Honey Brook Township and Borough Multi Municipal Comprehensive Plan Update

Task Force Meeting #2

August 6th, 2025, at 6:30PM-8PM (Honey Brook Township Office and Zoom)

https://brandywine-org.zoom.us/j/82321535770?pwd=1l8URzmylUIbl11Obc4eXeLvERtKJL.1

AGENDA

6:30-6:35pm **Welcome and Call to Order**
Gary McEwen, Task Force Chair

Meeting Overview
Sarah Sharp, Brandywine Conservancy

6:35-6:40pm **Public Comment (see Township guidelines for public comment)**
** When called, provide your name and address for the record. After this, you have three (3) minutes to share your comments regarding any matter related to the Comprehensive Plan Update. There will be additional opportunity for public comment at the end of the meeting.*

6:40-6:50pm **Community Visioning Event**
Sarah Sharp, Brandywine Conservancy

6:50-7:05pm **Community Survey Review and Comments**
Sarah Sharp, Brandywine Conservancy

7:05-7:20pm **Demographic Summary**
Sarah Sharp, Brandywine Conservancy

7:20-7:40pm **Preserving Agricultural Landscapes, Open Space, Recreation and Protecting Natural Resources: Inventories, Mapping and Recommendations**
Sarah Sharp, Brandywine Conservancy

7:40-7:50pm **Questions/Concerns/ Outstanding Items**
Sarah Sharp, Brandywine Conservancy

7:50-8:00pm **Public Comment (see Township guidelines for public comment)**
** When called, provide your name and address for the record. After this, you have three (3) minutes to share your comments regarding any matter related to the Comprehensive Plan Update.*

Next Meeting – No Task Force Meeting in Sept - Community Survey and Community Visioning Session October 9th @ 6:30- Task Force Meeting #3 -

Honey Brook Borough & Township
Assessment of Community Demographics

Research and analysis conducted by
the Brandywine Conservancy
June 2025

Introduction

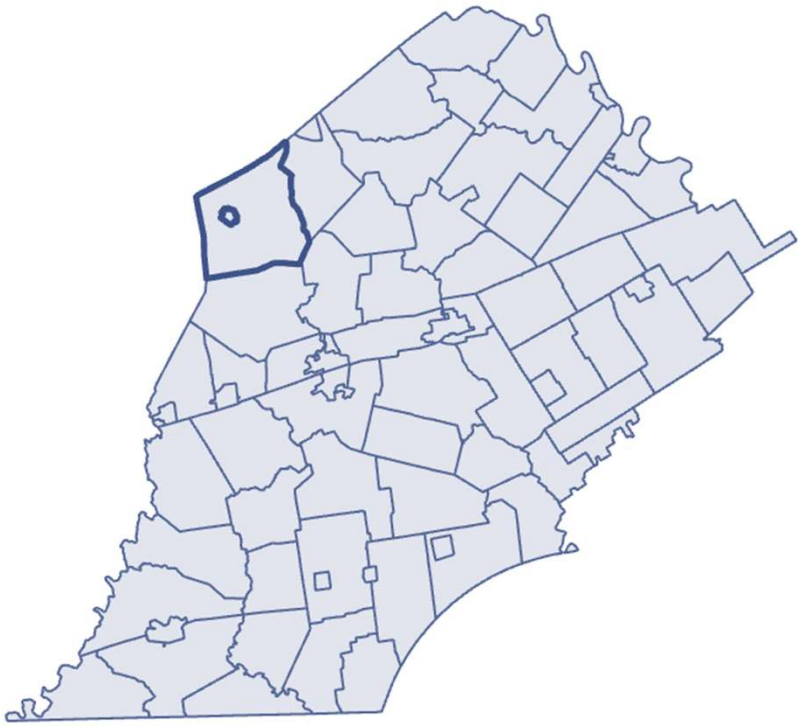
Conducted as part of the 2026 Honey Brook Borough and Township Multi-Municipal Comprehensive Plan update, this demographic report aims to provide a summary of past, current and projected demographic characteristics for the Borough and Township. An understanding of these demographic characteristics and patterns can help the community plan for future changes in population. Changes in the demographics of a community can impact demands on municipal services, land use, housing and transportation and are important to consider when planning.

This report summarizes available demographics from 2021, combining data collected from the 2020 Decennial Census, the 2019 American Community Survey (ACS), an estimate that is compiled by the US Census Bureau at more frequent intervals and estimates of demographic data for 2021 compiled by ESRI's Business Analyst tool, using past census data as well as private demographic sources. While the ACS is generally a reliable source of data, in smaller communities like Honey Brook Township and Borough, smaller sample sizes can result in slightly larger margins of error. Although data from the 2020 Decennial Census is available, the 2020 census was not as detailed as previous census years.

The following section of this report graphically portrays a variety of demographic trends for Honey Brook Borough and Township, including comparisons with surrounding municipalities and Chester County as a whole.

At the end of the following section, a written summary of the data presented in the graphic charts, graphs, and tables is provided. Following that is a list of sources used to prepare this study.

Honey Brook Borough & Township
Data Analysis, Trends, & Forecasts



Overview

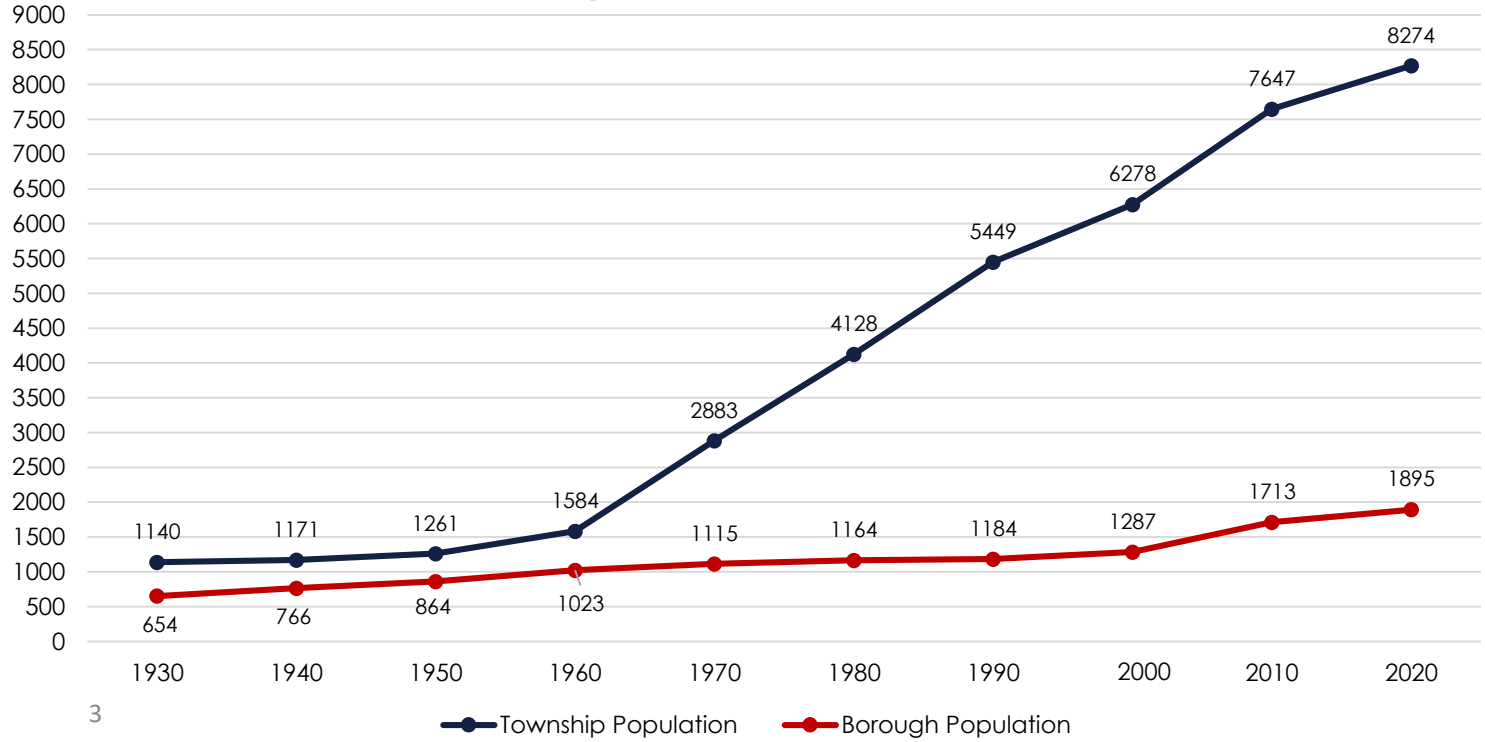
Total Population: 10,169
- **Township**: 8,274
- **Borough**: 1,895

Area:
- **Township**: 24.8 square miles
- **Borough**: 0.5 square miles

Total Households: 3,603
- **Township**: 2,878
- **Borough**: 725

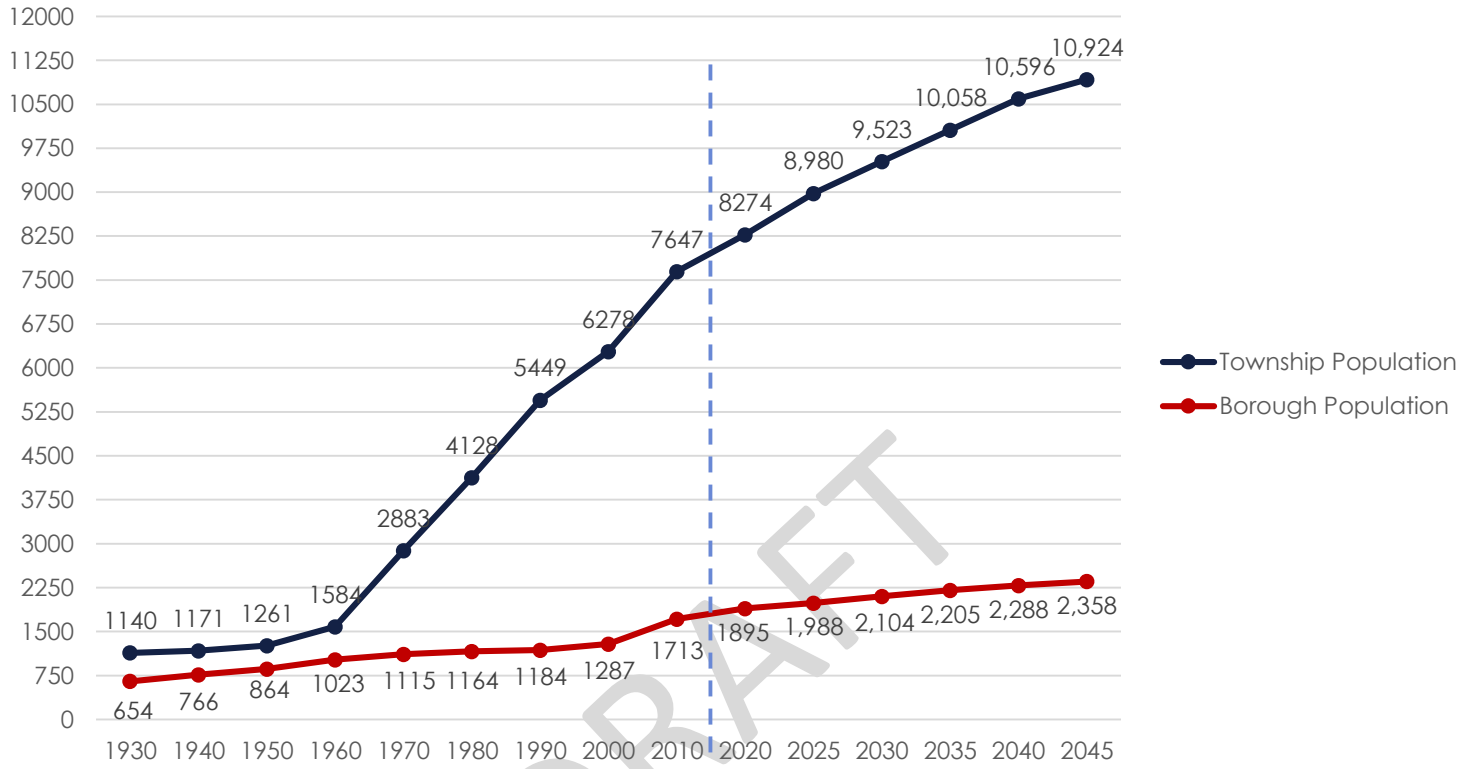
Median Household Income:
- **Township**: $78,997
- **Borough**: $105,571

Historic Population Trends, 1930 to 2020



Population

Populations Projections, 2020 to 2050



Delaware Valley Regional Planning Commission (DVRPC) population projections estimate Honey Brook Borough and Township may reach a population of 13,282 residents by 2045. DVRPC projects there to be 11,627 residents in the community in 2030. Estimates suggest that the rate of population change from 2015 to 2045 will increase 34.13% in Honey Brook Borough and 34.47% in Honey Brook Township.

Population Change, 2000 to 2020

	Population Total			2000-2010 Change		2010-2020 Change		2000-2020 Change	
	2000	2010	2020	#	%	#	%	#	%
Honey Brook Region	7,565	9,360	10,169	1,795	23.7%	809	8.60%	2,604	34.40%
Honey Brook Township	6,278	7,647	8,274	1,369	21.80%	627	8.20%	1,996	31.79%
Honey Brook Borough	1,287	1,713	1,895	426	33.10%	182	10.60%	608	43.80%
Chester County	433,501	498,886	543,702	65,385	15%	44,816	9%	110,201	20%

Population Density

Population Density, Honey Brook Borough and Township, 2020

Borough Population Density

3947.4

2020 Population Density (Population per Square Mile) (2020 Census)

Honey Brook Borough is classified as an urban center by Chester County's Comprehensive Plan, *Landscapes3*. Comparatively, Honey Brook Township is classified as agricultural and rural with a rural center, along Horseshoe Pike in the Rockville area.

Township Population Density

334.3

2020 Population Density (Population per Square Mile) (2020 Census)

Population Density, Chester County, 2020

Chester County Population Density

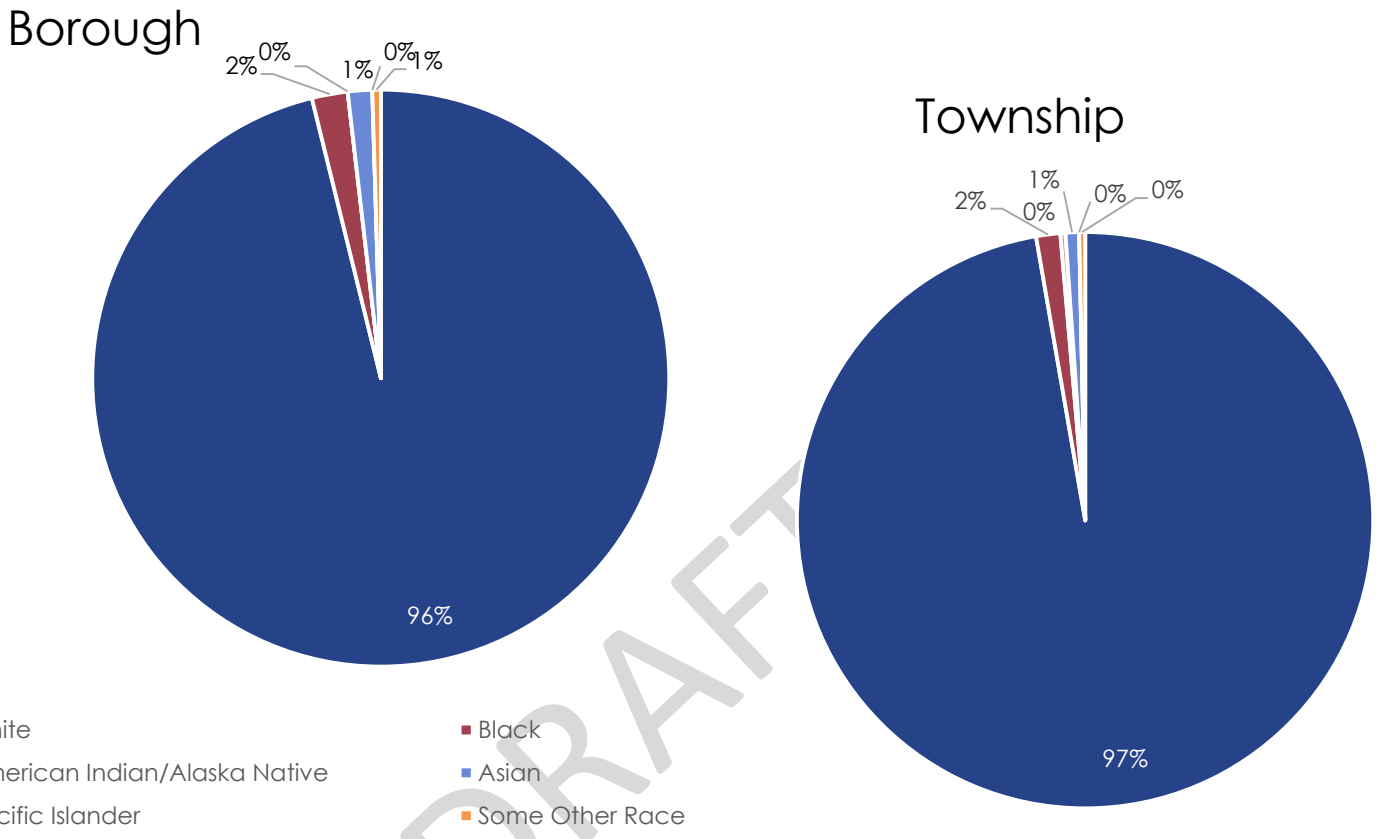
709.0

2020 Population Density (Pop per Square Mile) (Esri)

Surrounding Townships	Density (per square mile)
Caernarvon Township	477.7
West Brandywine Township	558.8
West Caln Township	412.5
West Nantmeal Township	168.8
Salisbury Township	275.2

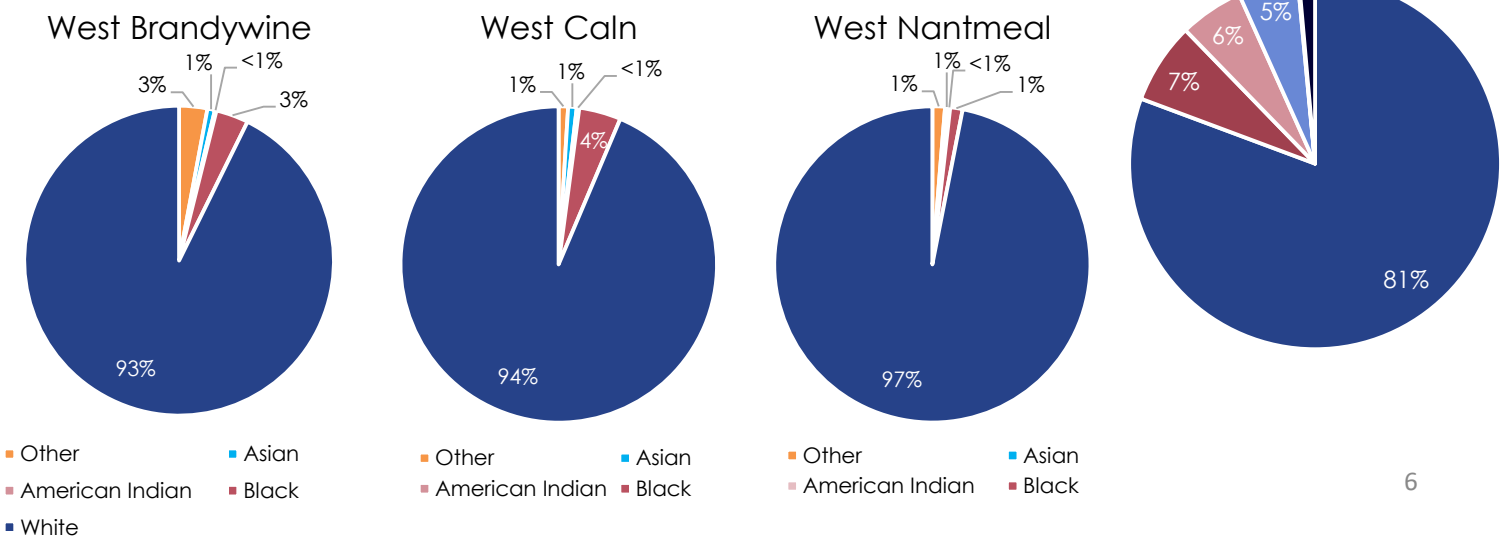
Population Diversity

Population Diversity, Honey Brook Borough and Township, 2020



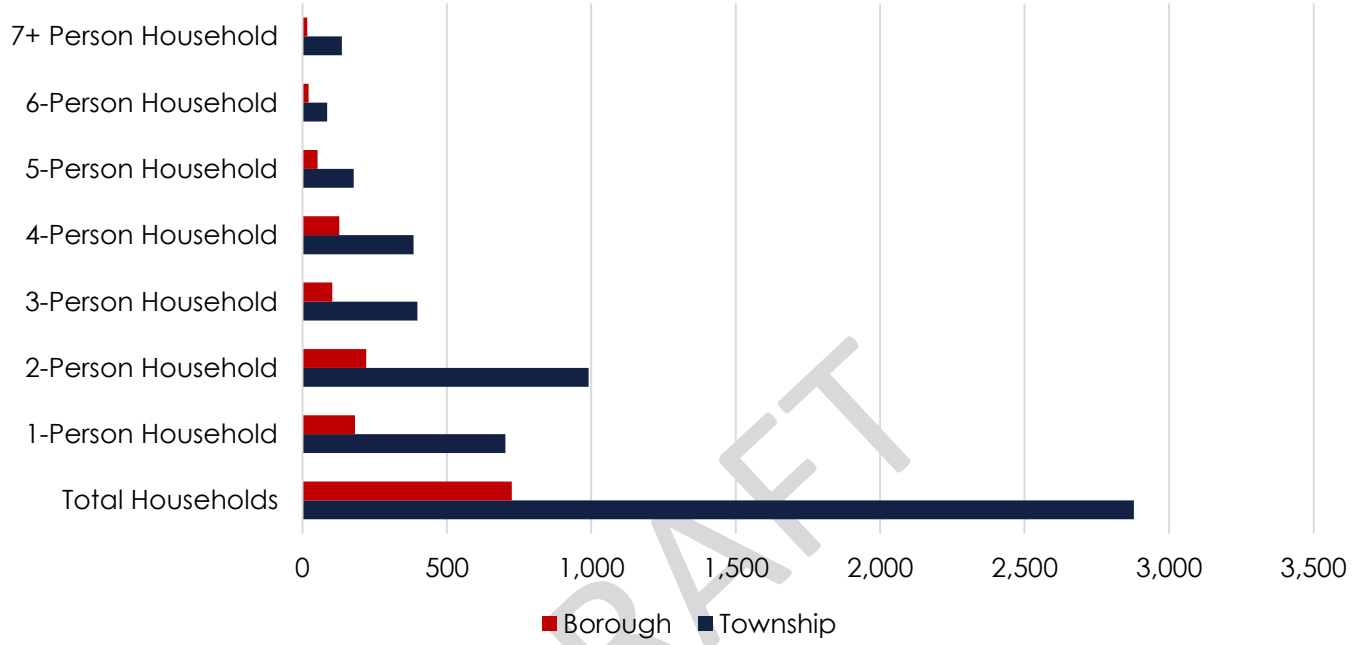
The population of the Township and Borough is predominately white, and similar in composition with Chester County. When compared to neighboring townships, West Brandywine Township appears to have the greatest diversity with only 93% of the population as white, compared to the other Townships.

Population Diversity, Chester County, 2020



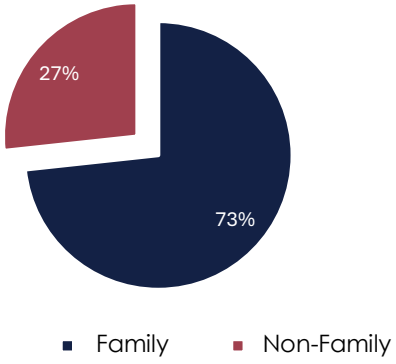
Population & Households

Population per Household, 2020

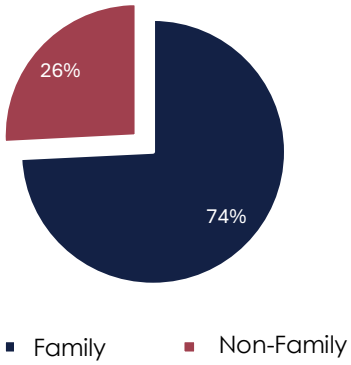


Family vs. Nonfamily Households

Borough



Township



Per the U.S. Census, a family household is defined as a household where 2 or more people are related by birth, marriage, or adoption. A nonfamily household includes either a person living alone or a household where all occupants are unrelated.

Average Household Size

2.61

Borough 2020 Average Household Size (Population per Square Mile) (2020 Census)

2.77

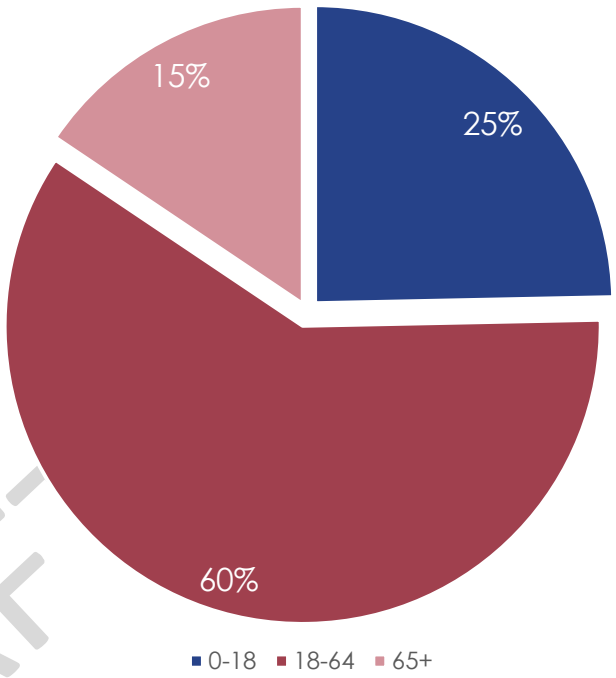
Township 2020 Average Household Size (Population per Square Mile) (2020 Census)

Municipality	2020
Caernarvon Township	2.76
West Brandywine Township	2.50
West Caln Township	2.70
West Nantmeal Township	2.68
Salisbury Township	3.34
Chester County	2.65

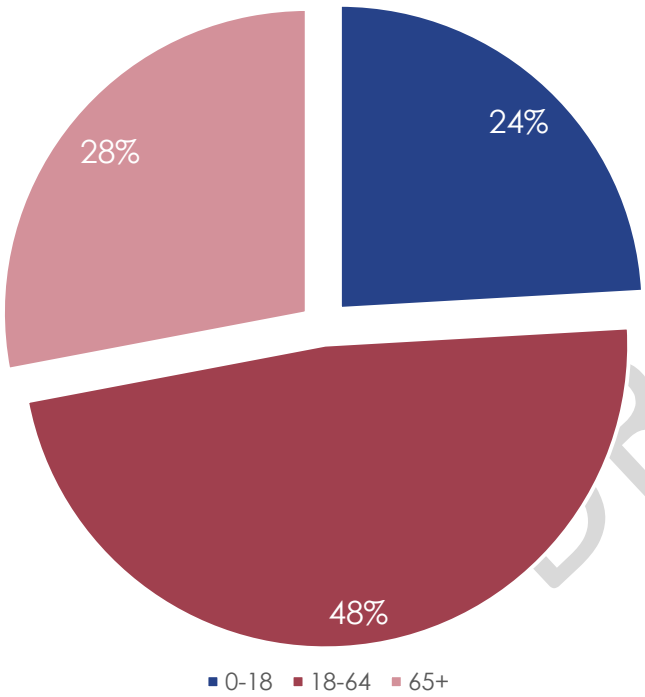
Age

Population by Age Group, 2020

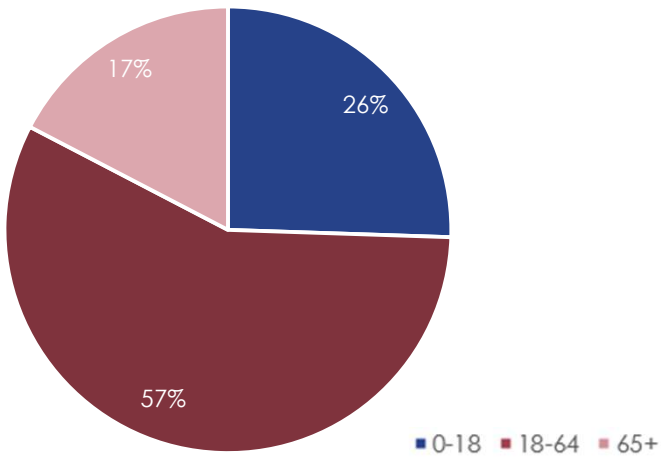
Borough



Township



Chester County



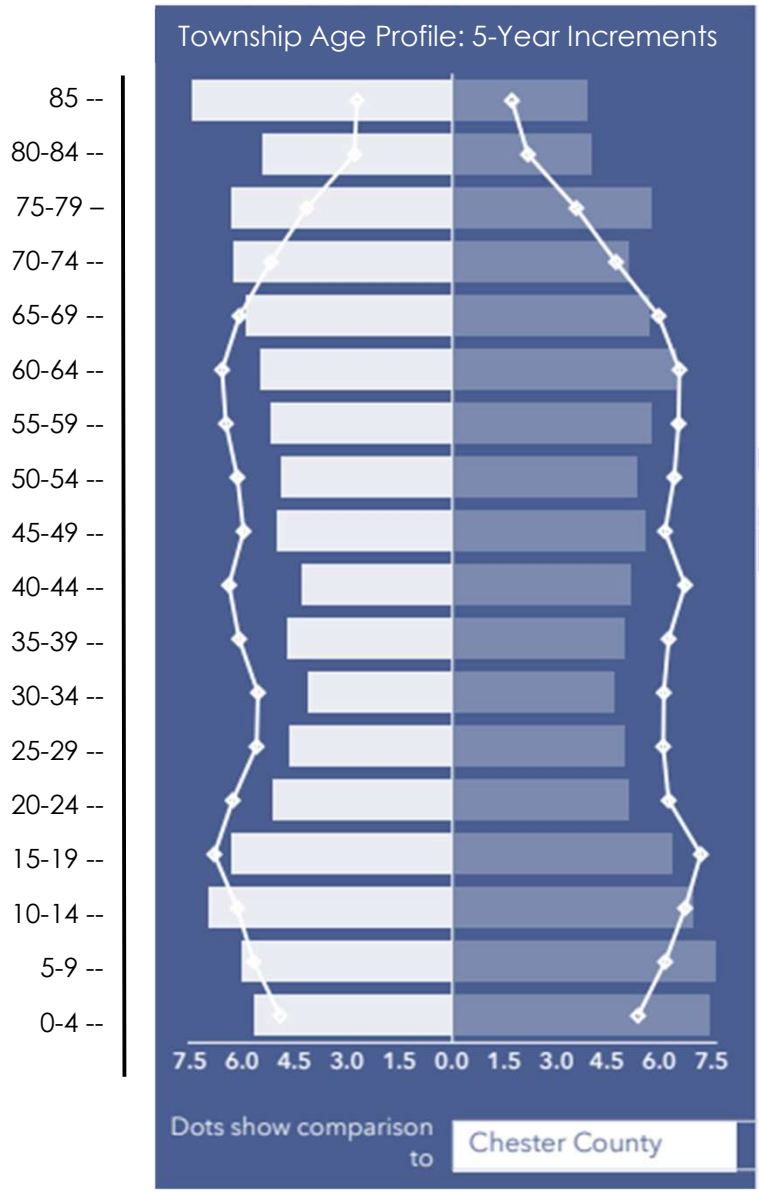
*The **median age** in Honey Brook Township is **44.7**, compared to the **37.8** in the Borough. Age groups are divided into groups **children to college aged** (0-18), **economically active** (post college- early retirement, 18 to 54) and **eligible for retirement** (65+). A significant portion of the population in both the Borough and Township falls with the category of economically active.*

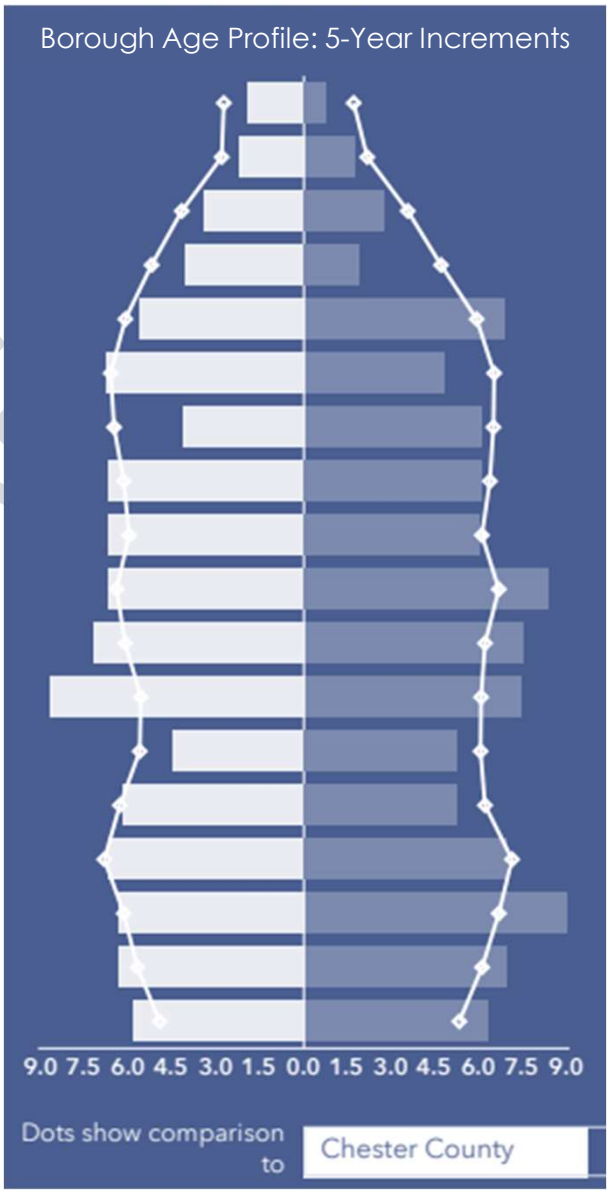
Median Age & Age Groups

Age

Population by Age & Sex, 2021

This age pyramid shows that there are generally lower birth rates and death rates and high life expectancy. There is a large population that would be considered economically active, between the ages of 18-64.



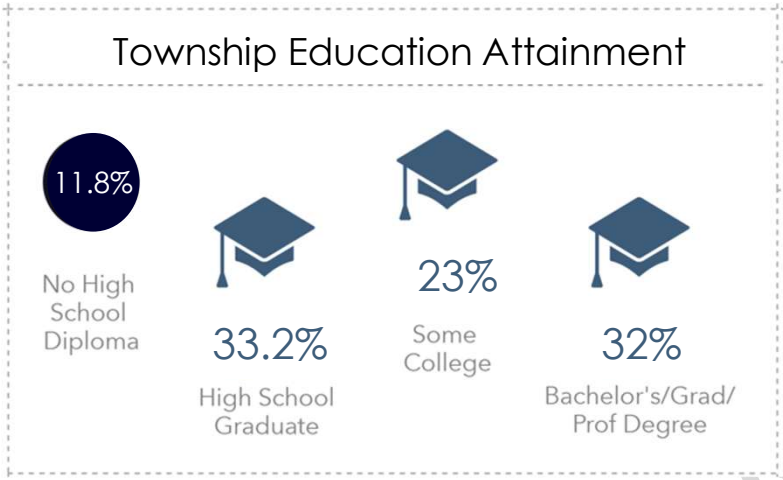


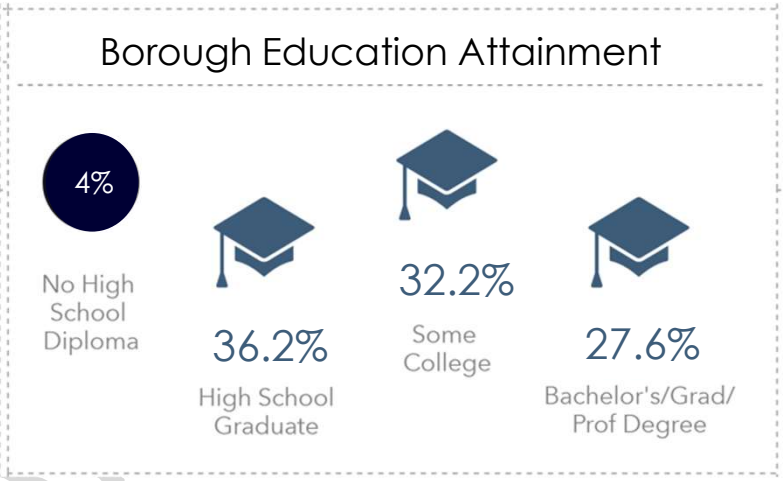
Female **50.2%** **Male** **49.7%**

Female **50.1%** **Male** **49.8%**

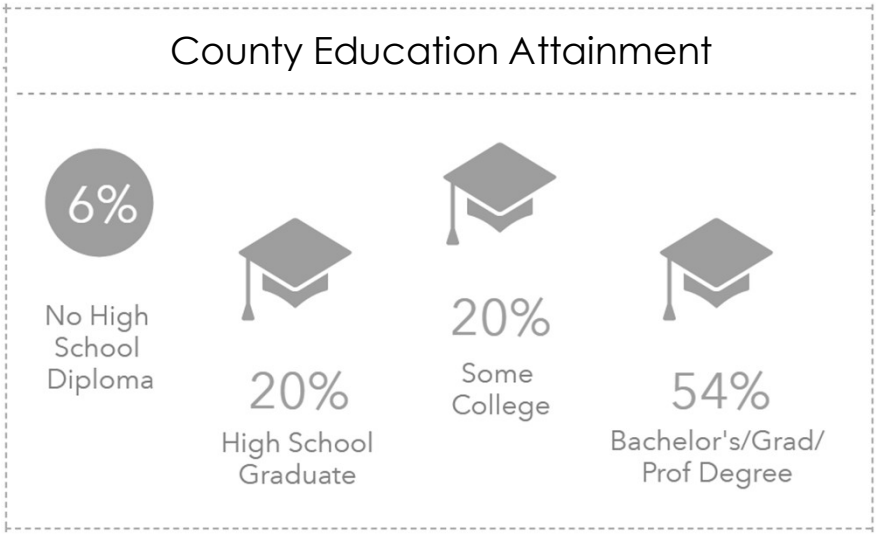
Education

Educational Attainment, 2021





Educational Attainment, County Comparison, 2020



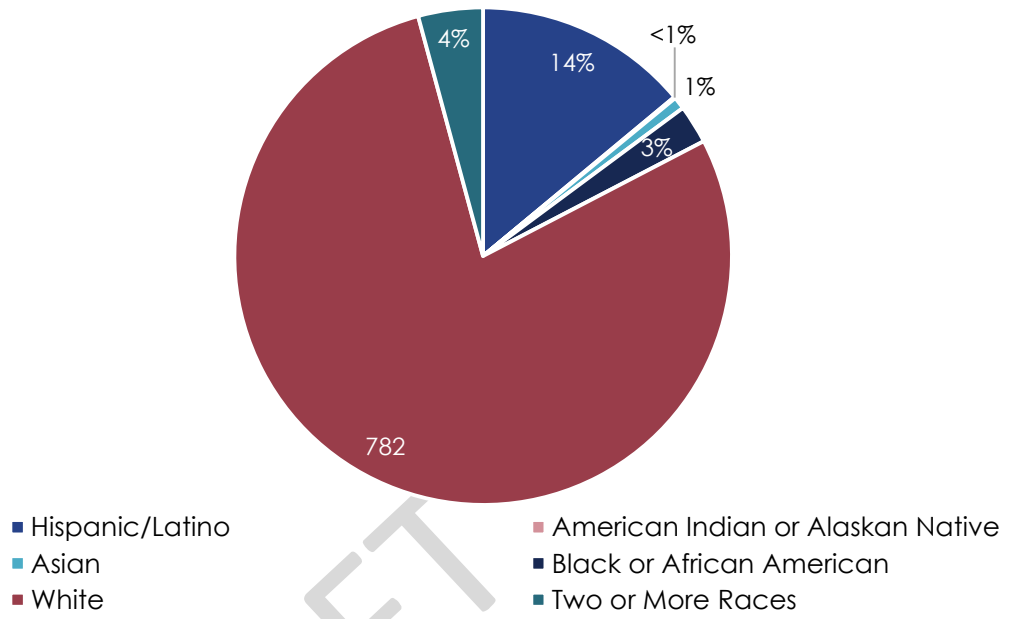
Education

Total district enrollment for 2024–25: 3,591 students

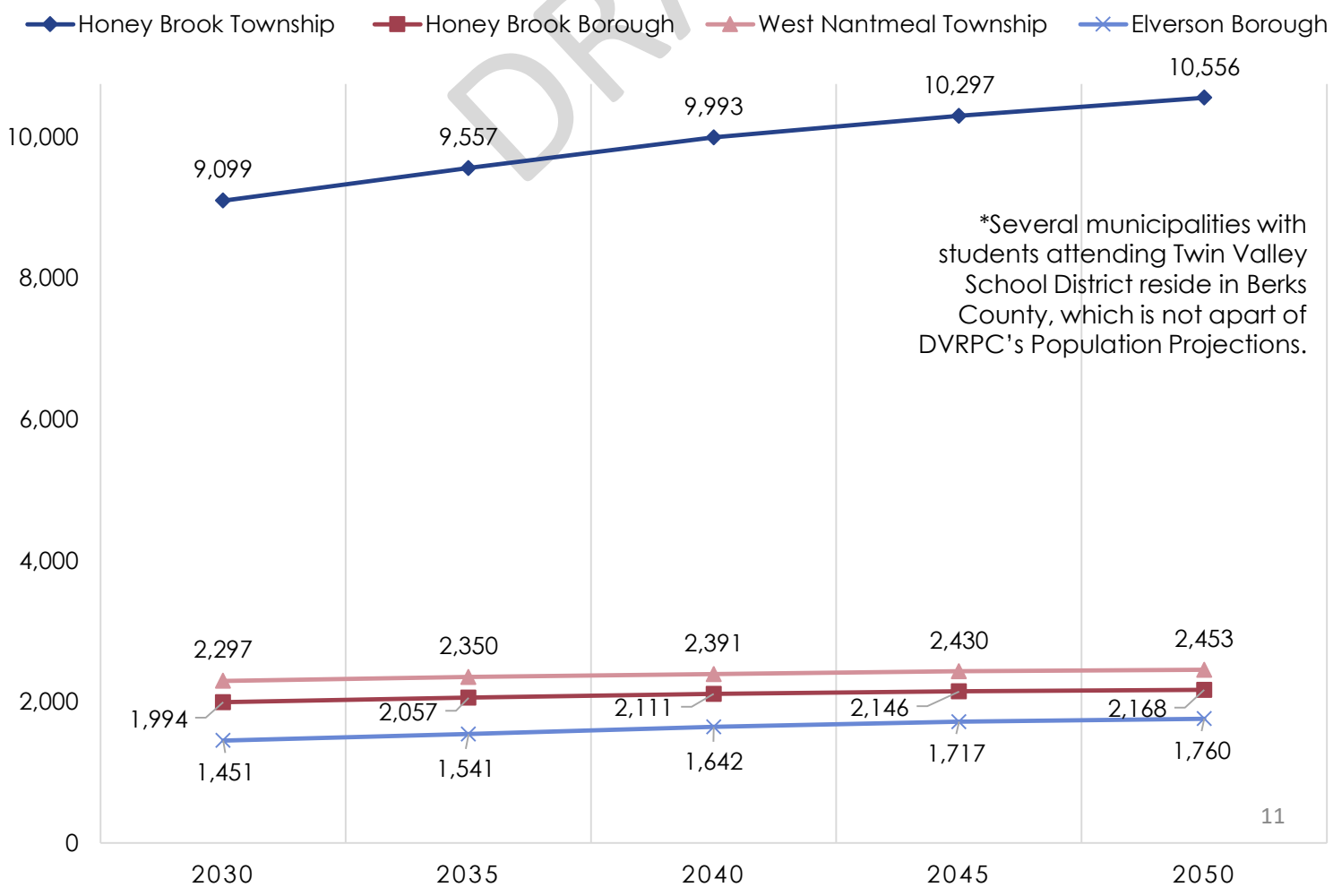
Enrollment from Borough: 329 students

Enrollment from Township: 657 students

School Diversity

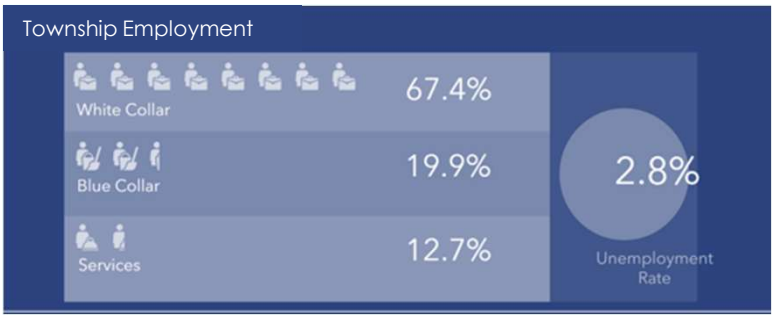


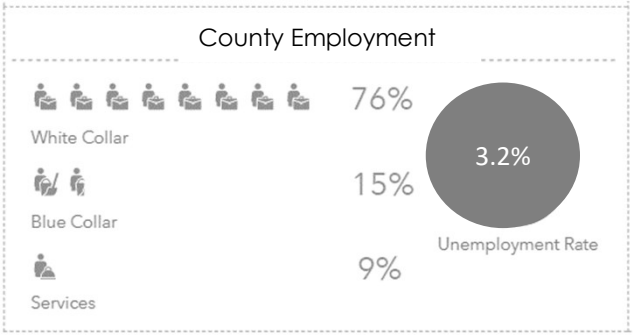
***DVRPC's Population Projection, 2020-2050**

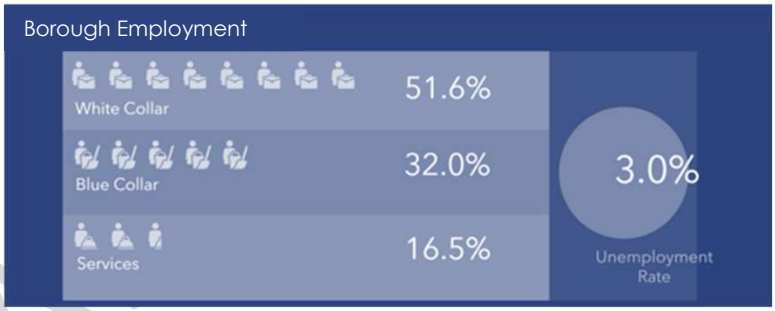


Workforce

Employment, 2020

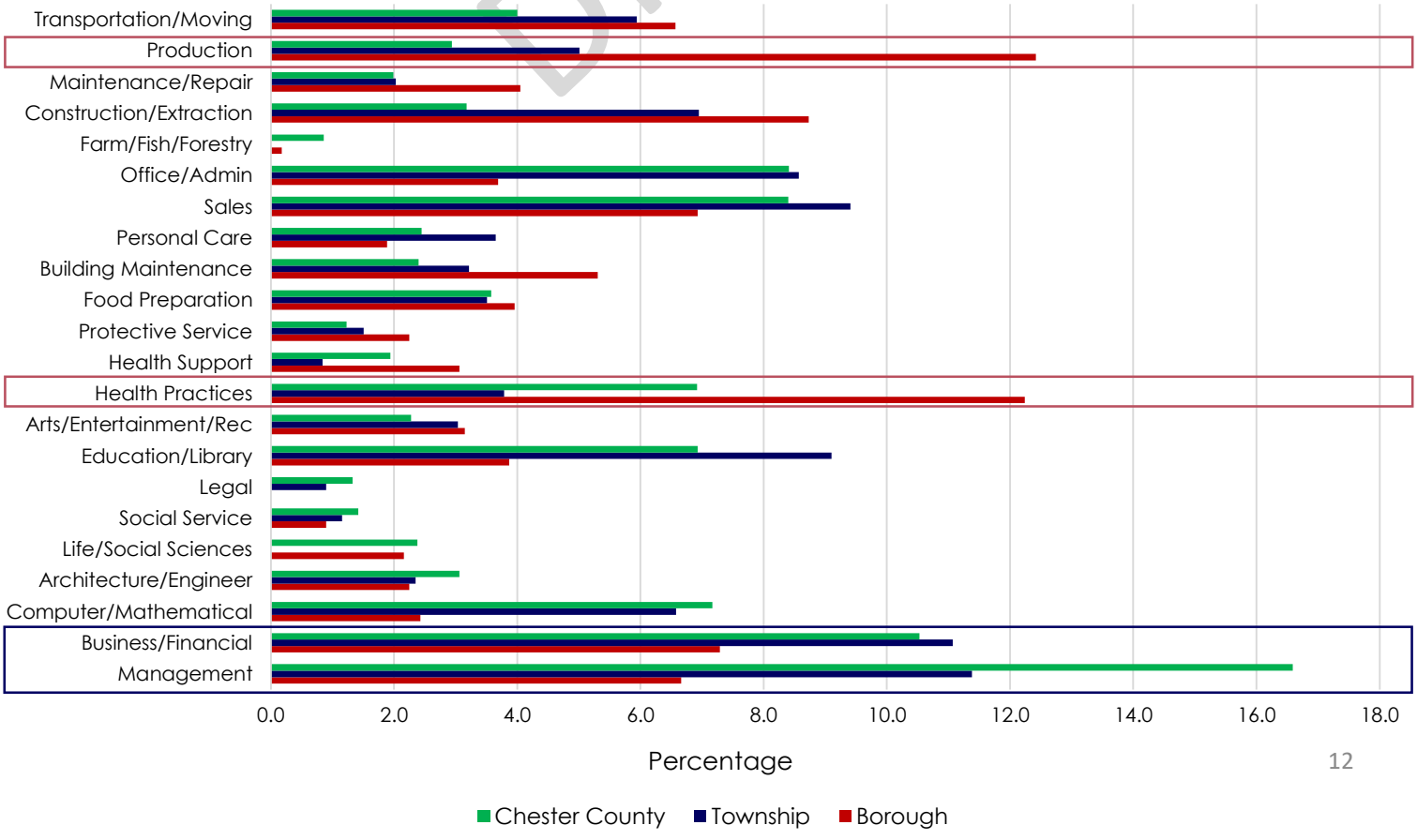






*Employment by Industry, 2020

*The 2020 Census data does not include a complete view of the farm and forestry employment sector in the region.



Income

Borough and Township Income, 2020

TOWNSHIP INCOME

$82,639

Median Household Income

$39,978

Per Capita Income

$326,760

Median Net Worth

10.8%

2020 Households Below the Poverty Level (2020 U.S. Census)

BOROUGH INCOME

$95,694

Median Household Income

$48,226

Per Capita Income

$338,560

Median Net Worth

2.3%

2020 Households Below the Poverty Level (2020 U.S. Census)

Chester County Income, 2020

COUNTY INCOME

$120,903

Median Household Income

$50,411

Per Capita Income

$302,876

Median Net Worth

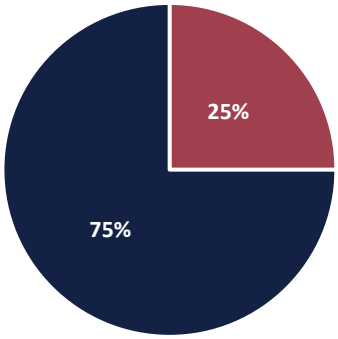
6.1%

2020 Households Below the Poverty Level (2020 U.S. Census)

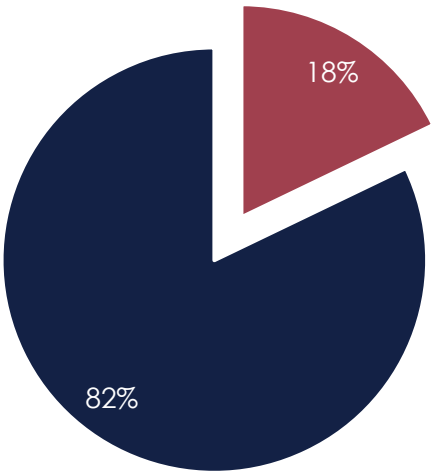
Housing Affordability

Homeowner Housing Affordability, 2020

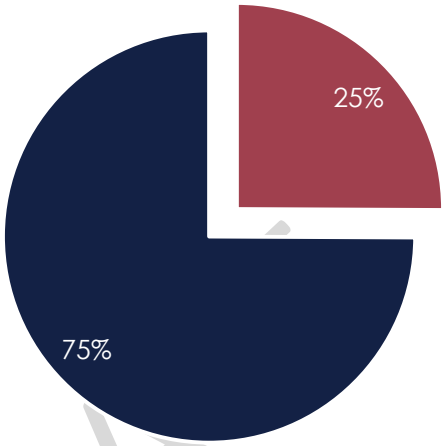
Chester County



Borough



Township

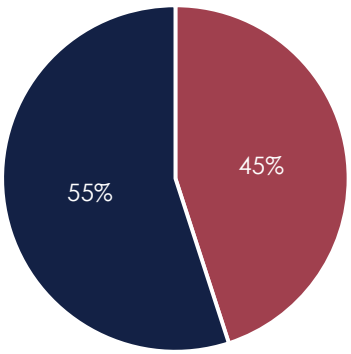


Total spending over 30% of income on housing

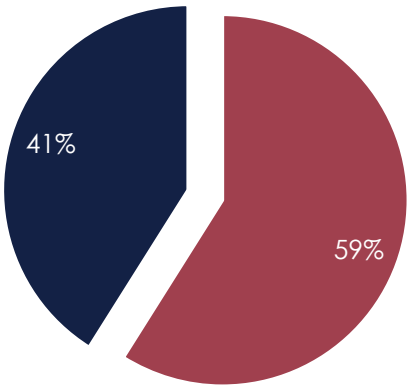
Total spending less than 30% of income on housing

Rental Housing Affordability, 2020

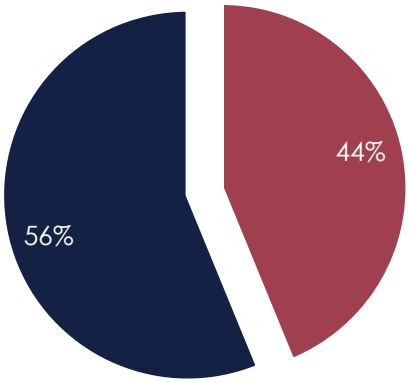
Chester County



Borough



Township



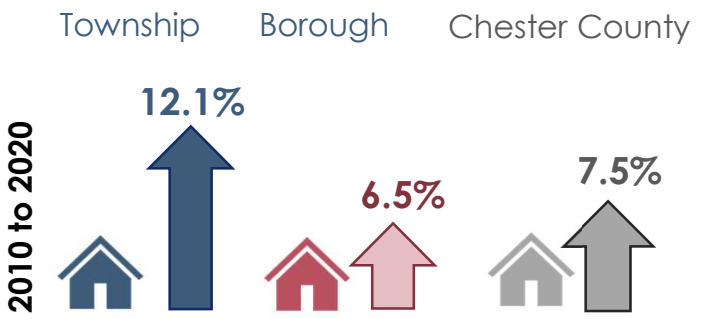
Total spending over 30% of income on housing

Total spending less than 30% of income on housing

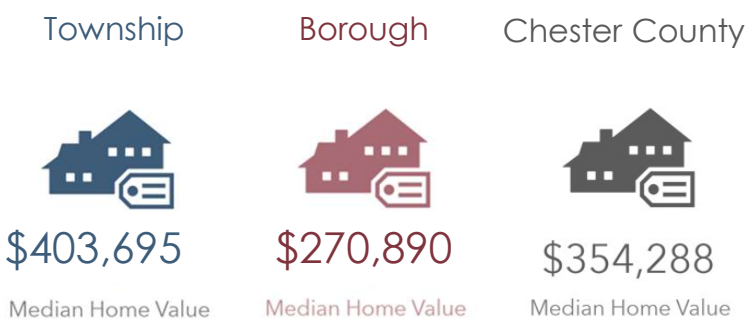
Housing

Honey Brook Township and Borough saw an increase of 348 ***total housing units*** *between* ***2010 and 2020****. In 2020, there were 3,836 total housing units in the Township and Borough.*

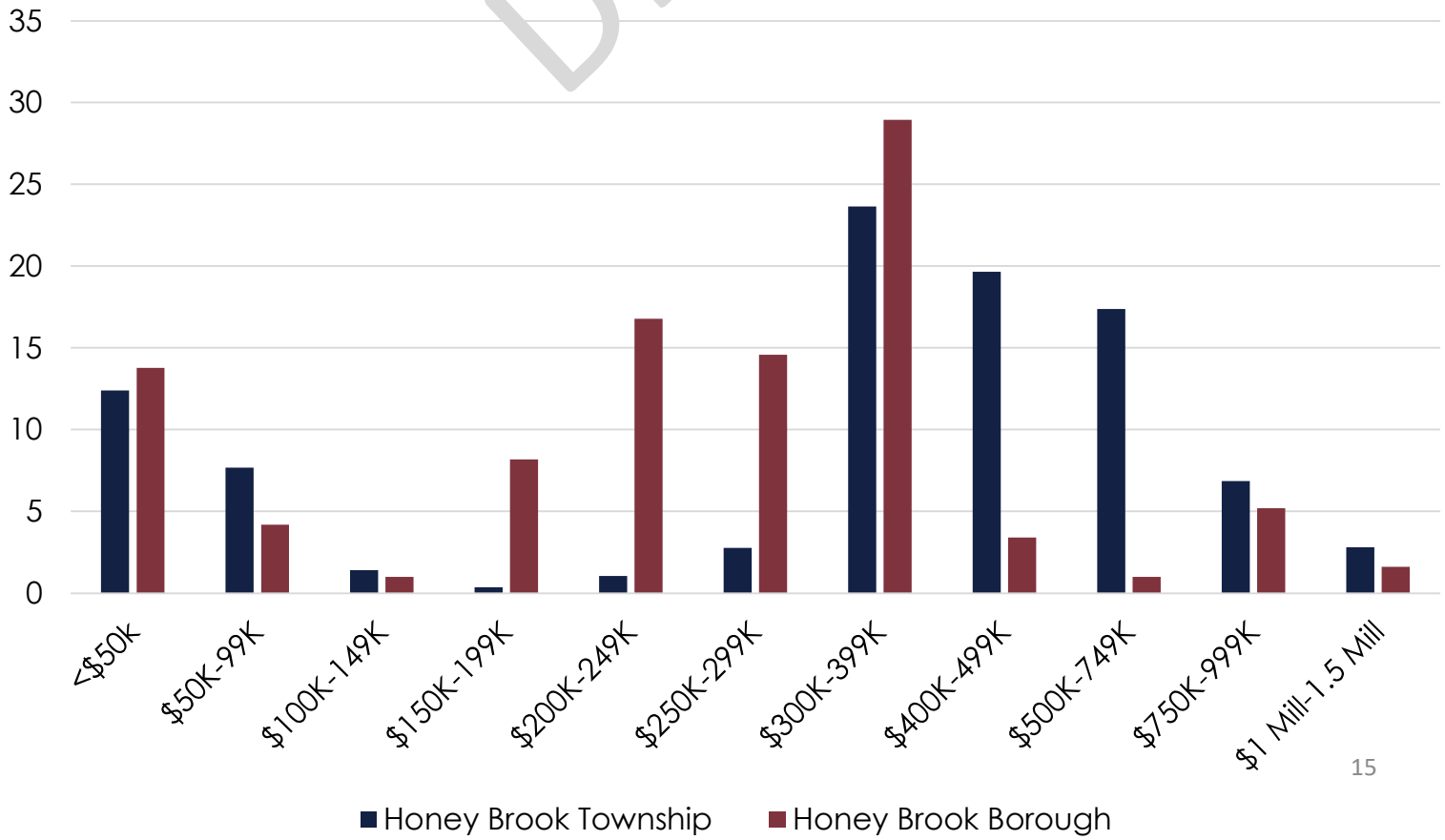
Rate of Change of Housing Units



Median Home Value

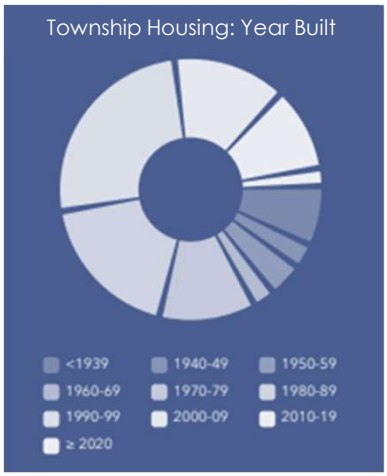


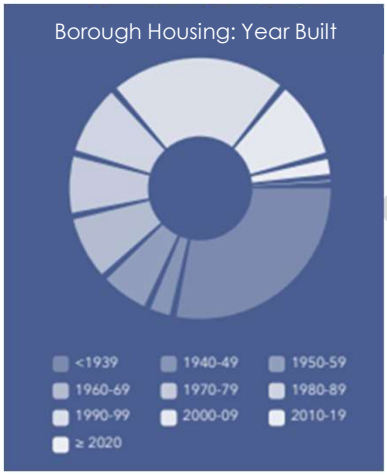
Median Value of Owner-Occupied Housing, 2020

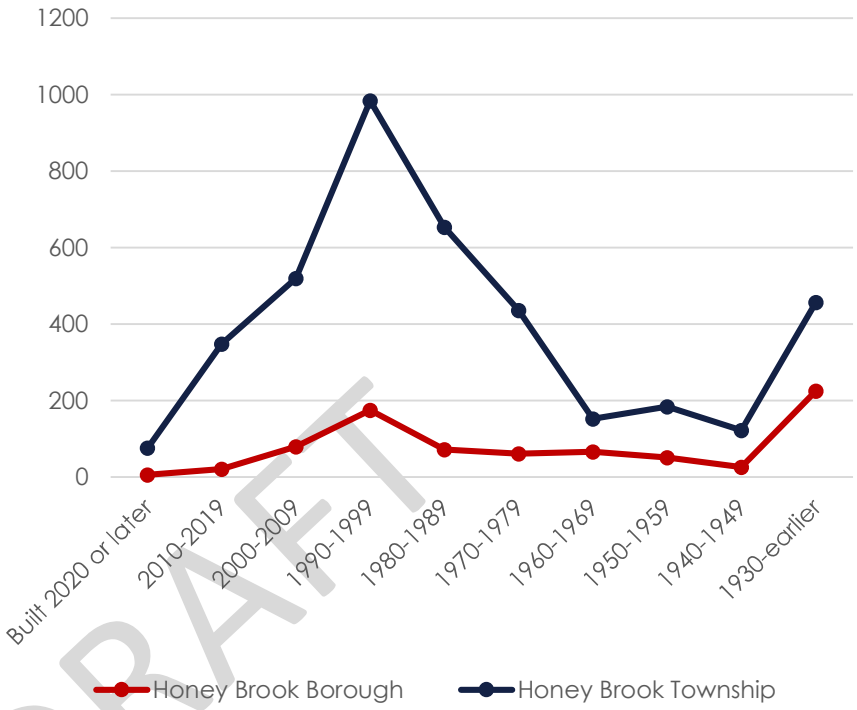


Housing

Age of Housing Stock 2019-2023







The median house age in Honey Brook Township is 1990-1999, compared to the Borough's median housing age of 1940-1949.

Township Median House Age

1990-1999

2019 Median Year Structure Built (Total Housing Units) (ACS 5-Yr)

Borough Median House Age

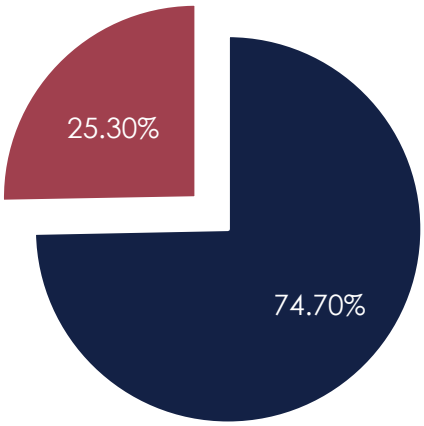
1940-1949

2019 Median Year Structure Built (Total Housing Units) (ACS 5-Yr)

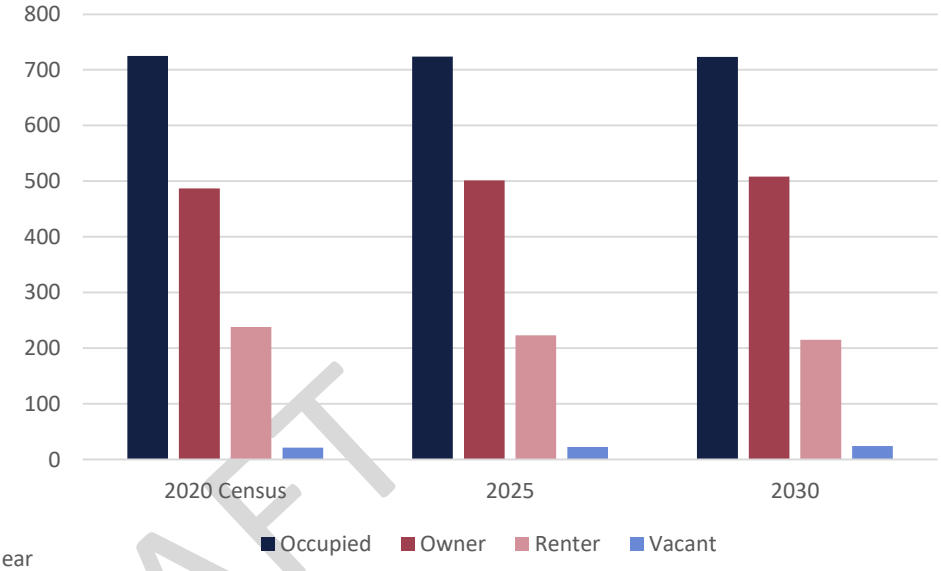
Housing

Housing Unit Characteristics, 2019-2023

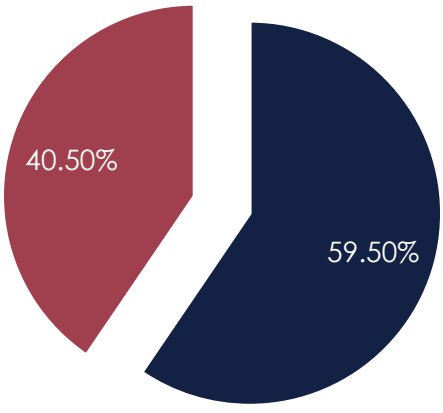
Borough



Owned with a Mortgage/Loan Owned Free and Clear



Township



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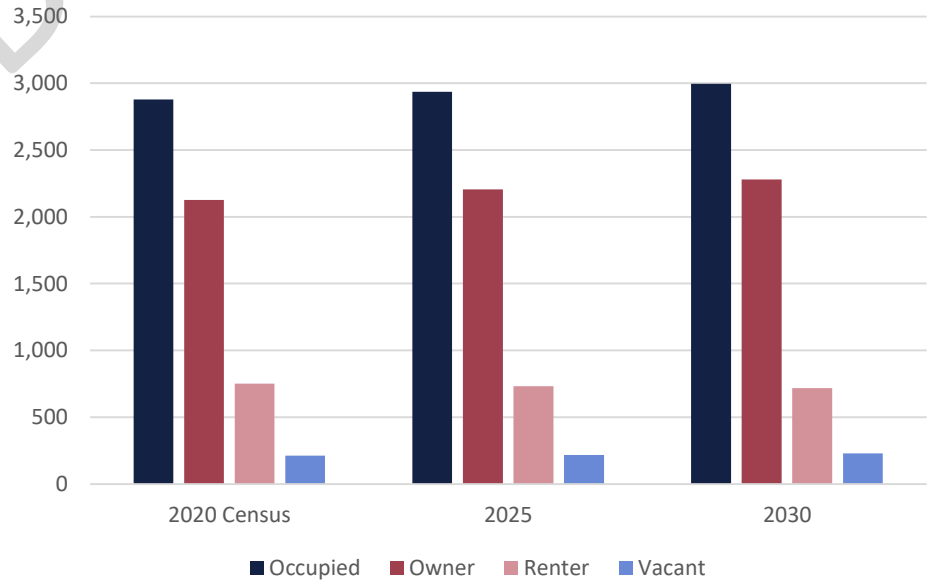


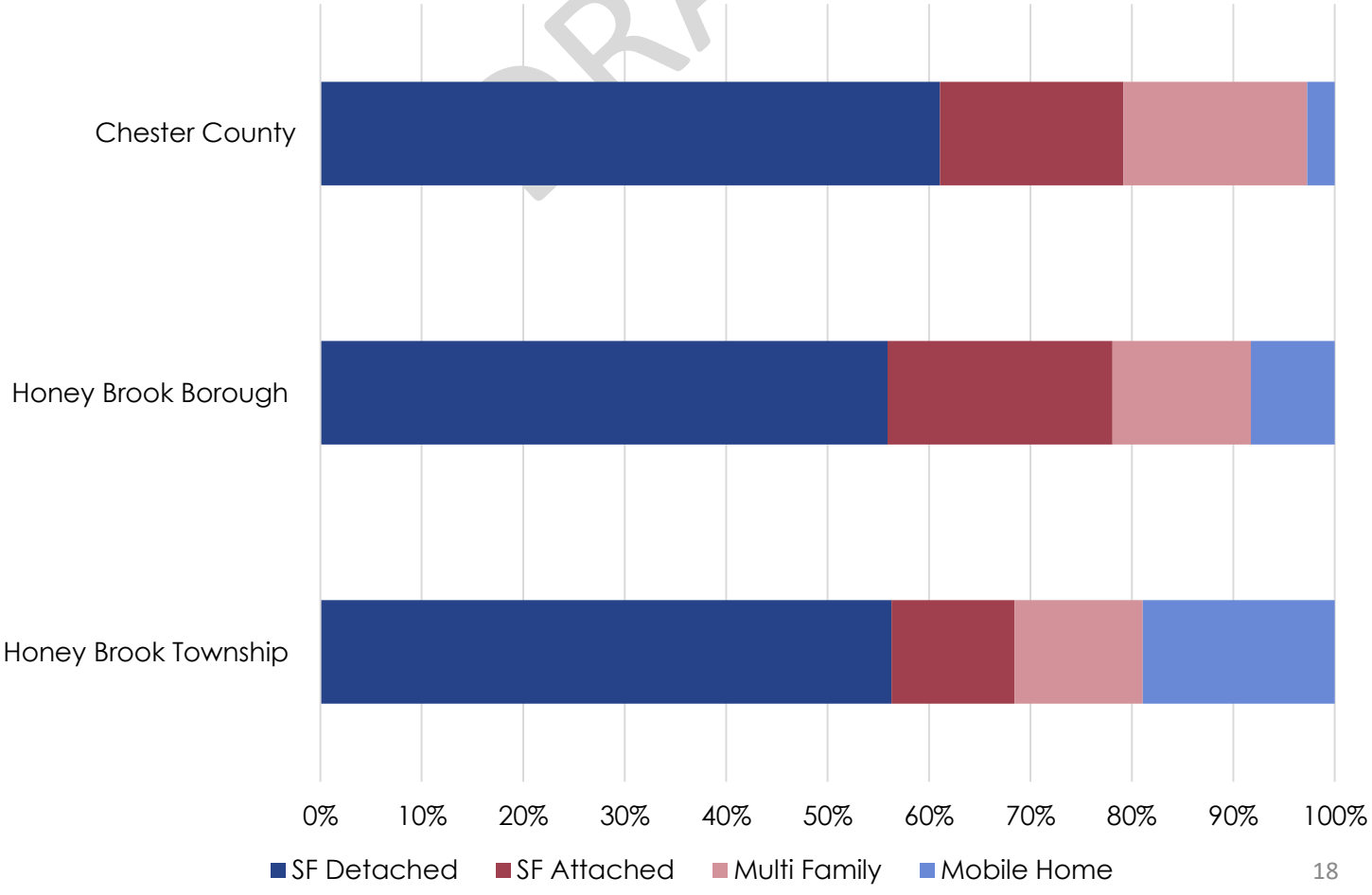
Housing

Housing Unit, 2019-2023

Housing Units for Township and Borough Combined

2,212	557	501	661
Single Family Detached	Single Family Attached Unit	Multi-Family Units	Mobile Home

Housing Stock Diversity, 2019-2023



Written Summary of Graphic Data

Honey Brook Township and Borough's population increased by about 2,981 people from 2010 to 2020 and is estimated by DVRPC's population projections to increase to 13,282 people by 2045.

A large portion of the Township and Borough's population is comprised of residents who are economically active between the ages of 18-64. Compared with Chester County as a whole, Honey Brook Township and Borough have slightly more eligible for retirement.

Household sizes for both the Borough and Township are often for 1 or 2-person households, with an average density of 2.61 and 2.77 respectively. There are more family households in Honey Brook Township and Borough when compared with households comprised of nonfamily members. Of those nonfamily households, slightly more are located in the Borough.

Housing in the Borough and Township is more affordable when compared to Chester County and most of the housing is owner occupied. In the Borough, 67% of housing is owner occupied, compared to the Township's 73%.

The housing stock is also slightly more diverse in the Borough than the Township allowing for more opportunities for multi-family dwellings. The Township does have more mobile homes for residents, as a result of its larger square mileage.

Educational attainment rates in the Township and Borough are comparable to Chester County, with roughly 30% of residents completing Bachelor's and Graduate degrees compared to the County's 54%. Much like Chester County as a whole, a large portion of the Borough residents work in healthcare, followed by production and construction fields. Township residents are found in the management, business, and sales fields. This correlates with the County.

The median household income in Chester County falls between those in the Borough and Township. It is to note, the median net worth is higher in both the Borough and Township compared to the County; however per capita income is lower in the Township than with Chester County. This discrepancy may be explained by the larger percentage of two-person households in the borough.

Data Sources

Data sources used in this report include the following:

1. *ESRI Business Analyst**
2. *US Census and American Community Survey*
3. *Twin Valley School District*
4. *Delaware Valley Regional Planning Commission (DVRPC), 2021 Population Projections*
5. *Brandywine Conservancy GIS, 2025*

**ESRI, the leader of Geographic information system (GIS) software and has developed a tool that combines GIS capabilities with Demographic information called Business Analyst. This tool uses US Census data layered with American Community Survey information as well as private demographic sources to provide more up to date demographic estimates for a location.*

NATURAL RESOURCES, OPEN SPACE, PARKS AND RECREATION

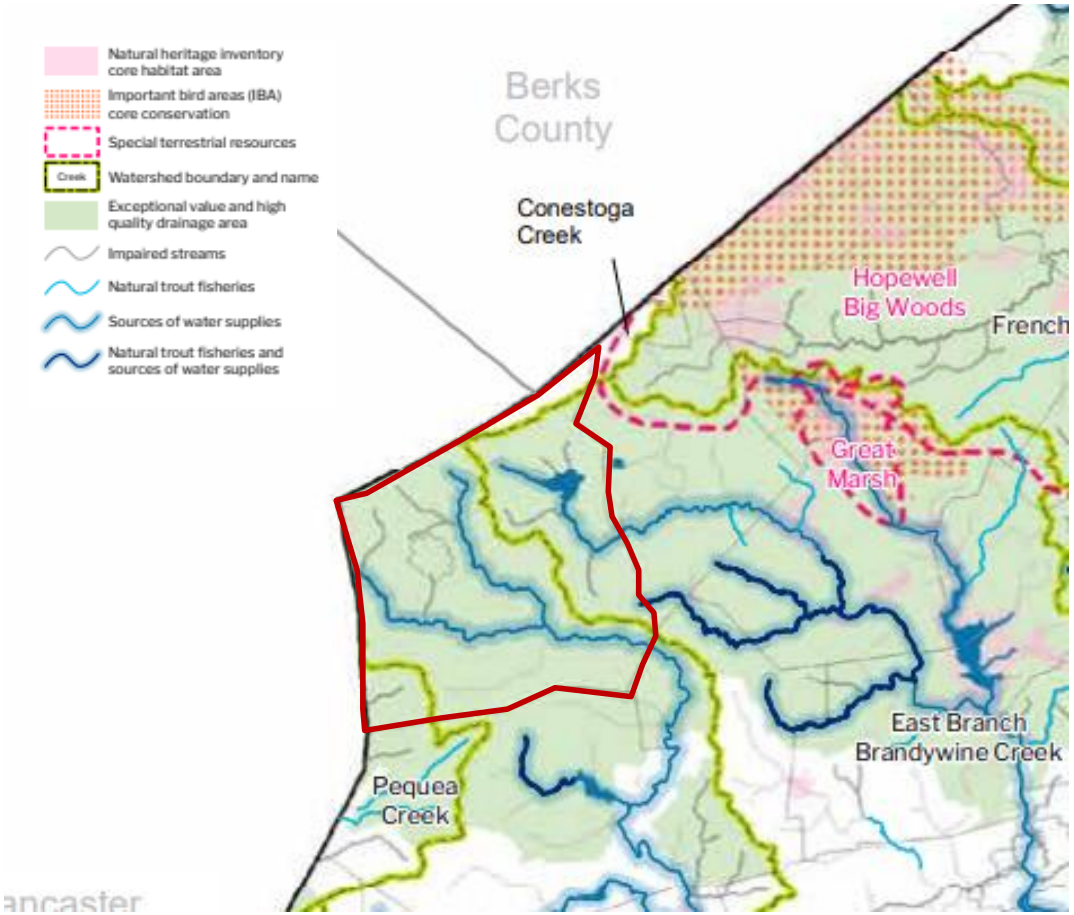
Sarah Sharp, Brandywine Conservancy

August 6, 2025

BRANDYWINE CONSERVANCY

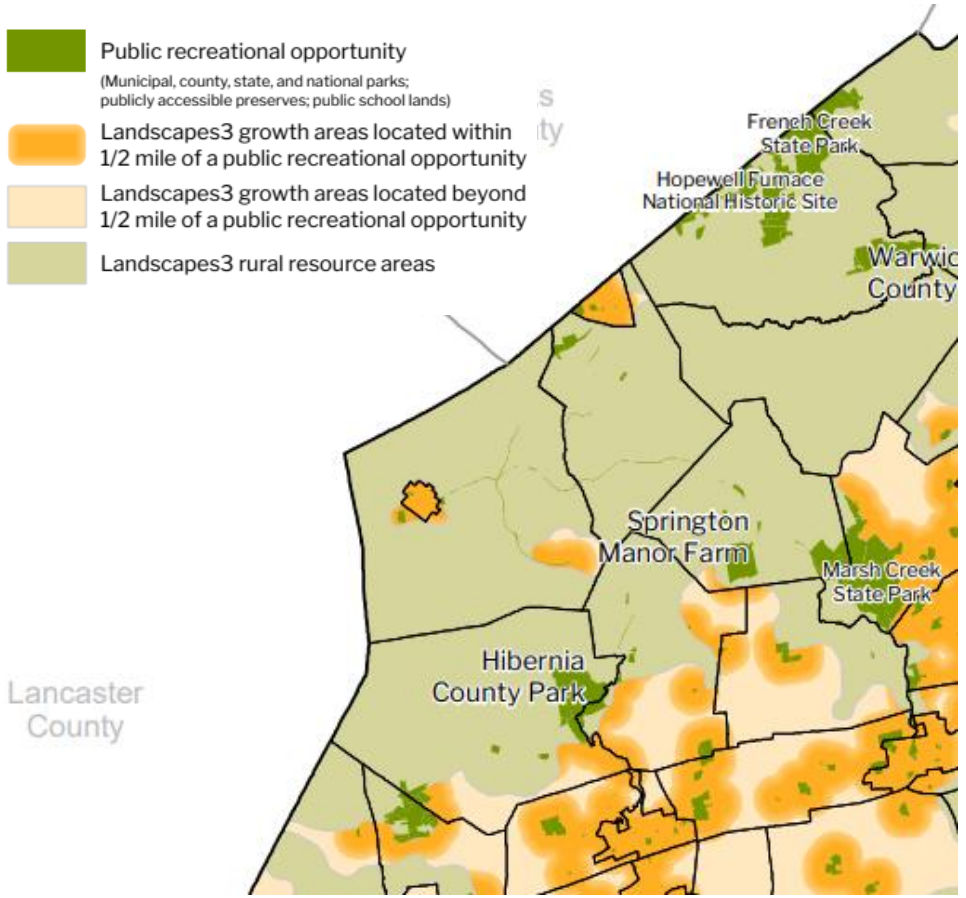
Conservation Clusters and Corridors

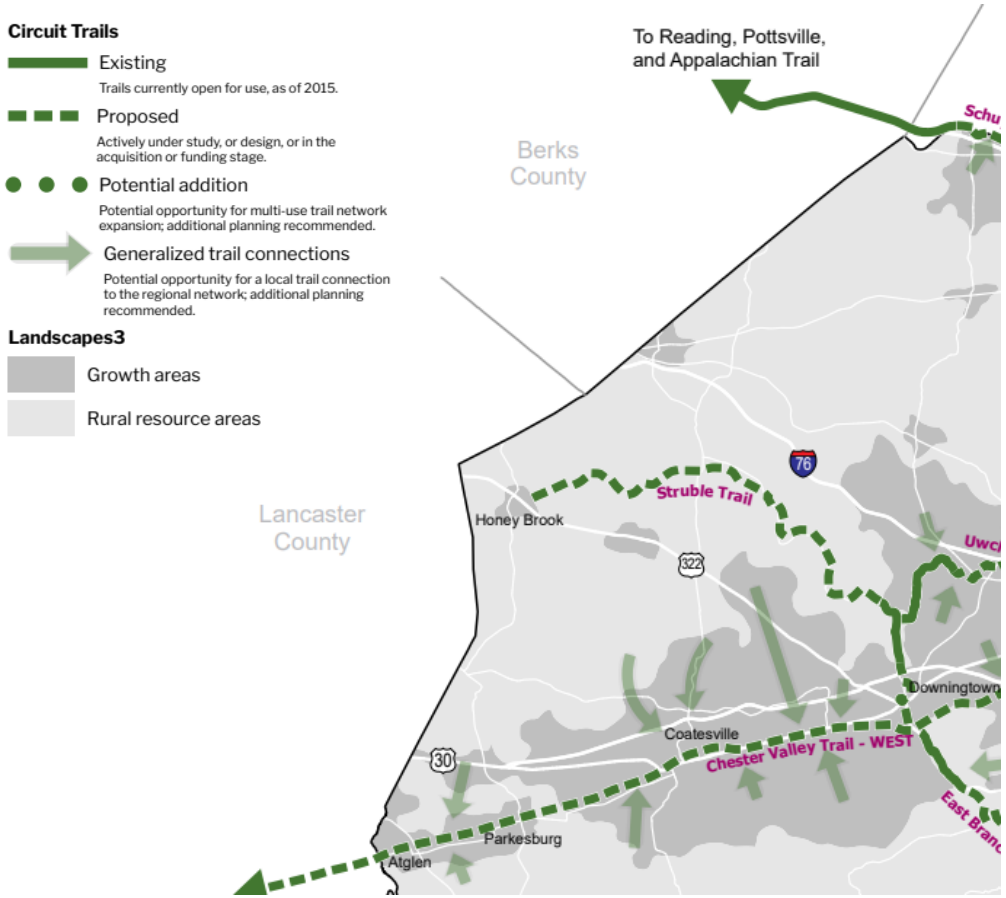
Natural Resource Priority Protection Areas



BRANDYWINE CONSERVANCY

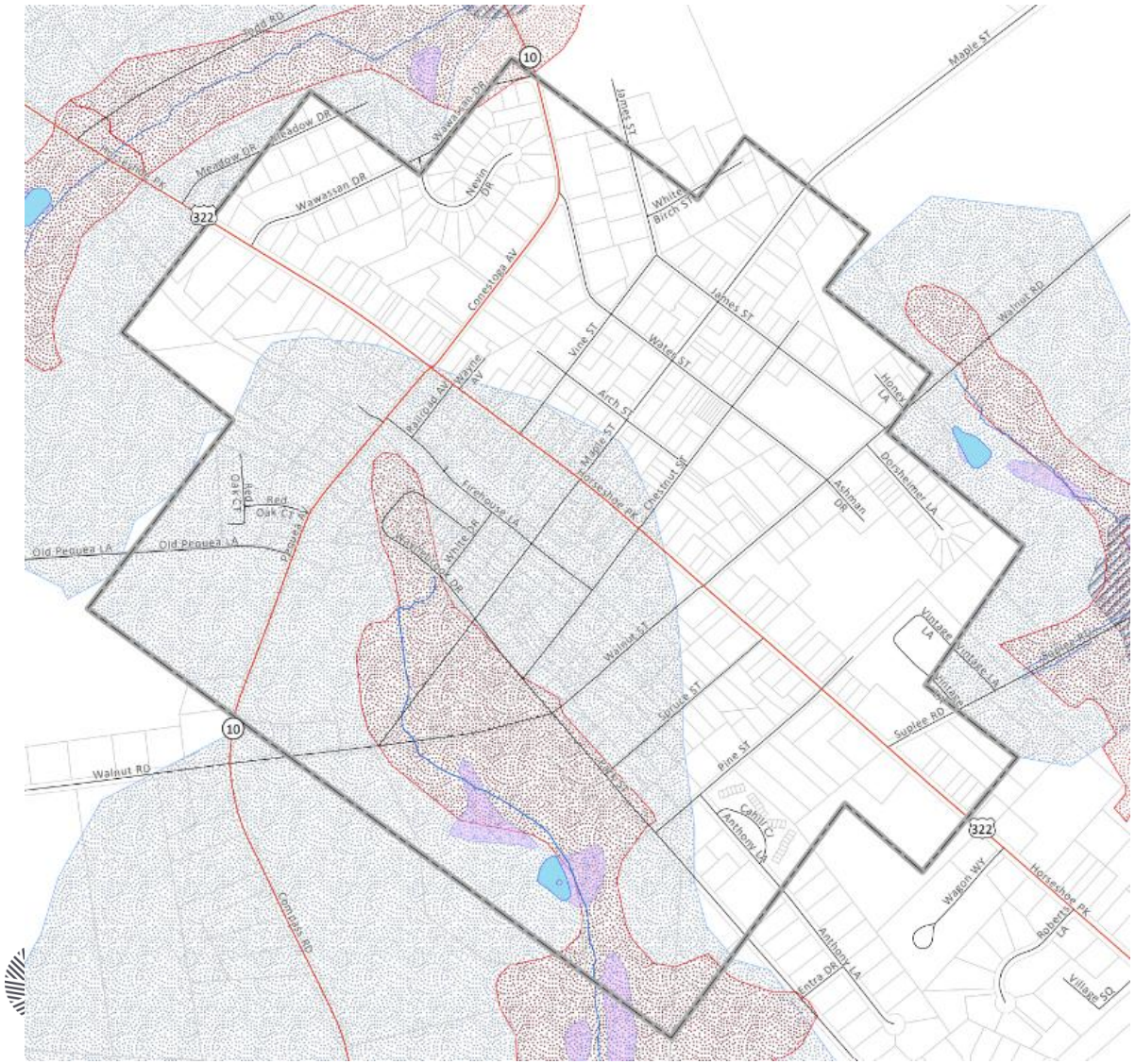
Recreation and Trails

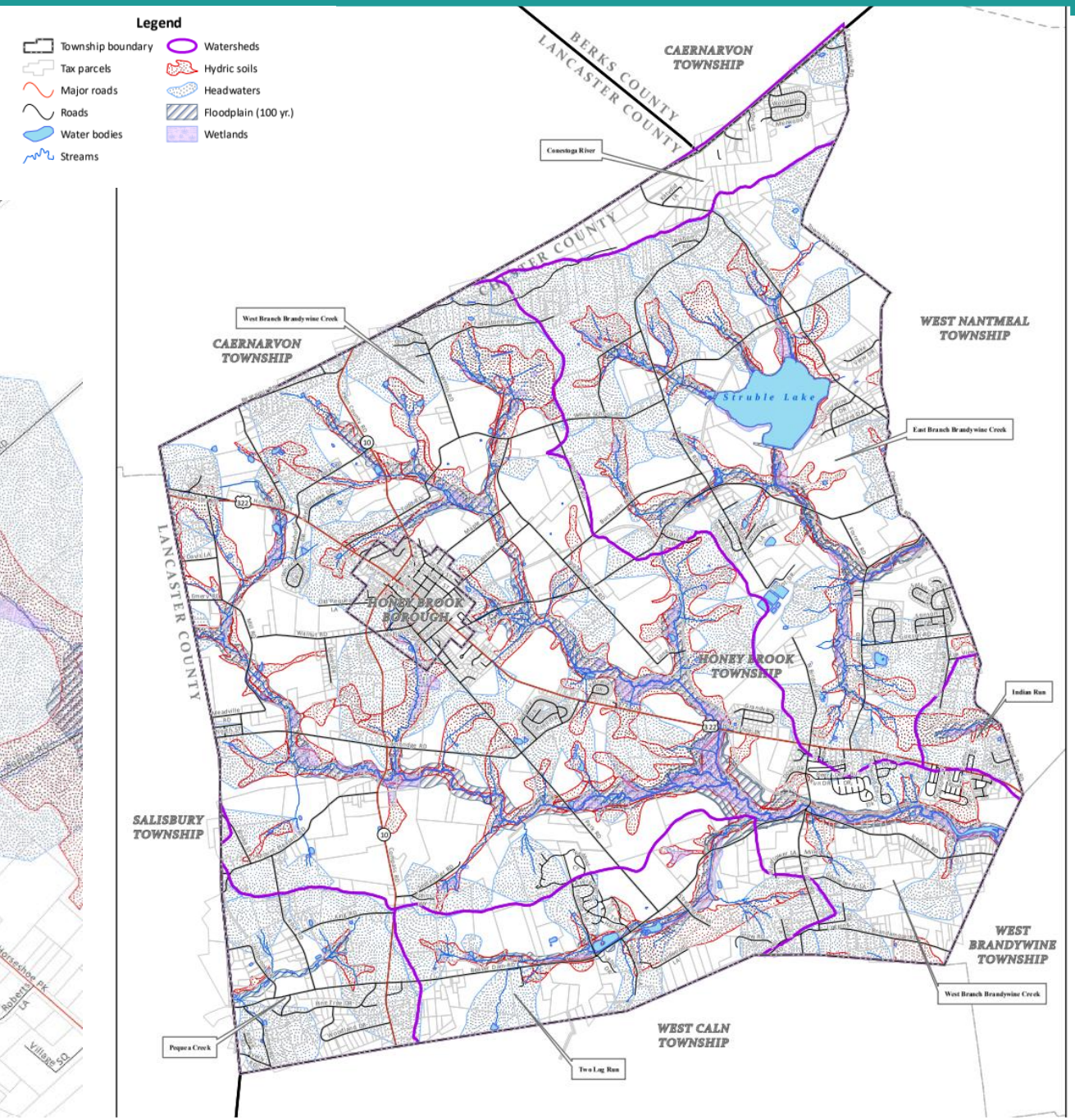




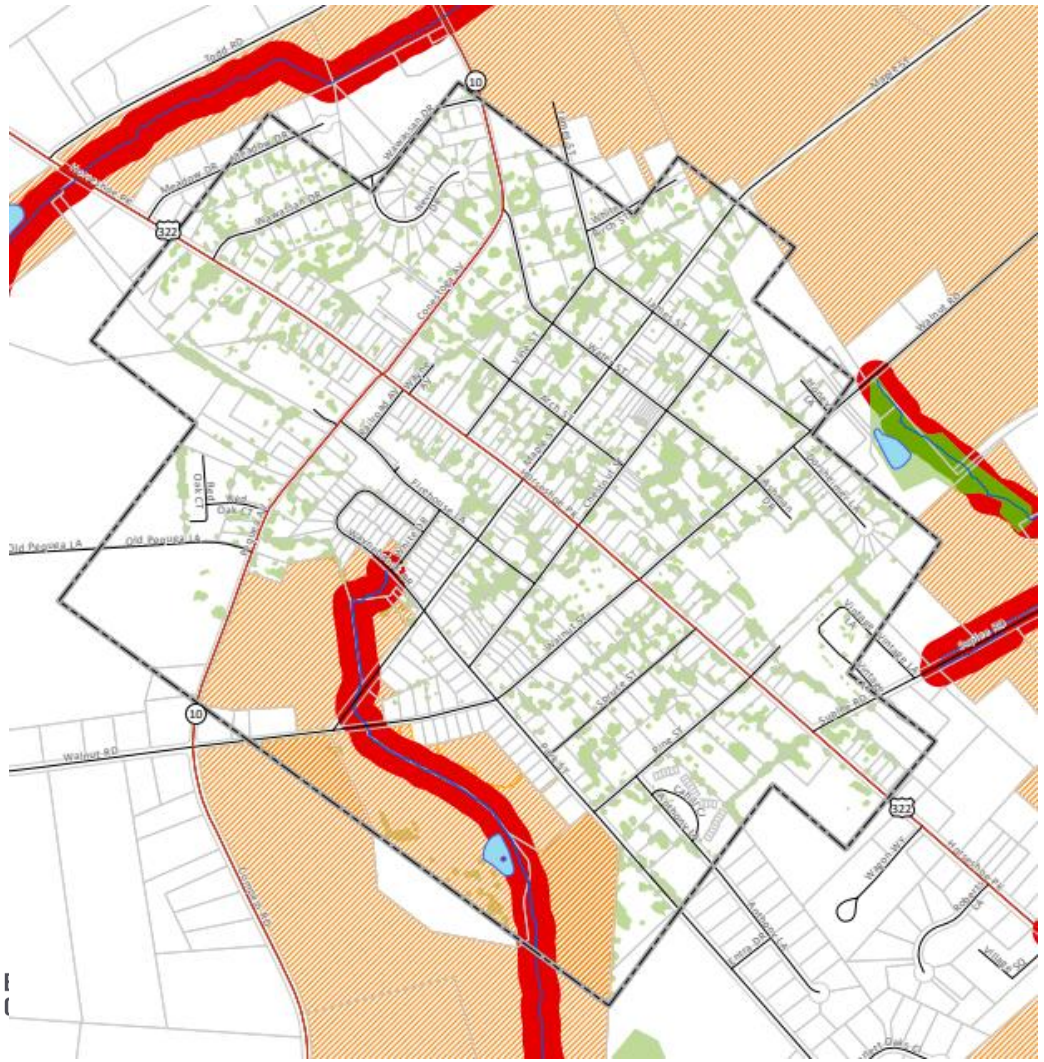
BRANDYWINE CONSERVANCY

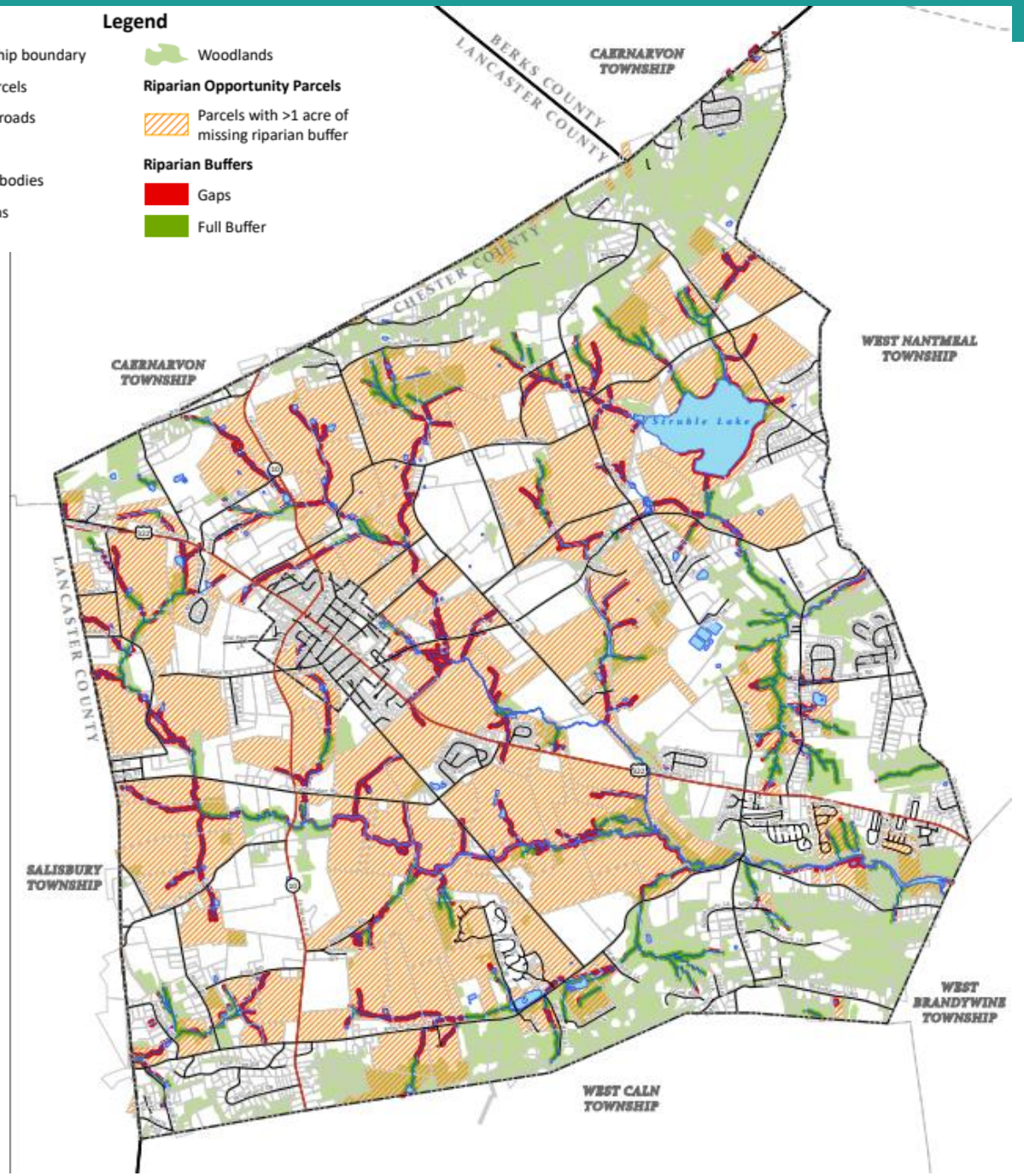
Water Features



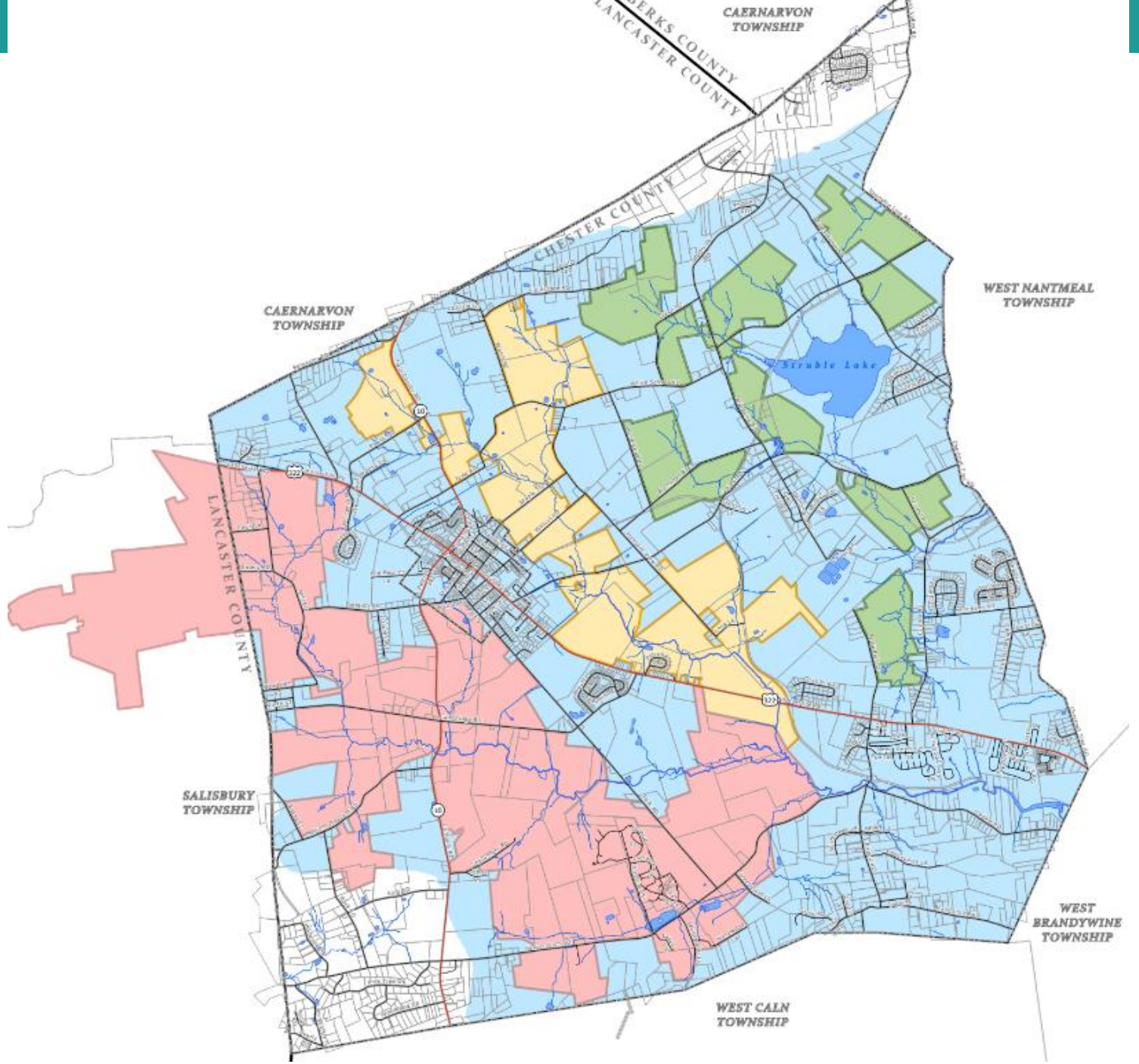


Riparian Buffers



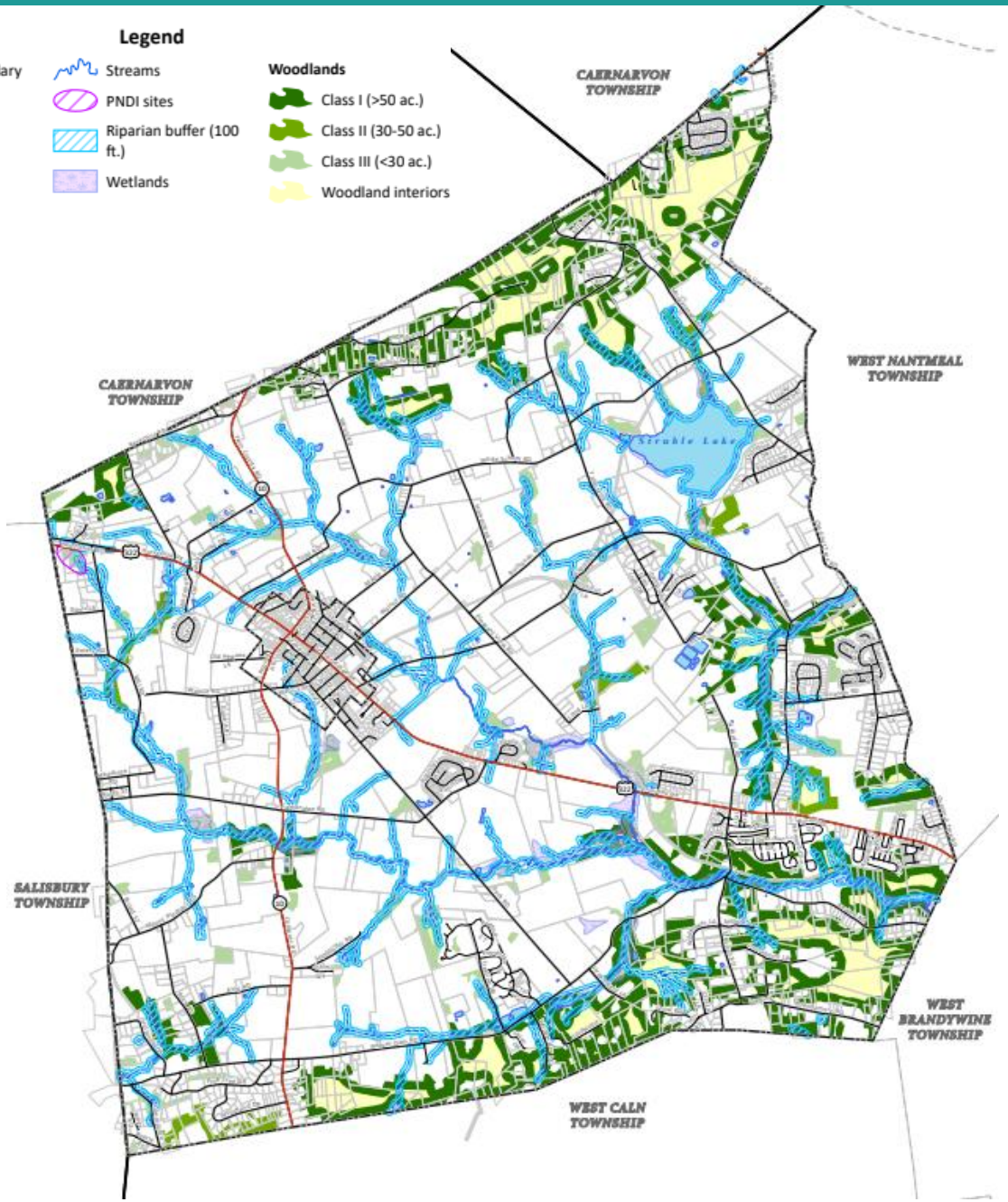


Source Water Protection

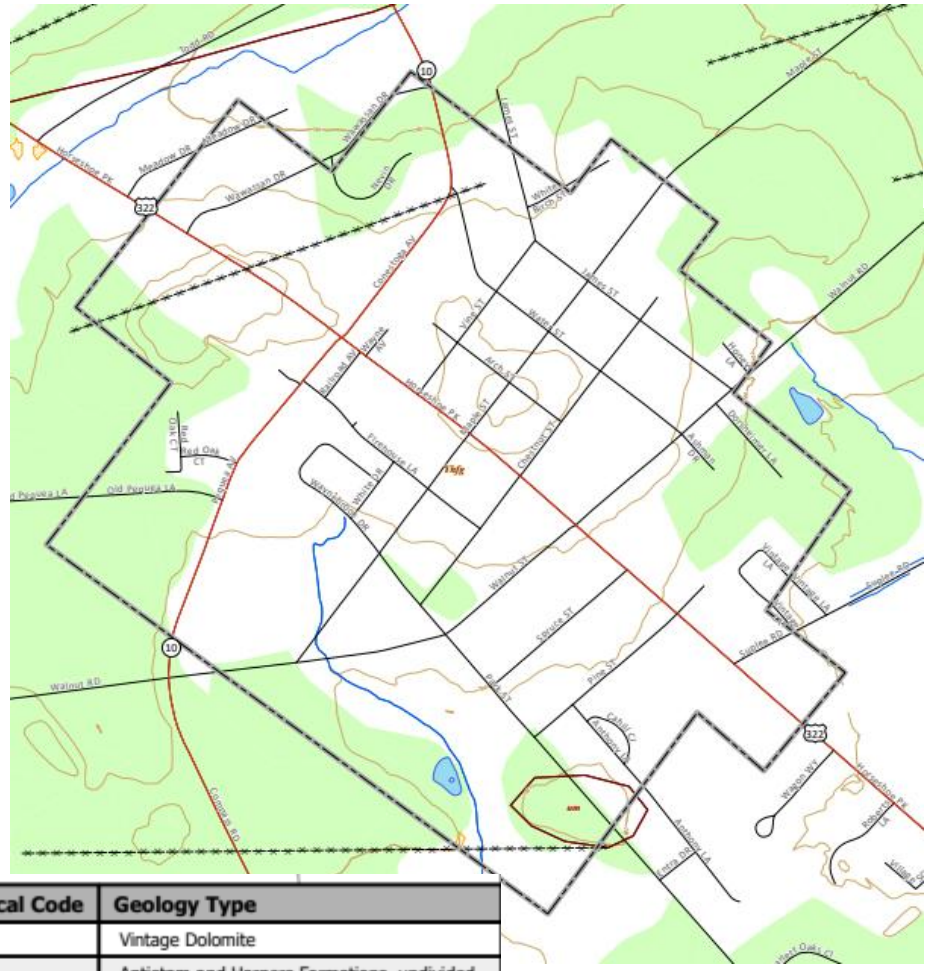


BRANDYWINE CONSERVANCY

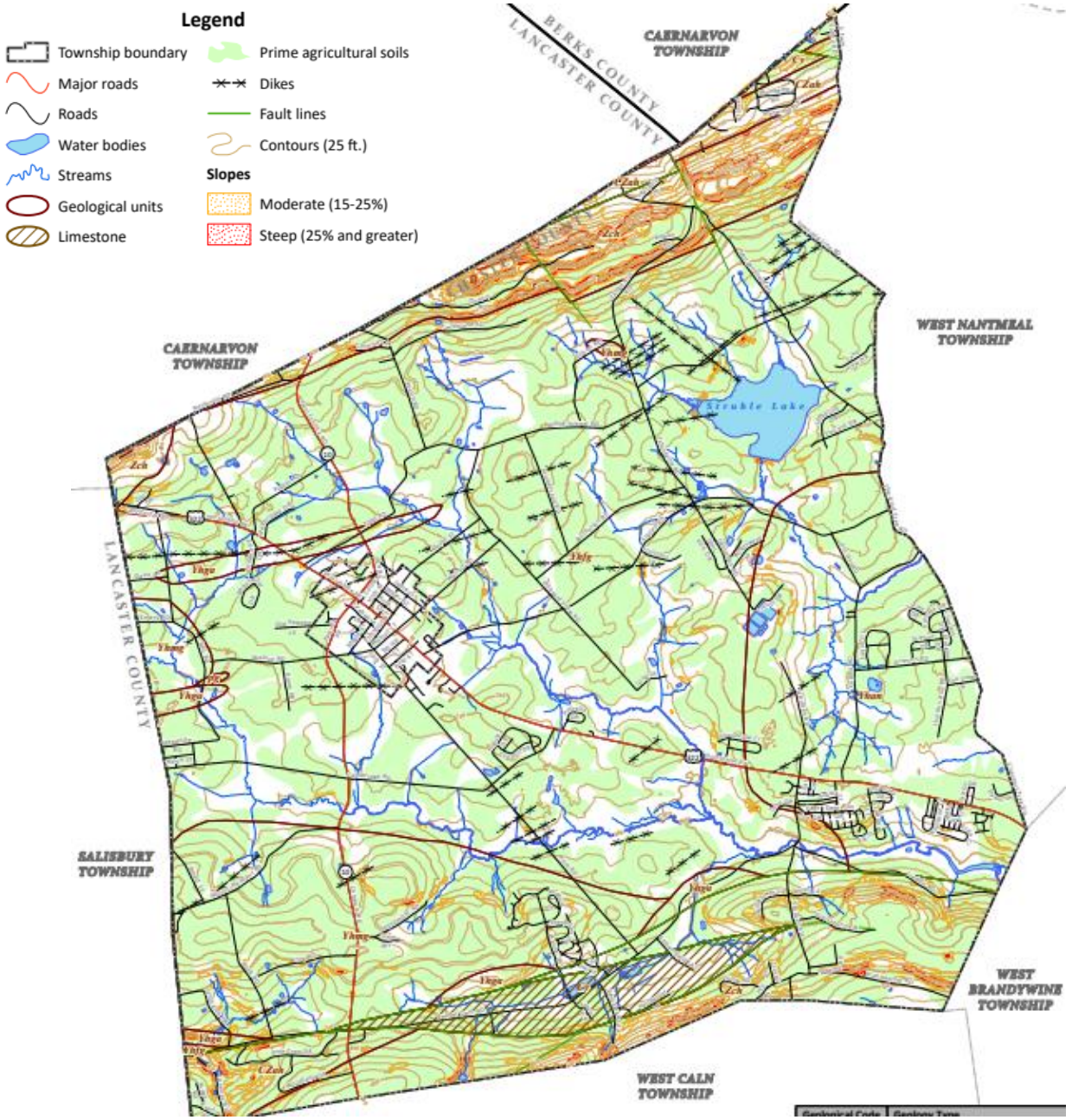
Biologic Resources



Land Resources



Geological Code	Geology Type
Cv	Vintage Dolomite
CZah	Antietam and Harpers Formations, undivided
pg	pegmatite
um	ultramafite
Yhan	anorthosite suite
Yhfg	felsic and intermediate gneiss, granulite facies
Yhga	graphitic felsic gneiss, amphibolite facies
Yhmg	mafic gneiss, granulite facies
Zch	Chickies Quartzite



Natural Corridors

Legend

- Township boundary
- Tax parcels
- Major roads
- Roads
- Water bodies
- Streams

Environmental features

- Wetlands
- Floodplain (100 yr.)
- Hydric soils
- Riparian buffer (100 ft.)

Greenway features

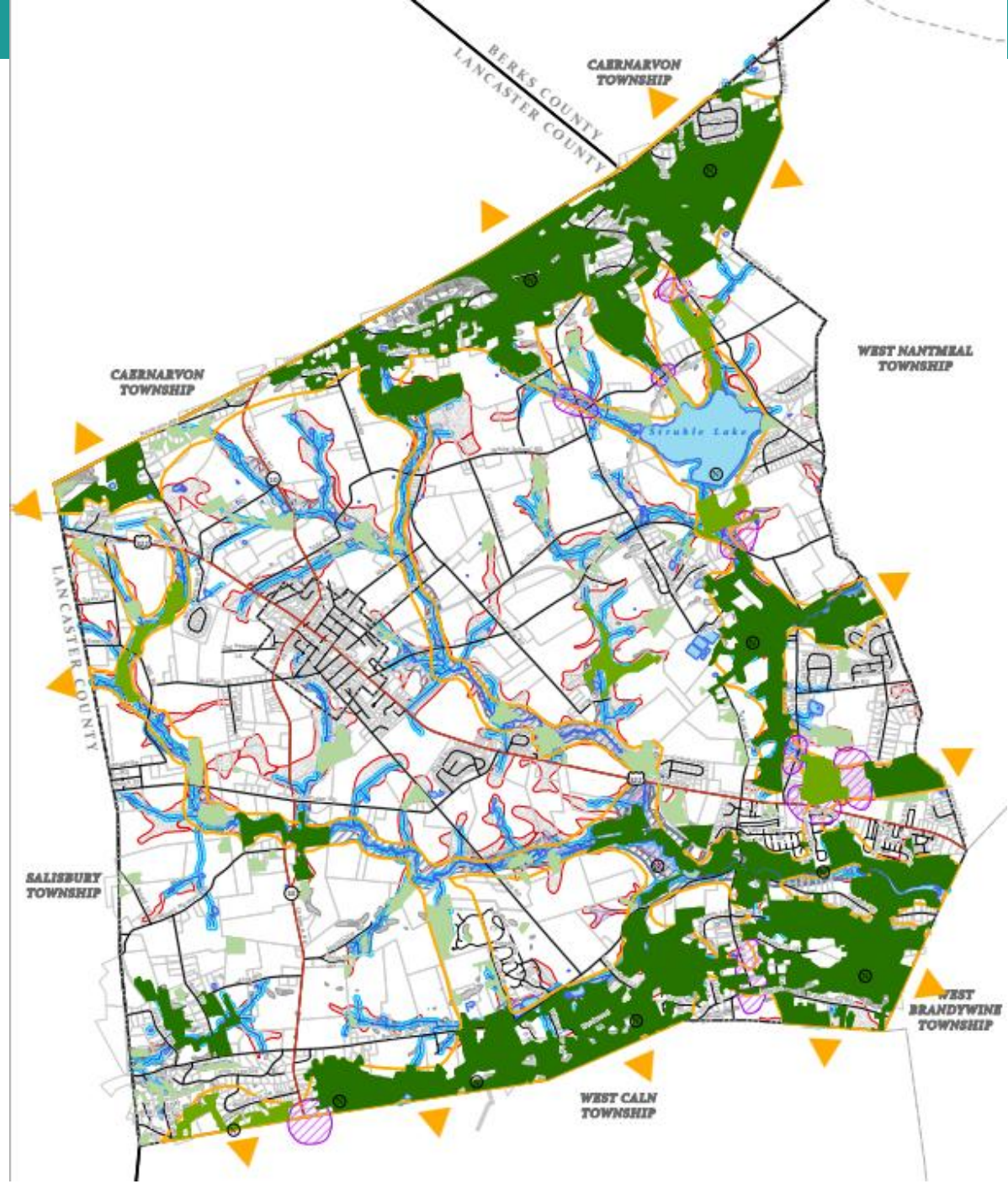
- Greenway corridors
- Key links/gaps
- Greenway nodes
- Greenway connections outside the Township

Slopes

- Moderate (15-25%)
- Steep (25% or greater)

Woodlands

- Class I (>50 ac.)
- Class II (30-50 ac.)
- Class III (<30 ac.)



BRANDYWINE CONSERVANCY

Natural Resources on Protected Lands

	Township		Borough	
Resource	**Total**	**% Protected**	**Total**	**% Protected**
Stream Miles	69 miles	42%	0.5 miles	10%
Prime Ag. Soils	11,164 acres	34%	67 acres	10%
Hydric Soils	3,037 acres	41%	34 acres	0%
Woodlands/ Tree Canopy*	3,709 acres	23%	52 acres	4%
Riparian Woodlands (100 ft.)	605 acres	34%	0 acres	0%
Riparian Gaps (100 ft.)*	946 acres	44%	12.5 acres	7%
Wetlands	419 acres	46%	3.5 acres	0%
Headwaters Areas	6,693 acres	26%	136 acres	6%

*Unless explicitly stated in documentation woodlands are not protected on agricultural easements
*Acres represent tree canopy in the Borough.

Nat. Resource Protections - Zoning

	Honey Brook Township	Honey Brook Borough

Steep Slopes	• Prohibitive (≥25%): 0% disturbance (exceptions only)
	  • Allowed: Recreation, forestry, driveways (with exceptions)
	• Precautionary (15–25%):30% max disturbance
	  • Adds: Tree farming, single-family homes (to standards), public wells & sewers (with approval)
		• Slopes not included in Natural Resources Protection standards
		• Prohibitive Slopes (greater than 25%)

Woodlands	• Zoning linked to Comp Plan Woodland Classifications
	  • Class I (50+ ac.) - on prohibitive slopes: Max 5%; other Class 1 Max 15%
	  • Class II (30-50 ac.) - Max 15%
	  • Class III (under 30 ac.) Max 25%
	  • Any single lot: Max 10%.woodland disturbance
	• Beyond the permitted amount requires woodland replacement; extensive provisions are included in ZO.
		• Defines woodland as a mass of trees of 1 acre or more.
		• Woodland protection regulations appear to have been removed from the ordinance.

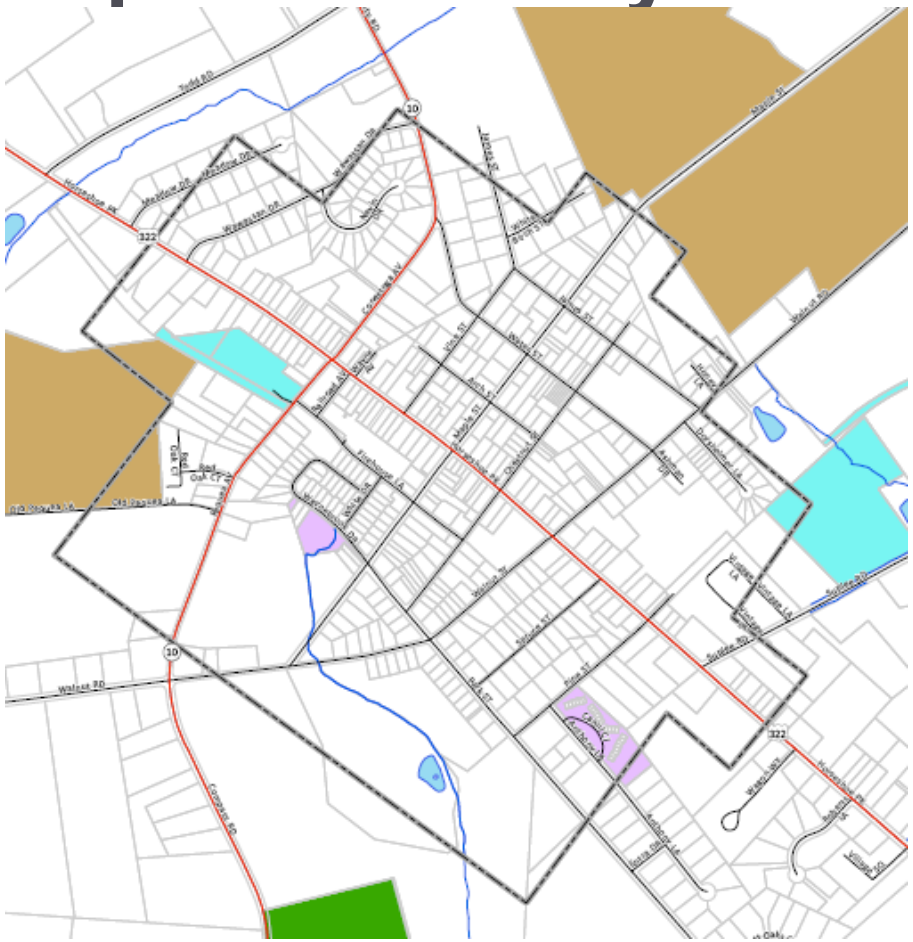
Wetlands	• Disturbance only with required permits. • Maintain a 10-foot undisturbed buffer, except for approved activities. • No disturbance of wetlands with high water tables or surface water unless authorized by Township Engineer.	• Wetlands may only be disturbed as allowed by state and federal permits. • Establishes minimum 50-foot riparian buffer, maximum 20% disturbance within the wetland buffer.
Riparian Buffers	• Zone 1: 25 feet from the watercourse • Zone 2: 50 feet beyond Zone 1 (includes 100-year floodplain if it extends over 75 feet) • Allowed uses: Agriculture, preserves, and driveways (with exceptions)	• Zone 1 (0–50 ft): No disturbance • Zone 2 (50–75 ft): Max 20% disturbance (includes 100-year floodplain if >75 ft) • Reduced buffer: 50 ft for isolated wetlands/water bodies >5,000 sq. ft • Allowed: Stream restoration, natural trails, preserves • Special exception: Essential structures, paved trails, road crossings • Vegetation removal: Prohibited throughout buffer

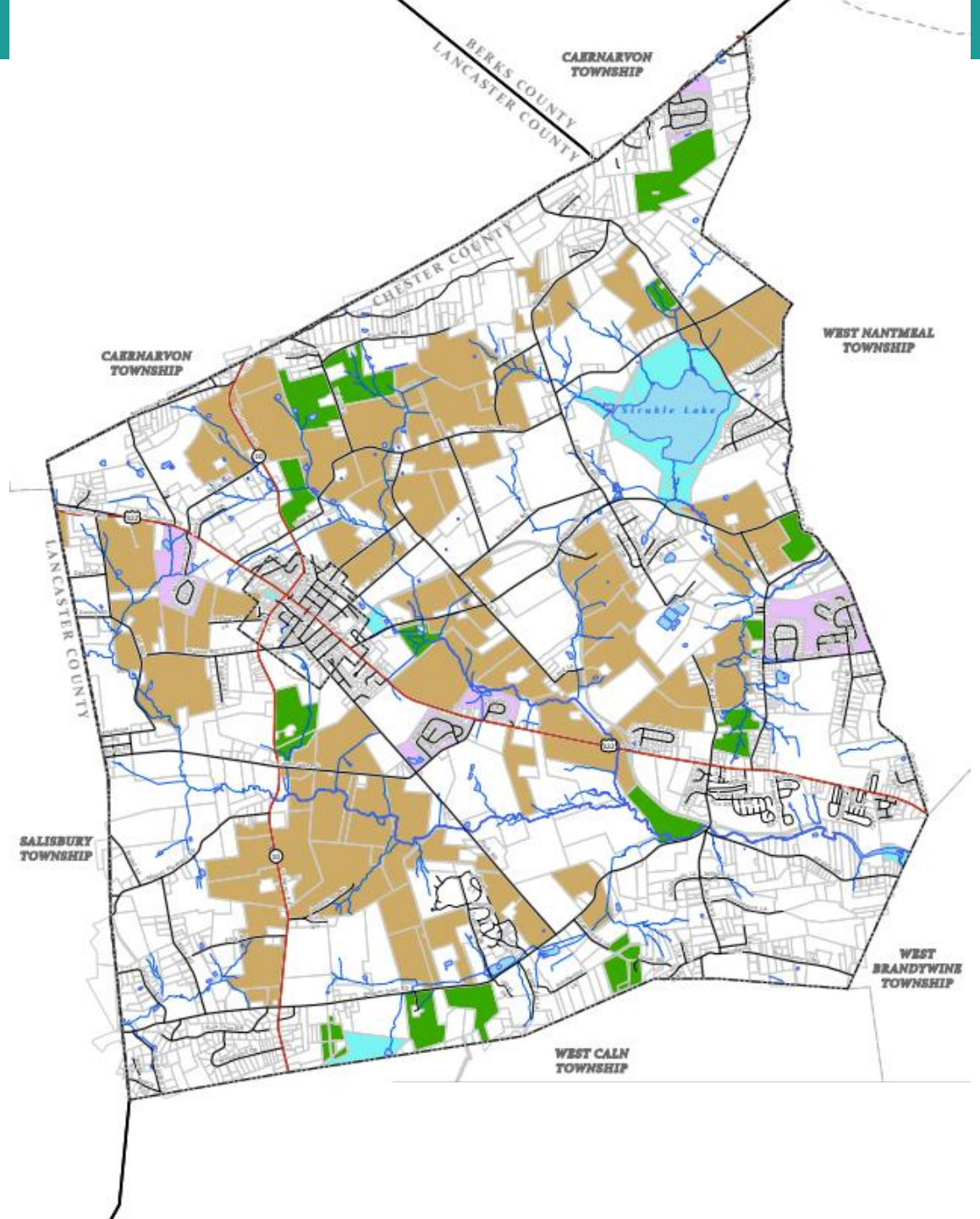
Floodplains	• No new construction or major improvements allowed.
	• No variances if:
	  • Floodway elevation would increase.
	  • Flood fringe elevation would rise >1 foot.
		• No variances if:
		  • Floodway elevation would increase.
		  • Flood fringe elevation would rise >1 foot.

Planning Considerations for Nat. Res.

- Continue to focus development away from remaining critical natural and agricultural resources
- Recognize and promote the importance of natural resources and their stewardship for mitigating the impacts of extreme weather conditions.
- Seek opportunities to enhance and restore natural resources.
- Collaborate with farmers and environmental organizations to reduce farming-related impacts by implementing Agricultural Best Management Practices and other sustainable improvements.
- Continue encouraging the use of native plants and the removal of invasive species through the use of the native plant and invasive plant lists.

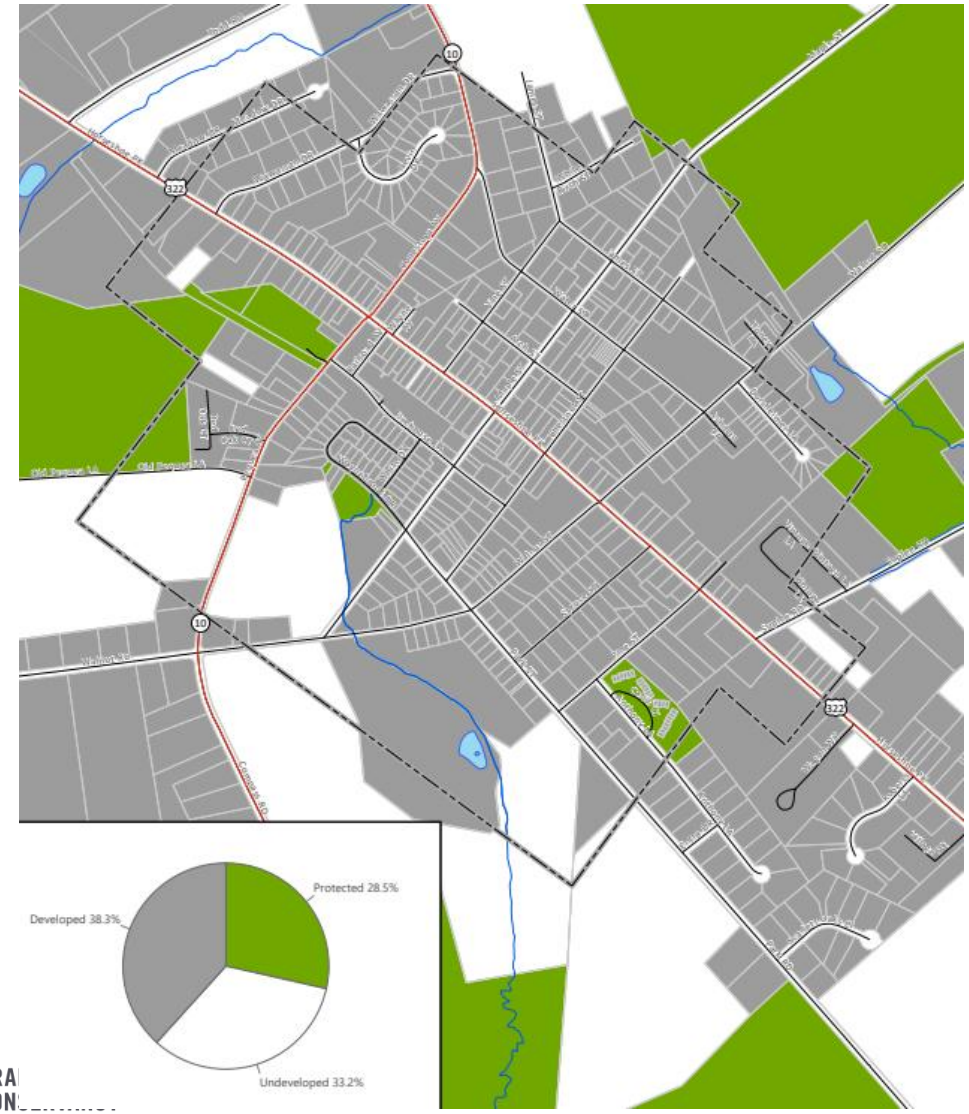
Open Space Inventory

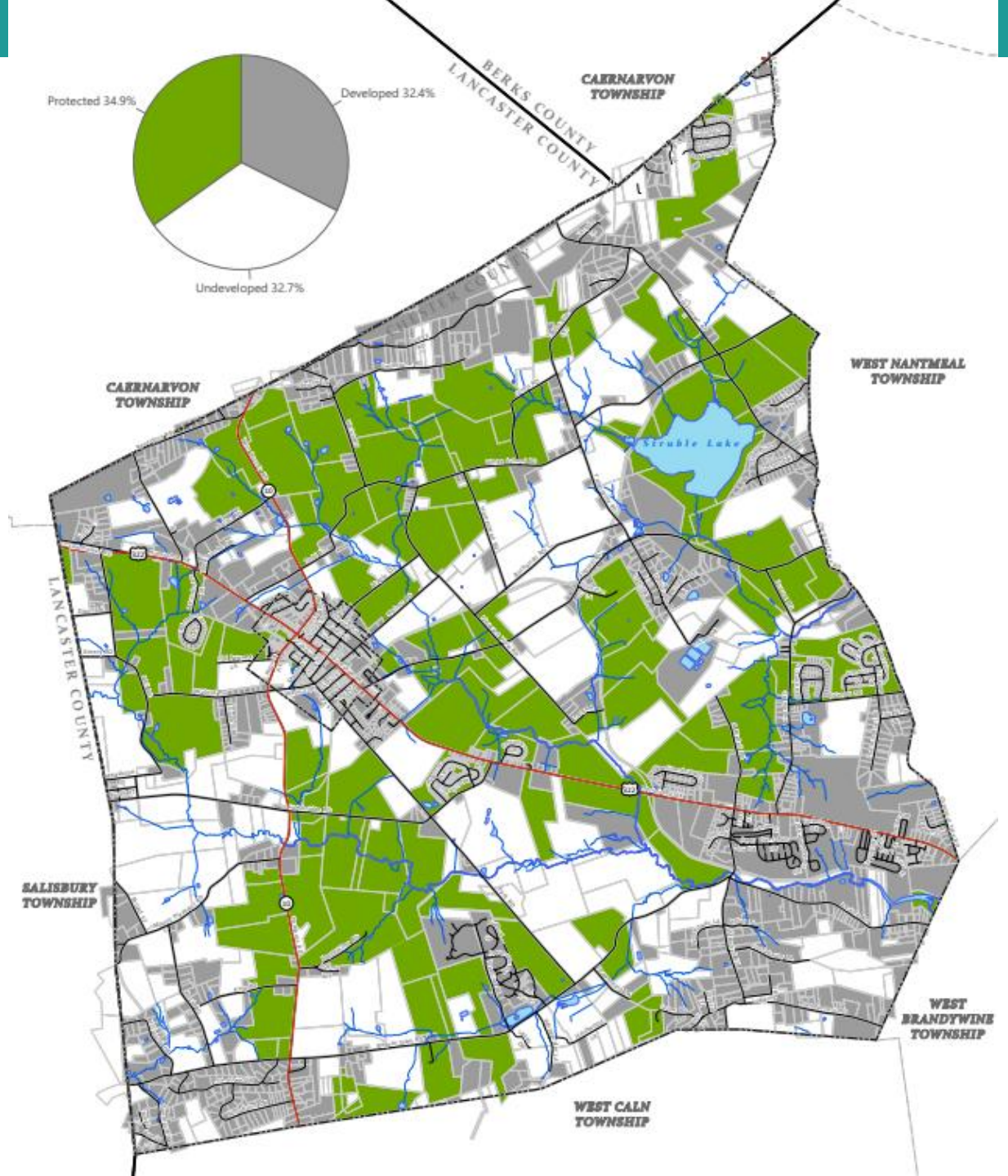




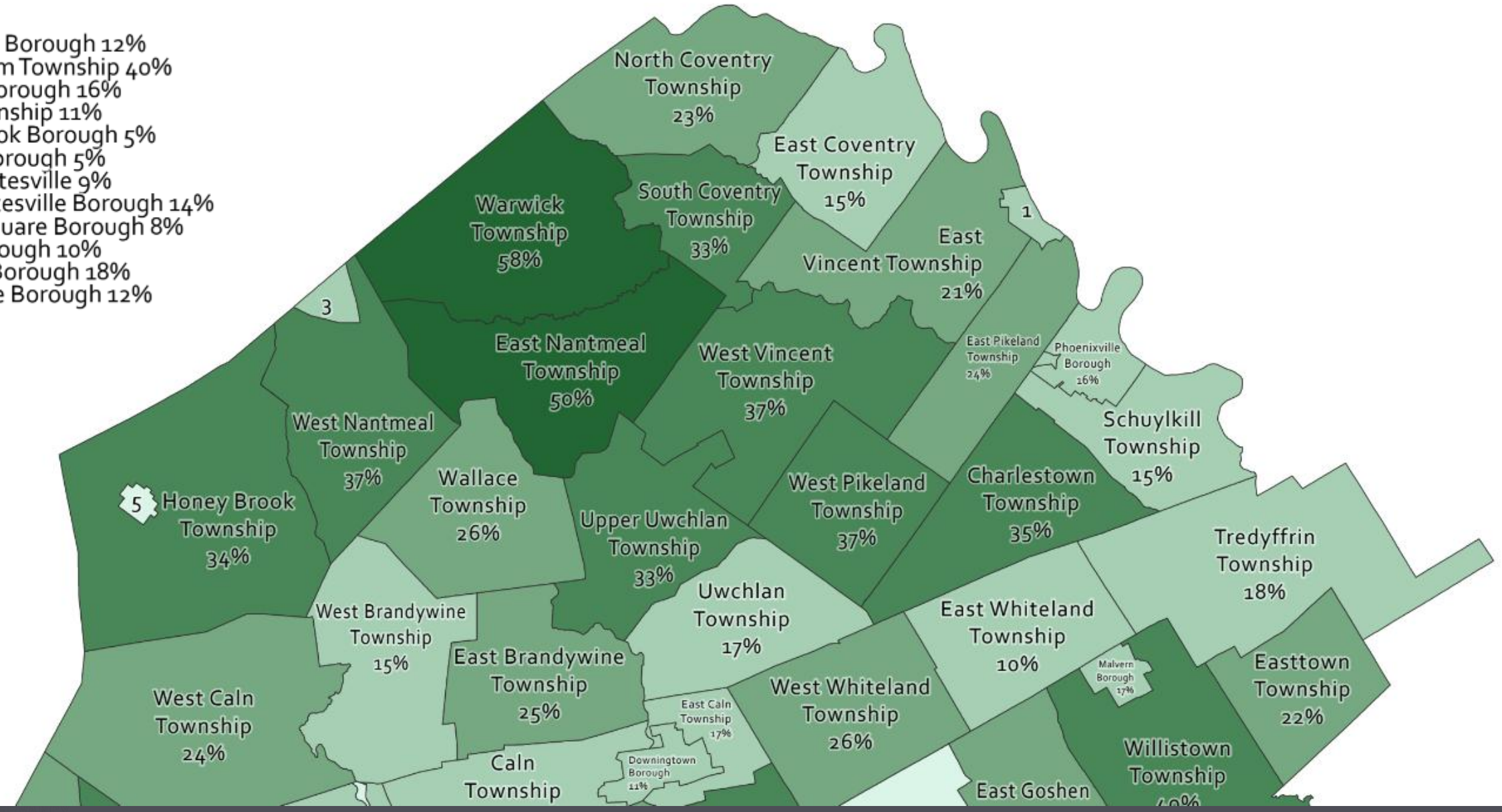
Protected lands	Borough	Township
Chester County agricultural easements	5.6 ac. (1.8% of Borough)	4,027.2 ac. (25.0% of Township)
Lands owned or eased by land trusts	0.0 ac. (0.0% of Borough)	680.3 ac. (4.2% of Township)
Public lands (federal, state, county, municipal)	5.4 ac. (1.8% of Borough)	497.9 ac. (3.0% of Township)
Other protected lands	3.7 ac. (1.2% of Borough)	245.5 ac. (1.5% of Township)
	Total: 14.7 ac. (4.8% of Borough)	***5,450.9 ac. (33.7% of Township)***

Open Space Availability





1. Spring City Borough 12%
2. Birmingham Township 40%
3. Elverson Borough 16%
4. Valley Township 11%
5. Honey Brook Borough 5%
6. Modena Borough 5%
7. City of Coatesville 9%
8. South Coatesville Borough 14%
9. Kennett Square Borough 8%
10. Atglen Borough 10%
11. Avondale Borough 18%
12. West Grove Borough 12%



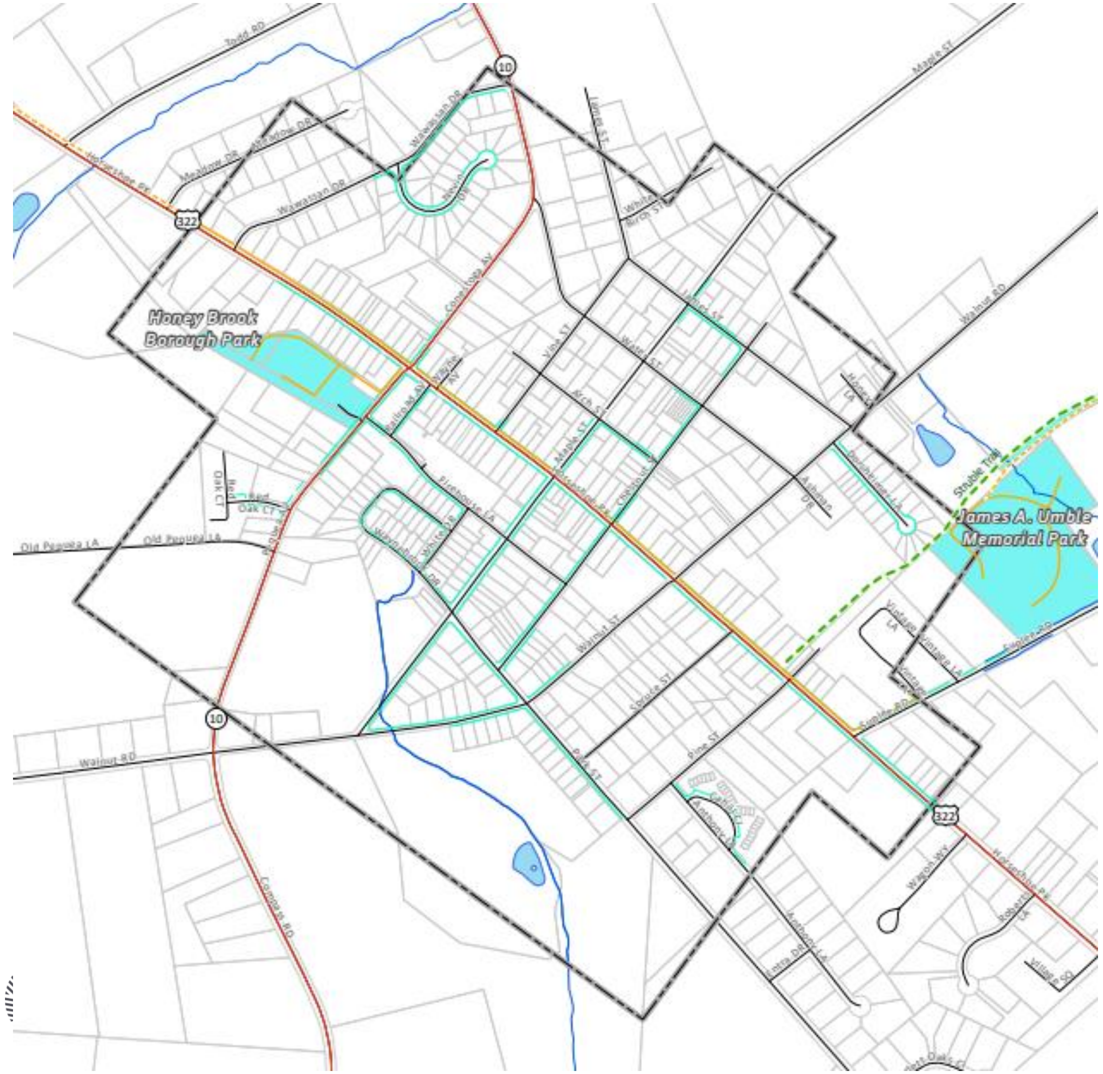
Planning Considerations for Open Space

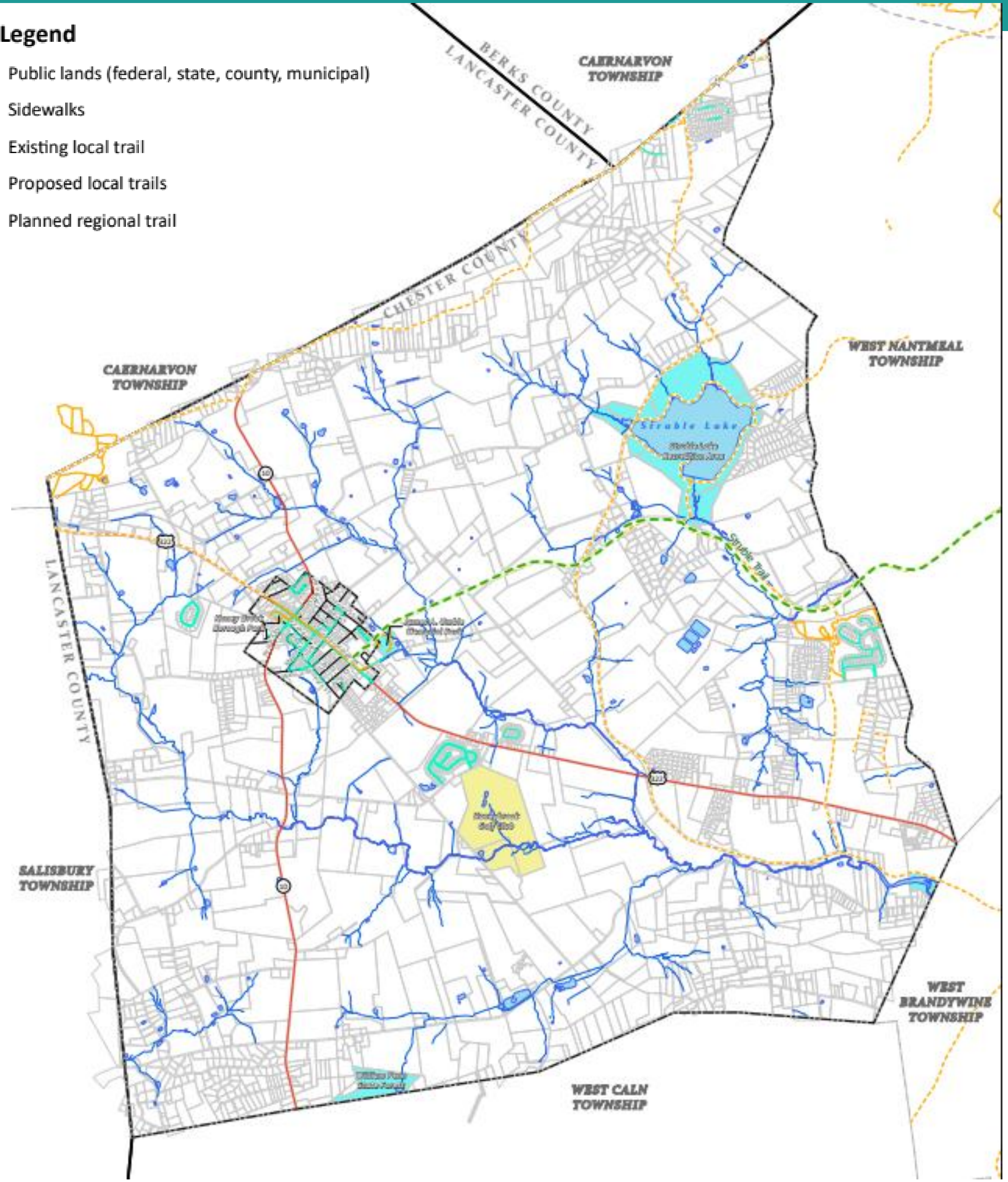
- As mentioned previously, critically evaluate remaining available lands and seek opportunities, partners, and funding to preserve.
- Seek opportunities to connect or expand existing open space areas.
- Close critical open space gaps
- Ensure equitable access to open space for passive rec. and healthy communities
  - Both geographically and societal
- Seek opportunities to provide areas of open space to areas currently underserved in the community.
- Enhance fee-owned properties through increased stewardship/restoration/education.
- Promote stewardship and restoration opportunities on HOA lands.

Recreation

Legend

- Township boundary
- Tax parcels
- Major roads
- Water bodies
- Streams
- Public lands (federal, state, county, municipal)
- Sidewalks
- Existing local trail
- Proposed local trails
- Planned regional trail





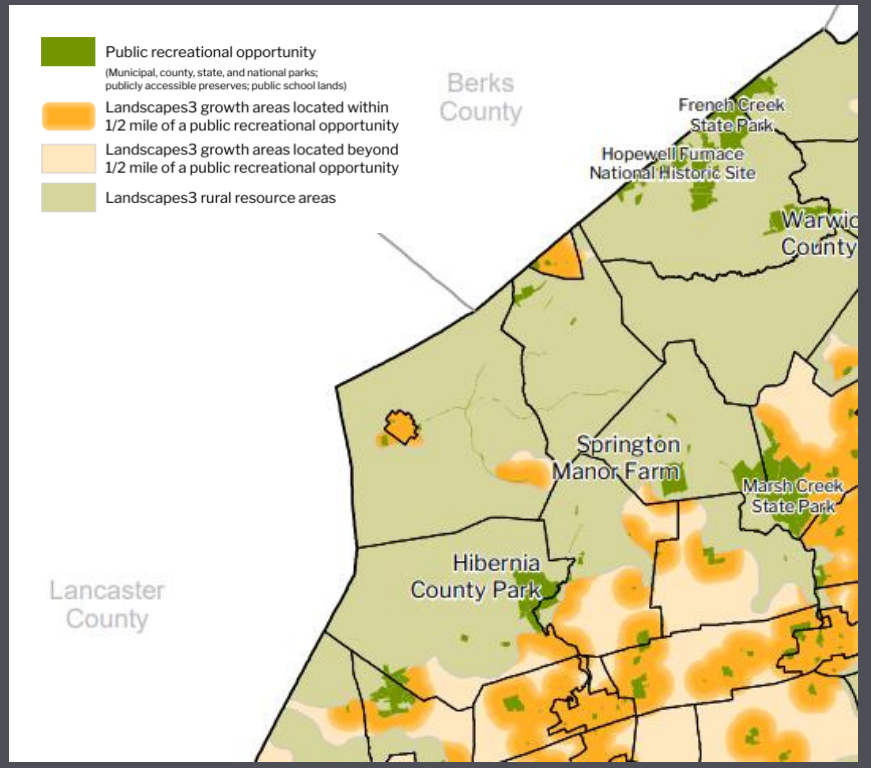
Parks and Recreational Areas

Parks	Owner	Acres	Facility
James A. Umble Memorial Park	Township	12 acres	Active Park
Honey Brook Borough Recreation Area	Borough	2.5 acres	Active Park
New Passive Park	Township	10 acres	Passive
Struble Lake	State	384.2 acres	Passive
Honey Brook Elementary Center	School District	25.5 acres	Active
William Penn State Forest	State	41.3 acres	Passive

Planning Considerations for Rec. and Trails

- Additional information to come from Community Survey & Visioning
- Stay abreast of emerging/changing trends/needs in active rec. in the community
- Coordinate with neighboring municipalities and partners to limit unnecessary duplication of facilities and offerings
- Consider equity and inclusion in future recreational planning and offerings
- Evaluate need and opportunities to expand park system – see above
- Ensure adequate resources to maintain existing facilities
- Official Map?

- Continue to be engaged in regional trail planning efforts (Struble)
- Trails to be addressed further in the multi modal transportation section



Committee Input

- What did we miss?
  - Critical issues/concerns

Natural Resource Inventory

Introduction

This section provides an inventory and analysis of the natural resources found in Honey Brook Township and Borough—specifically its land, water, and biological features. Throughout the text, implications for planning and policy are integrated to highlight how these natural elements shape, and are shaped by, human activity.

Natural resources are inherently complex and exert a significant influence on a wide range of planning issues. Many of these resources are dynamic rather than static, evolving in response to both natural processes and human actions. Water quality and biological diversity, for example, are renewable and restorable resources that can be improved through sustained, collaborative efforts. These improvements often depend on the long-term commitment of the broader community.

Historically, the area was dominated by rich oak-chestnut-hickory old-growth forests, with drier chestnut oak stands on steep slopes and ridgetops. Large wetlands once covered flatter areas, slowly releasing water into the headwaters of the East and West Branches of the Brandywine Creek. This represents the region's ecological baseline—a natural condition that persisted for thousands of years. Although this state will never fully return, understanding it provides a valuable point of reference for assessing current conditions and guiding future planning.

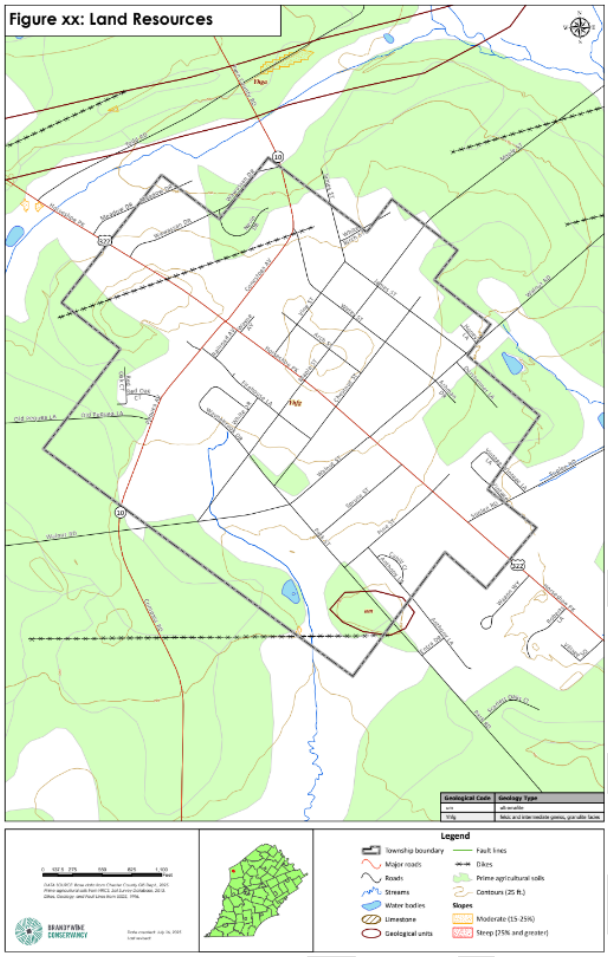
Around 300 years ago, early colonial settlement triggered a sweeping transformation of the landscape. Forests were cleared, wetlands drained, and agriculture became the dominant land use. According to the *Chester County Soil Survey* (1963, USDA, NRCS), this transition led to the loss of most original forests, wetlands, and topsoil. Today, approximately 23 percent of the Township is forested with young to mid-aged woodlands, and scattered wetland pockets still remain. Despite these changes, Honey Brook Township continues to be defined by a significant expanse of high-quality, non-irrigated farmland—some of the most productive in the nation (see Natural Resources table on the following page).

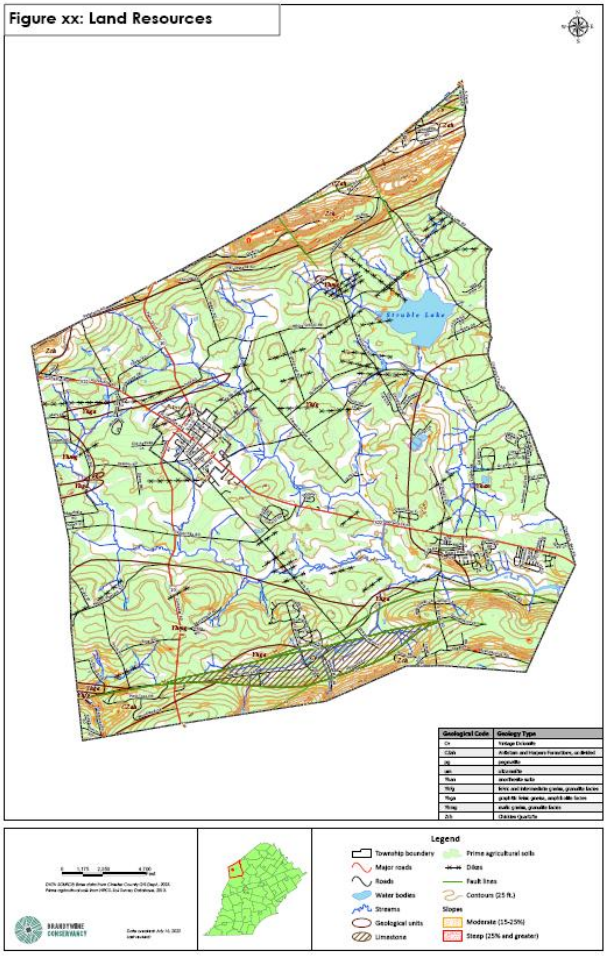
Land Resources

Honey Brook Township is one of the largest townships in Chester County, covering about 16,134 acres—or roughly 25 square miles. The Township is nestled between two ridges: the Barren Hills to the north and Welsh Mountain to the south. These high points help shape the area's landscape and serve as the source of headwater streams that flow into both the East and West Branches of the Brandywine Creek.

Honey Brook lies entirely within the Piedmont Upland Section of the Piedmont Province, part of the larger Appalachian Highlands. The Piedmont is a broad region of gently rolling hills and unique rock formations that extends all the way from New York to Georgia. To the south and east of Chester County lies the "fall line," where the Piedmont transitions to the flatter Coastal Plain—a geological boundary that has influenced patterns of settlement and development for centuries.

This section, along with the accompanying Land Resources Map, provides a closer look at the area's geology, elevation, land slopes, and soil types—all key factors that influence how land can be used and managed in the future.





Water Resources						
	Township			Borough		
	Acres	**%**	**% protected**	**Acres**	**%**	**% protected**
Streams	366,934 ft	NA	41.9%	2,586 ft	NA	9.6%
Floodplains	1,528.3	9.5%	50.6%	0	0	0
Wetlands	419.2	2.6%	45.8%	3.5	1.1%	0
Hydric Soils	3037.4	18.8%	41%	34.3	11.2%	3.2%
Headwater areas	6,693.2	41.5%	26.4%	136.3	44.4%	5.6%
Land Resources						
	Township			Borough		
	Acres	**%**	**% protected**	**Acres**	**%**	**% protected**
Very Steep Slopes (>25%)	193.0	1.2%	16.1%	0	0	0
Moderately Steep Slopes (15-25%)	727.0	4.5%	15.7%	.06	0	0
Prime Farmland Soils	11,163.6	69.3%	33.8%	66.7	21.7%	10.2%
Biotic Resources						
	Township			Borough		

	Acres	%	% protected	Acres	%	% protected
Woodlands	3,709.3	23%	90.3%	52	16.9%	3.7
By Size of Woodland						
Class I	2,910.7	18*	20.3%	0	0	0
Class II	255.3	6*	42.5%	0	0	0
Class III	543.3	80*	27.5%	52	16.9%	3.7
Forest Interiors	711.5	4.4%	26.1%	0	0	0
Forested riparian buffers	605.2	3.8%	33.8%	0	0	0
Riparian Buffer gaps	945.9	5.9%	43.6%	12.5	4.1	6.6
# of parcels with riparian gaps	237	NA	NA	12	NA	NA
# of parcels with gap greater than 10 acres	16	NA	NA	0	NA	NA
# of parcels with gap greater than 5 acres	98	NA	*Includes 16 from above	1	NA	NA

* Number of distinct woodlands

Geology

Geologic formations form the deep foundation of many of Honey Brook Township's physical and ecological characteristics. The type and structure of underlying rock influence the slope and shape of the land, the types of soils that develop at the surface, the quantity and quality of groundwater available, and the suitability of land for septic systems, excavation, and building foundations.

The geology of Honey Brook Township is very old and relatively complex. Most of the township is underlain by metamorphic rock, rocks of either sedimentary or igneous (volcanic) origin that have been recrystallized and hardened over geologic ages by combinations of intense heat and pressure. The central portion of the township is primarily underlain by three different kinds of gneiss, a metamorphic granite. Gneiss is a relatively hard and dense rock, though it does contain fractures and fissures. It tends to store only low amounts of groundwater and so to produce only low amounts of well water (10-15 gallons per minute, or gpm, according to Chester County Geology, published by the Chester County Planning Commission, 1973).

The ridges that frame the township Welsh Mountain and the Barren Hills are formed of a hard and dense metamorphic sandstone called Chickies Quartzite, which is very resistant to erosion and also yields only low amounts of groundwater (5-15 gpm). The eastern end of the township, including the lower ends of the West and East Branches of Brandywine Creek, are underlain by a rock formation called anorthosite. This formation, which extends to the east into Wallace Township, is the only occurrence of this rock in Chester County. The rock is hard and of igneous origin, relatively high in aluminum content, and again, a poor yielder of groundwater supplies (approximately 5 gpm).

There are also two areas of metamorphic limestone rocks in Honey Brook, one trending east-west in a narrow band along Two Log Run in south-central Honey Brook, and the other in the far northeast corner of the township. These formations are called vintage dolomite, and they are characterized by low, mildly sloping lands that are very permeable and so may provide a significant groundwater source, though yields can be highly variable. Sinkholes may form in these areas, though none are reported from Honey Brook.

Other noteworthy geologic features found in Honey Brook Township include two groups of fault lines found in the ridge areas of both the northern and southern portions of the township. One set of faults have evidently displaced one block of land along the Welsh Mountain ridge, pushing it to the south.

Finally, Honey Brook contains approximately two dozen pegmatite dikes scattered throughout the central portions of the township. These narrow linear igneous "intrusions" occur mainly, though not exclusively, within the three types of gneiss. These strips of hard rock vary in width from about five to 100 feet and are associated with very low well yields. They likely impede infiltration of surface drainage, which also may literally create a subsurface dam or water blockage, altering the flow of ground water. The linear nature of this dike makes site-specific testing for adequate water supply and soil percolation/wastewater disposal important in area where they are reported.

Topography

Honey Brook Township is relatively high ground situated at the watershed divide between the Delaware and Susquehanna Rivers. The township includes headwater areas for six drainages: the East and West Branches of Brandywine Creek, Two Log Run (a tributary of the West Branch of the Brandywine), Indian Run (a tributary of the East Branch), Conestoga Creek, and Pequea Creek.

As already mentioned, there are two high ridges in the north and south with relatively gentle sloping topography in between. The Land Resources Map shows elevation contours at 25 foot intervals. A set of knolls are scatted through the central part of the township. The Township's high point is approximately 1075 feet above sea level, and is found along the Welsh Mountain. The low point, is just below 600 feet above sea level, and occurs where the East Branch exits the township to the east.

Land Slope

The slope of the land is largely determined by both underlying geology, and the weathering processes leading to soil formation at the land's surface. Land slope is a significant factor in determining sensitivity to disturbance and suitability for development. Though all soils are subject to erosion when their vegetative cover is disturbed, disturbance of vegetation on steep slopes accelerates runoff and erosion, causing down-gradient sedimentation and water/wetland degradation.

The Land Resources Map shows Honey Brook's precautionary (15 -25 percent) and prohibitive (> 25 percent) slopes and displays the relative slope categories are the same as those used in the Honey Brook Township Zoning Ordinance (ZO). Steeply sloped areas are concentrated on both sides of Welsh Mountain and on the north side of the Barren Hills. A few areas of mostly moderately steep slopes occur in conjunction with some of the knolls mentioned above. The remaining portions of the Township exhibit a gently rolling landscape with virtually no occurrences of severe slopes and very few occurrences of moderate slopes. The acreages of moderate and steep slopes are, respectively, 727 acres 193 acres. The total acreage of all steep slopes is 920 acres, about 6 percent of the Township total.

Many of the steep sloped areas are in tree cover, which is appropriate for preventing soil erosion. Steeply sloping lands are especially sensitive to ground disturbance and the removal of vegetative cover that could result in problems with stormwater runoff, erosion, and uncontrolled sedimentation. Concentration of runoff from the installation of impervious surfaces on sloped areas can diminish groundwater recharge. The potential for erosion from earth-moving is heightened on steep slopes, both during and subsequent to the activity, even with substantial erosion control measures. In contrast, the presence of intact vegetation,

especially trees, contributes to slope stability and stormwater control; woodlands are shown on the Land Resources Map for this reason. The Township's ZO currently regulates precautionary and prohibitive slopes, allowing a maximum vegetative disturbance and grading of 30% on precautionary slopes and restricting disturbance on all prohibitive slopes.

Soils

The suitability of a particular soil type is an important determinant in the location of most land use activities, roadways, and public facilities. Another important characteristic is the ability of a soil type to support on-site sewage facilities. The thickness of the soil (i.e., depth to bedrock), drainage characteristics, erosion potential, and slope factor all combine to determine the potential extent of the limitations on septic systems. Where limitations exist, it is important that they are identified and documented as part of a detailed site investigation. For example, the soil's ability to assimilate and mitigate wastewater disposal (either on-site or from an off-site collector) is a central element of the planning process and a primary determinant in locating land uses. Similarly, a soil's suitability for stormwater management is also important. Due to compaction, permeability, and erodability qualities, certain soils are better suited for certain management and/or disposal techniques than others.

Honey Brook's soils generally include both highly productive prime agricultural soils and soils that are constrained by specific characteristics. Constrained soils include those with a seasonally high water table, alluvial soils that are subject to stream flooding, soils with shallow depth to bedrock or underlain by soft rock, and soils susceptible to erosion.

Over 69% of Honey Brook Township is underlain by farmland soils 11,163.6 acres (17.4 square miles), including both prime farmland soils and soils of statewide importance. These soils are deep, fertile, nearly level, well drained, generally devoid of stones and rocks, and are the most productive for traditional agricultural crops. This resource is classified using three categories (Classes I, II, III) based on USDA- Natural Resources Conservation Services rankings and "soils of statewide importance" according to Chester County data. Class I and II agricultural soils comprise the large majority of the Township. According to USDA, Honey Brook Township's prime agricultural soils are some of the best non-irrigated soils in the country for the production of crops and grasses. Unlike many other Chester County townships, Honey Brook has lost relatively little agricultural land to non-farm uses, though the rate of loss to development has increased in particular over the past 10- 15 years. Continuous pressure is being applied by developers interested in purchasing Township farms and other open lands for non-farm purposes. The soil characteristics that create high agricultural value are also valuable in for other uses (e.g., good drainage is important in road construction and wastewater disposal).

Soil formation is an ongoing process, a complex interaction among factors such as weather, underlying geology, vegetative cover, and time. In Honey Brook, this process occurred over millennia under old growth chestnut-oak-hickory-dominated forests where rainfall, runoff, and evaporation were in a balance such that leaching of soil nutrients is not as severe as in other more southerly areas of the United States. Accordingly, the Township contains a significant amount of productive farm soils and as such, agriculture was the historically predominant land use in the Township. When the original forest vegetation was cleared and plowed as a part of the settlement, soil formation and specifically the creation of prime agricultural soils effectively ceased as a natural process. Historically, over decades of farming use, much of the original top soil then eroded, as noted in the USDA Natural Resources Conservation Service Soil Survey for Chester and

Delaware Counties (1963) and depicted in the Historic Eroded Soils Map. According to this source, 8,707 acres were moderately eroded and 636 acres were severely eroded, for a total of 9,343 acres, or about 58 percent of the Township.

Highly erodible land refers to land that is very susceptible to erosion and is defined as land where the erosion potential is at least eight times the maximum average soil loss, for that particular soil type, that will still allow economical maintenance of the current level of production into the future. According to the 2015 Comprehensive Plan, within Honey Brook Township and Honey Brook Borough, 2,084 acres are classified as highly erodible lands, while a further 6,192 acres are defined as having potentially highly erodible land.

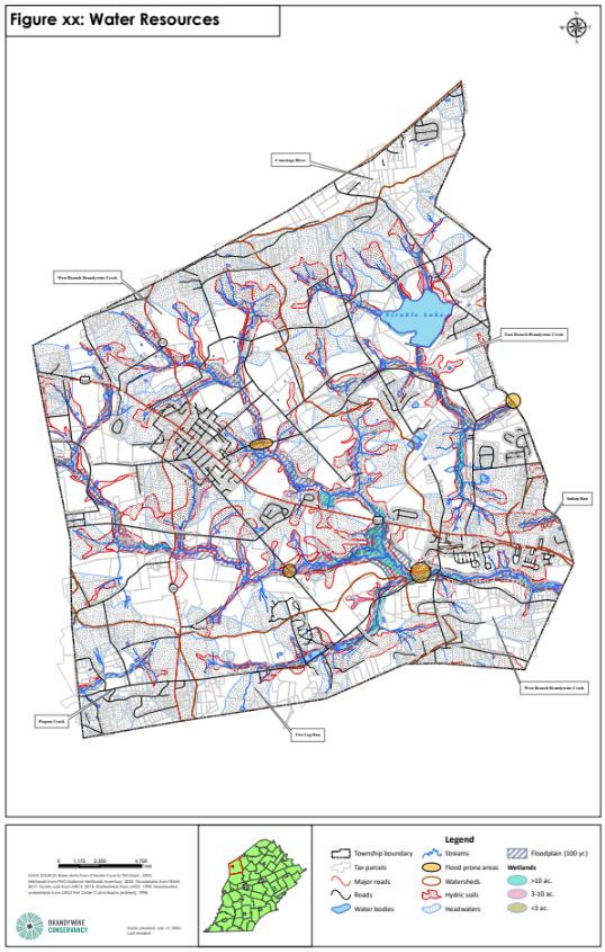
Given the Borough's historically more urban makeup than that of the township, soils play less of a role in defining land use in the Borough. However, of the open land remaining on the periphery of Honey Brook Borough, a large majority of it is classified as prime farmland soils, significant at the State level. Around 66 acres of the Borough (around 20 percent) is underlain by prime farmland soils, of which around 46 acres is currently undeveloped. Given that these soils represent the vast majority of remaining open land in the Borough, any future development would see the loss of these prime agricultural soils.

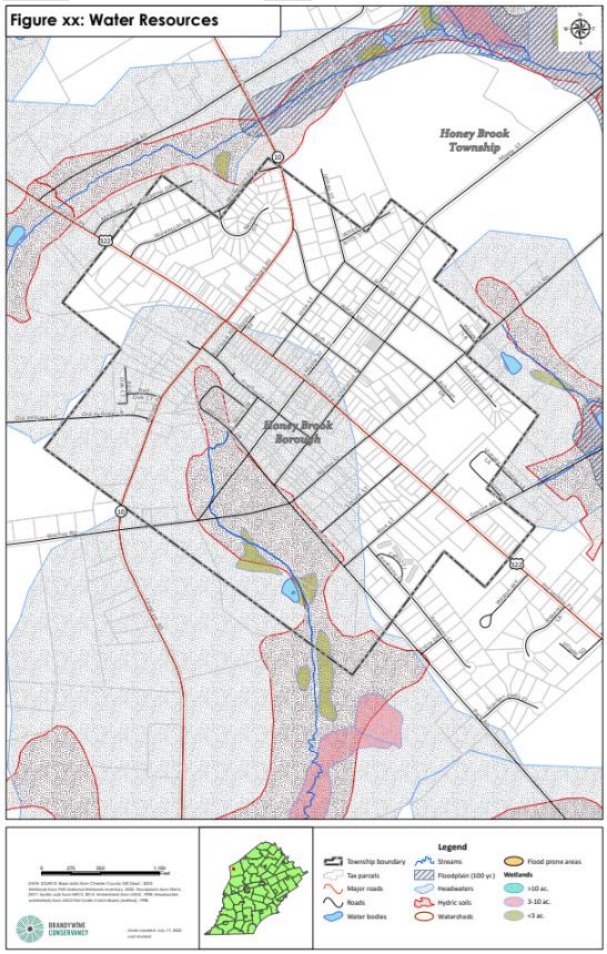
Water Resources

This section outlines key characteristics of Honey Brook's water resources, as illustrated on the Water Resources Map. Many of these resources are concentrated within the township's stream corridors, making them a central focus for watershed management. In addition, Honey Brook's elevated terrain serves as the origin point for six distinct drainage systems, creating an abundance of headwater areas, another vital aspect of the township's water resource landscape.

Water resources in Honey Brook face a variety of competing demands. Both surface and groundwater are essential for domestic, agricultural, commercial, and industrial uses. Streams also receive treated and at times untreated wastewater, while simultaneously supporting diverse ecosystems that rely on clean water for survival. Where access is available, streams also offer valuable recreational opportunities for the community.

To ensure the long-term viability of these water resources, it is essential to protect and restore them through responsible land use management. This includes addressing both direct and indirect impacts on nearby and downstream water systems.





The Water Cycle

The water, or hydrologic, cycle consists of the migration of water, whether in a liquid, solid or vapor phase, from the atmosphere to the surface of the Earth and back again. Water falls to Earth as precipitation. Some

evaporative losses occur while rain or snow descends, but that which reaches the surface of the earth meets one of several fates.

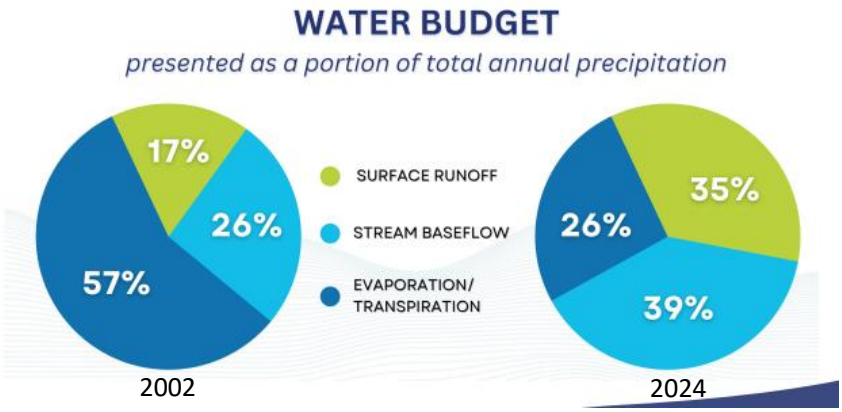
Precipitation that reaches the land surface either flows over the surface, penetrates the surface, or evaporates. Water flowing over the surface generally starts as broad “sheet flow” and collects in rivulets, which join to create small streams, leading to larger rivers and eventually large water bodies, such as lakes, seas, or oceans. Infiltrating water is: taken up by plant roots and returned to the atmosphere through transpiration; evaporates from the upper, unsaturated zone of the soil; or infiltrates to the saturated zone, becoming groundwater, and a part of a larger body of underground water called an aquifer. Although much groundwater is part of the eventually discharges to a surface water body, the journey may take months, years, decades, or longer. Some groundwater seeps into deep bedrock aquifers that feed water supply wells. Of course, water that returns to the atmosphere will eventually fall back to the Earth.

The Water Budget

The water cycle in a given watershed follows an established average "water budget" developed over long climatic time periods. Water budget estimates were calculated for the watersheds of Chester County as part of the Watersheds 2045 plan. This water budget was compared to the previous water budget developed in 2002. The water budget is comprised of for main elements:

- Precipitation - the total rain and snowfall that occurs in a watershed
- Surface runoff – the portion of precipitation that flows over land to reach streams or other low lying points
- Evapo-transpiration - the portion of precipitation that either evaporates into water vapor and returns to the atmosphere (evaporation) or water taken up by plants and returned to the atmosphere by water loss through stems and leaves
- Groundwater recharge/baseflow – the portion of precipitation that soaks into the soils to refill underground aquifers, reemerging in streams as baseflow driven by groundwater

Figure 3.39: Average Water Budget for Chester County's Watersheds



(Data and chart is from the Watersheds 2045, CCWRA, 2024).

Unlike in 2002, when slightly more than half of the precipitation returned to the atmosphere, often through plant transpiration, it is now estimated that only 26% of rainfall makes its way back into the air. At the same time, surface runoff has increased dramatically, rising from about 17% in 2002 to 35% in 2024. As watersheds

develop and impervious surfaces expand, the natural water balance becomes disrupted. Increased runoff leads to greater erosion and more frequent flooding.

Although groundwater recharge and the baseflow it supports have increased, likely due to overall higher precipitation levels, the nature of that precipitation has changed. Longer dry spells are now punctuated by more intense storms, making the timing and distribution of rainfall less predictable. Simultaneously, the widespread loss and simplification of vegetative cover have reduced evapotranspiration rates, further contributing to the imbalance.

This shift represents a watershed system out of equilibrium, a complex natural mechanism that cannot be easily replicated or re-engineered. Restoring balance often begins with protecting high-quality sub-basins that remain relatively undisturbed. In areas targeted for development, strategies focus on enhancing groundwater recharge and reducing both the volume and speed of surface runoff. Planting trees, particularly along stream corridors, remains one of the most effective best management practices for improving watershed health.

While it is well known that development can and does degrade surface and ground water resources, it is not so well known where some of the critical thresholds lie and how to manage developing watersheds sustainably. Still, the general goals of a sustainable watershed management program should include:

- Sustain the quality and quantity of ground and surface waters
- Minimize impervious coverage
- Maximize woodland and wetland acreages
- Maintain stream base flow especially during droughts
- Maintain the groundwater table
- Protect existing and future water sources and wells
- Prevent groundwater contamination
- Minimize excessive existing and future flooding, while making room for natural flooding
- Minimize impacts from the land on natural stream system morphology (channel and
- bank geometry)
- Maintain natural stream channel regimes
- Maintain aquatic communities and their habitats, including wetlands
- Minimize point and non-point source pollution in streams and ponds

Watersheds, Drainage Patterns, and Streams

Honey Brook Township and Borough's surface water resources, as shown on the Water Resources Map and described in the following table, reflect the areas geology, soil, and man-made influences, and include ponds; streams; wetlands; floodplains; and, the land that contributes water runoff to these areas during storms, or from springs or snowmelt (a "watershed").

Along with several of the streams listed in Table I-2, Struble Lake is also impaired. The lake is a natural resource of major environmental and recreational significance to the Township and the region. However, restoring the water quality of a lake is much more difficult than that of streams because pollutants accumulate within the lake system and can cause more immediate environmental impacts to the fishery in the lake. Also, once a lake is impaired, it can (depending on the impairment) be a continuous source of pollutants and impairment to the stream below.

Table I-2. Watersheds of Honey Brook Township and Honey Brook Borough.

Watershed	Specific Tributary	Honey Brook Acres	Stream Miles	Water Use Designation/ Status	Other
Brandywine	East Branch	4,254.3	19.19	HQ*-TSF-MF	Impaired**
	Indian Run	217.5	0.47	HQ*-CWF	
	West Branch	8914.1	39.34	HQ*-TSF-MF	Impaired**
	Two Log Run	1550.2	7.38	HQ*-TSF-MF	
Pequea	Pequea	881.2	3.46	HQ*-CWF	
Conestoga	Headwaters	624.5	0.17	WWF	Impaired**
Total Stream Miles		70.01 miles			

Source Chester County Water Resources Authority.

Water Use Designations

HQ -High Quality
CWF -Cold water fishes
TSF - Trout stocked fishes
MF - Migratory fishes (The migratory fish is the American eel.)

*High Quality streams are Special Protection Waters subject to "anti-degradation" rules implemented through the Department of Environmental Protection. Generally, these require that "best management practices" (BMPs) be used in new developments. New "point source discharges" of wastewater are generally prohibited unless the applicant can demonstrate they have no cost-effective or environmentally sound non-discharge alternative.

**Impaired streams are those that do not meet applicable water quality standards under the federal Clean Water Act. They are listed by the PA Department of Environmental Protection (DEP). Honey Brook contains approximately 23 miles of impaired streams. They were listed in 2013 for nutrients, siltation, and organic enrichment/low dissolved oxygen with the source of the impairment determined to be agricultural. Generally these areas are targeted for remedial actions. Most of the Brandywine watershed drainages within Honey Brook Township are targeted as priority areas by the Christina Basin Clean Water Partnership. A USEPA grant and additional USDA funds allow the Chester County Conservation District to work with local farmers to implement water quality BMPs on their properties.

MS4

In order to help restore the water quality in impaired water bodies, a plan of action will need to be developed by Honey Brook Township (as well as other municipalities in the impaired watersheds). Following is a list of requirements, and the planning framework, that will have an effect on Honey Brook's restoration efforts:

- Both Honey Brook Township and Borough are designated by the Pennsylvania Department of Environmental Protection (PADEP) and the United States Environmental Protection Agency (USEPA) as a Municipal Separate Storm Sewer Systems (MS4) area (See Appendix M). This MS4 designation, along with necessitating a municipal stormwater management program, places restrictions on stream discharge.
- Total Maximum Daily Loads (TMDLs) have been developed for the impairments identified throughout the Brandywine Creek and Christina watersheds, including those in Honey Brook Township. These

TMDLs are currently being implemented by PADEP through the Township's MS4 permit, was renewed in 2017.

- To help alleviate the financial and operational responsibilities on the Township and Borough, they worked together to submit a joint MS4 permit. Not only will this allow them to share the cost of implementing, this also affords greater flexibility for project locations, allowing both to meet their reduction goals.
- The MS4 designation charges the municipality with the following to help alleviate pollutant discharges within the township:
    - Educating the public.
    - Encouraging participation in stormwater-related projects/activities.
    - Preventing illicit discharges.
    - Addressing construction site runoff.
- As part of the Township and Borough's response to the MS4 regulations, they both adopted a new stormwater management ordinance and have amended their ordinances in 2023 to comply with the new Chester County model ordinance. This ordinance complies with the requirements for adoption of certain stormwater standards.
- These PADEP stormwater and TMDL regulatory requirements have a significant financial and operational impact on the Township and Borough. By pursuing both voluntary and regulatory approaches the both municipalities can help reduce stormwater and pollutant runoff from agricultural, existing developed, and future developing lands, and to possibly minimize the municipal burden from future state regulations.
- Along with 37 other MS4 municipalities in Chester County, Honey Brook Township and Borough are members of the Christina Watersheds Municipal Partnership (CWMP). The Partnership focuses on stormwater (all water that falls as rain and runs off into our creeks and rivers), providing support to local townships, boroughs, and cities, to help meet the state's standards for clean streams. Pennsylvania requires that all municipalities to develop strategies to protect our waterways, and the CWMP serves as a resource to help ensure their success.

Headwater Areas/ First-Order Streams

A first-order stream begins where channelized flow emerges from runoff, snowmelt, springs, or groundwater discharge (commonly referred to as base flow). These small streams play a critical role in watershed systems, as they carry much of the base flow that supports downstream waterways. As such, they significantly influence both water quality and quantity throughout the stream network. When two first-order streams meet, they form a second-order stream; two second-order streams combine to form a third-order stream, and the pattern continues.

Despite their size, these streams have an outsized influence on the hydrologic cycle. Due to their relatively low flow and proximity to land-based activities, they are especially susceptible to sedimentation, pollution, and other forms of degradation. Consistent flow from headwater areas is vital for the health of these streams and the aquatic life they support, particularly during dry periods. Because of their vulnerability, the watersheds of first-order streams are highly sensitive to the impacts of impervious surfaces, poor grading, pollutant discharges, and unsustainable agricultural practices. Maintaining or restoring forested headwater areas, especially those near streambanks, is essential. Forest cover helps slow and filter runoff, control erosion and sedimentation, regulate stream temperatures through shading, and provide food and shelter for wildlife. In addition, first-order streams

often originate from cold water seeps and springs, making them critical habitat and refuge for wild trout populations.

According to the Water Resources Map, headwater areas cover a substantial portion of Honey Brook Township. These areas, particularly concentrated in the central uplands, account for approximately 6,693 acres—or about 42% of the township's total land area—underscoring their importance to watershed health and management.

Hydric Soils

Hydric soils are typically found in upland depressions and along the edges of floodplains, most often within or adjacent to wetlands. While they are strong indicators of current wetland conditions, hydric soils can also reveal the locations of former wetlands.

Characterized by a shallow water table and, at times, visible standing water, hydric soils are frequently associated with headwater areas containing springs, seeps, and marshes at the upper ends of stream corridors. These soils play a key role in the hydrologic cycle, as subsurface water percolating through them feeds the surface water system and contributes to the base flow in streams—helping to maintain consistent stream flow and water quality.

According to the Chester County Soil Survey, the native vegetation of hydric soils was primarily wet woodlands dominated by red maple, with some sites supporting open wetland meadows.

In Honey Brook Township, hydric soils cover approximately 3,040 acres, or 18.8% of the land area. In Honey Brook Borough, they account for 34 acres, or 11.2%. Along many of the township's streams, continuous bands of hydric soils form extensive buffers—often stretching hundreds of acres and running parallel to stream channels for miles—serving as natural filters and protective zones for water quality and habitat health.

Floodplains

Floodplains are areas prone to flooding during major storm events, specifically those with a 1% annual chance of occurrence, commonly referred to as "100-year floods," as defined by the Federal Emergency Management Agency (FEMA). Throughout Honey Brook Township, floodplains have been identified in every watershed, with particular concern in the East Branch of the Brandywine Creek. Flooding in this area can significantly impact downstream communities such as Glenmoore, Downingtown, lower East Branch Brandywine Creek, and Chadds Ford.

During flood events, floodplains perform essential ecological functions. They absorb and slow floodwaters, helping to reduce peak flow velocities and downstream flood risk. Floodplains also trap waterborne pollutants and sediment, reducing nonpoint-source pollution and erosion. When maintained in a natural or semi-natural state, floodplains help preserve water quality, limit sedimentation, and support overall stream health.

Vegetated floodplains, especially those with stable, wooded cover, are particularly valuable. Like forested headwater areas, these landscapes help stabilize streambanks, regulate water temperature, and filter runoff, all of which contribute to healthier aquatic ecosystems and improved flood resilience.

Alluvial soils, formed by sediment deposited through past flood events, are commonly found in floodplains and often align closely with FEMA's 100-year floodplain boundaries. These soils are indicators of flood-prone areas and reinforce the importance of avoiding intensive development in such locations.

Generally, floodplains are unsuitable for residential or commercial development due to the risks involved, although certain existing uses may be allowed to expand with flood-proofing or engineered mitigation. More appropriate uses include passive open space or active recreation, which benefit from and support the natural floodplain functions.

Based on FEMA mapping, 100-year floodplains in Honey Brook Township encompass approximately 1,528 acres, or about 9.5% of the Township's total land area.

Wetlands

Wetlands are areas where soils remain saturated for a significant portion of the year, where water-tolerant vegetation is present, and where surface ponding, flooding, or flow provides visible hydrologic evidence. In Honey Brook Township, wetlands are typically found along stream corridors, often in narrow, linear formations, or in upland depressions within headwater areas, where they tend to be broader.

Wetlands are a vital component of watershed health, offering substantial benefits to both water quality and quantity. They naturally filter water by slowing its movement, allowing sediments to settle and nutrients to be absorbed by vegetation—thereby improving water quality. During storm events, wetlands store excess water, helping to reduce flood damage and moderate peak flows. Like streams, wetlands benefit significantly from surrounding vegetative buffers, which protect them from runoff and other off-site disturbances.

Unfortunately, there is no comprehensive inventory of wetlands due to its dynamic nature and correlation with other natural resources. The National Wetlands Inventory (NWI) and Wetlands Mapper interactive tool, managed by the U.S. Fish and Wildlife Service, delineates wetland areas using a biological definition of wetlands and the analysis of high-altitude imagery in conjunction with collateral data sources and fieldwork. However, site-specific wetland delineations are the only method to accurately determine the extent of wetlands.

The National Wetlands Inventory (NWI), based on aerial photography, in Honey Brook Township there are approximately 419 acres, or 2.6% of the township's total area.

Honey Brook once supported a far greater acreage of wetlands, however, as many were converted with drainage tiles to farm fields and dug out into ponds. Research has determined that slightly more than half (50 percent) of Pennsylvania's wetlands have been filled or otherwise converted to non-wetlands since the 1700's, mostly due to intensive agricultural uses. In Honey Brook, probably well more than half and as much as 80 percent of the original wetland acreage have been so converted, especially within hydric soil and floodplain areas. This indicates a great opportunity to strategically restore some of these wet acres, especially during the course of new development.

Groundwater

Groundwater is fresh water stored below the earth's surface, found in the pore spaces, cracks, and fissures of soil and bedrock. When groundwater accumulates in sufficient quantities across connected underground layers, it forms an aquifer—a valuable resource that can be tapped for human use. In Honey Brook Township, most residents rely on groundwater as their primary source of water for domestic needs.

Groundwater plays a vital role in maintaining stream flow as well. Scientific studies indicate that approximately two-thirds of stream flow in Chester County's non-carbonate rock areas—including those underlain by Wissahickon schist—is sustained by groundwater discharge. The availability of groundwater in any given area depends heavily on its underlying geology. In Honey Brook, the predominant bedrock formations—gneiss, anorthosite, and quartzite—are known to yield relatively low groundwater supplies, with well pump rates typically ranging from minimal levels to about 10 gallons per minute.

This naturally limited groundwater availability is further challenged by periodic droughts, which can lower groundwater levels and reduce both supply and stream base flow. As a result, it is critically important to protect groundwater resources through both recharge and water quality preservation.

Replenishing groundwater—known as groundwater recharge—can be integrated into new developments in three primary ways:

- Requiring recharge of stormwater for up to the 2-year storm;
- Recharge treated wastewater into the ground, either through a drip or spray field; and,
- Limiting allowable impervious coverage [to less than 10 percent (4,356 feet square per acre) total].

Water Quality

Under the federal Clean Water Act, the U.S. Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Protection (DEP) have established regulations to protect the physical, chemical, and biological integrity of streams. In Pennsylvania, DEP classifies streams by their designated uses and water quality levels.

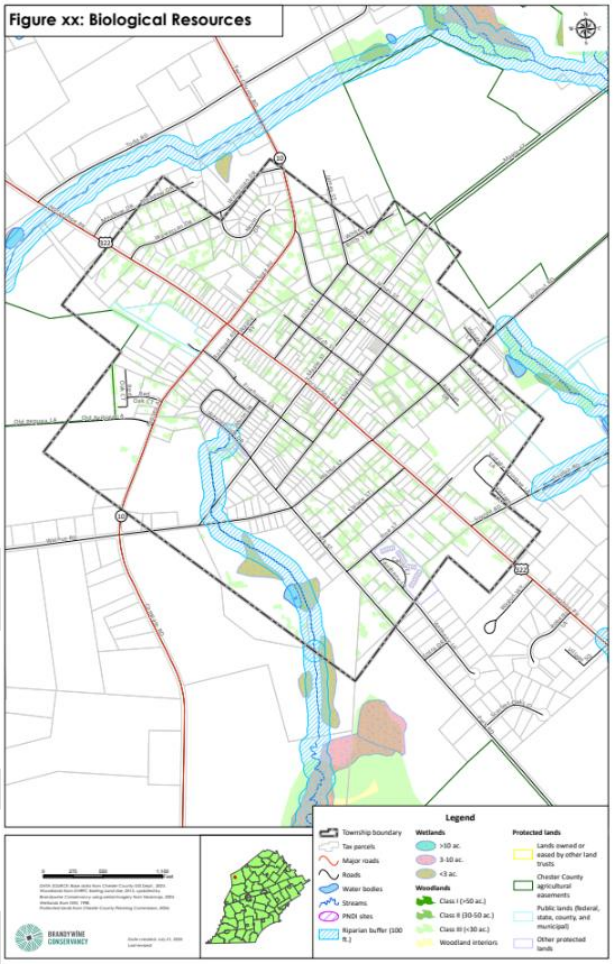
In Honey Brook Township, the West and East Branches of Brandywine Creek, as well as Pequea Creek and their tributaries, are designated as High Quality (HQ) streams. Despite this status, many stream segments are also classified as impaired, primarily due to non-point source pollution from agriculture—particularly siltation, nutrients, and bacteria. These pollutants enter waterways through runoff from farm fields, pastures, and barnyards.

Siltation reflects topsoil loss, while nutrients often come from fertilizers and livestock operations. These issues can be addressed through better farming practices, such as planting stream buffers and improving manure management.

Impaired streams may be eligible for federal and state grants to support water quality improvements. Honey Brook also benefits from regional efforts through the Christina Basin Task Force, supported by an EPA grant. The Brandywine Creek, part of this basin, ultimately flows into the Delaware River estuary near Wilmington, Delaware.

Biotic Resources

As shown on the Biotic Resources Map, Honey Brook's biotic resources consist of primarily wetlands and other water resources, woodlands, and riparian buffers. To date, no native grassland meadows have been identified in Honey Brook Township.



Wetlands

Beyond their role in water resource management, wetlands provide vital biological functions, offering rich habitat for wildlife. They supply food, cover, and critical nesting and breeding sites for many species. While a variety of animals use wetlands, certain amphibians and birds rely on them exclusively. Wetlands vary in type, some are forested along streams, while others are dominated by native shrubs, grasses, or wildflowers.

Ecologically, wetlands act as natural storage and filtration systems, helping to store surface and groundwater, filter pollutants, and maintain stream flows essential for fisheries and water supply. Often called the "kidneys" of the landscape, they are essential for both environmental and public health.

Due to their importance, wetlands are protected by regulations from DEP, the U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers. Development in wetland areas requires a permit, which involves evaluating alternatives and may require mitigation to offset impacts.

Woodlands

Wooded areas play a vital role in Honey Brook's environmental, social, and economic well-being. As the dominant natural habitat of northern Piedmont prior to settlement, woodlands are a defining feature of the region and a cornerstone of effective watershed management.

Trees absorb and store large amounts of water, releasing it slowly through evapotranspiration, which helps regulate stream flow and reduce flooding. Forests also slow stormwater runoff and prevent erosion, functions especially important along streams (as riparian buffers), on steep slopes, and in headwater areas. Woodlands support a wide variety of native plants and animals, including pollinators, soil organisms, and insect-eating birds, all of which contribute to ecological balance. In addition to their environmental benefits, woodlands provide aesthetic, recreational, and commercial value, including opportunities for hiking, wildlife observation, and sustainable timber harvest. Trees also serve as natural barriers, reducing wind, noise, dust, and snow, while offering visual screening. They moderate temperature extremes and limit evaporation, acting as the "lungs" of the Township by improving air quality and supporting climate resilience..

There are 95 individual woodlands greater than one-quarter acre in size in Honey Brook (these are defined using roads as the primary fragmenting feature that divides one woodlands from another) with a total acreage of 3,409.3 acres or 21.2 percent of the Township. Much of Honey Brook's woodland areas are located on wetlands or hydric soils, steep slopes, and floodplains areas that could not be easily farmed.

Woodland Classes

Not all woodlands are equal. They vary in size, age, quality, and in the biological/ecological functions they perform. In order to assign relative importance to the Township's individual woodlands, a woodland classification system was developed that could utilize Geographic Information System (GIS) mapped data for Honey Brook Township. Under this system, the presence of a more or less significant amount of these values, combined with ecological values such as extent of forested interior (discussed below), watershed values such as stabilizing steep slopes, headwater areas, and streams, and threat of development, all contributed to the classification of Honey Brook's woodlands. Honey Brook's woodlands were compared according to all these attributes, as depicted in the accompanying spreadsheet.

Class I forests are the most important from the standpoint of functions provided and are worthy of a higher level of protection than other woodlands. There are nine (9) Class I woodlands totaling 2,910.7 acres. Class II woodlands also provide significant ecological services and perform important watershed functions, but not as much as Class I woodlands. There are six (6) Class II woodlands totaling 255.3 acres. All other woodlands in Honey Brook (80, totaling 543.3 acres) are included in Class III, as shown on the Woodlands Classification Map (Comprehensive Plan Report, Figure 3).

Forest Interiors

Forested interiors are deep woodland areas that lie beyond the reach of many external influences such as light, wind, noise, and invasive species. These areas are defined as being at least 300 feet from any forest edge, effectively forming the "core" or "hole" in a forest "donut" surrounded by an edge buffer.

As shown on the Woodland Classification Map, Honey Brook's forested interiors are typically located within large, mature woodlands. These areas provide critical habitat for a wide range of native plant and animal species that depend on the unique conditions of an undisturbed forest ecosystem.

Some species—such as many songbirds—require forest-interior environments for successful nesting. Likewise, certain native wildflowers, including spring ephemerals, thrive only on the rich, moist soils of intact forest floors. The ecological value of forested interiors makes their protection especially important for maintaining biodiversity and habitat integrity. There are about 711.5 acres of forested interiors in Honey Brook, representing 4.4 percent of the Township.

Forested Slopes

Forested slopes occur where steep slopes (15-25 percent, >25 percent) and woodland coincide. For reasons of protecting fragile soils (discussed under Steep Slopes above), it is important that these slopes be largely forested.

Forested Riparian Buffers

Forest along streams represent the combination of town the of the Township's most important resources. Forested streams are also called forested riparian buffers. These areas are transitional between the flowing waters of streams and rivers, and upland areas. Protecting these land areas is widely recognized as one of the most important ways to protect a stream's overall health. Given that Chester County's watersheds evolved under primarily forested conditions, riparian buffers function best when they are forested. Wooded stream buffers: cool water temperature; provide wildlife habitat in the form of food, water, and shelter; supply important nutrients from leaves; contribute woody debris to regulate stream flow and to create resting spots; and, filter runoff from surrounding lands through their roots and vegetative growth underlying the trees. Culturally, riparian forests make excellent flood control areas, recreational corridors, and are highly scenic.

Although the presence and relative amount of forested riparian buffers was one factor that went into the analysis resulting in the woodland classification, riparian buffers are important enough to warrant Township-wide analysis as a natural resource. To accomplish this analysis, a map (Riparian Opportunities Map) and spreadsheet were created identifying lands with riparian buffer gaps, areas where few to no trees occur within 100 feet of either side of a stream. This analysis indicates that 237 parcels occur where there are riparian gaps. On 16 of these parcels the gap is greater than 10 acres, and on 98 that gap is greater than five acres. These lands can be highlighted for future reforestation.

Forested Headwater Areas

As previously described, headwater areas are the watersheds for first-order streams, the smallest tributaries within a watershed and are the most sensitive resources to grading and other land disturbances. Forest areas directly adjacent to a stream (a wooded riparian buffer, also previously detailed) are also very important for high quality streams. Accordingly, forested headwater areas are particularly valuable to maintaining and protecting the quality and quantity of first-order streams.

Wildlife and Rare Species

Although Honey Brook Township has not been extensively surveyed for wildlife, its diverse landscapes—including thousands of acres of woodland, hundreds of acres of wetlands, and miles of stream corridors, likely support much of the wildlife native to the Pennsylvania Piedmont. Species such as bobcats, gray foxes, southern flying squirrels, and possibly coyotes are expected to occur here. Additionally, nearby large habitat areas, such as Welsh Mountain, the Barren Hills, and the Brandywine Creek corridors, likely contribute to Honey Brook's function as marginal or transitional habitat for wide-ranging species. Wooded ridges and stream corridors, in particular, serve as wildlife movement pathways connecting these larger ecosystems.

A key focus for conservation are "target species", which are often habitat specialists that require specific environmental conditions—such as forest interiors or particular types of wetlands. These species help signal the overall ecological health of an area. Target species groups include:

- Endangered, threatened, and rare species

- Riparian species, such as beaver, mink, Cooper's hawk, and red-shouldered hawk
- Forest interior species, including various birds, reptiles, and amphibians
- Wetland-restricted species, such as the bog turtle
- Wide-ranging mammals, like bobcat and gray fox, which also serve as indicators for greenway planning

Currently, only one known rare species location is documented in the Township, per the Pennsylvania Conservation Explorer. It's a state-threatened understory tree found in a wet woodland near Route 322 in the northwest corner. The population is stable for now, but changes in hydrology or overstory logging could pose future risks.

Although the federally threatened bog turtle hasn't been officially recorded in Honey Brook, suitable habitat, namely, seepage meadows with mucky, groundwater-fed soils, almost certainly exists within the Township.

Wildlife populations are also increasingly threatened by invasive non-native species, which can outcompete native plants and animals due to the lack of natural controls. Invasives occur across all habitat types—woodlands, wetlands, streams, and meadows—and require active management to prevent ecological degradation.

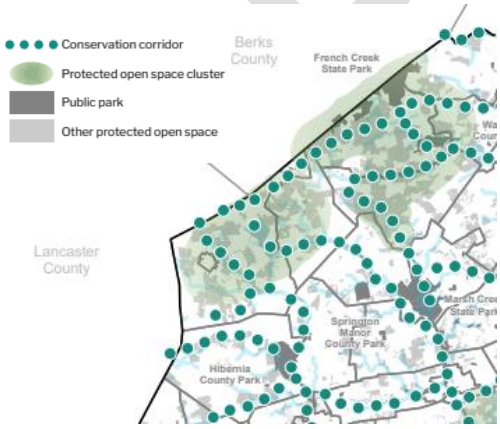
Protecting and restoring Honey Brook's existing woodlands, especially along stream corridors, would significantly enhance habitat quality and increase the likelihood of supporting both target species and overall wildlife diversity.

Landscape Corridors and Greenways

Mapping exercises that combine multiple data layers can reveal patterns that elevate planning from a site-specific level to an integrated system. When designed thoughtfully, these networks enhance environmental health and public welfare, providing benefits for water and biodiversity resources, as well as steep slopes, farmland, scenic, recreational, and historic assets.

In Honey Brook Township, there is strong potential to develop an interconnected network of woodlands using stream corridors and ridgelines as natural linkages. This approach aligns with modern trends in resource management and open space planning, such as the national and regional emphasis on greenways—multi-purpose corridors that support conservation, recreation, and connectivity.

Honey Brook is part of the Highlands Conservation Area, a federally designated greenbelt extending from Connecticut to Pennsylvania, linking forests, farmlands, water supply lands, and recreational areas. At a broader scale, this region connects the Berkshires in Massachusetts to the Blue Ridge Mountains of southern Pennsylvania and beyond.



In 2001, the Commonwealth of Pennsylvania released Pennsylvania's Greenways: An Action Plan for Creating Connections, led by DCNR, aiming to create a local greenway in every community by 2020. Implementation relies on greenway planning at the county level. Chester County's updated comprehensive plan, *Landscapes3*, identifies

several conservation corridors in Honey Brook Township and highlights Honey Brook Township and Borough as a natural resource priority Protection area due to the exceptional value and high-quality drainage areas.

Honey Brook's ridges, woodlands, and stream corridors already form a resource-rich network, naturally containing most of the Township's wetlands, floodplains, hydric soils, steep slopes, and Class I/II woodlands. These areas converge "by natural design," and the Greenways Map updated from the 2015 Comprehensive Plan (Comprehensive Plan Report, Figure 4) captures these confluences into a cohesive natural resource network.

Corridors widen where woodlands expand and sometimes include Class I woodland nodes, which serve as anchor points. Redundancy has been built if one corridor is blocked by development or logging, alternatives remain. Roadways pose challenges for wildlife movement, but these can be addressed through wildlife crossing designs.

Though parts of this greenway network function today, many gaps remain. Identified "greenway opportunity areas" should be reforested to complete and strengthen the system.

Between 2013–2014, the Brandywine Conservancy partnered municipalities along the Brandywine Creek to create the Brandywine Creek Greenway Strategic Action Plan, funded by the William Penn Foundation, DCNR, and Chester County. Updated in 2024, to update municipal and partner priorities and include portions of northern Delaware and the plan outlines shared strategies across all municipalities, including Honey Brook Township and Borough, and includes detailed maps and project recommendations based on public input.

Restorable Resources

Natural resources are dynamic, not static, they change over time in both quantity and quality. Human decisions and actions play a critical role in shaping these changes. Fortunately, many natural resources are renewable and restorable.

Over the past 15 years, ecosystem restoration has become a central focus in natural resource management. This evolving practice draws on principles that follow natural laws and processes, such as ecological succession.

- Using these principles, it is possible to:
- Restore forests, wetlands, streams, and meadows
- Revive rare or declining plant and animal species
- Reintroduce species that once inhabited an area but have since disappeared
- Rebuild a living network of woodlands along stream corridors and open landscapes
- Create habitats that attract and support new biodiversity

Restoration efforts are not just about bringing nature back, they're about actively shaping a healthier, more resilient environment for the future.

Table I-3. Renewable and Restorable Resources.

Water

Streams (habitat, water quality, and water quantity)
Wetlands
Floodplains

Groundwater Recharge
Headwater Areas

Biological

Woodlands
Meadows
Wetlands
Natural Areas/ Rare Species
Wildlife diversity
Streams

*Soils, such as prime agricultural soils, are renewable too, but only over very long time periods.

Honey Brook Township an Borough's conservation strategy should embrace the evolving field of natural resource restoration. This approach often requires a long-term perspective, as some goals, like improving Brandywine Creek's water quality or restoring old-growth forests, can take decades or even over a century to achieve. However, other resources, such as meadows or wetlands, can show measurable improvements in much shorter timeframes.

This long-term outlook is practical in Honey Brook, where the landscape is expected to remain largely agricultural and stable for the foreseeable future. As a result, the next phase of conservation relies heavily on landowner and community engagement, supported by Township-led education efforts and incentives that encourage participation in restoration and stewardship.

Open Space, Parks, Recreation and Protected Agricultural Lands Inventory

Introduction

This section provides information on the extent of available and protected open space, parks, and recreation resources within Honey Brook Township and Borough. These resources provide significant environmental and tangible economic and quality of life benefits. Long recognized for encouraging the protection of all natural resources and preserving agricultural lands, the availability and accessibility of open spaces and parks are increasingly recognized for other community benefits. These include their value for recreation and corresponding impacts on mental and physical health and their value in creating a space for a community to gather and socialize.

Open Space

There is no specific definition of open space, and depending on the context, it is essential to be clear about what type of open space is being referred to in the discussion of municipal and regional open space planning. For the purposes of this Plan, open space is any undeveloped land not covered by impervious coverage, including buildings and structures. In its broader terms, open space provides abundant benefits, including environmental, economic, social, and many others. Economic benefits of open space include the maintenance of property values and the ability to attract both employers and employees. In Chester County, open space is linked to the vitality of the agricultural and equine industries. Tourism, such as taking a scenic drive, visiting historic sites and public parks, or bicycling, is another important element of the county economy that depends on open space. The location, extent, and linkage of open spaces with each other are important considerations when evaluating opportunities for preservation efforts.

Protection Status

For this Plan, open space is primarily discussed in terms of being protected or unprotected. Protected open space is defined as lands protected via agricultural easements, lands protected via conservation easements, land owned by Honey Brook Township and Borough or other public entities, and land owned by Homeowners Associations (HOAs). Unprotected open space is defined as land areas that include extensive contiguous areas of open space within a specific tax parcel, but do not have any protections in place to be designated as protected and are generally open for development potential. The proportion of protected lands, developed lands and unprotected open space is depicted on the Land Status Map and protected land categories are depicted on the Protected Lands Map, as of 2025.

A map showing parcels where all or part of their land area is protected from development, and therefore maintained in agricultural or open space uses. Brown colored parcels are lands permanently protected through an agricultural easement purchased by Chester County's Agricultural Land Preservation Board. Approximately 4,027.2 acres are shown. Green colored parcels are lands permanently protected through either ownership by, or a conservation easement held by, a non-profit land conservation organization. Approximately 680.3 acres are shown. Purple colored parcels are lands maintained in open space uses through common ownership (in this case, a residential development's homeowners association). Approximately 245.5 acres are shown. Blue colored parcels are those owned and utilized for open space

purposes by the Commonwealth, Chester County and/or Honey Brook Township. Approximately 497.9 acres are shown.

While Honey Brook Borough has less opportunity for land preservation, a total of 14.7 acres (about 4.2%) is preserved through agricultural easements, HOA lands or through public ownership.

Figure #1. Distribution of protected lands within Honey Brook Township and Borough by type

Open Space Protection Type	Township		Borough	
	Acres	Percentage	Acres	Percentage
County agricultural easements	4027.2	25.0	5.6	1.8
Other protected lands (HOAs)	245.5	1.5	3.7	1.2
Public land (federal, state, county, municipal, other)	497.9	3.0	5.4	1.8
Conservation easements	680.3	4.2	0	0
Total Open Space (existing)	**5450.9**	**33.7**	**14.7**	**4.2**

Agricultural Easements

Agricultural easements are administered by the Chester County Agricultural Lands Preservation Board (ALPB), which purchases development rights from farmers using state and County funding. Agricultural conservation easements provide tax benefits by lowering the taxes based on that value. The community benefits from agricultural preservation because land remains as open space in perpetuity, agricultural lands are typically the easiest lands for development, and farmland retention. Honey Brook Township has been very successful in working with farmers to preserve agricultural lands, through the Township's land preservation program, funded by the Township's Open Space Tax and overseen by the Land Preservation Committee. The importance of agricultural preservation and identification of additional preservation opportunities are outlined further in this section.

Homeowners Associations (HOAs) Open Space

HOA open spaces are developed during the subdivision and land development process when a sizeable piece of land is dedicated to remaining open spaces, free of buildings and structures. In some communities, open spaces serve as locations for drip irrigation and other sewage treatment systems, stormwater management systems and/or recreation areas for subdivision residents. Honey Brook Borough has two developments with HOA land and Township has several HOAs, which collectively own approximately 249 acres of land. These HOA open spaces vary in size and are depicted on the Open Space Map. The majority of such dedicated open spaces are located along route 322 with two developments in the northeastern portion of the township.

Public Lands

Honey Brook Township has several properties in state ownership, including the lands surrounding Struble Lake, land on the border with West Brandywine along the East Branch Brandywine Creek along Icedale road, and a parcel on the border with West Caln Township in the Southwest portion of the Township. Two parcels are owned and managed by the municipalities for recreational purposes, one property in Honey Brook Borough, and one property primarily in the Township on the border with the Borough. These parks are

reviewed in more detail in the Parks and Recreation Section. Lastly, there is one parcel owned by the County along a former railroad line.

Conservation Easements

One of the best ways (apart from a fee simple acquisition) to ensure that open land will not be developed is to protect it with a conservation easement. A conservation easement allows a property to remain under private ownership and control while limiting the uses to those specified in the easement, for example, land conservation, agriculture (as discussed above), or trails. Conservation easements are commonly used to preserve farmland and enable agricultural activities to continue. Because land under such an easement remains in private ownership, the cost of purchasing the conservation easement is less than the cost of purchasing the property outright. It spares the Township the need to manage the property. In the Township, conservation easements are located along the periphery of the township and adjacent to agricultural easements.

Preservation Opportunities

The Land Status Map shows lands that are undeveloped and developed. Developed land includes areas taken by intensive lands uses, such as residential, commercial, industrial, and associated facilities. These lands account for about a third of the Township and over 5,200 acres. Another third of the Township is considered undeveloped, with another 5,200 acres with potential preservation opportunities.

To gain a better understanding of the preservation opportunities, Honey Brook Township recently completed an update to their Land Preservation Plan. This plan identifies priority properties for preservation based on their agricultural resources, natural resources or a combination of both. Properties that rank highly for either agricultural resources or natural resources are more competitive for funding. The Land Preservation Plan is detailed further below.

Greenways

Linking protected open spaces to create contiguous land areas that support wildlife habitats and protect natural resources is one crucial open space planning initiative. That initiative resulted in the widely used term, “Greenway,” a corridor of preserved land for environmental protection and/or recreational use. Greenways are relatively narrow and linear, largely following streams, ridges, or abandoned rail lines and at times linking specific destinations from protected open spaces and parks to historic downtowns. As a land use category, they are not necessarily related to designated open space but are defined by the presence of constraining natural resources such as wetlands, floodplains, riparian woodlands, and adjoining steep slopes concentrated in a linear corridor. Greenways are envisioned for conservation purposes, but due to their linear nature, they may be used for recreation where public access may be negotiated. A significant number of lands within greenways are privately owned. Designating a specific corridor as a greenway is meant to bring planning focus to those specific areas that primarily include critical natural resources that bring significant environmental and recreational value to the community and the region. Most of the natural resource areas that comprise greenways are regulated to constrain or reasonably limit development potential, regardless of ownership; however, there are many limitations to natural resource conservation provisions.

In Honey Brook Township and Borough, these greenways naturally follow stream corridors where there are overlapping natural resources that prevent development. As depicted on the Natural Corridors Map, updated

from the 2015 Comprehensive Plan, many of these natural corridors connect the woodlands located along the northern boundary with the large areas of woodlands along the southern boundary. This map also identifies key greenway gaps where there are less natural features.

Agricultural Land

Appendix F documents an estimated 11,109 acres of the Township's total 16,135 acres (approx. 69%) in agricultural use as of 2014. A further 67 acres is classified as agricultural in Honey Brook Borough (approx. 22%). [Survey results]

Several of the key maps presented to the Task Force are shown on the pages following this text, and include: Protected Lands, Land Status, Prime Farmland Soils, Protected Lands, Lands within Agricultural Security Area, Properties 50 Acres or Greater with Prime Farmland Soils, Agricultural Land Protection Potential and Source Water Protection. Each of these maps is described as follows:

Prime Farmland Soils

A map showing the Township's Capability Class I, II, and III Soils (in green) based on the United States Department of Agriculture's Soil Survey for Chester and Delaware Counties (2007). The Commonwealth's Municipalities Planning Code defines "prime agricultural land" as land use for agricultural purposes that contains soils of the first, second, or third class as defined by the USDA natural resource and conservation services (formerly Soil Conservation Service) county soil survey. According to this map, over half the Township's total land area is comprised of prime farmland soils.

Lands within Agricultural Security Area

The Commonwealth provides townships the ability to create Agricultural Security Areas (ASA) and to include lands within these areas when requested by landowners. Once within a township's designated ASA, farmers and other landowners obtain special protection status against nuisance suits filed by adjoining landowners due to on-going agricultural practices. This is what's normally referred to as the "right to farm" legislation. The ASA designation does not restrict the farmer's or landowner's use of the property, and does not infer any special farmland preservation status. However, to be eligible for purchase of an agricultural easement by Chester County's Agricultural Land Preservation Board, application lands must be located within an ASA. Honey Brook Township has over 7,772 acres within its designated ASA, as reflected by the map's green color.

The Agricultural Security Area (ASA) Map depicts parcels of land currently enrolled in the ASA program. The property owner can request for the land to be enrolled in an ASA by the Township if they are used for farming activities and meet other specific criteria. The benefits of a designation are protections against nuisance lawsuits relating to odors or noises associated with regular farming activities. Although the ASA farmland is not protected from potential development, that designation typically indicates that a parcel is well suited for open space protection.

Properties 50 Acres or Greater with Prime Farmland Soils

For lands to be eligible for purchase of an agricultural easement by Chester County's Agricultural Land Preservation Board, they must be at least 50 acres in size, and consist of at least 50 percent prime agricultural soils. (An exception to the 50-acre limitation exists where land adjoins other permanently protected lands; other selection criteria also exist.) This map shows not only the extensive amount of township lands that meet these basic eligibility criteria (colored tan), but shows the extensive amount of eligible lands that

actually contain at least 75 percent prime agricultural soils (colored orange). The combined acreage totals approximately 3,900 acres, or 25 percent of the township's total land area.

Agricultural Opportunities

Lands colored light green on this map would compete well for permanent land preservation through the sale of agricultural easements to Chester County, among other available land preservation tools. These lands total approximately 5,300 acres, or 34 percent of the Township.

This Agricultural Opportunities map can be used by the Township to help retain its agricultural/rural way of life, for example, by prioritizing key properties for focused conservation efforts. The Township could take advantage not only of the County's farmland preservation program, but apply its own dedicated open space funds now being generated through its successful open space referendum of November 2005 to help conserve prime farmland and other valued open space resources. The Township Supervisors should continue to partner with the County to leverage greater state funds for use in preserving township farms, or, work with a conservation organization to preserve farms, where landowners may be hesitant to accept money directly from government sources. General consistency between this map and the Township's Agricultural Zoning District mapping would help insure that the Townships' Transferable Development Rights (TDR) option is available to these landowners as another land conservation option.

Source Water Protection map

Since 2006, when Honey Brook Township became proactive in agricultural preservation there has been a sea change in farmer participation. The Township preservation now stands at over 20 percent of Honey Brook Township. This is an amazing four-fold increase. The farmers of the eased properties are mandated to have conservation plans and employ best management practices to mitigate their agricultural impacts on the waters of the Brandywine Creek that flow from Honey Brook.

The farmers response to preservation in Honey Brook have been so successful that Chester County 2013 dedicated $1 million to support the purchase of development rights from headwater farms through its Brandywine Headwaters Preservation Program (BHPP). The BHPP is an effort to marry two goals: Agriculture Preservation and to mitigate agricultural impacts on the headwaters. The BHP uses the City of Wilmington's Source Water Protection map to define the eligible participants. The Goal of the City of Wilmington's plan and that of the Brandywine Headwaters Preservation Program share a common goal of preserving farmland while enhancing water quality.

Land Preservation Plan

In 2006 the Honey Brook Township Land Preservation Committee completed the first Land Preservation Plan. The plan focuses on opportunities for land preservation in the five years after the plan was completed and acts as guidance for making recommendations to the Honey Brook Board of Supervisors concerning the preservation of farmland and natural resource lands. Since the 2006 plan, the Land Preservation Committee has conducted three updates, with the last one taking place in 2025.

Pertinent to this discussion are the priorities outlined within the Land Preservation Plan for agricultural and natural resource protection. Opportunities for agricultural preservation were identified utilizing two separate levels of analysis; a regional model developed by the Greenspace Alliance, and a second, micro-scale prioritization to "fine-tune" the selection of agricultural lands within Honey Brook Township itself. The resulting analysis identified a total of 3,772.8 acres for their agricultural value.

Parcels for natural resource priorities were identified through a set of basic criteria, as follows:

- The presence of at least 1,500 feet of stream length, or
- The presence of at least two acres of wetlands, or
- The presence of at least 15 acres of Class 1 (highest value) woodlands, or
- All tax parcels over 15 aces in size containing any forest interior lands.

A total of 3,695.8 acres were identified for natural resource prioritization utilizing these criteria. Parcels identified for both agricultural and natural resource prioritization in 2025 totaled 765 acres.

Brief Summary of Agricultural Issues Addressed during the Plan Update Process

Most landowners in Honey Brook Township are strongly committed to continued agricultural practices, including the growing of crops, the raising of livestock, and the maintenance of, or construction of, farm related equipment. Many of these landowners supplement their agricultural income through other employment conducted either on or off the farm.

In light of these possibilities, the Township's comprehensive plan update process included an evaluation of zoning and private land stewardship tools that the municipality can help implement in order to help the township's farmers and other landowners stay in farming. These tools include the use of effective agricultural zoning, transferable development rights, conservation design/cluster zoning, agricultural easements, conservation easements, municipal open space financing, focused development areas, and public water and sewer policies. In addition, the Task Force felt the Township should be more active in helping farmers market their products and/or services.

According to a report *RETURN ON ENVIRONMENT The Economic Value of Protected Open Space in Southeastern Pennsylvania* generated by the Delaware Valley Regional Planning Commission, January 2011; the concentration of agricultural activity in Honey Brook generates significant economic impact through local production of fruit, vegetables, dairy, and other products. Using analysis from the Pennsylvania Center for Dairy Excellence, it is estimated that the township's 55 dairy farms and 2,145 cows generate nearly $29.5 million in economic activity every year.

Although agriculture and the role it plays in maintaining the township's rural character is viewed as an extremely valuable local asset, it is not without its adverse impacts to the Township's natural environment. Specifically, the Upper East Branch of the Brandywine River Watershed Conservation Plan prepared in 2002-2003 on behalf of watershed communities, including Honey Brook Township, documented that the headwaters of Upper East Branch located within Honey Brook Township are designated by Pennsylvania Department of Environmental Protection (PADEP) as "impaired waters". (See further discussion under Appendix I of this Plan.) The township's streams are often the recipient of non-point agricultural run-off from its farms, which adds excessive sediment to the streams, and lowers their water quality. These occurrences affect the streams' ability to sustain a diverse population of plant and animal communities, and limit their ability to serve as a public drinking water source without costly treatment.

As a positive note, an increasing number of township farmers are working with the Chester County Soil and Water Conservation District and organizations like the Brandywine Conservancy, The Brandywine valley Association and the Natural Resources Conservation Service to reduce the potential for agricultural run-off reaching township streams and other water bodies. Some township landowners are participating in the Conservation Reserve Enhancement Program (CREP) and have established, primarily through fencing and

enhanced livestock stream-crossings, a protective vegetated buffer between their agricultural uses and the stream channel itself. This measure allows the vegetation to filter stormwater and other runoff before it enters the streams. This vegetative buffer also helps to moderate stream temperature fluctuations in the summer and winter, and also provides for wildlife movement and habitat. The Task Force explored available environmental quality enhancement programs like CREP, EQUIP and others through presentations by the District, and Conservancy staff, for consideration as implementation tools for this plan update.

Community Parks and Recreation Facilities

Introduction

This section provides information on parks and recreational resources in Honey Brook Township and Borough. Since the availability and close access to various recreation facilities have become highly desirable, it is important to review the existing recreation offerings to seek future recreational opportunities. Recreation can be generally defined as an activity that provides therapeutic restoration of one's mind or body. Apart from health benefits to individuals, recreation provides environmental, economic, and social benefits. Therefore, access to these activities has become a priority for regional municipalities. Recreation areas are any public- or privately-owned property used for indoor and/or outdoor recreation and include active or passive recreation facilities. These facilities range from nature preserves to sport fields, indoor pools, and gyms.

The following inventory is based on the joint Borough-Township Comprehensive Plan of 2015, as revised during the 2025 comprehensive plan update process:

James A. Umble Memorial Park (Township Park)

- 12 acres
- Two separate playground structures for ages 2-5 and 5-12
- 3 baseball/softball fields
- 2 tennis courts, which also act as Pickleball courts
- 2 basketball courts
- Skate Park
- Batting cages
- Facilities building
- Restroom facilities
- Picnic tables and grills
- Picnic/special events pavilion
- Walking/jogging path
- Parking (including horse and buggy parking)
- Volleyball court
- Born Learning Trail, installed 2014
- Conservation garden

Honey Brook Borough Recreation Area

- 2.5 acres
- Playground
- Picnic pavilion
- Informal playfield
- Basketball court
- 2 tennis courts
- Street hockey area

Struble Lake

- [Non-motorized] boating access area
- Limited passive recreation use

New Passive Park

- 10 acres
- Newly acquired through donation
- Future nature trails

Old Honey Brook Elementary School

- 4.0 acres
- 2 baseball/softball fields

Honey Brook Elementary Center

- 25.5 acres
- 3 baseball/softball fields
- Multiple playgrounds
- Informal open play fields
- Walking trails

Table L-1: Standard Community Park & Facility Needs Assessment updated based on the 2015 assessment.

Population-Based Standards:	2025 Inventory	2025 Need	2035 Need
Baseball/Softball Fields: 0.5/1,000 pop.	3 public 5 quasi-public	5	5
Football/Soccer Fields: 0.9/1,000 pop.	0	9	10
Tennis Courts: 0.5/1,000 pop.	4 public	5	6
Basketball Courts: 0.4/1,000 pop.	3 public	4	4
Volleyball Courts: 0.3/1,000 pop.	1 public	3	3
Community Parks 6.0 acres/1,000 pop.	14.5-acres active community 10- acres passive (future) 29.5-acres quasi-public	61 acres	70 acres
Neighborhood Parks	Needed only in high-density or TND development		

Population-based standards are intended only to offer a benchmark for assessing recreational need and must be reviewed in the specific context of the community to which they are being applied. It is reported that the existing Township Park is underutilized except for organized baseball use, which seems to be over-subscribed. Ironically, baseball fields are the one facility where standard assessment shows sufficient facilities to meet needs through 2035 and beyond. In part, this seeming discrepancy revolves around the organized nature of the facility use and the fact that athletic organizations draw participants from beyond municipal boundary lines. Similarly, the lack of soccer fields infers that participants from Honey Brook are involved in organized sports outside the Township.

[Insert survey responses]

The Township's community park has been developed with a well-rounded variety of active and passive recreational facilities. While only 12 acres, the park arguably concentrates facilities typical of a community park. Typically, a larger community park includes substantial acreage devoted to passive use without structural facilities. Most recently, with the help of the United Way, the installation of a Born Learning Trail has been announced at the Township park facility. A Born Learning Trail offers caregivers and parents an opportunity to engage young children in early learning activities. Additionally, the Township was just gifted a 10-acres wooded parcel to be used for passive recreation.

In Honey Brook, it can be argued that Struble Lake fulfills the role of a community park, although it is itself an underutilized resource. The lake and surrounding lands are a state-owned public recreation area that provides the largest recreational facility within the Township, and one of the largest in the region. This is a state-owned facility, in partnership with Chester County: the lake and surrounding lands are owned by the Pennsylvania Fish and Boat commission and are managed by the Pennsylvania Game Commission; maintenance for the public parking and boat ramp area is provided by the Chester County Department of Parks and Recreation; and the dam that creates the lake is owned and operated by the Chester County Water Resources Authority. (In addition, the lands surrounding the lake are within the flood basin of the Water Resources Authority flood control dam and are therefore subject to inundation by floodwaters impounded by the dam during severe rainfall events.) Struble Lake and the lands surrounding it are currently used for fishing, non-motorized boating, birding, hiking, hunting, and wildlife observation.

Other facilities such as the 4-H Center just across the municipal boundary in West Brandywine, the skateboard park in West Caln, and the picnic/observation area at Lanchester clearly augment community park service for Honey Brook residents. Honey Brook Borough's Recreation Area is situated where it easily offers community recreation service to Township residents as well, and the Borough population, by itself, is nowhere near the service population capacity for such a park. The new Honey Brook Elementary Center (school) also includes substantial lands and facilities which may be made available to public recreational use when not specifically used for school activities. Specialized residential communities like Tel Hai and Heatherwood offer their own recreation facilities which serve as limited "neighborhood parks." The Township also has several specialized recreational facilities, including the [public] Honey Brook Golf Club.

Because development of recreational facilities is relatively expensive today, the Township should use this new Comprehensive Plan to justify a fee-in-lieu of dedication of recreational lands based on projected costs. Future recreational land acquisition and development costs might reasonably be

assessed against new dwellings on a basis proportional to the percentage of the total population they represent as projected to 2030, further prorated to recognize that as they are occupied, the new residents also join the ranks of the taxpayers. As this Comprehensive Plan includes trails recommendations, then the costs associated with trails development can be added to the equation and further justify increases in the fee. The Township should also consider applying recreational fees to nonresidential uses at the time of land development, based on projected number of employees or square footage.

Other Recreational Opportunities

Residents in Honey Brook Borough and Township also have access to several municipality owned parks and State, County-owned facilities, and privately owned preserves with public access located within 10 miles (see Figure 3).

Figure 3. Recreational facilities available to Honey Brook Township and Borough residents (2023).

Facility	Acres	Amenities
Public Recreation		
Hibernia County Park	900	Trails, fishing, boating, play areas, pavillions
Chester County Solid Waste Authority	600	Trails, playground, programs
Struble Trail		2.6 mile of multi-use trails
Zack Saint Memorial Field Complex	11	2 full size soccer fields
Twin Valley Middle and High School	60	6 tennis courts, 6 ballfields, 1 turf football field with track, 1 grass football field
Hopewell Furnace	848.1	Historic Site, trails, restrooms
Marsh Creek State Park	1,705	Lake, trails, environmental education center
Springton Manor Farm	300	Demonstration farm, agriculture museum, 7 miles of walking/horse riding trails, gardens, pond, picnic areas and the Manor House
French Creek State Park	7,526	Hiking, Fishing, Camping, Environmental Ed
Limited Public Access		
Honey Brook Golf Course	181	18-hole golf course
Living Church of God	24	Nature trails
Honey Brook Youth Center		Summer camps, youth groups, canoe trips

Tel-Hai	78	Swimming, concerts, exercise rooms

Passive Recreation Opportunities

It is also important to evaluate the availability of passive recreation opportunities within the Township. In general, recreation areas can include one or both active and passive recreation facilities. Passive recreation are those activities that do not require rigorous physical activity and have a low or no impact on the surrounding environment. Such activities may include walking, hiking, fishing, bird watching, picnicking, reading, and photography. Most passive recreation activities may not only be found in publicly accessible parks but also in protected open spaces, which have deed restrictions that prevent any development for active recreational purposes. They may include trails, public gardens or memorial parks, open areas, picnic areas, and little libraries. They may have natural or scenic significance, containing a stream, woodlands, or historically or locally significant resources. Currently, Honey Brook Township and Borough provides passive recreation activities in both of its parks. These passive recreation opportunities are increased when including Struble Lake.

Trails

While many of the streets within the Borough are lined by sidewalks, there are limited trails and trail connections into the Township. The recent completion of an update to the Brandywine Creek Greenway Strategic Action plan initiative includes both the Borough and Township within its geographic extent, with trails being a major component of the plan. In addition, the Northern Struble Trail Feasibility Study, an off shoot from the Brandywine Creek Greenway, is to determine the possibility of a viable corridor for a potential 16 -mile extension of the Northern Struble Trail connecting Downingtown and Honey Brook. Honey Brook Borough is also identified as a Brandywine Creek Greenway gateway in the plan. Gateways will include, at a minimum, one kiosk with maps and interpretive displays, parking facilities, public drinking water, public restrooms, and access (physical or visual) to Brandywine Creek.

[The existing and conceptual pedestrian and biking connections will be addressed in more detail in the Multi-Modal inventory.]