

Unionville Area Regional Comprehensive Plan 2024

Appendices



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Appendix A

Demographics Profile



Unionville Regional Assessment of Community Demographics

Research and analysis conducted by the Brandywine Conservancy
August 2022

Introduction

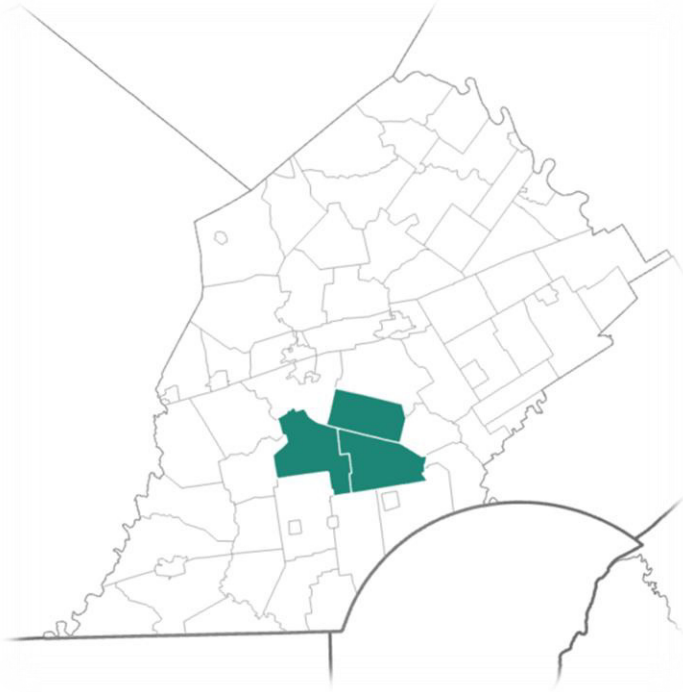
Conducted as part of the 2024 Unionville Regional Comprehensive Plan update, this demographic report aims to provide a summary of past, current and projected demographic characteristics for East Marlborough, West Marlborough and Newlin Townships. An understanding of these demographic characteristics and patterns can help the community's 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 Community Analyst tool, using past census data as well as private demographic sources. While the ACS is generally a reliable source of data, in communities with smaller populations, the 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 the Unionville Region, including comparisons with the individual Townships 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.

Unionville Region Data Analysis, Trends, & Forecasts



Overview



Population: 9,483



Area: 44.74 square miles

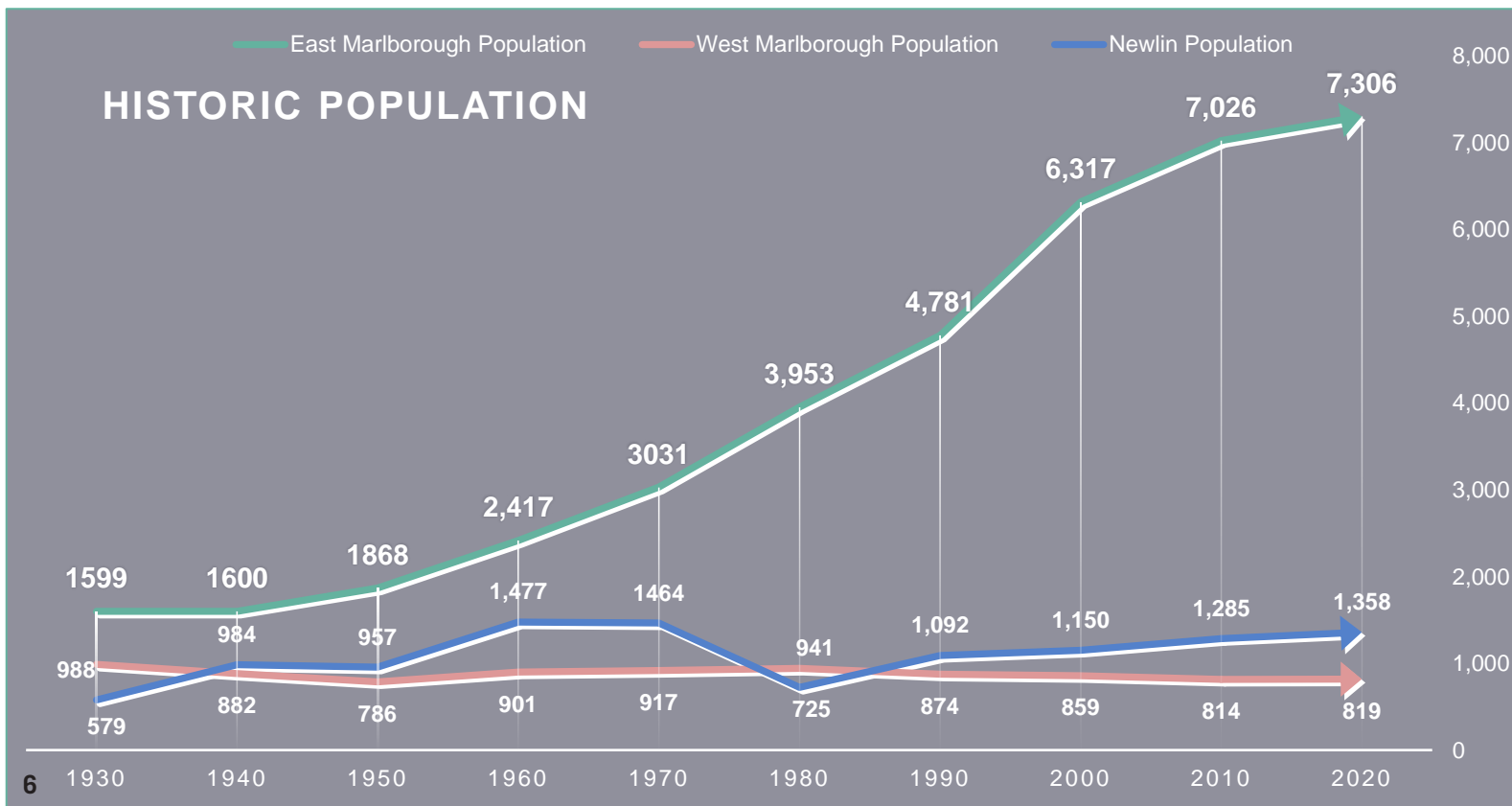


Households: 3,801



Median Household Income: \$141,494

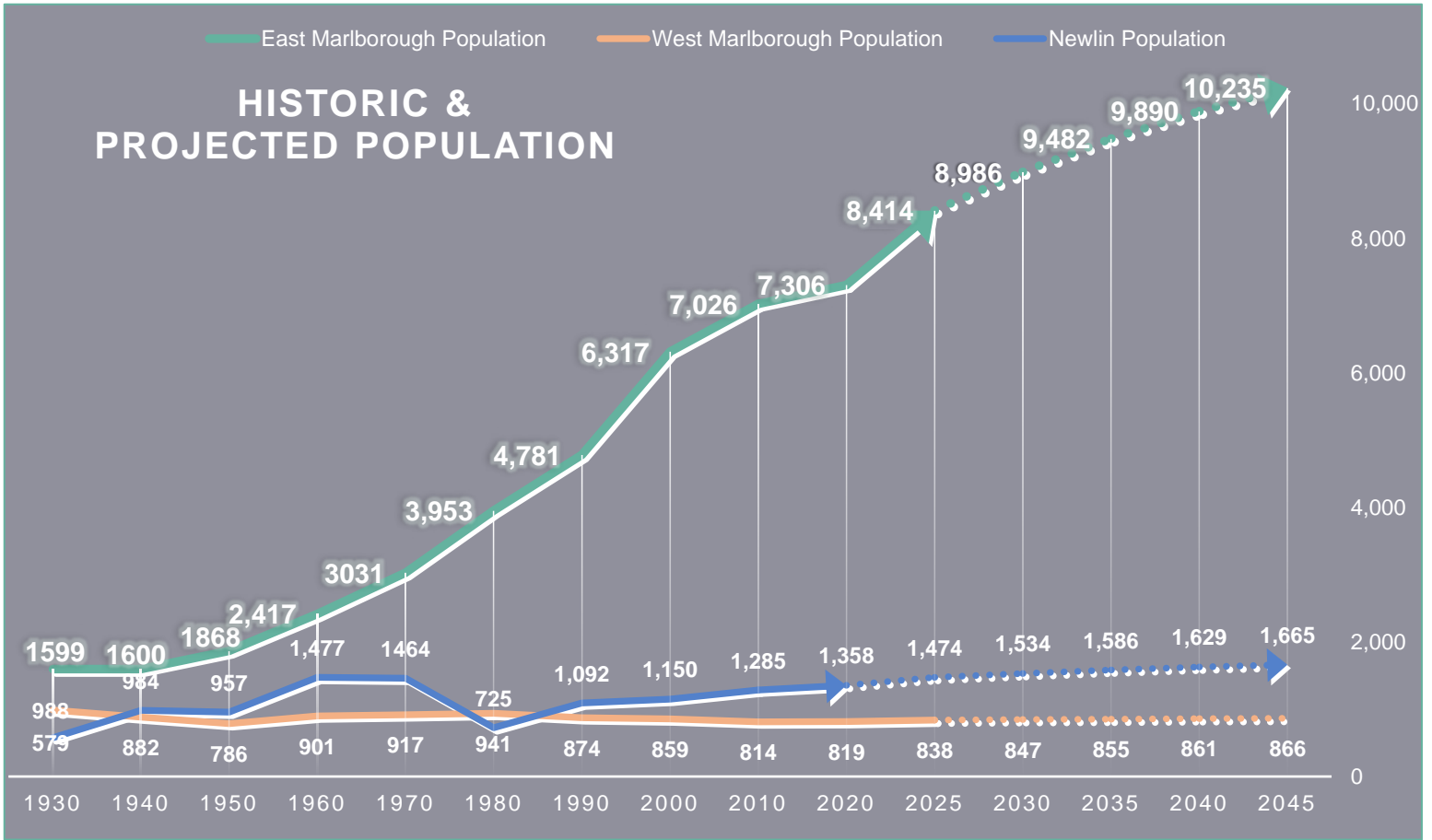
Historic Population Trends, 1930 to 2020





Population

Population, 1910 to 2045



Delaware Valley Regional Planning Commission (DVRPC) population projections estimates the Unionville Region may reach a population of 12,766 residents by 2045. DVRPC projects there to be 10,726 residents in the community by 2025. Estimates suggest that the rate of population change from 2015 to 2045 will increase 40.53% in East Marlborough Township, 22.79% in Newlin Township, and 5.48% in West Marlborough Township.

Population Change, 2010 to 2020

	Population Total			2000 - 2010 Change		2010-2020 Change		2000-2020 Change	
	2000	2010	2020	#	%	#	%	#	%
Unionville Region	8,326	9,125	9,483	799	9.6%	358	3.9%	1,157	12.2%
East Marlborough	6,317	7,026	7,306	709	11.2%	280	4%	989	13.5%
West Marlborough	859	814	819	-45	-5.2%	5	.6%	-40	-4.9%
Newlin	1,150	1,285	1,358	135	11.7%	73	5.7%	208	15.3%
Chester County	433,501	498,886	543,702	65,385	15.1%	44,816	9%	110,201	20.3%

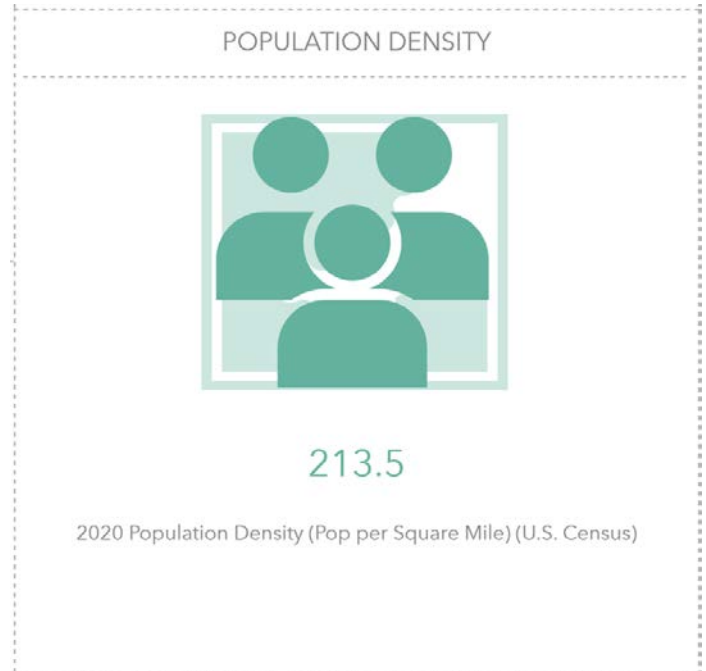


Population Density

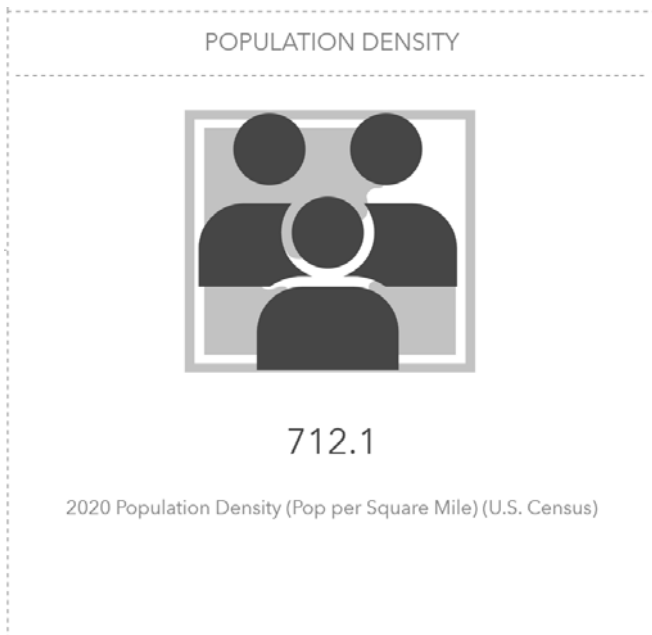
Population Density, Unionville Region, 2021



In the Unionville region, both West Marlborough and Newlin township were identified by Landscape3 as agricultural or rural, while East Marlborough has areas designated as suburban and suburban centers.



Population Density, Chester County, 2020



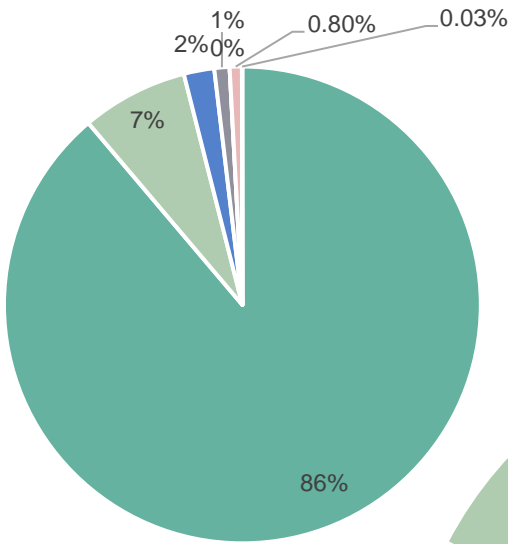
Individual Townships	Density (persons/sq mile)
East Marlborough Township	472.7
West Marlborough Township	48.2
Newlin Township	113.4
Chester County	712



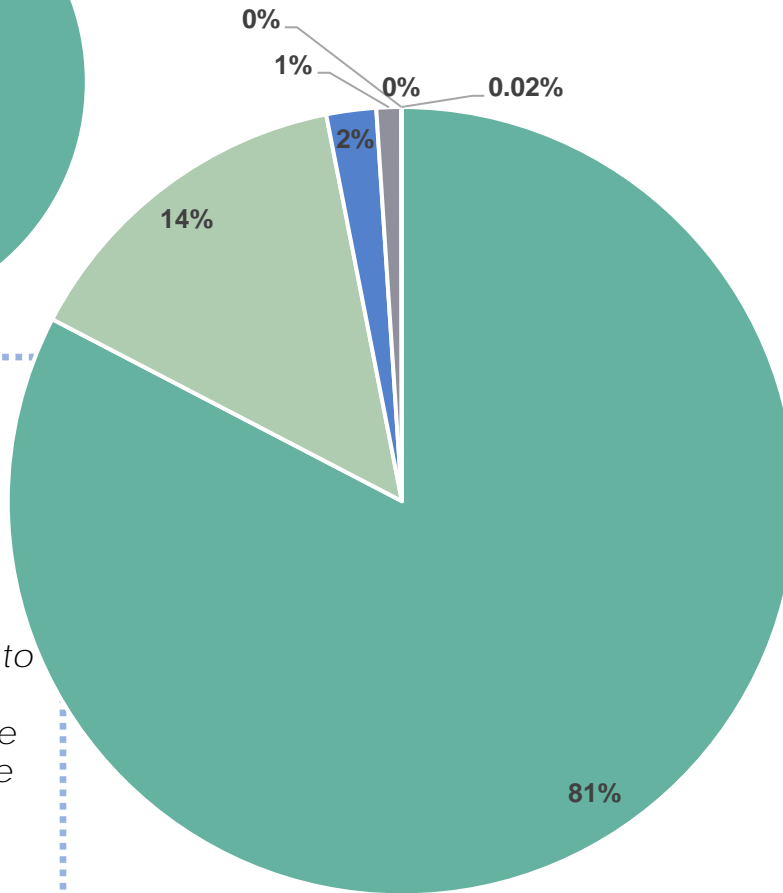
Population Diversity

Population Diversity, Penn Township, 2020

Chester County



Unionville Region

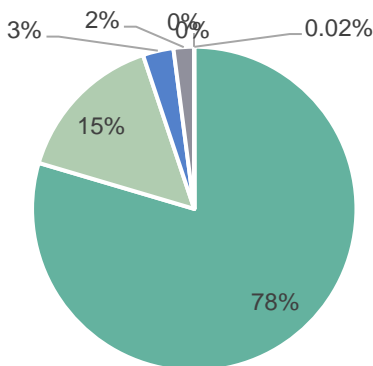


- White (non-Hispanic)
- Hispanic
- Black
- Asian
- Pacific Islander
- Native American/ Alaska Native
- Other Race

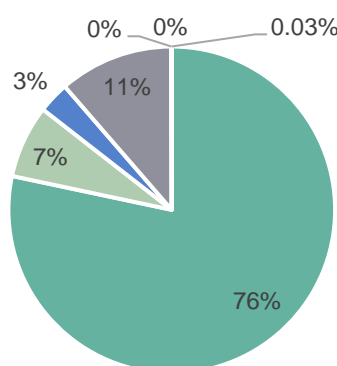
The population of the Unionville Region is predominately white, in similar composition with Chester County. When breaking down the townships, West Marlborough appears to have the greatest diversity with 65% of the population white, while East Marlborough Township is less diverse with about 78% of the population identifying as white.

Population Diversity, Chester County, 2020

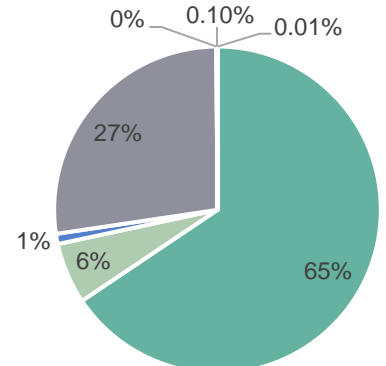
East Marlborough



Newlin Township



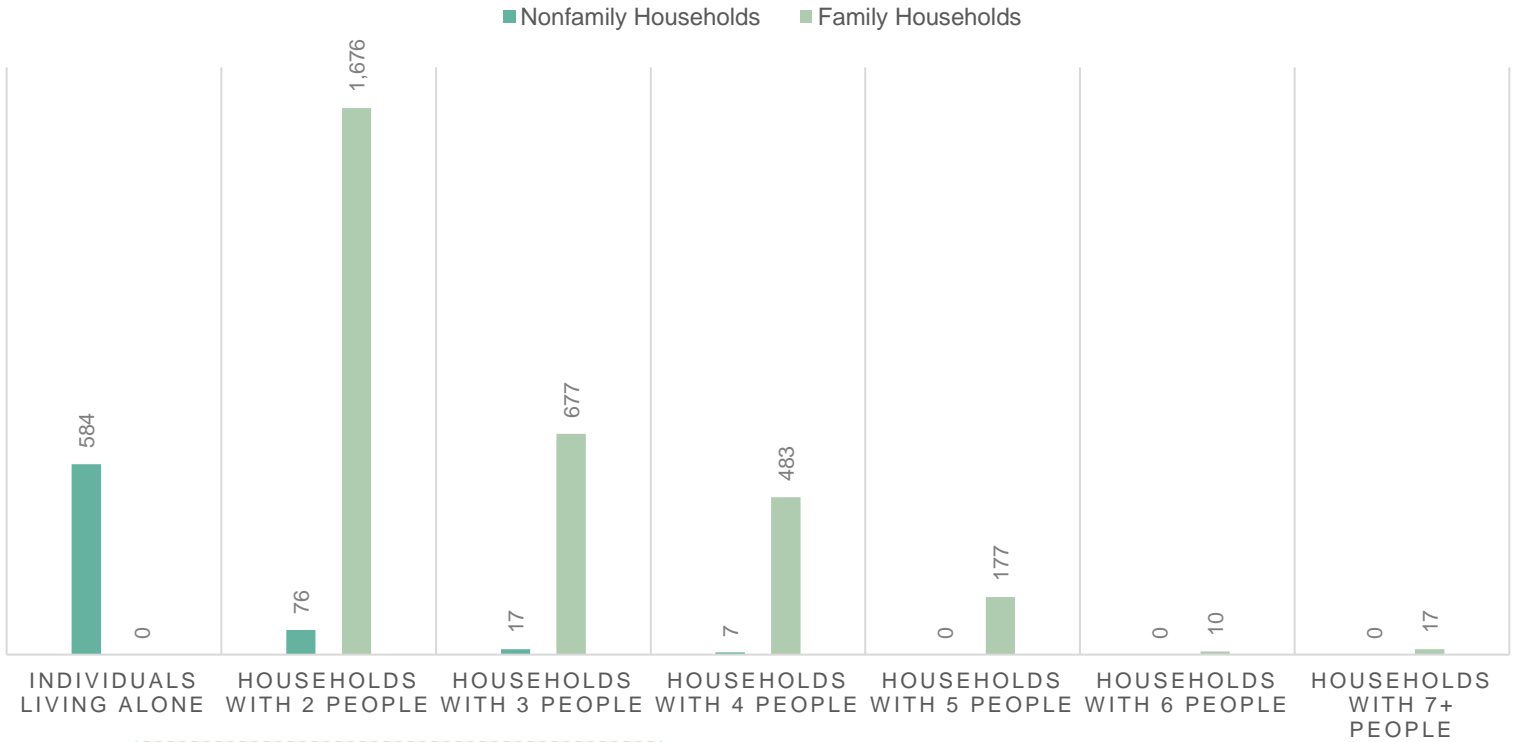
West Marlborough



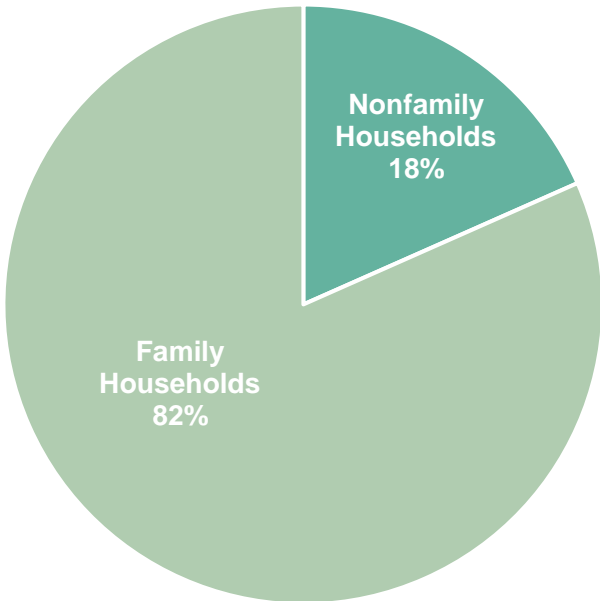


Population & Households

Population per Household, Unionville Region, 2020



Family vs. Nonfamily Households



Average Household Size



2.64

2020 Average Household Size (U.S. Census)

Average Household Size		
Municipality	2010	2021
Unionville Region	2.43	2.4
East Marlborough Township	2.83	2.79
West Marlborough Township	3.17	3.19
Newlin Township	3.24	3.19
Chester County	2.65	2.64

*Nonfamily households include individuals living alone or those living with those that they are not related to.



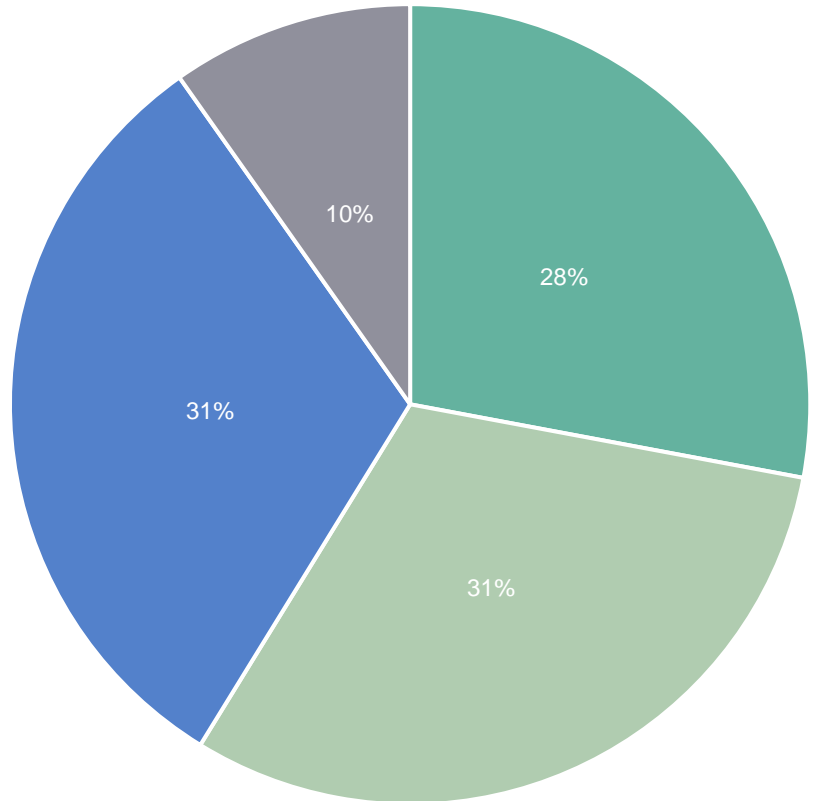
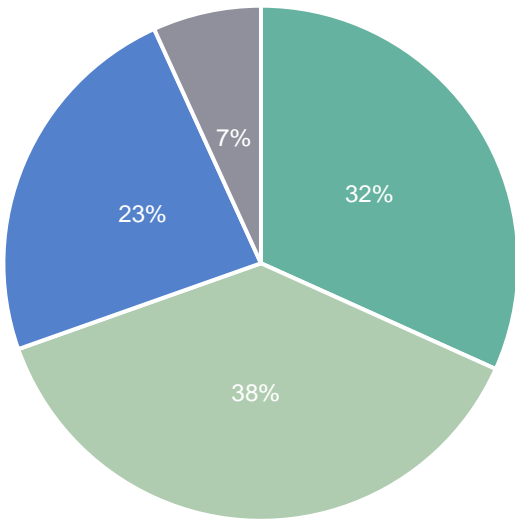
Age

Population by Age Group, 2020

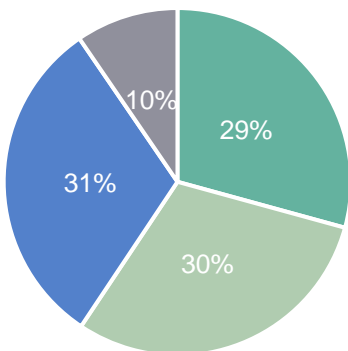
Unionville Region

■ 0-24 ■ 25-54 ■ 55-74 ■ 75+

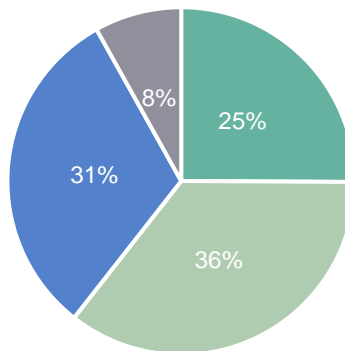
Chester County



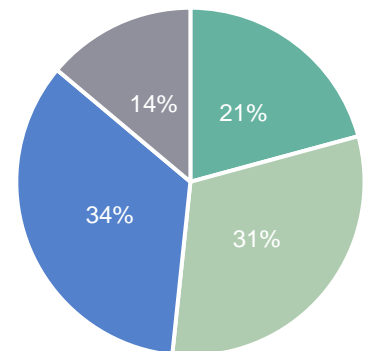
East Marlborough



Newlin



West Marlborough



The **median age** in the Unionville Region is **62**. Age groups are divided into groups **children to college aged** (0-24), **economically active** (post college- early retirement, 25 to 54) and **eligible for retirement** (55 to 74 and 75+). When compared to Chester County, these categories are relatively even with a slightly larger portion of the population above the age of 75+.

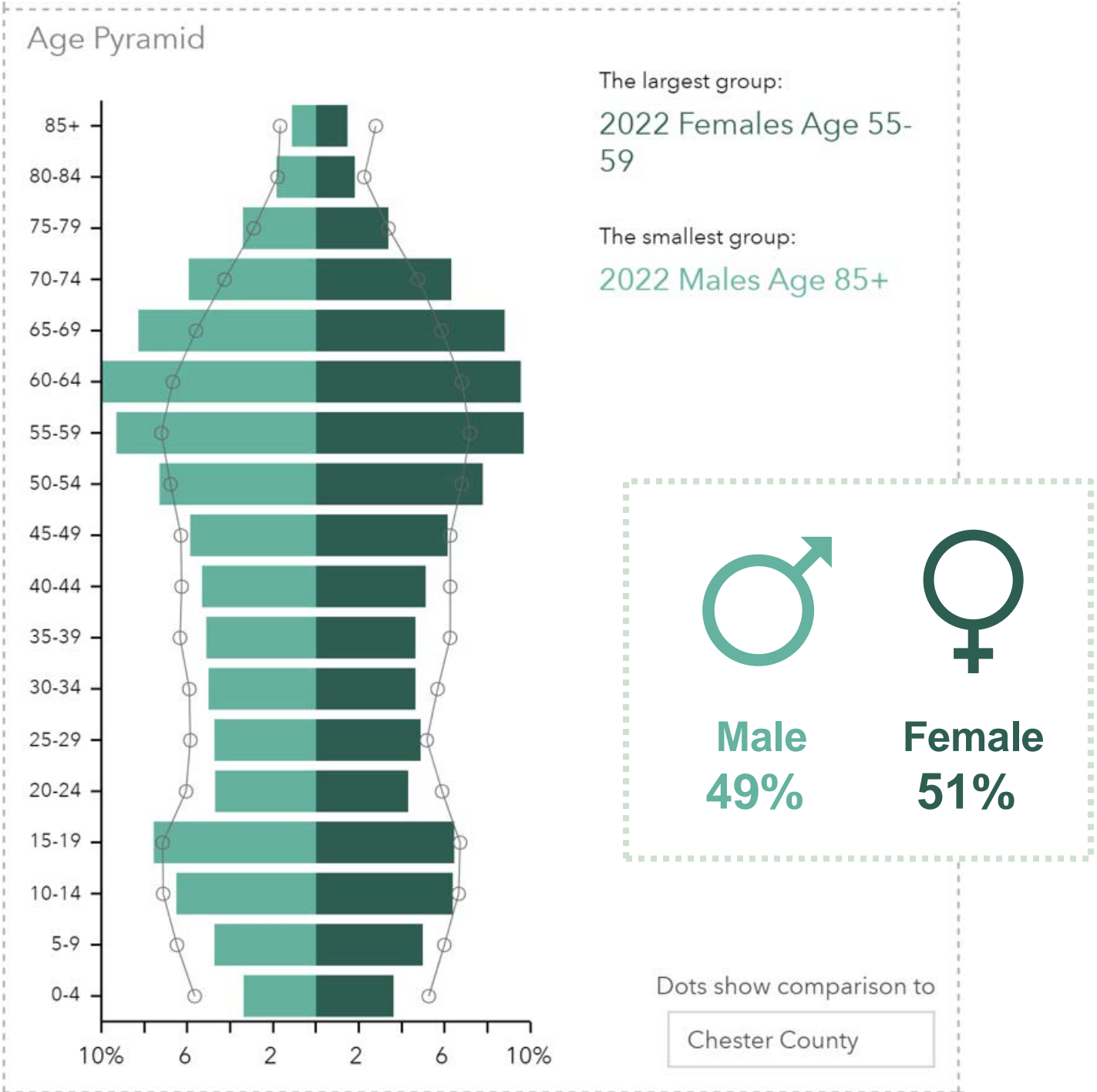
Median Age & Age Groups



Age

Population by Age & Sex, 2021

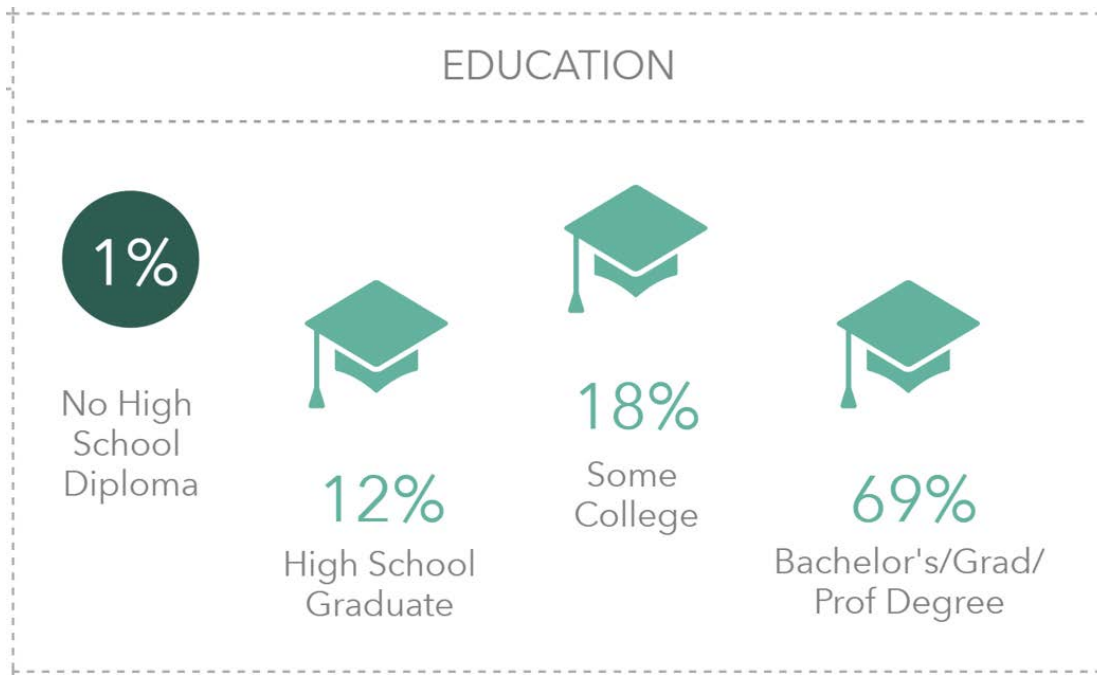
This age Pyramid shows that there are generally speaking lower birth rates and death rates and high life expectancy. There is a large population that would be considered retirement age 55+. There is also a larger population of residents 70+ compared with Chester County and fewer residents between 30 and 45.



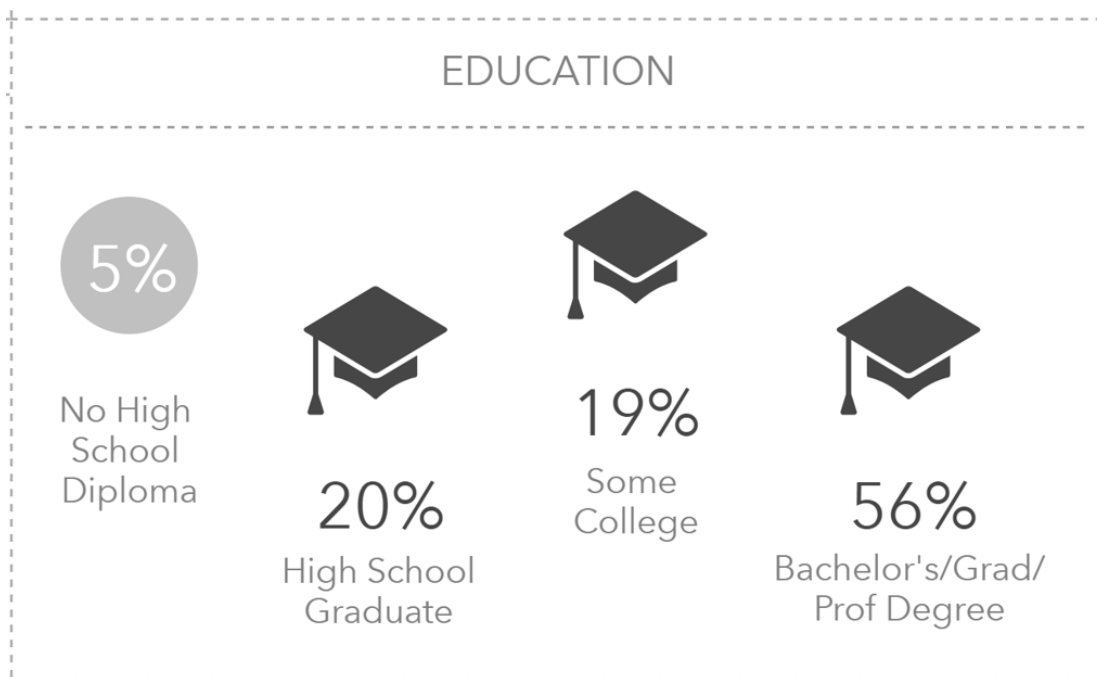


Education

Educational Attainment, Unionville Region, 2020



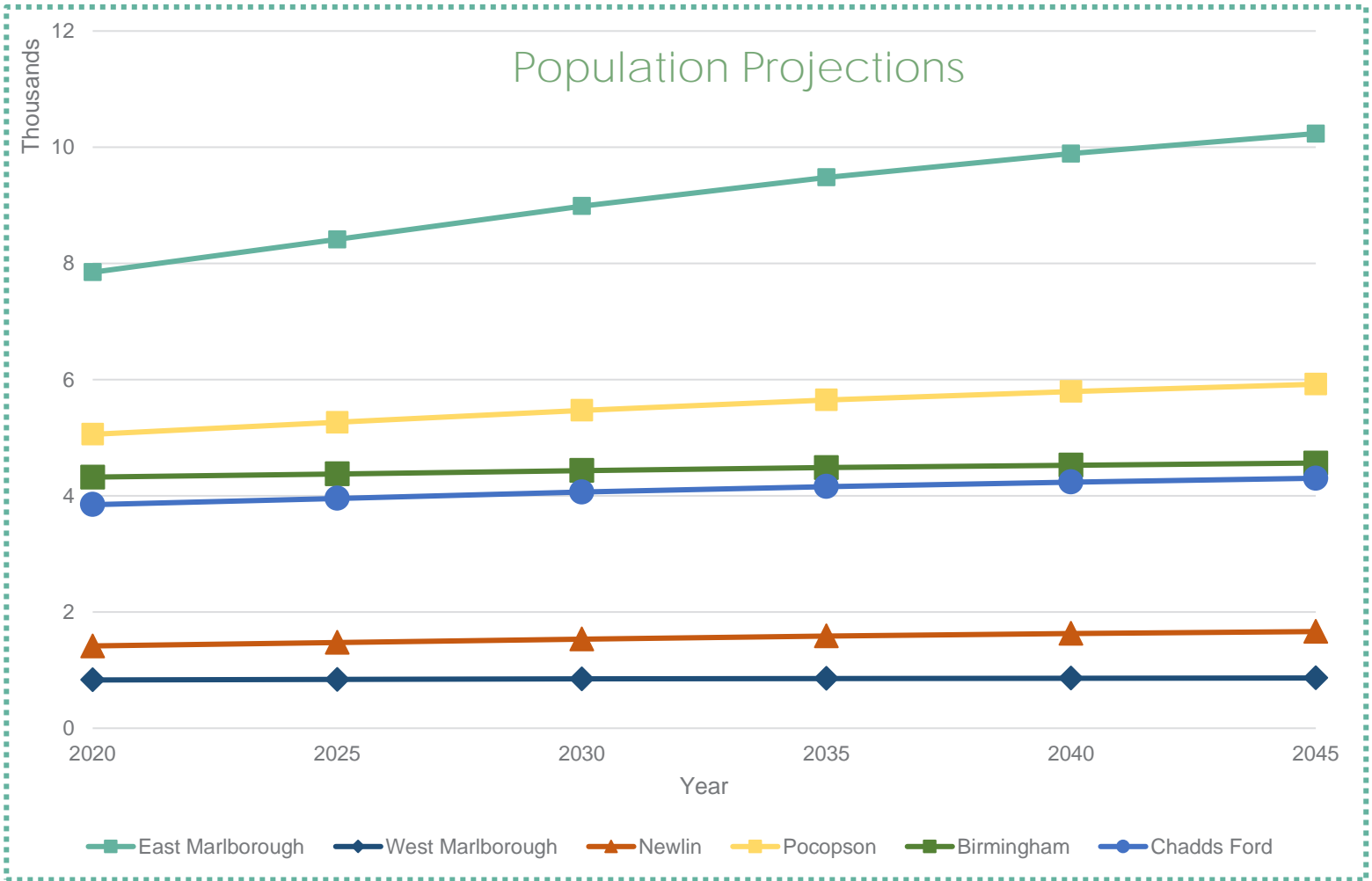
Educational Attainment, County Comparison, 2020





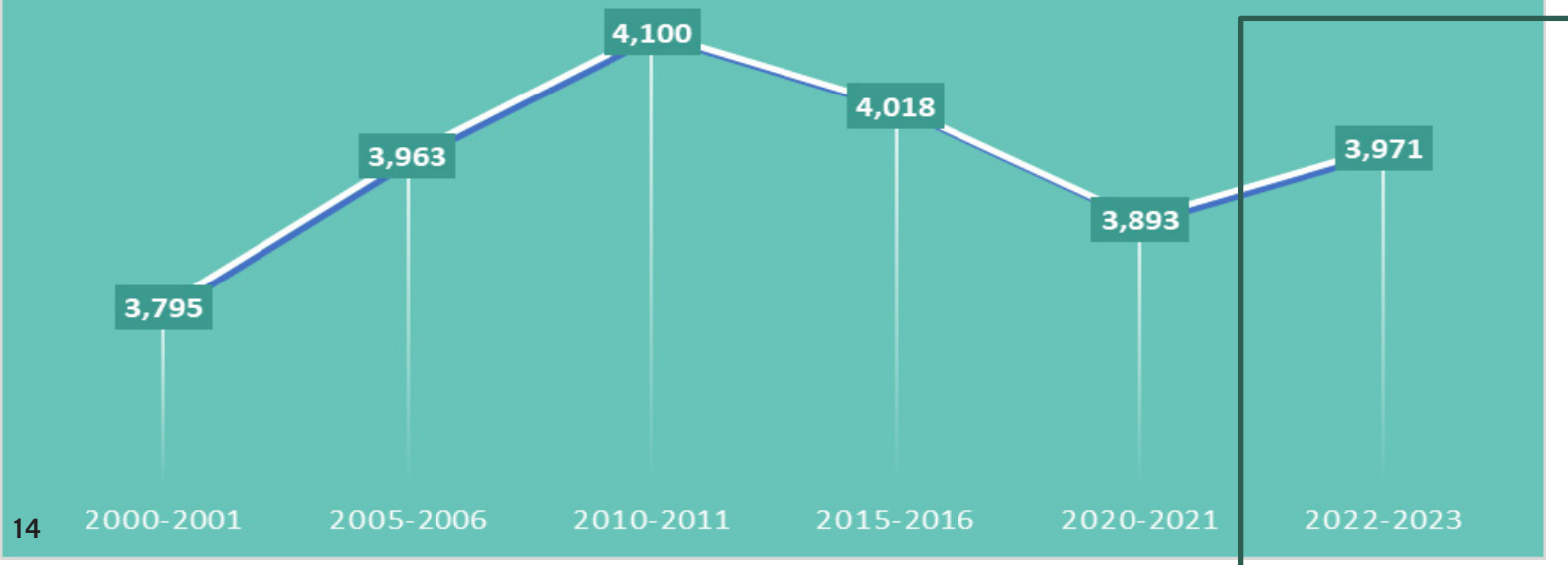
Education

Population Projections of Unionville-Chadds Ford School District, 2022



Public School Enrollment, 2000-2023

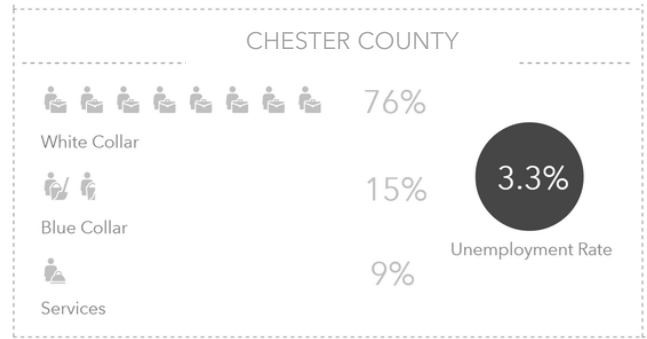
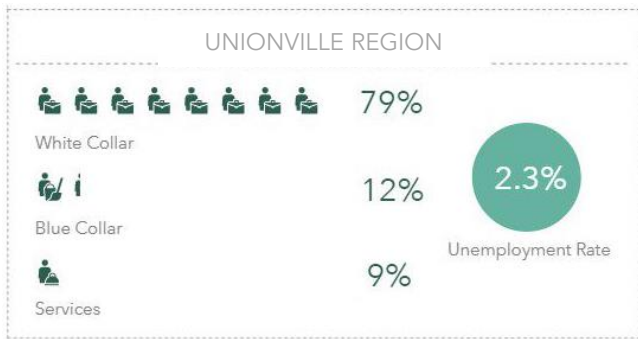
PUBLIC SCHOOL ENROLLMENT (2000-2023)



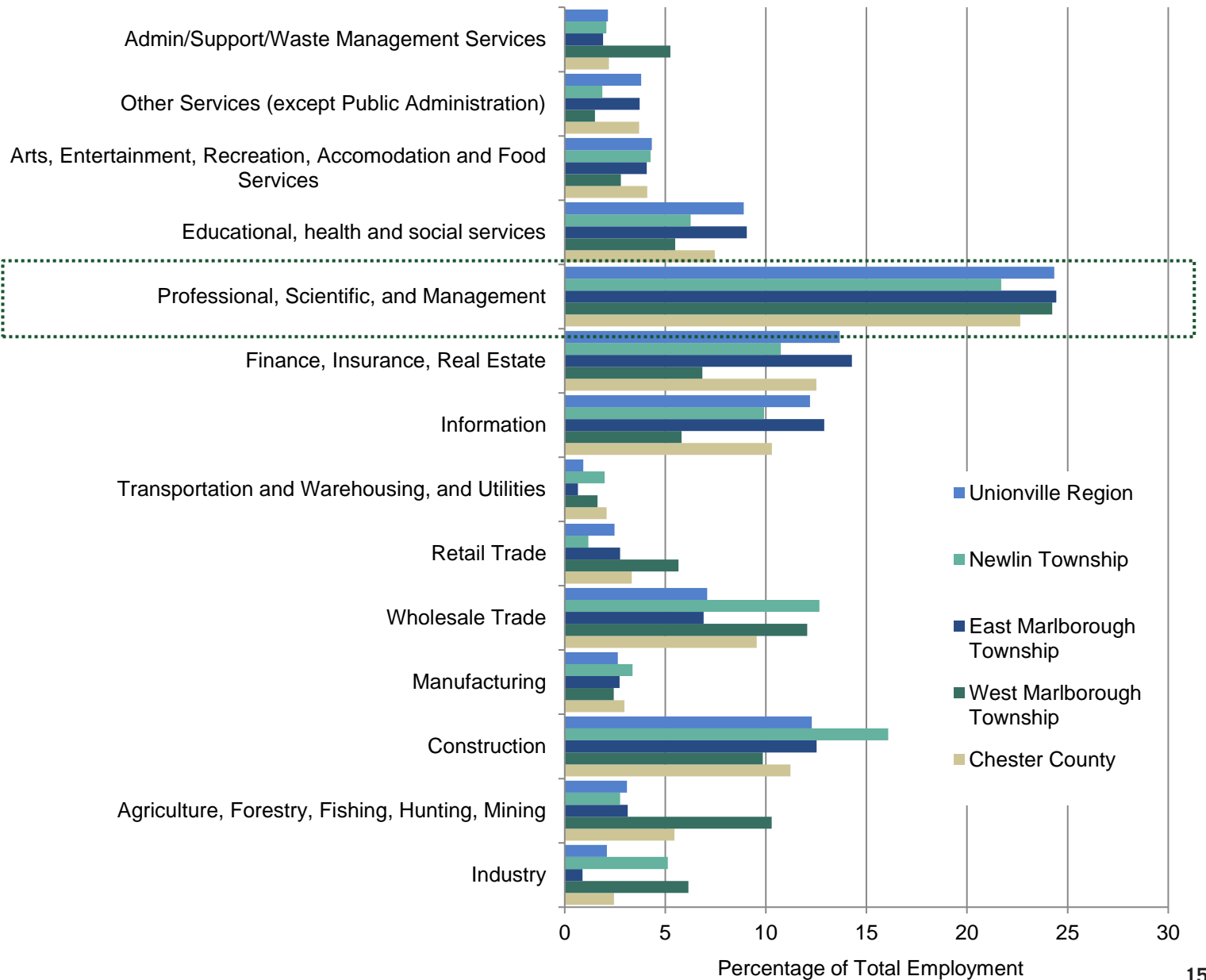


Workforce

Employment, 2020



Employment by Industry, 2018



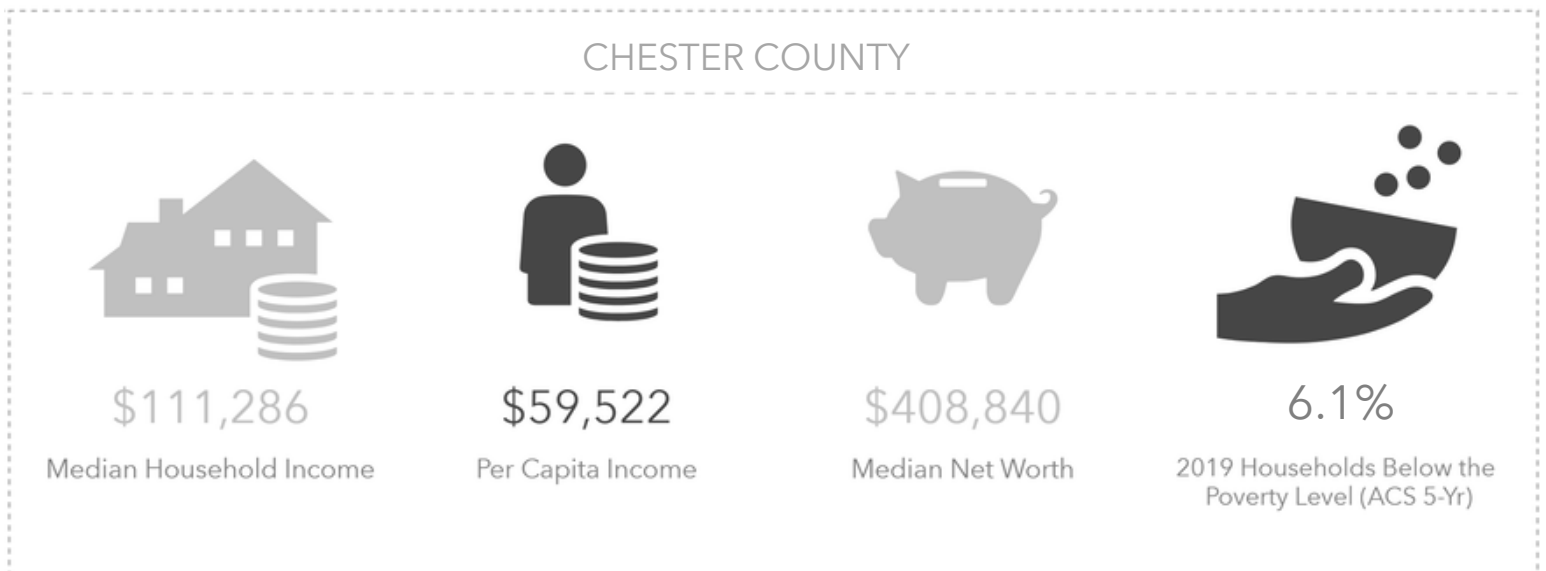


Income

Income, Unionville Region, 2020



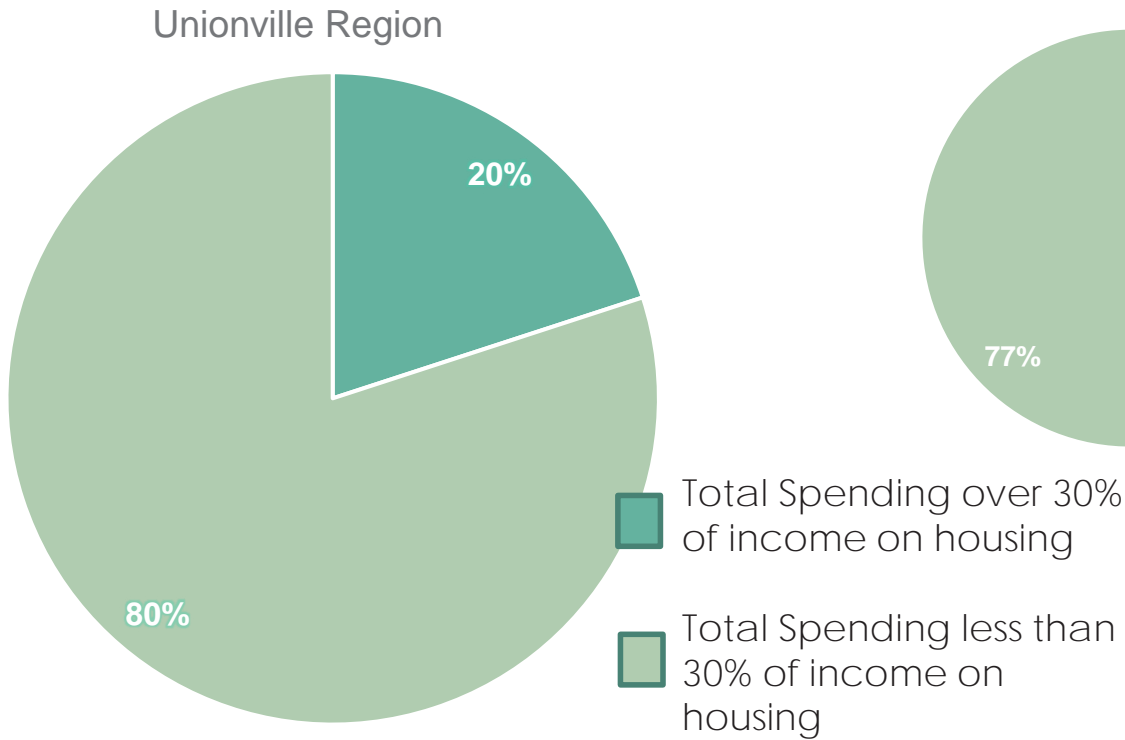
Income, Chester County, 2020



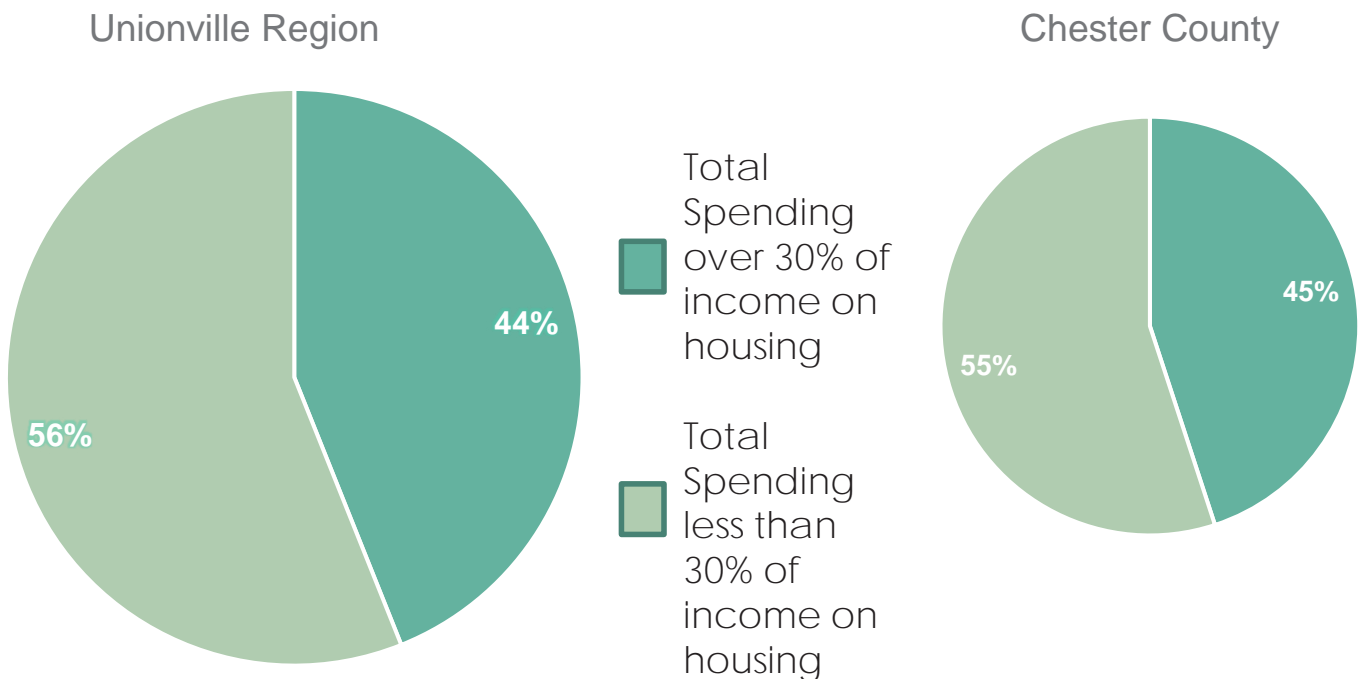


Housing Affordability

Homeowner Housing Affordability, Unionville Region, 2020



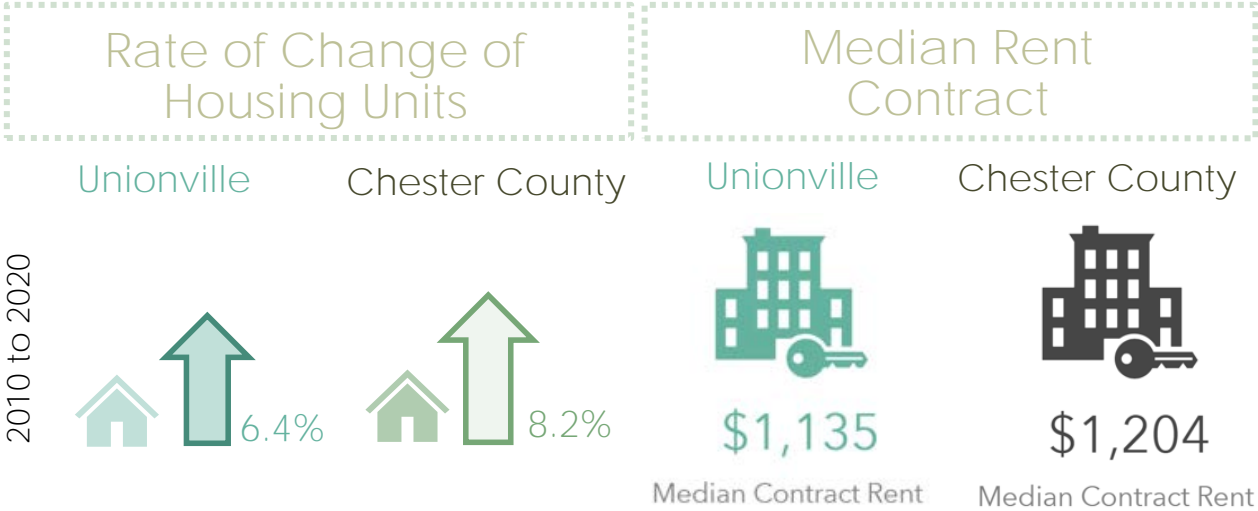
Rental Housing Affordability, Unionville Region, 2020



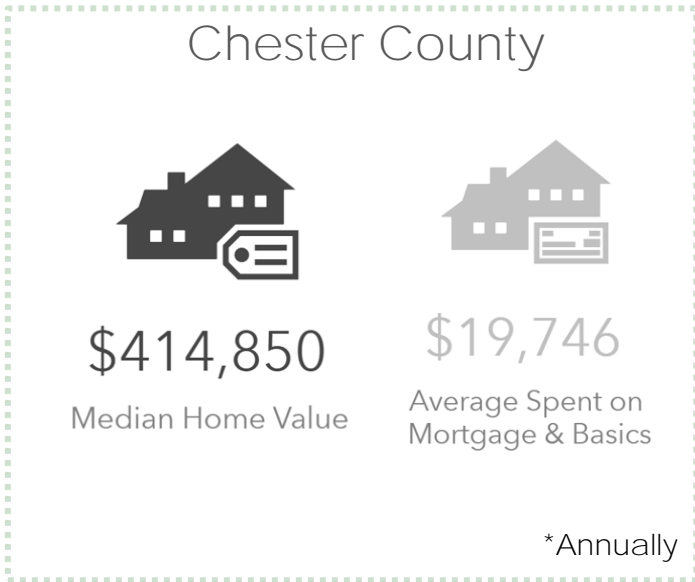
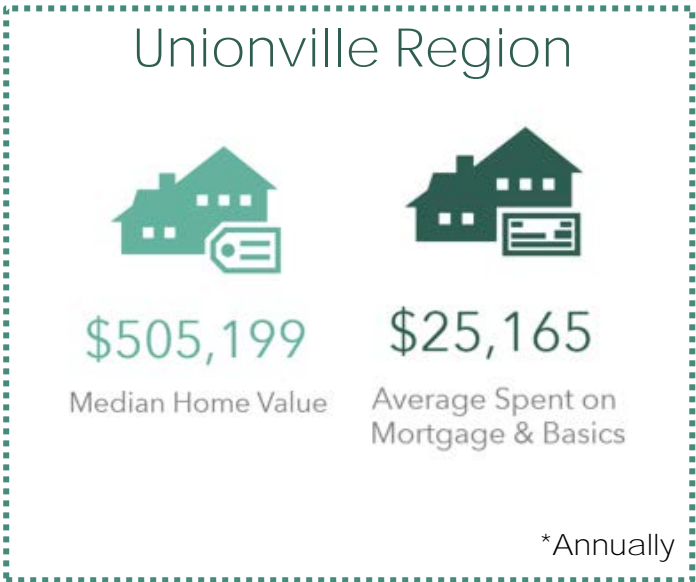


Housing

The Unionville Region saw an increase of **229 total housing units** between **2010 and 2020**. In 2020, there were **3,790 housing units** in the combined Townships.



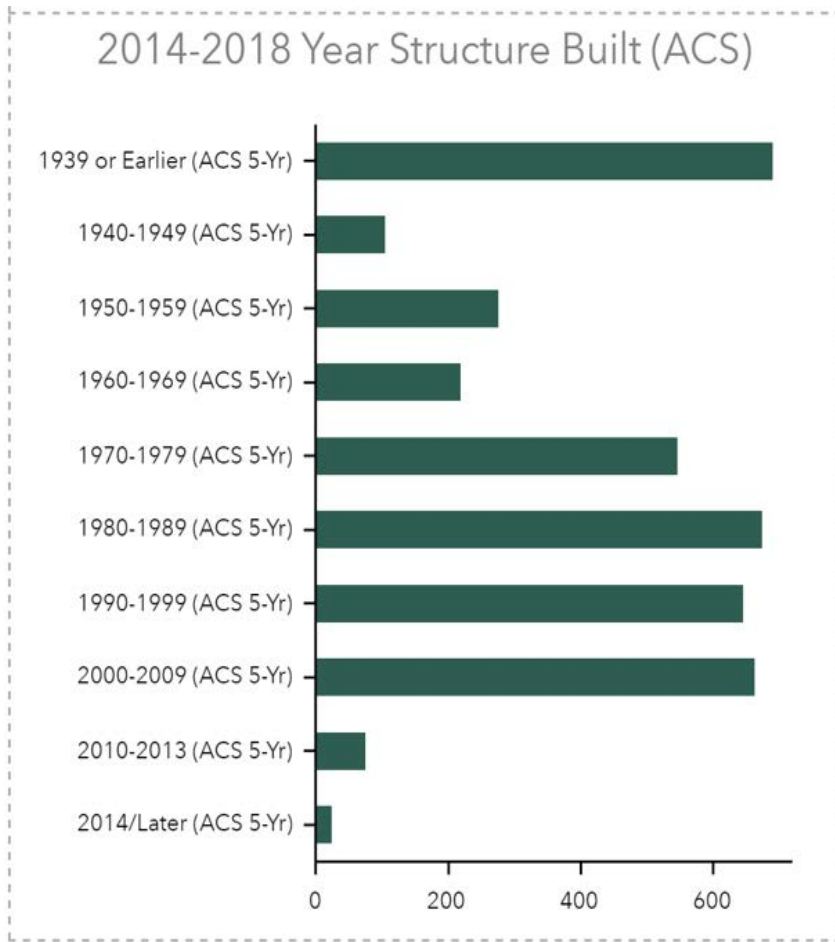
Median Value of Owner-Occupied Housing, 2020





Housing

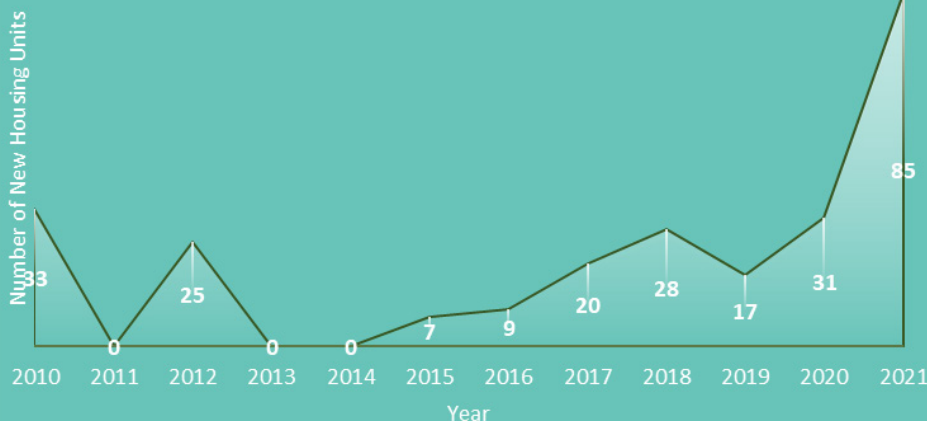
Age of Housing Stock, 2010 to 2021



The median house age in the Unionville Region is one built in 1982, with a large portion of the area's structures built between 1980 and 2009.

It is worth noting that a large portion of houses in the Unionville Region were built before 1939.

TOTAL NEW HOUSING UNITS 2010-2021



MEDIAN HOUSE AGE

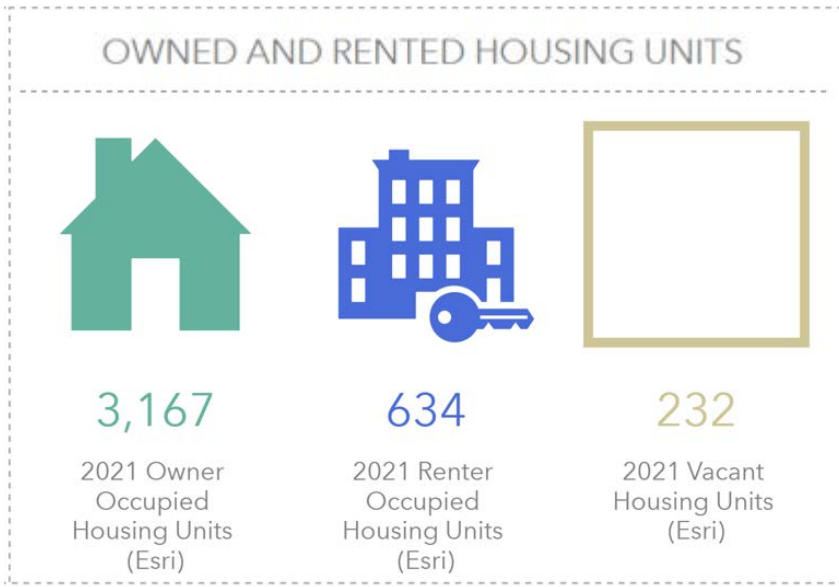


2019 Median Year Structure Built (Total Housing Units)
(ACS 5-Yr)

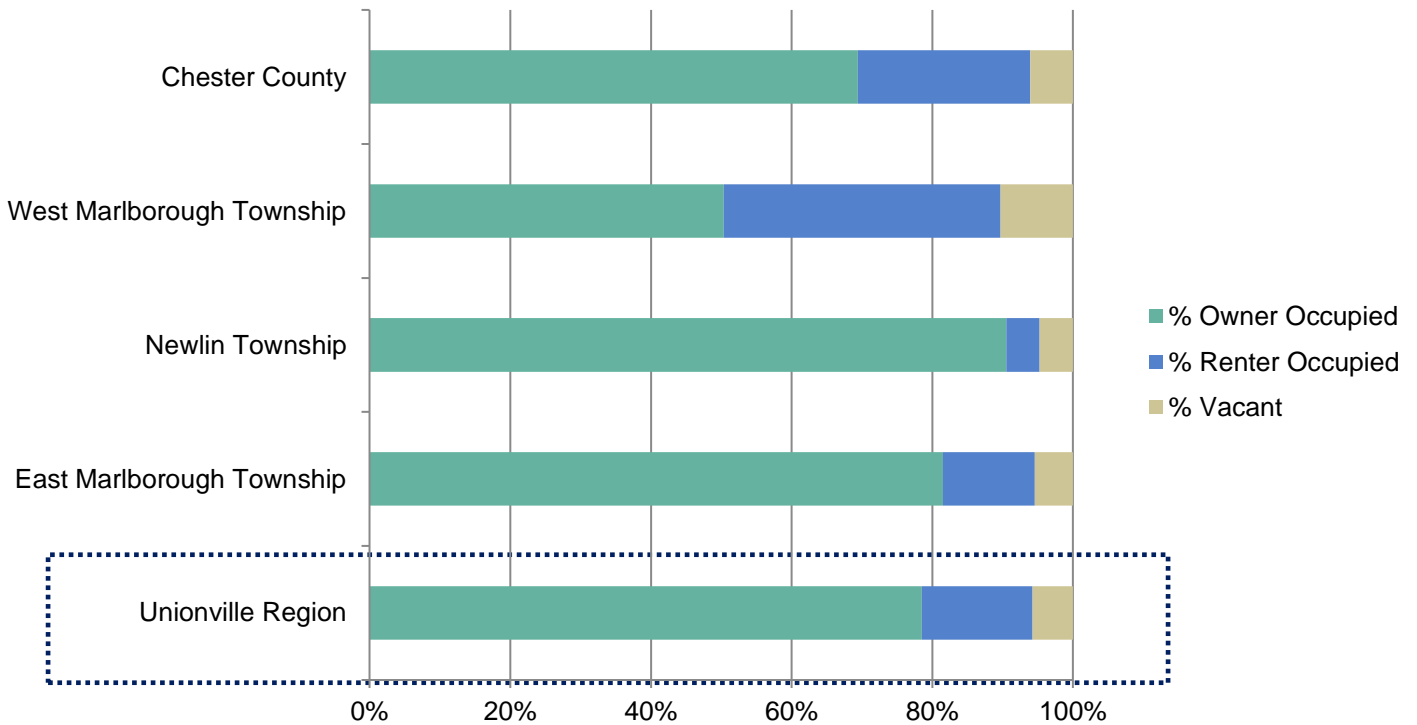


Housing

Housing Unit Characteristics, Unionville Region, 2020



Housing Unit Characteristics v. Chester County, 2020

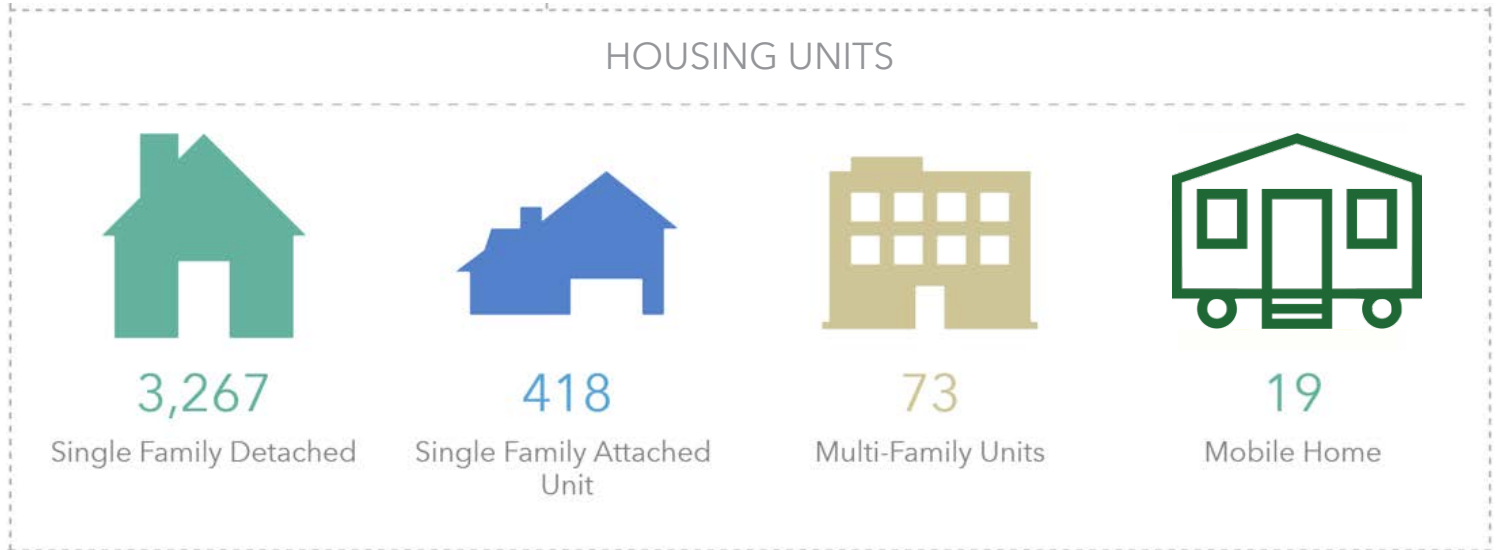


Although the Unionville region has slightly more owner-occupied housing than Chester County as a whole, West Marlborough has almost an equal portion of renter and owner-occupied housing units.



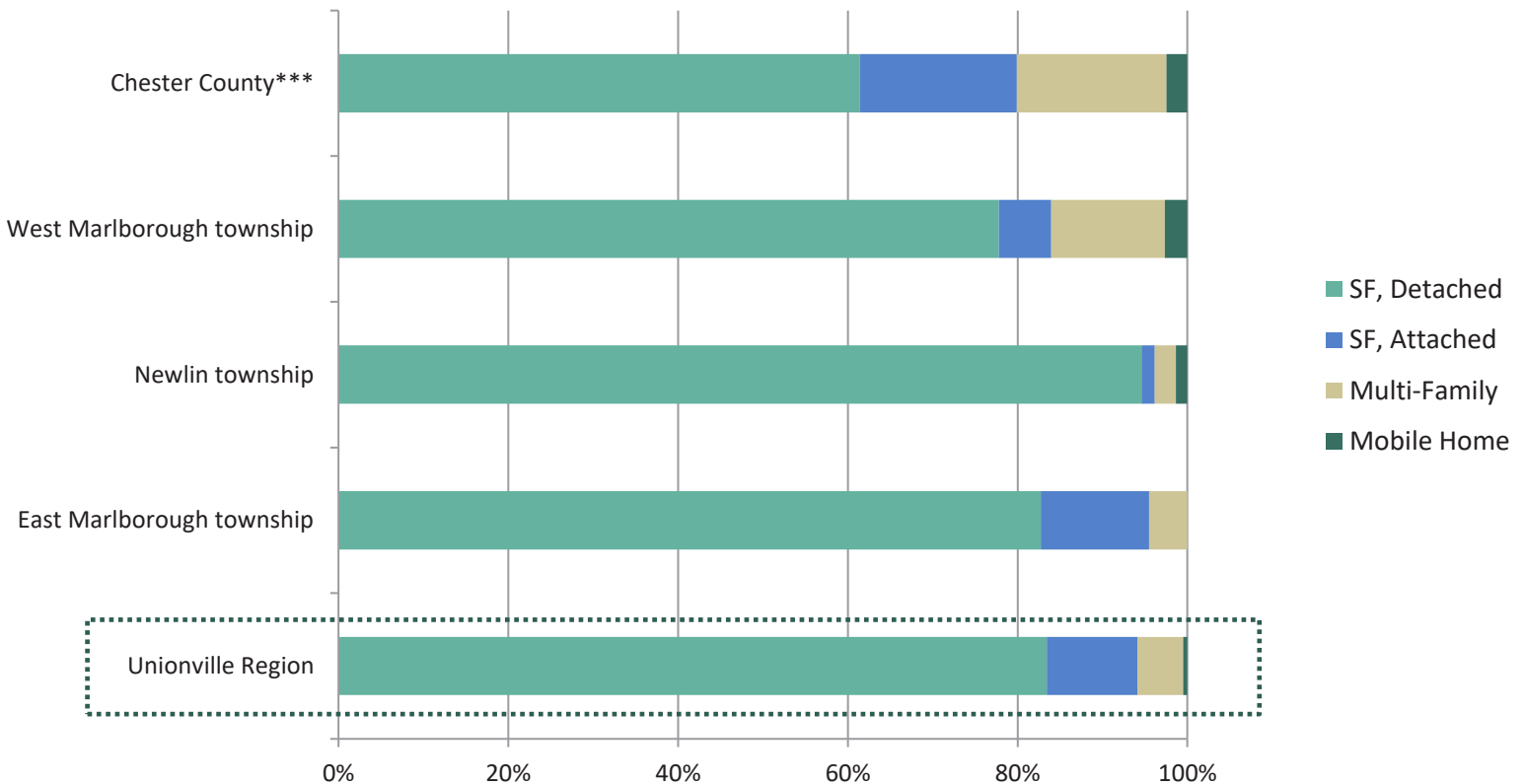
Housing

Housing Unit, Unionville Region, 2020



Housing Stock Diversity, Unionville Region, 2020

Housing Stock Diversity, Unionville Region, Surrounding Municipalities, and Chester County



***Total includes 15 Boat, RV, van, etc. which are not present in any other municipality listed in the table.

Written Summary of Graphic Data

The Unionville Region's population increased by approximately 358 people from 2010 to 2020 and is estimated by DVRPC to increase by another 1,884 people by 2030. Population projections for the Unionville Region estimate continued growth over the next 25 years with an additional 3,283 people projected to come to the region.

A large portion of the region's population is comprised of residents who are retirement age and older (55+). Compared with Chester County as a whole, the Unionville Region has fewer residents between the ages 20-50. The Unionville Region also has a slightly lower population in children and teenagers compared to the County.

The average household size in the Unionville Region of 2.4 is slightly smaller than the Chester County average household size of 2.64. The Unionville Region's household size has decreased from 2.43 since 2010. There are more family households in the Unionville Region when compared with households comprised of nonfamily members. Of those family households, about 55% were comprised of 2 people. 22% of family households have 3 individuals living in one household.

More than 80% of the Unionville Region is comprised of single-family detached homes, compared to the County's percentage slightly over 60%. 70% of Chester County is owner-occupied housing, compared to approximately 80% owner-occupied in the Unionville Region. Along with the greater percentage of owner-occupied properties, the Unionville Region has a median home value of \$505,199, compared to Chester County's median home value of \$414,850.

Educational attainment rates in the Unionville Region are comparable to Chester County, however there are slightly higher rates of individuals with Bachelor's/Grad/Prof Degrees in the Unionville area, at 69% versus the County's 56%.

Much like Chester County, a large portion of Unionville residents work in professional, scientific, and management fields, followed by finance, insurance, and real estate. Construction is the third highest industry of residents in the Unionville Region.

The median household income of \$141,494 in the Unionville Region is higher than Chester County of \$111,286; the per capita income is also higher in the Unionville Region (\$72,769) compared to Chester County (\$59,522), as a whole.

Data Sources

Data sources used in this report include the following:

1. *ESRI Community Analyst**
2. *US Census and American Community Survey*
3. *Delaware Valley Regional Planning Commission (DVRPC), 2016 Population Projections*
4. *Unionville-Chadds Ford School District, 2018-2019 Proposed Final General Fund Budget*
5. *Brandywine Conservancy GIS, 2020*

**ESRI, the leader of Geographic information system (GIS) software and has developed a tool that combines GIS capabilities with Demographic information called Community 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.*

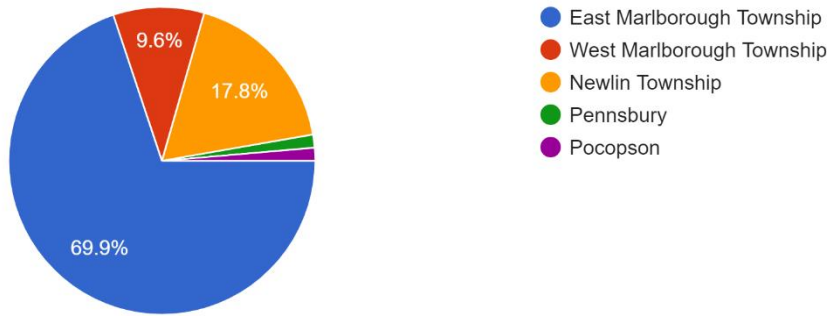
Appendix B

Community Survey Results

Unionville Public Survey Results

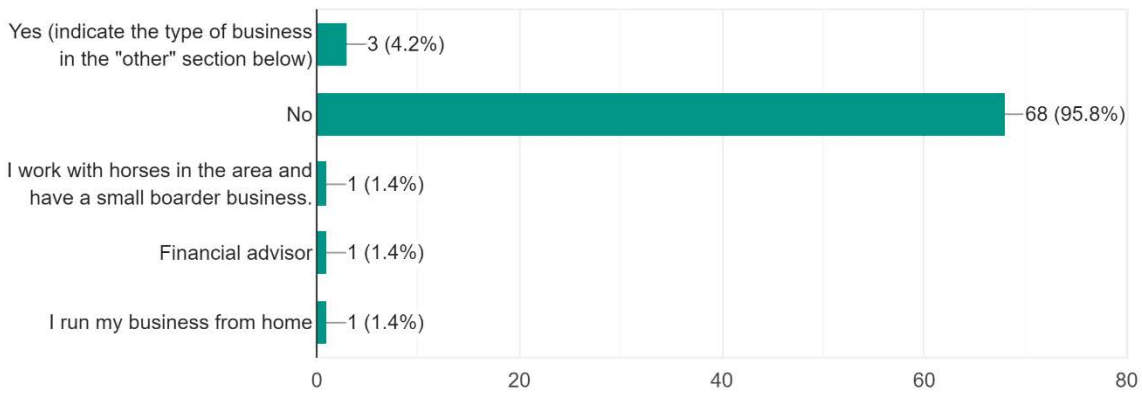
1 - Are you a resident of, or own property in (select one):

73 responses



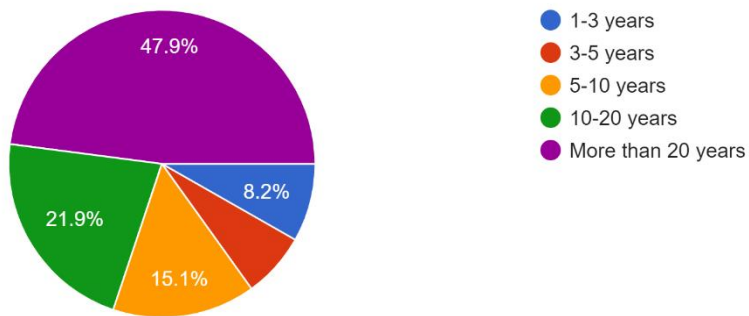
2 - Are you a business owner in East Marlborough, West Marlborough, or Newlin Township?

71 responses



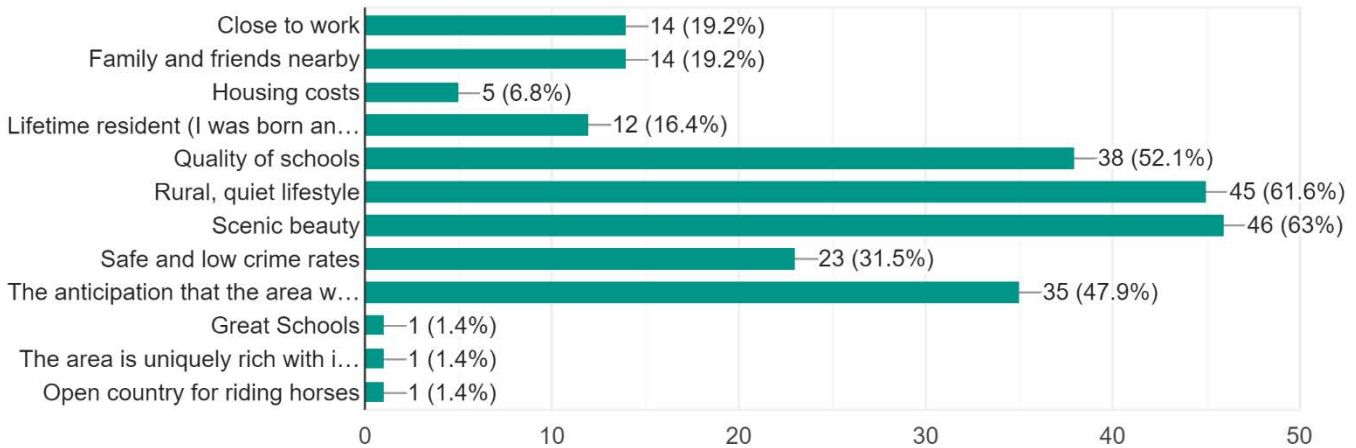
3 - How long have you lived/owned property in the Region?

73 responses

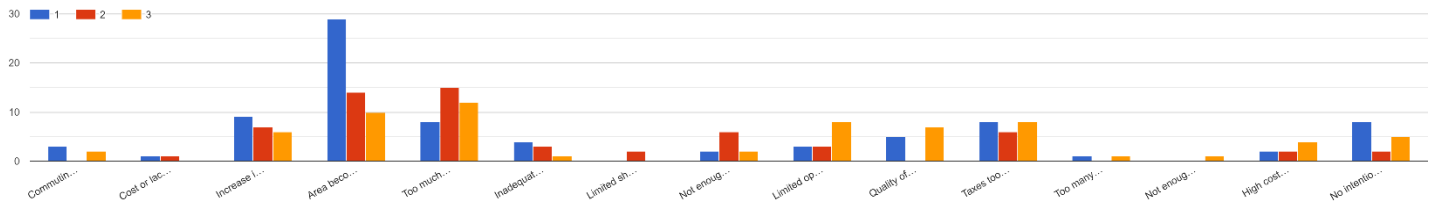


4 - Why did you choose to live in the Unionville Region? Select your top three reasons?

73 responses



5 - What would cause you to leave the Unionville Region, other than a change in employment? Rank your top three reasons.



6 - If not listed in the above matrix, what else may cause you to decide to leave the Unionville Area?

21 responses

Retirement Community

Nothing

Increase in crime would also be a huge factor to leave.

Retirement to warmer area

Overdevelopment

New job with a big pay bump

N/a

Family proximity

Need to move to assisted living situation

police department is currently useless

N/A

Development

Disregard of environment.

Loss of horse community and open land use

Politics dividing people, it used to be a civil place where D and R road together to gather signatures and had coffee together etc.

A quarry, a shooting range, air or water pollution, removal of native flora

More supportive environment for aging

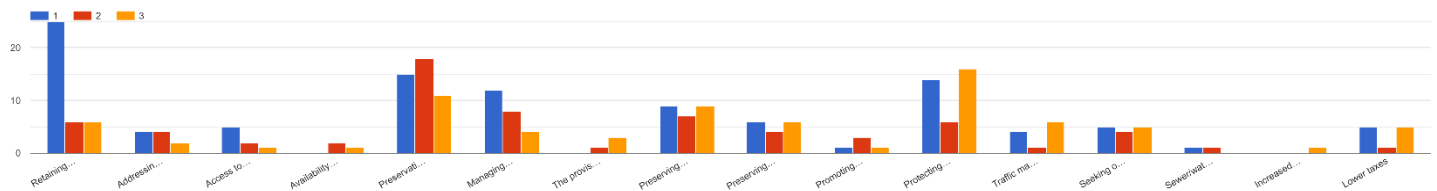
Over development-open space for future generations is so important

Building of too many home/business complex, depleting area beauty

Loss in open space

I care the most about overdevelopment/traffic

7 - Which of the following issues do you believe are most important in planning for the future of the Unionville Region? Rank your top three responses



8 - If not listed in the matrix above, what other issue do you believe is most important in planning for the future of the Unionville Region?

12 responses

I think access to trails are important too

Most of those issues listed are absolutely critical to this area. Cannot rank only three.

Taxes

N/a

What open space there is must not be kept as lawn.

Better police department.

Maintaining farm land

Cost of living

Slow the rate of development; preserve open spaces and promote native landscaping

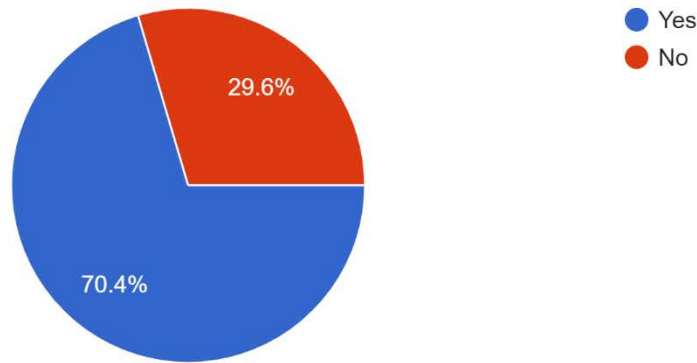
Increase tax dollars allocated to preserving farms and open space

Preserving the open space/farms will go a long way toward measures that protect air, water, and soil.

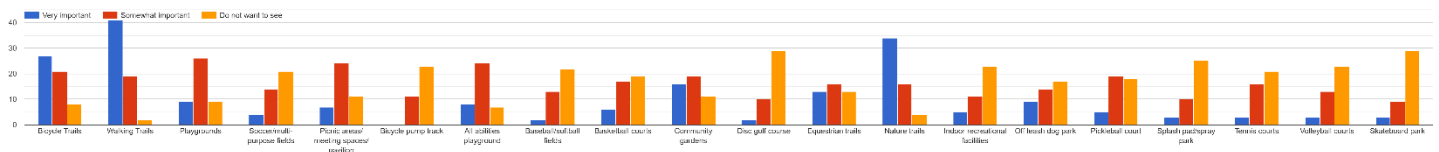
Connecting more the the residents of the area with interactive programs that promote our local history/culture

9 - Would you be willing to financially support (through increased taxes or redistribution of existing tax funds) programs, policies, or activities in order...ing goals related to the issues you identified above?

71 responses



10 - What types of recreational facilities would you like to see considered in future recreational planning?



11 - If not listed above, what types of recreational facilities would you like to see considered in future recreational planning for the Region?

13 responses

Just open space

A multipurpose township park. Unionville Park is lovely, but there could be an area where there were multiple activities, such as tennis court, basketball court, splash pad, bike/skateboard ramps, etc. Unionville Park does not even allow bikes/skateboards etc. There is not much in the township for older youth.

N/a

Pool

Equestrian facilities such as the Baltimore County Agricultural Center in Maryland, or the Carolina Horse Park in North Carolina or the New Jersey Horse park

Nature

Off leash dog walking trails

Platform tennis public courts

Ice hockey rink

Preserved land for flora and fauna

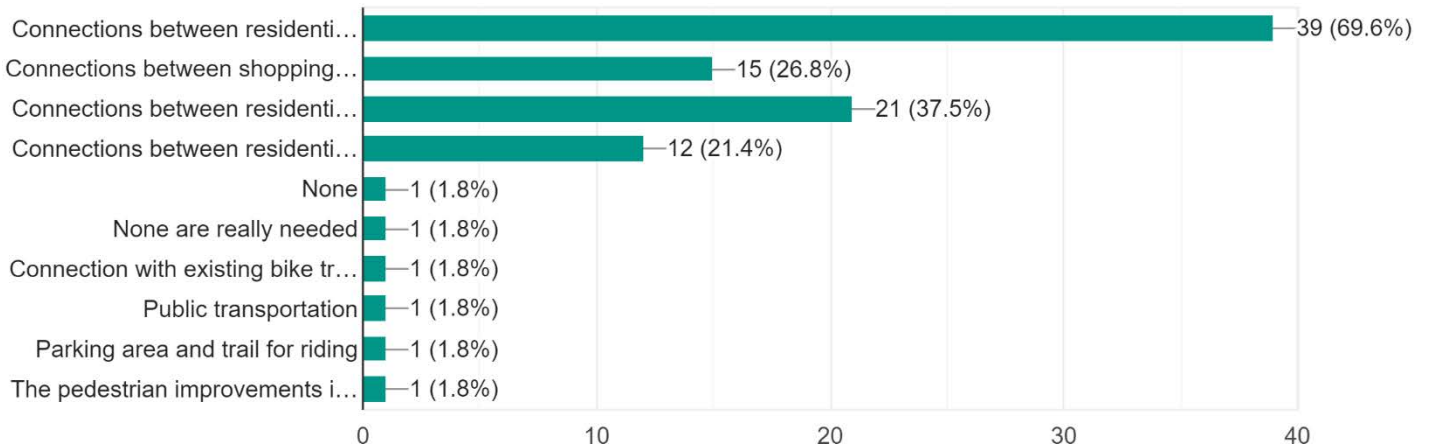
Trails for safe horse riding

Sports fields sound nice ... until neighbors get upset over the lights at night.

Community center

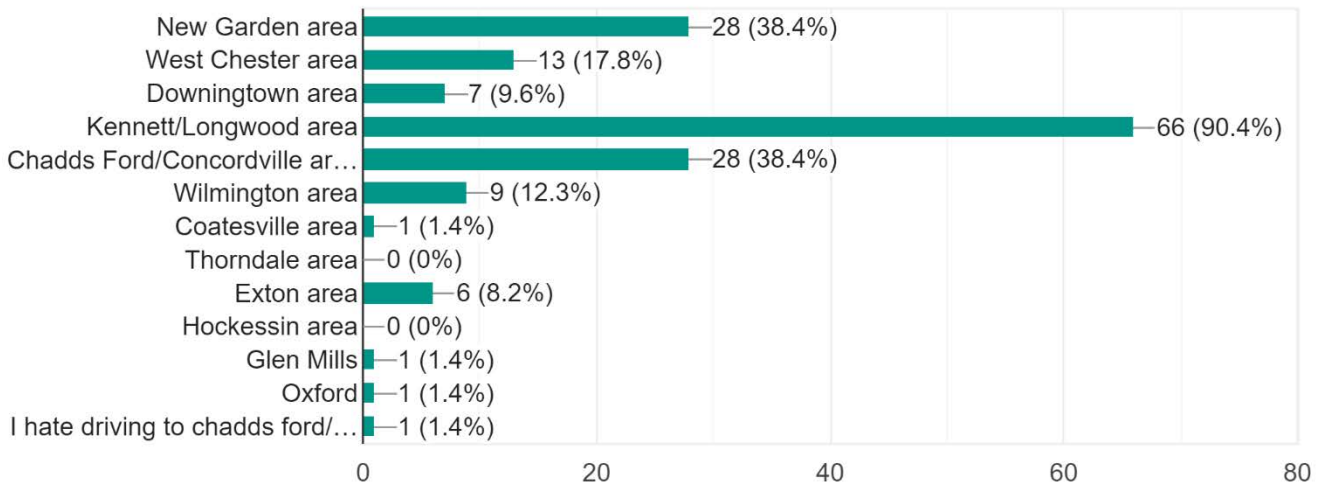
12 - Which trail connections do you think are lacking in the Region? Check all that apply.

56 responses

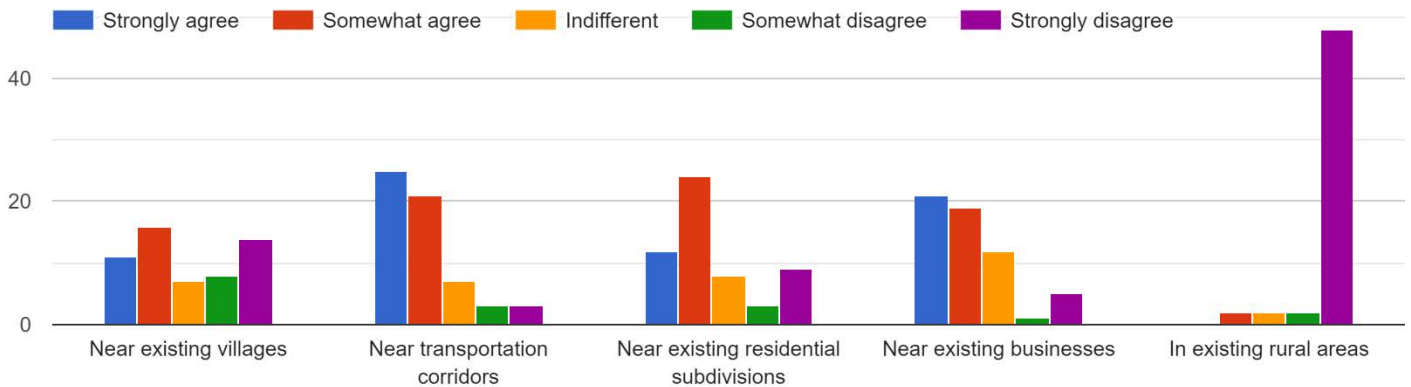


13 - Where does your household tend to shop on a regular (weekly) basis (groceries, etc.)? Check all that apply.

73 responses

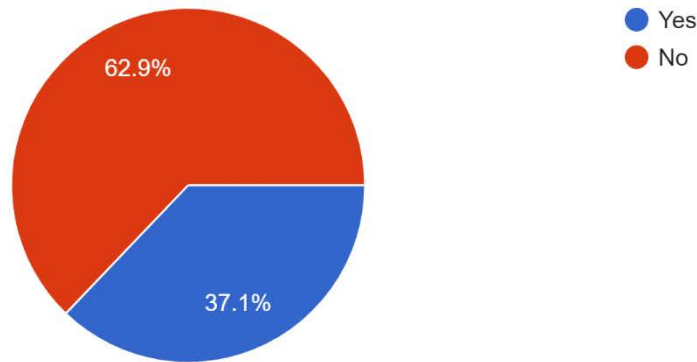


14 - Where should new development be located?

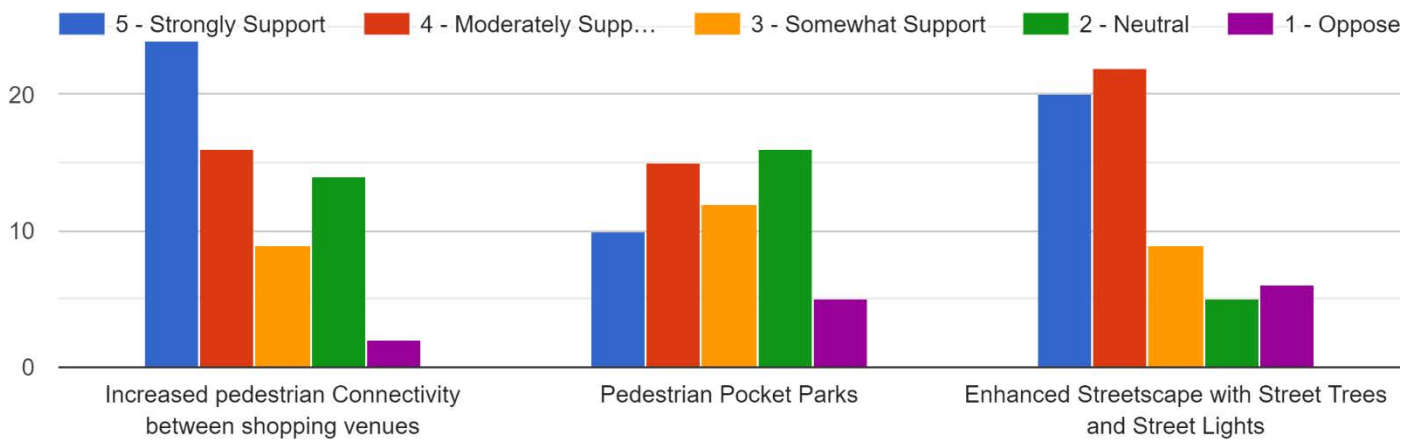


15 - Would you be willing to accept more growth/development occurring near you if it meant that open space areas located elsewhere in the Region could be preserved?

70 responses



16 - In the vicinity of the Shoppes at Longwood and Walmart, which of the following actions would you support?



17 - Besides the options above, are there any other changes/developments/enhancements you'd like to see in the commercial areas along Route 1 near the Shoppes at Longwood and Walmart?

23 responses

- Time the traffic lights better and allow turns when no opposing traffic is coming.
- Keep commercial areas along route 1
- Better traffic management No more development How many banks and mattress stores do we need?
- Traffic safety on rt 1 is terrible- needs to be improved.

Not really. Just increased higher end stores would be nice. Ross and Famous Footwear are not really appropriate for the area anymore. Should have a Chick Fil A near here.

Activity center

Reduce unnecessary business like mattress stores etc and commercial chains

Traffic abatement

Tie into Kennett Square and population in that direction with safe pedestrian and bike facilities

Traffic control improvement, especially allowing for through traffic and easing congestion.

The layout of the roads need to be changed especially near Applebees. The lane configuration into Giant needs to be changed. The bushes block the view of other cars if you drive a small car.

Public transportation

More defined/stricter limits on retail and business signage, and more consistency in building construction materials (i.e. requiring brick construction to promote more cohesion/uniformity)

Better car traffic between shops flow

Guide rails to protect pedestrians

To dangerous for bicycle paths on route one

Better designs in parking lots and entry back to roads is needed.

Trader Joe's/Chik fil a/Panera Bread

Traffic at Longwood Shoppes and Giant traffic light. Winter setting sun is blinding as one turns west. Dangerous to all drivers!

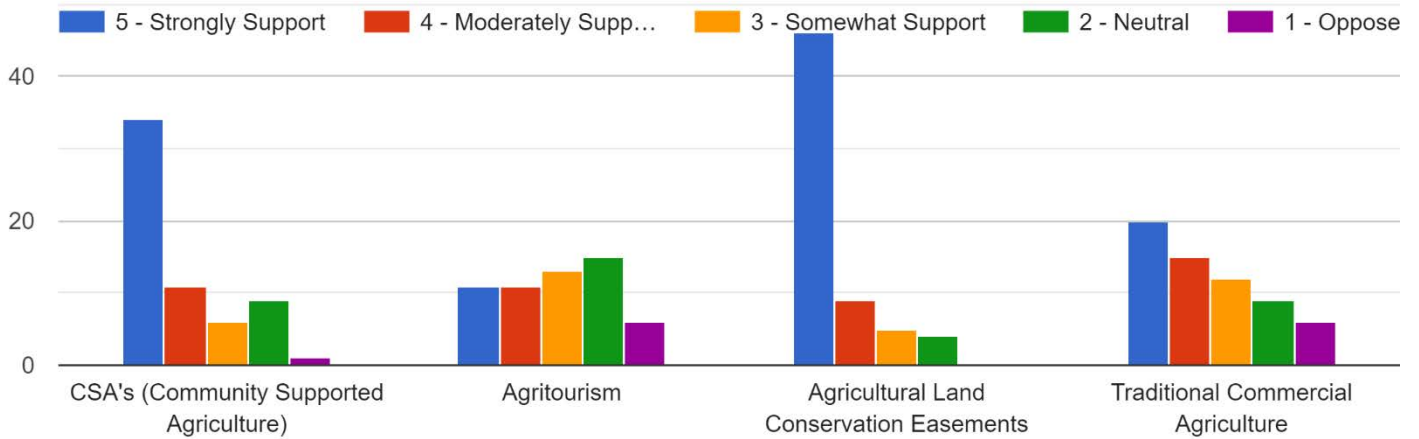
Schoolhouse Road to Route 1 connection has outgrown its usefulness

No building near the Brandywine River

More trees to help make area look less developed

I prefer no more building of business/homes. Already very busy area.

18 - In areas with prime agricultural soils, which of the following actions would you support?



19 - List below any type of commercial or service based business that you feel the immediate area is lacking.

23 responses

- More restaurants in Unionville.
- You denied giant a gas station due to fears about traffic. Let that happen.
- Motorcycle shop, bicycle shop
- ALDIS Trader Joes
- I would like more family farms
- Chill Fil A (other fast food is not good)
- A market with a variety of useful items, such as a co-op grocery store (similar to the co-op in Swarthmore, PA) or farmers market for vendors in season.
- Decent restaurants
- There are plenty of options
- Small Grocery options
- Michael's
- None
- Specialty grocery, enhanced food options

Helipad for Medivac to Trauma Center

Community college

Fast food/Chain restaurants

Native plant nursery

I've lived here for fifty years. I feel that Kennett, West Chester and Wilmington are for shopping and services.

Variety of grocery choices - e.g., Trader Joes

None. I am not a big advocate of growing corn, soy,,wheat, which are fillers

When I was looking around for preschools in 2018, the pickings were slim. I can think of 3 places that have opened since then, but some parents still have trouble getting into the existing local options.

Motorcycle shop

Museums

20 - Complete the following statement about what kind of community you hope the Unionville Area will be in the future. "In the future, the Unionville Area should seek to.....

54 responses

Retain the open rural landscape

Maintain its rural heritage

Increase sidewalks, keep our village safe and beautiful

Keep its rural character

Maintain a rustic nature.

Maintain its current level of population, preserve historic and agricultural treasures

managing residential and commercial growth in an effort to preserve the safe, scenic, and rural heritage of our community.

Preserve the natural beauty of our area while encouraging community activities and healthy lifestyles.

Retain its charm and family friendly, community feel. It was a great place to raise a family and teach for 40 years. Places like Unionville Park, Hoods, URA fields, and the old Foxy Loxy make this area feel like family.

Maintain current rural beauty.

stop development

promote affordable housing, and encourage this development to be in already built-on areas near Rt. 1 and make more bike and walking friendly roads/trails

Maintain its rural roots, avoid more development and terrible traffic, keep property values high, stop building carriage homes and townhouses - they're disgusting, not in synch with the area and just plain stupid for where we are, this is not an urban area as much as the commercial developers want it to be. If building houses, make sure they have land not built on top of one another. This is not hard, but will destroy this area is not addressed now.

Continue efforts to preserve open space, develop bike trail access to towns and villages

Grow its community and help all ages flourish by maintaining and implementing useful and affordable programs and continue to preserve the beautiful scenery unique to the area.

Remain a semi rural village

Remain as is

Retain open space and preserved lands

Maintain its historic feel.

Preserve its rural and equinecentric heritage.

Provide a welcoming home to community members while allowing for needed services and ensuring agriculture is supported.

Retain its existing character and avoid further development of rural, farming and scenic areas.

Preserve what open space it has now

Stay as is with bike trails on the sides of roads

Not change too much. Preserve the peace and country quiet we have now.

Have expanded public park facilities

Preserve its open space, its history and the low density that exists in the open space areas.

Promote only cluster or town house development that have their own park with playground and open space that is natural. Limit lawns. A person making \$45,000 a year should be able to afford a small home. No large housing developments, we have enough.

be more inclusive to all and to improve that objective through out the area.

Conserve natural spaces, promote healthy living, avoid overpopulation, and limit excessive growth

Preserve its history, traditions, and open space.

Conserve land and protect the environment

Retain it's rural flavor

be sustainable

Preserve its natural beauty and existing footprint.

Preserve our rural, natural heritage and spaces.

Mom and pop

Provide playing fields and public tennis and platform tennis courts for the community

Honor its agricultural roots and be an ecologically diverse protected space for nature to thrive while sustaining a multitude of life, including people.

Have more places for teenagers to frequent/hang out

Support measures that reduce environmental impact, prepares the community for climate changes, and preserves natural green áreas and farming.

Keep a modest rural atmosphere. Avoid high rise building and multi use development.

preserve its charm whilst expanding its walkability to neighboring residential areas

Preserve the land with a particularly emphasis on wetlands.

preserve the look and feel of the community while enhancing the amenities already here.

Be a source of solace and well being for those who pass by, visit or live there along side animals and nature with as little development as possible. Once it's gone-it's gone forever for everyone and all future generations.

Keep the area as is with more preservation of land.

Provide housing for all income levels

Preserve the open space that the community values and loves so much

Stay open space and less new building; support farming endeavors so generations can stay

avoid becoming exton/uwchlan/west goshen/downingtwn/Concordville at all costs.

Maintain it's charm.

Remain a clean, historic, underdeveloped village.

Promote more of its history to younger generations through interactive signage/ history programs and the promotion of open space

21 - Please use the space below to offer any additional comments or concerns you have with regard to planning priorities in the Unionville Area.

24 responses

I appreciate being solicited for input!

Safe places to ride bike and walk!

Sidewalks are always appreciated. Our area is beautiful. Don't spoil it with overdevelopment and more traffic. I appreciate the work that the Brandywine Conservancy and Natural Lands Trust have done.

Once open space is gone, it's gone forever and the long-standing, very unique character of our area would very regrettably be lost. Let's not make the same, sad mistakes as Delaware County.

CSAs are a specific business model in ag. Agritourism is another business model. We should stop concerning ourselves with exactly how a farmer operates their business - what model - and build flexibility in for them to adapt and evolve as market and climate forces them to. We don't tell a grocery store whether to have online ordering or organic - we should think of farms in the same manner. They aren't green space to think is pretty - they are individual businesses in the very complex world of of agricultural industry going about the essential work of feeding people.

The Kennett area should be the business, social and service hub for the Unionville area. We need to focus on preserving the character and natural beauty that surrounds us. One of the challenges we will face is traffic from the denser townships around us who travel thru our area as commuters.

I love Unionville Park but there is too much grass. With the cost of gas why do we mow the slopes? Open space in developments such as La Reserve should not be allowed to be short grass fields, constantly mowed. HOAs have too much power and restrict individuals too much. Corporate management companies are having more say than township government.

Right now the East Marlborough police are no more than crossing guards with guns.

The Rt 1 area is becoming overdeveloped. Lane widening is already taking away from the historic Chester county charm that ties us to this area. Continuing to expand retail centers and accommodate big store/franchise development has us considering a move further west down the corridor. We hope to see increased police presence and speed monitoring in high traffic areas.

Promote rehabbing older structures rather than new construction. Add traffic circles where they will be beneficial.

Less is more, all needs are available nearby.

Limit low income housing and increasing traffic

Please protect Unionville from over development. I'm concerned that this area will become too developed. Open space and low traffic is very important. We love the park behind PoMarLin fire dept. An all abilities playground would be wonderful for our community. I lived in Havertown about 15 years ago and they did a fabulous all abilities playground that involved community and really brought people together. We live off of east doe run road and would like a sidewalk so kids can safely walk to Patton and UHS. We miss Foxy Loxy - not that you can do anything about that.

The new park should not be passive, we already ahve a passive park in Unionville

A second high school in Chadds Ford may be a way to ease the traffic and general demands on the Unionville region.

Suggestion: Offer incentives for native planting and removal of invasive plants to home owners and landscaping companies

Many roads are tight and not conducive to high volume traffic. Over development will bring more dangerous conditions for families and schools.

Need to preserve land, uphold buildings code restrictions from the township and monitor the wetlands/Brandywine River. I also believe that developments within a designated space near waterways should not be using dangerous herbicides/pesticides/fertilizers.

If not in our immediate community, we have a lot of the public amenities listed above in nearby communities (parks, tennis courts, etc). Pocopson Park, for example, is under utilized compared to Anson B Nixon.

Consolidate any development and be very very mindful of the fact that as each area gets developed -those open spaces, vistas and small farms can never ever come back. This is the biggest risk for this very special area.

I really cannot emphasize enough my response to 20. Every time I drive through one of those places, I think "Thank goodness I don't have to live here—it's awful." I grew up in West Goshen and it was great, but not anymore. And Exton? Forget it. I can't even talk about it. People want to live in Unionville because it's beautiful rather than a giant, endless, strip mall parking lot dotted with a million traffic lights. Once everything is paved over and ruined for retail, that's it. It's destroyed. Let's learn from the history of other municipalities.

Would love to see pedestrian access connecting Unionville Village to ChesLen

I'm concerned about overdevelopment and increased traffic.

Appendix C

Existing Conditions

Land Use and Zoning Summary

Land Use

The tables and map below show land use in the three municipalities that make up the Unionville Region, as well as for the Region as a whole. By far the most common land use in the Region is agriculture, followed by woodland, and then residential. Only in East Marlborough Township does residential land use make up a reasonable share of land uses. For further analysis of the residential types, see the Unionville Regional Demographic Profile in Appendix A. Other land uses of note are institutional lands in East Marlborough that consist of Longwood Gardens, Unionville-Chadds Ford School District properties, and the University of Pennsylvania's New Bolton Center.

Land Use	Acres	Percentage of Area
Agriculture	15,569	54.4%
Commercial	217	0.8%
Industrial	32	0.1%
Institutional	670	2.3%
Recreation	267	0.9%
Residential	3,896	13.6%
Transportation	41	0.1%
Undeveloped	515	1.8%
Utility	373	1.3%
Water	245	0.9%
Wooded	6,811	23.8%
Total	28,634	100.0%

Unionville Region Land Use: DVRPC 2020

Land use	Acres	Percentage
Agriculture	8,073	73.9%
Commercial	18	0.2%
Institutional	19	0.2%
Recreation	9	0.1%
Residential	339	3.1%
Undeveloped	67	0.6%
Utility	167	1.5%
Water	62	0.6%
Wooded	2,176	19.9%
Total	10,930	100%

West Marlborough Land Use: DVRPC 2020

Land Use	Acres	Percentage
Agriculture	3,611	47%
Commercial	12	0%
Institutional	26	0%
Recreation	24	0%
Residential	713	9%
Undeveloped	187	2%
Utility	175	2%
Water	110	1%
Wooded	2,897	37%
Total	7,756	100%

Newlin Township Land Use: DVRPC 2020

Land Use	Acres	Percentage
Agriculture	3,885	39%
Commercial	187	2%
Industrial	32	0%
Institutional	625	6%
Recreation	233	2%
Residential	2,844	29%
Transportation	41	0%
Undeveloped	260	3%
Utility	31	0%
Water	72	1%
Wooded	1,738	17%
Total	9,948	100%

East Marlborough Land Use: DVRPC 2020

Zoning

Each municipality with the Unionville Region has their own Zoning Ordinance that provides guidance and requirements for the development of land within their respective municipalities. Map C1 below is a composite map of the Unionville Region that shows the zoning districts for all three municipalities. West Marlborough and Newlin Townships zoning is dominated by districts that seek to preserve their rural nature, while East Marlborough's zoning allows for a far greater number of uses. A summary of each zoning district for each municipality is included below.

West Marlborough Township

Agriculture – Conservation

This Zone limits permitted uses to those that are rural in character. Development intensity is restricted through the use of specified design and performance standards, so that each use will remain compatible within the intended rural/conservation character. In addition, a wide range of

Zoning

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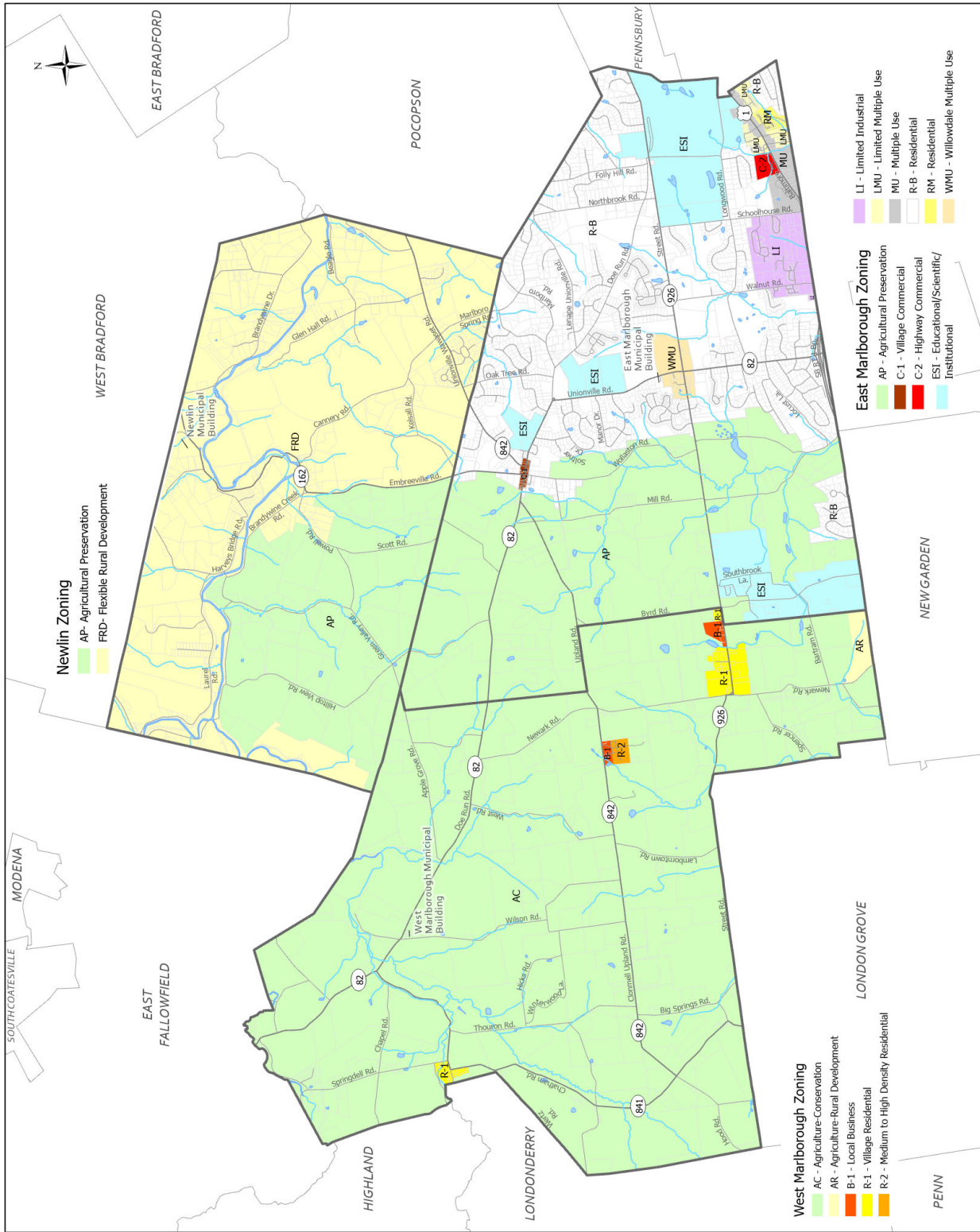


- Unionville regional municipalities
- Adjacent municipalities
- Water bodies
- Streams
- US/ State roads
- Local roads
- Estimated tax parcels



Data Source: Base Data from Chester County GIS Department, 01/2022

Map Created: 12/27/2022
Last Revised: 10/29/2024 12:56 PM



Newlin Zoning
 AP - Agricultural Preservation
 FRD - Flexible Rural Development

West Marlborough Zoning
 AC - Agriculture-Conservation
 AR - Agriculture-Rural Development
 B-1 - Local Business
 R-1 - Village Residential
 R-2 - Medium to High Density Residential

East Marlborough Zoning
 AP - Agricultural Preservation
 C-1 - Village Commercial
 C-2 - Highway Commercial
 ESI - Educational/Scientific/Institutional
 LI - Limited Industrial
 LMU - Limited Multiple Use
 MU - Multiple Use
 R-B - Residential
 RM - Residential
 WMU - Willowdale Multiple Use

agricultural uses and activities will be permitted as a means of strengthening the Township's agricultural economy; however, intensive agricultural operations will be subject to specific design and performance criteria.

Agriculture – Rural Development

This Zone provides for land uses that are incompatible with both the Township's development zones and its sensitive and productive Agricultural-Conservation Zone. Within this Zone, agricultural and conservation uses are subject to the same requirements as apply within the Agricultural-Conservation Zone. However, other rural development uses are subject to specific locational, design and operational requirements. This Zone is located in an area of the Township where impacts can be confined, involves lands without restrictive covenants/easements that would preclude potential development and is nearby other similar developments in adjoining Townships, and offers nearby access to US Route 1.

R-1 Village Residential

This Zone accommodates suburban residential growth within the Township's villages. No public sewer and/or public water utilities are foreseeable within this Zone; therefore, minimum lot area requirements have been sized to provide sufficient area to install on-site utilities. Uses permitted within this Zone have been selected so to create a pleasant neighborhood setting. Specific zone locations acknowledge existing Villages where conditions are best suited for limited development.

R-2 Medium to High Density Residential

This Zone seeks to accommodate the higher density housing needs of the Township. A wide range of housing types are allowed with densities exceeding those permitted elsewhere in the Township. These increased densities are permitted only when the use of public sewer and/or public water utilities are assured. The location of this Zone is logically located where public sewer and water are already available with residual capacity to serve future growth.

Historic Village Residential

This Zone is meant to acknowledge the historic settlement pattern of villages. Here small gatherings of residences and ranch-related uses were established before the Township's initial zoning requirements. Buildings were situated in a tightly-knit manner that lacked individual driveway access and off street parking. No public sewer or public water was available. All of these characteristics created a unique historic village that does not comply with more recent zoning standards of lot size, setbacks, driveway access and off-street parking. Nonetheless, these are important settlements within the Township that include listings on the National Register of Historic Places. Within this Zone, zoning standards correlate closely with existing conditions but will require that uses be served by approved community sewage systems and domestic water supply and shared vehicular access.

B-1 Local Business

This Zone is intended to provide for the Township's commercial and industrial land use needs. Given the rural character of the Township, this Zone only provides for (as permitted uses) limited commercial and/or industrial uses that relate to the local retail, service and employment needs of

the Township. Other larger and more intensive uses, while provided for, must obtain specific approval by special exception or conditional use. Areas within this Zone have been deliberately located close to the Township's planned residential growth areas to minimize vehicular traffic congestion and conserve energy. This strategy also helps to preserve the outlying pastoral character of the Township.

AS Airport Safety

This Overlay Zone is in place to provide for the safety and operation of aviation activities at the New Graden Flying Field and requires the limitation on building and structure height and the use of land within "airport hazard areas".

East Marlborough Township

AP - Agricultural Preservation

The Zone is designed to encourage the continuity, development and viability of agricultural operations and promote continued agricultural, open space, and natural resource conservation uses, while also permitting low-density residential development that is compatible with the character of the area and agricultural uses. It recognizes the importance of agriculture as a productive land use and viable element of the local economy, while also helping to protect prime agricultural soils, woodlands, wetlands, floodplains, and other environmental resources.

R-B Residential

This Zone is designed to encourage and promote continued agricultural, open space, and conservation uses, while also permitting low to medium density residential development which will be consistent with existing residential development and agricultural uses.

ESI - Educational, Scientific & Institutional

This Zone provides for the special needs of large uses devoted to educational, scientific, research, and institutional purposes, while preserving the open character of substantial areas of the Township and encouraging a harmonious pattern of such uses.

C-1 Village

This Zone provides for commercial and service establishments compatible with a village setting to help strengthen the economic base of the Township, while also protecting the character of the village and adjacent districts.

C-2 Highway Commercial

This District provides for clusters of retail and office development to serve as convenient, aesthetically pleasing, and pedestrian sensitive areas for shopping and other nonresidential uses.

MU - Multiple Use

This District permits certain uses permitted in both the R-M and C-2 Districts in appropriate locations and that are compatible with each other and do not adversely affect the use of the

neighboring properties. This Zone also permits a variety of housing types, some of which require central water and sewer systems.

LMU - Limited Multiple Use

This Zone provides space in appropriate locations for certain uses permitted in both the R-M and C-2 Districts. In addition, this Zone permits medium to high-density residential development in areas which are easily accessible to major highways, commercial areas, and utilities. Various types of commercial, office and service establishments are also permitted in this Zone.

R-M – Residential

The purpose of this Zone is to encourage medium to high density residential development, including well-designed Multi-Family developments, which are easily accessible to major highways, commercial areas, and utilities

RET - Retirement Overlay

This Zone provides for greater opportunities for housing and recreation for elderly residents and insures that the provisions of the East Marlborough Township Zoning Ordinance which are concerned with provision of a full range of housing options, are met.

H – Historic

This Zone is to protect historic buildings and areas within East Marlborough Township which reflect the architectural and historic heritage of the Township and to promote the general welfare, education, and culture of the Township by encouraging an interest in its historical heritage.

LI - Limited Industrial

This District is designed primarily to provide for selected modern, non-nuisance research and industrial establishments with a view to encouraging attractive, large-site, low Lot Coverage development in areas which are particularly well suited for such uses.

PRD - Planned Residential Overlay

This Zone provides for innovations in residential development and renewal so that growing demand for housing may be met by greater variety in type, design, and layout (including density) and by the conservation and more efficient use of open space ancillary to those dwellings.

WMU - Willowdale Multiple Use

The purpose of this Zone is to allow for sufficient space in village centers for commercial and service establishments and for higher density residential development that is compatible with a village setting. This district also provides for a range of housing options in the Township.

Newlin Township

AP – Agricultural Preservation

This Zone is designed to encourage and promote continued agricultural, open space, and conservation uses, while also permitting low-density residential development as would be

compatible with the existing rural character of the area and agricultural uses. It also focuses on recognizing agriculture as a productive land use and a viable component of the economy of Newlin Township and Chester County.

FRD – Flexible Rural development

This Zone is designed to allow for a variety of lot sizes, building densities and housing choices that also minimizes their impacts on sensitive natural resources and productive agricultural soils. A focus is to provide for direct visual access to open land, with an emphasis on neighborhood open space, to conserve scenic views and elements of Newlin’s rural character, and to minimize perceived development density by limiting views of new development from existing roads.

Natural Resource Inventory

Land Resources

Map C2 highlights the land resources (agricultural soils, steep slopes, and hydric soils) within the Unionville Region. The region contains over 20,000 acres of prime farmland and farmland of Statewide importance, which contributes significantly to the rural character and way of life for the Region. Contained within the west portions of East Marlborough, and large portions of both West Marlborough and Newline Townships, a vast quantity of the important resource is permanently protected through fee ownership by land trusts or by conservation easement or agricultural easement.

Steep slopes (greater than 15%) occur along the banks of the West Branch Brandywine, as well as its tributaries, Buck Run and Doe Run, and many unnamed tributaries in Newline Township. Fewer steep slopes are located within East Marlborough and southern West Marlborough Townships.

Hydric soils, soils which stay either seasonally or permanently wet, and are a good indicator of the presence of wetlands, occur throughout the region, although mostly along small stream corridors. West Marlborough is home to one particularly large area of hydric soils, in an area south of Route 842 and east of Lamborntown Rd.

Biotic Resources

Map C3 includes the biotic resources (woodlands and other important habitats) within the Unionville Region. Woodlands serve several important environmental, economic, and societal functions, including, but not limited to, providing wildlife habitat, limiting erosion on steep slopes, providing shade to streams and water bodies, helping regulate local climates, and sequestering carbon. The Unionville Region contains almost 7,000 acres of woodland, of which 66% are permanently protected. However, these woodlands are fragmented and face threats from a changing climate, pests, invasive plants, disease, and heavy deer browsing. Despite their fragmented nature, the Region does contain several areas of woodland of significant size, so much so that they contain important interior woodlands (areas measured 300’ from any outer edge of woodland). Woodland interiors are important in that they are less susceptible (though not immune)

Land Resources

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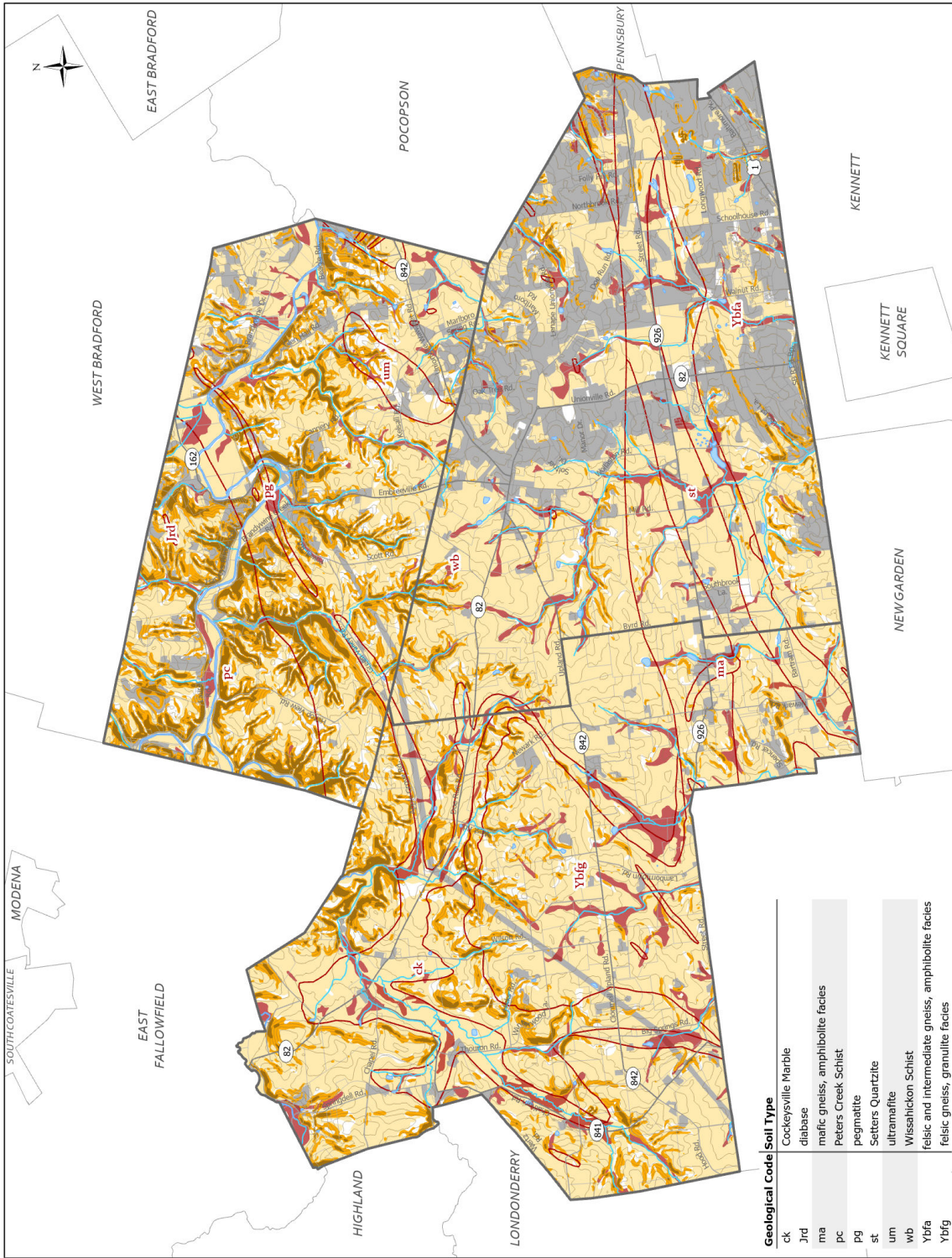


- US/ State roads
- Local roads
- Estimated tax parcels
- Unionville regional municipalities
- Adjacent municipalities
- Streams
- Water bodies
- 25 ft contours
- Moderately steep slopes (15%-25%)
- Very steep slopes (>25%)
- Agricultural soils (prime ag. soils & soils of statewide importance)
- Hydric soils
- Geological Units
- Intensive land use (residential, commercial, industrial, and institutional development)



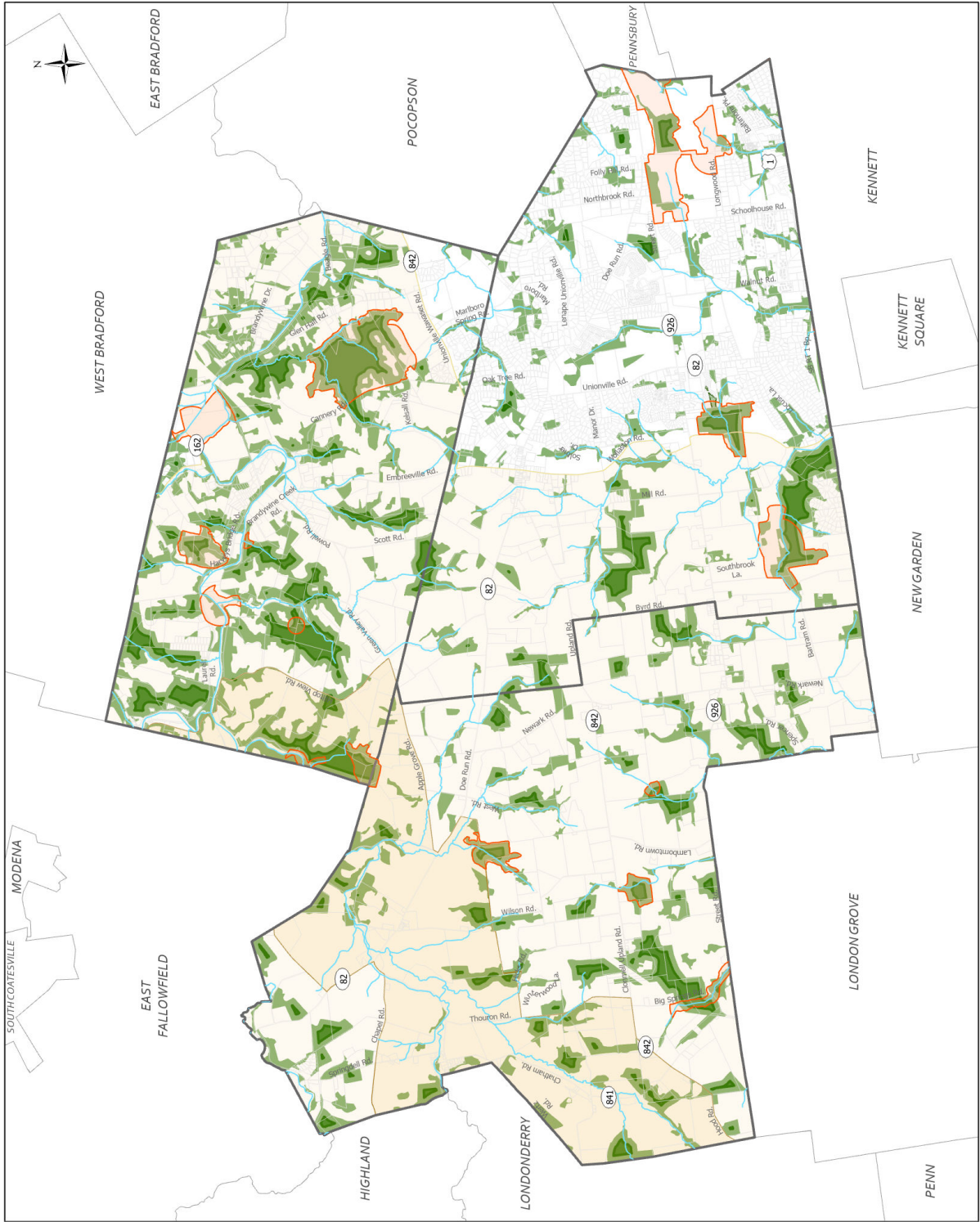
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 Protected Lands data from Chester County GIS Department, 07/2022

Map Created: November 4, 2019
 Last Revised: 10/29/2024 2:04 PM



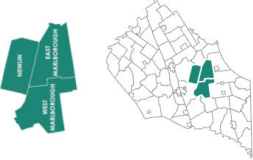
Geological Code	Soil Type
ck	Cockersville Marble
Jrd	diabase
ma	metric gneiss, amphibolite facies
pc	Peters Creek Schist
pg	pegmatite
st	Setters Quartzite
um	ultramafite
wb	Wissahickon Schist
Ybfa	felsic and intermediate gneiss, amphibolite facies
Ybfg	felsic gneiss, granulite facies

Map C2



Biologic Resources

Unionville Regional Comprehensive Plan Update 2024



- US/ State roads
- Local roads
- Estimated tax parcels
- Adjacent municipalities
- Unionville regional municipalities
- Streams
- Water bodies
- Core habitat: PA Natural Heritage Program
- Important bird area: core areas
- Important bird area
- Interior woodlands
- Woodlands
- Additional tree canopy
- Interior Woodlands



Data Source: Base Data from Chester County GIS Department, 01/2022
 Protected Lands: data from Chester County GIS Department, 07/2022

Map Created: November 4, 2019
 Last Revised: 10/29/2024 2:17 PM

Map C3

to influences that degrade a fort from the outside - light, wind, noise, and non-native species. These areas tend to be richer and more diverse and may contain rare or endangered species.

Given the ample protected open space and presence of important natura resources, the Region also contains areas of Core Habitat and Important Bird Areas (IBA). Core Habitat are areas that contain one or more plant or animal of concern at the state or federal level, or are of exemplary natural communities, or exceptional native diversity. They are generally sensitive to land use changes and may require specific prescriptive management to maintain their natural communities. An Important Bird Areas (IBA) is a site that provides essential habitat for birds during breeding, wintering, or migration. Once again, it is the vast array of protected land and their stewardship that provides this important habitat for our population of songbirds.

Water Resources

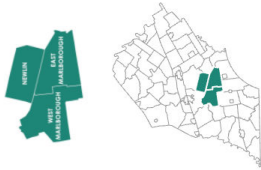
Maps C4 and C5 highlight some of the region's water resources. The Region is important in that it straddles three major watersheds, including headwater areas of both the White Clay and Red Clay watersheds, of which the White Clay is designated as an Exceptional Value waterway by PA DEP. Given its geographic situation within these watersheds, much of the Region contains headwater streams and watersheds, which are especially sensitive to changes in land use and are important areas for maintaining baseflow and water quality in the area's waterways. Unfortunately, almost all East Marlborough's waterways are considered impaired by PA DEP, while a smaller fraction within Newlin and West Marlborough are.

The Region contains some wetlands, as shown in Map C4. Wetlands are critical habitat for some of our native species and also provide a variety of ecological services, such as filtering pollutants, providing flood storage, and helping to recharge groundwater supplies. Wetlands are defined by the Chapter 105 Regulations of the Pennsylvania Code as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas". Fortunately, wetlands are fairly well protected through federal regulation administered by PADEP, the U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers.

Map C5 shows the extent or absence of riparian buffers along the streams of the Region. Riparian buffers are areas of woodlands (in this case within 100') along stream corridors. These are transitional areas between the flowing waters of streams and rivers, and upland areas. Protecting these natural buffers is widely recognized as one of the most important and cost-effective ways to protect a stream's overall health. Wooded stream buffers: cool water temperature; provide wildlife habitat in the form of food, water, and shelter; supply important nutrients to the stream's microorganisms from decaying leaves and other organic material; contribute woody debris that helps regulate stream flow and provides resting spots for aquatic species; 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 often highly scenic. Of the 2,640 acres of 100' riparian areas within the Region, almost half do not contain woodland. For each municipality, this represents an absence of 55% in East Marlborough, 67% in

Water Resources

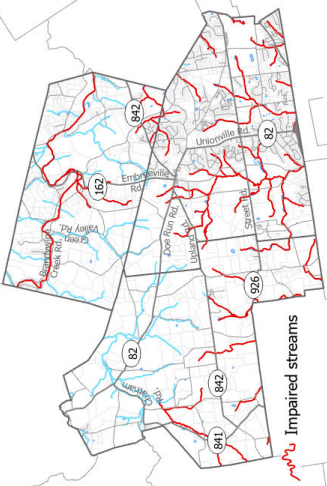
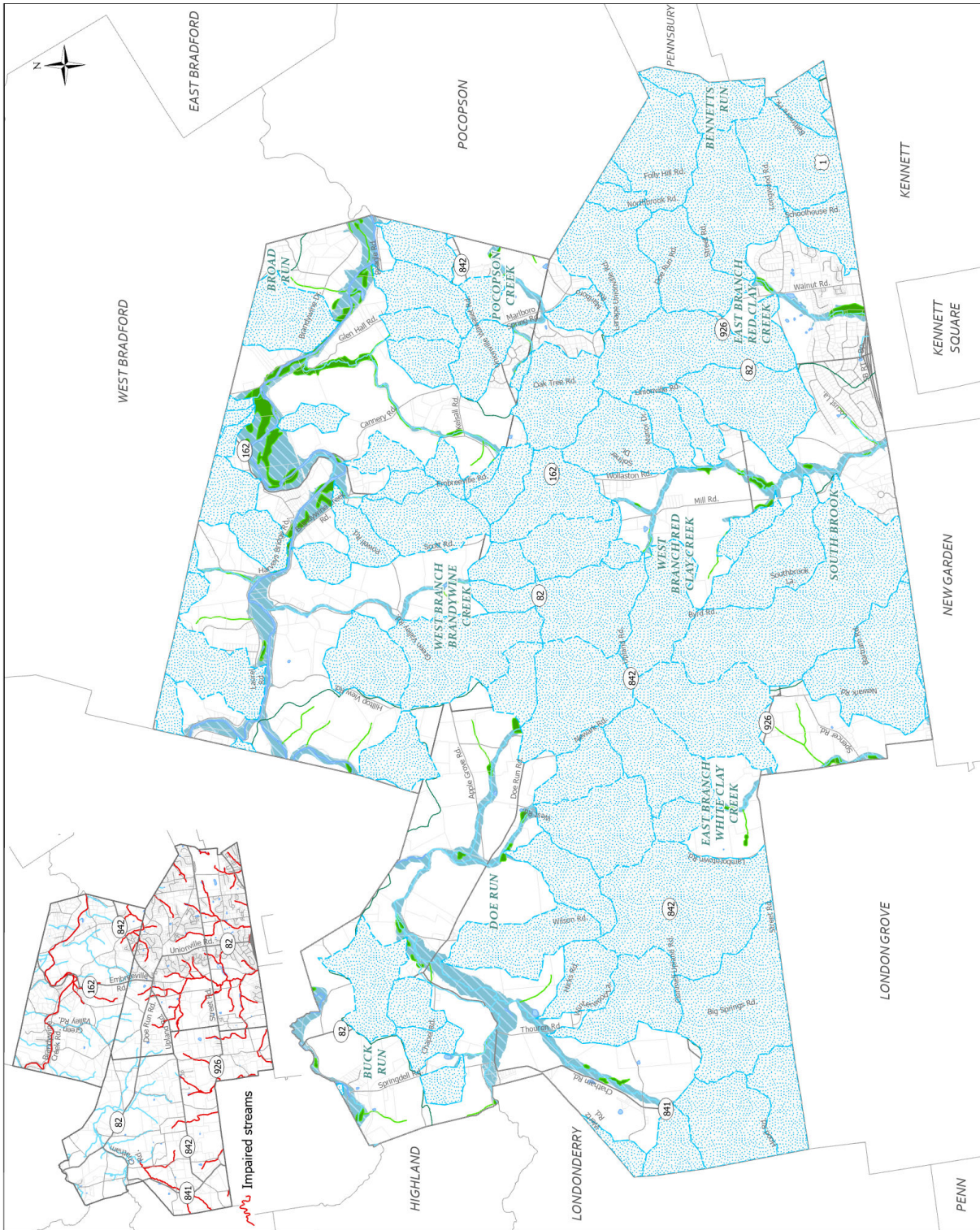
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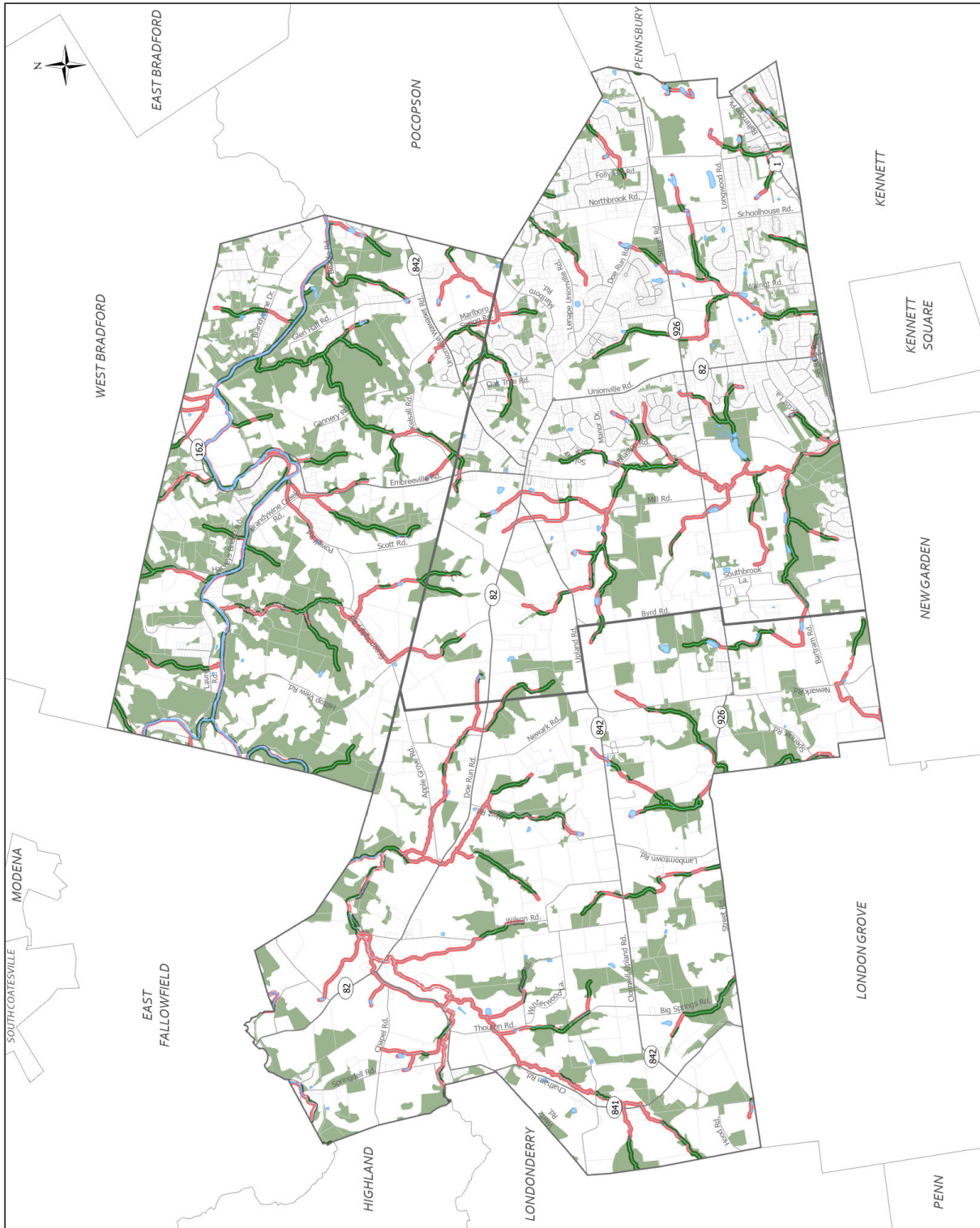
- US State Roads
- Local Roads
- Estimated tax parcels
- Unionville regional municipalities
- Adjacent municipalities
- Water Bodies
- Streams
- Watersheds
- Wetlands
- 100-yr floodplain
- Headwater areas
- Headwater areas Prolands



Data Source: Base Data from Chester County GIS Department, 01/2022
 Protected Lands data from Chester County GIS Department, 07/2022
 Map Created: November 4, 2019
 Last Revised: 10/29/2024 2:31 PM

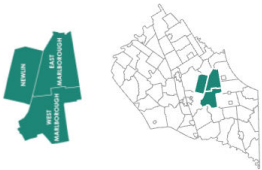


Map C4



Riparian Opportunities

Unionville Regional
Comprehensive Plan Update 2024



- US/ State roads
- Local roads
- Estimated tax parcels
- Unionville regional municipalities
- Adjacent regional municipalities
- Streams
- Water bodies
- Gaps
- Forested buffer (100')
- Woodlands



Data Source: Base Data from Chester County GIS Department, 01/2022
 Protected Lands data from Chester County GIS Department, 07/2022
 Map Created: November 4, 2019
 Last Revised: 10/29/2024 2:25 PM

Map C5

West Marlborough, and 32% in Newlin. These “gaps” represent opportunities to reforest and enhance the water resources and woodland habitat of the Region.

Table C1 below summarizes the extent of natural resources within the Unionville Region and to what extent these resources are permanently protected through either fee owned lands by non-profits or the municipality, through conservation and agricultural easements, or on land within HOA open space.

Resource	Total	Protected	% Protected
Stream Miles	93 miles	56 miles	60%
Undeveloped Prime Ag. Soils	20,430 acres	12,606 acres	62%
Undeveloped Hydric Soils	1,859 acres	1,307 acres	70%
Woodlands	6,800 acres	4,478 acres	66%
Riparian Woodlands (100 ft.)	1,369 acres	592 acres	43%
Riparian Gaps (100 ft.)	1,270 acres	756 acres	59%
Wetlands	500 acres	320 acres	64%
Headwaters Areas	17,661 acres	10,243 acres	58%

Table C1 – Natural Resources, Unionville Region

Land Preservation Priorities

To supplement the Open Space Priorities Chapter of the Plan, an analysis of both agricultural and natural resource priorities was conducted utilizing Geographic Information systems (GIS). These priorities rank remaining undeveloped parcels, which were selected based upon a set of agricultural and natural resource criteria (see below). Ultimately, these maps help prioritize potential parcels for preservation and help provide guidance when considering the use of tax revenue or grant funds for preservation purposes.

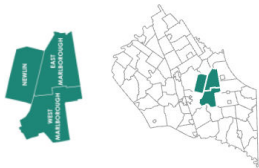
Maps C6 and C7 are the result of this analysis of land preservation priorities.

Agricultural Priorities

The two major factors that were analyzed for agricultural prioritization were parcel size and soil types. The following method provides data that can be used to rank agricultural lands for Chester County’s Preservation Partnership Program and the leading source of funding for agricultural land preservation in the region. First, all existing protected lands were removed from the analysis. Parcels of twenty-five acres or greater were selected as well as clusters of smaller parcels that were owned by the same landowner and together exceeded 25 acres. All parcels of ten acres or greater were selected if they were adjacent to existing protected land. Once all properties that met the size criteria were selected, soils were analyzed for each property. Using soil information provided by the

Agricultural Opportunities

Unionville Regional
Comprehensive Plan Update 2024



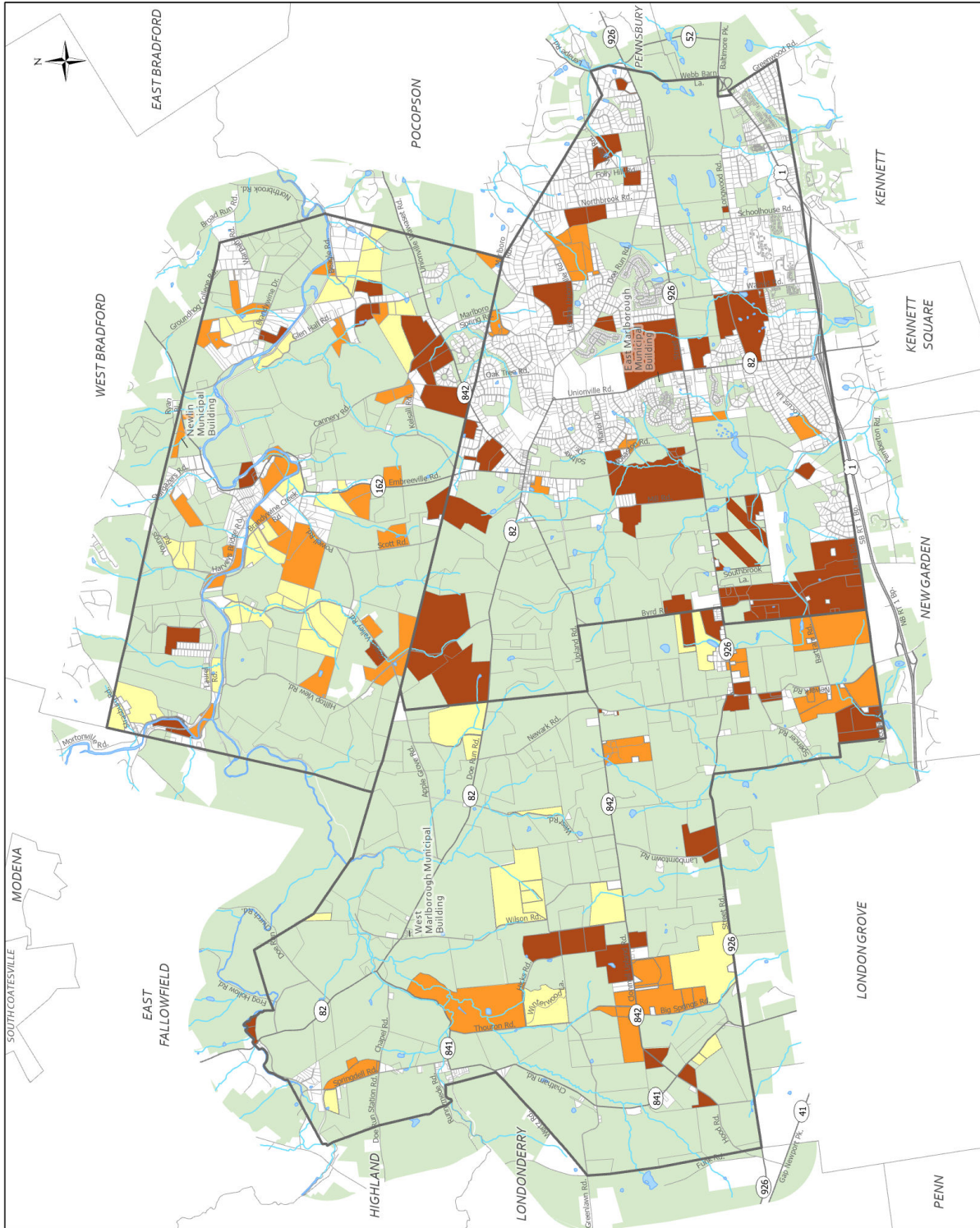
- Estimated tax parcels
 - Unionville regional municipalities
 - Adjacent municipalities
 - Water bodies
 - Streams
 - US/ State roads
 - Local roads
 - Protected Lands
- Preservation Opportunities* ~ 5,477.7 ac. (19% of twp.)**
- Agricultural soils less than 50% ~1,523.4 ac. (5% of twp.)
 - Agricultural soils 50-75% ~1,568.1 ac. (5% of twp.)
 - Agricultural soils greater than 75% ~ 2,386.2 ac.(8% of twp.)
 - Temporary easement ~ 145 ac. (1.5% of twp.)



BRANDYWINE CONSERVANCY

Data Source: Base Data from Chester County GIS Department, 01/2022
Protected Lands data from Chester County GIS Department, 07/2022

Map Created: November 4, 2019
Last Revised: 10/29/2024 3:29 PM



Map C6

Natural Resource Opportunities

Unionville Regional
Comprehensive Plan Update 2024

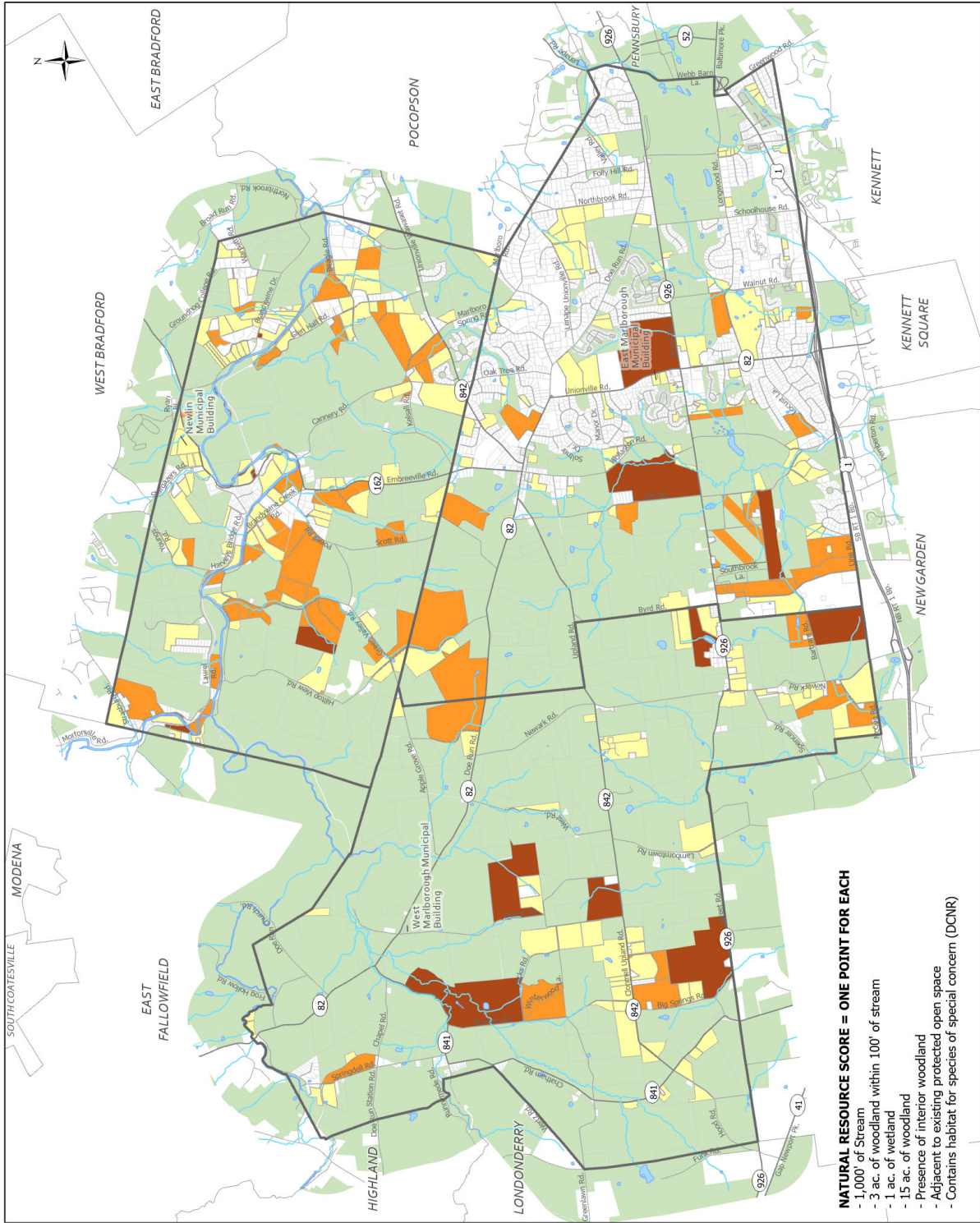


- Estimated tax parcels
 - Unionville regional municipalities
 - Adjacent municipalities
 - US/ State roads
 - Local roads
 - Water bodies
 - Streams
- Natural resource opportunities
(~ 5,927 ac. 2.1% of twp.)
 - 1-2 ~ 2,633.4 ac. (9% of twp.)
 - 3-4 ~ 1,442.4 ac. (5% of twp.)
 - 5+ ~ 1,851.4 ac. 6% of twp.)
 - Temporary easement ~ 145 ac. (1.5% of twp.)
 - Protected lands



Data Source: Base Data from Chester County GIS Department, 01/2022
Protected Lands data from Chester County GIS Department, 07/2022

Map Created: November 4, 2019
Last Revised: 10/29/2024 3:26 PM



NATURAL RESOURCE SCORE = ONE POINT FOR EACH

- 1,000' of Stream
- 3 ac. of woodland within 100' of stream
- 1 ac. of wetland
- 15 ac. of woodland
- Presence of interior woodland
- Adjacent to existing protected open space
- Contains habitat for species of special concern (DCNR)

USDA, the percent of agricultural soils for each property were determined and properties were classified into three categories:

- Agricultural soils greater than 75%
- Agricultural soils between 50% and 75%
- Agricultural soils less than 50%

Within the Region, almost 5,500 acres (19% of the Region) are still available for preservation opportunities, with almost 2,400 acres being ranked at the highest level with parcels containing greater than 75% of their land area in agricultural soils.

Natural Resource Priorities

In order to select top parcels for protection based on their natural resource qualities, parcels were scored using the following criteria:

- The presence of at least 1,500 feet of stream length.
- The presence of 3 or more acres of woodland within 100' of a stream.
- The presence of at least one acre of wetlands.
- The presence of at least 15 acres of woodlands.
- All tax parcels containing any interior forest lands.
- Adjacency to existing protected open space
- The presence of habitat for species of special concern

Each parcel was scored based upon the number of the above criteria it contained; the more criteria, the higher the score. Of the almost 6,000 acres (21% of the Region) of natural resource preservation opportunities in the Region, over 1,850 acres (6% of the Region) received a score of five or greater.

Parks and Recreation Inventory

East Marlborough Township undertook a comprehensive planning effort in 2021 to update their Open Space, Recreation, and Environmental Resources Plan. This Plan includes a full inventory of and recommendations for parks and recreational facilities in East Marlborough Township. A copy of the Plan can be accessed at the Township Offices at 721 Unionville Road, Kennett Square, PA 19348, or at the following link: <https://www.brandywine.org/conservancy/recent-projects/east-marlborough-township-osrer-plan>

West Marlborough and Newlin Townships do not maintain any municipally owned parks or recreational facilities, although a small portion of the playing fields at the Embreeville Athletic Fields are located within Newlin Township.

Community Facilities and Services Inventory

Administration

All three municipalities in the Unionville Region are municipalities of the second class under the Second Class Township Code. Newlin and West Marlborough are governed by an elected three-member Board of Supervisors, while East Marlborough is governed by an elected five-member Board of Supervisors. Each municipality has advisory and quasi-judicial boards and commissions comprised of volunteers who assist the Township in affairs and governance, such as the Zoning Hearing Board, the Planning Commission, and the Historic Commission.

East Marlborough Township has two full-time and two part-time administrative staff, including a Township Manager. Neither Newlin or West Marlborough Township has a paid Township Manager, but rely on elected officials and the Secretary/Treasurer to administer Township operations.

Emergency Services

Police

East Marlborough Township is the only municipality within the Region to have a dedicated Police Department. The Department maintains a staff of two full-time police officers, four part-time police Officers, and one part-time Administrative Assistant. The East Marlborough Police Department also provides part-time coverage under contract to West Marlborough Township. All three municipalities are also served by the Pennsylvania State Police from nearby Barracks in Embreeville and Avondale.

Fire and Medical Services

The Region is serviced for both Fire and EMS services by Po-Mar-Lin Fire Company (located in the village of Unionville) and the Longwood Fire Company (located on Baltimore Pike adjacent to Longwood Gardens). Both are volunteer companies. Longwood Fire Company also provides 24-hour EMS services. In addition to Longwood, EMS services are also provided to Newlin Township by the Good Fellowship Ambulance Club and Modena Fire Company. West Marlborough Township is also serviced by both the Modena and Avondale Fire Companies and additional coverage in Newlin is provided by the West Bradford Fire Company and the Modena Fire Company.

Public works

All three municipalities are responsible for the maintenance of Township owned roads within their jurisdiction, which is handled through each municipalities Public Works crews. Within East Marlborough Township, the Public Works Department is also responsible for the maintenance of Unionville Park (as well as other municipally owned land) and the Public Sewer System. East Marlborough has seven full-time Public Works positions and a further eight part-time seasonal employees.

Solid Waste

The Region's three municipalities are part of Chester County's Solid Waste Management Plan, which is currently being revised. This follows state actions to control solid waste through the Pennsylvania Solid Waste Management Act 1989 (Act 100) and the Pennsylvania Municipal Waste Planning Recycling and East Reduction Act of 1988 (Act 101). Only East Marlborough Township of the 3 participating townships has a population of 5,000 persons, and as such, is the only municipality required to establish and implement a source-separation and collection program for recyclable materials.

The Southeastern Chester County Refuse Authority (SECCRA) is a municipal authority that has provided a regional waste management approach to solid waste disposal in southern Chester County since 1968. All three of the municipalities in the Region are included in the 24 communities that comprise this authority. The SECCRA landfill is located in London Grove Township, but directly abuts the southwestern border of West Marlborough Township on Route 926 near Mosquito Lane. Residents may bring residential waste to the facility and pay for disposal based upon the type and weight of material.

Recycling is mandatory in East Marlborough Township, voluntary in West Marlborough and Newlin. In all three Townships, property owners' contract with private haulers for collection and disposal of waste. West Marlborough and Newlin residents are encouraged to take recyclables to the SECCRA facility.

Sewer Systems

Map C8 shows the area of the region served by both public water and public sewer systems. Newlin and West Marlborough Township's rely solely on on-lot sewage disposal systems and do not maintain any municipally operated sewer facilities. East Marlborough contains areas served by The Unionville Regional Sewer System, a public lagoon and spray field facility located near the intersection of Route 926 and Wollaston Rd. East Marlborough is currently updating their Act 537 Plan which governs the disposal of wastewater in East Marlborough Township. The Plan recommends the implementation of an Ordinance governing the management of on-lot disposal systems within the Township, and conveyance system upgrades to the force mains in both the eastern and western portions of the Township.

Areas of East Marlborough are also served by on-lot septic systems. Two larger institutional owners in East Marlborough Township, Longwood Gardens and the New Bolton Center, have their own on-site treatment facilities with spray irrigation systems, while the public schools in East Marlborough are connected to the Unionville Regional Sewer System. Upland County Day School has its own on-site septic system. Some residential developments in the Region have their own community septic systems, Newlin Green in Newlin Township being one.

Water

Within Newlin and West Marlborough Township's, almost all the water needs are provided by private on-lot well systems, besides two community on-lot well systems, one at the Stone Barn on Upland Road in West Marlborough and one near the Embreeville property in Newlin Township. West of Wollaston Road in East Marlborough, water is provided for through on-lot private well systems.

Water and Sewer

Unionville Regional
Comprehensive Plan Update 2024

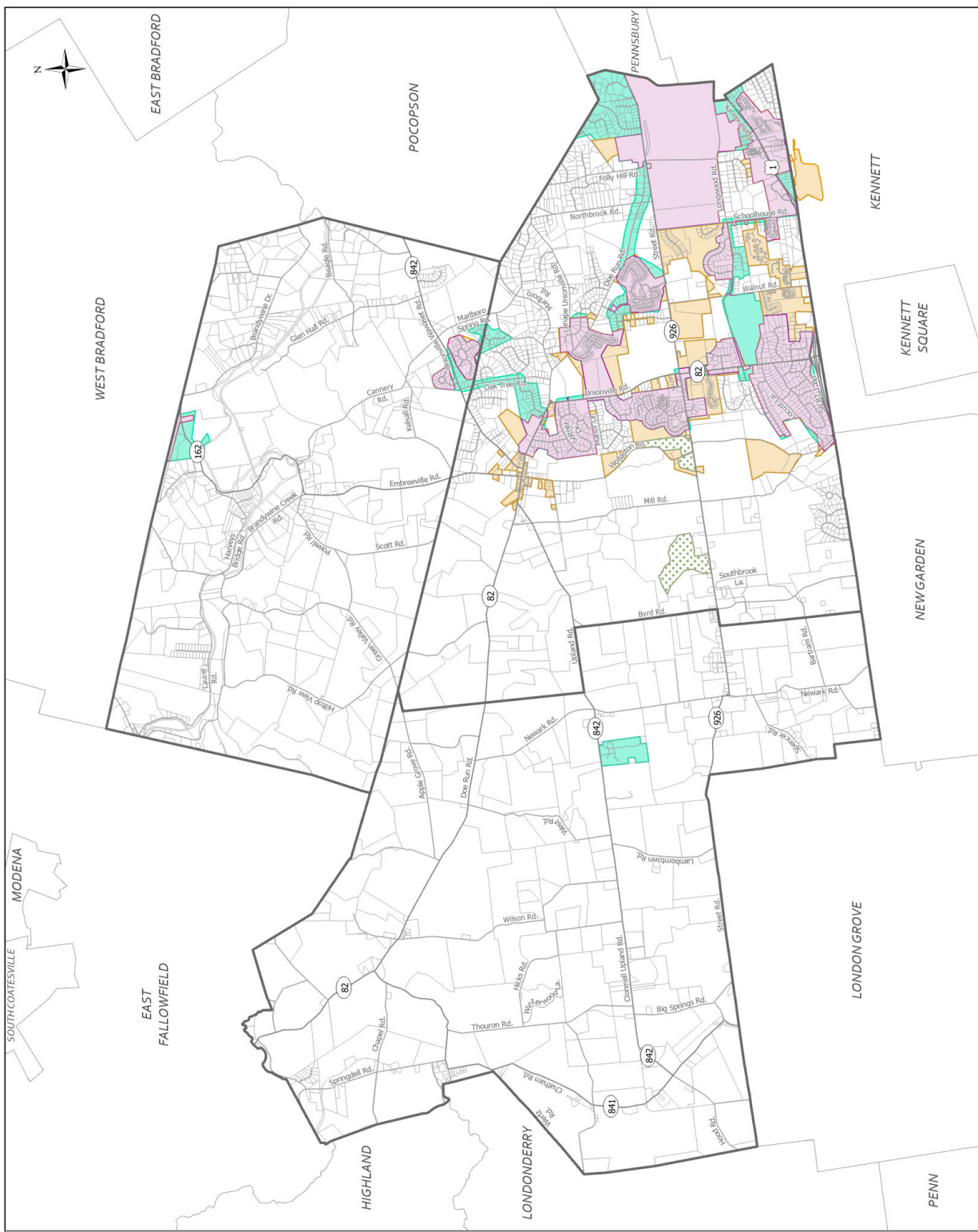


- Estimated tax parcels
- Unionville regional municipalities
- US/ State roads
- Local roads
- Adjacent municipalities
- Water bodies
- Streams
- Sewer service areas
- Water service areas
- Water and sewer service areas
- Municipal Spray Fields



Data Source: Base Data from Chester County GIS Department, 01/2022

Map Created: 12/27/2022
Last Revised: 10/29/2024 1:46 PM



The more developed eastern section of the Township relies on a combination of on-lot well systems (primarily on larger lots or older properties) and public water supplied by Aqua America, Inc.

Education

The Unionville-Chadds Ford School District (UCFSD) serves much of the Region with public schooling. The Kennett Consolidated School District serves the remaining small portion of residents in East Marlborough Township not served by UCFSD. East Marlborough Township houses three of UCFSD's schools, Unionville Elementary, Charles F. Patton Middle School, and Unionville High School. Some families do choose to send their children to private schools in the area. Within the Unionville Region, the only private educational institution is Upland Country Day School in East Marlborough Township, which serves grades K-9.

Library

The Unionville Region is served by the Kennett Library, a library within the Chester County Library System. The Kennett Library serves all three municipalities in the Unionville Region, as well as the municipalities of Kennett Square, Kennett, New Garden, Pennsbury, and Pocopson. The library is funded through service-area municipal contributions, the State of Pennsylvania, and from funds raised through donations, events, grants, fees, charges, investments, and other miscellaneous library income. The library provides a range of both traditional and web-based services and programs in a brand-new facility located in the heart of Kennett Square.

Appendix D

Community Climate Profile



Unionville Region Community Climate Profile

Brandywine Conservancy, January 2023

Introduction

According to 2017's Climate Science Special Report, **“sixteen of the warmest years on record for the globe occurred in the last 17 years (1998 was the exception).”** The historic scientific evidence clearly shows a change in climate for the Greater Philadelphia Region with a shift to concentrated extreme heat waves as well as heavy rain and snow events. While many might not consider climate change a “municipal issue,” municipalities bear the burden of needing to manage the impacts of flooding from heavy rainfall, clearing heavy snowfall, and dealing with extreme heat. Broadly, the Greater Philadelphia Region will see an increase in sea level, warmer conditions, more intense precipitation events, and longer periods of drought. It is difficult to respond to these slow, incremental changes in climate, but municipalities that plan considering future climate conditions will be better prepared to safely serve their community.

This report includes a high-level overview of the ways that the Unionville Region is already experiencing the impacts of climate change but is not a fully exhaustive report. This report intends to inform the Comprehensive Plan Update process by providing data points of historical conditions and modeled future conditions. These climate conditions should be considered for future planning of municipal actions. The Delaware Valley Regional Planning Commission (DVRPC) prepared a guide for municipalities entitled “Municipal Management in a Changing Climate” which advises that to prepare for climate change, municipalities need to adjust in the following ways:

- “Prepare municipal facilities for a changing climate, including both buildings and recreation facilities
- Maintain and upgrade stormwater systems to handle more intense rainfall
- Modify delivery of municipal services (e.g., refuse collection times) appropriately
- Assure employee contracts are suitable for conditions
- Maintain and expand tree cover with species appropriate for a changing climate
- Assure cooling centers are available for residents
- Update regulations to account for climate change”

Introduction

While weather and climate can often be thought of interchangeably, differentiating between the two concepts is important to better understanding and preparing for climate change.

“**Weather** is the state of the atmosphere at any given time and place. Most of the weather that affects people, agriculture, and ecosystems takes place in the lower layer of the atmosphere. Familiar aspects of weather include temperature, precipitation, clouds, and wind that people experience throughout the course of a day. Severe weather conditions include hurricanes, tornadoes, blizzards, and droughts.

Climate is the long-term average of the weather in a given place. While the weather can change in minutes or hours, a change in climate is something that develops over longer periods of decades to centuries. Climate is defined not only by average temperature and precipitation but also by the type, frequency, duration, and intensity of weather events such as heat waves, cold spells, storms, floods, and droughts.

The concepts of climate and weather are often confused, so it may be helpful to think about the difference between weather and climate with an analogy: weather influences what clothes you wear on a given day, while the climate where you live influences the entire wardrobe you buy.”

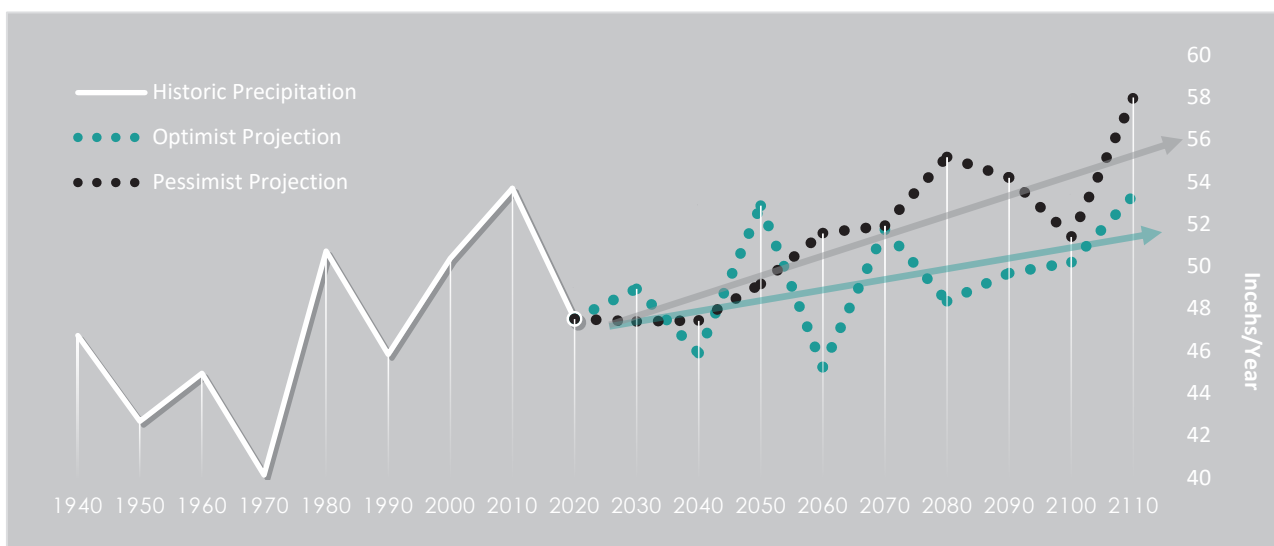
Source: EPA, <https://www.epa.gov/climate-indicators/weather-climate>



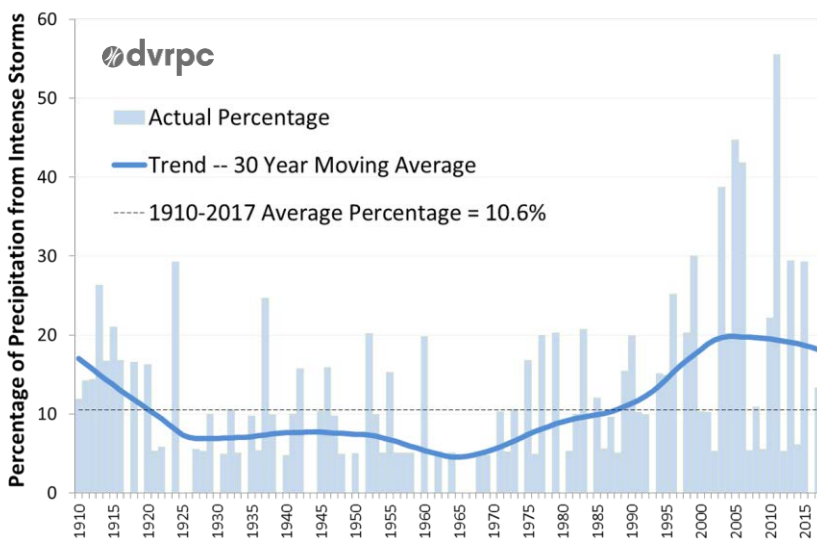
Precipitation

The following illustrates precipitation data, both measured and projected, for the Unionville Region. From 1970-1980, the Township experienced about 50.72 inches per year (in/yr) of precipitation, on average. From 2010-2020 the Township experienced 47.51 in/yr, on average. In an optimist scenario, projections show the Township experiencing 53.47 in/yr from 2090-2100. In a pessimist scenario, projections show 58.24 in/yr from 2090-2100.

Average Precipitation



Intense Storms and Precipitation



Source: Source: DVRPC chart using data accessed 24 May 2018 from www.ncdc.noaa.gov/cag/.

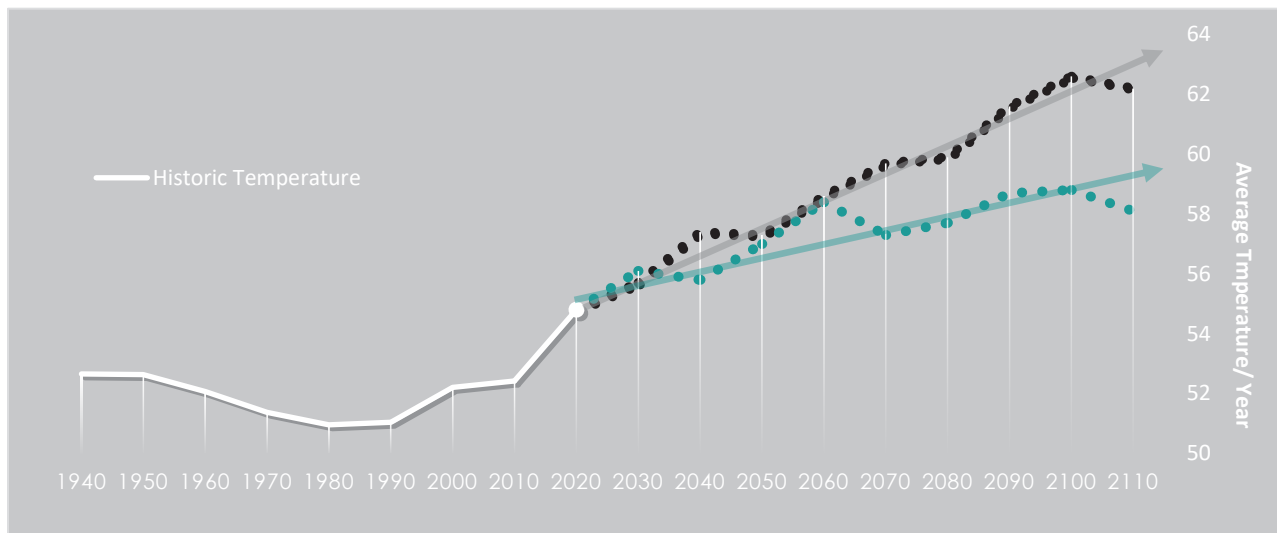
Data Sources: Historic precipitation from NOAA's national climate data center, DEVAULT 1 W, PHOENIXVILLE 1 E & WEST CHESTER 2 NW weather stations. Projected precipitation data from National Center for Atmospheric Research (NCAR) Community Climate System Model (CCSM) projections compiled using the iTree tool developed by USDA Forest Service, Davey Tree Expert Co., National Arbor Day Foundation, Society of Municipal Arborists, International Society of Arboriculture and Casey Trees. Intense Storms and Precipitation graph from DVRPC.



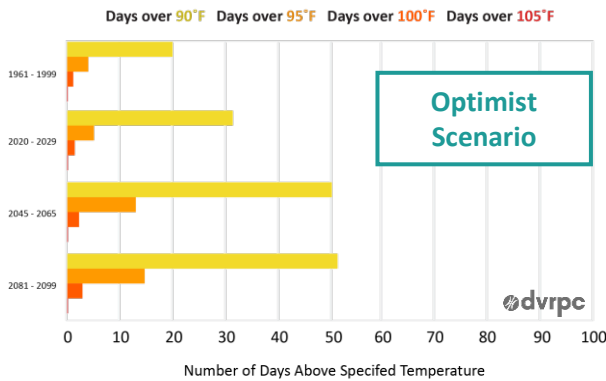
Temperature

The following illustrates temperature data, both measured and projected, for the Unionville Region . Between 1970 and 1980, the Township experienced an annual average temperature of 50.95°F. Between 2010 and 2020 the annual average temperature increased to 54.80°F on average. In an optimist scenario, projections show the Township experiencing annual average temperatures of 58.20°F from 2090-2100. In a pessimist scenario, projections show annual average temperatures of 61.6°F from 2090-2100.

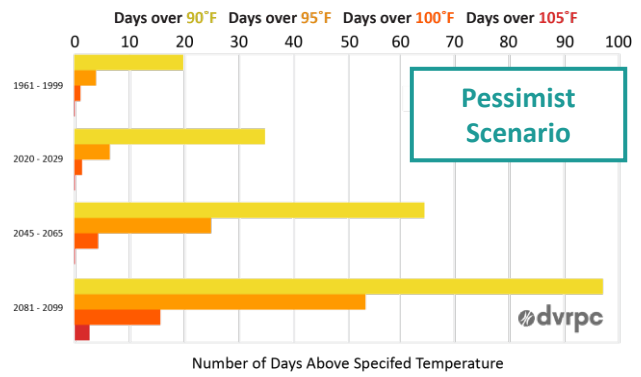
Average Temperature



Days Over Specified Temperatures



Source: DVRPC chart using data provided by ICF.



Source: DVRPC chart using data provided by ICF.

Data Sources: Historic temperature from NOAA's national climate data center, Coatesville 1 SW & 2 W weather station. Projected temperature data from National Center for Atmospheric Research (NCAR) Community Climate System Model (CCSM) projections compiled using the iTree tool developed by USDA Forest Service, Davey Tree Expert Co., National Arbor Day Foundation, Society of Municipal Arborists, International Society of Arboriculture and Casey Trees. Days over specified temperatures graphs from DVRPC.



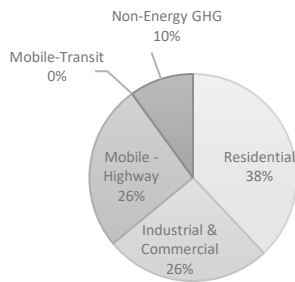
Emissions

The following information illustrates greenhouse gas emissions (GHG) within the Unionville Region, according to the 2015 Energy and Emissions Profile for each municipality in the Unionville Region, developed by the Delaware Valley Regional Planning Commission (DVRPC). Overall emissions are illustrated as well as emissions within the Township attributed to different sectors.

Township Greenhouse Gas Emissions

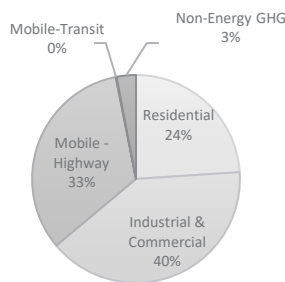
Overall

West Marlborough



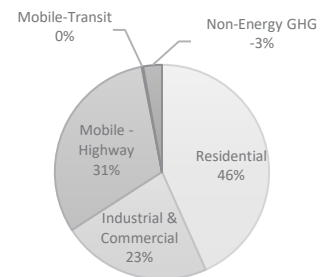
Total Emissions 10,009 MTCO₂e

East Marlborough



Total Emissions 96,105 MTCO₂e

Newlin



Total Emissions 9,919 MTCO₂e

Equivalent to



Greenhouse gas emissions from 25,821 passenger vehicles driven for 1 year

CO₂ Emissions from 14,624 homes' energy use for a year



Greenhouse gas emissions avoided by 32.3 wind turbines running for a year

Carbon sequestered by 138,371 Acres of U.S. forests in one year



Carbon Sequestration



Absorbing and storing atmospheric carbon dioxide is called “carbon sequestration.” According to the University of California, Davis, “Biological carbon sequestration is the storage of carbon dioxide in vegetation such as grasslands or forests, as well as in soils and oceans.”



Air Quality

Climate change can impact air quality and air quality can also impact climate change. Pollutant sources such as cars and trucks (mobile sources) and power plants and factories (non-mobile sources) impact air quality. According to the CDC, higher temperatures may increase allergens and air pollutants. Higher temperatures will also increase ground level ozone. Air quality metrics are complicated and interrelated; the infographics below seek to give a summary of the interrelationships.

Air Quality Impacts Related to Increased Temperatures



Particulate Matter

Airborne particles such as **smoke, dust, dirt, soot, and salt**. The sources of these particles are numerous—including vehicles, factories, fires, and any other natural or human activity resulting in the addition of particulates into the air.

Ground Level Ozone

Ground level ozone is not directly emitted into the air, but forms when **nitrogen oxides (NOx)** emissions react with other **volatile organic compounds (VOCs)** in the presence of heat and sunlight.

Air Pollution



Emissions from industrial facilities and electric utilities, motor vehicle exhaust, and chemical solvents are some of the major sources of NOx and VOCs.



weather.gov/airquality

Health Impacts + Air Quality



Increased Allergen Levels

More

- Cases of allergies
- Asthma episodes

Increased Ground-Level Ozone

More

- Respiratory illnesses
- Premature deaths

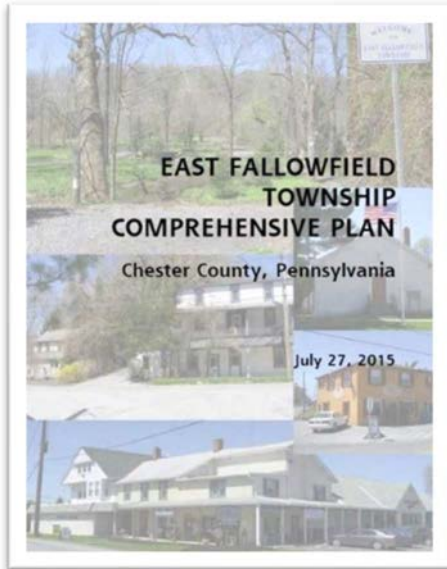
Data Sources

Data sources used in this profile include the following:

1. Wuebbles, D.J., et al., 2017: Executive summary. In: Climate Science Special Report: Fourth National Climate Assessment, Volume I (“CSSR”) [Wuebbles, D.J., et al.(eds.)]. U.S. Global Change Research Program, Washington, DC, USA, p. 13, doi:10.7930/J0DJ5CTG.
2. Delaware Valley Regional Planning Commission’s (DVRPC) “Municipal Management in a Changing Climate” Municipal Implementation Tool #31
<https://www.dvrpc.org/Reports/MIT031.pdf>
3. US EPA’s Climate Indicators Page <https://www.epa.gov/climate-indicators/weather-climate>
4. University of California, Davis <https://climatechange.ucdavis.edu/science/carbon-sequestration/biological/>
5. Pennsylvania Climate Impacts Assessment, 2021
<https://www.dep.pa.gov/Citizens/climate/Pages/impacts.aspx>
6. i-Tree Landscape v4.3.1 (n.d.). Retrieved May, 2021
from <https://landscape.itreetools.org/>
7. National Centers for Environmental Information: National Oceanic and Atmospheric Administration retrieved from <https://www.ncdc.noaa.gov/cdo-web/search>
8. DVRPC Energy and Emissions Profile for East Marlborough, Newlin, and West Marlborough township, Chester County, PA
<https://www.dvrpc.org/webmaps/municipalenergy/>
9. Climate Nexus <https://climatenexus.org/climate-change-issues/>
10. Center for Disease Control (CDC) Climate and Health fact sheet:
https://www.cdc.gov/climateandhealth/pubs/AIR-QUALITY-Final_508.pdf
11. US EPA’s Ozone Pollution Page <https://www.epa.gov/ozone-pollution-and-your-patients-health/course-outline-and-key-points-ozone#health%20effects>
12. PA DEP’s Air Quality Partnerships Page
<https://www.ahs.dep.pa.gov/AQPartnersHTML/health.htm>

Appendix E

Surrounding Municipal Review



East Fallowfield Township Comprehensive Plan

Prepared by: Ray Ott & Associates
Date: 2015

East Fallowfield Township's Comprehensive Plan Update updates the Township's vision, goals, and objectives from its 1999 comprehensive plan. The plan includes ten goals that influenced the land use and infrastructure policies, focusing on Community Character, Environmental, Cultural, and Historic Resources, Land Use, Transportation, Housing, Economic Development, Community Facilities and Services, and Regional Coordination.

Land Use

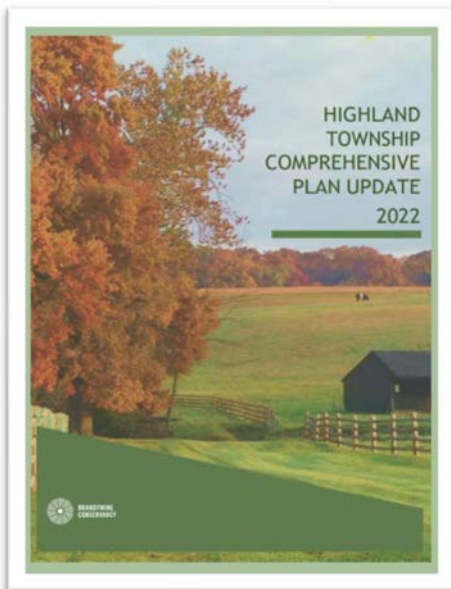
- Provide for future development to protect and enhance the general welfare and quality of life

Community Character

- Provide for the maintenance of landscapes, public spaces and existing neighborhoods in the Township

Environmental, Cultural, and Historic Resources

- Protect and enhance open spaces and critical resources – including but not limited to farm fields and meadows, woods, stream valleys, and other water resources, historic sites and structures and scenic resources



Highland Township Comprehensive Plan

Prepared By: Brandywine Conservancy
Date: 2022

Highland Township's Comprehensive Plan (2022) is an update to their vision, goals and objectives in their 2001 plan. The plan serves as a tool to guide the Township on growth management to protect the open, natural and scenic resources found in this rural community. The Task Force outlined six goals influenced by the community vision, including Natural, Historic and Scenic Resources; Open Space and Land Preservation; Future Land Use; Transportation; Community Facilities and Services; and Climate Resiliency.

Land Use

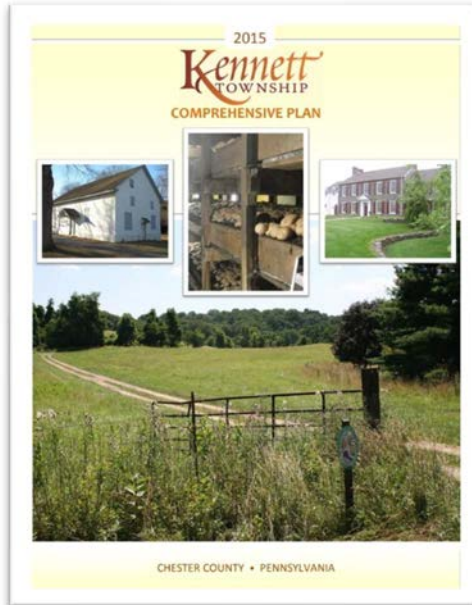
- Preserve the rural character by ensuring that future growth is in harmony with open space protection, agricultural preservation, and natural, cultural, and historic resource protection efforts

Open Space and Land Preservation

- Advance the legacy of open space protection through the continued preservation of agricultural lands and unprotected open space

Natural, Historic, and Scenic Resources

- Conserve and sustainably manage valuable natural, historic, and scenic resources, including prime agricultural soils, steep slopes, woodlands, interior woodlands, water resources, wetlands, and air quality



Kennett Township Comprehensive Plan

Date: 2015

Kennett Township Comprehensive Plan updates the Township's vision, goals and objectives from the 2004 plan. This plan serves as a guide for the Township to develop policy to address land use—with increased demand for public services and transportation, altering the rural landscape. The Township vision is to create a balance between development and conservation of the land. To accomplish said vision over the next 20 years, the Task Force outlined eight goals to complete their vision, including Land Use; Housing; Natural Resources; Historic and Scenic Resources; Community Facilities and Services; Open Space, Trails, Parks, and Recreation; Transportation and Circulation; and Regional Planning.

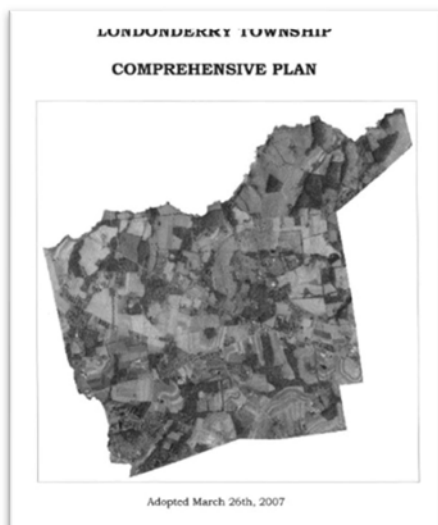
Land Use

- Direct future growth to appropriate areas to establish a balance between land uses, the transportation network, and the ability of natural systems to support development

Natural Resources

- Conserve the natural resources, wildlife habitat, agricultural land, and open spaces

Open Space, Trails, Parks, and Recreation



- Continue to maintain, enhance, and expand rural, natural, historical, and cultural open space areas, trails, and parks and recreation opportunities for residents

Londonderry Township Comprehensive Plan

Date: 2007

Londonderry Township's Comprehensive Plan Update updates the Township's 1993 comprehensive plan and open space, recreation, and environmental resources plan. The primary goal of this is to balance land conservation and development, protecting this rural community with significant natural, historic, and cultural resources. Balance would be defined as including rural land uses with low intensity, narrow roads, recreational open spaces, greenways, trails, and pathways.

Agricultural

- Preserve agricultural productivity and conserve the rural landscape and rural character
- Educate landowners on the benefits of agricultural land preservation

Natural Resource Protection

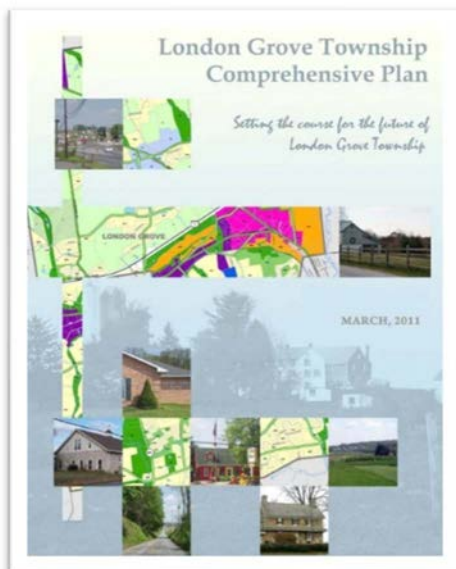
- Protect the natural resources to maintain the rural character
- Protect water resources and watersheds to help insure clean water in the future
- Protect woodlands, hedgerows, and riparian corridors to enhance biotic resources and wildlife habitat
- Protect natural resources through conservation easements

Scenic Resource Protection

- Protect the scenic resources to better maintain the rural character

Public Access and Trails

- Establish an interconnected trail system to link residential neighborhoods and public destinations
- Acquire land or easements for greenways, trails, and public access to parks, recreation areas, and other selected open space areas, and investigate opportunities for bridle paths



London Grove Township Comprehensive Plan

Date: 2011

The London Grove Township Comprehensive Plan is an update of the 2005 plan. The Plan outlined eleven overarching goals including, Development Patterns; Natural Resource Protection; Economic Base; Transportation; Community Facilities and Services; Housing; Agricultural Resources; Historic Resources Protection; Aesthetics; Identity; Planning.

Development Patterns

- Preserve and enhance the physical characteristics that make the Township a distinctive and identifiable locale, while at the same time provide for the needs of existing and prospective residents
- Ensure that development occurs in ways that minimize degradation of natural and cultural environments
- Encourage development to take place in an efficient and logical manner, and in ways that minimize short- and long-term costs to the public and private sectors

Natural Resource Protection

- Protect and enhance environmentally-sensitive areas

Historic Resources Protection

- Protect and enhance historically- and culturally-significant areas and features



New Garden Township Comprehensive Plan

Prepared by: Thomas Comitta Associates, Inc.

Date: 2018

The 2018 New Garden Township Comprehensive Plan updates the 2005 plan. Over the next 10 years, the Task Force outlined goals to achieve planning policies. The update highlights 10 goals including Land Use and Housing; Economic Development; Transportation; Open Space and Natural Resources; Greenways and Trails; Route 41 Corridor; Historic Resources; Toughkenamon Village; Community Facilities; and Energy Conservation.

Land Use and Housing

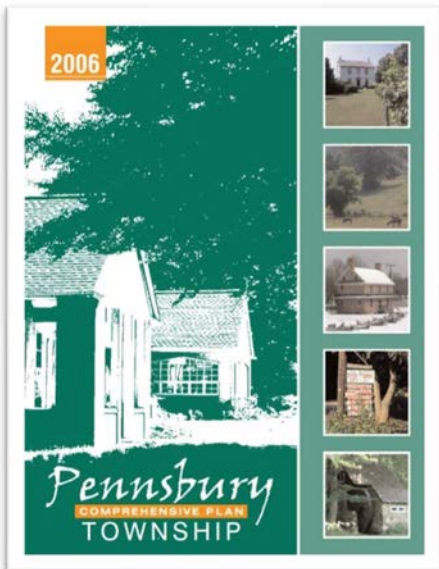
- Promote development that enhances the traditional character, accommodates protected natural resources and open space, and enriches the quality of life of the community

Open Space and Natural Resources

- Continue to recognize and protect the important and inherent benefits of natural resources and open space: maintaining the rural character of the Township; providing valuable ecosystem functions such as storm water and nutrient management, crop pollination, and local climate regulation; and ensuring the economic viability of agriculture

Greenways and Trails

- Provide residents with an integrated network of greenways and trails that promote health and wellness and provide for safe, bike and pedestrian connections between neighborhoods, natural areas, schools, commercial districts and cultural and recreational facilities, as well as provide valuable corridors for wildlife and habitat diversity



Pennsbury Township Comprehensive Plan

Date: 2006

The Pennsbury Township Comprehensive Plan updates the 1981 plan as changes to population, land use, transportation and community facilities were revisited. The community vision is to continue a low growth, rural-suburban character. To do so, the plan identified 5 goals including Land Use; Natural Resource and Open Space; Historic, Cultural, and Scenic Resources; Community Facilities and Services; and Transportation and Circulation.

Land Use

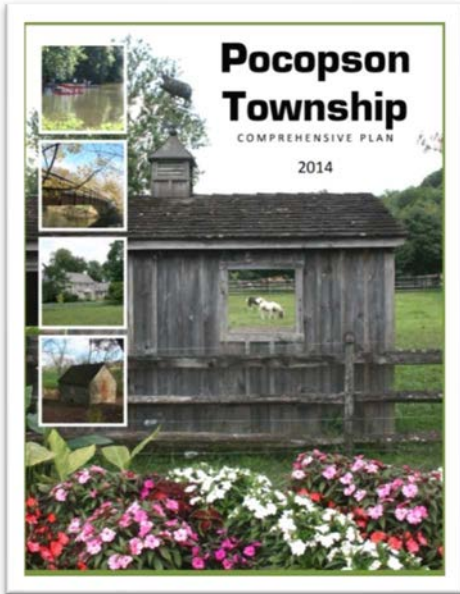
- Establish a balance between growth and preservation by encouraging development to locate in appropriate areas of the township while pursuing strategies to protect natural and cultural resources and open space

Natural Resource and Open Space

- Protect and conserve the natural resources and open spaces that are so important in defining the character of the township

Historic, Cultural, and Scenic Resources

- Preserve the historic, cultural, and scenic resources of the township that are essential in defining its heritage and historic landscape, and protect these features from the encroachment of incompatible development



Pocopson Township Comprehensive Plan

Prepared by: Chester County Planning Commission

Date: 2014

The Pocopson Township Comprehensive Plan updates the 2001 Township plan. Like the 2001 plan, the update includes goals to accommodate development, while protecting sensitive resources and the Township's community character. The Township outlined seven goals including Natural Resources; Historic and Scenic Resources; Transportation and Circulation Systems; Community Facilities and Services; Parks, Recreation, and Open Space; Land Use; and Housing.

Land Use

- Plan for and manage the use of land in a manner that provides for a balanced range of uses, meets the needs of current and future residents, and establishes a balance among resource protection, preservation of community character, and growth

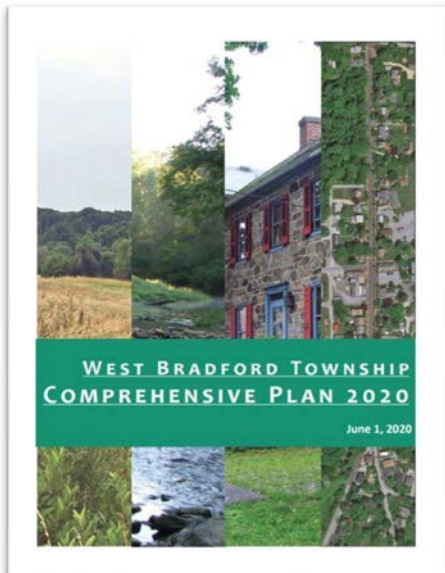
Natural Resources

- Protect, restore, and maintain natural resource features, landscapes, and functions to sustain ecosystems, public health, and quality of life

Historic and Scenic Resources

- Preserve, protect, and enhance the integrity of historic and scenic resources and their settings

Parks, Recreation, Trails and Open Space



- Promote the establishment and maintenance of, and programming for, a network of park and recreation facilities, and permanently protect open space, to provide public health, ecological, economic, and quality of life benefits in a manner that is both cost effective and environmentally appropriate

West Bradford Township Comprehensive Plan

Date: 2020

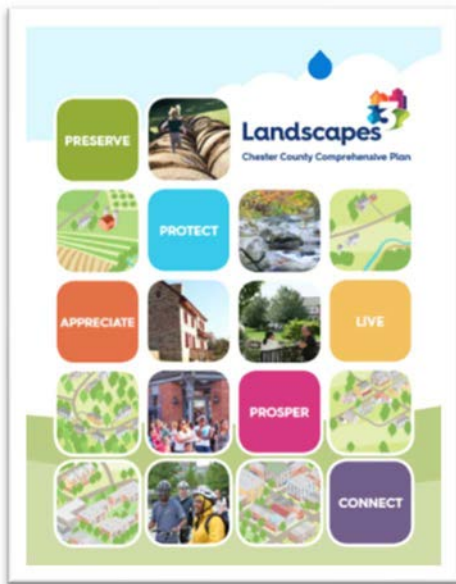
The West Bradford Township Comprehensive Plan updates the 2009 Comprehensive Plan, but continues to focus on preservation of natural features while accommodating for increased growth. The plan outlines three goals including Unique Natural Conditions; Historical and Cultural Character; and Development Methodology.

Land Use

- Maintain a continuum of low intensity, to medium intensity, to higher intensity development patterns, in order to strategically locate higher intensity development in existing transportation and infrastructure corridors, conserve the Township's resources, and minimize a sprawling pattern of development

Natural Resources & Open Space

- Minimize the adverse effect of new development on Natural Resources and Open Space through sensitive site planning and development strategies; minimize the alteration of floodplains, wetlands, riparian buffers, very steep slopes, and removal of woodlands; and protect agricultural land, meadow open spaces, and distinctive viewsheds



Landscapes 3

Prepared by: Chester County Planning Commission
Date: 2018

Landscapes 3 is the comprehensive plan for Chester County. The plan has four major purposes, including establishing a vision for preservation and growth across the county and in its municipalities; guiding county government decision-making; guiding municipal planning and implementation; and providing a framework for intermunicipal collaboration. Landscapes3 identifies recommendations across six goal areas: Preserve, Protect, Appreciate, Live, Prosper, and Connect. The plan's Landscapes Map is a guide for growth and rural resource protection across Chester County.



Connections 2045

Prepared by: DVRPC
Date: 2017
Area: Nine-county Greater Philadelphia Region

DVRPC's Connections 2045 is a long-range plan for the nine-county, two-state, Greater Philadelphia region, with the goal of establishing a vision for development and growth in the region, while prioritizing transportation funding over a 28-year time

horizon. The plan is structures around five core principles, including: sustain the environment; develop livable communities; expand the economy; advance equity and foster diversity; and create an integrated, multimodal transportation network.