32.1%	66	1.2%	0	0.0%	928	6.1%
<i>High Density Residential</i>	1,100	2.5%	130	15.0%	276	4.9%	445	2.0%	249	1.6%
<i>Mixed Residential / Commercial</i>	2,430	5.6%	21	2.4%	125	2.2%	1,851	8.4%	433	2.9%
<i>Agriculture</i>	4,962	11.4%	0	0.0%	1,397	24.6%	1,979	9.0%	1,586	10.5%
<i>Rural Conservation</i>	16,323	37.5%	0	0.0%	1,594	28.1%	11,345	51.7%	3,384	22.4%
<i>Commercial</i>	1,518	3.5%	50	5.8%	417	7.3%	1,051	4.8%	0	0.0%
<i>Industrial</i>	1,859	4.3%	150	17.4%	435	7.7%	863	3.9%	411	2.7%
<i>Public / Institutional</i>	527	1.2%	54	6.3%	188	3.3%	110	0.5%	175	1.2%
<i>Recreation</i>	10,521	24.1%	58	6.7%	220	3.9%	2,624	12.0%	7,619	50.4%
<i>Transportation Network</i>	1,910	4.4%	124	14.4%	621	10.9%	838	3.8%	327	2.2%
Total	43,585	100.0%	864	100.0%	5,679	100.0%	21,930	100.0%	15,112	100.0%

Source: Berks County Planning Commission



The following describes the eleven (11) 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.

The Low-Density Residential designation accounts for approximately 2.7% or 1,164 acres of the planning area making this designation the eighth most abundant land use in the region.

* Although Union Township is showing no acreage for this designation in the table on the preceding page it must be noted that Union Township allows for this type of development in their appropriate zoning districts.

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 encompasses approximately 2.9% of the land use within the region. Over 32% of the land area in Birdsboro Borough is designated as Medium Density Residential, making it the most abundant land use category in the Borough.

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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 age 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.

The High-Density Residential category is somewhat evenly distributed throughout all of the municipalities. In Robeson there is a large area for this designation along RT 724 adjacent to Birdsboro Borough. It is appropriate to locate this type of development in areas already served by existing or proposed infrastructure.

4. 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 Borough 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. If desired, the Traditional Neighborhood provisions of the State Planning Code could be used to require that new construction be consistent with existing buildings (such as requiring parking to be to the side or rear of buildings and requiring front porches for new homes).

In the planning area this designation encompasses 2,430 acres or 5.6% of the total land area. This land use designation is located sporadically throughout the region along major routes and within the more densely populated areas that are serviced by existing sewer and water infrastructure.

5. Agriculture

The need for agricultural preservation and methods to achieve it are described in the Natural Features and Agricultural Conservation section of this Plan. One, if not the most important, goal 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. As an alternative, owners of land are encouraged to consider selling conservation easements to a developer in return for a "transfer of development rights" (as described later in this chapter).

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 livestock operations, and preferably should be upwind from livestock.

The majority of active agricultural land is located in the southern area of the region within Caernarvon Township. There are also large contiguous tracts of farmland within the northeastern portion of Union Township and some smaller tracts located within central Robeson Township. The Agricultural land use designation makes up approximately 11.4% of the total land use in the region. The Agricultural designation is the third most abundant land use in the Southern Berks planning region.

6. 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 Rural Conservation category is the largest category in the Future Land Use analysis. Rural Conservation accounts for over 37% of the region’s total acreage.

7. Commercial

This category is intended to provide for a wide range of commercial development. As opposed to the Mixed Residential / Commercial areas described earlier in this chapter, these areas should provide opportunities for uses such as gas stations, vehicle sales and drive-thru restaurants. A careful set of standards are needed to require coordinated traffic access among different uses. In most cases, these areas are not adjacent to residential development.

If an excessive amount of commercial zoning is allowed at one time, it may encourage sprawled development, with businesses simply relocating from one business site to a new site, leaving the old site vacant. If the supply of commercially zoned land is held to a moderate amount, it will encourage rehabilitation and redevelopment of older commercial sites.

3.5% or a total of 1,518 acres of the region includes this Commercial designation.

* Union Township’s commercial development areas are located within the Mixed Residential / Commercial designation.

8. 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. The heaviest industrial uses should need special exception from the zoning hearing board or conditional use approval from the 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.



Birdsboro Power Plant

The region contains two active quarry operations within its boundaries. A careful set of performance standards should be used to control noise, dust, vibration and other nuisances and hazards, especially from

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these quarrying operations. Extensive landscaped buffers should be required next to homes. Where a very intensive use is proposed next to homes, a landscaped earth berm and/or solid fencing should also be required.

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 to 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.

Approximately 1,859 acres or 4.3% of the region's total land area is reserved for Industrial use.

9. Public / Institutional

This category recognizes existing large public, semi-public and institutional uses, such as hospitals, schools and municipal buildings. A total of 527 acres are designated as Public/Institutional within the planning area.

10. 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).

The Southern Berks region has an abundance of recreation land within its jurisdiction. French Creek State Park and State Game Lands #43 are major contributors to the acreage of recreation land uses within the area. The recreation land use designation has the second most amount of acreage within the Southern Berks Region. Recreation makes up almost 25% of the total land area of the region. Over 50% of which is located in Union Township. This is because almost the entirety of French Creek State Park is within Union Township's municipal border.

11. 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.

While many factors can influence growth and development patterns, the existing transportation network has always been prominent in shaping Berks County, as well as the Southern Berks planning region. Over time development has historically concentrated near major transportation facilities to take advantage of their accessibility. The amount of land area consumed by such a network is 1,910 acres or approximately 4.4% of the region's total land area.

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

Concepts for Future Development

1. Extend the best features of older development into newer development.

Consideration should be given to strongly encouraging forms of "traditional neighborhood development." This involves extending the best features of the older areas into new neighborhoods. 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.” 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 street lights meet a certain design standard that is similar to older styles of street lights.
- 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 has 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 and report suspicious activity to the police.

This concept can be used to maintain the character of older residential areas, especially within the Brough of Birdsboro and village of Morgantown. For example, driveways can be required to access onto an alley or side street where it is available, as opposed to having a front garage and driveway. This design avoids conflicts between sidewalks and vehicles backing into the street, and allows the entire curbside to be available for on-street parking. Otherwise, new driveways may remove as many parking spaces as they create.

New buildings can 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.

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Most new parking can be required to be placed to the rear or side of the main building on the lot, which makes the building and not parked cars the most visible feature along the street.

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 street lights and street name signs.

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

2. Traffic Access Control

If traffic access onto a major road is properly managed, the road will be able to safely handle large volumes of traffic. However, if a road combines a large number of business driveways entering a road at many locations, there will be right-hand turns and left-hand turns at many locations. The constant stopping and starting from these turns greatly affect the smooth flow of vehicles and create safety hazards. This is known as “strip” commercial development.

At best, intense business development should be concentrated in well-planned developments with internal roads that access a major road with a traffic signal and turn lanes. Where a traffic signal is not warranted at the present time, there should still be a plan for where traffic signals are intended to be built in the future. This will allow driveways and street intersections to be directed towards those intersections so that the traffic signal will be well-placed in the future. Where traffic signals are not appropriate, adjacent commercial uses should have shared driveways and interconnected parking lots. The interconnected parking lots are particularly valuable so that a person can visit more than one adjacent business without having to enter and re-enter a major road.

3. Transfer of Development Rights (TDRs)

This concept should be a voluntary option in the Zoning Ordinances of the municipalities. TDRs offer incentives for private developers to pay to preserve land. If a developer of one tract of land pays an owner of another tract to permanently preserve their land, then the developer could receive approval to build at a higher density on the developer’s tract. The tract that receives the higher density would need to be in an area that the township has designated as being suitable for a higher density. The tract that would be permanently preserved would need to be in an area that the township has targeted for preservation. The developer and the owner of the open land would negotiate on their own to determine how much the developer pays to the other landowner for the preservation.

- This method allows development to be shifted from locations where preservation is desired to allow a higher density on other tracts in a municipality that are well suited for development.
- The municipality would then approve the development at a higher density at the same time as a conservation easement went into effect to preserve the other land. The preserved land would remain privately owned but could never be developed. The preserved land could be re-sold and could be used for agriculture or certain open space uses.
- For example, this process might allow preservation of land in the Rural Conservation area, in return for allowing a higher density in a Low Density Residential or Medium Density Residential area. Or, density might be transferred from one part of a Rural Conservation area to another part of the Rural Conservation area.
- The number of homes that could be transferred from one tract to another would be based upon a “Yield Plan.” This sketch plan would show how many homes would have been permitted on the tract that is to be

preserved. Once the township accepts this Yield Plan, that number of homes could be transferred from one tract to another tract. However, there would still be limits on the density of the tract being developed to make sure that it is not excessive.

- TDR can also be used in combination with commercial development. For example, for every housing unit that is transferred from one area of a municipality, an additional amount of building coverage or impervious coverage could be allowed in a business district.

4. Work to Preserve Open Space in New Development

Throughout the nation, there is increased emphasis in permanently preserving important open spaces as part of new development. This concept has been promoted by the Natural Lands Trust and the Pennsylvania Department of Conservation and Natural Resources using the term “Conservation Design” development. This Plan uses the term “Open Space Development.”

Attractive incentives are needed so that any development of the large open tracts of land in the Township would be developed with substantial areas of preserved open space (such as 35 to 70 percent), as opposed to standard “cookie-cutter” type lots.

The intent is to design development in a manner that conserves the important natural, scenic and historic features of a site. Large percentages of a tract are permanently preserved in open space. In comparison, “Conventional Subdivisions” typically involve very little or no open space preservation. Conventional Subdivisions are also known as “Cookie Cutter Subdivisions” because every lot is typically the same size and shape, regardless of the features of the land.

Advantages of Open Space Developments - Based upon the work of the Natural Lands Trust, the following are some of the major advantages of Open Space Development:

- *Important natural features can be preserved.* Regulations and incentives should direct buildings away from steep slopes, wetlands, waterways and other important natural features. As a result, homes are placed on portions of the tract that are most environmentally suitable for development - as opposed to being evenly spread across the land. Large contiguous areas can remain in woods and other natural vegetation - which are important as wildlife corridors. Thick natural vegetation can be preserved along creeks - which is essential to filter out eroded soil and other pollutants from runoff before it enters the creek. This vegetation along creeks is also important to maintain high quality fishing habitats.
- In comparison, if an entire tract is divided into lots, it is likely to mostly be in mowed grass - which is a “mono-culture” that does not have the same environmental benefits.
- With open space preservation, stormwater runoff can be managed in a more natural manner that encourages recharge into the groundwater. This may negate the need to build extensive stormwater systems which are costly to build and maintain.
- *Scenic features can be preserved.* Open Space Developments can place homes on less visible portions of a tract, while maintaining scenic views. For example, many Open Space Developments set back homes from main through-roads and limit placement of homes on major ridgelines. As a result, the main angle of vision along major roads involves green space.
- Mature woods can be preserved in locations that hide views of development. The preservation of open space also provides visual relief from seeing continuous development.
- Stormwater runoff can also be managed in a more attractive manner - as opposed to within deep man-made channels and detention basins.

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- *Recreational opportunities can be increased.* Open Space Developments typically include attractive areas for walking, jogging, cross-country skiing and nature study. In some cases, active recreation facilities can be included. These open spaces can also increase interaction among neighbors.
- *Developers can achieve lower costs* for grading, lengths of roads, lengths of utilities and other improvements.
- Developers may also be able to save time and money by avoiding wetland alterations and waterway crossings.
- Open Space Developments can provide the flexibility in layout to move homes off of steep slopes, which are more expensive to build upon. Avoiding steep slopes can also reduce the need for blasting.
- By allowing flexibility in placement of buildings, it is easier to find suitable sites for septic systems.
- *Municipalities can save on maintenance costs.* Shorter lengths of roads, utilities and other improvements mean there is less to maintain. It is expensive to maintain and plow snow from steeply sloped roads. Open Space Developments can result in roads being placed at more modest slopes.
- *Developers can often achieve higher sales prices.* More and more developments are stressing in their advertising that homes are adjacent to preserved open spaces. Developers can often receive a premium price for lots that are adjacent to or overlook preserved open space. The presence of trails and other open space amenities can also spur sales.
- Studies have also shown that homes near preserved open space are likely to increase in value faster than other homes.
- *Reliable central water and sewage services* can be extended. It is usually uneconomical to provide central water and sewage services with lot sizes of 2 acres or larger. However, if homes are clustered on a tract, then it is often possible and/or necessary to provide central water and sewage services. Public water and sewage services typically are more reliable than individual wells and septic systems.
- Central sewage service avoids the threat of groundwater contamination from failing malfunctioning septic systems. Central water service avoids the risks of well water contamination from various sources.

Open Space Development can also occur with a design that allows homes to be “hidden in the woods” and in clusters that resemble a rural village, while allowing most of the farmland to be preserved.

The following major policies should be emphasized to encourage Open Space Developments:

- *Strong incentives and disincentives* are needed to encourage open space preservation in new development. It typically is not sufficient to allow the same density for an Open Space Development as for a conventional subdivision. This is because developers prefer to build what has been successful in the past, as opposed to trying new concepts. Also, developers may feel (often inaccurately) that the homes on larger lots may have a higher market value than homes on smaller lots with open space. Therefore, density bonuses are needed for open space preservation. A community needs to trade-off a modestly increased number of dwelling units in return for substantial open space preservation.
- The process for approval of an Open Space Development should not be much more burdensome or time-consuming than the process for a Conventional Subdivision. Where practical, the process to gain approval for a desirable type of development should be easier than the process for a Conventional Subdivision. Discipline is needed in writing Open Space Development standards to make sure that they are not overly restrictive. If Open Space Development standards are too detailed or too extensive, they may not allow

enough flexibility for a good design. If the standards get in the way of a developer's marketing plans or cause excessive costs, a developer may choose to do a Conventional Subdivision.

- Proper standards are needed to make sure that the preserved open space is well-located and improved so that it serves important public functions. In many cases, mature woods, steep slopes and creek valleys should simply be preserved in their natural state. In other cases, the open spaces may be intended for active recreation. In still other cases, trees should be planted in the open spaces and trails should be installed. The key is to avoid a process in which the "open space" is simply the land that is left over after the most economical set of lots and roads are laid out. Narrow strips of open space should be avoided, unless they would preserve a scenic tree line or provide an important trail link.

5. Strengthen Older Residential Areas

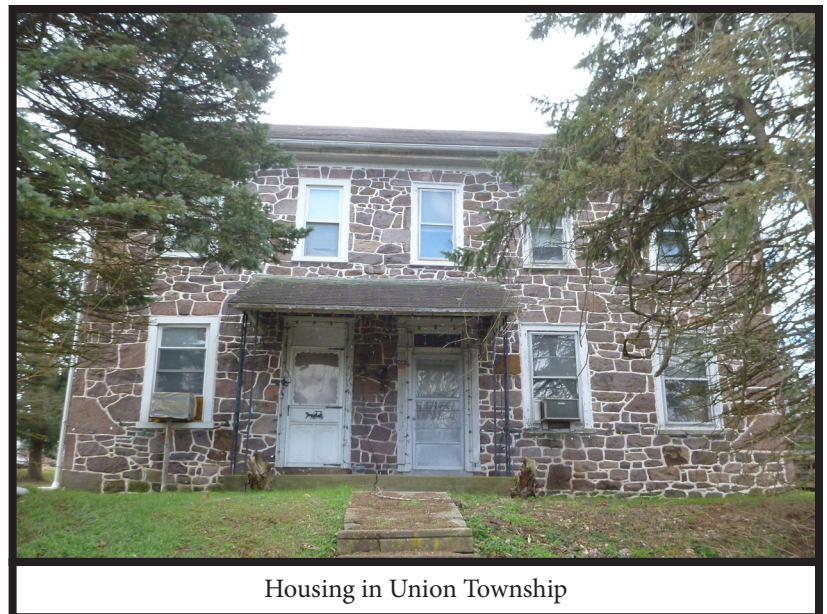
It is extremely important that the older areas of the Southern Berks region remain strong and viable business and residential areas. This includes the older areas of Birdsboro Borough and Morgantown. The best way to control sprawl is to make sure that older areas remain healthy and desirable places in which to live and conduct business.

This section recommends actions to stabilize and improve older residential neighborhoods. Stable neighborhoods are not only important to provide desirable places to live, but also to protect the health of nearby business areas. If the residential areas deteriorate, they will cause crime and vandalism problems that will discourage business activity. If the surrounding residential areas are strengthened, they will provide a strong base of customers who will hopefully find the downtowns a convenient place to serve their shopping and service needs.

To maintain its economic health, it is important to continually work to attract and retain middle-income households in older areas. This is particularly true because there will always be existing residents moving into newer and more expensive houses, and because there will always be older residents who will be moving to nursing homes, personal care centers or retirement communities. To maintain the same owner-occupancy rate, there needs to be a continual stream of new home-buyers.

Promoting Home Ownership - Many households could afford the monthly costs of owning a home, but do not have sufficient savings for the closing costs and down payment. These households need to be linked with available programs to help them achieve home ownership.

However, care is needed to avoid placing very low-income households in subsidized home-ownership. In too many cases, these households do not have the funds to pay for repairs that are periodically needed in an older home. If they have no equity in the home, they may be tempted to walk away from the mortgage. As a result, a property can stand vacant for months until foreclosure occurs and the property is resold. During this time, the property can deteriorate and/or be vandalized.



Housing in Union Township

The availability of housing designed for senior citizens is an important part of the mix. This type of housing relieves older persons of maintenance and repair responsibilities and expenses. If older persons decide to move

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from large homes to senior housing, it then frees up that housing for families, and often puts those homes in the hands of people who can better maintain the homes. However, if there is insufficient demand by homebuyers for those homes, this trend of older homeowners moving out can reduce owner-occupancy rates.

Maintaining Housing Conditions - It is important to prevent blight and deterioration before it occurs. A single problem property can encourage responsible residents of nearby properties to move out of the neighborhood and can discourage new home-buyers from investing in the neighborhood. A problem property can also discourage homeowners from investing in improvements to their home because they do not believe they will be able to see any return on their investment if they sell.

To promote home ownership and neighborhood stability, and to avoid parking problems, the conversions of existing one family homes into additional numbers of housing units should be prohibited. Owner-occupied housing typically has a much higher level of property maintenance than older renter housing. Types of new housing should be promoted that are most likely to be owner-occupied, such as singles, side-by-side twin homes and townhouses, as opposed to apartments or one unit above another unit.

The municipalities must continue to emphasize enforcement of the basic property maintenance codes to require property-owners to: a) properly maintain their buildings or b) sell the buildings to another party who will make the needed improvements. The goal in code enforcement must be to intervene before buildings deteriorate to the point where it is no longer cost effective to repair them. If property-owners are forced to complete basic maintenance and repairs in a timely manner, severe deterioration can be avoided.

Many older communities have adopted programs for the periodic inspection of rental properties to make sure they meet basic safety standards. To target an inspection program to the properties that are most likely to involve fire and safety hazards, inspections could be limited to buildings that were constructed prior to the enforcement of any comprehensive building codes. This would avoid the need for regular inspection of apartment buildings built during the last few decades, because those buildings typically have fire-resistant construction and safe means of access.

One option would be to require inspections when there is a change in tenants. This would make the program less intrusive to tenants. This option would also target the program to the housing units with the most turnover, which often are the units that need the most improvements. The cost of inspections can be covered by an annual license fee.

Emphasize Housing Rehabilitation - Most housing efforts primarily involve low-interest loans to rehabilitate homes owned by households with low or moderate incomes. Expanded marketing efforts are needed to make sure that eligible owners of properties in need of rehabilitation are aware of the financing programs that are available. Particular attention needs to be paid to low-income resident owners of property who need to make improvements to comply with municipal codes.

The Berks County Area Agency on Aging also offers a "Home Modification" program for minor household repairs and safety modifications. In most cases, the homeowner only pays for the cost of materials. The program is mainly aimed towards older persons with limited incomes and persons with disabilities.

Buyers of older homes should be encouraged to take advantage of the Federal Housing Administration's 203(k) program. This allows a homebuyer to receive a single loan to purchase a home and to complete a major rehabilitation of it.

It would be desirable to combine job training funding with County housing rehabilitation programs. The Federal Government has provided greater flexibility to use Federal job training dollars in ways that address local needs. Local non-profit housing organizations should work with job training agencies to design programs to meet mutual needs. Residents can learn useful job skills, while the job training programs help provide funding for needed housing rehabilitation.

Densities - Higher densities should only be considered for: a) housing developments that are limited to senior citizens and the physically handicapped, and b) the conversions of older non-residential buildings (such as old mills) into apartments.

Density bonuses should be considered for developments limited to persons age 55 and older and their spouses, with no children under age 18. These density bonuses are logical because the typical household of older persons generates less traffic, less need for parking and less water and sewage usage compared to other types of housing. Housing for older persons also does not generate additional public school students, thereby avoiding negative impacts upon school finances.

Compatibility in Uses - It is important to protect older residential areas from incompatible development. This is particularly a concern in older areas where there is typically a relatively dense mix of commercial, industrial and residential uses, with small setbacks.

In commercial areas near neighborhoods, the types of commercial uses should be carefully controlled. Most commercial areas near neighborhoods should not allow for heavy commercial uses, such as gas stations, 24 hour convenience stores, nightclubs and auto repair. Where practical, the hours of operation and hours of trucking activities should be controlled (such as conditions upon any zoning hearing board approval that is needed). Other problem uses should be very carefully controlled or prohibited, such as after-hours clubs that are open after 2 a.m. In areas closest to neighborhoods, it may be appropriate to prohibit or require zoning hearing board approval for a use to be open to the public or patrons between Midnight and 5 a.m. The zoning hearing boards should carefully review changes to existing business uses in residential zoning districts (which are called “nonconforming uses”) to make sure they will not harm the neighborhood.

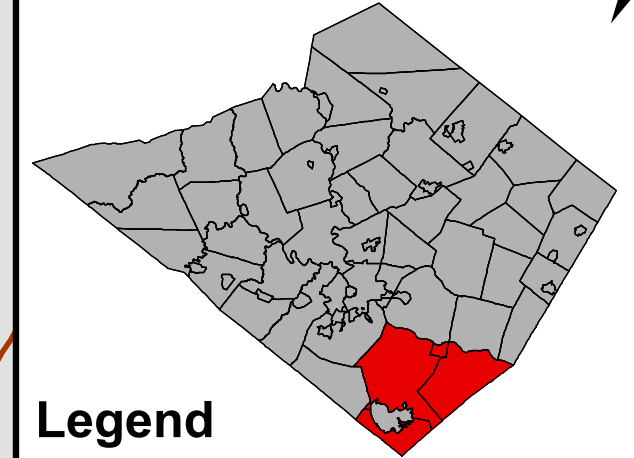
In industrial areas near neighborhoods, great care is needed about the types of uses that are allowed. The heavier types of industrial uses should be prohibited from these areas or need special exception or conditional use approval.

Neighborhood Character - Zoning provisions can be put into place to require that new buildings in older neighborhoods be compatible to nearby buildings. This concept is described earlier in this chapter.

6. Locate New Development Where it is Efficiently Serviced by Existing Infrastructure

With the planned extension of public sewer service along Geigertown Road it is imperative that Union Township be proactive in planning for the potential for development within the public sewer service area. There exists a possibility for overlay zoning districts along the corridor and adjacent to the mixed residential / commercial area of Geigertown.

Future Land Use



Legend

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

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

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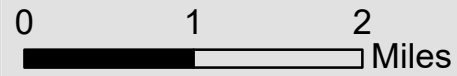
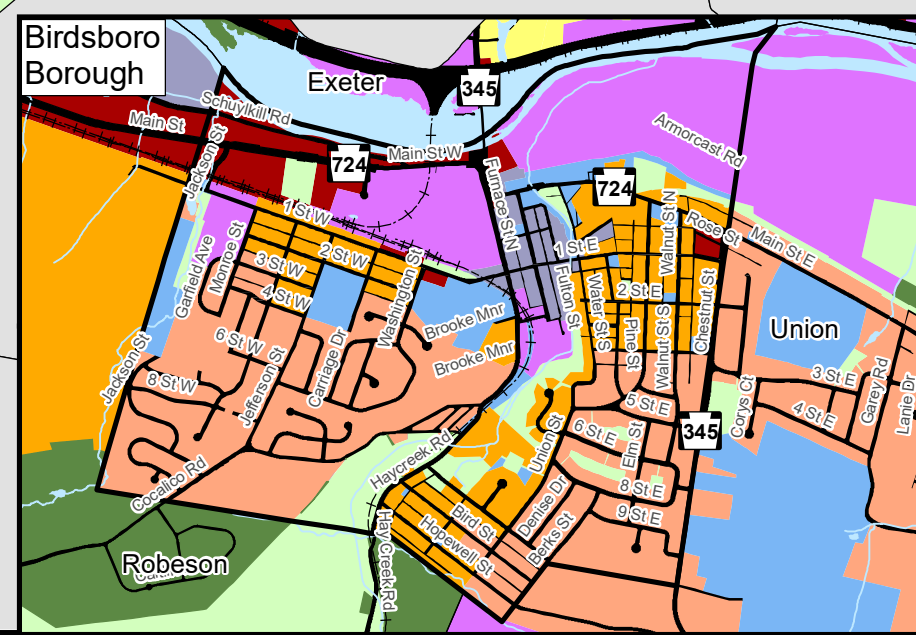
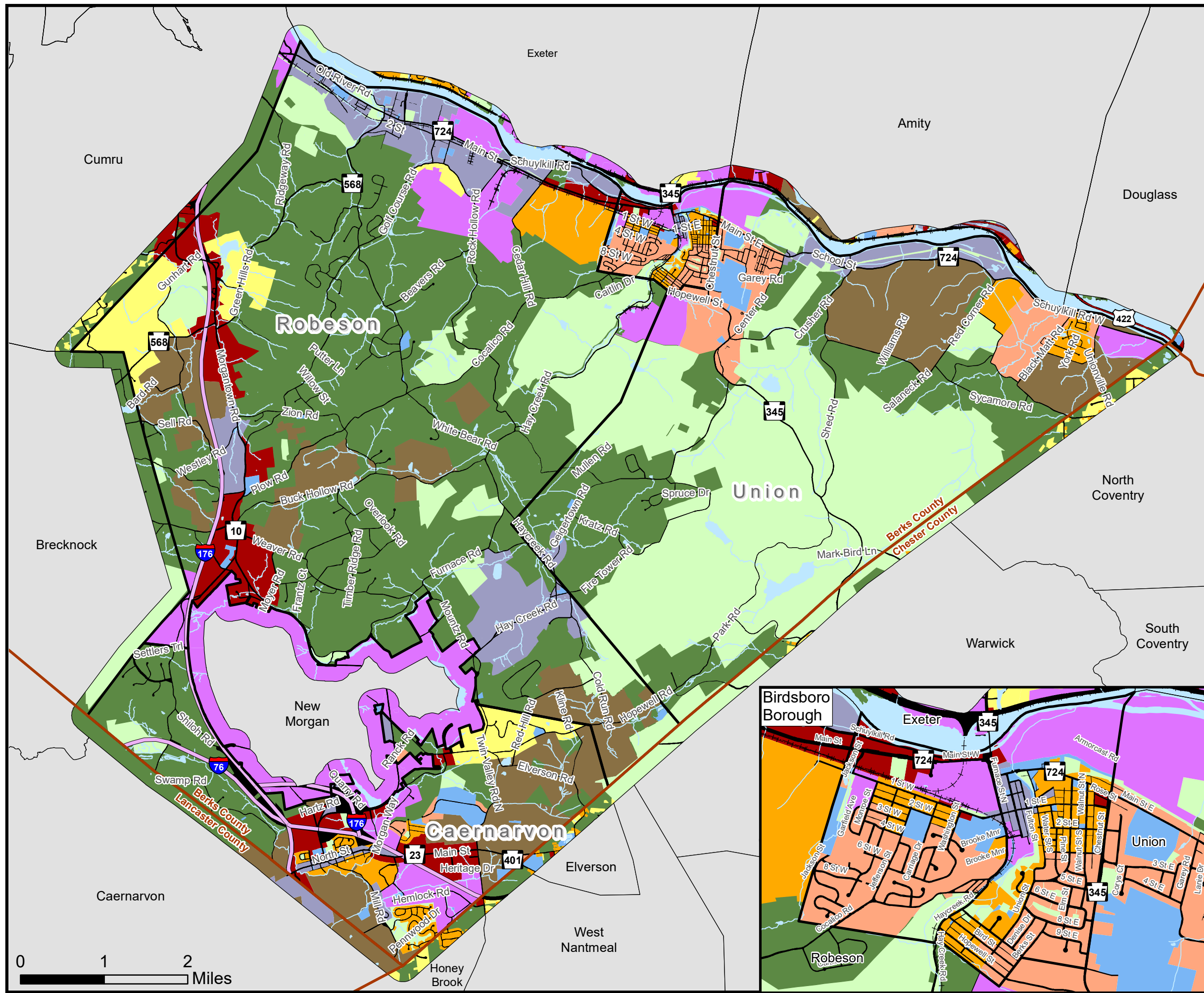
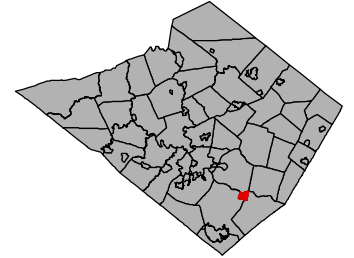


FIGURE 20

Caernarvon, Robeson, Birdsboro, Union
Joint Comprehensive Plan Update
August 18, 2020

Future Land Use Birdsboro Borough



Legend

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Residential / Commercial
- Agriculture
- Rural Conservation
- Commercial
- Industrial
- Public / Institutional
- Recreation
- Transportation Network
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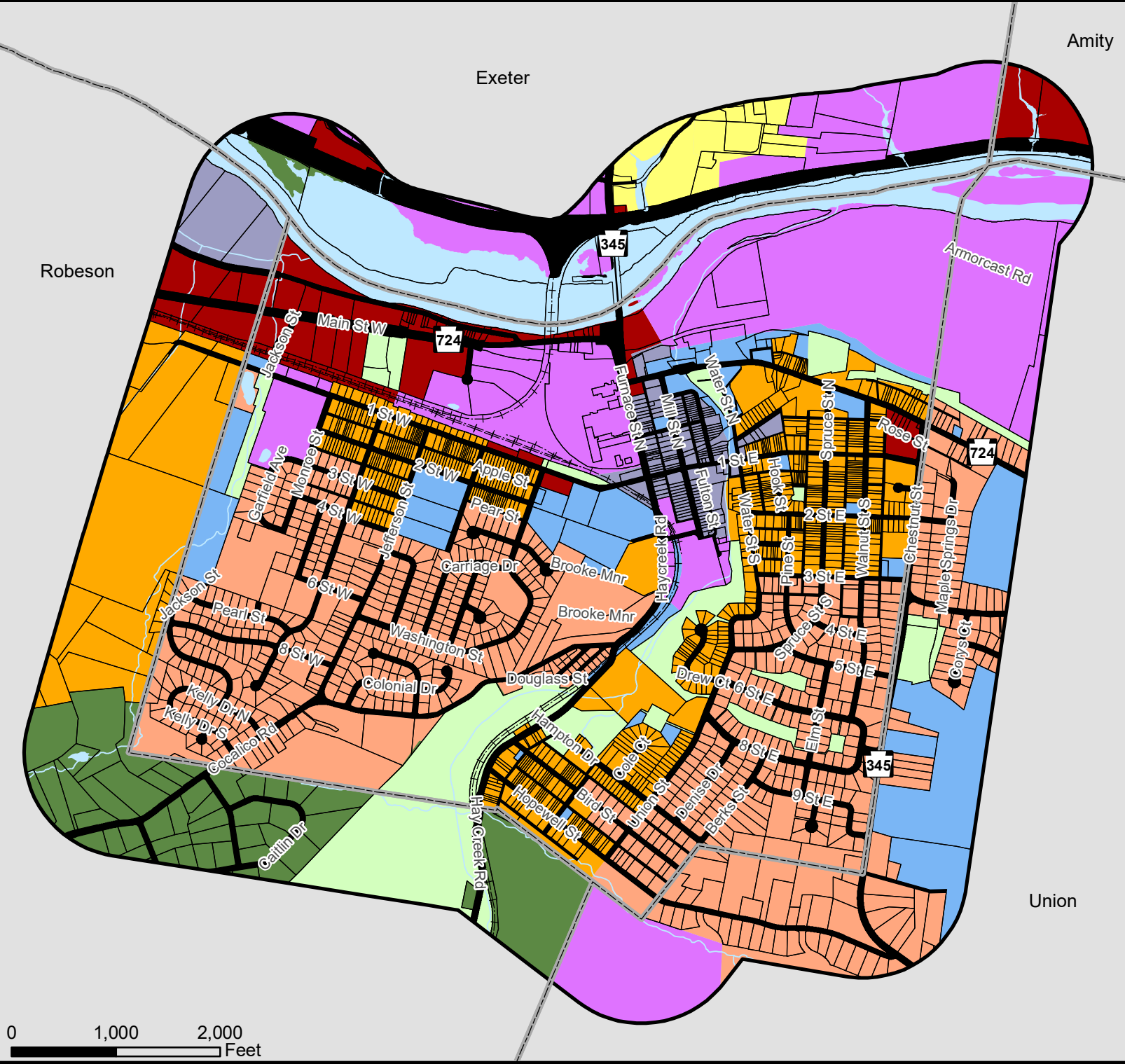
Source data:
Berks County Planning Commission GIS, Berks County
GIS/IS, Berks County Mapping, Berks DES

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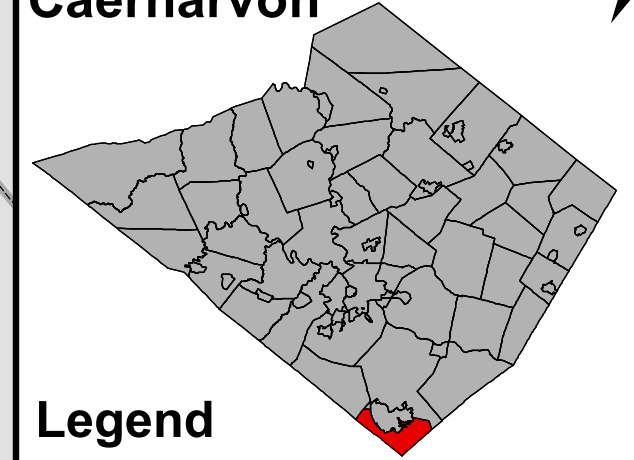
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Future Land Use Caernarvon



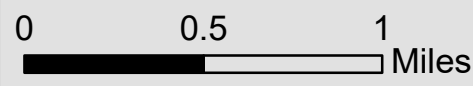
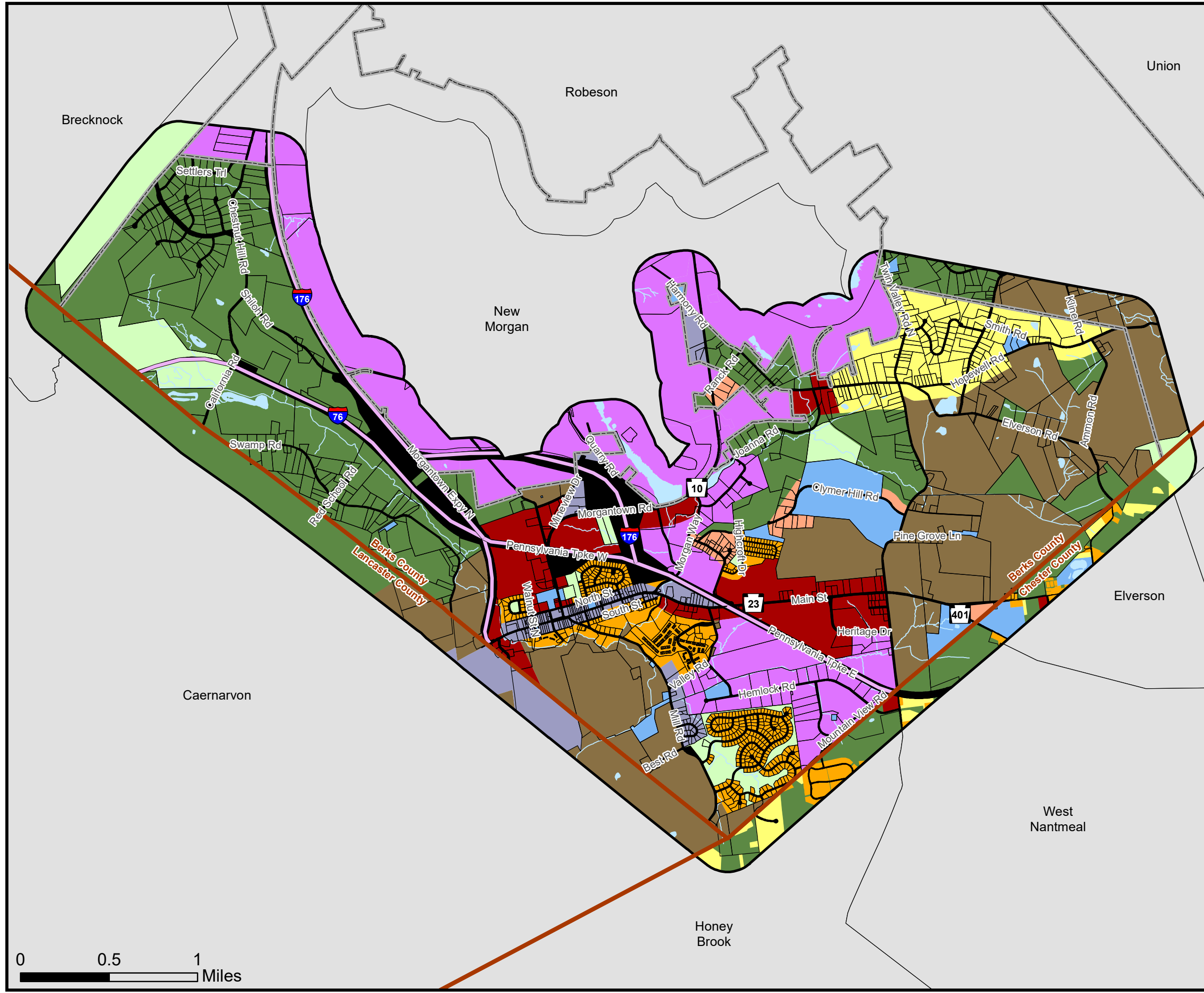
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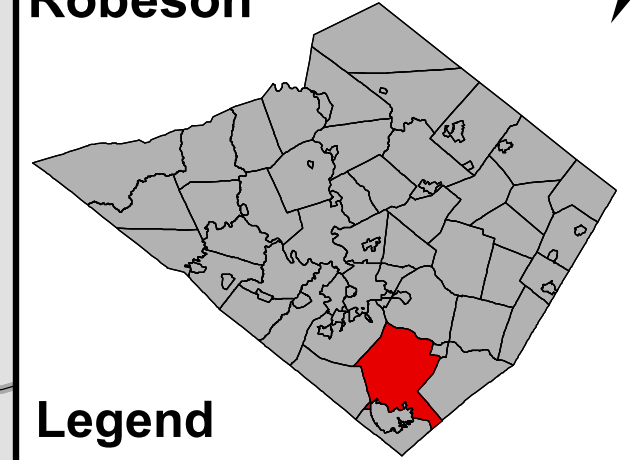
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Future Land Use Robeson



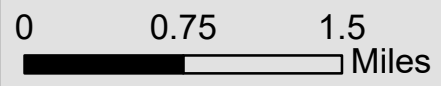
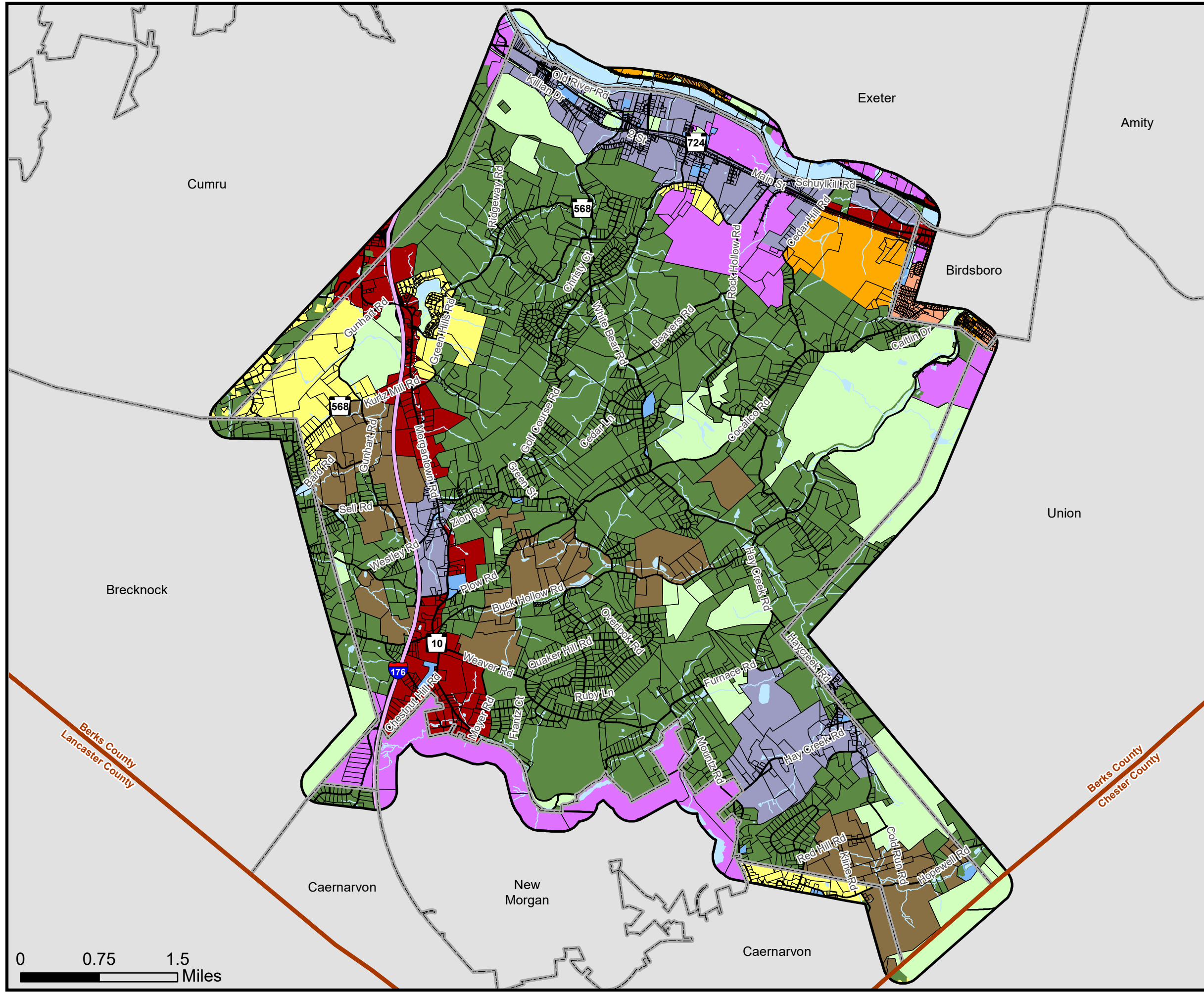
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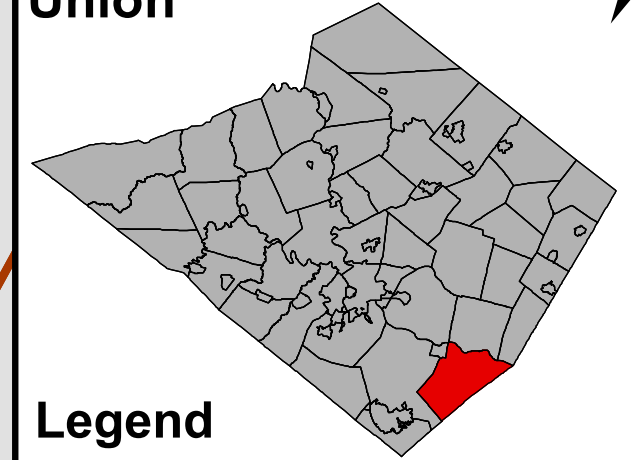
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Future Land Use Union

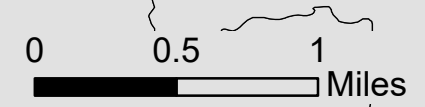
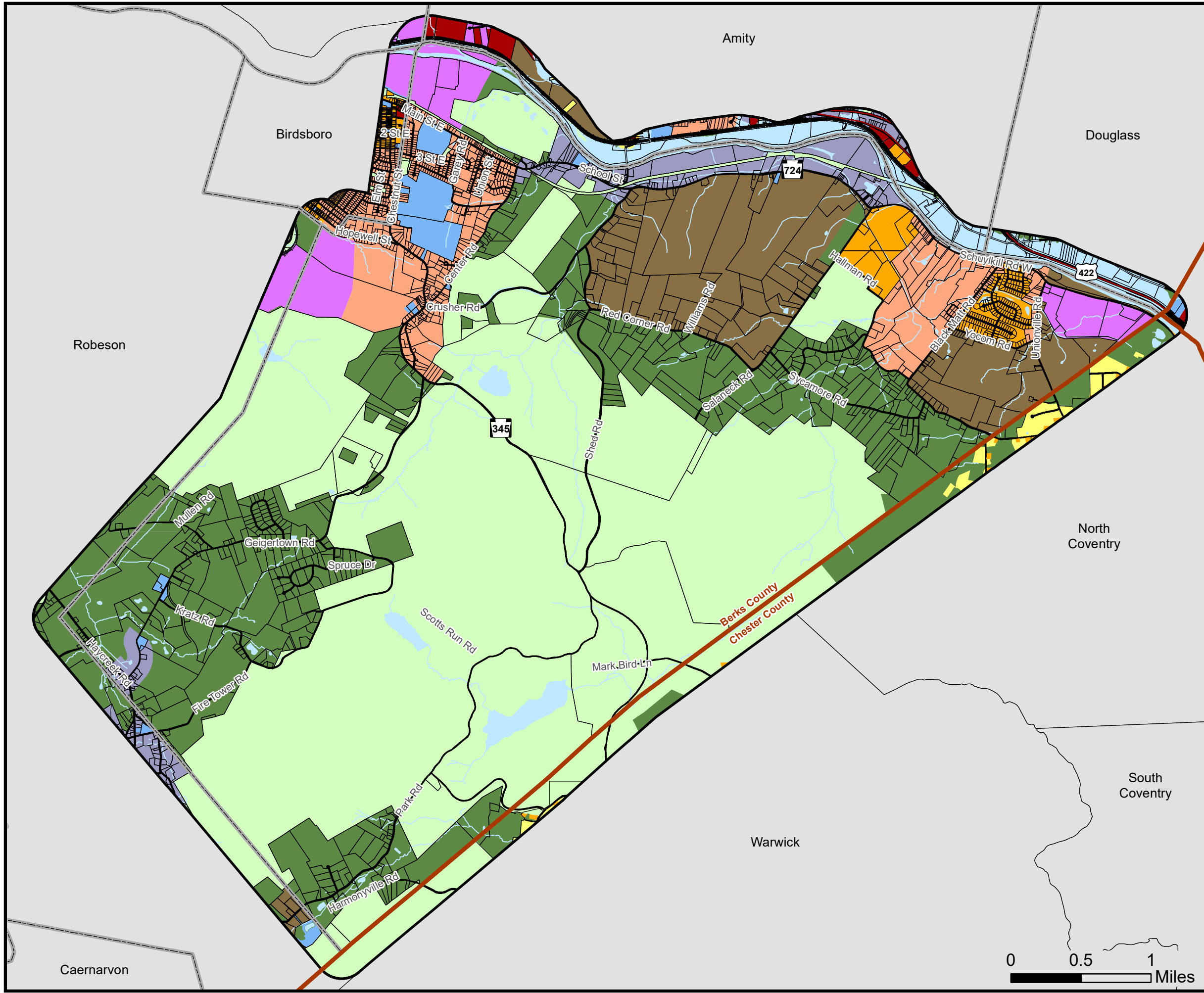


Legend

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IMPLEMENTATION PLAN

This section describes methods that should be considered to implement this Plan.

GOAL: Promote substantial citizen input, including making sure residents are well-informed about community issues and encouraging volunteer efforts to improve the community.

The volunteer efforts of neighborhood and civic organizations and individuals are essential to further improve the region and to carry out this Plan. The objective is to strengthen community pride and emphasize volunteer efforts for residents and property-owners to improve their surroundings.

It is essential to keep citizens informed and provide opportunities for meaningful citizen input, while making use of new technologies for communication.

The websites of each municipality should be regularly updated with information that will help spur public interest, enthusiasm and involvement. This should include information on recreation programs, special events and agendas for upcoming municipal meetings. Opportunities for citizen involvement should also be highlighted through the newspaper, municipal newsletters and other media.

GOAL: Continually work to put this Plan into action - through a program of updated planning and many short-term actions within a long-range perspective.

Planning is an on-going process. The Comprehensive Plan should be implemented through a continuous process of follow-up planning and action. The most immediate action should be updating, as needed, each municipality's development regulations.

Maximize communications, coordination and cooperative efforts between the municipalities, the School Districts, adjacent municipalities, the County and other agencies and organizations.

To be effective, community development efforts need wide participation. A close working relationship is needed with Federal, State and County agencies and adjacent municipalities.

The municipalities cannot implement this Comprehensive Plan alone. Involvement is needed by residents, neighborhood organizations, civic groups, businesses, institutions, property-owners and many other groups.

This Comprehensive Plan should be consistently used as an overall guide for land use and transportation decisions. In addition, the Plan needs to be reviewed periodically and, if necessary, updated to reflect changing trends.

Use a Full Set of Tools to Implement this Plan

This Comprehensive Plan establishes overall policies for guiding the future development and conservation of the region. However, this Plan is not a regulation. The following major tools are available to help implement this Plan:

- the Municipal Zoning Ordinances,
- the Municipal Subdivision and Land Development Ordinances,
- the Construction Codes,
- an Existing Property Maintenance Code,

Chapter 11 - Implementation Plan

- an Official Map,
- explore LERTA areas (Local Economic Revitalization Tax Assistance),
- computerized (GIS) mapping,
- Capital Improvements Planning,
- the municipality's annual spending, and
- seeking Federal, State and County grant funds to accomplish important projects.

Construction Codes

State law requires that a full set of modern construction codes be enforced within all municipalities. The State is using the International Construction Codes, which were prepared by a national organization. These codes are particularly important to minimize fire hazards. The construction codes include provisions allowing modifications of the codes to spur renovations of historic buildings. As noted in the Historic Preservation Plan section, a well-qualified appeals board is important to address these types of modifications.

Existing Property Maintenance Codes

Each municipality should adopt and/or enforce an Existing Property Maintenance Code to control blight. This standard code is used throughout much of the nation and sets basic standards for existing buildings, as opposed to new construction.

Official Map

The State Municipalities Planning Code grants municipalities the authority to adopt an "Official Map." An Official Map can designate proposed locations of new streets, street widenings, intersection improvements, municipal uses and parks. The Map may cover an entire municipality, or only certain areas. This process may be particularly useful, for example, to reserve right-of-way for a future street widening.

Once an Official Map is officially adopted by the governing body, then the municipality is provided with a limited amount of authority to reserve land for the projects on the map. If the land affected by the proposed project is proposed for development, then the municipality would have one year to either purchase the land for its fair market value or decide not to go forward with the project. This one year period is intended to provide time to raise funds to acquire the land, and avoid lost opportunities. If this one year period is not in effect, a person could obtain a building permit almost immediately in many cases and construct a building that could obstruct an important project. An Official Map also serves to provide notice to property-owners about the municipality's future plans.

LERTA

Local Economic Revitalization Tax Assistance allows taxing authorities to exempt new construction and improvements to a commercial, industrial, and/or business property if such property is located in a deteriorated area. In order for a LERTA to apply to a property, each taxing authority (County, Municipal and School District) must by ordinance or resolution, exempt from real estate property taxes, the assessed value of the improvements to deteriorated properties and the assessed value of new construction within the designated areas.

Typically the exemption schedule is not to exceed ten years and shall specify the portion of the improvements to be exempted each year. Savings would be realized on a sliding scale beginning with 100% in year one and decreasing annually 10% until the tenth year.

The County has adopted a resolution that enables any municipality in Berks County to enact a LERTA provided the location that the proposed LERTA area is located within a Future Growth Area as identified on the Berks County Comprehensive Plan.

Computerized Mapping (GIS)

The County, and some municipalities, operate modern computerized mapping "Geographic Information Systems

("GIS"). These systems have been used for the maps in the Plan as well as doing the Future Land Use analysis. Increased efforts are needed to fully integrate this system with operations of municipal agencies. For example, regular mapping of traffic accident locations can be helpful to identify hazardous conditions that need to be resolved, such as sight distance problems.

Capital Improvements Planning

Each municipality should have a system in place to continually plan and budget for major capital expenditures. "Capital" improvements are projects involving a substantial expense for the construction or improvement of major public facilities that have a long lifespan and that are not annual operating expenses. Examples of capital projects include major street improvements, acquisition of parkland, major storm sewer construction projects and new bridges.

A municipal Capital Improvements Program (CIP) can help identify projects that will be needed, prioritize the projects, identify possible funding sources and then budget for their completion. A typical CIP looks five years in the future. A CIP should identify major street reconstruction projects that will be needed over the next few years, which can help coordinate the reconstruction with underground construction projects by various utilities. This avoids the need to cut into a street after it has been recently repaved. Through a CIP, many different projects can be combined into a single bond issue, which avoids the high administrative costs of multiple bond issues. A CIP also can allow a municipality to carefully time any bond issues to take advantage of the lowest interest rates.

Other Implementation Tools

Many other tools are available to carry out the Comprehensive Plan, including the following:

- priorities decided as part of each municipality's annual budget, and the annual setting of tax rates, which affect decisions of businesses and residents on whether to remain or move into a municipality, and
- aggressively seeking Federal, State and County grants to reduce the burden upon local taxpayers.

GOAL: Update municipal development regulations to carry out this Plan, and periodically update the Plan and regulations as needed.

Zoning Ordinance

The municipalities' Zoning Ordinances are the primary legal tool to regulate the uses of land and buildings. Each Zoning Ordinance includes a Zoning Map that divides the municipality into different zoning districts. Each district permits a set of activities and establishes a maximum density of development. Each Zoning Ordinance and Map should be updated as needed to be generally consistent with this Comprehensive Plan, to modernize standards and to address local concerns.

In addition to regulating land uses and densities, zoning also controls the following:

- the heights of buildings,
- the percentage of a lot that may be covered by buildings and paving,
- the minimum distances that buildings may be placed from streets and property lines,
- the minimum size of lots,
- the maximum sizes and heights of signs, and
- the protection of important natural features.

Hydrological Resources Planning

The hydrological features overlying the Southern Berks Region have a significant factor in determining the suitability for land use. Proper management of these water resources is vital to meet growing demands, while protecting water quality and quantity from degradation and depletion. In order to comprehensively plan for future needs of the Southern Berks Region, the following hydrological resource planning guidelines should be considered:

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1. The status of the existing Exceptional Value (EV) streams should be maintained through proper planning and zoning. These streams include French Creek, Hay Creek, Pine Creek, and Scotts Run. In order to maintain the EV status, subdivision and land development requirements should be enhanced or established to minimize impacts.
2. The status of the High Quality (HQ) streams should be maintained or improved through proper planning and zoning techniques. These streams include Beaver Run and Six Penny Creek. In order to maintain or improve the HQ status, subdivision and land development requirements should be enhanced or established to minimize impacts.
3. The Schuylkill River is a unique resource, which provides recreation, education, historic, and conservation opportunities to the Southern Berks Region. In an effort to protect and promote the Schuylkill River, the following issues must be addressed:
 - The Schuylkill River is classified as a scenic river. This designation must be protected through proper land use management in an effort to provide and promote recreation, education, and conservation opportunities for future generations.
 - Coordinate planning and land use efforts with the Schuylkill River Greenway Association, including the development of the Schuylkill River Valley National Heritage Area Management Plan.
 - Conserve, interpret, and develop the historical, cultural, natural, and recreational resources related to the industrial and cultural heritage of the Schuylkill River.
 - Endorse conservation and ecological management practices by protecting floodplains and wetlands.
 - Promote the Schuylkill River Sojourn and recognize this event as a community function with special educational, recreational, historical, and cultural values.
4. Consider initiating regional plans along the Schuylkill River, Conestoga River, and other prominent watersheds within the Southern Berks Region through the Pennsylvania Rivers Conservation Program (PRCP). The PRCP has been developed to conserve and enhance river resources through preparation and accomplishment of locally initiated plans. The program provides technical and financial assistance to municipalities and river support groups to carry out planning, implementation, acquisition, and development activities.
5. Continuously monitor local stormwater management problems and evaluate the effectiveness of stormwater management regulations for subdivision and land development activity.
6. Understand and appreciate the power, velocity, and volume of flood waters by observing flood levels and updating floodplain management regulations in accordance with the guidelines established by the Federal Emergency Management Agency.
7. As part of all subdivision and land development plan applications, require areas classified as hydric soils and/or high water table soils to be evaluated by a qualified and trained professional to determine if wetlands are present on the property.
8. Establish mandatory setback requirements for wetland areas and floodplains.
9. Conduct a periodic analysis of all surface waters in an effort to monitor quality and quantity.
10. Adopt an Official Sewage Facilities Plan for the purpose of resolving wastewater treatment needs and to continuously monitor groundwater quality.
11. Distribute literature to the residents within the community on the importance of water conservation and improving the quality of surface water.

Subdivision and Land Development Ordinance

Each municipality is regulated by a Subdivision and Land Development Ordinance. These Ordinances mainly regulate the creation of new lots, the construction of new streets by developers, and the site engineering of new commercial, industrial and institutional buildings.

GOAL: Maximize communications, coordination and cooperative efforts between the municipalities, the school districts, adjacent municipalities, the County and other agencies and organizations.

This Plan helps to establish a framework for further cooperative ventures among the municipalities in the region, and between municipalities and the County. Intergovernmental cooperation can not only decrease the costs of many services, it can also improve the quality of services. The Pennsylvania Intergovernmental Cooperation Act provides broad and flexible authority to organize joint efforts as municipalities deem appropriate. In most cases, the Act promotes the use of ordinances that are adopted by each municipality to formalize an agreement. One option involves one municipality providing a service to a second municipality through a contract.

These same concepts can also apply between a municipality and a school district. For example, a municipality may agree to plow snow from school parking lots and driveways in return for free municipal use of some school facilities.

A State law also provides that State agencies must treat a Council of Governments in the same manner as a municipality in any funding program.

The following types of alternatives should be considered to promote inter-governmental cooperation:

- **Shared Services and Shared Staff-persons** - Shared staff-persons can be particularly beneficial for specialized staff, such as different types of construction inspectors or zoning officers. Two or more municipalities could hire the same person to do the same job, with so many hours assigned to each municipality. This allows each municipality to hire a highly qualified person who is working full-time, as opposed to each trying to find a part-time person. This can reduce turnover, which reduces training costs and reduces the potential for mistakes being made by inexperienced staff. In addition, sharing staff makes staff-persons available during more hours of the day, which is beneficial to residents and business-persons. It also provides greater coverage during periods of illness or vacation. Some municipalities also have a joint application and testing programs for police officer applicants, which reduces costs and results in a larger pool of applicants.
- **Shared Consulting Staff** - There are also great efficiencies when adjacent municipalities choose the same consultants, such as municipal engineers, sewage engineers or solicitors. This promotes good communications between municipal governments. It also reduces the costs of having different professionals having to become educated about complex issues and having to spend time meeting with consultants of other municipalities to share information.
- **Shared Recreation Programs** - When municipalities share and coordinate recreation programs, it greatly increases the types of programs that can be offered. For example, one municipality may offer a gymnastics program, while another municipality offers basketball programs, with residents of each municipality being allowed to participate in each at the same cost per person. There has been great success in parts of Pennsylvania with multi-municipal recreation programs, where each municipality contributes funds towards one set of programs. These programs are often organized in partnership with a school district.
- **Joint Yard Waste Collection and Composting** - This is a very cost-effective way of handling the disposal of yard waste, which requires significant land and expensive equipment.
 - The toughest issue in joint municipal services is determining a fair allocation of costs. The State Department of Community and Economic Development has several publications that can assist in these issues.

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- **Snowplowing** - There may be cases where two municipalities must each send out a snowplow to clear different segments of the same street. It may be beneficial to trade responsibility for different street segments, so that a single snowplow can be used to clear the entire length of a street.
- **Joint Purchasing** - Joint purchasing can reduce the costs to each municipality of preparing bid documents and legal ads. It also can result in lower costs because larger volumes are being purchased. This process is particularly useful for annual purchases of standardized materials, such as road salt. The State also has arrangements that allow municipalities to “piggyback” upon State purchases. State law allows a similar process of “piggyback” bids between municipalities and a County. The State Intergovernmental Cooperation Act includes rules for joint municipal purchasing. Under State law, one municipality can be the lead municipality in purchases, without requiring multiple municipalities to seek bids. Municipalities can also join together to jointly purchase insurance, to hire traffic signal maintenance services, or to jointly contract for solid waste collection. Joint auctions can also be used to sell surplus vehicles and equipment.
- **Sharing of Equipment** - This sharing is most beneficial for expensive equipment that is needed by each municipality for only portions of the year, such as paving, rolling or grading equipment. The equipment could be jointly owned, or be owned by one municipality and leased other municipalities. Or an arrangement could allow trading of equipment.
- **Joint Tax Collection** - The Local Tax Enabling Act allows municipalities and the school districts to contract with each other to have one office jointly collect local taxes.
- **Councils of Governments (COGs)** - A COG can provide municipal services if authorized by municipalities. For example, some COGs take care of code enforcement. Other COGs primarily serve to promote good communications between municipal officials, to study issues, and to lobby for State or Federal funding for projects.
- **Joint Authorities** - Municipalities can create formal joint municipal authorities to address many types of matters.
- **Joint Planning Commissions** - Municipalities can appoint joint planning commissions. These joint commissions could serve in place of municipal planning commissions, or in addition to them.
- **Cooperation Between or Merger of Fire Companies** - Consideration should be given to promoting additional cooperation between or merger of fire companies, including one or more fire companies in neighboring municipalities. Spring Township has been a leader in this initiative, and Wyomissing has established a municipal fire department. Merger or cooperation are particularly beneficial to make the best use of extremely expensive fire apparatus, such as rescue trucks, hazardous materials equipment, tanker trucks and aerial ladder trucks. Merger or cooperation are also important to make the best use of the limited number of volunteers.
- **Joint Police Forces** - A joint police force involves two or more municipalities establishing one police force that is directed by commission members appointed by each municipality. Another option is to have one municipality contract for police services from a second municipality, which then manages the force. A joint police force makes it easier to provide 24-hour service and specialized services, such as for investigations and youth. A joint police force can result in increased training and professionalism, which can reduce liability costs. A joint force also makes it easier to investigate crime that crosses municipal borders.
- **Incentives for Intergovernmental Cooperation in Grants** - Many competitive State grant programs provide preference to projects that involve cooperation between more than one municipality. Therefore, if two similar projects are in competition for a grant, and one involves cooperation between two municipalities, the two municipality project is most likely to be funded.

Role of the Joint Planning Committee

The Joint Planning Committee has played an active role in developing and implementing this Joint Comprehensive Plan update. The Committee should continue to meet quarterly to promote the implementation of this plan and address regional issues.

Role of the Municipal Planning Commissions

Some of the greatest responsibilities of each Planning Commission are to oversee the preparation and implementation of the Comprehensive Plan and the preparation of Zoning and Subdivision Ordinance revisions. On a monthly basis, the Planning Commission also reviews proposed developments. The Planning Commission also has a role in reviewing proposals of other government agencies.

Role of the Board of Supervisors and Borough Councils

The final decision on nearly all matters affecting the growth and preservation of each municipality rests with its Borough Council or Board of Supervisors. Therefore, close communications and cooperation between the Planning Commissions, the municipal staff, and the elected officials will be essential in continuing to improve the quality of life in the Southern Berks Region.

ACTION PROGRAM

The following table summarizes the major recommendations of this Plan. Certain items are recommended as high priorities. The timing of each recommendation is listed, as well as which agencies should have the primary responsibility to carry out the recommendations. Short-term timeframes typically are between two and four years and Long-term is about four to eight years respectively.

While all of these proposed actions are important for the continued vitality of the region it is of the utmost importance that all persons involved and/or interested in the future of the Southern Berks Region read and understand this document. Local decision-makers should keep this plan available when evaluating future development proposals, service adjustments or public investments.

NATURAL FEATURES AND AGRICULTURAL CONSERVATION			
Recommended Action:	Responsible Parties	Time-frame	High Priority?
Continue to expand Agricultural Security Areas where applicable to make land eligible for agricultural easement purchase and to protect farmers against nuisance challenges.	Township Supervisors, PCs, Property-Owners	Ongoing	
Consider zoning provisions that preserve farmland and natural areas, particularly through promoting the optional transfer of density to more suitable lands.	Governing Bodies, PCs	Short-term	
In rural conservation areas, permit a range of activities that allow opportunities for supplemental income for farmers on large tracts of land.	Governing Bodies, PCs	Short-term	
To protect water quality and fish habitats, carefully enforce State regulations on erosion control through on-site inspections.	Governing Bodies, PCs, Property-Owners	Ongoing	
Minimize unnecessary removal of trees during construction, and make sure temporary fencing is used to avoid damage to tree trunks and root systems.	Governing Bodies, PCs, Property-Owners	Short-term	
Consider the adoption of strengthened subdivision and land development regulations to protect the Region's state-designated high-quality and exceptional value streams and watersheds.	Governing Bodies, PCs, Property-Owners	Short-term	
Require professional wetland studies whenever development is proposed in suspect areas and establish a 20 foot building setback around wetlands to avoid intrusions by construction equipment. Require a building paving setback from all creeks. A smaller width is appropriate in more urban areas, while a larger width should be required in rural areas.	Governing Bodies, PCs, Property-Owners, PennDOT	Ongoing	

Chapter 12 - Action Program

Recommended Action:	Responsible Parties	Time-frame	High Priority?
Require professional geologic studies to address sinkhole/subsidize hazards at the time any major new development is submitted for approval within areas with limestone geology within the region.	Governing Bodies, PCs, Property-Owners	Ongoing	
Continue to use mandatory dedication provisions in subdivision ordinances to require dedication of open space or payment of recreation fees as part of major new residential developments.	Governing Bodies, PCs, Property-Owners	Ongoing	
Minimize potential impacts to core habitat areas. Development activities should be extremely limited in areas of known core habitat.	Governing Bodies, PCs, Property-Owners	Short-term	X
<p>Protect important natural features, with a special emphasis upon the creeks, steep slopes and mature woods.</p> <ul style="list-style-type: none"> - Continually work to avoid and address stormwater problems. - Continue to limit development in flood-prone areas. - Work with neighboring municipalities, State agencies and volunteer organizations to preserve important natural areas. - Maintain and plant thick vegetation along streams to protect water quality and fishing habitats, including carrying out Best Management Practices 	Governing Bodies, PCs, ZHBs, Property-Owners, Adjacent Municipalities	Ongoing	X

COMMUNITY FACILITIES AND SERVICES			
Recommended Action:	Responsible Parties	Time-frame	High Priority?
Continue to improve existing parks and playgrounds to meet a wide variety of recreational needs.	Governing Bodies, Municipal Parks and Recreation	Ongoing	
Protect and promote the Horseshoe and Thun/Schuylkill River Trails as part of the Region's open space system.	Governing Bodies, Municipal Parks and Recreation	Ongoing	

Recommended Action:	Responsible Parties	Time-frame	High Priority?
Emphasize high-quality police, emergency medical and fire protection services. Promote continued cooperation between providers, including those in adjacent municipalities.	Emergency Providers, Governing Bodies, Adjacent Municipalities	Ongoing	X
Continually explore ways to minimize local government expenses and increase revenues, including use of grants.	Governing Bodies, Municipal Staff	Ongoing	
Continue to provide excellent water and sewage services, with regular investments to provide reliable services.	Municipal Authorities and Water Companies	Ongoing	
Facilitate communication between the State police and the local policing agencies to ensure adequate and timely response should there be an emergency incident involving either of the school districts.	Governing Bodies, School Districts, Emergency Providers	Short-term	X

HISTORIC PRESERVATION			
Recommended Action:	Responsible Parties	Time-frame	High Priority?
Consider alternative ways to preserve important historic buildings, such as requiring special zoning approval by the governing body or zoning hearing board before demolition is allowed.	Governing Bodies, PCs, Historic Organizations	Long-term	
Seek cost-effective ways of preserving historic buildings, including providing information and advice to property owners. Promote greater interest in the region's history and historic buildings.	Municipal Staff, Historic Organizations	Ongoing	
Consider zoning incentives to promote the preservation of historic buildings. This could include allowing certain uses within restored historic buildings that otherwise would not be allowed in the zoning district. For example, a restored historic building in a residential district might be allowed to be used as an office or bed and breakfast inn.	Governing Bodies, PCs	Short-term	
Promote historic preservation tourism to utilize the abundant historic resources of the Region	Governing Bodies, Historic Organizations	Short-term	

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ECONOMIC DEVELOPMENT			
Recommended Action:	Responsible Parties	Time-frame	High Priority?
Update zoning ordinances to make sure that all desirable types of businesses are allowed in appropriate business zoning districts. Hold requirements for special zoning approvals to a reasonable minimum and minimize setbacks between adjacent businesses. These steps are important to promote economic development and a wider choice of employment opportunities.	Governing Bodies, PCs	Short-term	X
Utilize the County's Economic Development Web Mapping Tool to identify appropriate sites to locate industrial and commercial development.	Governing Bodies, PCs, EDs, BCIDA, BCPC	Short-term	
Market high priority sites for economic development initiatives.	Governing Bodies, PCs, EDs, BCIDA, BCPC	Short-term	X
Prioritize infrastructure improvements associated with sites that are identified as potential locations for industrial development.	Governing Bodies, PCs, EDs, BCIDA, BCPC	Short-term	X
Support entrepreneurship and small business development and partner with higher learning institutions and technical schools.	Governing Bodies, PCs, EDs, Local Colleges, School Districts, GRCCI	Short-term	
Strengthen business districts to maximize revenue, including pedestrian amenities and transportation systems. Support reuse of existing buildings and infill development.	Governing Bodies, PCs, EDs	Short-term	
Strengthen the quality and competitiveness of the Region's workforce. Partner with higher learning and workforce institutions.	Governing Bodies, PCs, Local Colleges, School districts	Short-term	
Position the Southern Berks Region as a destination Region. Partner with Convention and Visitors Bureau, Chamber, and arts organizations to promote arts, historical significance, culture, recreation and events.	Governing Bodies, PCs, GRCVB, Municipal Parks and Recreation	Short-term	

Recommended Action:	Responsible Parties	Time-frame	High Priority?
Cultivate and attract a skilled workforce by providing access to attainable and high quality housing options, well-maintained neighborhoods and amenities and ensuring high quality schools for families.	County Agencies, Job Training Organizations, School Districts, Local Colleges	Ongoing	X
The municipalities should strive to keep their planning and permitting processes current and streamlined, eliminating excessive or obsolete requirements, with fee structures for planning services and permitting that recover no more than the actual costs to conduct such programs and reviews,	Governing Bodies	Short-term	X

TRANSPORTATION			
Recommended Action:	Responsible Parties	Time-frame	High Priority?
Work with PennDOT to resolve traffic congestion bottlenecks and traffic safety problems. Seek funding through the 12 Year Plan to resolve traffic problems in the region.	Governing Bodies, PCs, PennDOT	Ongoing	X
Design residential streets (in new developments) to discourage use by through-traffic, limit truck traffic on residential streets where feasible, and improve major roads to relieve congestion so traffic will not be diverted to residential streets.	Governing Bodies, PCs	Ongoing	
Improve pedestrian and bicycle access and encourage greater use of public transit. Study the potential of expanded public transit service in the region.	Governing bodies, PCs, BARTA/SCTA	Ongoing	
Consider the development of a regional trail/ pedestrian/bicycle plan that provides guidance for an interconnected system of pedestrian improvements between the municipalities and to other regional trail and recreation systems.	Governing Bodies, PCs, Municipal Parks and Recreation	Long-term	

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Recommended Action:	Responsible Parties	Time-frame	High Priority?
Update, if necessary, each municipality's development regulations to carry out the Future Land Use Plan.	PCs, Governing Bodies	Short-term	
Adopt and/or enforce existing municipal property maintenance codes to avoid blighted and unsafe conditions.	Governing bodies	Short-term	X
Utilize the County's Blighted Property Review Committee to review and eliminate blighted residential properties from neighborhoods so that they can be redeveloped into usable housing.	Governing Bodies, BCRA, BCPC	Ongoing	
Help to link residents that are in need of assistance with the resources that are available, including housing rehabilitation and job training programs.	Municipal Staffs and Non-Profit Organizations	Short-term	
Work to increase home ownership, including expanding programs to help persons afford closing costs of home purchases.	Co. Agencies, Financial Institutions, PHFA	Ongoing	
Review and/or update zoning ordinances to make sure that all desirable types of businesses are allowed in appropriate business zoning districts. Hold requirements for special zoning approvals to a reasonable minimum and minimize setbacks between adjacent businesses. These steps are important to promote economic development and a wider choice of employment opportunities.	Governing Bodies, PCs	Short-term	X
Make sure that local regulations and permit processes are as streamlined as reasonable, to avoid unnecessary delays and higher housing costs. This is particularly important for routine changes to existing homes and for new and expanding employers.	Governing Bodies, PCs, ZHBs, Municipal Staffs	Short-term	
Use zoning regulations to direct most housing away from areas planned for rural conservation and important natural areas. Provide moderate densities on areas that can be served by existing public water and sewage services - to minimize the total amount of land consumed by development.	Twp. PCs, Property Owners, Co. Conservation District	Ongoing	

Recommended Action:	Responsible Parties	Time-frame	High Priority?
Place an emphasis on zoning provisions that preserve farmland and natural areas, particularly through “Open Space Development” that involves clustering of homes in return for permanent preservation of a substantial part of the tract in open space. In the townships, promote the optional transfer of development rights that allows the number of homes that would have been allowed on an outlying tract to be developed on a more suitable tract, in return for preservation of the outlying tract.	PCs, Property-Owners, Co. Conservation District	Ongoing	
Review and/or update zoning ordinances to make sure that excessive setbacks are not required for routine additions to homes and for decks and pools. These types of improvements should not be overly regulated in order to encourage residents to invest in older homes, instead of moving to new homes in outlying areas. This policy is particularly important because excessive setback requirements can cause an administrative burden upon property-owners and the municipalities.	Governing Bodies, PCs	Short-term	
Update zoning ordinances to carefully control the types and locations of intense business uses near neighborhoods. This particularly includes gas stations, 24-hour stores, adult uses and similar uses that may cause nuisances for neighboring homes.	Governing Bodies, PCs	Short-term	
Provide density incentives for housing developments that are permanently limited to occupancy by older persons.	Governing Bodies, PCs, ZHBs	Ongoing	
Work with adjacent municipalities to ensure that compatible land uses and road patterns are in place.	Governing Bodies, PCs	Short-term	
Emphasize code enforcement to avoid blight in neighborhoods.	Governing Bodies, PCs, Adj. Mun.	Short-term	
Use this plan as a guide to direct development, both in terms of location and type, where and how you want it to occur.	Governing Bodies, PCs	Ongoing	
The municipalities should periodically review the need to update this joint comprehensive plan. A typical timeframe for an update is 10 years but could be more depending on the needs of the municipality.	Governing Bodies, PCs	Long-term	

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Abbreviations of Responsible Agencies/Groups:

Governing Bodies = Borough Councils and Township Boards of Supervisors/Board of Commissioners

PC = Municipal Planning Commissions

ZHB = Zoning Hearing Boards

Adj. Mun. = Adjacent Municipalities

DA = Downtown Associations

EDs = Berks County Economic Development Organizations

BCPC = Berks County Planning Commission

PennDOT = Pennsylvania Department of Transportation

PHFA = Pennsylvania Housing Finance Agency

PHMC = Pennsylvania Historical and Museum Commission

SCTA = South Central Transit Authority

BCRA = Berks County Redevelopment Authority

BCIDA = Berks County Industrial Development Authority

GRCVB = Greater Reading Convention and Visitors Bureau

The preceding tables plot an ambitious list of recommended activities. These tasks are vital if the Region is to optimally manage its growth and development and to plan and implement its “vision” for the future. The completion of many of these tasks should result in an improved quality of life within the Region.

Municipal officials are responsible to monitor and evaluate the implementation strategy aimed at achieving the locally-expressed objectives and resultant recommendations set forth in this Plan.

Cooperation among all administrative bodies and levels of government is an essential component to a streamlined and successful implementation strategy. The continued use of public participation is also a very important duty of municipal officials. If, for some reason, the recommendations of this Plan do not appear to address the current conditions, municipal officials should not hesitate to amend portions of this Plan or any other policy to rectify those deficiencies.

This Plan holds a wealth of information, which is easily obtainable and understood. Its implementation can be equally understood so that all residents, businesses and visitors know the Plan is vital, and that the future of the Region is deliberate, and the result of considerable analysis and public scrutiny.