



MORRISVILLE BOROUGH PA



Comprehensive Plan Update DRAFT - February 2021

Prepared by:



MORRISVILLE BOROUGH PA

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Introduction

WHAT IS A COMPREHENSIVE PLAN?

A comprehensive plan is an official public document that serves as a policy guide to decision making about physical development in a community. It is an explicit statement of a community's future goals and vision for use by the planning commission, council, private stakeholders and regional, state and federal entities.

The *Morrisville Borough Comprehensive Plan Update* (2020) provides an overview of the current conditions, assets, and future challenges to the borough. Morrisville Borough has laid the groundwork for an updated comprehensive plan with the development of the *Comprehensive Plan for the Borough of Morrisville, Pennsylvania* (2008). This comprehensive plan successfully focused planning efforts on identifying borough assets and opportunities, summarizing ongoing revitalization activities, and putting forward a vision of what is possible in Morrisville Borough.

As with the 2008 Comprehensive Plan, the purpose of this plan is to understand the current state of Morrisville Borough and to use that information to plan for the future. This plan is organized by a set of "plan principles" for the borough and its residents and sets forth actions in keeping with the values and ideas behind those principles.

The preparation of the comprehensive plan has been initiated and directed by the borough's planning commission, which guided plan preparation, and by the borough council, which officially adopted the final plan. Analysis of these opinions can be found in many chapters throughout the plan and were instrumental to plan's development.

Chapter 14: Revitalization and Planning for the Future ties together recommended actions of the plan and sets forth land use policy for Morrisville Borough in accordance with the plan's principles. An implementation chart summarizes the plan's recommended actions. This planning activity, in connection with the recommended actions, provides a road map to the next actions required by the borough in order to realize a vision of a better future.

PLAN PRINCIPLES

At the core of a comprehensive plan are the values of the community and a vision of a better future. Comprehensive plans should articulate and express these ideas so that future policy choices are clear and consensus-driven. The 2020 *Morrisville Borough Comprehensive Plan Update* puts forth a set of principles that will guide the plan's direction and recommendations. These principles function as both value statements and ideals that this plan strives to attain. The principles were developed based on responses from the community survey sent out to residents as part of the comprehensive plan update, public discussions with the borough planning commission and council, and findings of the plan.

RESIDENT SURVEY

The resident survey helped to provide a clear direction in the development of the plan principles. In January of 2020 an online resident survey was announced on the borough website and public access channel and links were provided via social media. The results of this survey are shown in Appendix A. In addition to the data collected on basic demographics, ward location, housing situation, transportation usage, park usage, and evaluation of community services, the survey provided several opportunities to

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answer open-ended questions, which gave insights into residents' concerns, values, and hopes for Morrisville. These questions included:

1. Do you plan on retiring in Morrisville? Why or why not?
2. How would you rate the quality of life in Morrisville? Why did you choose that rating?
3. Do you have any other comments?

The answers were then analyzed by developing them into a “word cloud,” which is a text analysis tool that shows a visual representation of words based on frequency and relevance.



Several themes emerge from the word cloud:

- Importance of family, children, and home
- Worries about crime and quality of life issues
- Frustration with high taxes and the school district
- Desire to improve the borough's physical and economic structure
- Satisfaction with the people of Morrisville and the borough's sense of small-town community

Each of these emerging themes has a bearing on the principles and recommendations of the comprehensive plan. A comprehensive plan must reflect the values and opinions of the community to ensure outstanding issues are being addressed and that the vision of the plan reflects the community's hopes and desires.

Five plan principles organize the Morrisville Borough Comprehensive Plan. These are:

Livability

Livability are the things that make up a community's quality of life, including the built and natural environments, economic development, community health, social stability, educational opportunity, and cultural, entertainment and recreation possibilities.

Heritage

Heritage is the pride and value we take in the Morrisville’s historic and natural resource legacy.

Equity

Equity is the just and fair inclusion into a society in which all can participate, prosper, and reach their full potential. Equity challenges institutions to provide economic and social opportunity to disadvantaged groups and provide fairness in decision and policy-making.

Mobility

Mobility is the ability to move freely and access goods and services affordably and safely.

Resilience

Resilience is the ability of a community to anticipate risk, limit impact, and build capacity to face change in an uncertain world.

Each of the five principles guide the plan elements of this comprehensive plan and serve as a lens through which the future land use vision and plan recommendations should be viewed.

CORE RECOMMENDATIONS

The Summary of Recommended Actions and Implementation table at the end of this plan contains an exhaustive list of activities that are recommended and are in keeping with the plan’s principles. What follows is a list of activities that are most critical to this plan’s success, taking advantage of existing borough assets and representing a starting point at which the community can gain momentum for putting the remainder of the plan into action. The 2008 comprehensive plan provided a similar priority list and the borough successfully implemented a number of projects, including the development of a downtown revitalization plan and new downtown zoning district, the enactment of a LERTA and expanded Enterprise Zone, construction of streetscape improvements, reinforced code enforcement, and the development of Patriots Park. These core recommendations will provide the foundation of Morrisville’s future success.

1. **Undertake a comprehensive update to the zoning ordinance:** The current zoning ordinance has many areas that are in need of updating, including use regulations, area and dimensional requirements, parking requirements, and signs. The borough should update the zoning ordinance to meet today’s land use challenges and reflect the overall land use vision of the borough.
2. **Redevelop and reuse vacant and underutilized parcels:** The Bucks County Redevelopment Authority (BCRDA) is involved in the rehabilitation and reuse of vacant or underutilized industrial, commercial, and residential properties throughout the county. The borough should continue to support the BRCDA’s efforts to redevelop and reuse vacant and underutilized parcels, such as the Cloverleaf property and the Stockham Building.
3. **Review zoning standards along Trenton Avenue and Bridge Street:** The entrance corridors of Trenton Avenue and Bridge Street contain a mix of single-family residential, multifamily residential, and commercial uses. The borough should monitor development in these areas to ensure that public infrastructure and zoning standards provide compatible commercial development that enhances the function and look of the corridor, without harming adjacent neighborhoods.

4. **Pursue grant funding to implement physical improvements:** Morrisville has continued its revitalization efforts with physical improvements. The borough should continue to pursue grant funding to implement these improvements in the downtown and adjacent neighborhoods and support community facilities, such as the Morrisville Free Library. Physical improvements, including sidewalks and crosswalks, will support a more sustainable and walkable community. The borough should also maintain pocket parks and plant street and shade trees where possible, as well as pursue grant funding for parks and recreation improvements.
5. **Encourage nonresidential development and redevelopment:** In 2019, borough officials adopted amendments to the existing C-1 Central Commercial District with the goal to support the borough's revitalization efforts and to update the regulations to be more conducive to a modern downtown. Creating opportunities for new private investment and sparking revitalization will promote the quality of life for all residents and generate increased tax revenues.
6. **Establish a public river walk:** With its direct access to the Delaware River, the borough should explore opportunities for helping to realize the goal of establishing a public river walk. This natural resource gives the borough a chance to explore entertainment and recreation possibilities for the community.
7. **Complete the levee accreditation:** The levee is an important embankment that prevents the overflow of the Delaware River. Once accredited, hundreds of parcels surrounding the Delaware River Levee at Williamson Park will be removed from the FEMA 100-year floodplain and will be recognized as protected by the levee. As of the year 2020, the levee study is in a draft phase and a spillway project is under consideration for future development. The borough should complete the levee certification as soon as possible so the borough can be recognized as protected by the levee.
8. **Adopt the Morrisville Downtown: A Blueprint for the Future:** This plan outlines Morrisville's current conditions, develops a proposed organizational structure for future revitalization efforts, and provides a list of potential funding sources. It reviews the strengths and weaknesses of the downtown area, as well as presenting redevelopment scenarios for key properties. The plan contains several redevelopment recommendations. The plan has not been adopted by Morrisville Borough Council. The borough should also update the C-1 district zoning map as recommended by the Morrisville Borough Planning Commission.
9. **Preserve neighborhood integrity:** Enactment and enforcement of zoning, health, safety and property maintenance code standards for rentals and owner-occupied housing is key to maintaining property values, sound buildings, and attractive neighborhoods. Size and bulk standards in the zoning ordinance are designed to retain the historic, walkable scale of the borough. Adherence to these zoning standards preserve the appearance and fabric of neighborhoods by preventing reconstructions of housing at an inappropriately large scale.
10. **Publicize the borough's opportunities and strengths:** Morrisville's authentic hometown sensibility is the borough's strongest asset. The borough should coordinate efforts to publicize the borough's historic nature, affordability, charm, walkable scale, and highway access as marketing incentives for owner-occupied housing and downtown revitalization.

Chapter 1. Regional Character and History

REGIONAL CHARACTER AND GENERAL APPEARANCE

Morrisville Borough is located on the eastern border of Bucks County on the Delaware River opposite New Jersey's state capitol, Trenton. Due to the establishment of streetcar lines crossing the Delaware from Trenton on the Calhoun Street Bridge, the borough experienced its most significant period of growth from 1900 to 1929. Much of what was built during this era is still standing today, giving Morrisville Borough a genuine small-town structure and feel, with a varied and predominantly traditional housing stock, historic and healthy green space, and a compact and accessible downtown district. This authentic hometown sensibility is one of Morrisville's strongest assets.

Residential, commercial, and industrial architecture throughout the town visually represents every period of the nation's history, from artifacts of pre-Revolutionary settlements and eighteenth-century manor houses, through nineteenth-century remnants of the Industrial Revolution and twentieth-century suburban residential developments.

Entrances or gateways to the community reflect a microcosm of the country's timeline. From the south and west, transportation corridors support industrial and commercial complexes bordering on quiet, well-kept residential neighborhoods. From the north, northwest and east, river crossings and major thoroughfares usher residents from recreational and business areas into peaceful, tree-lined residential districts.

LAND USE

Morrisville Borough contains 912 acres of land (about 1.4 square miles). Land use is described as the purpose for which land or buildings are used. Table 1 provides the land use acreages within the borough in 2019 and Map 1 displays 2019 parcel-by-parcel land use.

Table 1. Land Use Characteristics, 2019

Land Use	Acreage	Percent
Single-family Residential	447.1	49.0
Multifamily Residential	55.7	6.1
Industrial	61.8	6.8
Commercial	77.8	8.5
Transportation	59.8	6.6
Government and Institutional	68.4	7.5
Parks, Recreation, Open Space	66.2	7.3
Vacant	75.2	8.2
Total	912	100.0

SOURCE: BUCKS COUNTY PLANNING COMMISSION

Nearly half of the borough is dedicated to single-family residential land use. Single-family residential uses are located throughout the borough, with the majority located north of the Route 1 corridor.

The multifamily residential land use comprises 6.1 percent of the total borough acreage; most of this land is located in the Plaza Boulevard and Melvin Avenue area, along West Trenton Avenue, and interspersed in individual buildings along Bridge Street and downtown.

Industrial land use comprises 6.8 percent of the borough and is located at the Staley property in the southeast along the Delaware River, at the Toll Brothers site along South Pennsylvania Avenue, and along Nolan Avenue.

Commercial land use, which makes up 8.5 percent of the borough's land use, is focused along Bridge Street, Philadelphia Avenue, Pennsylvania Avenue (near its intersections with Bridge Street and Philadelphia Avenue), the west end of West Trenton Avenue, and East Trenton Avenue.

Transportation and utilities land use has about 59.8 acres, government and institution has about 68.4 acres, and park and recreation land use has about 66.2 acres. Transportation and utilities land use are located throughout the borough, the vast majority within rights-of-way.

Government and institutional land use generally consist of municipal buildings, churches, the Morrisville Cemetery, Morrisville Middle and High School, Grandview Elementary School, Patriots Park, and Robert Morris Plaza.

Park and recreation land use consists of the Delaware Canal, Graystone Woods, Williamson Park, Friends of Morrisville Dog Park, Riverfront Preserve, and the D&L River Trail.

Vacant land uses consist of small parcels throughout the borough, Morrisville Lake, and several larger parcels adjacent to the Tate & Lyle sites. The borough contains no agricultural land use or rural residential land use.



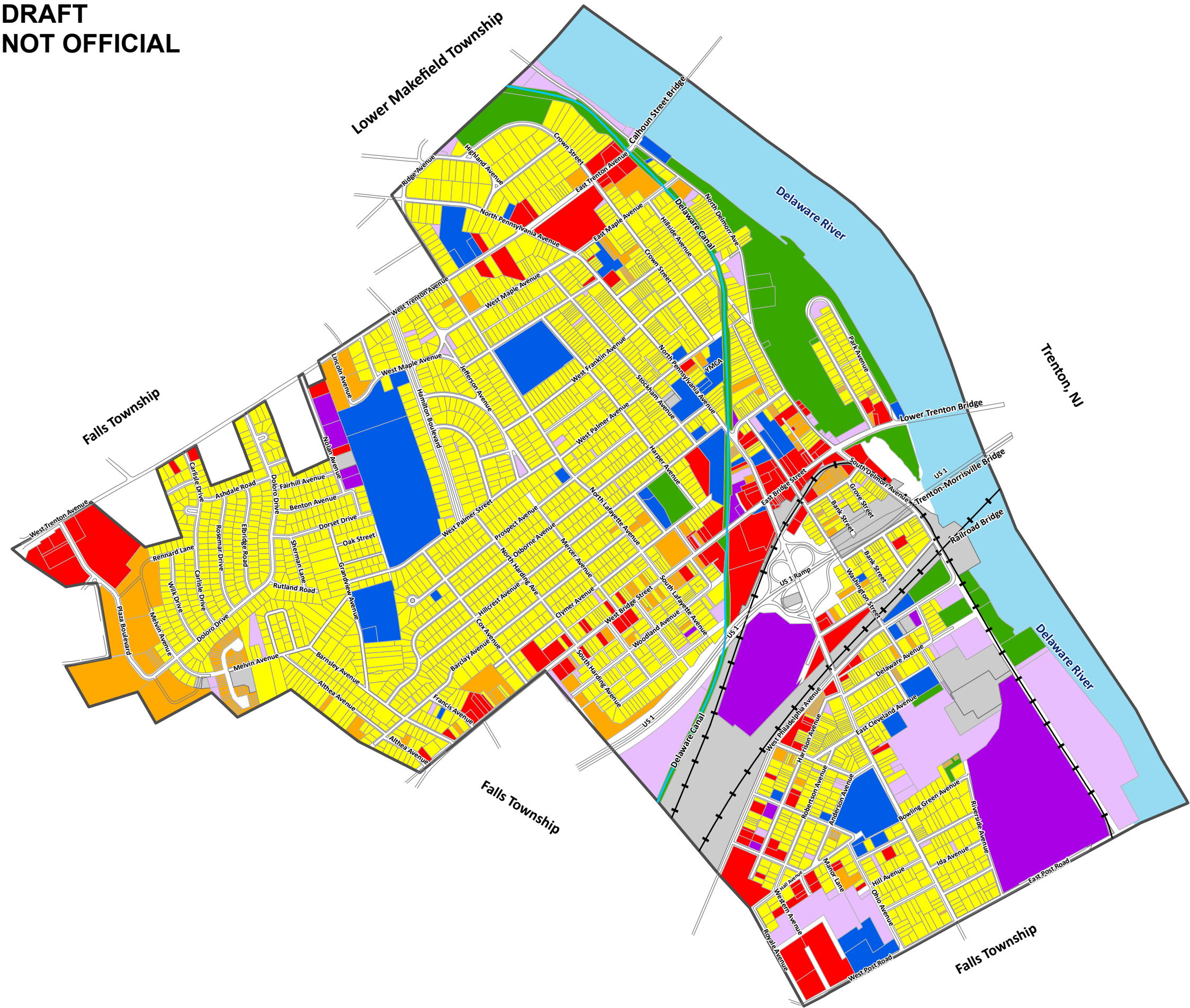
SINGLE-FAMILY DETACHED DWELLINGS

HISTORY OF THE COMMUNITY AND REGION

The lands that would eventually become Morrisville Borough and its neighbors, Falls Township and Lower Makefield Township, were home to Lenni Lenape Indians and settled by traders of the Dutch West India Company in 1624.

The Lenape called the spot the "Strong Falls" and settlers called it the "Falls of the Delaware." The falls mark the head of tide for the river and are the northernmost point of ocean-going navigation. The river, the first of many transportation corridors that deeply affected the character of the town, was later supplemented by roads, bridges, train tracks, trolley tracks and superhighways.

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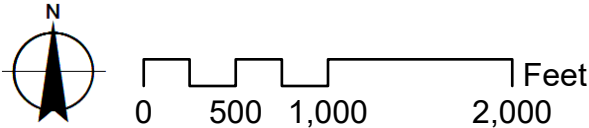


Map 1. Existing Land Use

Morrisville Borough
Comprehensive Plan Update

Land Use:

- Single Family Residential
- Multifamily Residential
- Commercial
- Government and Institutional
- Industrial
- Parks, Recreation, and Protected Open Space
- Transportation
- Vacant



The area was first surveyed by Dutch explorer Peter Lindstrom in 1654, and the first ferry across the Delaware was established in 1665 by order of Dutch Governor Andros at what would become Morrisville Borough. The village was called Crewcorne and was the focus of the first court held in the county in 1680, with a permanent courthouse established in 1684.

In 1686, the first road in the county, the King's Path or King's Highway, was laid out by the provincial council between Philadelphia and Morrisville. The Colvin's Ferry and Kirkbride Ferry were installed in 1693. When Patrick Colvin operated the ferry during the 1700s, the settlement was known as Colvin's Ferry.

In 1687, a storm created Morrisville Island and the stream which ran along its western shore contributed to the town's development by forming an ideal location for a millworks. Adam Hoops was the first to take advantage of this power. The mill area was known as the Delaware Works.

Land that included the area of the borough was granted by King Charles II of England to William Penn in 1681. Early records show a 1684 grant from William Penn to John Wood of 650 acres plus an island in the Delaware River. John's son, Joseph, inherited the land and divided it among his three sons. Josiah Wood sold 70 acres and the island to wealthy land speculator Adam Hoops in 1764. At the time, Hoops held thousands of acres in the Philadelphia region and western Pennsylvania, as well as two mansions in Philadelphia. Benjamin Wood sold 174 acres to Hoops in 1766.

Hoop's consolidated holdings became Summerseat, a large plantation estate at the Falls of Delaware just north of William Penn's Pennsbury Manor plantation. Summerseat was ideally situated at the head of tide on the Delaware River, a stone's throw off the post road known as the King's Path, which stretched between New York and Philadelphia. The estate boasted meadows, fields, orchards, woodland, barns, stables, a store, a kitchen building and two dwelling houses.

Adjacent to Patriots Park, the historically significant Summerseat manse still stands today. The archetype of a colonial estate, Summerseat saw more than its share of early American history; its admirers and owners included George Washington, Robert Morris, George Clymer, Thomas Barclay, General Jean Victor Moreau, the Marquis de Lafayette, and Joseph Bonaparte.

Robert Morris, known simply as "The Financier" to his colleagues in the Continental Congress, and the nation's first Secretary of Finance, and George Clymer, a successful businessman who fought in the revolution and served on the Philadelphia Committee of Safety and Continental Congress, were both owners of Summerseat, giving Summerseat the distinction of being the only home ever owned by two signatories of the Declaration of Independence and the U.S. Constitution. Morris, in fact, was only one of two men who signed all three founding documents: the Declaration, the Articles of Confederation, and the Constitution.

A moment in the town's long history which fires the imagination: forced across the Delaware in retreat from Trenton to Morrisville after being beaten back across New Jersey from New York by the British, George Washington knew he would lose most of his war weary, ill equipped troops when their enlistments expired at the end of December 1776.

From December 8th to December 14th, Washington stayed at Summerseat as a guest of Thomas Barclay, planning the daring Christmas morning strike at Hessian troops encamped at the Trenton Barracks, within sight of the Morrisville riverbank. The stunning success of that attack changed the course of war and laid

the foundation for American victory when Washington followed the Hessian defeat with a quick succession of battle victories.

During this crucial week, Robert Morris and George Clymer were two of only three members of the Continental Congress to remain in Philadelphia to conduct the infant nation's business while the rest fled advancing British forces. Morris managed to borrow \$10,000 that week to reinforce defenses along the Delaware River.

Morris, who was the one of the wealthiest men in the colonies, used his connections and credit to secure millions in financing for the revolution. His commitment to the revolution followed by losses through land speculation (at one point Morris owned more than 6 million acres of American soil, 2,500 of them in our area) led to his personal ruin and to incarceration in debtor's prison. Summerseat was sold at sheriff's sale to his good friend and colleague George Clymer in 1798. Ironically, Morris had himself acquired Summerseat at his friend Thomas Barclay's financial distress just a decade before.

Washington and other revolutionary notables returned to Summerseat over the years, and Morris nearly succeeded in having the Falls of the Delaware designated as the new nation's capital. Opposed by Alexander Hamilton, the Falls of the Delaware lost out by just two votes to some undeveloped marshland on the Potomac River.

Among the historic firsts occurring in Morrisville: the start of the first survey of William Penn's lands in Pennsylvania at Graystones, a rock outcropping above the Delaware River near the northern boundary of town, the first post road and ferry crossing between New York and Philadelphia, and the first bridge to cross the Delaware. Summerseat owner Thomas Barclay became our young nation's first overseas consul, and negotiated our very first treaty, with Morocco, in 1786.

Robert Morris' ship, the Empress of China, is believed to be the first American ship to trade with China. George Clymer negotiated treaties with Indian tribes, waded into the Whiskey Rebellion as Pennsylvania's revenue officer, and became the first President of both the Philadelphia National Bank and the Philadelphia Academy of Fine Arts.

A post office was established in 1794. The borough was incorporated 10 years later, in 1804, the same year Napoleon Bonaparte declared the location a "strategic point" in the new world. French expatriates sought the land: Napoleon's brother Joseph failed in his attempt to purchase Summerseat, settling at Bordentown instead, but royalist General Jean Moreau did buy the estate in 1807.

At the time of its incorporation, the borough was about half its present physical size, with about 200 citizens. It was bounded on the west by a line running roughly along Lafayette Avenue in the north and Robertson Avenue in the south. The northern boundary remains at about the same location, but the original southern boundary ran west from the river between what is now Cleveland Avenue and Bowling Green Avenue. Early development generally occurred south of Palmer Avenue and east of Pennsylvania Avenue.

The industrial history of the borough began in its earliest days with grain mills. The "Delaware Works" on the riverfront gained a succession of mills including a sawmill, snuff factory, slitting mill, sheet rolling tin mill, button factory and a hat factory. In 1806, the first bridge across the Delaware River opened, connecting Morrisville and Trenton.

In 1830, the Delaware Canal opened, offering a safe shipping route for anthracite coal from the Lehigh Valley. The coal had previously been shipped down the Delaware River. The first train line arrived from Bristol in 1833. Within a decade, service was established across the river to New Jersey and down to Philadelphia.

The Calhoun Street bridge was installed in 1861 and replaced with an iron truss structure that still stands today when the wooden structure burned in 1884. Trolley service connected the now bustling suburb to Trenton and Newtown in 1903.

The regional transportation connections ensured a steady population growth during the nineteenth century from approximately 200 in 1800 to slightly less than 1,400 in 1900. With the advent of the industrial age, the town's population surged in less than a century from less than 1,400 in 1900 to more than 11,000 in 1970.

The first rubber works in Morrisville was started in 1873 in the original Robert Morris stables. The Morrisville Rubber Company ran just seven years and was followed by a succession of rubber companies producing a variety of products. In 1901, the Vulcanized Rubber Company was founded.

The Robertson Art Tile Company was founded in 1890 by Englishman George W. Robertson and grew to dominate the town's industry, producing residential tile for tens of thousands of homes in the Levittown developments in Pennsylvania and New Jersey. The company employed hundreds and was known simply as the "Tile Works." It was one of many tile companies in the Delaware Valley at the time.

Both Vulcanized Rubber and the Tile Works produced war materials during both world wars. Vulcanized added injection molded plastics to its repertoire in 1940. At its peak in 1946, Vulcanized employed more than 700 employees. After a long decline during the 1960s and 1970s, the plant closed in 1980.

The mills and ceramic works were soon joined by other heavy industry in the region. Just a few miles south of the borough was the massive Fairless Works Steel Company, founded by U.S. Steel President Benjamin Fairless. Though Fairless Hills was constructed as a company town for the mill, and Levittown arose next to it, many borough citizens became part of the Fairless story.

The decline of manufacturing industries during the late twentieth century caused a population decline of more than 10 percent, to slightly less than 10,000 in 1980. The population base stabilized during the next two decades and is now increasing at an incremental rate. The American Community Survey 5-year estimate (2013-2017) puts Morrisville's population at 8,630.

The most intense periods of residential land development in the borough occurred in the early and middle decades of the twentieth century in response to this industrial expansion, giving Morrisville its mix of colonial, early suburban and post-war tract housing.

The Morrisville Little League (MLL) won the Little League World Series championship game in 1955 and has been an integral part of the community since. The MLL maintains eight fields at Williamson Park, three of which have light fixtures for night games.

TWENTY-FIRST CENTURY HAPPENINGS

At the beginning of the new century, the borough kicked off the new and prosperous twenty-first century with the celebration of Morrisville's bicentennial in 2004. As a commemoration of the borough's 200th birthday, Robert Morris Plaza was dedicated to the borough. At the corner of Pennsylvania Avenue and Bridge Street stands a seven-foot bronze statue of Robert Morris, crafted by artist, sculptor, and lifelong Morrisville resident, the late James Gafgen. In 2018, Public Works in conjunction with the Parks and Open Space Beautification Committee, had lighting installed to illuminate the statue and highlight the plaza.

With redevelopment in mind as a goal of the community, input from the public demonstrated the concern for potential new buildings impacting the historic charm in the borough. In 2007, Renaissance Plaza, a 20,000 square foot mixed-use building was constructed along Bridge Street in downtown Morrisville. The building's design calls on the traditional masonry factories of Morrisville's old steel town.

MR Reiter Elementary School was closed down in 2011 and had not been operational since a boiler exploded in December 2008. The borough purchased the property from the Morrisville Borough School District for \$235,000 and demolition began on the building in 2018. Patriots Park was developed in its place as a passive park designed to enhance Summerseat.



In 2019, plans to revitalize the former Lehigh Rubber building were in the works, as of 2020, the building has several tenants.

Up until 2019, travel along the Delaware Canal Towpath Trail about one mile south of Bridge Street was impeded by a 35-foot embankment below the CSX rail line. An 18-month long construction project, funded by PennDOT, eliminated this gap via the installation of a 140-foot-long, 12-foot-high steel tunnel. This segment of the Delaware & Lehigh Towpath Trail also serves as a critical link for the East Coast Greenway.

Chapter 2. Population and Demographic Characteristics

Basic demographic measures of population, both past and present, can provide a sense of the key characteristics of a community and an indication of where it is headed.

POPULATION

Morrisville's population peaked at 11,309 in 1970 and has since dropped to 8,630 in 2017. Population for Morrisville and Bucks County is shown in Table 2.

Table 2. Population, Morrisville Borough and Bucks County, 1930–2017

Year	Morrisville Borough			Bucks County		
	Population	Change	Percent	Population	Change	Percent
1930	5,368			96,727		
1940	5,493	125	2.3	107,715	10,988	11.4
1950	6,787	1,294	23.6	144,620	36,905	34.3
1960	7,790	1,003	14.8	308,567	163,947	113.4
1970	11,309	3,519	45.2	416,728	108,161	35.1
1980	9,845	-1,464	-12.9	479,211	62,483	15
1990	9,765	-80	-0.8	541,224	62,013	12.9
2000	10,023	258	2.6	597,635	56,411	10.4
2010	8,728	-1,295	-12.9	625,249	27,614	4.6
2017	8,630	-98	-1.1	626,486	1,237	0.2
Change, 1930–2017		3,262	60.8		529,759	547.7

SOURCE: U.S. CENSUS, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2010. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

As an older, “first-generation” suburb, Morrisville grew quickly from 1950 to 1970, with the advent of U.S. Steel’s massive Fairless Works in neighboring Falls Township and the surge of other local industry in the years after World War II. As the manufacturing economy declined during the 1970s and 80s, so did Morrisville’s population. Population fell over 13 percent during this period. After two decades of stable population, the borough lost another 14 percent of its population from 2000 to 2017.

Because of the small geographic area of the borough and its early start as a population center, the pace of population growth in Morrisville has lagged the county’s, except during the industrial boom years from 1960 to 1970. The difference in population change has become even greater since 1970, as little vacant land remains in Morrisville and the focus of countywide growth has shifted from the first-generation suburbs of lower Bucks to greenfield development in central and upper Bucks County.

Table 3. Population, Morrisville Borough, Lower Bucks Boroughs, and Bucks County, 1930–2017

Borough	Year									
	1930	1940	1950	1960	1970	1980	1990	2000	2010	2017
Morrisville	5,368	5,493	6,787	7,790	11,309	9,845	9,765	10,023	8,728	8,630
Bristol	11,799	11,895	12,710	12,364	12,085	10,867	10,405	9,923	9,726	9,645
Hulmeville	582	694	860	968	908	1,014	916	893	1,003	967
Langhorne	1,147	1,221	1,579	1,461	1,889	1,697	1,361	1,981	1,622	1,536
Langhorne Manor	397	477	781	1,506	1,505	1,103	807	927	1,442	1,569
Newtown	1,824	2,009	2,095	2,323	2,216	2,519	2,565	2,312	2,248	2,041
Penndel	789	921	1,100	2,158	2,248	2,703	2,703	2,420	2,328	3,029
Tullytown	658	562	648	2,452	2,194	2,277	2,339	2,031	1,872	1,887
Yardley	1,308	1,459	1,916	2,271	2,616	2,533	2,288	2,498	2,434	2,289
Bucks County	96,727	107,715	144,620	308,567	416,728	479,211	541,224	597,635	625,249	626,486

SOURCE: U.S. CENSUS, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2010. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

A comparison with other lower Bucks County boroughs can be useful in understanding Morrisville's population dynamics. Table 3 details the population changes of Morrisville Borough from 1930–2017, compared to other lower Bucks boroughs. Morrisville boasts the second largest population among lower Bucks County boroughs, just behind Bristol Borough. The table shows that lower Bucks boroughs have experienced ups and downs in population over the previous century. Notably, during the 2000 to 2017 period, Morrisville Borough lost the most population.

PROJECTIONS

Population projections are a useful tool in helping a municipality plan for future needs, such as senior services, park and recreation facilities, and emergency services.

The population projections depicted on Table 4 were developed by the Delaware Valley Regional Planning Commission (DVRPC). The DVRPC provides demographic and economic projections for the 10 counties in Pennsylvania and New Jersey which make up the Philadelphia metropolitan region. Bucks County and its municipalities are within the Philadelphia metropolitan region.

The DVRPC's population projections were developed using an age-cohort survival model. The age-cohort survival model simulates the process by which population actually changes by applying birth (fertility), death, and migration rates to a starting population (in this case, the 2010 Census, which is the most recent forecast available). Under the process, the starting population was broken down into five-year increments (the population cohorts) according to the age structure and sex of the population. Fertility, death, and migration rates based on past trends were applied to the cohorts of the starting population to produce a 2015 projected population. The process was repeated for the following 5-year increments.

According to the population projections by the Delaware Valley Regional Planning Commission, the borough's population is expected to increase 2 percent, to 8,968, by 2030.

Table 4. Population Projections, Morrisville Borough, 2020–2045

Projected Population		
Year	Number	Percent
2010	8,728	
2020	8,623	0.2
2025	8,796	2.0
2030	8,968	2.0
2035	9,074	1.2
2040	9,160	1.0
2045	9,234	0.8
Total Change	506	5.8

SOURCE: DELAWARE VALLEY REGIONAL PLANNING COMMISSION

POPULATION CHARACTERISTICS

Population characteristics (Table 5) reveals a few demographic trends. The number of households declined by over 600, while average household size increased from 2.41 persons to 2.44. Median age increased from 35.7 in 2000 to 39.7 in 2017, reversing the previous decade's trend toward a younger population.

Table 5. Population Characteristics, Morrisville Borough, 2000–2017

Characteristic	2000	2010	2017
Median age	35.7	38.4	39.7
Number of Households	4,154	3,653	3,520
Family Households	2,612	2,250	2,143
Married Couple Families	1,772	1,497	1,367
Nonfamily Households	1,542	1,403	1,377
Householders Living Alone	1,248	1,091	1,170
Average Household Size	2.41	2.38	2.44
Average Family Size	3.01	2.97	3.23

SOURCE: U.S. CENSUS, 2000, 2010. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

More than one-third of borough households—37.1 percent—were nonfamily households in 2000. This number slightly increased in 2010 to 38.4 percent. This number again increases to 39.1 percent for 2017. This increase is due to a greater percentage of householders living alone. Non-family households include those who live alone or nonrelatives who are living together, such as unmarried partners or roommates. With a shift in culture, it is becoming more popular for couples to live together without being married. In addition, economic factors are a key part of non-family households as more young adults tend to move in together, as it is more difficult to afford rent alone.

AGE DISTRIBUTION

Table 6 details the changes in age distribution from 2000 to 2017.

Table 6. Age Distribution, Morrisville Borough, 2000–2017

	2000		2010		2017	
Age Group	Number	Percent	Number	Percent	Number	Percent
Under 5	737	7.4	576	6.6	548	6.3
5 to 9	736	7.3	539	6.2	606	7.0
10 to 14	649	6.5	455	5.2	455	5.3
15 to 19	563	5.6	500	5.7	445	5.2
20 to 24	588	5.9	431	4.9	348	4.0
25 to 34	1,600	16.0	1,403	16.0	1,385	16.2
35 to 44	1,835	18.3	1,300	14.9	1,223	14.1
45 to 54	1,328	13.2	1,405	16.1	1,303	15.1
55 to 59	455	4.5	629	7.2	660	7.6
60 to 64	328	3.3	463	5.3	532	6.2
65 to 74	630	6.3	538	6.3	554	6.4
75 to 84	445	4.4	359	4.1	437	5.0
85 and up	129	1.3	130	1.5	134	1.6
Total	10,023	100.0	8,728	100.0	8,630	100.0

SOURCE: U.S. CENSUS, 2000, 2010. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

Residents aged 25 to 34 make up the greatest portion of the population at 16.2 percent, although this cohort has been declining since 2000, as have all age groups up to age group 35 to 44. The loss of population in these cohorts and the stability in older cohorts accounts for the loss of households and the increase in median age shown the previous section, Population Characteristics.

Residents ages 55 and up have increased in the borough since 2010. The number of older residents in the borough will continue to grow in future decades, due to the size of the cohorts from age 25 to 54. An emphasis on health care, recreational activities, public transportation, support services, and affordable housing will be needed to serve the needs of this population.

NEW RESIDENT ORIGINS

Table 7 displays the origins of newcomers to Morrisville Borough. Between 2013 and 2017, about 962 new residents moved into Morrisville Borough. Of those residents, about 50 percent came from elsewhere in Bucks County, with another 33 percent from another state.

Table 7. Origin of New Residents, Morrisville Borough, 2017

Place of Origin	Number	Percent
Bucks County	485	50.4
Elsewhere in Pennsylvania	128	13.3
Other State	323	33.6
Outside United States	26	2.7
Total New Residents	962	100.0

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

MEDIAN HOUSEHOLD INCOME

Table 8. Median Household Income, Morrisville Borough, Other Lower Bucks Boroughs, and Bucks County, 2000–2017

Borough	2000	2010	2017
Morrisville	\$43,095	\$50,980	\$68,214
Bristol	\$35,378	\$47,693	\$47,039
Hulmeville	\$55,259	\$64,018	\$85,000
Langhorne	\$80,532	\$73,542	\$83,583
Langhorne Manor	\$56,389	\$93,393	\$108,750
Newtown	\$63,571	\$74,000	\$116,667
Penndel	\$36,296	\$49,181	\$51,076
Tullytown	\$45,625	\$50,677	\$64,250
Yardley	\$58,221	\$71,360	\$82,614
Bucks County	\$59,727	\$74,828	\$82,031

SOURCE: U.S. CENSUS, 2000. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2006–2010, 2013–2017

In 2017 median household income was \$68,214, about \$14,000 less than Bucks County's median of \$82,031. Median household income in the borough, as compared to Bucks County, has been rising. The median household income in 2010 for Morrisville was less than the county income by 32 percent. The 5-year estimates shows that the median income for Morrisville in 2017 is only 17 percent behind the countywide median household income.

PLACE OF WORK

Table 9. Place of Work for Residents, Morrisville Borough and Bucks County, 2000–2017

2000				
	Morrisville Borough		Bucks County	
Place of Work	Number	Percent	Number	Percent
In municipality of residence	543	10.8	12,190	4.0
In county of residence	2,319	46.3	168,090	55.4
In state of residence	2,934	58.6	260,009	85.6
Outside state of residence	2,071	41.4	43,577	14.4
Total Workers	5,005	100.0	303,586	100.0
2010				
	Morrisville Borough		Bucks County	
Place of Work	Number	Percent	Number	Percent
In municipality of residence	538	12.4	11,585	3.7
In county of residence	1,697	39.1	174,833	55.8
In state of residence	2,037	46.9	267,745	85.5
Outside state of residence	2,309	53.1	45,509	14.5
Total Workers	4,346	100.0	313,254	100.0
2017				
	Morrisville Borough		Bucks County	
Place of Work	Number	Percent	Number	Percent
In municipality of residence	642	13.9	12,667	4.0
In county of residence	2,203	47.8	179,679	56.0
In state of residence	2,866	62.2	274,941	85.7
Outside state of residence	1,743	37.8	45,996	14.3
Total Workers	4,609	100.0	320,937	100.0

SOURCE: U.S. CENSUS, 2000, 2010. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

The 2010 census and 2017 estimates show the increase of employed residents working in the borough of Morrisville, as well as the decrease of employed residents working outside of the state.

TRAVEL TIME

Closeness to work is reflected in commuting time for borough residents. Table 10 details travel time to work.

Table 10. Travel Time, Morrisville Borough and Bucks County, 2000–2017

	2010				2017			
	Morrisville Borough		Bucks County		Morrisville Borough		Bucks County	
Travel Time to Work	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Did Not Work at Home	4,099	94.3	300,343	95.9	4,438	96.3	304,535	94.9
Less than 5 minutes	86	2.1	6,981	2.3	99	2.2	7,265	2.4
5 to 9 minutes	281	6.9	26,234	8.7	235	5.3	24,666	8.1
10 to 14 minutes	534	13.0	44,032	14.7	771	17.4	38,409	12.6
15 to 19 minutes	1,031	25.2	44,528	14.8	833	18.8	41,892	13.8
20 to 24 minutes	637	15.5	39,181	13.1	628	14.2	40,575	13.3
25 to 29 minutes	97	2.4	18,601	6.2	494	11.1	19,970	6.6
30 to 34 minutes	481	11.7	35,096	11.7	380	8.6	37,223	12.2
35 to 39 minutes	74	1.8	9,771	3.3	110	2.5	9,677	3.2
40 to 44 minutes	216	5.3	13,819	4.6	88	2.0	13,536	4.4
45 to 59 minutes	243	5.9	28,796	9.6	344	7.8	31,373	10.3
60 to 89 minutes	283	6.9	24,106	8.0	298	6.7	28,399	9.3
90 or more minutes	136	3.3	9,198	3.1	158	3.6	11,550	3.8
Worked at Home	247	5.7	12,911	4.1	171	3.7	16,402	5.1
Total Workers	4,346	100.0	313,254	100.0	4,609	100.0	320,937	100.0

SOURCE: U.S. CENSUS, 2000. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2006–2010, 2013–2017

EDUCATIONAL ATTAINMENT

For residents 25 years and over, the percentages of educational attainment fall slightly short of the county average, yet compare well to other lower Bucks County boroughs. Over 93 percent of Morrisville residents graduated high school. This is the third highest rate among lower Bucks boroughs and is only slightly less than the entire county. About 34 percent of residents 25 years and over attained a bachelor's degree or higher, and 11 percent of residents attained a graduate degree or higher, both being the fifth highest of the nine boroughs in lower Bucks County.

Table 11. Educational Attainment Percentage, Morrisville Borough, Lower Bucks Boroughs, and Bucks County, 2017

Borough	High School Graduate or Higher	Associates Degree or Higher	Bachelor's Degree or Higher	Graduate Degree or Higher
Morrisville	93.1	44.0	34.0	11.2
Bristol	88.9	27.1	18.6	7.2
Hulmeville	93.0	30.6	24.0	7.0
Langhorne	92.5	40.7	35.6	15.0
Langhorne Manor	87.0	47.0	37.3	16.5
Newtown	99.0	69.0	62.5	29.6
Penndel	91.2	31.7	25.6	8.7
Tullytown	92.3	18.6	14.1	3.0
Yardley	99.3	73.1	63.6	32.2
Bucks County	93.7	47.2	39.4	15.8

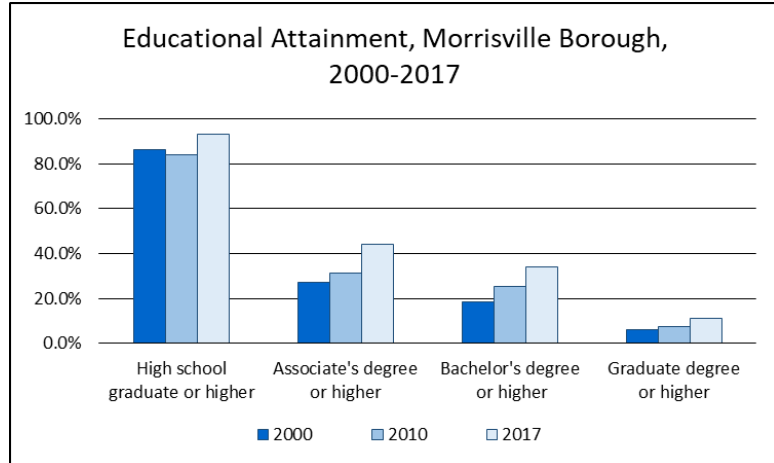
SOURCE: U.S. CENSUS, 2000. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2006–2010, 2013–2017

Table 12. Educational Attainment Percentage, Morrisville Borough, 2000–2017

Educational Attainment	2000	2010	2017
High school graduate or higher	86.1	84.2	93.2
Associate's degree or higher	27.0	31.5	44.0
Bachelor's degree or higher	18.7	25.4	34.0
Graduate degree or higher	6.2	7.5	11.2

SOURCE: U.S. CENSUS, 2000. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2006–2010, 2013–2017

Since 2000, the educational attainment of Morrisville residents has only continued to grow. In 2017, 93.2 percent of residents graduated high school, which is 7 percent higher than 2000 and 9 percent higher than 2010. Forty-four percent hold an associate's degree, which is 17 percent higher than 2000. Thirty-four percent of residents attained a bachelor's degree or higher, which is up 15 percent since 2000. And since 2000, the percentage of residents who attained a graduate degree or higher increased by 5 percent and is currently at 11.2 percent.



ETHNIC AND RACIAL DIVERSITY

Compared to area lower Bucks County boroughs, Morrisville has the largest population of Black or African-American residents, Asian residents, and the second highest population of White residents. About 78.5 percent of the borough's residents are White, 14 percent are Black or African American, 3 percent are Asian, and less than 3 percent are two or more races. The American Community Survey indicates that the borough has no residents that identify as American Indian, Alaska Native, Native Hawaiian, or Pacific Islander.

Table 13. Population by Race, Morrisville Borough, Lower Bucks Boroughs, and Bucks County, 2017

Borough	White	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Some Other Race	Two or More Races	Total
Morrisville	6,780	1,206	0	284	0	151	209	8,630
Bristol	7,663	1,005	8	49	0	385	485	9,645
Hulmeville	906	4	20	20	0	4	13	967
Langhorne	1,441	54	0	12	0	0	29	1,536
Langhorne Manor	1,432	58	13	19	0	22	25	1,569
Newtown	2,007	7	0	4	0	0	23	2,041
Penndel	2,144	594	3	111	0	37	140	3,029
Tullytown	1,816	22	0	19	0	7	23	1,887
Yardley	2,029	119	0	92	0	13	36	2,289
Bucks County	554,141	24,757	1,081	28,758	22	6,496	11,231	626,486

SOURCE: U.S. CENSUS, 2000. AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2006–2010, 2013–2017

CHAPTER SUMMARY

- Morrisville's population peaked at 11,309 in 1970 and has since dropped to 8,630 in 2017. Morrisville boasts the second largest population among lower Bucks County boroughs, just behind Bristol Borough.
- Median age increased from 35.7 in 2000 to 39.7 in 2017, reversing the previous decade's trend toward a younger population.
- The number of nonfamily households increased to 39.1 percent for 2017. This increase is due to a greater percentage of householders living alone. Non-family households include those who live alone or nonrelatives who are living together, such as unmarried partners or roommates.
- In 2017 median household income was \$68,214, about \$14,000 less than Bucks County's median of \$82,031. Median household income in the borough, as compared to Bucks County, has been rising.
- The percentage of residents graduating from high school, or attained an associate's, bachelor's or graduate degree has increased significantly since 2000.
- Compared to area lower Bucks County boroughs, Morrisville has the largest population of Black or African-American residents and Asian residents.

Chapter 3. Housing

The state of the housing stock greatly impacts all facets of life in the borough, especially quality of life and economic health. This chapter of the comprehensive plan examines the borough's housing characteristics, reviews the strengths and weaknesses of the market, and looks ways to maintain and supplement the housing stock.

HOUSING COMPOSITION

Morrisville's housing stock is varied in terms of unit size, unit type, and tenure type—owner-occupied or rental—although the majority of housing is of older vintage. The balanced housing mix promotes affordability and draws households of diverse ages, composition, and family sizes. Table 14 details the number and types of homes in Morrisville.

Table 14. Housing Units by Type, Morrisville Borough, 2017

Housing Type	Number	Percent
Single-family detached	2,611	67.1
Single-family attached	445	11.4
Duplexes or twins	247	6.4
Other Multifamily	581	14.9
3 or 4 units	72	1.9
5 to 9 units	180	4.6
10 to 19 units	148	3.8
20 or more units	181	4.7
Mobile Homes	9	0.2
Total	3,893	100.0

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

Single-family detached housing is the predominant housing type in Morrisville, accounting for 67 percent. Single-family attached housing (townhouses and rowhomes) makes up 11.4 percent of the housing supply.

The borough has a plentiful supply of multifamily (apartment) housing. It encompasses buildings of various sizes, ranging from 3-4 unit structures to those with more than 20 units. Types of apartment housing include garden apartments and mid-rise buildings.

Larger apartment buildings with 20 or more units account for 4.7 percent of the housing stock, and apartments with 5 to 9 units make up 4.6 percent of the housing in the borough. The smallest apartment buildings with 3 or 4 units only account for 1.9 percent of the housing, and 10 to 19 unit buildings make up 3.8 percent.

HOUSING AGE

Table 15 displays when the housing in the borough was built. The majority of the housing supply consists of older homes that were built before 1940. Homes built in 1939 or earlier make up nearly 35 percent of

the housing stock. More than half of the housing was built between 1940 and 1979, and only 13 percent was built after 1980. Historic housing and residential neighborhoods contribute to the charm of the borough. While older housing is often costly to keep up with and repair, most of the housing in the borough is in good condition.

Table 15. Housing Age, Morrisville Borough, 2017

Year Built	Number	Percent
2010 or later	11	0.30
2000–2009	19	0.4
1990–1999	148	3.82
1980–1989	342	8.7
1970–1979	333	8.58
1960–1969	532	13.6
1950–1959	707	18.2
1940–1949	470	12.0
1939–earlier	1,342	34.4
Total	3,904	100.0

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

HOUSING CHARACTERISTICS

Housing characteristics such as tenure type, market value, vacancy rates, and rental costs, are all factors that can help determine the condition of housing and neighborhoods in a community. Relative housing conditions are envisioned once compared to the numbers of neighboring communities. Table 16 displays a regional comparison of housing indicators for Morrisville, eight other lower Bucks County boroughs, as well as the county as a whole.

Morrisville has a homeownership rate of 61.2 percent, the fifth-highest rating of lower Bucks boroughs. In the United States, around two-thirds of all households own their homes; Bucks County exceeds the rate of national homeownership with 76.6 percent of households owning their homes. Homeownership rates in the county's first-generation suburbs, including boroughs and older, densely populated townships, run lower than in newer growth suburbs, where concentrated rental housing is scarce.

Renting housing is more affordable than buying, so a plentiful stock of rental housing may attract young families and those living independently, retirees, and other types of lower-income households. This can be a benefit in enabling people to live closer to their work, and ensuring a labor pool for local employers, especially those who need to fill entry-level and service jobs.

The median value of Morrisville owner-occupied housing is the second lowest value compared to lower Bucks boroughs. At \$196,800, the median housing value in Morrisville is more than \$100,000 less than the median countywide value. The median monthly rental cost of \$1,058 is near the mid-range compared to the surrounding boroughs and is less than the county's median cost. The vacancy rate of 3.7 percent is one of the lowest in the area and lower than the countywide rate of 5.4 percent.

Table 16. Housing Indicators, Morrisville Borough, Lower Bucks Boroughs, and Bucks County, 2017

Borough	Owner-Occupied Housing (Percent)	Median Value Owner-Occupied Housing	Rental Vacancy Rate (Percent)	Median Monthly Rent
Morrisville	61.2	\$196,800.00	3.7	\$1,058.00
Bristol	49.9	\$181,400.00	5.3	\$935.00
Hulmeville	75.9	\$287,900.00	14	\$1,120.00
Langhorne	60.4	\$351,000.00	13.7	\$1,017.00
Langhorne Manor	79.3	\$369,000.00	0	\$1,143.00
Newtown	73.1	\$494,300.00	0	\$1,378.00
Penndel	43.3	\$260,900.00	4.8	\$1,045.00
Tullytown	60.7	\$233,600.00	5.6	\$826.00
Yardley	72.5	\$329,600.00	7.3	\$1,243.00
Bucks County	76.6	\$315,700.00	5.4	\$1,171.00

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

Table 17 shows that 70 percent of Morrisville Borough's owner-occupied units are with an outstanding mortgage. This is just slightly above the county as a whole. Many homeowners who bought homes in the 1990s and 2000s likely have not yet paid off their mortgages. About 30 percent of Morrisville Borough housing units are without a mortgage. These homeowners either paid cash for their homes, have lived in their home long enough to have paid off any mortgage debt, or inherited a family home that had no mortgage debt.

Table 17. Mortgage Status of Owner-Occupied Housing Units, Morrisville Borough and Bucks County, 2017

Mortgage Status of Owner-Occupied Housing Units	Morrisville Borough		Bucks County	
	Estimate	Percent	Estimate	Percent
Housing units with a mortgage	1,504	70.0	123,126	68.1
Housing units without a mortgage	651	30.0	57,544	31.9
Total housing units	2,155	100.0	180,670	100.0

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

HOUSING VALUE AND AFFORDABILITY

After the crash of the housing market in 2008, housing prices throughout the county declined. Housing prices in the Philadelphia region have recovered and now exceed their pre-recession levels of 2008, which represented a significant increase from home values in the 1990s. During the COVID-19 pandemic housing demand has fallen, but prices have yet to follow. Given high national unemployment and lower demand for housing, a decrease in housing prices is likely.

The median value of a home in Morrisville Borough is \$196,800, which is \$118,900 less than the median value of a home in the county. While 41.3 percent of the homes in Morrisville Borough are between

\$150,000 and \$199,999, only 9.3 percent of homes in Bucks County reflect this value of owner-occupied houses. Compared to the rest of the county, Morrisville Borough has a larger share of affordable homes.

Table 18. Median Household Value of Owner-Occupied Units, Morrisville Borough and Bucks County, 2017

Value of Owner - Occupied Units	Morrisville Borough		Bucks County	
	Estimate	Percent	Estimate	Percent
Less than \$50,000	93	4.3	6,349	3.5
\$50,000 to \$99,999	17	0.8	2,263	1.3
\$100,000 to \$149,999	129	6.0	6,100	3.4
\$150,000 to \$199,999	891	41.3	16,890	9.3
\$200,000 to \$299,999	810	37.6	52,213	28.9
\$300,000 to \$499,999	163	7.6	66,767	37.0
\$500,000 to \$999,999	33	1.5	26,621	14.7
\$1,000,000 or more	19	0.9	3,467	1.9
Total Units	2,155	100.0	180,670	100.0
Median Value	\$196,800	(x)	\$315,700	(x)

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

General standards determined by the U.S. Department of Housing and Urban Development (HUD) consider housing to be affordable to a household if that household is spending 30 percent of their income or less on housing. A household that is spending greater than 30 percent of their income is considered cost-burdened. Using this metric, a snapshot of general housing affordability for different income groups can be considered.

Table 19 displays that there is an income gap between the households in the borough that own their home and those residents who rent their homes. The median household income for those who rent their home is over \$43,000 less than those residents who own their own. The median household income of residents in Morrisville borough who own their home is \$84,835, which is nearly \$14,000 less than the countywide statistics. Higher income households are much more likely to own their home compared to lower income households in the borough, as well as across the county.

Table 19. Percentage of Occupied Homes by Household Income, Morrisville Borough and Bucks County

Household Income in the Past 12 Months	Morrisville Borough			Bucks County		
	Total Occupied Percent	Owner Occupied Percent	Renter Occupied Percent	Total Occupied Percent	Owner Occupied Percent	Renter Occupied Percent
Less than \$5,000	1.2	0.0	3.0	1.7	1.2	3.6
\$5,000 to \$9,999	2.2	0.5	5.1	1.6	0.8	4.4
\$10,000 to \$14,999	4.3	2.8	6.7	2.7	1.4	6.8
\$15,000 to \$19,999	6.6	4.5	9.8	3.2	2.3	6.4
\$20,000 to \$24,999	5.7	4.6	7.5	3.3	2.5	6.2
\$25,000 to \$34,999	5.6	2.2	10.9	6.6	5.1	11.4
\$35,000 to \$49,999	12.2	13.1	10.9	10.3	8.2	17.3
\$50,000 to \$74,999	20.1	11.6	33.5	16.5	15.5	19.6
\$75,000 to \$99,999	15.1	21.3	5.3	13.2	14.0	10.8
\$100,000 to \$149,999	13.0	18.8	3.7	19.1	22.3	8.4
\$150,000 or more	14.0	20.5	3.7	21.7	26.8	5.1
Occupied housing units	3,520	2,155	1,365	235,909	180,670	55,239
Median household income	\$68,214	\$84,835	\$41,972	\$82,031	\$98,256	\$44,093

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

Table 20 shows that the median monthly costs for owner-occupied homes is \$1,350 while the median cost to rent a home in the borough is \$1,058, a difference of less than \$300. Monthly home ownership and renter costs in the borough are less than those for the county.

Table 20. Monthly Housing Costs, Morrisville Borough and Bucks County, 2017

Monthly Housing Costs	Morrisville Borough			Bucks County		
	Total Occupied Percent	Owner Occupied Percent	Renter Occupied Percent	Total Occupied Percent	Owner Occupied Percent	Renter Occupied Percent
Less than \$300	2.9	0.0	7.5	1.7	1.3	3.0
\$300 to \$499	7.2	10.1	2.7	4.0	4.1	3.7
\$500 to \$799	10.1	11.6	7.8	12.2	13.5	7.8
\$800 to \$999	16.8	10.3	27.0	10.9	9.0	17.0
\$1,000 to \$1,499	32.1	28.5	37.7	22.4	16.7	40.9
\$1,500 to \$1,999	16.8	16.9	16.6	17.5	18.3	14.6
\$2,000 to \$2,499	10.4	17.0	0.0	12.4	14.5	5.5
\$2,500 to \$2,999	1.1	1.9	0.0	7.8	9.7	1.8
\$3,000 or more	2.2	3.6	0.0	10.3	12.9	1.8
No cash rent	0.3	(x)	0.8	0.9	(x)	3.9
Median (dollars)	\$1,220	\$1,350	\$1,058	\$1,463	\$1,639	\$1,171

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

Compared to area boroughs, Morrisville Borough has lower levels of households living in poverty. At 6.4 percent, it is nearly the same as the county-wide poverty level. Poverty guidelines (2019), as determined by the United States Department of Health and Human Services, lists a range of incomes from \$12,490 to \$43,430 that could be considered the threshold for poverty status. Poverty thresholds are dependent on the size of the household. A household of two persons would need to have an annual income of less than \$21,130 to be considered living in poverty, while a household of five persons could earn up to \$37,720.

For households with lower incomes, and in particular those with poverty level incomes, there are a number of resources which provide housing assistance, either through direct provisions or housing in the form of a public housing project. These developments are largely funded by the Department of Housing and Urban Development (HUD) and awarding assistance is subject to income restrictions.

The Section 8 Housing Choice Voucher Program, which allow households to rent market rate apartments at subsidized rent levels, is administered through the Bucks County Housing Authority. In order to qualify for a Housing Choice Voucher, a household's income may not exceed 50 percent of the area median income, which for 2017 in Bucks County for a family of four was \$41,600. The price of rent, including any utilities which are required to be paid by the resident, cannot exceed 30 percent of a family's anticipated gross annual income. A recipient of a voucher is responsible for paying the balance of the rent and is required to rent a housing unit that costs no more than the established fair market value for the region, so there is a cap on the price of a house or apartment that can be rented using voucher funds. The length of the wait for housing varies according to a number of factors, such as the number of applicants on the

waiting list, type of housing needed, rate of turnover for housing, and Bucks County residency. The wait can range from several months to several years.

Table 21. Median Household Income and Poverty Level, Morrisville Borough, Lower Bucks Boroughs, and Bucks County, 2017

Borough	Median Household Income	Percentage Below Poverty Level
Morrisville	\$68,214	6.4
Bristol	\$47,039	18.2
Hulmeville	\$85,000	4.5
Langhorne	\$83,583	8.0
Langhorne Manor	\$108,750	10.8
Newtown	\$116,667	3.7
Penndel	\$51,076	15.2
Tullytown	\$64,250	10.9
Yardley	\$82,614	2.7
Bucks County	\$82,031	6.1

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

In addition to the Housing Choice Vouchers, which allow a user to choose their own homes, there are several housing developments that have units which are available only for qualified low-income families. Just like the vouchers, being awarded a housing unit in a project-based affordable housing development is subject to income restrictions and availability. Several of these public projects have been developed to target a specific segment of the low-income population, such as seniors or the mentally or physically disabled. The project-based affordable housing developments in the lower Bucks County region are:

- Venice Ashby Phase I, Bristol: 62 townhouse units
- Venice Ashby Phase II Scattered Sites, Bristol: 61 townhouse units
- Country Commons, Bensalem: 352 units for seniors 55+
- Grundy Tower, Bristol, PA: 176 units for seniors 62+
- Grundy Gardens, Fairless Hills, PA: 130 units for seniors 62+
- Galilee Village, Levittown: 120 units for seniors 62+
- MacIntosh Regency, Levittown, PA: 100 units for seniors 62+
- Bensalem Woods, Bensalem, PA: 48 one-bedroom units for seniors 62+
- LaMont Plaza, Fairless Hills: seniors 62+
- Morrisville Presbyterian Tower, Morrisville: 100 units for seniors 62+

The Low-Income Housing Tax Credit (LIHTC) Program is another source of funding for affordable housing. The LIHTC provides tax credit funding to help finance the construction of affordable housing, or to provide a subsidy for developments that set aside a portion, typically 10 percent to 20 percent, of the overall number of homes being built as income-restricted units. Administration of these units are usually overseen by non-profits and are somewhat different from the Section 8 housing units. The following developments near the borough have been funded through LIHTC:

COMPREHENSIVE PLAN UPDATE

- Bensalem Presbyterian Apartments, Bensalem: 53 units for seniors 62+
- Cornwell Heights Elderly Housing, Bensalem: 60 units for seniors 62+
- Country Commons, Bensalem: seniors 55+
- Somerton Court Senior, Bensalem: 60 units for seniors 62+
- Andalusia Senior Housing (Ashland Manor), Bensalem: 36 units for seniors 62+
- Grundy Gardens II Senior Housing, Fairless Hills: 60 units for seniors 62+
- Silverlake Plaza, Bristol: 15 units
- Foxwood Manor Apartments, Levittown: 304 units
- Coleman Court Townhomes, Morrisville: 5 units
- Towpath House Apartments, Morrisville: 17 units

In addition to the above mentioned programs which are federally funded, Bucks County offers several programs which can assist current and future tenants and homeowners to make housing more affordable. Services are dispensed without regard to race, ethnicity, religion, color, gender, physical capability, or age.

HOUSING REHABILITATION PROGRAM

- The County offers up to \$15,000 in the form of a no-interest loan to homeowners to allow them to repair their homes through the Housing Rehabilitation Program. If lead paint removal is involved, assistance may increase to \$30,000. Eligibility for participation in the program involves a minimum of one year ownership/residency, meeting the family income criteria, and maximum assets of \$10,000 (\$20,000 for disabled or elderly). Eligible activities for assistance include weatherization, improvements to bring property to code and/or make it handicap accessible.

HOUSING TRUST FUND PROGRAM

- The Bucks County Housing Trust Fund supports two initiatives: development of housing units and a first-time homebuyer assistance program. The unit development initiative seeks to increase the supply of affordable housing (rental or ownership) for lower income groups. There is no specific timeframe for submitting applications. However, the processing and approval of any application is subject to the availability of funding. The first-time homebuyer assistance program assists households earning less than 80 percent of county median household income with down payment or mortgage closing assistance (up to \$10,000), which is repaid when the property is sold, refinanced, or the title is transferred. The program requires mandatory counseling to educate interested applicants on the various facets of home ownership (e.g., mortgage terms and conditions, debt management, and household budgeting). Applications can be submitted at any time after applicants have received the mandatory counseling.

HOME PROGRAM

- The HOME program seeks to expand the availability of affordable housing for low-income residents through partnerships between the public and private sectors. Eligible program activities include the acquisition, demolition, rehabilitation, or new construction of affordable units to the target groups. In addition the program also seeks to provide homeownership and tenant-based rental assistance, along with reimbursement for relocation costs. There is no specific timeframe for submitting applications. However, the processing and approval of any application is subject to the availability of funding.

BROWNFIELDS FOR HOUSING PROGRAM

- The Brownfields for Housing Program supports the development of housing on formerly developed sites located in core communities, such as boroughs and rural villages within townships. The program requires a funding match of at least \$1 for each \$4 in program funds. Funding is established by the Commonwealth on an annual basis. The principal program objectives include the revitalization of older areas, the redevelopment of previously developed properties, and the creation of affordable housing. Eligible activities include the preservation of historic buildings, housing rehabilitation, and demolition of structures, environmental remediation, and improving handicap access.

CONTINUUM OF CARE HOMELESS ASSISTANCE PROGRAM

- HUD makes available competitive grants to provide housing and support services to homeless individuals and families. The principal program objectives are to help homeless persons access decent and affordable housing and increase self-determination and self-sufficiency (based on greater job skills and income). The program has three components: Supportive Housing (funding for housing and related support services), Shelter Plus Care (rental assistance for persons with disabilities), and Section 8 Moderate Rehabilitation Single Room Occupancy Program (rental payments and rehabilitation of housing for homeless persons).

Housing Link is the county's housing crisis hotline and will assist those with critical housing needs navigate the various resources available. The number for Housing Link is 1-800-810-4434. The Bucks County Homeless Shelter is located in Levittown and is run by Family Services Association. During the winter months, Code Blue shelters can be found throughout Bucks County. Information about Code Blue Shelters can be found on the Bucks County website, or by calling Housing Link.

Habitat for Humanity of Bucks County was founded in 1990 and follows the mission to build communities and empower families. Through its homeownership program, 117 affordable homes have been built, providing low-income families with stability. Habitat's home repair program, A Brush with Kindness, makes interior and exterior repairs in order to help aging and disabled individuals remain safe in their own homes. Habitat's home repair program works with low income families in Bucks County who need help fixing up their home; homeowners pay only a percentage of total repair costs which can be repaid over time using a zero-interest loan. The program has completed 72 home repair projects. The revenue from the Habitat Bucks ReStores provides funding for the construction and repair of the homes.

Habitat has built seven homes and rehabilitated two others in Morrisville. Most recently, in 2019, four single-family homes were constructed along Woodland Avenue. This community, named Woodland Park, provides better living conditions, improved educational outcomes, and builds stability.

ZONING

The borough's zoning ordinance permits a range of housing types across several zoning districts, as mandated by the Pennsylvania Municipalities Planning Code (MPC). Section 604(4) of the code requires that the provisions of the zoning ordinance be designed to provide for the use of land within the municipality for residential housing of various dwelling types encompassing all basic forms of housing, including single-family and two-dwelling units, and a reasonable range of multifamily dwellings in various arrangements, mobile homes, and mobile home parks, provided, however, that no zoning ordinance shall be deemed invalid for the failure to provide for any other specific dwelling types. Table 22 provides a summary of the permitted housing types in the borough's zoning districts.

Table 22 Key		SE = Use Permitted by Special Exception	
Y = Yes			
Zoning Districts			
R1	Single-family residential	CS1	Community service
R2	Medium-density residential	CS2	Community service/natural lands preservation
R2A	Medium-density residential/nonresidential	L1	Light industrial
R3	Mixed residential/nonresidential	I1	Industrial
R4	Multifamily residential	I2	Industrial/technology
C1	Central commercial	NPEH	Nonprofit elderly housing
C2	Shopping center	P1	Professional
C3	Neighborhood commercial	RN	Riverview neighborhood
C4	Downtown		

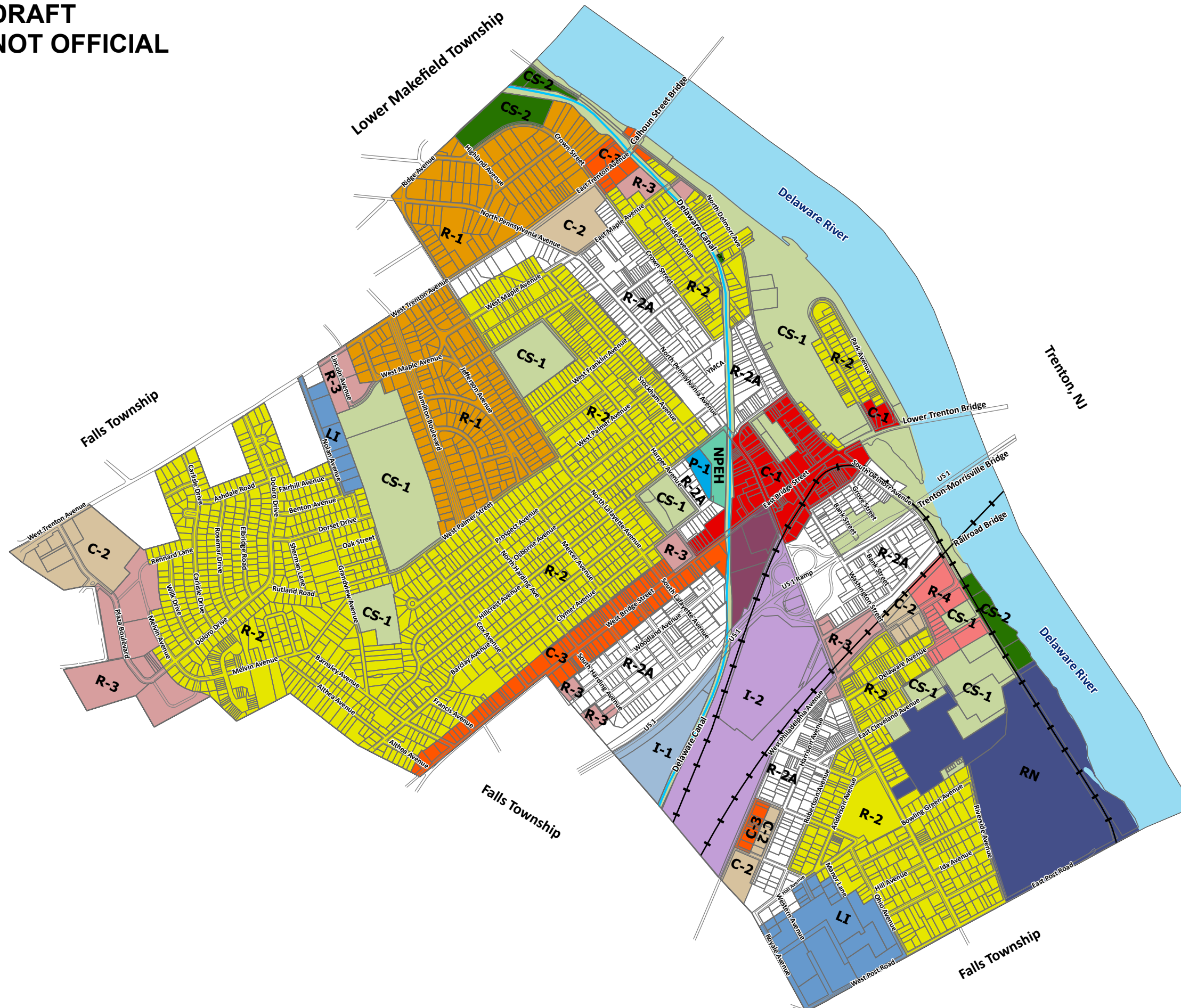
Table 22. Permitted Housing Types in Morrisville Borough


















Residential Land Use		R1	R2	R2A	R3	R4	C1	C2	C3	C4	CS1	CS2	I1	I2	LI	NPEH	P-1	RN
A1	Single-family detached dwelling	Y	Y	Y	Y	Y		Y	Y								Y	Y
A2	Cluster development				Y	Y												
A3	Two-family detached dwelling			Y	Y	Y		Y	Y									Y
A4	Duplex or twin dwelling			Y	Y	Y		Y	Y									Y
A5	Performance development				Y	Y												
A6	Garden apartment				Y	Y												
A7	Midrise apartment					Y												
A8	Senior citizens housing															Y		
A9	Rooming house					SE												
A10	Dwelling in combination with a business						Y	SE	Y	Y								Y
A11	Mobile home				SE													
A12	Farmstead		Y	Y	Y	Y		Y	Y									
A13	No-impact home-based business	Y	Y	Y	Y	Y												
A14	Bed-and-breakfast		Y	Y	Y	Y												
A16	Live-work unit						Y											Y
A17	Mixed-use structure						Y											Y

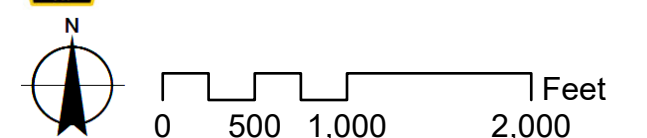
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Map 2. Zoning

Morrisville Borough Comprehensive Plan Update



- | | | |
|------|---|----------------------------|
| R-1 |  | Residential |
| R-2 |  | Residential |
| R-2A |  | Residential |
| R-3 |  | Residential |
| R-4 |  | Residential |
| NPEH |  | Non-Profit Elderly Housing |
| P-1 |  | Professional |
| C-1 |  | Central Commercial |
| C-2 |  | Shopping Center |
| C-3 |  | Neighborhood Commercial |
| C-4 |  | Downtown Industrial |
| L-1 |  | Light Industrial |
| I-1 |  | Industrial |
| I-2 |  | Industrial Technology |
| CS-1 |  | Community Service |
| CS-2 |  | Natural Lands Preservation |
| RN |  | Riverview Neighborhood |



AGE-TARGETED HOUSING

Housing designed for childless adults age 55 and older, sometimes known as “active adult” or age-restricted housing, is a popular form of residential development targeted at the sizable and aging baby boom generation. Age-restricted housing falls into four general categories: independent living or “active adult” housing; assisted living; continuing care retirement communities; and nursing homes. Independent living units provide few or no supports services to help residents carry out normal tasks of daily living. Residents live in their own households and are responsible for maintain them, just like any typical neighborhood, only restricted to adults of a certain age. Assisted living is intended for individuals requiring certain support facilities, including personal care boarding. Nursing homes are intended to be used exclusively for individuals requiring skilled full time care. Continuing care retirement communities provide a full range of living arrangements, care, amenities, and support.

The zoning ordinance includes an NPEH Nonprofit Elderly Housing District and a senior citizens housing use, but those design standards are targeted to small-unit apartment housing for lower-income seniors, rather than townhouses, quadraplexes, detached villas, or other common forms of market-rate, owner-occupied housing for older adults. The housing design standards for the RN District can provide enough flexibility in housing type to accommodate age-targeted or age-restricted housing at the desired high intensity of development.

HOUSING MAINTENANCE AND NEIGHBORHOOD PRESERVATION

An older housing stock can be susceptible to declining conditions, due to age and lack of resources to maintain it. There are steps that can be taken to preserve and improve the condition of residential neighborhoods in the borough. Enactment and enforcement of zoning, health, safety and property maintenance code standards for rental and owner-occupied housing alike is a key method of maintaining property values, sound buildings, and attractive neighborhoods.

Most housing in Morrisville is in sound condition. There are scattered units in need of repair, including a few pockets of rental and owner-occupied housing in neighborhoods south of Bridge Street.

The borough’s zoning ordinance provides for a variety of housing types. Some of these housing types—small-lot detached singles, twins, duplexes, and garden apartments, for example—are representative of the borough’s housing stock as it has evolved over the years.

Size and bulk standards in the zoning ordinance are designed to retain the historic, walkable scale of the borough. Adherence to these standards preserves the appearance and fabric of neighborhoods by preventing “tear downs” and reconstruction of housing at an inappropriately large scale.

The goal of code enforcement is to remedy housing problems and ensure that issues are addressed, such as yard maintenance, rehabilitation of substandard properties, security of vacant structures, and prevention of health and safety hazards. Morrisville’s code inspection program has been successful in educating owners and maintaining housing quality. The code enforcement office reports on inspections, building permits, notices, and violations. Table 23 details the code enforcement office report from 2018 and 2019.

Table 23. Morrisville Borough Code Enforcement Office Report, 2018 and 2019

Morrisville Borough	2018	2019
Residential Inspections	145	259
Resale Inspections	186	337
Rental Inspections	263	320
Complaints	100	88
Blight/Cease & Desist	5	14
Building Permits	333	467
Property Maintenance Violations	84	96
Initial Sidewalk & Curb Letters	0	142
Fire Marshal Investigations	0	13
Bulk Notices	0	0
Grass Notices	0	64
Snow Notices	7	0
Illegal Dumping Letters	27	0
Total	1,150	1,800

SOURCE: MORRISVILLE BOROUGH CODE ENFORCEMENT OFFICE

The Bucks County Community and Economic Development office, the county Redevelopment Authority, the Pennsylvania Department of Community and Economic Development (DCED) and private lenders are among potential sources of funding for housing rehabilitation or improvements to streets, sewer lines, sidewalks, and other neighborhood infrastructure. DCED's Elm Street program is a potential source of resources and guidance for improvements to mixed-use downtown neighborhoods of residential, commercial, and historic properties. The Keystone Elm Street designation encourages communities to integrate Main Street or downtown revitalization program with a neighborhood renewal strategy for a residential area adjacent to the commercial district. Nonprofit organizations may be willing to sponsor programs to fix up housing owned by elderly or other lower-income households.

Historic preservation, as detailed in Chapter 8, is another strategy for maintaining sound and attractive neighborhoods. Historic district designation and appropriate zoning ordinance standards, in particular, provide enforceable ways to protect the eye appeal of historic neighborhoods. The Pennsylvania Historical & Museum Commission (PHMC) is a potential source of funding that is available to nonprofit organizations and local governments for the planning and development for publicly accessible historic resources listed in or eligible for listing in the National Register of Historic Places.

Community greening and gardening programs foster not only beautification, but also community pride and quality of life. Pocket parks and street trees should be maintained or added where possible. The Pennsylvania Horticultural Society offers several programs that empower community landscapes and support gateway beautification, street tree planting, and the stabilization of lots and open spaces.

DCNR's Treevitalize program is a potential source of funding or technical assistance aimed at providing assistance for tree plantings and tree care management in community and urban areas along streets, parks, and other publicly accessible areas. Treevitalize requires the borough's commitment to water and maintain any street or shade trees that are planted throughout the borough.

Additional measures that should be considered for the purpose of community greening is to establish a Shade Tree Commission for the purpose of creating and maintaining optimum tree cover and species diversity throughout neighborhoods. A separate committee may provide more leverage in obtaining grant funding and in overseeing the maintenance of trees throughout the borough.

The borough should require the planting of street trees for all new development. Amending the subdivision and land development ordinance to fulfill this requirement would enhance community greening efforts throughout the borough.



PROMOTING HOMEOWNERSHIP

Encouraging homeownership is another way of strengthening neighborhoods. Households with a long-term financial investment in their homes are stakeholders in the future of their neighborhoods.

The borough has set a goal of increasing the rate of homeownership. The zoning ordinance has been reviewed and revised in order to discourage multi-family conversions of single-family housing. It also allows for both detached and attached housing types suitable for owner-occupancy.

As an additional means of promoting owner-occupancy, officials may wish to explore the possibility of creating a program to redirect duplexes or other rental conversions back to owner-occupancy. The redevelopment authority and local financial institutions could be potential partners in such a program, which typically makes use of grants, deferred repayment loans, or other financial incentives for acquisition and rehabilitation.

There are no properties known to be suitable for construction of detached, single-family housing subdivisions of any scale, since the large redevelopment sites in the borough have been designated for nonresidential use or higher-density residential redevelopment. Riverfront redevelopment and potential future mixed-use, transit-oriented development in the business district present an opportunity for developing upscale, attached units targeted to owner-occupancy. If any institutionally zoned properties are vacated by the school district or other institutions, the borough should consider rezoning them R-1 for single-family housing, unless the site serves an existing valuable recreational purpose. In that case, the borough should consider maintaining a community service zoning designation until such time the property could be acquired.

Local officials may also wish to explore ways to coordinate efforts with community-based first-time homebuyers programs operated by the Bucks County Housing Group, financial institutions, or others.

CHAPTER SUMMARY

PRINCIPLES — Livability, Heritage, Equity

FINDINGS

- Single-family detached housing is the predominant housing type in Morrisville, accounting for 67 percent. Single-family attached housing (townhouses and rowhomes) makes up 11.4 percent of the housing supply.
- The borough has a plentiful supply of multifamily (apartment) housing, making up 15 percent of the stock. Types of apartment housing include garden apartments, mid-rise buildings, and rowhomes.
- The majority of the housing supply consists of older homes that were built before 1940. Homes built in 1939 or earlier make up nearly 35 percent of the housing stock. More than half of the housing was built between 1940 and 1979, and only 13 percent was built after 1980.
- The median value of a home in Morrisville Borough is \$196,800, which is \$118,900 less than the median value of a home in the county. Compared to the rest of the county, Morrisville Borough has a larger share of affordable homes.
- Compared to area boroughs, Morrisville Borough has lower levels of households living in poverty. At 6.4 percent, it is nearly the same as the county-wide poverty level.

COMMUNITY SURVEY RESULTS

- About 40 percent of respondents from the community survey said they chose to live in Morrisville because of the cost of living and affordable housing.
- Respondents noted in written comments that they liked their neighbors and the borough's small-town feel. They thought that addressing neighborhood quality of life issues, such as control of litter, street tree planting and maintenance, and petty crime prevention were among the most important issues to their neighborhood.

RECOMMENDATIONS

- Update the zoning ordinance to incorporate provisions for additional housing types that may be suitable for new infill construction, such as townhouses, mixed-use, transit-oriented development, and age-restricted or age-targeted housing.
- Adhere to zoning standards to preserve the appearance of neighborhoods by preventing reconstruction of housing at an inappropriately large scale.
- Explore potential sources of funding for housing rehabilitation or improvements to streets, sewer lines, sidewalks, and other neighborhood infrastructure.
- Coordinate efforts to publicize the borough's historic nature, affordability, charm, walkable scale, and highway access as marketing incentives for owner-occupied housing. Coordinate efforts with community-based, first-time homebuyers programs operated by the Bucks County Housing Group and financial institutions.
- Develop community greening and gardening programs. Maintain pocket parks and plant street and shade trees wherever possible.

Chapter 4. Natural Resources

Natural resources serve not only to help maintain the character of a place and enhance the quality of life, but understanding their importance is also crucial for helping guide land use planning and future development. This chapter provides an inventory of the existing important natural resources in the borough that should be protected and regulated, including wetlands, floodplains, trees, as well as other topics of environmental concern for an urbanized municipality, such as air quality and water quality.

SIGNIFICANT NATURAL AREAS

Bucks County contains a diversity of unique natural features. These natural features harbor flora and fauna, some of which are not found anywhere else in the Commonwealth. In 2011, an update to a 1999 County-wide inventory was performed to identify and rank the most significant natural areas remaining in the county, including those in Morrisville Borough. This survey, titled *Bucks County, Pennsylvania Natural Areas Inventory Update* was conducted by the Morris Arboretum of the University of Pennsylvania (Ann F. Rhoads and Timothy A. Block) for the Bucks County Commissioners, and is intended to provide guidance for implementation of natural resource protections, allocation of open space funds, and preparation of municipal zoning ordinances.

Specifically, the inventory identified 13 distinct conservation landscapes that make up approximately 40 percent of the land area of the county. Morrisville Borough falls within the Atlantic Coastal Plain Conservation Landscape. The 1999 inventory categorized sites based on their significance and uniqueness ranging from the highest ranked Priority 1 sites, which include sites of state-wide and county-wide significance, based on the uniqueness or exceptionally high-quality of the natural features they encompass, through the lowest ranked Priority 4 sites, which are characterized as sites with biological or ecological importance at the local level. In Morrisville Borough two Priority 3 sites were identified: Graystones and the Head of the Delaware Estuary / Tidal Shores at Welcome Park. These two sites are also mentioned in the *Natural Bucks County: Guide to Public Natural Areas*. The guide describes the location and amenities of this area, highlighting rare plants and animals and unique geological features. In addition to Graystones and Welcome Park, this guide also identifies the Delaware River Levee along Williamson Park as an additional natural area.

Graystones, an outcrop of Chickies quartzite, marks the intersection of the fall line with the Delaware River. This site also has historical significance as the starting point of the survey of the initial purchase that William Penn made from the Native Americans in 1682. As mentioned in the *Borough of Morrisville Open Space Plan* (2009), this site, in addition to its historical significance, also contains a seven-acre remnant stand of mature red oak and mixed hardwood forest. As cited in the *Lower Delaware River Conservation Plan* (1999), a river conservation plan prepared as an outgrowth of the *Lower Delaware River Management Plan* in conjunction with the *Lower Delaware National Wild and Scenic River Study*, this is one of only two remaining old growth woods in Bucks County.

The natural tidal area provides access to the upper end of the Delaware Estuary and marks the upstream limit of the tide in the river. The riverbank, including areas south of Bridge Street to the south border of Morrisville, consists of a freshwater intertidal zone which is alternately inundated and exposed as the tide rises and falls twice daily. The *Borough of Morrisville Open Space Plan* (2009) identifies several specialized

plants in this habitat including many-flowered mud-plantain (*Heteranthera multiflora*), swamp beggar ticks (*Bidens bidentoides*), and water-hemp ragweed (*Amaranthus cannabinus*), all critically imperiled in the state and identified as endangered and threatened plants in Pennsylvania.

As noted in the *Natural Areas Inventory of Bucks County*, the tidal portion of the Delaware River provides habitat for several rare animals, including Atlantic and short-nosed sturgeon, nesting osprey and peregrine falcons, and redbelly turtles. Fresh water tidal marshes harbor 13 rare plant species and also serve as nursery areas for fish.



The role of these significant natural areas, specifically their contribution to open space, and the opportunities they provide for recreational opportunities, will be discussed in additional detail in other chapters of this plan.

GEOLOGIC AND GROUNDWATER RESOURCES

The geology of an area, although seldom seen except for surface outcrops, is the foundation of the natural features of a community and influences development choices. The underlying bedrock of an area has an influence on the type of soil formed, and in conjunction with the hydrologic cycle, is responsible for the changes in elevation, steep slopes, locations of streams, and orientation.

Morrisville Borough lies within a geologic area called the fall zone. The fall line, representing the inner boundary of the Atlantic Coastal Plain, defines the point where the tide stops due to a change in geology resulting in a rise in the land surface. Within the fall zone, areas to the south and east of the fall line are the loose sands and gravels characteristic of the Atlantic Coastal Plain, while the areas to the north tend to be characterized by the metamorphic and sedimentary rocks of the Piedmont. However, due to erosion in certain areas of surface deposits that extend beyond the fall line and the Atlantic Coastal Plain, the true line has been blurred, hence resulting in the term fall zone. The geologic formations underlying Morrisville Borough are described below.

Morrisville Borough has five major geologic formations: Chickies quartzite, Felsic gneiss, Mafic gneiss, Wisconsin Pleistocene, and Pre-Wisconsin Pleistocene. Groundwater supplies largely depend upon geology, surface characteristics, water use, and seasonal precipitation. The capacity of aquifers to transmit and store water is directly related to the specific physical and chemical properties of the geologic formations which underlie the borough. The descriptions and water bearing characteristics of the borough's geologic formations are described below:

- **Chickies quartzite** – Quartzite is a metamorphic rock formed when sandstone is exposed to extreme heat and pressure. It is hard, dense rock that weathers slowly and forms prominent narrow hills and ridges. It contains poor groundwater supplies.

- **Felsic gneiss** – Fine-grained granite gneiss is a metamorphic rock that is resistant to weathering but shows good surface drainage, and median groundwater yields are below 20 gallons/minute.
- **Mafic gneiss** – Medium to fine-grained gneiss is a metamorphic rock that is highly resistant to weathering but shows good surface drainage.
- **Wisconsin and Pre-Wisconsin Pleistocene** – Unconsolidated sands and gravels that generally yield good to excellent supplies of groundwater. The highly porous nature of this aquifer also poses a high risk of contamination due to rapid percolation of septic systems and sources of pollution.

SOILS

Soils are one of the most important natural features to consider when making planning decisions because the type of soil influences the vegetative land cover, which in turn affects the quality and quantity of groundwater, wildlife diversity, erosion rates, and the overall aesthetic nature of the landscape.

A total of eight different soil types are located throughout Morrisville Borough. Of this total, three different soil types represent the majority of all soils. The most prevalent soil types are the Urban Land-Matapeake Complex (0 to 8 percent slopes), Urban Land-Occasionally Flooded, and Urban Land (0 to 8 percent slopes) with Urban Land-Matapeake Complex being the predominant soil type in the borough. Urban Land soil types are pervasive throughout Morrisville Borough. The soils and foundation materials are highly variable. Urban structures and works cover so much of this land that identification of the soils is not practical. Most areas have been smoothed and the original soil material has been disturbed, filled over, or otherwise destroyed prior to construction.

Urban land - Matapeake Complex, 0 to 8 percent slopes, is composed of about 65 percent urban land, 25 percent Matapeake soil and similar inclusions and 10 percent contrasting inclusions. Urban land soils are covered by streets, parking lots, buildings and other structures that obscure the soils. Matapeake soils are yellowish brown silt loams underlain by gravelly loamy to coarse sands that are dark yellowish brown. Urban land soils have rapid runoff rates due to highly impermeable surfaces and low levels of erosion. Matapeake soils are well drained with a seasonal high water table greater than 72 inches. Runoff from these soils is moderate and the potential for erosion is moderate. In those areas where slopes exceed 4 percent, the erosion potential is considered high (USDA 1996).

Other soil types represented in Morrisville Borough include Urban land - Chester Complex (0 to 8 percent slopes), Urban land - Chester Complex (8 to 25 percent slopes), Udorthents-gravelly, Nanticoke-Hatboro silt loams, and Delaware loam (0 to 3 percent slopes).

HYDRIC SOILS

Hydric soils are poorly drained, seasonal wet soils that are found in stream valleys, forested wetlands, and other low-lying areas and depressions. They are formed under anaerobic conditions, and because of their ability to support wetland vegetation, are often used as initial indicators of wetlands. Hydric soils are highly sensitive to land disturbances and unsuitable for most development purposes as they are not generally suitable for supporting structures. Of the soil types within Morrisville Borough, and as identified in the *Borough of Morrisville Open Space Plan* (2009), the Nanticoke-Hatboro silt loams located along the Delaware River are classified as hydric soils.

According to the Lower Delaware River Conservation Plan, there are 34 acres of hydric soils in the borough, representing 3 percent of the total acreage in the borough. The subdivision and land

development ordinance lists hydric soils as one of three defining parameters of wetlands, which are described in more detail later in this chapter.

FLOODPLAIN SOILS

Floodplain soils are alluvial soils found in low-lying areas that are subject to periodic flooding. These soils closely correspond to existing creeks, tributaries, and drainage ways. These soils are considered unsuitable for most development purposes because of flooding potential. In some cases, well-drained floodplain soils may be suitable for agricultural, recreational, park, or open space uses. For the purpose of the zoning ordinance, the areas considered to be within the floodplain are those areas identified as the 100-year floodplain from the Federal Flood Insurance Study or those areas containing floodplain soils, whichever is greater. Floodplains are discussed in more detail later in this chapter.

SURFACE WATER RESOURCES

The borough's surface water resources include the Delaware River, the Delaware Canal, Mill Pond, Morrisville Lake, and a variety of unnamed streams. All of these water resources are important because they provide significant environmental, recreational, and economical benefits to the borough and lower Bucks region. These resources accommodate stormwater runoff, provide for groundwater recharge and wildlife habitat, and contribute to the array of scenic resources.

The Delaware River is the borough's most valuable natural resource because of its recreational and scenic qualities and for the wildlife habitat that it provides. Because of this, it is important to protect this resource from residential and commercial development, which, if left unrestricted, could threaten the environmental stability and beauty of the river. As mentioned above, the *Natural Bucks County: Guide to Public Natural Areas* and the *Natural Areas Inventory of Bucks County, Pennsylvania* both speak to the significance of the river. Also, as cited in the *Lower Delaware National Wild and Scenic Study* report, the Delaware River shore area in Morrisville is a critical habitat area, primarily due to the vegetation along the river providing valuable habitat for birds and other animals, and shade for fish in the river.

The river and its banks function not only as natural resources worthy of continued protection, but also serve as recreational resources, providing for a variety of recreational opportunities. The incorporation of riverfront activities, trails, and other recreational opportunities is consistent with the objectives of the *Delaware River Heritage Trail Study* (2003), as well as the *Bucks County Waterfront Revitalization Plan*. As noted in the *Borough of Morrisville Open Space Plan*, the borough is unique in terms of the large amount of riverfront land that is in public ownership which results in greater public access opportunities relative to other waterfront communities.

The Delaware Canal, constructed between 1827 and 1832 to transport coal from the Upper Lehigh Valley to Philadelphia, New York, and other eastern seaboard destinations, is a scenic, recreational, and historic resource. Delaware Canal State Park, which stretches between Easton and Bristol, is heavily used and is valued for its scenic character. The towpath of the canal



THE DELAWARE CANAL

is used as a hiking and bicycle trail and has been designated a National Heritage Hiking Trail. The proposed East Coast Greenway Project, which would include the Morrisville stretch of the Delaware Canal towpath, seeks to develop the nation's first long-distance, city-to-city, multi-modal transportation corridor for cyclists, hikers, and other non-motorized users. Additionally, the entire Delaware Canal is a registered National Historic Landmark.

Mill Pond, located along Bridge Street, adjacent to the Holiday Inn and 7-Eleven, is a remnant of the old rubber mill. The pond appears to be an underutilized resource in the community. Due to its central location and the access it provides to the adjacent Delaware Canal, Mill Pond is a key site that should be capitalized on through acquisition and restoration.

The other water body in the borough is the Morrisville Lake, located in the southwest corner of the borough. This lake is on the site of an old quarry pit, and as identified in the *Borough of Morrisville Open Space Plan*, has the potential to become a recreational facility for the borough. However, given the industrial history of the property and adjacent sites, an environmental assessment would need to be conducted, and appropriate action undertaken before allowing public access to the site.



The zoning ordinance has established restrictions relative to open waterways and prohibits development or filling of open waterways unless approval is obtained from the Pennsylvania Department of Environmental Protection.

WATERSHEDS/STREAMS

A watershed consists of all the land and waterways that drain into the same main body of water. Smaller watersheds join with other watersheds to drain into larger watersheds; hundreds of watersheds, including those that cover Morrisville Borough, ultimately drain into the Delaware River. The drainage of water resources through a watershed includes groundwater as well as surface water.

The entirety of Morrisville Borough is within the Delaware River (South) watershed. The borough also contains a small tributary to the Rock Run basin, located in Falls Township, in the northwest portion of the borough. The borough also contains a variety of unnamed streams. At the borough line with Lower Makefield Township, an unnamed stream empties into the Delaware River. As cited in the *Lower Delaware River Conservation Plan*, a number of small seeps and drains empty into the Delaware River along the riverfront south of Bridge Street and continuing to the borough boundary with Falls Township. Similarly, a tidal wetland area occurs between Bridge Street and the Route 1 expressway and has a small stream flowing into it. Other small streams may also have been directed into culverts and buried as the borough developed. When these streams do surface, such as may be the case with some of the streams identified, they are often channelized with stone walls to prevent destruction to adjacent properties, resulting in the streams losing their natural character and diminishing areas native riparian vegetation.



To address the threats to the various streams, the zoning ordinance has established restrictions that no open waterways shall be developed or filled without the approval of the Pennsylvania Department of Environmental Protection. Guidelines for the protection of the Delaware River (South) watershed is provided for via the *Lower Delaware River Conservation Plan*, the *Lower Delaware River Management Plan*, the *Delaware River Basin Commission Comprehensive Plan*, the *Water Resources Plan for the Delaware River Basin*, as well as the activities of the Delaware Riverkeeper Network and the Morrisville Borough Environmental Advisory Council. These various plans were developed to aid in the protection of the watershed and mitigate potential impacts from development.

Chapter 93 of the Pennsylvania Code establishes surface water quality standards. These standards require that all named surface water bodies be classified based upon use and water quality. The anti-degradation aspect of Chapter 93 specifies that, once classified, existing water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. These criteria are used to establish waste discharge permit limits.

The Delaware River is classified as a Warm Water Fishery (WWF) and Migratory Fishery (MF). The Warm Water Fishery designation means it is a water body that supports fish, plants and animals that thrive and prefer warmer temperatures (above 70 degrees F) such as bass and sunfish. Warm water fishes such as bass, perch, white suckers and many other species are abundant year-round; and the fish community is supplemented annually by major migrations of American shad, American eel, and river herring. Owing to its free-flowing character and good water quality, the Delaware River is a major sport-fishing draw for anglers who seek these migratory species. The Migratory Fishery designation (MF) means that fish use this “designated” waterway to travel to and from the ocean to reproduce. Any discharges to the Delaware River are required to comply with the standards and limits established as part of the Pennsylvania Code specific to Warm Water and Migratory Fisheries.

RIPARIAN CORRIDORS

Development and activities that remove vegetation from riverbanks and streamsides create a variety of negative consequences on watercourses. Without the vegetative buffer, runoff from adjacent areas more quickly enters the watercourse, exacerbating erosion, increasing floodwaters during the flood cycle, and destroying nature habitats. In addition, pesticides and herbicides used in lawn care, sediment from construction activities, and oils, salts and other contaminants from streets are able to flow directly into the watercourse when it rains.

An effective zoning technique for reducing these impacts is to establish riparian buffer zones. A riparian buffer zone is the normally vegetated or wooded area occurring along a watercourse, which is protected by ordinance in 100 percent open space. Generally, the larger the buffer, the more it is able to protect the watercourse and species that depend on it. Morrisville Borough currently has no standards for riparian buffer zones.

WETLANDS AND FLOODPLAIN RESOURCES

WETLANDS

Typically, wetlands occur as marshes, swamps, bogs, or seasonal vernal ponds. Often they are undrained, saturated soils that support wetland vegetation where the water table is at or near the surface or where shallow water covers the area due to permanent or seasonal inundation of surface or groundwater. Some wetlands are easily identified because the presence of water is obvious. However, other wetlands such as vernal ponds are subject to seasonal flooding resulting in surface water not being present year-round.

The protection of wetlands is important for several reasons. Wetlands play a key role in maintaining and improving water quality by filtering out chemical and organic wastes. Wetlands store water during storms and floods, thereby reducing hazards to life and property; provide groundwater recharge; and are important habitats for many threatened or endangered plants and animals. U.S. Fish and Wildlife Service mapping indicates wetlands at Mill Pond; along the Delaware River at the northern end of Williamson Park and below the Calhoun Street Bridge; and in the area of Morrisville Lake. However, only very large wetland areas are identified, and there are certainly other areas of the borough that have wetlands. According to the *Lower Delaware River Conservation Plan*, there are 143 acres of wetlands areas in the borough.

The Morrisville Borough zoning ordinance requires that marshes and wetlands be left intact and that no development, diverting, filling, or piping shall be permitted. In addition to local protection standards, wetlands are regulated by the U.S. Army Corps of Engineers and the Pennsylvania Department of

Environmental Protection under the aegis of the Federal Clean Water Act and various state laws. The Corps requires a permit to disturb wetlands greater than one acre in size. State and federal agencies that permit wetlands disturbance may require that the loss of wetlands be mitigated by the creation of wetland areas elsewhere. The Pennsylvania Department of Environmental Protection also regulates wetlands under Chapter 105 Rules and Regulations administered by the Bureau of Dams and Waterways Management. Although the borough zoning ordinance prohibits the development, filling, piping or diverting of wetlands and marshes, there are currently no provisions limiting the extent to which wetlands margins can be disturbed.

Consideration should be given to implementing ordinance provisions to define wetland margins, specify those uses allowed in the wetlands areas, and specify the extent to which other uses may disturb the wetlands margins. Wetland margin areas are often defined as an area that extends 100 feet from the wetland boundary or to the limit of hydric soils, whichever is less (in no case shall the margin be less than 50 feet). The extent to which other uses may disturb wetlands margins is often defined as a maximum of 20 percent disturbance.

Given the strict regulations in place prohibiting the development and destruction of wetlands, threats to wetlands come primarily from the secondary impacts of development. Grading and development near wetlands causes these resources to suffer the loss of hydrologic function and critical wildlife species. The destruction of adjacent vegetation and the construction of impervious surfaces increase the amount of stormwater runoff and decrease the natural capacity of the wetland to handle water volumes, runoff speed, and pollutants.

Also, changing the topography of the site surrounding the wetland affects the direction of stormwater runoff and can lead to either increased or decreased amounts of water reaching the wetland. An increase in stormwater runoff may overburden the ability of the wetland to deal with floodwater and pollutants by continually inundating it. Conversely, reduced stormwater runoff may affect the hydrologic functions of a wetland and threaten its continued existence. Even if the topography of surrounding sites remains unaltered, a wetland may still have its hydrologic functions affected by the increased impervious surfaces and stormwater channeling.

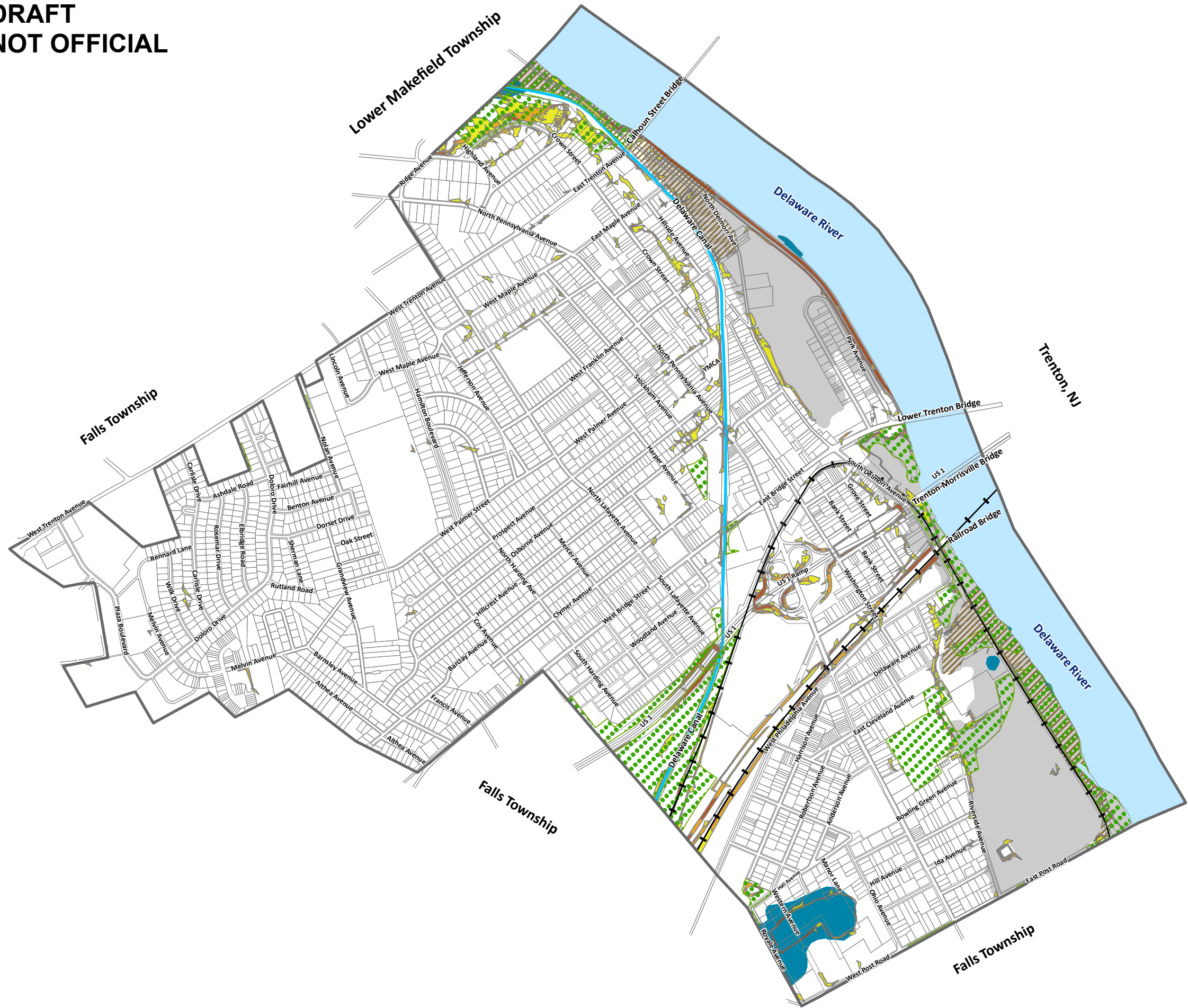
FLOODPLAINS

Floodplains are relatively flat or low-lying areas adjacent to surface waters where flooding has occurred in the past and will likely occur in the future. During periods of heavy rains and high stream flow, floodplains provide temporary storage for floodwaters, reducing flooding threats to adjacent areas and providing a slower, more consistent flow of water. The *Bucks County Natural Resources Plan* notes that floodplains that support natural vegetation help trap sediment from upland surface runoff, stabilize stream banks for erosion control, and provide shelter for wildlife and proper stream conditions for aquatic life.

The Federal Emergency Management Agency (FEMA) produced Flood Insurance Rate Maps (FIRMs) for Morrisville Borough that identify specific floodplains in the borough. The areas identified include the following:

- North of the Calhoun Street Bridge, the area between the Delaware Canal State Park and Delaware River.
- South of the Calhoun Street Bridge, the river side of the levee.

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NOT OFFICIAL



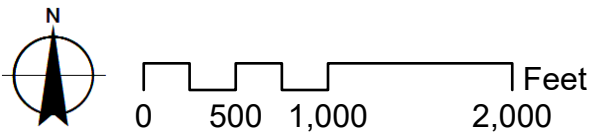
Map 3. Natural Resources

Morrisville Borough
Comprehensive Plan Update

- Wetlands
- FEMA 100 Year Floodplain
- Alluvial Soils
- Woodlands
- Delaware Canal
- Delaware River

Steep Slopes

- 8-15 %
- 15-25 %
- 25+ %



- South of Bridge Street and north of East Philadelphia Avenue, the area up to and just across Delmor Avenue.
- South of East Philadelphia Avenue, the area extending back to Riverview Avenue and Riverside Drive, including all of the Tate & Lyle property.

The Pennsylvania Floodplain Management Act (Act 166 of 1978) requires municipalities identified as having flood prone areas to participate in the National Flood Insurance Program (NFIP). Under the administration of the Pennsylvania Emergency Management Agency (PEMA), flood prone municipalities are required to adopt ordinances that meet NFIP standards for regulating development in the floodplain. The Federal Emergency Management Agency (FEMA) mapped 100-year floodplain areas in the borough and identified these in the Flood Insurance Study dated March 16, 2015. Those areas identified by this study are considered to be floodplain within the borough. There are 203 acres in the floodplain area in the borough, representing 16 percent of the total acreage in the borough.

The Delaware River Levee at Williamson Park provides a vantage point from which to view the rocky portion of the river bed resulting from erosion where the river crosses the fall line rock formation. The levee is a crucial embankment that prevents the overflow of the Delaware River. As part of the flood mapping process, the Federal Emergency Management Agency (FEMA) evaluates data and documentation to provide accreditation to levee systems. In 2019, Morrisville received \$255,000 provided by the state's Commonwealth Financing Authority to pay for a flood protection study and levee accreditation. As of the year 2020, the levee study is in a draft phase and a spillway project is under consideration for future development. Once accredited, the hundreds of parcels surrounding the Delaware River Levee at Williamson Park will be removed from the FEMA 100-year floodplain and will be recognized as protected by the levee. The reduced risk of flooding and flood damage is crucial in protecting riparian habitats for fish and wildlife.

Disturbance of floodplains for development purposes increases the dangers of floods, destroys vegetation, reduces the opportunity for groundwater recharge, disrupts wildlife habitats, and adversely impacts other environmental benefits of this natural resource. In recognition of this, the borough has incorporated provisions into the zoning ordinance to ensure the protection of floodplains. Specifically, the zoning ordinance delineates areas within the floodplain to include the floodway, defined as the area of a floodplain designed to carry and discharge flood waters of a flood of the 100-year magnitude, and the flood fringe, defined as the portion of the floodplain which can be regarded as suitable to accommodate limited building construction without significant effect upon 100-year flood elevations. The ordinance specifies that encroachments, including fill, new construction, substantial improvements, and other development within the floodway zone that would result in any increase in flood levels during the 100-year flood are prohibited. The zoning ordinance also specifically prohibits the placement of mobile homes in the floodway zone.

Floodplain limitations do not preclude all development. These areas may be ideal for passive or low impact recreational uses, such as wildlife and nature preserves, trails, and picnic grounds. Allowing for these types of uses in floodplain areas is consistent with the goals and objectives identified in the *Borough of Morrisville Open Space Plan* (2009) that identified Morrisville's waterfront as a resource to provide recreational opportunities, providing that wildlife habitats are still protected. Providing for a greenway and trail system for recreational purposes along the Delaware River is also consistent with the objectives of the *Bucks County Open Space and Greenways Plan* (2011) *Delaware River Heritage Trail Study* (2003); the recommendations of the Bucks County Open Space Task Force (2007) which proposed designating a portion of the county's Municipal Open Space funding be designated to riverfront municipalities for the

purpose of acquiring land or conservation easements for recreation and natural resources purposes; and the *Bucks County Waterfront Revitalization Plan* (2005) which recommended a continuous public riverwalk be created along the Delaware River; increased riverfront gateways and corridors; and additional open space and active recreation opportunities be provided at river's edge.

MODERATE AND STEEP SLOPES RESOURCES

The majority of Morrisville Borough is characterized by a diversity of topography ranging from nearly level along floodplain areas adjacent to the river, to moderately sloping topography along much of the fall zone, to more steeply sloping areas in the Graystones area. Topography can have a profound influence on development capacity, stormwater runoff, and site erodibility. The grade and soils present on moderate and steep slopes are a result of the vegetation, underlying geology, and precipitation levels. Maintaining the right balance through proper vegetative cover and minimizing development reduces the danger to public health and safety posed by unstable hillsides.

Development on steep slopes accelerates erosion by removing or disturbing the established groundcover and topsoil. Removal of the vegetation destroys the groundcover that absorbs rainwater, anchors soil, and buffers or dissipates the impact of rainfall on topsoil. Erosion produces sediment that pollutes surface water. Over time, accumulated sediments narrow stream channels and fill ponds. This process restricts the capacity of waterways to handle flood flows and increases the incidence and severity of flooding. The majority of the steeply sloping areas in Morrisville Borough are located in the Graystones area which is dominated by soil type Urban land, Chester Complex (8 to 25 percent slopes).

Generally, slopes of 0 to 8 percent are suitable for most types of development. Residential development is also possible, though less desirable, for 8 to 15 percent slopes. If development is permitted to occur on 15 to 25 percent slopes, it should allow for dwellings and other structures to be placed away from steep slope areas. Any slope above 25 percent should be restricted to parks, forests, or open space. The zoning ordinance restricts the development of areas with slopes of 8 percent or greater as shown in the table below:

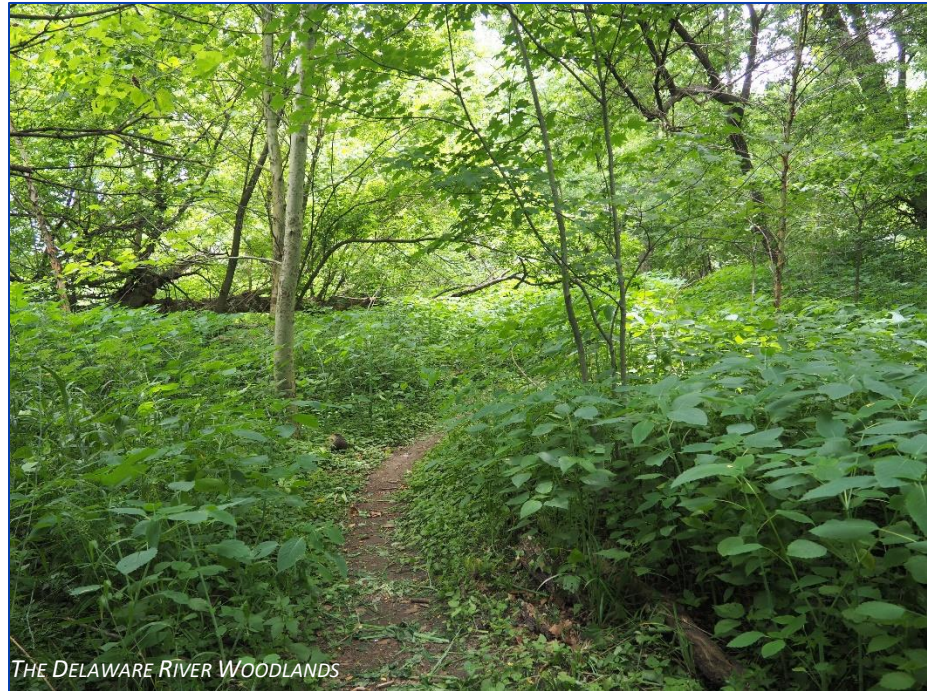
Table 24. Steep Slope Regulations

Slope	Allowable Disturbance
8 to 15 percent	No more than 50 percent
15 to 25 percent	No more than 30 percent
25 percent or steeper	No more than 15 percent

WOODLANDS

The trees and woodlands of Morrisville Borough play an important role in the ecological balance and well-being of the environment by reducing erosion from runoff, stabilizing stream banks, providing wildlife habitats, creating buffers between the built environment, providing recreational opportunities, reducing greenhouse gases by absorbing carbon dioxide, and aesthetically enhancing the environment. Vegetative cover also enhances groundwater recharge by reducing the volume and rate of runoff. When woodlands are located in environmentally sensitive areas, such as steep slope areas, along tributaries and wetlands, even minor disturbances can lead to serious environmental degradation.

While Morrisville is a developed borough, it has several wooded areas that serve functional and aesthetic purposes. The original vegetation in Morrisville Borough consisted of a variety of hardwood species. A seven-acre remnant stand of this type of hardwood forest remains today around Graystones which includes oaks, tulip tree, beech, white ash, and other hardwoods. In addition to the hardwood forest near Graystones, Morrisville



has wooded areas along the Delaware River; along the Delaware Canal; residential wooded areas concentrated in the northeast portion of the borough; a wooded area to the west of the borough sewage facility plant; and a wooded buffer area along the Route 1 corridor. Both the residential and larger wooded areas in Morrisville contribute to the scenic quality of the borough as they provide natural enclaves in the midst of an otherwise developed area.

The wooded areas along the Delaware River, being somewhat denser and more extensive than the residential woodlands, provide a natural buffer and slow erosion of the banks of the river. Given the unique setting of the borough on the border between the Atlantic Coastal Plain and the Piedmont Regions, the area contains a diversity of trees and shrubs both within the river birch-swamp maple forest found along the Delaware River and the sweet gum-willow oak forest community occurring along the Atlantic Coastal Plain. The river birch-swamp maple forest usually occurs on low-lying tracts and on the floodplains of streams, and predominantly comprises hardwoods. Some of the species associated with the river birch-swamp maple forest community include silver maple, red maple, box elder, white oak, swamp white oak, sycamore, river birch, white ash, black walnut, red osier, and a variety of willow. Characteristic species found in the sweet gum-willow oak forest community include willow oak, sweet gum, laurel magnolia, common highbush blueberry, coast pepperbush, and red chokeberry.

In addition to these wooded areas, the borough benefits greatly from the wide diversity of trees contained throughout the borough. To aid in the preservation and ongoing maintenance of these trees, the borough contracted with Temple University to conduct an inventory and assess the current conditions of trees in selected areas in the summer of 2007. The Street Tree Inventory Report: Morrisville, PA revealed the following information relative to the 1,075 trees surveyed:

- The tree population is dominated by London planetree (15 percent), pin oak (15 percent), Norway maple (14 percent), and eastern white pine (6 percent).
- The 1,075 trees were distributed among 36 genus and 59 tree species

While this inventory suggests that Morrisville Borough has a relatively diverse tree population, it also revealed the following issues that need to be addressed:

- Almost 45 percent of the trees were classified as being either dead, or in poor to fair condition indicating that despite regular tree maintenance by the borough, a significant percentage of trees have structural defects, damage from disease, and crown thinning or imbalance. Unfortunately, those classified as poor (12 percent) or dead (1 percent) will be cost prohibitive to restore and will ultimately be lost.
- Despite a diversity of trees, two genus, *Acer* sp. (maple), and *Quercus* sp. (oak) are each more than 20 percent of the total population. As cited by Frank Santamour of the U.S. National Arboretum Agricultural Research Service, in his study entitled *Trees for Urban Planting: Diversity, Uniformity, and Common Sense* (1990), to guard against the possibility of large-scale devastation by both native and introduced insect and disease pests, no single species should account for more than 10 percent of total tree population.

The borough's zoning ordinance and tree protection ordinance standards in the subdivision and land development ordinance are currently the two tools used to provide for the protection of woodlands. Specifically, the zoning ordinance stipulates that areas of forest or mature stands of trees are to be left intact where possible and that if trees are to be removed, that no more than 40 percent of such areas may be developed and/or cleared. The tree protection standards contained in the subdivision and land development ordinance requires that prior to construction, a tree protection zone be delineated and clearly marked and protected by a 48-inch high wooden snow fence. These standards also regulate the types of activities that can occur within or near the tree protection zone.

Additional measures that should be considered for the purpose of providing greater protection of woodlands and trees and helping establish a greener Morrisville include:

- Establish a Shade Tree Commission for the purpose of creating and maintaining optimum tree cover and species diversity. Although the Environmental Advisory Council may be able to fulfill a similar role, it is important that the focus be maintained on the preservation of this community resource, particularly if waterfront development activities begin to occur. Also, a separate committee may provide more leverage in obtaining grant funding and in overseeing the maintenance of trees throughout the borough.
- Establish more stringent regulations relative to the protection of forests in environmentally sensitive areas such as floodplains, steep slopes, wetlands, and wetlands margins. A lower level of disturbance or clearance is critical in these areas.
- Amend the subdivision and land development ordinance to require all new development to incorporate the planting of street trees. Although street trees are required as part of the requirements for use A15 – Riverview Neighborhood (RN), the borough should require the planting of street trees for all new development.
- Adopt the recommendations contained in the Street Tree Inventory Report, relative to updating the tree protection ordinance; training; increasing community involvement; increased species diversity; and implementing a formal planting program to ensure that new trees are planted each year to replace those that are removed or lost; and establishing a pruning program to help address deferred maintenance issues with the existing tree inventory.

RESOURCE PROTECTION STRATEGIES

GREEN INFRASTRUCTURE

Although a variety of natural resources have been identified in this chapter, and protection standards highlighted, these resources taken in isolation are just disparate elements. To leverage and capitalize on the diversity of these resources, consideration should be given to the development of a green infrastructure. Green infrastructure is an interconnected system of public and private natural areas, parks, greenways, and open space that protect ecosystems, provide recreational opportunities, maintains natural ecological processes, sustains air and water resources, and contributes to the health and quality of life for both plant and animal species.

As outlined in Heritage Conservancy's, *Growing with Green Infrastructure*, green infrastructure consists of a combination of hubs and links. Hubs are those areas that provide an origin or destination for both humans and wildlife and range from areas with less human interaction such as wildlife areas and reserves, to areas with more human interaction such as parks and open spaces. Locally, example of hubs would include Graystones and Williamson Park. Links serve to interconnect the hubs and facilitate the flow of ecological processes. Similar to hubs, links include areas with less human interaction such as conservation corridors that function primarily as conduits for wildlife, while also providing recreational opportunities, to links with more human interaction that are often in the form of open spaces and recreational trail corridors that connect wildlife reserves and parks, similar to the role of the Delaware Canal, shoreline areas of the Delaware River, and the various wooded areas and significant tree cover throughout the borough.

The first step in creating a green infrastructure is to identify the hubs. With the inventory of natural, historic, and open space resources contained throughout this plan, many of these hubs have been identified. Once all of these various resources and hubs have been identified, the next step involves mapping these various resources to provide a visualization of the resources and their proximity to each other. This step is critical to help facilitate the next step, that of identifying ways to connect the various hubs, in essence the links. Once the hubs and links have been identified, a plan is developed for the purpose of identifying specific tactics and actions to be utilized for building the green infrastructure focusing on areas such as land acquisition, establishing buffer requirements around sensitive natural areas, environmental remediation of sites, and street tree plantings.

The anticipated outcomes from building a green infrastructure include the enhancement of biodiversity via the protection of habitats and their associated physical, chemical, and biological processes; the preservation of wildlife relying on these habitats; the enhancement of air and water quality stemming from the protection of animal and plant species, linkage of open space areas, and the provision for active and passive recreational opportunities.

Given that the borough is a largely built-out community, but with several natural resource areas, the identification and creation of a green infrastructure will assist the borough in its efforts to conserve these resources for the purpose of supporting native species, maintaining natural ecological processes, sustaining air and water resources, and contributing to the health and quality of life for the community.

CHAPTER SUMMARY

PRINCIPLES – Livability, Heritage, Resilience

FINDINGS

- The *Bucks County, Pennsylvania Natural Areas Inventory Update* identifies two Priority 3 sites in Morrisville Borough, Graystones and the Head of the Delaware Estuary / Tidal Shores at Welcome Park
- Morrisville Borough lies within a geologic area called the fall zone. The fall line, representing the inner boundary of the Atlantic Coastal Plain, defines the point where the tide stops due to a change in geology resulting in a rise in the land surface. Within the fall zone, areas to the south and east of the fall line are the loose sands and gravels characteristic of the Atlantic Coastal Plain, while the areas to the north tend to be characterized by the metamorphic and sedimentary rocks of the Piedmont.
- The borough's surface water resources include the Delaware River, the Delaware Canal, Mill Pond, Morrisville Lake, and a variety of unnamed streams. All of these water resources are important because they provide significant environmental, recreational, and economical benefits to the borough and lower Bucks region.
- The Delaware River shore area in Morrisville is a critical habitat area, primarily due to the vegetation along the river providing valuable habitat for birds and other animals, and shade for fish in the river.
- The river and its banks provide for a variety of recreational opportunities. The borough is unique in terms of the large amount of riverfront land that is in public ownership which results in greater public access opportunities relative to other waterfront communities
- Delaware Canal State Park, a registered National Historic Landmark, is heavily used and is valued for its scenic character. The towpath of the canal is used as a hiking and bicycle trail. The proposed East Coast Greenway Project, which would include the Morrisville stretch of the Delaware Canal towpath, seeks to develop the nation's first long-distance, city-to-city, multi-modal transportation corridor for cyclists, hikers, and other non-motorized users.
- U.S. Fish and Wildlife Service mapping indicates wetlands at Mill Pond; along the Delaware River at the northern end of Williamson Park and below the Calhoun Street Bridge; and in the area of Morrisville Lake. However, only very large wetland areas are identified, and there are other areas of the borough that have wetlands.
- The Delaware River Levee at Williamson Park provides a vantage point from which to view the rocky portion of the river bed resulting from erosion where the river crosses the fall line rock formation. The levee is a crucial embankment that prevents the overflow of the Delaware River.
- The trees and woodlands of Morrisville Borough play an important role in the ecological balance and well-being of the environment by reducing erosion from runoff, stabilizing stream banks, providing wildlife habitats, creating buffers between the built environment, providing recreational opportunities, reducing greenhouse gases by absorbing carbon dioxide, and aesthetically enhancing the environment.

COMMUNITY SURVEY RESULTS

- Over 26 percent of respondents to the community survey noted that they would like natural resource protection issues to be better addressed in the borough.

RECOMMENDATIONS

- Protect the Delaware River from residential and commercial development.

- Capitalize on Mill Pond through acquisition and restoration of the site.
- Complete an environmental assessment of Morrisville Lake.
- Adopt riparian buffer zone standards.
- Adopt provisions limiting the extent to which wetland margins can be disturbed.
- Develop a greenway and trail system along the Delaware River.
- Establish more stringent regulations relative to the protection of forests in environmentally sensitive areas.
- Establish a Shade Tree Commission for the purpose of creating and maintaining optimum tree cover and species diversity throughout neighborhoods.
- Amend the subdivision and land development ordinance to require the planting of street trees for all new development.
- Adopt the recommendations contained in the Street Tree Inventory report.
- Identify and create a green infrastructure plan.

Chapter 5. Economic and Nonresidential Activity

COMPOSITION

This chapter analyzes commercial and industrial activity in Morrisville Borough, as well as the employment characteristics of the borough residents. Understanding the strengths and weaknesses of the borough's nonresidential land use base is important for making policy decisions as they relate to zoning and infrastructure. This information is intended to serve as a guide to help maximize future economic development opportunities, as well as enhance revitalization efforts.

Morrisville Borough's commercial development is focused primarily along the riverfront, as well as its central corridor along Bridge Street. The commercial businesses within these areas include retail businesses, restaurants, taverns, and auto-oriented businesses, such as gas stations and repair shops. U.S. Route 1 and Bridge Street provide access to the commercial uses in Trenton and Trenton Avenue provides easy transportation to the Oxford Valley Mall and surrounding commercial areas. Pennsylvania Avenue connects residents north to Lower Makefield Township and Yardley Borough, and south to Falls Township.

Office development in the borough is limited to a few small storefront offices in the downtown and a few small office buildings. Due to a decline in the importance of manufacturing in the U.S. economy, the borough is no longer an important center of industrial activity. Industrial development is limited to the Toll Brothers site on West Philadelphia Ave, the Tate & Lyle site on South Pennsylvania Avenue, and small manufacturers and shops throughout the borough. The borough does not have any industrial or office parks.

RESIDENT EMPLOYMENT

According to the most recent estimates from the U.S. Census Bureau's American Community Survey (ACS), around 75 percent of the borough's population age 16 or older participates in the labor force. This is nearly 10 percent above the overall labor force participation rate for Bucks County as a whole. However, the unemployment rate in the borough is 9.5 percent, which is almost double the county's unemployment rate.

The U.S. Census Bureau defines labor force as all people classified in the civilian labor force, plus members of the U.S. Armed Forces (people on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard). The civilian labor force consists of all non-institutionalized civilians who are either employed or unemployed. The term "employed" refers to civilians 16 years old and over who are currently working or have employment but are on a leave of absence. All civilians 16 years old and over are classified as unemployed if they are actively looking for a job for at least four weeks and were unavailable to accept a job during this time. Civilians considered not in the labor force consist mainly of students, stay at home parents, retired workers, seasonal workers, institutionalized people, and people doing only incidental unpaid family work.

Table 25. Employment Status, Morrisville Borough and Bucks County, 2017

Employment Status	Morrisville Borough		Bucks County	
	Number	Percent	Number	Percent
Population 16 years & over	6,893	100.0	511,295	100.0
In labor force	5,134	74.5	345,693	67.6
Civilian labor force	5,120	74.3	345,501	67.6
Employed	4,632	67.2	326,994	64.0
Unemployed	488	7.1	18,507	3.6
Armed Forces	14	0.2	192	0.0
Not in labor force	1,759	25.5	165,602	32.4
Civilian labor force	5,120	100.0	345,501	100.0
Unemployment rate	(x)	9.5	(x)	5.4

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

The majority of residents of Morrisville are employed by private companies in positions that pay either a salary or an hourly wage. Just under 10 percent of residents work in a government job, and only 5 percent of the population is self-employed. Of the 4,632 estimated laborers in the borough, roughly 40 percent are working in management or professional occupations (e.g., engineers, physicians, and executives). About 12 percent of the workforce is in service occupations (e.g., retail workers, home health aides, police and EMS), just over 30 percent of the borough's employed population work in sales and office occupations (e.g., auto sales, administration), 7 percent work in natural resources, construction, and maintenance jobs, and 11 percent work in production, transportation, and material moving occupations (e.g., machinist, drivers, and welders).

Table 26. Class of Worker, Morrisville Borough and Bucks County, 2017

Class of Worker	Morrisville Borough		Bucks County	
	Estimate	Percent	Estimate	Percent
Civilian employed population 16 years & over	4,632	100.0	326,994	100.0
Private wage & salary	3,972	85.7	280,856	85.9
Government workers	449	9.7	28,625	8.8
Self-employed in own (not incorporated) business workers	211	4.6	16,939	5.2
Unpaid family workers	0	0	574	0.2

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

Table 27. Occupation, Morrisville Borough and Bucks County, 2017

Occupation	Morrisville Borough		Bucks County	
	Estimate	Percent	Estimate	Percent
Civilian employed population 16 years & over	4,632	100.0	326,994	100.0
Management, business, science & arts occupations	1,830	39.5	141,074	43.1
Service occupations	561	12.1	45,479	13.9
Sales & office occupations	1,428	30.8	82,443	25.2
Natural resources, construction, & maintenance occupations	322	7.0	25,656	7.8
Production, transportation, & material moving occupations	491	10.6	32,342	10

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

Resident employment can also be broken down by industry. Table 28, shows the types of industries in which borough residents are employed, which differs from the previous tables which were organized by the type of occupation regardless of the industry. According to the estimates from the ACS, nearly 25 percent of employed residents work in the educational services and health care industries and 14 percent work in the professional, scientific, administrative, or waste management industries. Additionally, 12 percent of the employed borough residents work in the retail trade industry. This is the next largest industry by number of resident employees and the only other industry to be represented by over 10 percent of the working population.

Table 28. Industry, Morrisville Borough and Bucks County, 2017

Industry	Morrisville Borough		Bucks County	
	Estimate	Percent	Estimate	Percent
Civilian employed population 16 years and over	4,632	100.0	326,994	100.0
Agriculture, forestry, fishing, hunting, or mining	17	0.4	1,719	0.5
Construction	196	4.2	21,653	6.6
Manufacturing	404	8.7	38,913	11.9
Wholesale Trade	88	1.9	11,803	3.6
Retail Trade	563	12.2	39,707	12.1
Transportation, warehousing, or utilities	228	4.9	12,686	3.9
Information	269	5.8	7,045	2.2
Finance, insurance, or real estate	243	5.3	24,987	7.6
Professional, scientific, administrative, or waste management	652	14.1	40,653	12.4
Educational services & health care	1,121	24.2	78,311	24.0
Arts, entertainment, or recreation	312	6.7	24,952	7.6
Other services (except public administration)	325	7.0	14,217	4.4
Public Administration	214	4.6	10,348	3.2

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

EMPLOYMENT PROJECTIONS

The Delaware Valley Regional Planning Commission produces population and employment projection figures for the entire Philadelphia metropolitan region, broken down into projections for each municipality within the region. According to their projections, Morrisville Borough is expected to add 335 jobs by the year 2045. This would be a 10 percent increase in the employment base in the borough. Compared to projections for the county, which is also projected to grow in terms of employment, the rate of projected growth in Morrisville is roughly the same as the county projection. The projections are estimated figures for overall employment. There is no distinction or detailed analysis of whether this growth will be in any particular industry or occupation.

Table 29. Employment Projections, Morrisville Borough and Bucks County, 2017

Employment Projections	Morrisville Borough	Bucks County
2015	2,903	322,731
2020	2,951	329,645
2025	3,033	337,203
2030	3,115	344,859
2035	3,161	351,310
2040	3,184	356,671
2045	3,238	361,124

SOURCE: DELAWARE VALLEY REGIONAL PLANNING COMMISSION (DVRPC)

COMMUTER CHARACTERISTICS

The majority of workers who live in Morrisville get to their place of employment by driving alone. This is unsurprising given the proximity of the borough to major highways. Over 80 percent of residents commute regularly by driving themselves in a personal car or truck. Almost 10 percent of residents get to work by carpooling, which would likely indicate that there are many residents who live near each other and work in the same location. According to Census estimates, 4 percent of residents work from home and 1 percent of residents regularly walk to work. Approximately 60 people commute to work by “other means”, which many include taxis and ride-sharing services such as Uber or Lyft. The average commute time for Morrisville residents is 27 minutes.

Table 30. Mode of Commute, Morrisville Borough and Bucks County, 2017

Mode of Commute	Morrisville Borough		Bucks County	
	Estimate	Percent	Estimate	Percent
Workers 16 years and over	4,609	100.0	320,937	100.0
Car, truck, or van -- drive alone	3,738	81.1	262,838	81.9
Car, truck, or van -- carpooled	378	8.2	22,618	7
Public transportation (excluding taxicab)	203	4.4	10,576	3.3
Walked	60	1.3	5,806	1.8
Other means	60	1.3	2,697	0.8
Worked at home	170	3.7	16,402	5.1
Mean travel time to work (minutes)	26.6	(x)	29.8	(x)

SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES, 2013–2017

According to the U.S. Census Bureau Transportation Planning Products (CTPP) 2012–2016 commute statistics, which estimate the origin and destination of commuters, only around 17 percent of people employed in Morrisville also reside in the borough. Of the estimated 3,243 people who work in Morrisville, 12.6 percent of workers commute from Falls Township. About 33 percent of workers commute from other municipalities within Bucks County and 23 percent commute from New Jersey. Of the employed Morrisville Borough residents, 3 percent commute to Falls Township, 30 percent commute to other municipalities in Bucks County for work, 38 percent commute to New Jersey and 10 percent commute to Philadelphia.

Table 31. Place of Residence for People Working in Morrisville Borough, 2012–2016

Place of Residence for People Working in Morrisville Borough								
Place of Residence	Total Worker	Drove Alone	Car Pool	Bus	Rail	Walk	Other	Home
Morrisville Borough	555	290	100	0	0	15	20	130
Lower Makefield Township	45	45	0	0	0	0	0	0
Falls Township	410	360	50	0	0	0	0	0
Mercer County	315	225	90	0	0	0	0	0
Philadelphia City	255	235	10	0	0	10	0	0
Other Bucks County	1,015	881	134	0	0	0	0	0
Montgomery County	75	75	0	0	0	0	0	0
Other New Jersey	432	362	55	0	15	0	0	0
Other	141	137	0	4	0	0	0	0
Total	3,243	2,610	439	4	15	25	20	130

SOURCE: U.S. CENSUS BUREAU CTPP COMMUTE CHARACTERISTICS 5-YEAR ESTIMATES, 2012–2016

Table 32. Place of Employment for People Living in Morrisville Borough, 2012–2016

Place of Employment for People Living in Morrisville Borough								
Work Place	Total Worker	Drove Alone	Car Pool	Bus	Rail	Walk	Other	Home
Morrisville Borough	555	290	100	0	0	15	20	130
Lower Makefield Township	140	140	0	0	0	0	0	0
Falls Township	140	110	20	10	0	0	0	0
Mercer County	1,179	990	185	4	0	0	0	0
Philadelphia City	455	345	10	25	75	0	0	0
Other Bucks County	1,203	984	149	50	0	0	20	0
Montgomery County	125	115	10	0	0	0	0	0
Other New Jersey	524	479	20	0	25	0	0	0
Other	95	55	0	0	40	0	0	0
Total	4,416	3,508	494	89	140	15	40	130

SOURCE: U.S. CENSUS BUREAU CTPP COMMUTE CHARACTERISTICS 5-YEAR ESTIMATES, 2012–2016

ZONING

In addition to market conditions, zoning largely determines where nonresidential uses will be located and at what level of intensity they may be developed. The borough's zoning ordinance permits a wide range of commercial, industrial, and institutional uses throughout the borough. Revitalization efforts have been implemented throughout the borough, impacting a wide range of existing and future land uses.

COMMERCIAL USES

The borough's commercial development is not generally restricted to one area of the borough. However, most commercial activity is located near Bridge Street and the center of Morrisville. The zoning ordinance has four different commercial zoning districts. These are the C-1 Central Commercial District, the C-2 Shopping Center District, the C-3 Neighborhood Commercial District, and the C-4 Downtown District.

The C-1 Central Commercial District encompasses the downtown area of Bridge Street, Pennsylvania Avenue, Delmorr Avenue, and an area at the intersection of Park Avenue, Central Avenue, and Bridge Street. In 2019, borough officials adopted amendments to the existing C-1 Central Commercial District. The goal of the amendments is to support the borough's revitalization efforts and to update the regulations to be more conducive to a modern walkable downtown. The new C-1 Central Commercial District achieves these objectives by permitting a variety of uses typically found in a downtown environment, including mixed-use buildings, live-work units, markets, breweries, wineries, distilleries, taverns, wine bars, and brew pubs. Additionally, some existing uses have been updated, such as Use A10 Dwelling in Combination with a Permitted Commercial Use, Use C1 Medical Office, Use C2 Business Office and D5 Restaurant, to encourage the use in the district.

The new C-1 Central Commercial District regulations is an example of the success of the borough's revitalization efforts. As recommended in the 2018 downtown revitalization plan, *Morrisville's Downtown: A Blueprint for the Future*, the new district regulations prohibit problem uses, or uses not conducive to a

town center environment, such as drive-thrus, traditional suburban shopping centers, tobacco sales, and massage parlors. Successful downtowns function because of their innate walkability and compactness; the uses and dimensional requirements in Morrisville's downtown reflect these positive features.

The borough's zoning ordinance was adopted in 1993. Aside from the revisions to the C-1 Central Commercial District regulations, many of the use regulations have not been updated since the ordinance's adoption and should be revised to meet today's land use challenges and reflect the overall land use vision of the borough. For example, many communities place design standards on large retail stores to limit the impacts of big box store design. Other areas of the ordinance that are in need of updating include area and dimensional requirements, parking requirements, and signs. The borough should consider a comprehensive update of its zoning ordinance.

The C-2 Shopping Center District encompasses the Morrisville Crossing shopping center, the Morrisville portion of the Pennsbury Plaza shopping center, an area on West Philadelphia Avenue, and an area on East Philadelphia Avenue. The intent of this district is to provide areas for modern shopping centers and to protect adjacent residential areas through buffer yards and screening requirements.

The C-3 Neighborhood Commercial District includes a stretch of East Trenton Avenue between Crown Street and North Delmorr Avenue, along Bridge Street as vehicles enter and exit the borough, and a small stretch of West Philadelphia Avenue. The uses permitted in the C-3 Neighborhood Commercial District are virtually the same as those permitted in the C-2 Shopping Center District, except the C-2 District permits a place of worship and the C-3 District does not permit shopping centers or fast service eating establishments or drive-in restaurants. The purpose of the C-3 Neighborhood Commercial District is to provide areas for freestanding commercial activities, to promote standards which allow for the orderly conversion of land uses, and to protect adjacent residential areas through buffer yards.

The C-4 Downtown District is located at the south corner of Bridge Street and Pennsylvania Avenue. The purpose of the C-4 Downtown District is to allow for small-scale office and retail uses, with off-street parking and pedestrian connections to nearby retail and residential areas.

Another district that permits limited commercial uses is the borough's RN Riverview Neighborhood District. Located between South Pennsylvania Avenue and the Delaware River, the RN Riverview Neighborhood District was established as part of borough revitalization efforts. The purpose of the district is to foster the development of underutilized lands along the Delaware River into comprehensively planned pedestrian-oriented neighborhoods. The district permits a variety of commercial uses, including retail shops, personal services, restaurants, and financial establishments.

The borough zoning ordinance contains two office land uses – medical office and business office. Both of these land uses are permitted in all commercial districts, including the RN Riverview Neighborhood District, and the districts designated for industrial use. The borough does not currently have an office park or complex.

INDUSTRIAL USES

The borough contains three industrial districts: the L-I Light Industrial District, which is located on Noland Avenue and at the corner of West Post Road and Royale Avenue; the I-1 Industrial District, which is located between the Delaware Canal and Route 1 expressway; and I-2 Industrial/Technology District, which is located at the Toll Brothers site.

COMPREHENSIVE PLAN UPDATE

The purpose of the L-I Light Industrial District is to permit and encourage light industrial development that is located in an appropriate part of the borough on lots of at least 10,000 square feet. The district permits fire stations, bus stations, wholesalers, warehouses, general manufacturers, bulk storage (by special exception), research laboratories (by special exception), contractor's offices, craftsman's shops, and printing, publishing, and binding uses.

The purpose of the I-1 Industrial District is similar to that of the L-I Light Industrial District, with a minimum lot size of 15,000 square feet. In addition to the uses permitted in the L-I Light Industrial District, the I-1 Industrial District permits electrical substations, truck depots, adult entertainment establishments, and fireworks sales.

The purpose of the I-2 Industrial/Technology District is to accommodate a mix of offices, flex space, parking, transit access, and fabricating/assembly space for technology and biotechnology businesses and related offices. The district also permits business offices, financial establishments, day nurseries, utilities, and fire stations.

REVITALIZATION

Morrisville Borough's elected officials have continued to support redevelopment and revitalization efforts. Since the last comprehensive plan, ongoing revitalization initiatives have yielded results, including:

- The Lehigh Rubber building has been redeveloped and has several tenants.
- The levee has started the recertification process as a result of flood mitigation efforts.
- Patriots Park was developed after the borough acquired and demolished MR Reiter Elementary School, using a grant received from the Greenway Trail Recreation Program.

Another critical component to revitalization efforts has been the establishment of the Local Economic Revitalization Tax Assistance Act (LERTA) program. LERTA, created through Pennsylvania legislature in 1977, encourages investment and redevelopment of commercial, industrial, and other business



properties in areas experiencing disinvestment and deterioration. The law authorizes local taxing authorities to provide temporary tax exemptions on improvements to commercial properties in designated areas. In 2019, the Bucks County Commissioners, Morrisville Borough Council, and Morrisville Borough School District all approved resolutions to authorize the establishment of LERTA in Morrisville.

In 2004, the Morrisville Borough Certified Redevelopment Area was established. This area, located between the Delaware Canal, West Philadelphia Avenue, and South Philadelphia Avenue, covers a large part of central Morrisville. The certified redevelopment area, established through the 2006 Morrisville Town Center Redevelopment Area Plan, includes several zoning districts, such as the R-2A Residential, R-3 Residential, C-1 Central Commercial, C-3 Neighborhood Commercial, C-4 Downtown, I-1 Industrial, I-2 Industrial/Technology, and CS-1 Community Service districts. The area's current land use consists of commercial, industrial, residential, and utility and transportation properties, but primarily consists of land for utility and transportation and industrial uses. Redevelopment in this area would likely see the land use become more commercial, commercial mixed use/industrial, industrial, and residential, with a majority of the certified redevelopment area becoming mixed use.

In 2019, the boundaries of the certified redevelopment area were expanded to include more parcels along Bridge Street. The extension of the certified redevelopment area aims to further the goals and objectives adopted under the *Morrisville Town Center Redevelopment Area Plan* which include:

- Leveraging new private investment by revitalizing certain areas within the community that include portions of its commercial business district, limited residential areas and its underutilized industrial areas.
- Improving the composition of the existing mixed land uses where incompatible adjacent land uses create problems and conflicts, restricting new growth and investment.
- Promoting quality of life for all borough residents, by creating opportunities for new private investment, sparking revitalization and generating increased tax revenues.



Specifically, the expansion of the certified redevelopment area will initiate steps to facilitate the adaptive reuse of the vacant building on the corner of Pennsylvania Avenue and Bridge Street, commonly referred to as the “Stockham Building.” Furthermore, the expansion encourages public/private partnerships to improve public infrastructure to support new investment in the Morrisville Town Center, particularly the borough-owned parking lot adjacent to the Stockham Building.

The certified redevelopment area also includes the Toll Brothers property. The Toll Brothers property, located in the I-2 Industrial/Technology District and presently an industrial land use, is home to Toll Integrated Systems, a Toll Brothers company that manufactures and supplies engineered construction components and related services. The site is part of the certified redevelopment area to facilitate potential redevelopment if or when redevelopment occurs.





TATE AND LYLE SITE

Similarly, the Tate & Lyle site in southern Morrisville is another site zoned for potential redevelopment. Once the location of Staley Manufacturing, a subsidiary of Tate & Lyle and producer of agro-industrial products, the 47-acre tract has been rezoned RN Riverview Neighborhood with the intention of promoting mixed-use development along the Delaware River at this vacant and underutilized location. The RN Riverview Neighborhood District permits a variety of land uses, housing types and density, and requires skillful architectural and landscape design in creating buildings and green spaces. This district is also created to avoid the negative

impacts of suburban sprawl by minimizing infrastructure costs, traffic congestion and environmental degradation.

The Cloverleaf property is located northwest of the Tate & Lyle site. Along with the borough's waste water treatment facility and the Tate & Lyle site, the Cloverleaf property is within the borough's Riverview Certified Redevelopment Area. Once a landfill, the Cloverleaf property is currently vacant and owned by the borough. The borough and the Bucks County Redevelopment Authority (BCRDA) have been working to redevelop the site. Discussions have also taken place to consider the relocation of the borough's wastewater treatment plant to the Keystone Industrial Port Complex (KIPC) in Falls Township.

Williamson Park, located along the Delaware River and north of Bridge Street, is a current topic of discussion in the borough. In 2019, borough council received a concept plan from a developer to have Williamson Park redeveloped and become a mixed-use town center. As of the adoption date of this plan, council was evaluating the merits of the concept plan. The town center concept at Williamson Park continues the pattern of potential redevelopment proposals and mixed use land uses along the Delaware River.

The borough has supported various other revitalization initiatives beyond the redevelopment of central and southern Morrisville. The *Morrisville's Downtown: A Blueprint for the Future* plan was developed through the county's Municipal Economic Development Initiative (MEDI) program. The purpose of the Blueprint Plan is to outline Morrisville's current conditions, develop a proposed organizational structure for future revitalization efforts, and provide a list of potential funding sources. The plan reviews the strengths and weaknesses of the downtown area as well as presenting redevelopment scenarios for key properties. The plan's recommendations include:

- Understand the strengths and weaknesses of the physical conditions of the downtown.
- Capitalize on the opportunities presented by the downtown.
- Promote the Vision of a New Morrisville to get "buy-in" from residents, property owners, and developers.
- Develop a parking study to identify parking locations, supply and demand, potential sites for public parking, and shared parking opportunities.
- Become a member of the Pennsylvania Downtown Center to gain access to their resources.
- Apply the Main Street Center's model for downtown revitalization to Morrisville's downtown.
- Address blighted areas and property code violations.

- Understand the changing retail environment in the 21st century.
- Revise the C-1 Commercial District to provide zoning and design requirements that emulate a pedestrian-friendly, traditional downtown.
- Use promotional and marketing activities to begin to change public perception of Morrisville to an area that is up-and-coming.
- Create an independent nonprofit whose sole responsibility is the revitalization of the business district. Ensure the board has a diverse representation including property owners, residents, local government, business owners, banks, school district, business association, and representatives from other non-profits that have complementary goals.
- Use Williamson Park as a catalyst to downtown revitalization efforts.

Morrisville's Downtown: A Blueprint for the Future has not been adopted by borough council.

Other areas for consideration of future economic development include the “entrance” corridors of Trenton Avenue and Bridge Street, which contain a mix of single-family residential, multifamily residential, and commercial uses. The borough should monitor development in these areas and ensure public infrastructure and zoning standards provide compatible commercial development—where permitted—that enhances the function and look of the corridor without harming adjacent neighborhoods.

The borough continues its revitalization efforts with physical improvements as well. Morrisville received funding from the Commonwealth Financing Authority's Multimodal Transportation Fund and the Department of Conservation and Natural Resources Community Conservation Partnership Program grant and have completed the installation of ADA curb ramp accessibility improvements throughout the borough. In 2020, the borough received a Multimodal grant for \$227,805 to improve the pedestrian and traffic signals at the intersection of Pennsylvania Avenue and Trenton Avenue. Additionally, the borough received a \$325,000 grant for sidewalk improvements. The sidewalk and curb improvements will happen along Harper, Clymer, and Legion Avenues at the new Patriots Park. The three-acre park is at the former location of the M.R. Reiter School. The borough has also recently completed the *WalkWorks Active Transportation Plan* project. More information about the Active Transportation Plan can be found in Chapter 7: Parks, Recreation, and Open Space.

More information on the plans discussed in this chapter, including the *Morrisville's Downtown: A Blueprint for the Future* plan and the *WalkWorks Active Transportation Plan*, can be found on the borough's website.

CHAPTER SUMMARY

PRINCIPLES – Livability, Equity, Mobility

FINDINGS

- Morrisville Borough's commercial development is focused primarily along the riverfront, its central corridor along Bridge Street, Trenton Avenue, and Philadelphia Avenue.
- Office development in the borough is limited to a few small storefront offices in the downtown and a few small office buildings.
- Due to a decline in the importance of manufacturing in the U.S. economy, the borough is no longer an important center of industrial activity. Industrial development is limited to the Toll Brothers site on West Philadelphia Ave, the Tate & Lyle site on South Pennsylvania Avenue, and small manufacturers and shops throughout the borough.

COMPREHENSIVE PLAN UPDATE

- About 75 percent of the borough's population age 16 or older participates in the labor force. This is nearly 10 percent above the overall labor force participation rate for Bucks County as a whole.
- The unemployment rate in the borough is 9.5 percent, which is almost double the county's unemployment rate.
- The average commute time for Morrisville residents is 27 minutes.
- The borough's zoning ordinance permits a wide range of commercial, industrial, and institutional uses throughout the borough.
- Morrisville Borough's elected officials have continued to support redevelopment and revitalization efforts. Since the last comprehensive plan, ongoing revitalization initiatives have yielded results, including:
 - The Lehigh Rubber building has been redeveloped and has several tenants.
 - The levee has started the recertification process as a result of flood mitigation efforts.
 - Patriots Park was constructed after receiving a grant from the Greenway Trail Recreation Program.
- In 2019, the boundaries of the certified redevelopment area were expanded to include more parcels along Bridge Street. The expansion of the certified redevelopment area will initiate steps to facilitate the adaptive reuse of the vacant Stockham building.
- The Tate & Lyle site and Cloverleaf properties are two potential redevelopment areas in the Riverview Certified Redevelopment Area.
- In 2019, borough council received a proposal to have Williamson Park redeveloped and become a mixed-use town center. As of the adoption date of this plan, council was evaluating the merits of the proposal.
- The *Morrisville's Downtown: A Blueprint for the Future* plan was developed to outline Morrisville's current conditions, develop a proposed organizational structure for future revitalization efforts, and provide a list of potential funding sources

COMMUNITY SURVEY RESULTS

- Respondents noted in written comments that basic infrastructure, such as sidewalks, was failing and in need of upgrading.

RECOMMENDATIONS

- Consider a comprehensive update to the zoning ordinance.
- Support the BCRDA's efforts to redevelop and reuse vacant and underutilized parcels, including the Cloverleaf site, Tate & Lyle property, and Stockham building.
- Adopt the *Morrisville's Downtown: A Blueprint for the Future* and incorporate the plan's recommendations into the borough's revitalization efforts.
- Continue to incorporate the recommendations of the *Morrisville Town Center Redevelopment Area Plan* as part of future revitalization initiatives.
- Review zoning standards along Trenton Avenue and Bridge Street to ensure public infrastructure and commercial development—where permitted—enhances the look and function of these important entrance corridors and is compatible with adjacent neighborhoods.
- Continue to pursue grant funding to implement physical improvements, such as sidewalks, crosswalks, and park and recreation improvements, in the downtown and adjacent neighborhoods.

Chapter 6. Community Services and Facilities

Community services and facilities are necessary to maintain the public health, safety, and welfare, and help provide for the quality of life expected in Morrisville Borough. Planning for community services and facilities should be coordinated, interrelated, and consistent with land use planning in the comprehensive plan. Map 4 displays the Community Services and Facilities in Morrisville Borough.

BOROUGH ADMINISTRATION

The borough administration coordinates the daily operations of borough government. The borough manager is appointed by borough council and is responsible for the proper administration of the affairs of the borough. The borough manager implements all policies, ordinances, resolutions, and other official directives of the borough council. The borough manager supervises the work of various boards, departments, personnel, and outside professionals. The borough manager is responsible for the budget, capital improvement projects, strategic planning, and grants.

The administration building is located at 35 Union Street and was dedicated in 1966.

Decisions about how funds are spent reflect the borough's priorities, making it essential to link what the borough wishes to do with the available funds. How future growth occurs and what services are provided will affect the municipal budget as well as the resident's tax burden. Providing services and facilities in a fiscally responsible manner requires planning and capital programming. The borough has a capital improvement fund that finances road improvements and other ongoing projects. However, the borough does not rank facilities requests from department heads. No feasibility studies are submitted and there is no long-term list of projects.



Because the borough has limited financial resources to meet the public service needs of a mature community, little is left for major capital improvements. A method is needed for coordinating and planning required capital expenditures. An effective method of coordinating and planning expenditures is through capital improvements programming, which would also facilitate implementation of the comprehensive plan.

A capital improvement program is the multi-year scheduling of public physical improvements. The scheduling is predicted on the availability of fiscal resources and the selection of specific improvements to be constructed over a span of five to six years into the future. These improvements should only include those expenditures for physical facilities that are permanent and have relatively long-term usefulness, such as roads, parks, equipment, and facilities.

Public expenditures called for in the capital improvement program play an important role in the implementation of the comprehensive plan. Borough expenditures for capital improvements can encourage or discourage private investment in different parts of the borough at different times. Improvements in neighborhoods such as renovating parks and repaving streets can improve property values. Borough investments in infrastructure, such as water and sewer and roads can encourage economic development.

PUBLIC WORKS

The Public Works Department shares a site with the Morrisville Municipal Authority (MMA) wastewater treatment plant on Riverview Avenue. The MMA was established in 1948, and is committed to supplying clean, safe drinking water to the residents of Morrisville Borough. The Public Works Department is responsible for the maintenance of the borough's property, including: maintaining 32 miles of roadway (including storm drains, signage, crosswalks, and potholes), repairing street lights, maintaining and trimming borough-owned trees, maintaining the levee at Williamson Park, park maintenance, and facility maintenance. The Public Works Department also assists the MMA with repairing and servicing the water and sewer system. In the event of snow, Morrisville Borough Public Works Department is responsible for snow plowing on all borough roads and borough-owned sidewalks. Utility and other water issues, such as storm water management and sewage treatment, are discussed in Chapter 10 Water Resources.

POLICE SERVICES

The mission and vision of the Morrisville Police Department is to provide professional police services and maintain a safe environment in which citizens can live, work, and play. Every member of the Morrisville Police Department has a duty to provide professional services with integrity and respect by; rendering aid to those in need, providing an environment free from fear, bringing to justice those who violate the law, and protecting all persons and property in accordance with legal and ethical standards.

The borough police department employs a Chief of Police, 11 full-time police officers (including the Chief of Police) and 8 part-time police officers.

The department cooperates with other police departments in the Critical Emergency Response Team, which responds to incidents and situations that call for assistance in the 16-municipality lower Bucks region, and Major Incident Response Teams, which responds to incidents and situations that call for assistance countywide. The department has no detectives; the Bucks County Detectives, the law enforcements officers in Bucks County that are authorized by the District Attorney, assist the local municipal police departments with major crime investigations. The borough coordinates with the New Jersey and Pennsylvania state police on issues regarding the three Delaware River bridges.

The borough is a gateway between two states, as it is linked by three bridges to New Jersey's state capital, Trenton. The borough's crossroads location, within walking distance of an economically distressed, much larger city, serves to increase the incidence of crime—particularly vagrancy, property crimes, and drug-related offenses—beyond what might be expected in a borough of Morrisville's population and size. The Morrisville Police Department participates in training and conferences directed at combating criminal gang activity.

The Morrisville Borough Police Department is on patrol 24 hours a day, 7 days a week.

Departmental needs for the future include modernization of equipment, more staff to accommodate training needs, additional storage space, and better security accommodations.

FIRE PROTECTION

The Morrisville Fire Company helps protect a five-square-mile area, with areas that range from single family dwellings and apartments to limited access highways and industrial parks. The company membership consists of volunteers who help protect Morrisville Borough, Falls and Lower Makefield townships, 24 hours a day, 365 days a year. The Morrisville Fire Company answers an average of 450 calls annually from structure fires and auto accidents, to medical calls and assistance to surrounding fire companies.



The Morrisville Fire Company is located at 528 North Pennsylvania Avenue. The borough council unanimously approved the building of a new \$1.7-million new headquarters. The company also received a grant for \$200,000 to buy a 2020 Pierce Arrow XT heavy duty rescue pumper with a 500-gallon tank. The Borough provided \$220,229.40 to the Morrisville Fire Company in 2019. The 2020 disbursement for the Fire Company from Morrisville Borough was the same amount.

AMBULANCE SERVICES

Before its closure, the Morrisville Ambulance Squad was a nonprofit corporation that provided transportation and emergency care for the borough. Capital Health, which operates out of the former Morrisville Ambulance Squad base at 139 North Washington Street, is the area's only Mobile Intensive Care Unit. Capital health employs emergency medical technicians, paramedics, and nurses, which provide basic and advanced life support. Service is provided around the clock and patients are taken to their hospital of choice, within a reasonable radius. In 2019, Morrisville Borough provided \$119,987.20 to the borough's ambulance services. The budget for 2020 is the same amount.

HEALTH CARE

The following hospitals in Lower Bucks County and neighboring Trenton are most often used by Morrisville residents:

- Saint Francis Medical Center, Trenton, NJ
- Capital Health Medical Center, Trenton, NJ
- Trauma Center, Hopewell, NJ
- Lower Bucks Hospital, Bristol Township
- St. Mary Medical Center, Middletown Township
- Jefferson Health, Falls Township

The closest urgent care facility to the borough is Tower Health Urgent Care, located in Falls Township. The borough should stay aware of the needs for health care for all borough residents.

SCHOOLS

Grandview Elementary (K-2), Morrisville Intermediate School (3-5), and Morrisville Middle/High School (6-12) are schools within the Morrisville School District that serve the borough.

The 2018–2019 enrollment for Morrisville School District was 848 students. Grandview Elementary School enrolled 206 students, Morrisville Intermediate School enrolled 198 students, and Morrisville Middle/High School enrolled 444 students. The district has closed three elementary schools: Capital View in 1981, Manor Park in 1994, and most recently, MR Reiter in 2008.

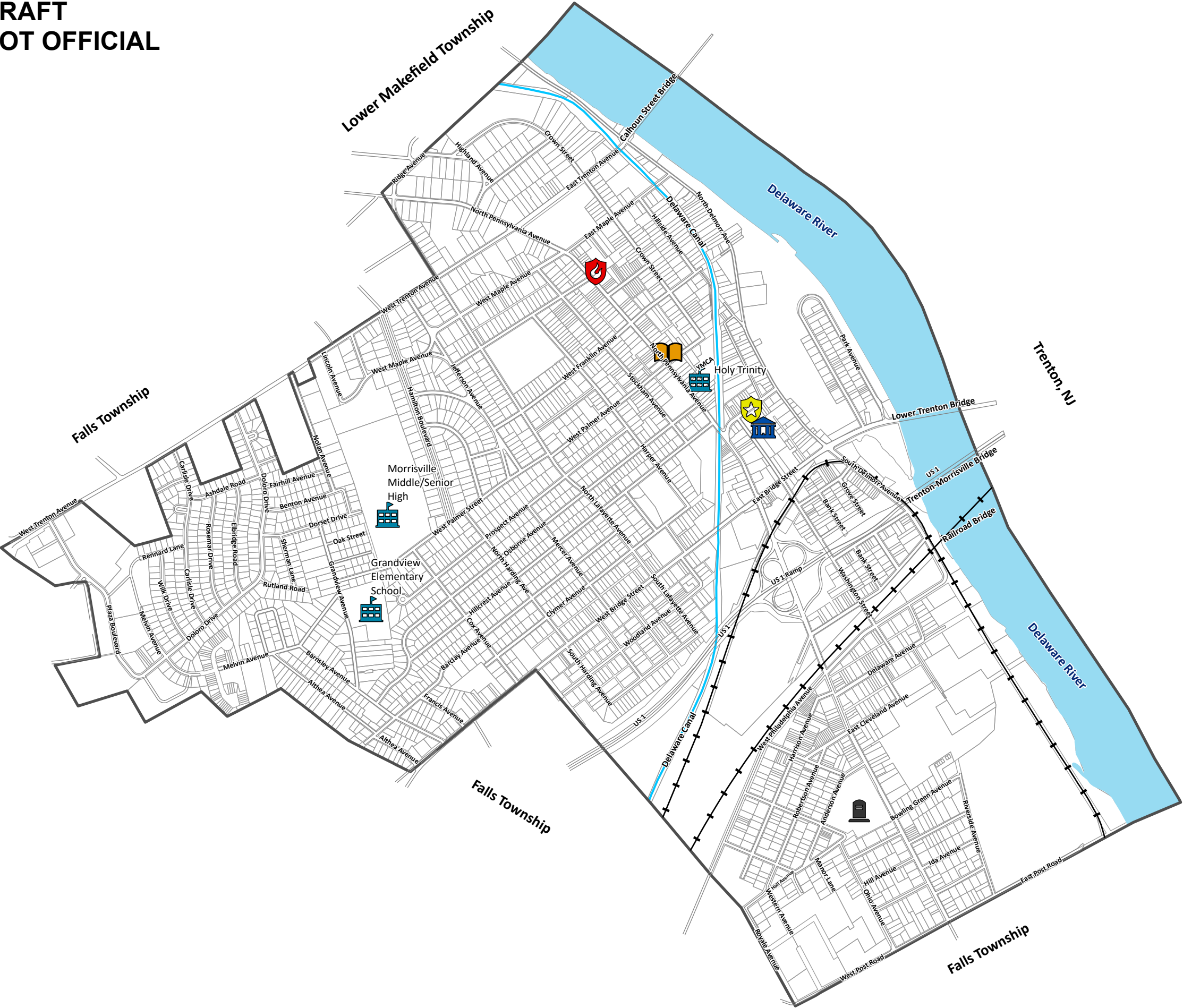
The school district administrative offices are located in the middle/high school building. A cooperative relationship exists between the school district and the borough, enabling residents to use school district educational and athletic facilities when usage is coordinated through the school principal.

Private education is provided for area residents at one Roman Catholic school, Holy Trinity Elementary, which had an enrollment of 220 students, pre-kindergarten through the 8th grade, for the 2017–2018 school year.

The school district completed a \$7 million renovation in the summer of 2019, the largest improvement project in recent Morrisville history. The project involved extensive upgrades to the electrical, plumbing and heating, ventilation and air condition systems at Grandview Elementary and Morrisville Intermediate/High School. Bathrooms were renovated to comply with the Americans with Disabilities Act, and secure vestibules were installed at both buildings.









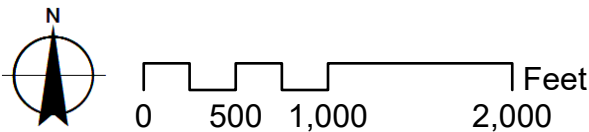
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Map 4. Community Services
and Facilities

Morrisville Borough
Comprehensive Plan Update

-  Morrisville Municipal Authority
-  Police Department
-  Fire Department
-  Schools
-  Morrisville Free Library
-  Cemetery



The Morrisville School District was awarded the 21st Century Community Learning Centers Grant (21st CCLC) by the Pennsylvania Department of Education. The 21st CCLC is a competitive grant that provides federal funding to establish community learning centers that provide academic, artistic, and cultural enrichment opportunities for students and their families. The community learning centers offer before school, after school, and summer programs that address the needs of students and benefit all members of the community.

The Morrisville Branch YMCA offers year-round child care, after school, and summer camp programs to provide opportunities for physical and educational growth. The YMCA recently received a \$7,500 check from Dominion Energy and the nonprofit put the money towards its Youth Education Center.

LIBRARY SERVICES

The Bucks County Free Library operates seven branch libraries, and eleven additional member libraries which are open to the public. The Morrisville Free Library has been a grass-roots effort since 1904 when it first opened. In 2019, the library was awarded the Keystone Grant of \$52,000 to replace the slate roof on the 108-year-old building. With this grant, the Morrisville Free Library will be able to continue to provide invaluable resources to the local community.



There are over 25,000 items consisting of books, audiobooks, magazines, CDs, DVDs, and print articles. Computers with internet access are provided with digital equipment such as copiers, scanners, and printers. The branch works with local schools, senior centers, and daycare facilities and offers free programs for both children and adults. The Morrisville Free Library branch is located at 300 N. Pennsylvania Avenue.

PARKS

There are several public park spaces in the borough that provide access to recreation, open space, and leisure activities. These parklands are further discussed in Chapter 7, Parks, Recreation and Open Space.

TELECOMMUNICATIONS

Telecommunications is the transmission of voice, video, or data, which primarily involves cable, fiber-optic, satellite, or wireless (cellular) phone technologies. Wireless phones have become almost a necessity of modern life, and these devices require a vast network of modern equipment in order to function properly. Wireless communications antennae are needed to receive and transmit data in all directions,

and these antennae generally need to be located in higher areas, such as a tower, in order to provide the greatest range of coverage. Each wireless carrier (e.g., Verizon, Sprint, AT&T) provides their own antennae in locations that best suit the needs of their network facilities.

As the telecommunications environment matures and technology changes and service needs increase, more antennae and cables may be needed to meet resident and business demand. Distributed Antenna System (DAS) networks are considered to be public utilities so the borough has limited authority to regulate their location, whether collocating on existing structures or within public rights-of-way or on municipal land. State legislation is pending that seeks a compromise between allowing access to public rights-of-way for the new technologies and providing municipal regulation of the installation of new facilities. The borough should update its telecommunications regulations in the zoning ordinance, in accordance with state and federal law, and continue to be proactive in oversight of emerging technologies and legislation.

CHAPTER SUMMARY

PRINCIPLES – Livability, Equity, Resilience

FINDINGS

- The borough administration coordinates the daily operations of borough government. The borough manager is appointed by borough council and is responsible for the proper administration of the affairs of the borough.
- The Public Works Department is responsible for the maintenance of the borough's property, including: maintaining 32 miles of roadway (including storm drains, signage, crosswalks, and potholes), repairing street lights, maintaining and trimming borough-owned trees, maintaining the levee at Williamson Park, park maintenance, and facility maintenance.
- The borough is a gateway between two states, as it is linked by three bridges to New Jersey's state capital, Trenton. The borough's crossroads location, within walking distance of an economically distressed, much larger city, serves to increase the incidence of crime—particularly vagrancy, property crimes, and drug-related offenses—beyond what might be expected in a borough of Morrisville's population and size.
- The Morrisville Fire Company answers an average of 450 calls annually from structure fires and auto accidents, to medical calls and assistance to surrounding fire companies.
- The Morrisville School District has closed three elementary schools: Capital View in 1981, Manor Park in 1994, and most recently, MR Reiter in 2008.
- The district was awarded the 21st Century Community Learning Centers Grant to establish a community learning center for academic, artistic, and cultural enrichment opportunities. The community learning centers offer before school, after school, and summer programs that address the needs of students and benefit all members of the community.

COMMUNITY SURVEY RESULTS

- The majority (75 percent) of respondents are the most satisfied and very satisfied with fire protection services.

- The majority of respondents (41 percent) of respondents are unsatisfied and very unsatisfied with street maintenance and improvements.
- Most respondents remain neutral on their satisfaction of community services and facilities.
- Respondents are more unsatisfied with code enforcement than they are satisfied.
- Forty-one percent of respondents are either satisfied or very satisfied with yard waste and leaf collection.
- Forty-two percent are satisfied or very satisfied with ambulance services.
- Twenty-six percent of respondents are satisfied with borough administration.
- Nearly half of respondents are either satisfied or very satisfied with snow removal.
- Respondents noted in written comments that they were unhappy with high real estate taxes and the quality of education within the schools.

RECOMMENDATIONS

- Assess space and security needs for the police department and evaluate the need for expansion or relocation and redesign.
- Maintain and enhance a cooperative relationship between the borough and the school district. Explore a merger of the Morrisville School District with Pennsbury School District.
- Increase borough tax base by attracting additional nonresidential development and redevelopment.
- Support provision of programs to enhance public health.
- Ensure the borough website is updated with events, meeting dates, and other current information.
- Update the borough's telecommunications regulations in the zoning ordinance, in accordance with state and federal law, and continue to be proactive in oversight of emerging technologies and legislation.

Chapter 7. Parks, Recreation, and Open Space

Park, recreation, and open space resources are an important part of a community's identity and overall quality of life. Open space contributes to the borough's small-town character, preserves the natural ecosystems upon which we depend, and provides an attractive setting in which to live and work. Park and recreation facilities provide an avenue for residents to interact and recreate and help create a sense of community. Park and recreation resources are an underlying strength of Morrisville and should be a key component of future revitalization efforts.

PLANNING FOR OPEN SPACE AND PARK AND RECREATION

Planning for these open space and parks and incorporating their functions within a revitalization strategy is a critical component of this comprehensive plan. Park and recreation facilities, open space, and an abundance of green infrastructure (e.g., street trees, gardens, ponds, rivers, and wetlands) can help position Morrisville Borough's reputation as a green and active community. Especially during the unprecedented COVID-19 pandemic and accompanying lockdowns, parks and recreation usage in the borough proved to be very significant. In past years, various regional and local initiatives and plans have been put forth to capitalize on the borough's recreational and open space assets— including the *Borough of Morrisville Open Space Plan*, Delaware River Heritage Trail and East Coast Greenway, Delaware River Water Trail, Tidal Delaware Water Trail, *Bucks County Waterfront Revitalization Plan*, and the *Morrisville Riverview Redevelopment Area Plan*. But how do these efforts fit together and, more importantly, what can they add to the borough's ongoing revitalization efforts? The following summarizes these efforts, while providing additional recommendations, as they relate to Morrisville:

MORRISVILLE BOROUGH OPEN SPACE PLAN

In 2009, the borough adopted the *Borough of Morrisville Open Space Plan*. The plan identified seven distinct goals, and related objectives, and identified 31 action steps for implementation of the plan. A summary of these objectives and accomplishments achieved since the adoption of the plan are outlined below.

Goal #1:

Maintain existing open space while ensuring that a balanced variety of recreational opportunities are available on public land.

Objectives:

- Develop maintenance and usage guidelines, standards, and procedures.
- Develop formalized park and recreation plans to ensure that a balanced variety of recreational opportunities are available on public land.

Accomplishments:

- 2011: Established the Morrisville Dog Park via funding through the Bucks County Municipal Open Space Program.



COMPREHENSIVE PLAN UPDATE

- 2015: Morrisville Borough was designated as a Bird Town by Audubon Pennsylvania.
- 2019: The borough secured a WalkWorks grant through the Pennsylvania Department of Health for the purpose of creating an Active Transportation Plan, which was adopted in October 2019.

Goal #2:

Expand the environmental infrastructure within the borough including preserving any suitable open space properties either through easement or acquisition.

Objectives:

- Identify and acquire any suitable, privately owned, and available open space properties, or obtain conservation easements on said properties if acquisition is not available.

Accomplishments:

- 2016: Acquired TMP# 24-007-059 located between the Delaware & Lehigh Canal Towpath and River Road at the northeastern boundary of the borough.
- 2017: Acquired the former MR Reiter Elementary School from the Morrisville Borough School District for the purpose of establishing Patriots Park.

Goal #3:

Protect and restore suitable open space properties.

Objectives:

- Re-zone suitable unprotected public open space properties as natural lands preservation zoning.
- Seek funding sources for restoration of properties zoned CS-2.

Accomplishments:

- 2010: Rezoned the Morrisville Riverfront Preserve as Natural Lands and Community Services District.
- Ongoing: Initiated restoration efforts at the Morrisville Riverfront Preserve site, which included invasive plant removal, tree plantings and seedlings, and the removal of concrete and asphalt.

Goal #4:

Preserve, protect, and restore the Delaware Riverfront while maintaining a balance between public access, natural features and floodplain preservation, and providing riparian restoration.

Objectives:

- Provide public access
- Preserve natural features
- Preserve floodplains
- Provide riparian restoration
- Protect native species

Accomplishments:

- 2012: Permanently preserved the Morrisville Riverfront Preserve via conservation easement made available through the Bucks County Municipal Open Space Program.



- 2012: Established preliminary trails within the Morrisville Riverfront Preserve.
- Ongoing: Continued restoration at the Morrisville Riverfront Preserve site as a naturalized riparian preserve.
- Ongoing: Annual community-led riverfront cleanup, hosted by the Morrisville Environmental Advisory Council.

Goal #5:

Encourage environmentally sensitive plantings and land management of all open space land and buffers.

Objectives:

- Provide educational and other supportive assistance to private landholders, borough officials and employees, and the Department of Public Works.
- Formalize best practice guidelines for open space properties.

Accomplishments:

- 2013: Secured funding through the Bucks County Municipal Open Space Program for landscape improvements to the Morrisville Dog Park, emphasizing native species for the park.
- 2013 – 2019: Herbicide treatments at Morrisville Riverfront Preserve to combat invasive species including Japanese knotweed.
- 2013 – 2019: Plantings of native trees, shrubs and perennial plants and grasses at the Morrisville Riverfront Preserve.
- 2009 – 2020: Tree plantings at Williamson Park, Borough Hall, Manor Park Playground, and the open space parcel at Delmorr and Philadelphia avenues.

Goal #6:

Be aware of future opportunities and information related to open space management, including the development of park plans.

Objectives:

- Develop park plans in readiness for future implementation.
- Monitor upcoming opportunities and deadlines for sources of fiscal support.
- Monthly EAC discussion of OSP opportunities and ongoing projects.

Accomplishments:

- Ongoing: The borough is in the process of developing a plan for the redevelopment of the former MR Reiter Elementary School into Patriots Park, a passive park.
- Worked with the Delaware Riverkeeper Network to produce an Ecological Master Plan to guide the current and future restoration efforts and trail creation at the Morrisville Riverfront Preserve.

Goal #7:

Encourage and promote the education opportunities of open space properties including creating connections between historical, environmental, social, educational, and other community organizations.

Objectives:

- Create connections between historical, environmental, social, education and other community organizations through interaction in regular reviews, projects, and discussions of open space usage and policy.

COMPREHENSIVE PLAN UPDATE

Accomplishments:

- Produced an informational brochure produced describing the Morrisville Riverfront Preserve and the value of a natural waterfront.
- Planning for Patriots Park includes interpretive signage documenting the history of the property, including the schools that once stood at the site, and identifies opportunities for enhancing Summerseat, one of the most historically significant buildings in Bucks County.
- Educational signage was installed at the entry of the Morrisville Riverfront Preserve.
- Guided nature walks and educational efforts at the Morrisville Riverfront Preserve.

The following are unrealized opportunities identified from the open space plan:

- Preparing a formal park and recreation plan to guide future park development and redevelopment;
- Protecting the “A” Field at the former Capitol View Elementary School permanently;
- Enhancing Morrisville Lake by evaluating conditions and opportunities;
- Providing public space at Mill Pond; and
- Working with private landowners to preserve environmentally sensitive properties and to create waterfront riparian buffers.

The borough should continue with its efforts to implement the *Borough of Morrisville Open Space Plan* by reviewing the Action Plan included in the plan to identify and prioritize next steps.

DELAWARE RIVER HERITAGE TRAIL AND EAST COAST GREENWAY

The Delaware River Heritage Trail initiative was started in 1996 by the National Park Service to unite the New Jersey and Pennsylvania sides of the Delaware River. The trail is envisioned as a 60-mile-long loop highlighting the cultural and natural resources along the upper portion of the scenic Delaware River estuary. The trail will link 24 communities, from Trenton to Palmyra on the New Jersey side and from Morrisville to Philadelphia’s Tacony neighborhood on the Pennsylvania side. The trail is a component of The Circuit, an 800-mile network of biking and pedestrian trails in the greater Philadelphia region.

The Delaware River Greenway Partnership (DRGP), a bi-state advisory committee of government and nonprofit representatives, coordinated the initial planning for the trail. DRGP focuses on interpreting the natural and cultural resources along its path. In Morrisville, the trail will begin at the Calhoun Street Bridge and will make use of the Delaware Canal towpath through the borough and continue south into Falls Township. This alignment is the same alignment the East Coast Greenway will use in the Morrisville section of the towpath. The East Coast Greenway seeks to develop the nation’s first long-distance, city-to-city, multi-modal transportation corridor for cyclists, hikers, and other non-motorized users.

The borough should continue to work with these partner organizations to develop and promote these trails as recreational amenities available to borough residents, as well as use them as an opportunity to attract visitors.

More information about these cooperative regional trail projects can be found at the following links:

<https://delawareriverheritagetrail.org/>

<https://www.greenway.org/states/pennsylvania>

<https://circuittrails.org/>

DELAWARE RIVER WATER TRAIL

Another initiative of the Delaware River Greenway Partnership is the Delaware River Water Trail for the non-tidal portion of the Delaware River. The Delaware River is the longest un-dammed river in the United States east of the Mississippi, extending 330 miles from the confluence of its east and west branches at Hancock, NY to the mouth of the Delaware Bay, where it meets the Atlantic Ocean. This non-tidal portion of the river, and the associated water trail, covers almost 200 miles of the entire freshwater portion of the Delaware River, from Hancock, New York, to Trenton and Morrisville.

Although actually located in Lower Makefield Township on River Road, about 425 feet north of the border of Morrisville Borough and Lower Makefield Township is an existing boat/canoe/kayak launch on property owned by the Morrisville Municipal Authority that borough residents can access. The launch is located opposite the intersection of East Ferry Road and River Road. As the terminating point of the Delaware River Water Trail within Pennsylvania, the borough should explore opportunities for promoting awareness of this water trail. Additionally, as the Delaware & Lehigh Canal Towpath Trail headed north out the borough eventually crosses East Ferry Road, the borough should consider working with the Pennsylvania Department of Transportation and Lower Makefield Township to provide a safe crossing of River Road to the boat launch area. Information about the Delaware River Water Trail can be found at:

<https://www.delawareriverwatertrail.org/about-the-trail/lower-delaware-river/>

TIDAL DELAWARE WATER TRAIL

Morrisville Borough's unique position along the Delaware River at the Falls of Trenton, affords its access to both the tidal and non-tidal portions of the river. Because of its unique location, in addition to being the southern terminus for the non-tidal portion of the Delaware River, Morrisville Borough is the northern terminus for the Tidal Delaware Water Trail. This water trail is a collaborative effort between the Pennsylvania Department of Conservation and Natural Resources, the Pennsylvania Fish & Boat Commission, the National Park Service, the Pennsylvania Department of Environmental Protection, and the Partnership for the Delaware Estuary. Although there is not a boat launch facility within the borough along the tidal portion of the Delaware River, access to the tidal portion of the river for fishing is provided at the Morrisville Riverfront Preserve at the intersection of South Delmorr Avenue and East Philadelphia Avenue.

The borough should continue its involvement as part of the Tidal Delaware Water Trail, while continuing to manage the waterfront preserve as a destination for fishers, birders, walkers and paddlers to enjoy nature, providing public education on the value of natural waterfront habitats, and providing improved floodplain function and flood protection. Information about the Tidal Delaware Water Trail can be found at: <http://dev-tidaltrail.pantheonsite.io/>.

BUCKS COUNTY WATERFRONT REVITALIZATION PLAN (2005)

The purpose of the *Bucks County Delaware River Waterfront Revitalization Plan* is to articulate a community-based vision that will guide future revitalization efforts along the lower Delaware River waterfront in the townships of Bensalem, Bristol, and Falls, and the boroughs of Bristol, Tullytown, and Morrisville.

The *Bucks County Waterfront Revitalization Plan* devises specific recommendations to improve the overall study area and make it more attractive to residents, businesses, and visitors. Six themes, including park and natural resource themes, organize these recommendations and serve as goals for the plan:

- Enliven the river's edge by improving waterfront access

COMPREHENSIVE PLAN UPDATE

- Incorporate design with development to improve the attractiveness of the area and foster its renaissance
- Enhance the economy by fostering redevelopment of underutilized lands and buildings
- Expand mobility and accessibility to and within the study area
- Foster environmental sustainability of the Delaware River and its tributaries
- Reinforce sense of place and identity

The study also provides more detailed concept plans for key areas in the study area that are considered priority redevelopment and enhancement projects in each study area municipality. Each “opportunity area” provides a potential vision of what might be. In Morrisville, the plan envisions several park and recreation and open space opportunities. The plan shows a trail along the Delaware River from Williamson Park to the borough’s southern border. Open space and public access to the water are identified at the Tate & Lyle property. Bridge Street and Pennsylvania Avenue are shown as bicycle routes, connecting Morrisville to the adjacent communities of Trenton, and Lower Makefield and Falls townships. Morrisville Lake is identified as a potential new park.

Since the development of this plan in 2005, some progress has been made toward implementing the recommendations contained in the plan as it applies to Morrisville Borough. One recommendation of the plan is to construct a continuous public riverwalk along the Delaware River. As part of the Morrisville Riverfront Preserve project, several temporary trails have been constructed on the site. As the site continues to evolve, the alignment and other characteristics of the trails may change, contributing to the goal of achieving a continuous public riverwalk along the Delaware River.

The borough should evaluate opportunities to ensure that these trails accomplish the vision of a public linear park consisting of a bicycle pedestrian path with access to the water. This would include entering into discussions with private property owners including:

- Pennsylvania Railroad Company/Amtrak relative to the segment along South Delmorr Avenue between Chambers Street and East Philadelphia Avenue (TMP# 24-012-089)
- Delaware River Joint Toll Bridge Commission to facilitate a connection between the existing Levee Walk and the proposed trail from East Bridge Street south
- The Tate & Lyle parcel along the Delaware River extending from the southern boundary of the Morrisville Riverfront Preserve to the border with Falls Township

If site constraints or the inability to secure trails easements prevent the establishment of such a trail along the waterfront itself, the borough should evaluate the possibility of establishing a trail in the former railroad right-of-way extending from the intersection of South Delmorr Avenue and East Philadelphia Avenue, south to the right-of-way of East Post Road.

Another recommendation of the Bucks County Delaware River Waterfront Revitalization Plan is to restore the full length of the Canal Towpath as a bicycle/pedestrian trail. The obstacle to this within Morrisville Borough is at Bridge Street where the towpath passes under Bridge Street. The area under the bridge is height constrained. The design plans for bringing the trail up to and across Bridge Street near Mill Pond are being finalized and construction funding is in place.

MORRISVILLE BOROUGH WALKWORKS ACTIVE TRANSPORTATION PLAN

In January 2019, Morrisville Borough was awarded a WalkWorks grant through the Pennsylvania Department of Health for the purpose of creating an Active Transportation Plan. A WalkWorks Active

Transportation Plan provides a strategy for improving the health and well-being of Pennsylvania’s residents, and visitors, through the improvement of pedestrian and bicycle networks, and other non-motorized forms of transportation, with the goal of increasing physical activity.

The plan includes four specific goals:

- **Goal 1** – Improve What We Have
Make improvements to the existing pedestrian and bicycle network by upgrading lighting and visibility, enhancing and adding new signage, and creating a trail and sidewalk maintenance plan.
- **Goal 2** – Make the Connections
Eliminating gaps in the overall trail and bicycle network via a broad array of items including linking disconnected sidewalks, identifying trail missing connections, installing new bicycle facilities, improving crossings, enhancing wayfinding signage, introducing roadway markings, and enhancing trail safety signage and amenities.
- **Goal 3** – Create a “Brand” for Our Active Transportation Routes
Involves creating a branding and marketing strategy for the overall network of 11 proposed active transportation routes in the borough highlighting the unique features of each route.
- **Goal 4** – Inform and Educate
Ensuring that residents and visitors have easy access to trail and bicycle network information and that there is an ongoing educational effort designed to promote the benefits of walking, bicycling and being active.

The borough should actively work to accomplish the detailed objectives outlined in the Action Plan contained as part of the plan to ensure its successful implementation. Further information about the *Morrisville Borough WalkWorks Active Transportation Plan* will be detailed in Chapter 9. Transportation and Circulation.

WILLIAMSON PARK TOWN SQUARE CONCEPT PLAN

As part of its ongoing revitalization efforts, the borough was recently provided a concept plan that could have significant impacts to all of its recreational facilities, including its largest facility, Williamson Park. The concept plan presented to the borough envisions transforming Williamson Park into a mixed-use development featuring an amphitheater, four luxury apartment buildings, a hotel, several retail shops, restaurants, a 22,000-square-foot grocery store, an urgent care, and a bank.

To realize this vision, the existing recreational amenities throughout the borough would be impacted as follows:

- Williamson Park – A complete overhaul of the existing recreational facilities including the creation of upgraded baseball fields and basketball courts, and new pickleball courts
- Morrisville High School – Upgraded baseball fields
- South Delmorr Avenue – The creation of a pedestrian riverview path on land currently owned by Amtrak/Pennsylvania Railroad from East Bridge Street to Morrisville Riverfront Preserve
- Manor Park School and Cloverleaf Property – Five new baseball fields, potential batting cages, and other accessory uses
- Various private properties along Bridge Street, Pennsylvania Ave, and Delmorr Ave – The addition of mixed-use residential and commercial properties

Although just a concept plan, the borough should carefully consider the impact to its recreational facilities as it evaluates various redevelopment strategies and plans.

OPEN SPACE AND PARK AND RECREATION RESOURCES

Morrisville Borough has a wealth of park and recreation and open space resources for a community of its size, with almost 110 acres of public lands and about 7 acres of privately-held open space. Stunning views of the Delaware River can be taken in from the top of the levee along the edge of the 40-acre Williamson Park. Walkers, bicyclists, and horseback riders can travel the towpath of the historic Delaware Canal over the entire length of the borough. The Graystones property contains a 6-acre remnant stand of mature red oak. The three schools and Manor Park contain a variety of recreational facilities, including ballfields, playground equipment, and basketball courts. All of these resources are accessible by way of walking from adjacent neighborhoods.

Park and open space resources can be classified into public lands and privately-owned lands, and other protected lands. Public lands include publicly-owned lands (e.g., parks or vacant tracts) and school district properties-owned lands include private recreational lands, such as golf courses, camps and campgrounds, and nature preserves, lands owned by nonprofit conservation organizations, and other similar lands (e.g., cemeteries). Other protected lands are owned by government or quasi-government agencies and unlikely to change in the future. Tables 33 through 40 provide an overview of park and open space resources by resource type. Map 4: Parks and Open Space provides a visual summary.



Table 33. Surrounding Borough Parkland Acreages

Borough	Acres of Parkland	Acres in Borough	Percent of Parkland
Morrisville	63.2	1,290.4	4.9
Bristol	58.4	1,246.3	4.7
Hulmeville	3.9	255.9	1.5
Langhorne	11.61	327.5	3.5
Langhorne Manor	0.0	384.7	0.0
Newtown	4.35	351.6	1.2
Penndel	4.97	271.2	1.8
Tullytown	11.2	1,337.5	0.8
Yardley	1.88	662.6	0.3

Table 33 details the percentage of parkland in the borough, compared to eight surrounding boroughs. With 1,290.4 acres of land within the borough, Morrisville makes up the second largest borough in the surrounding area. Morrisville contains 63.2 acres of parkland, the highest of any other surrounding borough. Morrisville also holds the highest percentage of parkland compared to surrounding boroughs.

PUBLIC LANDS

The following provides a brief description of all publicly and privately protected open space lands. Approximately 109.6 acres of protected lands exist within Morrisville Borough.

State-Owned Parks and Open Space

Delaware Canal State Park extends from Easton to Bristol Borough, cutting through Morrisville along the way. The canal and towpath encompass 16.4 acres of land in Morrisville, stretching from the Lower Makefield border, just west of Delmorr Avenue, down through the center of the borough to the Falls Township border between Route 1 and the Pennsylvania Railroad. Delaware Canal State Park received State Heritage Park designation in 1993.

Table 34. State Parks

16.4 Acres			
Name	Location	Ownership	Acreage
Delaware Canal State Park	Numerous Points	State	16.4

Municipal Parks and Open Space

The borough contains four municipally-owned parks: Williamson Park, Manor Park Playground, Morrisville Dog Park, and its newest park, Patriots Park.

- Williamson Park – A 40+-acre multiuse park along the Delaware River featuring ballfields, tennis courts, basketball courts, a playground, and picnic facilities.
- Manor Park Playground – Located at the intersection of East Cleveland Avenue and Penn Avenue, this 1.2-acre park contains a hockey rink and playground.
- Morrisville Dog Park – The borough owns a 2.1-acre parcel at the intersection of Delmorr and Philadelphia avenues, 1 acre of which is leased by the Friends of Morrisville Dog Park, and the remaining 1.1 acres is municipal open space with a view of the river.
- Patriots Park – The newest park is located at the site of the former MR Reiter Elementary School on Harper Avenue. The site currently contains a baseball field and playground left over from the previous school. Planning is underway to transform the site into a passive park designed to enhance the adjacent Summerseat historic property.

Table 35. Municipal Parks

46.5 acres			
Name	Location	Ownership	Acreage
Manor Park Playground	East Cleveland Avenue and Penn Avenue	Borough	1.2
Williamson Park	Delmorr Avenue	Borough	40.8
Patriots Park (former Reiter Elementary School)	Harper Avenue	Borough	2.8
Morrisville Dog Park	East Philadelphia Avenue	Borough	1.0

Public Schools

There are five public schools located on three sites throughout the borough totaling approximately 32.7 acres. Grandview Elementary School, which is 4.9 acres, is located off Grandview Avenue and contains a playground. The property containing the Morrisville Intermediate, Middle and High schools, located at the intersection of West Palmer Street and Cox Avenue, is a little over 20 acres and has a softball, baseball, and multipurpose field for football and soccer. The former Capitol View Elementary School and adjacent public recreational land ("A" Field), located at the corner of West Hendrickson Avenue and Harper Avenue, owned by the school district, contain 7.7 acres. The "A" Field consists of playfields, a multipurpose football/soccer field, track, and softball field.

Table 36. School Properties

32.7 acres			
Name	Location	Ownership	Acreage
Grandview Elementary School	Grandview Avenue	School District	4.9
Morrisville Intermediate, Middle and High schools	West Palmer Street	School District	20.1
Morrisville High School/"A" Field	West Hendrickson Avenue	School District	7.7

Other Publicly Protected Lands

In addition to parks, the borough owns two open space properties. The Graystones open space parcel is located north of Crown Street, adjacent to the borough's border with Lower Makefield Township. This 6.1-acre parcel was preserved through the Bucks County Municipal Open Space program in 1997. This property will remain open space. The other property, an 8.4-acre parcel located at the intersection of South Delmorr Avenue and East Philadelphia Avenue, was also acquired through the Municipal Open Space Program. The borough intends to develop this property into a park.

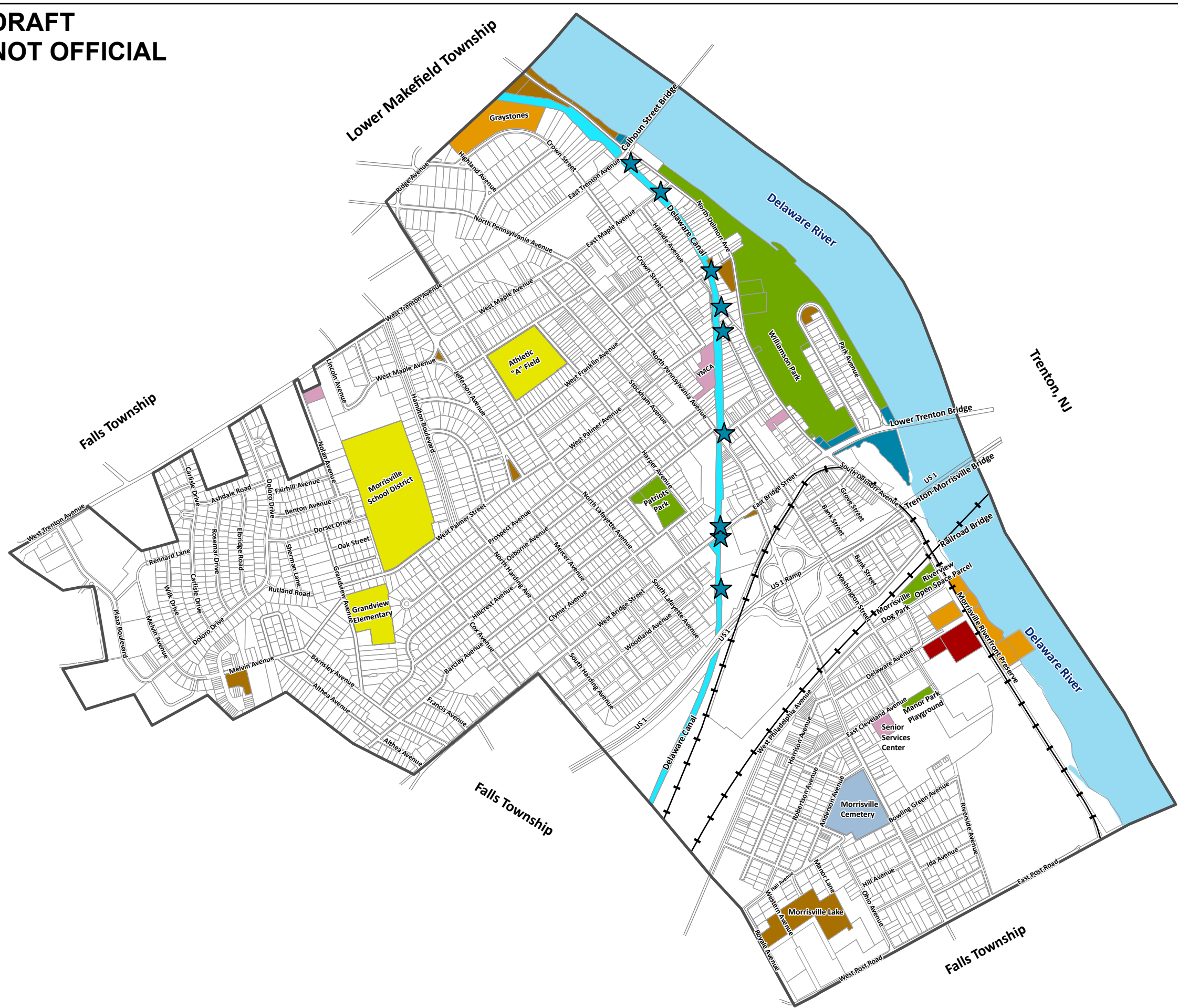
Table 37. Municipal Protected Open Space

14.5 acres			
Name	Location	Ownership	Acreage
Graystones	Crown Street	Borough	6.1
Morrisville Riverfront Preserve	South Delmorr Avenue and East Philadelphia Avenue	Borough	8.8

PRIVATELY-PROTECTED LANDS

The following provides a brief description of all privately-protected open space lands. There are approximately 7 acres of privately-protected lands and 3.8 acres of private recreational facilities within Morrisville Borough.


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Map 5. Parks, Recreation, and Open Space

Morrisville Borough
Comprehensive Plan Update

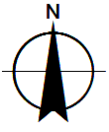
- Public Lands:**
- ★ Delaware Canal Access Points
 - Delaware Canal State Park
 - School Properties
 - Municipal Protected Open Space
 - Municipal Parks
- Privately Protected Lands:**
- Private Recreational Facilities
 - Private Protected Open Space
 - Municipal Parks
- Other Protected Lands:**
- +— Pennsylvania Railroad Company/Amtrak
 - Delaware River Joint Toll Bridge Commission
 - Morrisville Municipal Authority
 - Morrisville Borough Owned
 - Municipal Parks



BCPC
Bucks County Planning Commission



MORRISVILLE
BOROUGH PA



0 500 1,000 2,000 Feet

Private Recreational Areas

There are four private recreational facilities in the borough. Similar to school district properties, these facilities supplement the recreational facilities and amenities provided by the borough.

When considering other potential lands that are effectively acting as permanent open space, cemeteries also qualify. Cemeteries not only function as burial grounds but can serve as a passive open space in a park-like setting. Many cemeteries contain the graves of many of the original settlers and may also be considered historically significant. Morrisville Borough has one cemetery, Morrisville Cemetery, which occupies about 7 acres.

Table 38. Private Protected Open Space

7.0 acres			
Name	Location	Ownership	Acreage
Morrisville Cemetery	South Pennsylvania Avenue	Private	7.0

Table 39. Private Recreation Facilities

3.8 acres			
Name	Location	Ownership	Acreage
Morrisville Branch YMCA	North Pennsylvania Avenue	Holy Trinity Catholic Church	1.8
Morrisville Lanes	Nolan Avenue	Private	0.6
Delmor Bowling Lanes	North Delmorr Avenue	Private	0.5
Morrisville Senior Services Center	East Cleveland Avenue	County	0.9

OTHER PROTECTED LANDS

Some parcels owned by government or quasi-government agencies can be classified as other protected lands. The following parcels, totaling 35.5 acres, which include vacant land owned by the borough or land owned by quasi-governmental agencies, are classified as protected due to their size, location, and function, but have no actual legal protections in place:

Table 40. Other Protected Lands

35.5 acres		
Tax Map Parcel	Location	Acreage
Delaware River Joint Toll Bridge Commission - 4.86 acres		
24-008-050	North Delmorr Avenue	0.15
24-008-051	North Delmorr Avenue	0.16
24-009-201	North Delmorr Avenue & East Bridge Street	0.19
24-009-202	North Delmorr Avenue	0.12
24-009-226	East Bridge Street	0.49
24-009-271	East Bridge Street	0.42
24-009-393	East Bridge Street	3.33
Pennsylvania Railroad Company/Amtrak - 6.09 acres		
24-012-089	South Delmorr Avenue	5.96
24-013-001	South Delmorr Avenue	0.13
Morrisville Municipal Authority - 3.07 acres		
24-012-079	Delaware Avenue	2.35
24-012-079.001	Delaware Avenue	0.72
Morrisville Borough - 21.46 acres		
24-003-042-033	Melvin Avenue & Melvin Court South (Stormwater Basin)	1.04
24-004-404	Jefferson Avenue	0.35
24-007-059, -060, -061	North Delmorr Avenue	2.94
24-008-049	North Delmorr Avenue	1.05
24-008-152	Jefferson Avenue	0.11
24-008-318	East Franklin Street	0.11
24-008-570	North Delmorr Avenue	0.79
24-009-252	Central Avenue	0.38
24-009-272-003	South Pennsylvania Avenue	0.15
24-010-274-001, -275-003	Western Avenue (Morrisville Lake)	5.42
24-012-081	Penn Avenue	9.12

Various utility easements traverse Morrisville Borough, including easements for gas lines, telephone cable, electric power lines, oil pipelines, and water and sewer lines. These linear land areas are typically not owned in fee-simple ownership, but rather consist of easements placed over private property. Therefore, the total acreage for these easements is not included in the totals provided in this chapter.

CHAPTER SUMMARY

PRINCIPLES – Livability, Heritage, Equity

FINDINGS

- The 2008 *Borough of Morrisville Open Space Plan* accomplished a number of plan goals, including:
 - Established the Morrisville Dog Park via funding through the Bucks County Municipal Open Space Program.
 - Acquired the former MR Reiter Elementary School from the Morrisville Borough School District for the purpose of establishing Patriots Park.
 - Permanently preserved the Morrisville Riverfront Preserve via conservation easement made available through the Bucks County Municipal Open Space Program.
 - Worked with the Delaware Riverkeeper Network to produce an Ecological Master Plan to guide the current and future restoration efforts and trail creation at the Morrisville Riverfront Preserve.
- Morrisville sits at a key trail location along the Delaware Canal and the Delaware River. Trail planning efforts along the canal include the Delaware River Heritage Trail initiative and East Coast Greenway. Because of its unique location at the fall zone, the borough is the southern terminus for the Delaware River Water Trail (non-tidal portion) of the Delaware River and the northern terminus for the Tidal Delaware Water Trail.
- The design plans for bringing the trail up to and across Bridge Street near Mill Pond are being finalized and construction funding is in place.
- Morrisville Borough has a wealth of park and recreation and open space resources for a community of its size, with almost 110 acres of public lands and about 7 acres of privately-held open space.



LEVEE TRAIL ALONG THE DELAWARE RIVER

COMMUNITY SURVEY RESULTS

- The majority of respondents (25 percent) visit parks in Morrisville once every few months.
 - 5 percent visit daily
 - 11 percent visit a few times a week
 - 4 percent visit once a week
 - 19 percent visit a couple of times each month
 - 7 percent visit once a month
 - 11 percent visit once a year

COMPREHENSIVE PLAN UPDATE

- o 18 percent of respondents said they never visit parks
- Delaware Canal State Park (54 percent of respondents) and Williamson Park (62 percent) are the most frequented parks between respondents.
 - o 9 percent frequent Patriots Park
 - o 25 percent visit the Morrisville Dog Park
 - o 9 percent visit Manor Park Playground
 - o 10 percent visit the “A” Field (Athletic Field)
 - o 25 percent visit the Levee Trail
 - o 23 percent visit the Morrisville Riverfront Preserve
- Thirty-four percent of respondents are satisfied with parks and recreation in Morrisville, and 4 percent of respondents are very satisfied. Fourteen percent of respondents are unsatisfied, and 5 percent responded that they are very unsatisfied. The majority of respondents (42 percent) remain neutral.

RECOMMENDATIONS

- Continue to implement the recommendations contained in the *Borough of Morrisville Open Space Plan 2009*, including identifying and prioritizing Action Steps not achieved to date.
- Remain an active partner in local and regional planning efforts related to parks, recreation, and open space including the Delaware River Heritage Trail, East Coast Greenway, Delaware River Water Trail and the Tidal Delaware Water Trail.
- Develop a parks and recreation plan to guide the development of new park and recreation facilities and guide redevelopment efforts of existing facilities. As part of that planning process, continue to explore new recreational opportunities such as community gardens.
- As part of the borough’s revitalization efforts, recognize that recreational facilities and activities can play a role in those efforts and should be considered as part of the revitalization planning process.
- Continue to explore opportunities for increasing access to water-based recreation in the borough including exploring opportunities for enhancing Morrisville Lake, creating new canoe/kayak launch sites, and providing opportunities for fishing and other water-based recreation.
- Implement the recommendations contained in the recently adopted *Morrisville Borough WalkWorks Active Transportation Plan* focusing initially on improving existing facilities and filling in missing segments of the pedestrian and bicycle network to ensure full connectivity throughout the borough.
- Consider working with the Pennsylvania Department of Transportation and Lower Makefield Township to provide a safe crossing of River Road to the boat launch area.
- Explore opportunities for helping to realize the goal for establishing a continuous public riverwalk and trail along the Delaware River.

Chapter 8. Historic and Cultural Resources

Historic preservation is an inherently sustainable activity that maximizes the use of existing materials and infrastructure, reduces waste, and preserves the historic character of older places. By preserving historic structures, we are able to share the very spaces and environments in which the generations before us have lived. Cultural and historic resources provide a tangible connection to the past and are crucial in creating a sense of time and place by understanding settlement patterns and the heritage of a community. In addition to solidifying a community's past, preservation can strengthen a community's future, boost the economy and quality of life. Historic resources create vibrant, cultural destinations that can be centerpieces of community life. Morrisville's natural and cultural landscapes give the borough a unique and valuable heritage and a sense of place that should be preserved.

In planning for the future, the borough needs to plan for the management of its historic, cultural, and natural resources. Management of this heritage can be done with preservation of historic structures, natural resource protection, and promotion of heritage through cultural events. Effective heritage management enhances quality of life and environmental sustainability and will ensure that the borough is a viable place to live and work for present and future residents.

HISTORIC PRESERVATION

Historic preservation is the process of preserving historically significant parts of a community, from individual buildings to whole neighborhoods. It involves identifying and celebrating a community's history to provide a better understanding of its past and a context for future decision-making.

The Pennsylvania Historical and Museum Commission (PHMC) is the official history agency of the Commonwealth of Pennsylvania. The PHMC is responsible for the collection, conservation, and interpretation of Pennsylvania's historic heritage. Historic resources, as defined by the PHMC, are objects or sites eligible for listing or listed in the National Register of Historic Places, as well as those identified as historic by the community on the basis of age and local importance.

The National Register of Historic Places is the official list of the nation's cultural resources, providing recognition that buildings or districts have historic, architectural, or archeological significance. The register was established by the National Historic Preservation Act of 1966 and is maintained by the National Park Service. The Pennsylvania State Historic Preservation Office manages the National Register program. The National Register is part of a nationwide program to coordinate and support public and private efforts to identify and protect resources of significance in American history, architecture, engineering, and culture. A "resource" worthy of preserving can be defined as a historic building, structure, district, site, or object. To be considered eligible for the National Register, a resource must have significance to historic events or persons, architecture, archaeology, engineering, and culture at the national, state, or local level. Its physical remains must also reflect the significance of the property; this resource should have integrity in location, design, setting, materials, feeling, workmanship, and association. Nominations for listing are administered through the PHMC.

National Register listing restricts potential alteration or demolition of historic resources through activities involving the federal government, but does not limit the rights of private property owners. The National Park Service can offer tax cuts and other assistance for National Register properties as a fiscal incentive to promote preservation and revitalization of the local community's unique cultural history.

While Morrisville contains structures representing just about every period in our nation's history, a borough-wide survey of historic buildings has yet to be undertaken. However, four historic resources have been identified and listed on the National Register of Historic Places due to their national significance.



Summerseat

Built around 1770, it is the only house known to have been owned by two signers of the Declaration of Independence, George Clymer and Robert Morris. The historic home which is now a museum, was used as headquarters for General George Washington in the days leading up to the Battle of Trenton during the American Revolutionary War. Summerseat was listed on the National Register on July 17, 1975, and was designated a National Historic Landmark in 1965. The historic home is

located at Clymer Street and Morris Avenue and is now owned and maintained by the Historic Morrisville Society. The borough received a grant from the PA Department of Community and Economic Development to assist with the planning and redesign of the surrounding area to create Patriots Park at Historic Summerseat. Patriots Park has been developed at the former site of the MR Reiter Elementary School. The development of Patriots Park is designed for passive recreation in order to enhance the historic building of Summerseat. <https://historicsummerseat.com/>

Calhoun Street Bridge

Morrisville's most northern bridge was constructed in 1884 and was added to the National Register on November 20, 1975. The bridge is owned by the Delaware River Joint Toll Bridge Commission and spans the Delaware River between Morrisville and Trenton, NJ.



Pennsylvania Railroad Bridge

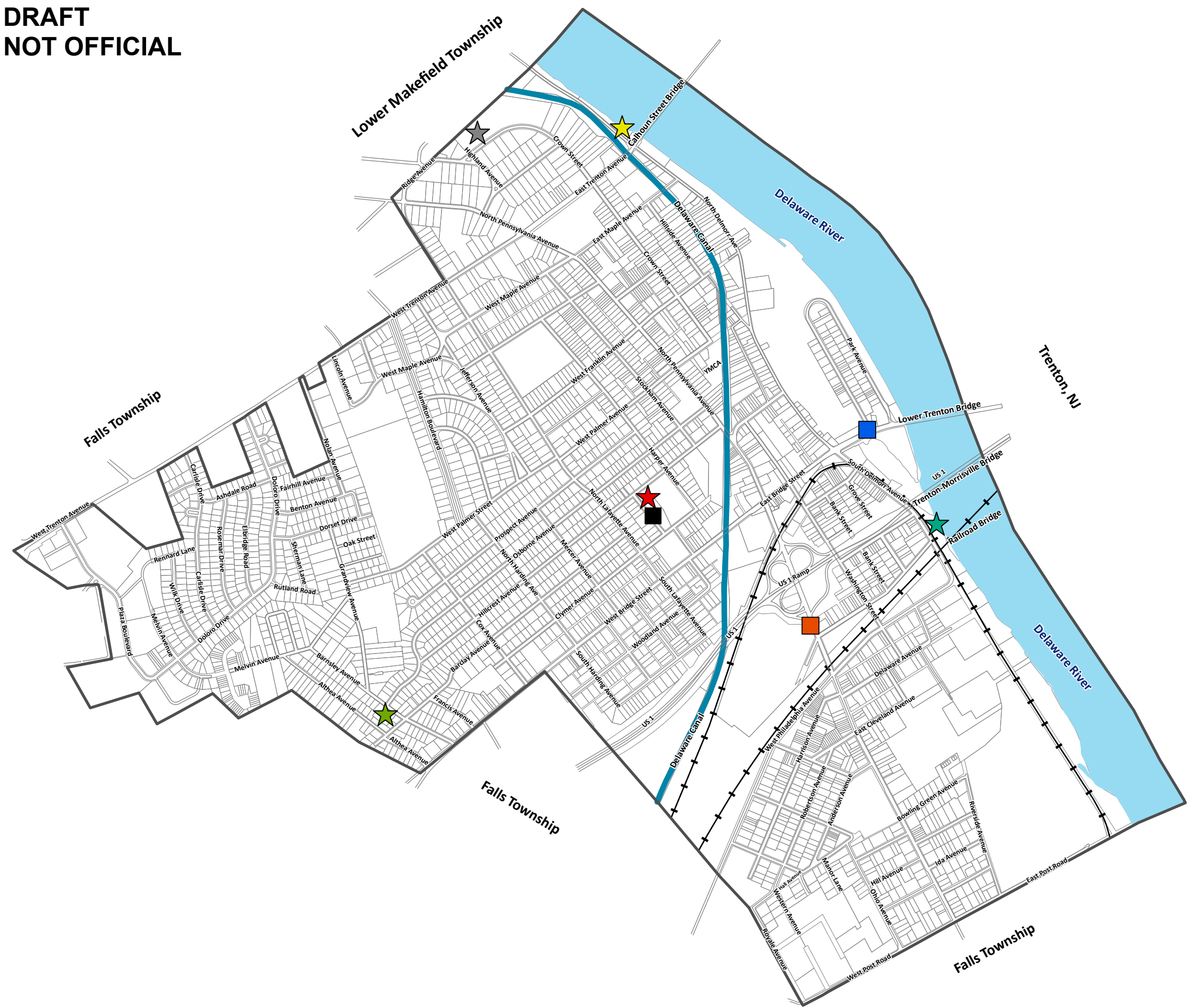
Also known as the Trenton-Morrisville Bridge, this stone arch bridge that opened in 1903 and spans the Delaware River to connect Morrisville to Trenton, NJ, was added to the National Register on June 6, 1979. It is also listed on the Historic American Engineering Record, which was established in 1969 by the National Park Service, the American Society of Civil Engineers, and the Library of Congress to document historic sites and structures related to engineering and industry.



Gershom Craft House

This historical home located at 105 Barnsley Avenue, was built and owned by Trenton businessman Gershom Craft. The home was built around 1806 as a summer home where Craft planted over 100 different species of fruits on the surrounding 84-acre farm. The home is also known as Pomona Farm, named after the Roman Goddess of fruit trees, Pomona. This home was added to the National Register on October 16, 1986.

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Map 6. Historic and Cultural
Resources

Morrisville Borough
Comprehensive Plan Update

National Register of Historic Places:

- ★ Summerseat
- ★ Calhoun Street Bridge
- ★ Pennsylvania Railroad Bridge
- ★ Gershom Craft House

National Historic Landmarks:

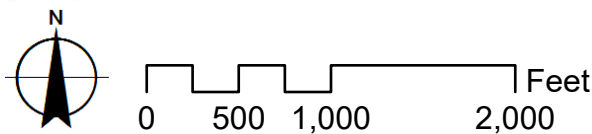
- ★ Summerseat
- Delaware Canal

Natural Resources:

- ★ Graystones

Pennsylvania Historic Markers:

- Summerseat
- Robertson Art Tile Company
- Pennsylvania



A National Historic Landmark (NHL) is a building, district, site, or structure that is officially recognized by the United States government for its historical significance. Only about three percent of places listed on the National Register of Historic Places are recognized as National Historic Landmarks. Summerseat and the Delaware Canal are both designated as National Historic Landmarks.

The canal towpath has also been classified by the United States Secretary of the Interior as a National Recreation Trail, which is a designation given to existing trails that contribute to health conservation and recreation goals in the United States.

These documented historic resources, along with other undocumented resources in Morrisville, have value for many reasons, they give the borough a unique physical and cultural character. Older buildings are frequently better built, with craftsmanship and materials that are rarely duplicated today. Each historic building represents a past investment for future generations. Maintenance and rehabilitation of historic buildings and neighborhoods also represent a savings in terms of energy and materials. Well-kept historic buildings contribute to the vitality of a community and tend to strengthen property values. Neglect or loss of historic buildings and structures would pose a significant threat to the identity of the borough. The historic preservation process fosters civic pride and appreciation for historic values. Appropriate preservation and restoration projects can enhance and improve the surrounding non-historic property values.

In addition to the National Register, the state of Pennsylvania also has an official office for historic preservation. A department within the PHMC, the State Historic Preservation Office (SHPO) administers the federal historic preservation program within the state, and all official state historic preservation programs and activities. Every five years, the office develops a statewide historic preservation plan and provides assistance to local governments to develop and implement their own historic preservation planning initiatives.

The SHPO also offers its own set of incentives for historic preservation projects. Through the state's Department of Community and Economic Development, the state has its own historic preservation tax credit program, which is similar to the tax credit program through the National Park Service. One of the primary financial incentives for preservation through the state is the awarding of Keystone Historic Preservation Grants. These grants are available to local governments, and not-for-profit organizations to help with funding for planning projects or small construction projects for publicly accessible properties that are either listed on the National Register, or deemed eligible for listing on the National Register.

NATURAL RESOURCES

In addition to historic buildings, the borough has many natural resources that contribute to the character of Morrisville. Graystones, located at the borough's northeast corner at the intersection of Crown Street and Highland Avenue, is an outcropping of large gray boulders that is believed to be the location where William Penn met with members of the Lenape Indian tribe under a white oak tree in 1682 to negotiate the first land purchase survey in Pennsylvania. The tree is no longer there today, but the large boulders that stood nearby remain and represent the historic site as well as a natural resource. The six acres of woodlands are of



botanical and geological importance; the Graystones Forest is the second oldest hardwood standing in Bucks County. The site has been preserved as open space by the borough.

HISTORIC PRESERVATION PLAN

Although historic resources are valuable, they are often taken for granted until they are endangered; preservation planning can lessen that threat. However, sound preservation planning must occur before historic elements are imperiled, as last minute preservation responses are rarely effective in the long term. If historic resources are to be retained, it is essential to develop an effective local historic preservation program. Local historic resources, most of which are privately owned and maintained, are at risk unless residents are properly educated about the historic importance of their properties, and are encouraged to cooperate with the borough's preservation agenda.

A historic preservation plan is a program for conserving historic resources. The plan contains a historic resources survey, an assessment of constraints and threats to preservation of those resources, a goal and objectives, and implementation strategies. Implementation techniques include adoption of a historic ordinance, zoning techniques, financial incentives, and other tools. The plan may be a chapter in the community's comprehensive plan, or a separate document. The plan can be developed by an existing organization like the planning commission or by a historic commission or society.

This chapter does not serve as an historic preservation plan but describes the components of such a plan. The first step in preparing a plan is to determine what resources exist through completing a historic resources survey.

HISTORIC RESOURCES SURVEY

The foundation of any historic preservation plan is a historic resources survey. A historic resources survey is more than a listing of historic buildings and places. It is a process of identifying and gathering data on historic resources.

A historic resources survey involves examining photographs, archives and documents to generate data about the age, construction, architectural style and significance of historic buildings and structures. In order to ensure survival of historic resources and make effective use of them, it is necessary to inventory these resources. While volunteer historians or local historic societies may be able to document resources and otherwise assist in preparing a survey, it is desirable to have such surveys done by a qualified professional, when possible.

The survey may locate resources eligible for listing on the National Register of Historic Places, or resources that are locally, but not nationally, significant. The survey should be periodically updated, because as time passes more buildings become eligible for inclusion.



ASSESSMENT OF THREATS AND CONSTRAINTS

The assessment of threats and constraints involves an evaluation of the negative influences that impact historic resources. These factors include air pollution and vibration from traffic, zoning that permits uses in historic structures that may detract from their integrity, and inability of property owners to fund maintenance and improvements.

GOALS AND POLICIES

Goals and policies are necessary to guide and provide a focus for a preservation program. These goals and policies should reflect the wishes of the community. It is also wise to consult with the owners of historic properties because their participation in the preservation program is important. The borough comprehensive plan should incorporate a preservation policy as well.

THE COMPREHENSIVE PLAN

The comprehensive plan is also an important element in the program for historic preservation. The comprehensive plan should bring preservation concerns to the forefront because it establishes policy for all the activities of a community. Section 301(a)(1) of the Municipalities Planning Code (MPC) requires the comprehensive plan to include a statement of objectives concerning the future development of the municipality.

Identifying historic preservation planning as an objective of a municipal comprehensive plan reflects the desire to preserve buildings and structures with historic value. A historic preservation chapter and objective also provides a historical context for future planning and land use policies in the zoning ordinance.

IMPLEMENTATION TOOLS

These implementation tools must be developed in order to make the preservation plan work. These tools take the form of historic district ordinances, zoning provisions, design guidelines and other regulations. In most cases, the primary responsibility for protecting historic resources falls on the property owner, however, communities can enact regulations and laws to preserve these historic resources.

HISTORIC DISTRICTS AND REVIEW BOARD

A commonly used planning strategy for historic preservation is the adoption of ordinances that establish historic districts. The PHMC must approve historic districts before local regulations can be enforced. This planning strategy is most appropriate in those municipalities that have concentrations of historic structures or sites. A local historic district ordinance designates an area containing historic structures and protects it by (1) limiting the type of alterations that may be made to existing buildings, (2) reviewing proposed demolitions, and (3) ensuring compatible design of new construction. Act 167, the state Historic District Act of 1961, provides authorization for Pennsylvania municipalities to designate historic districts and regulate the alteration of buildings within them based on the historic context. Historic districts created under the authority of Act 167 are not zoning districts, but rather a review process separate from zoning concerns.

The creation of historic districts has many benefits; historic buildings have a unique character and heritage, providing a source of pride to residents. The character of historic neighborhoods is valued as an attractive environment and some communities have capitalized on their historic character to promote economic development and tourism.

Communities creating historic districts must follow procedures outlined in Act 167 for regulating alterations to structures within the districts. A local historical architectural review board (HARB) must be appointed and must consist of an architect, a real estate broker, a municipal inspector, and at least two citizens with an interest in, or knowledge of historic preservation. The HARB reviews and advises the governing body who then makes the decision to approve or deny the proposal. In determining if a change is appropriate, the HARB and governing body may consider its visibility from the public right-of-way, and general design, arrangement, texture, material, and color of the building or structure and its relation to the historic character of the district.

Local historic districts provide the credibility that may be lacking in the nomination of a district to the National Register of Historic Places. A local historic district ordinance provides a means for limiting the amount of change that can occur to historic structures. The National Register program is a credible way to identify a community's historic resources while the local district designation can further protect and enhance them. Thus, what the National Register helps identify, the local district helps protect.

ZONING REQUIREMENTS

While historic districts are useful methods of protecting historic buildings, often a municipality's historic structures or sites are not necessarily located within an easily defined district. A historic preservation overlay zoning ordinance can contain provisions to encourage property owners of historically significant properties to use and maintain significant historic structures in order to protect individual landmarks throughout the borough, without being located within a designated historic district.

Historic preservation overlay zoning can allow for additional uses within historic buildings, in order to encourage the continued use of a historic resource, rather than demolition. Additional uses are often permitted by special exception only, and standards for uses would have to be met to protect surrounding areas. Historic preservation overlay ordinances can also require local historic commission to review proposed demolitions and alterations to historic structures, require the preparation of impact statements for proposed subdivisions and land developments, and require the placement of buffering adjacent to historic properties. However, the extent to which zoning regulations may be used to preserve historic resources is limited. Historic buildings derive their character not only from the setback and bulk regulations that zoning can control, but also from the materials used to construct them and the design and pattern of their façade. The MPC does not authorize the regulation of the design of development through zoning.

DEMOLITION REGULATIONS

The regulation of demolition is an important part of a community's effort to preserve historic resources. Demolition by neglect is the destruction of a building through abandonment or lack of maintenance. Property owners may use this type of long-term neglect to avoid historic preservation demolition regulations. A municipality can use property maintenance codes to help prevent demolition by neglect. Enforcing laws that require buildings to be secure from vandalism and prevent blight can put pressure on owners to maintain their properties.

A demolition delay ordinance requires a waiting period after the submission of a request for a demolition permit. Many ordinances require a delay for structures of more than 500 square feet and older than 50 years. A delay provides time for research about the architectural or historical significance of the property and time to develop alternatives for preservation, or to document the property if demolition cannot be averted.

DESIGN GUIDELINES

Design guidelines are another tool for preserving the appearance of historic buildings and neighborhoods. They consist of recommended design options for alteration or rehabilitation of existing buildings and construction of new buildings, encompassing features like material, architectural style, and signs.

Such guidelines, especially when illustrated, can help maintain the character of the community. Design guidelines are also useful when coordinated with the requirements of a historic district. Residents recognize what is encouraged and what is discouraged when making design choices, avoiding conflict with the Historical and Architectural Review Board.

Adherence to guidelines ensures that buildings fit within the context of the existing architecture of an area. Although guidelines are not binding, they make a strong statement about the importance of preservation to a community.

FINANCIAL INCENTIVES AND GRANT PROGRAMS

Local preservation ordinances and guidelines can be effective; however they do not address the financial pressures that face owners of historic properties. To be more effective, preservation efforts should also address pressures that may conflict with historic preservation planning. Financial incentives and grant programs are ways local government and local financial institutions can encourage historic preservation. The provision of financial incentives encourages private property owners to become involved in preservation efforts and invest in historic properties. These incentives are intended to eliminate many of the financial advantages of new construction compared with restoration or preservation projects.

Financial incentives primarily take the form of low-interest loan programs and tax incentives from governmental bodies. Revolving loans administered by a local bank or the borough may also assist with the cost of preservation. Banks get involved in preservation loans because of the positive community relations and profit potential. Local governments may offer tax incentives such as property tax abatement freezes or credits. The availability of particular incentives depends on state enabling legislation.

The Pennsylvania Historical and Museum Commission offers historic preservation grants that may fund cultural resource surveys, national register nominations, and planning and development assistance projects. The State Historic Preservation Officer at the Pennsylvania Historical and Museum Commission (phmc.pa.gov/), the regional office of the National Park Service (nps.gov), and the National Trust for Historic Preservation (savingplaces.org/) can provide information regarding available funding to eligible parties.

Certified Local Government

A local government that fulfills program standards administered by Pennsylvania Historical & Museum Commission (PMHC) can eventually receive designation as a Certified Local Government (CLG) under the provision of the National Historic Preservation Act. Membership in this program allows municipalities to apply for grants under the (CLG) Local Government Grant Program. Such grants can be used for cultural resource surveys, technical planning and assistance, educational and interpretive programs, and other preservation activities.

To participate in this program, municipalities need to meet certain other criteria, including effective enforcement of an Act 167 historic district ordinance or a historic zoning overlay, and to comply with appointment, training, and reporting requirements. Consideration should be given to applying for CLG status should the borough enact historic protection regulations in the future.

HISTORIC SOCIETY

The borough has an organization devoted to preservation of the borough's history. The Historic Morrisville Society seeks to preserve the heritage of the area through exhibits of local history. The society operates Summerseat and presents exhibits and hosts events throughout the year.

A historic society, such as the Historic Morrisville Society, or an appointed historic commission could be charged with implementing the historic preservation program in the borough. An historic commission advises planning commissions and elected officials concerning protection of historic resources throughout the community and comments on development proposals, conducts research and maintains a historic resources inventory and map.

The borough planning commission also has an important role. As the group that develops and assists in the implementation of the comprehensive plan, it should work to implement the historic preservation program. The objectives of the program should also be considered during the routine activities such as subdivision and land development plan review. For instance, in the review of proposals that impact historic resources, the planning commission should seek the opinion of the historic preservation organization. The historic preservation organization can discuss alternatives with the planning commission and applicant.

HERITAGE SIGNAGE

Historic landscapes and other features can be noted by plaques, street markers, or storyboards. This signage may describe the features itself and the reason it is significant. Historic trees can be noted with tree plaques. Historic resources can be commemorated with a marker through the Pennsylvania Historical Marker Program of the PHMC. Any individual or group may nominate a structure or site for such a marker, subject to approval through the PHMC. Each marker in Morrisville is an opportunity to celebrate and understand the heritage of the community. Morrisville Borough is currently home to three historical markers administered by the PHMC, which are described below and displayed on Map 6.



Summerseat

Washington's headquarters Dec. 8–14, 1776. Built in 1773 by Thomas Barkley; restored in 1937. Owners included Robert Morris and George Clymer. Located at Legion and Clymer Avenues. Historical marker dedicated on January 27, 1949.

Pennsylvania

Founded 1681 by William Penn as a Quaker Commonwealth. Birthplace of the Declaration of Independence and the Constitution of the United States. Historical marker dedicated on November 11, 1949.

Robertson Art Tile Company

An innovative tile and abrasives manufacturer, founded by the Robertson family of ceramic artisans in 1890, operated here until 1982. It was notable for craze-free pure white tiles, its efficient single-fire method, and an on-site quality control lab. Featured at the 1907 Jamestown Exposition, RATC ceramic mosaic tiles were among the first in the U.S. to line an indoor swimming pool. In the 1950s, Robertson tiles were installed in most original Levittown homes. Historical marker dedicated on August 23, 2017.



CULTURAL HERITAGE

The borough's historic buildings and other features provide a visible link to the past. The borough also has a heritage based on traditions and a way of life passed down through generations of residents that should be preserved. The traditions of a walk along the Delaware Canal, shopping downtown, attending the Morrisville schools and churches and other organizations link residents with each other and their forebears. These links are important and should be maintained. This heritage can be celebrated and shared with others to strengthen ties amongst each other and the past. Interpretations of history at Summerseat and borough celebrations, such as parades and fairs, transfer local cultural heritage onto new generations.

CEMETERY PRESERVATION

The Morrisville Borough private cemetery in the southern half of the borough located at South Pennsylvania Avenue and Anderson Avenue, was established in 1849 and contains numerous veterans' graves, including graves from the Civil War, and Benjamin Franklin's grandson. The cemetery forms a significant part of the borough heritage, particular for Memorial Day events.

Cemeteries hold a historical connection to the local community and have the opportunity to bring residents closer to the past. This spaces offers stories and history, art and craftsmanship, and open space for communities to gather. As cemeteries have evolved over time, society's attitudes towards life and death have changed. This space does not only have the ability to function as a memorial, but as a space for the living to enjoy the present day and to understand the past.

The primary issue facing many older cemeteries are maintenance and space for new burials. Fewer interments lead to less income for the landowner and less funding for maintenance. When cemeteries are not maintained the likelihood of vandalism may increase. Pennsylvania statutes provide a number of



regulations for cemeteries to deal with the many older and historic cemeteries in the state. For example, the Burial Grounds Municipal Control Act permits courts to designate local governments as caretakers of neglected burial grounds. The local government must then finance maintenance and permit public access

CHAPTER SUMMARY

PRINCIPLES – Heritage, Resilience

FINDINGS

- The Pennsylvania Historical and Museum Commission (PHMC) is the official history agency of the Commonwealth of Pennsylvania. The PHMC is responsible for the collection, conservation, and interpretation of Pennsylvania's historic heritage.
- Four historic resources have been identified and listed on the National Register of Historic Places due to their national significance: Summerseat, Calhoun Street Bridge, Pennsylvania Railroad Bridge, and Gershom Craft House.
- Summerseat and the Delaware Canal are both designated as National Historic Landmarks.
- The Historic Morrisville Society seeks to preserve the heritage of the area through exhibits of local history. The society operates Summerseat and presents exhibits and hosts events throughout the year.

COMMUNITY SURVEY RESULTS

- About 39 percent of respondents to the community survey stated that they would like to see historic preservation issues better addressed in the borough.

RECOMMENDATIONS

- Conduct a historic survey in order to identify any historic resources that are to be protected.
- Review the zoning ordinance to ensure that existing standards promote historic preservation; add or amend provisions for adaptive re-use and delay of demolition.
- Adopt design guidelines for downtown and designated historic areas.
- Promote the history of the borough through tourism and signage.
- Coordinate efforts to preserve and maintain Morrisville Cemetery.
- Support community events which strengthen cultural heritage.
- Apply for grants offered by the Pennsylvania Historical and Museum Commission.
- Nominate Graystones to the National Register of Historic Places.

Chapter 9. Transportation and Circulation

The function of a transportation system is to provide for the movement of people and goods between places. The adequacy of this system is influenced by the type and size of population growth and land development that occurs along the network.

Proper land use planning is critical to prevent adverse effects to the transportation network due to improper development. Conversely, when transportation improvements are designed, addressing the needs of the general public, individual property owners and neighborhoods are important. Where appropriate, transportation improvements should be designed as multiple-use facilities that provide for pedestrians of all abilities, bicycles, public transit, and automobiles.

Sustained economic development of the borough depends on the advantages that a well-functioning transportation system provides. Maintaining and enhancing the quality and efficiency of streets, highways, and railroads in the borough will support economic development. This chapter examines the existing transportation system in the borough and provides analysis and recommendations for the various modes of transportation that serve it.

PUBLIC TRANSPORTATION

The Southeastern Pennsylvania Transportation Authority (SEPTA) provides public transportation to borough residents. Morrisville Borough is served by the 127 SEPTA bus route. The Route 127 provides service to several shopping centers along West Trenton Avenue and Pennsylvania Avenue before continuing to Trenton, New Jersey. The Route 127 bus begins at the Oxford Valley Mall in Middletown Township and ends at the Trenton Transit Center station. As the bus travels from Middletown to Morrisville, it stops at Sesame Place, the Levittown Train Station and the Pennsbury Regional Shopping Center. Connections to other SEPTA bus routes can be made at Oxford Valley Mall, while connections to Amtrak and NJ Transit train and bus routes can be made at the Trenton Transit Center.

SEPTA rail service provides access to Philadelphia and Trenton. Morrisville residents are close to SEPTA's Levittown rail station, located in Tullytown Borough. The Levittown station is a stop on SEPTA's Trenton regional rail line, which runs between Philadelphia and Trenton, connecting with NJ Transit rail lines in Trenton, to provide service to New York City. The SEPTA station in Yardley Borough, served by the West Trenton regional rail line to Philadelphia, is also within commuting distance for Morrisville residents.

Morrisville residents can access Amtrak's Northeast Corridor Service at the station at Cornwells Heights in Bensalem Township or at the station in Trenton. Amtrak's Northeast Corridor rail line provides access to New York, Boston, and Washington, D.C.

As development and redevelopment takes place, borough officials should examine how the use of public transportation will be affected. The borough should maintain a dialogue with SEPTA to ensure that needs of its residents are being met.

MORRISVILLE BOROUGH TRAIN STATION

According to the *Bucks County Waterfront Revitalization Plan* (2005), the area between the Delaware Canal, the SEPTA Trenton rail line, and South Pennsylvania Avenue is identified as an "opportunity area"

with the potential for the construction of a new rail station and transit-oriented development. Transit-oriented development (TOD) is a residential area with a mix of commercial and office uses designed to maximize access to and promote public transportation. A TOD neighborhood typically consists of a train station at its center with residential areas within one-half mile from a transit stop, since this is considered to be within reasonable walking distance for pedestrians.

The key aspect of developing the opportunity area into a TOD is the establishment of a new SEPTA station at the site. As of the development of this comprehensive plan, SEPTA had no plans to construct a new station in Morrisville Borough. Therefore, the borough should work with SEPTA and Bucks County to conduct a feasibility study for a new station in this area of the borough.

Previously, the borough has engaged with the Bucks County Redevelopment Authority to develop a Redevelopment Area Plan of the area known as the Morrisville Town Center, in accordance with the Pennsylvania redevelopment law. This redevelopment area broadly encompasses the same area identified as a potential TOD in the Bucks County Waterfront Revitalization Plan.

The area surrounding the potential train station site is zoned I-2 Industrial District. This district permits rail stations, offices, and a variety of industrial land uses. The site is envisioned as a planned industrial park for research and technology.

Although residential areas would be within walking distance of the rail station—if a station were developed at this site—the district is not a transit-oriented development district, as residential uses are not permitted in the I-2 District. If the possibility of a Morrisville rail station moves closer to reality, review and revision of zoning in the I-2 and surrounding districts should take place, to allow for TOD encompassing residential uses and possibly to realign industrial and other land uses accordingly.

Currently, the site of the potential rail station is occupied by a private employer. The borough could consider an alternate location at the intersection of Washington Street and East Philadelphia Avenue. An existing underutilized parking lot could service commuters and paved pathways leading towards the track could accommodate pedestrians and passenger waiting areas. The surrounding area of this site includes several zoning districts, including R-2A, R-3, and R-4. In these zoning districts, residential uses are permitted by-right and the nearby C-2 zoning district could accommodate new transit-oriented businesses. The borough would need to revise the zoning ordinance to permit rail stations at this location.

STREET HIERARCHY

Street hierarchy or road classification is the method by which streets and highways are categorized into classes, or systems, according to the type of service they provide. Policy guidelines regarding uniform road classification are especially important in light of the reality that funding levels for roads, which are the backbone of the transportation system, have not kept pace with the proliferation of motor vehicles, housing, and businesses.

The backlog of needed road maintenance and construction projects has grown. Due to the reduction in funds available for highway capital improvement projects throughout Bucks County and the Commonwealth, it is essential that municipalities re-evaluate existing roadways and institute policies and regulatory measures to ensure that they continue to function as efficiently as possible.

The road classification system recommended for Morrisville Borough is based upon five classes: expressway, arterial, collector, primary, and secondary. These roadway types are defined in the borough subdivision and land development ordinance. Roadway dimensional requirements are listed in the borough subdivision and land development ordinance. The following provides the classification for each street in the borough as shown in the Morrisville Borough Highway Classification Map.

Expressways

Designed to provide the highest level of mobility for large, high-speed traffic volumes. Expressways are limited-access facilities that provide access to regional business and employment centers. U.S. Route 1 is the only expressway in the borough.

Arterial Streets

Designed to carry large traffic volumes and high-speed traffic with controlled access to abutting properties. Access onto arterial streets should be strictly controlled because the proliferation of turning movements at individual driveways to properties will degrade the function of an arterial street. New access points should be minimized and well-spaced so that speeds on the arterial road can be maintained at appropriate levels. According to the borough's Highway Classification Map, there are no arterial streets in Morrisville Borough.

Collector Streets

Designed to convey moderate volumes of traffic to and from arterial streets and to other collector streets. They also provide access to business, industry, and public buildings. Access to collector streets from abutting properties should be carefully controlled, just as for arterial streets. Collector streets include East and West Trenton Avenues, East and West Bridge Streets, North and South Pennsylvania Avenues, East and West Philadelphia Avenues and North and South Delmorr Avenues.

Primary Streets

Designed to carry a moderate volume of traffic, to intercept secondary residential streets and driveways of high-density residential uses, industrial parks, and other high traffic-generating uses. They also provide routes to collector streets and community facilities. The only streets identified as primary on the Highway Functional Classification Map are East and West Post roads.

Secondary Streets

Designed to provide access to abutting properties and a route to access primary streets. All streets not classified as expressway, arterial, collector, or primary are considered secondary streets.

According to Section 390-22.C of the subdivision and land development ordinance, the "Morrisville Borough Street Plan" contains the arrangement of streets in the borough. However, this Street Plan does not appear to exist. Therefore, this reference should be removed from the subdivision and land development ordinance.

Furthermore, section 465-34.A of the zoning ordinance refers to the Highway Classification Map. However, the categories defined in Section 390-23.D of the subdivision and land development ordinance do not match the categories found on the Highway Classification Map. Specifically, the subdivision and land development ordinance references Alleyways as a roadway classification and does not include Expressways as a classified roadway. To ensure consistency throughout its ordinances, the borough should revise the Highway Classification Map to include Alleyways and revise section 390-23.D of subdivision and land development ordinance to add Expressways to the streets standards section.

BRIDGE CONGESTION

Several studies prepared for the Delaware River Joint Toll Bridge Commission (DRJTBC) over the past 40 years have identified the need to expand bridge capacity over the Delaware River. The primary transportation problem within Morrisville Borough has been and continues to be traffic congestion during peak hours. The Calhoun Street Bridge, Lower Trenton (Trenton Makes), and Morrisville-Trenton Bridge in Morrisville operated by the DRJTBC are currently operating at or near capacity conditions.



CALHOUN STREET BRIDGE

In 2002, the DRJTBC completed the Southerly Crossings Corridor Study to quantify existing bridge conditions and to forecast future conditions to create measures to abate future congestion. The study predicted that by 2025 traffic volumes will grow by 25 percent beyond their 2002 numbers. This has come to fruition on one of the three bridges; the Morrisville-Trenton Bridge has an annual daily traffic count that is 25 percent over the 2002 number. However, the Calhoun Street Bridge and Lower Trenton Bridge have actually seen their ADT decrease in recent years. Still, over the next 20 years, PennDOT data indicates that daily traffic is expected to increase 14 percent to 30 percent across these bridges, thereby indicating congestion on Morrisville's bridges will be an ongoing issue.

BRIDGE CONDITIONS

Since 2008, the Delaware River Joint Toll Bridge Commission has rehabilitated two of the three bridges that extend from Morrisville into Trenton, New Jersey. The rehabilitation of the Morrisville-Trenton Bridge was completed in 2009. This bridge carries U.S. Route 1 over the Delaware River between Trenton,



MORRISVILLE-TRENTON BRIDGE

New Jersey and Morrisville. The major feature of this rehabilitation was widening it to accommodate a northbound lane heading to Trenton. Reconstruction of pavement at both entrances of the bridge, adding sound barriers on the Morrisville side of the bridge, and modifying the interchanges in Morrisville to provide better access onto Pennsylvania Avenue were also a part of the rehabilitation effort. Following the bridge's rehabilitation, the annual daily traffic has increased from 50,000 to 61,000 vehicles per day.

Following the rehabilitation of the Morrisville-Trenton Bridge, the Calhoun Street Bridge underwent its own rehabilitation. Completed in 2010, the historic wrought iron bridge had its roadway floor system replaced, lighting added, and the iron truss super structure was blasted clean and painted. Since 2008,

the annual daily traffic seen on the bridge has decreased, going from 18,000 vehicles per day to 16,500. Lastly, the Trenton Makes Bridge was reconstructed in 1997 and currently has an annual daily traffic of 15,300.

In the summer of 2019, the first span of the Scudder Falls Bridge replacement opened, with the second span on track to be completed by 2021. Once fully operational, tolls will be collected in the southbound direction of the Scudder Falls Bridge. According to the Long Term Traffic and Revenue Report, 2017, approximately 1,700 vehicles daily will shift from the Scudder Falls Bridge to the Trenton-Morrisville Bridge. This increase is based upon the assumption that commuters will no longer incur any cost savings by going over the previously free Scudder Falls Bridge. Since tolls will now be required at both bridges, commuters will opt to take the shorter route over the Trenton-Morrisville Bridge to reach their destinations. It is assumed that this additional volume can be accommodated since the Trenton-Morrisville Bridge was recently redesigned. Once the Scudder Falls Bridge is completed, Morrisville Borough should work with Delaware River Joint Toll Bridge Commission (DRJTBC) and state officials to ensure that any increase in traffic volume does not negatively impact the carrying capacity of the Trenton-Morrisville Bridge.

The Southerly Crossings Corridor Study recommended multiple transit and congestion management strategies for relieving traffic delays for these three bridges. Although the study was conducted in 2002, many of the issues raised are being realized today. The major findings of the study include:

- Without improvements, all bridges in the corridor will experience capacity failure (congested flow) at peak hour and beyond in the peak direction in 2025;
- Investments in public transit would have varying degrees of impact on bridge congestion. Passenger rail to the Morrisville Rail Yard and express bus service from Oxford Valley Mall to the Lawrenceville Mall warrant further investigation. Extending NJ Transit's River Line light rail from Trenton to the West Trenton Station would have minimal impact on bridge congestion;
- The Calhoun Street and Lower Trenton Bridge need to be considered for traffic flow direction readjustment. Options to accomplish this include implementing reversible lanes or operating the Calhoun Street Bridge as a one-way pair with the Lower Trenton Bridge. These options will require further study; and
- The construction of an additional bridge, named in the study as the Falls-Hamilton Bridge, is not justified based on the fact that it would require a sizeable financial investment as the highest-cost option, yet would not yield an acceptable level of service.

The Southerly Crossings Corridor Study has identified the transportation deficiencies associated with traffic crossing the Delaware River. It is critical that Morrisville Borough works with the county planning commission, DRJTBC, DVRPC, and state entities to develop strategies to address future congestion issues.

ACCESS MANAGEMENT

Controlling the number of access points allows roads to perform their intended function. When access is not controlled, the number of conflict points where roadway traffic merges increase. This places serious demands on the roadway capacity, as well as making conditions unsafe for vehicles entering or exiting the highway. The conflict between safe and efficient movement of traffic and access to abutting properties has long been recognized as a limiting constraint in traffic operations and transportation systems management.

The basic approach to access management is to minimize the number of conflict points along roads while providing safe and efficient access to properties fronting roads. A conflict point is a place where two vehicles come together or their paths cross and one or both drivers must take evasive action to avoid collision.

Access management is both a land use and traffic issue. It includes such techniques as shared driveways, access to secondary roadways, driveway spacing, planted median strips, protected left-turn lanes, and any other appropriate access control measures. It also calls for land use controls and incentives that are keyed to the development policies of the community and the capabilities of the transportation system.

The planning challenge of access management is not merely how to provide driveways or how to design roadways, storage areas, or parking. The challenge is how to not limit new development in order to expedite traffic flow. Therefore, the borough must take into account the access requirements of businesses that may relocate into the area, as well as those of vehicles traveling through the area.

Morrisville Borough should determine if there are roadways within the borough that are problematic due to poor access management. If so, the borough should develop an access management plan. This plan should include an analysis of current and projected land uses and their associated traffic conditions, as well as an implementation plan that establishes priorities and the responsible agencies for completing the roadway improvements or municipal ordinance amendments.

PennDOT has developed model ordinance language for access management. PennDOT's Center for Program Development should be consulted during development of the plan. This plan should be adopted by the borough and included in the subdivision and land development review process.

The preparation and adoption of an official map indicating future right-of-way, new public roads, and driveway access points is also a very effective means of implementing major components of the access management plan. Common access for several parcels of land can be included as a part of the map, thus reducing traffic congestion and improvement the free flow of traffic.

TRANSPORTATION IMPROVEMENT PROGRAM

The Delaware Valley Regional Planning Commission (DVRPC) produced the FY 2019 Transportation Improvement Program (TIP) for Pennsylvania for Bucks, Montgomery, Chester, Delaware and Philadelphia counties. All projects that intend to use federal funds, along with all non-federally funded projects that are regionally significant must be listed on TIP. DVRPC and its member governments that respond to transportation needs of the region prepare the TIP program and ensure projects comply with federal and state policies. Projects can be multi-modal; that is, they include bicycle, pedestrian, Intelligent Transportation Systems (ITS), and freight related projects, as well as traditional highway and public transit improvement projects.

In the southeastern Pennsylvania region, the TIP contains over 400 projects totaling more than \$5.5 billion over the four-year span of the program. The list of transportation priorities are financially constrained by the Fixing America's Surface Transportation Act (FAST Act). The only project currently programmed on the TIP for Morrisville is a connection to complete a critical juncture of the Delaware and Lehigh Canal Trail where the trail intersects with Bridge Street.

Morrisville Borough should work with county agencies and regional partners to develop a list of transportation improvements needed within the borough. These improvements should be ranked and submitted to the county for consideration for future regional TIPs.

ACCESS AND MOBILITY

More and more Americans are opting to live in communities that offer amenities such as sidewalks, bike facilities, and generally value people over cars. Therefore, Morrisville Borough should not only continue to pursue proper roadway management, but promote and develop transportation networks and facilities that place pedestrians, bicyclist, and walkability at its forefront.



COMPLETE STREETS

Critical to creating a safe and walkable community is calming area traffic. Typically these measures are mainly used to address speeding and high cut-through traffic volumes on neighborhood streets. If left unaddressed these issues can create an atmosphere in which non-motorists are intimidated or even endangered by motorized traffic. By addressing high speeds and cut-through volumes, traffic calming can increase both the real and perceived safety of pedestrians and bicyclists and improve the quality of life within the neighborhood.

The role of physical measures in traffic calming is usually emphasized because these measures are self-policing. In other words, by utilizing smarter street design, motorized vehicles will slow down in absence of a police presence. To help drive this development, the borough should pursue adopting an official complete streets policy. A complete streets policy would set forth an official vision, design standards, and performance measures to establish sustained long-term development of complete streets facilities. Furthermore, a complete streets policy would serve to compliment the borough's existing active transportation plan and waterfront redevelopment plans by providing design standards that would help achieve those plan's overarching goals.

Several areas in the borough may be appropriate for complete streets initiatives. The area of Bridge Street near the Lower Trenton (Trenton Makes) Bridge could be improved through the use of landscaping, bike lanes, and reduced lane width.

These and other complete streets measures could make the Bridge Street section of the central business district, running from Delmorr Avenue to the Delaware & Lehigh Canal Trail, more pedestrian-friendly, which would complement revitalization and economic development activities. Therefore, appropriate techniques for these areas should be investigated.

COMPREHENSIVE PLAN UPDATE

In order to initiate complete streets programs, Morrisville Borough should develop specific complete streets design standards and policies. Residents of any neighborhood that could be affected by the addition of these measures should participate in the development of these goals and policies.

The goals of a complete streets policy should include the following:

- Considers the needs of all users and all modes;
- Applies to all phases of applicable projects;
- Emphasizes connections with existing facilities;
- Understood by all agencies with jurisdiction over roadways that it pertains to all roadways;
- Uses the best and latest design standards and is flexible;
- Complements the community's context;
- Sets appropriate performance measures; and
- Includes implementation steps.



Sample Complete Streets Implementation

A complete streets policy would affect driver behavior and improve the safety of the street for all roadway users, including pedestrians and bicyclists. The techniques must be designed so they do not impede emergency access by police, fire, ambulance, or rescue personnel. Finally, allowing for public participation during the creation of the complete streets policy will help to ensure acceptance of future facilities.

PEDESTRIANS AND BICYCLISTS

Providing facilities for bicycling and walking is important for both recreation as well as for active, non-polluting transportation, including for community members who do not drive. Sidewalks and bike lanes support and promote active healthy lifestyles, reduce congestion, and can increase local commerce and tourism.

Providing a walkable environment is essential to efficient transportation. Every trip begins and ends with walking. Walking remains the cheapest form of transportation for all people, and the construction of a walkable community provides the most affordable transportation system any community can plan, design, construct, and maintain.

Walkable communities support sustainable urban environments (both natural and economic) and lead to more social interaction, physical fitness, and diminished crime and other social problems. Walkable

communities are typically more livable communities and can contribute to a better quality of life for the people who live in them.

Through the provisions of the subdivision and land development ordinance, the borough is able to ensure new developments, both residential and nonresidential, are provided with sidewalks. Sidewalks will provide alternative methods to make certain needed trips, in addition to their use for exercise and recreation.

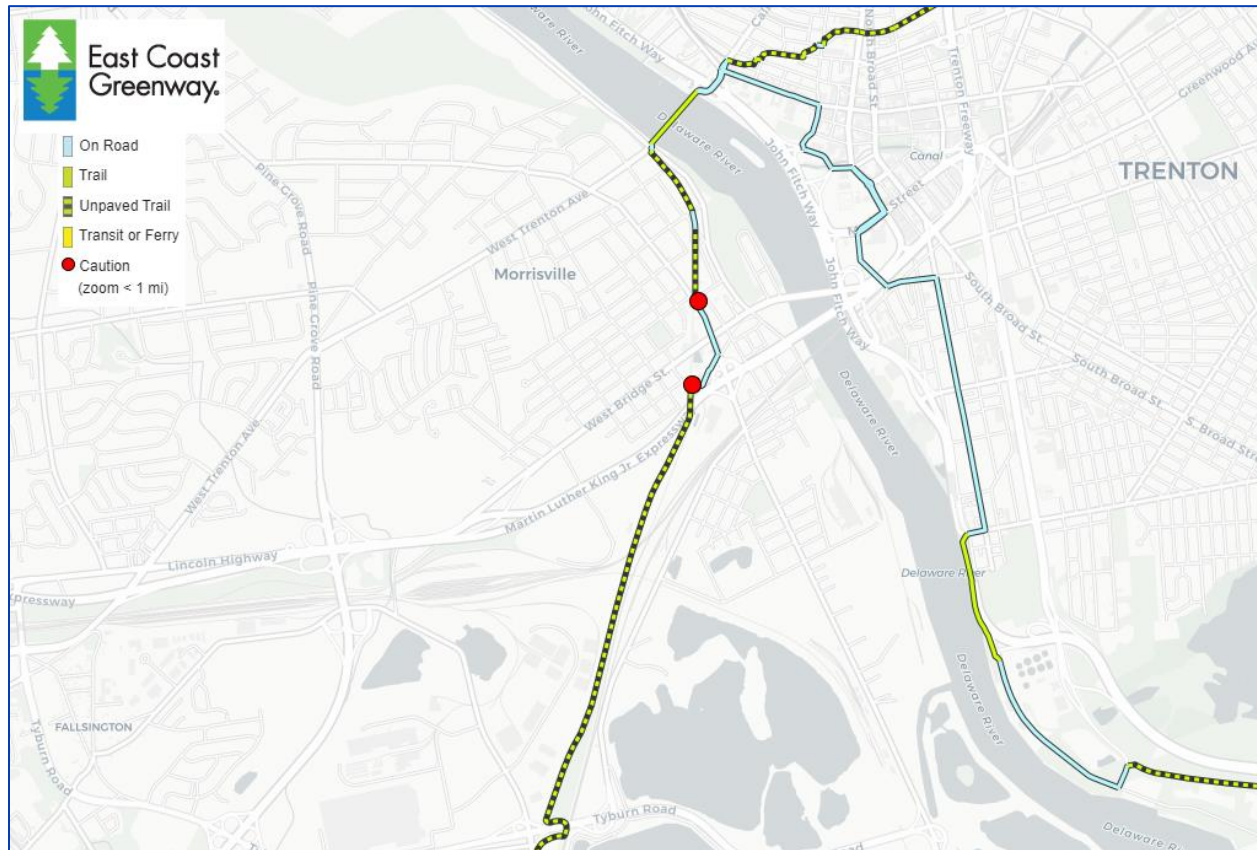
It is important that sidewalks be provided in higher-density residential zoning districts and nonresidential areas, where walking should be encouraged as an alternative to the use of the automobile. Section 390-45 of the subdivision and land development ordinance requires sidewalks to be placed on both sides of the street. There should be compelling reasons for the waiver of the sidewalk standards of the ordinance.

Furthermore, we recommend the borough pursue the development of pedestrian facilities identified in the *Morrisville Borough Active Transportation Plan, 2019*. The plan identifies 11 “Active Routes” which function as trails that encourage walking and biking throughout the borough. The plan identifies gaps in the existing sidewalk network, which if completed would complete the majority of the 11 routes. The plan also identifies key pedestrian crossings, trail connections, and wayfinding amenities to enhance the overall user experience. The borough should work with developers, using existing language in the subdivision and land development, to push the active transportation plan to fruition.

In many communities, bicycle systems are important and much appreciated facilities. The subdivision and land development ordinance could be revised to include requirements for bicycle improvements in addition to or in place of sidewalks in appropriate areas. A list of priority bicycle segments and facilities that align with those found in active transportation plan should be prepared. The priority list should focus on facilities linking residents to transportation centers, schools, shopping areas, parks and playgrounds, employment centers, and other key community locations.

The borough should give heavy consideration to developing potential bicycle routes consisting of a bike lane or trail, along East Trenton Avenue to the Calhoun Street Bridge and along Bridge Street to the Lower Trenton (Trenton Makes) Bridge. The Calhoun Street Bridge accommodates Morrisville’s portion of the East Coast Greenway, a bike trail stretching from the Florida Keys to Maine’s border with Canada. Developing facilities along East Trenton Avenue would directly link Morrisville with the northern portion of Trenton and through to other areas of New Jersey. Developing facilities along Bridge Street to the Trenton Makes Bridge will provide residents with easy access to the Trenton Transit Center which provides connections to SEPTA, NJ Transit, and Amtrak routes, specifically those serving New York City and Philadelphia. Furthermore, where Bridge Street crosses over the Delaware & Lehigh Canal Trail, a new direct connection to the canal trail is scheduled to be built, which would allow for easy access to the Delaware & Lehigh Canal Trail linking Morrisville south to communities in Philadelphia and to the northern portions of Bucks County.

These assets, when combined with a complete streets policy will ensure access and mobility for all residents of Morrisville and contribute to sustainable economic and ecological development.



The map above shows the East Coast Greenway's path through Morrisville and into Trenton. The entirety of the map can be viewed at <https://map.greenway.org>

CHAPTER SUMMARY

PRINCIPLES – Mobility, Equity

FINDINGS

- The Southeastern Pennsylvania Transportation Authority (SEPTA) provides public transportation to borough residents. Morrisville Borough is served by the 127 SEPTA bus route. The Route 127 provides service to several shopping centers along West Trenton Avenue and Pennsylvania Avenue before continuing to Trenton, New Jersey.
- SEPTA rail service provides access to Philadelphia and Trenton. Morrisville residents are close to SEPTA's Levittown rail station, located in Tullytown Borough. The Levittown station is a stop on SEPTA's Trenton regional rail line, which runs between Philadelphia and Trenton, connecting with NJ Transit rail lines in Trenton, to provide service to New York City.
- The road classification system recommended for Morrisville Borough is based upon five classes: expressway, arterial, collector, primary, and secondary. These roadway types are defined in the borough subdivision and land development ordinance.
- The Calhoun Street Bridge, Lower Trenton (Trenton Makes), and Morrisville-Trenton Bridge in Morrisville operated by the DRJTBC are currently operating at or near capacity conditions.
- Traffic calming measures are mainly used to address speeding and high cut-through traffic volumes on neighborhood streets. By addressing high speeds and cut-through volumes, traffic calming can

increase both the real and perceived safety of pedestrians and bicyclists and improve the quality of life within the neighborhood.

- Walkable communities support sustainable urban environments (both natural and economic) and lead to more social interaction, physical fitness, and diminished crime and other social problems. Walkable communities are typically more livable communities and can contribute to a better quality of life for the people who live in them.

COMMUNITY SURVEY RESULTS

- The majority (97 percent) of respondents use a car to get around outside of their commute to work.
 - o 17 percent bike to get around
 - o 11 percent take the train to get around
 - o 32 percent walk to get around
 - o 4 percent take the bus to get around
 - o 8 percent of respondents use a rideshare app to get around
- The majority (92 percent) of respondents use a car to commute to work.
 - o Only 1 percent of respondents bike to get to work
 - o 7 percent of respondents use the train for their commute
 - o 4 percent of respondents walk to work
 - o 9 percent work from home
 - o 1 percent take the bus to get to work
- Twenty-three percent of respondents would like to see traffic calming measures better addressed in the borough.
- Twenty-eight percent of respondents would like to see sidewalks and trails better addressed in the borough.
- Forty-five percent of respondents would like to see road maintenance and improvements addressed.

RECOMMENDATIONS

- Work with SEPTA to conduct a study on the feasibility of train station for Morrisville; ensure that the public transportation needs of its residents are being met.
- Work with the Bucks County Planning Commission to develop a list of transportation improvements needed within the borough. These improvements should be ranked and submitted to the county for consideration for future regional TIPs.
- Develop complete streets policies and design standards, including the participation of residents from any neighborhood that could be affected by these new standards.
- Develop pedestrian and bike facilities found within the *Morrisville Borough Active Transportation Plan*, 2019.
 - o Work with developers to fill out gaps in within the sidewalk network.
 - o Develop a list of priority bicycle routes consisting of a bike lane or trail to push towards completion in the coming years.
 - o Work with state and regional partners to develop bike facilities along East Trenton Avenue and Bridge Street to the Calhoun and Lower Trenton bridges corridor.
 - o Ensure the requirements of the SALDO and Zoning ordinance are enforced to push pedestrian and bike facilities to completion.
- Perform analysis of borough roadways to identify if access management is necessary. If deemed necessary, develop an access management plan.

COMPREHENSIVE PLAN UPDATE

- Work with the Delaware River Joint Toll Bridge Commission to implement solutions to congestion problems identified in the *Southerly Crossings Corridor Study*, 2002 and adapt those strategies to today's conditions.
- Upon completion of the Scudder Falls Bridge work with Delaware River Joint Toll Bridge Commission (DRJTBC) and state officials to ensure that any increase in traffic volume from the does not negatively impact the carrying capacity of the Trenton-Morrisville Bridge.
- Correct the discrepancies of roadway classification found between the subdivision and land development ordinance and official highway map.

Chapter 10. Water Resources

The coordination of water resources, wastewater facilities, and land use planning is a vital component to the comprehensive plan and each is a part of the borough's interrelated water system. Water and wastewater facilities are key factors in determining the location, nature, and density of future development. Periodic assessment of water resources, wastewater disposal methods, and service areas is necessary to ensure that adequate facilities can be provided to satisfy future development needs. Effective stormwater management practices can ensure that water quality is protected, peak stormwater flows are controlled, and groundwater recharge is enhanced.

Almost as much as zoning, and perhaps more so in some ways, the availability and access to water and sewer systems influences where new development takes place and at what intensity. The development of sewer systems and water treatment systems that service entire communities has played a large part in the outward expansion of urban areas. Development capacity is limited where water and sewer must be obtained and treated on-site because a significant portion of the site must be devoted to waste storage and treatment.

The lack of appropriate water and sewage facilities can also be a significant threat to public health. Untreated or improperly treated wastewater or sewage which comes into contact with the surface of the ground, or with surface waters, allows disease organisms and harmful bacteria to grow and spread, and can contaminate extended areas if left untreated. It can spread into groundwater supplies potentially impacting large populations. Proper treatment of wastewater before it reaches drinking water sources is a key element of water systems planning and is vital to protecting public health and welfare.

Water resources planning can be broken into three primary factors: water supply, wastewater disposal, and stormwater management. The following discussion addresses the specific concerns and considerations of each.

WATER SUPPLY

Many Bucks County communities are concerned with water supply issues related to the safe yield of groundwater withdrawal and the potential reduction in groundwater recharge to local aquifers. The Pennsylvania Municipalities Planning Code (PaMPC) directs municipalities to consider water facilities in municipal comprehensive planning, zoning, and the development review process. Section 301(b), which became effective January 2001, states that the comprehensive plan shall include a plan for the reliable supply of water, considering current and future water resource availability, uses and limitations, including provisions adequate to protect water supply sources. Any such plan shall be generally consistent with the State Water Plan and any applicable water resource plan adopted by the Delaware River Basin Commission.

Sources of water supply throughout Bucks County include both surface water and groundwater. The Morrisville Municipal Authority Water Filtration Plant is supplied by surface water from the non-tidal section of the Delaware River, which is managed by the Delaware River Basin Commission. The plant is located at River Road and Ferry Road. The plant has been in operation since 1968 and is employed to operate 24 hours a day, 7 days a week. Three water storage tanks located off West Trenton Avenue, north of the borough, on North Delmorr Avenue near the Calhoun Street Bridge, and off Riverview Avenue in

the south part of the borough, complement the system. The system serves all of Morrisville as well as portions of Lower Makefield Township and Falls Township.

A source water assessment was completed in June 2002 by the PaDEP; results of the assessment found that the Delaware River is susceptible to contamination from treated and untreated sewage, urban, residential and agricultural runoff, industrial facilities, storage tanks, landfills, spills, and accidents. The Morrisville Municipal Authority Water Filtration Plant published a 2018 water-quality report that states the water provided meets or exceeds established water-quality standards.

WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

The Morrisville Municipal Authority owns and operates the wastewater treatment plant located on the Riverview Avenue extension, just off Delmorr Avenue. The plant serves about 40,000 residents in a 10-square-mile service area that covers Morrisville, Yardley, Lower Makefield, and a portion of Falls Township. The plant treats 8.7 million gallons per day and is funded by the sewer rents collected. It is licensed and regulated by the PaDEP. The plant consists of two pure oxygen (UNOX) systems with two sets of secondary clarifiers. Both clarifiers feed a new tertiary filter system which was completed in March 2017. Plant sludge is run through DAF (dissolved air flotation) and processed by a filter belt press. Dried sludge is lime-stabilized for disposal at GROWS North Landfill

WASTEWATER FACILITIES PLANNING

Consideration of wastewater collection, treatment, and disposal are important factors in comprehensive land use planning. Coordination of the borough's sewage facilities planning and land use planning is a primary aspect of this comprehensive plan. Planning for the proper types of sewage systems aids in implementing the borough's land use goals and aids in ensuring the quality of the natural environment.

The proper planning for wastewater collection, treatment, and disposal is an important consideration in the comprehensive planning process for a community. Section 301(4) of the PaMPC (Act 247) requires that a plan for sewage facilities be included in a comprehensive plan. The Pennsylvania Sewage Facilities Act (Act 537) requires each municipality to have an official wastewater facilities plan, and unless proposed facilities are consistent with the plan, the DEP cannot issue permits for the facilities. However, the applicants may request plan revisions to the municipal sewage facilities plan and may appeal a municipal refusal to revise the plan.

Act 537 was enacted to eliminate existing and prevent new environmental health problems and pollution through comprehensive sewage facilities planning. A major provision of Act 537 requires that every municipality in the Commonwealth develop and maintain an up-to-date sewage facilities plan. The Act establishes requirements for the plan and allows reimbursement of up to one-half the eligible costs incurred in preparing the plan.

The purpose of a municipality's sewage facilities plan is to:

- Protect the health, safety and welfare of the citizens living in the municipality by correcting malfunctioning on-lot septic systems, overloaded treatment plants or sewer lines, and wildcat sewers.
- Prevent future sewage disposal problems from occurring.
- Provide protection for both the groundwater and surface waters of the Commonwealth through coordinating planning for the sanitary disposal of sewage with a comprehensive program of water quality management.

During the period 1960 to 1970, the Morrisville Sewage Treatment Plant was expanded and began accepting sewage from portions of Lower Makefield Township and Yardley Borough. The Bucks County Sewage Facilities Plan (1970) proposed that the expanded plant serve, among others, additional areas in Lower Makefield Township, by 1980. After 1980, the plan intended that the plant would serve the remaining portions of the township within the watersheds draining to the Delaware River which are tributary to the plant.

During the period 1970 to 1975, significant sewer expansion took place in Lower Makefield Township as a result of development activity. Consistent with the 1970 county plan, the Core Creek Branch of the Neshaminy Interceptor was completed and Morrisville Borough expanded and upgraded its treatment facility. Contrary to the 1970 county plan, the Lower Neshaminy Treatment Plant was not constructed and flows were diverted to the City of Philadelphia, Northeast Wastewater Treatment Facility via the Neshaminy Interceptor. In 1975, Lower Makefield Township completed the Lower Makefield Township Sewerage Facilities Plan as its official wastewater facilities plan and it currently remains as such. That plan recommended that wastewater from portions of Dyers Creek, Buck Creek and Brock Creek Drainage Basins be conveyed to the Morrisville Sewage Treatment Plant and that future flows from the Silver Lake and Black Rock Basins in Lower Makefield also be conveyed to Morrisville Borough.

After the adoption of the township's sewage facilities plan in 1975, development in Lower Makefield Township had accelerated beyond expectations and, as a result, the Morrisville Sewage Treatment Plant was reaching its hydraulic capacity. Until the Morrisville Sewage Treatment Plant was expanded, as proposed by the township's 1975 Plan, the Heacock Road Sewage Pumping Station was constructed to temporarily pump wastewater from the lower portion of the Brock Creek Basin to the Bucks County Water and Sewer Authority, Core Creek Interceptor system. Once the Morrisville Sewage Treatment Plant was expanded, it was anticipated that the flows would be redirected back to the Morrisville Sewage Treatment Plant, consistent with the township's 1975 Plan.

In 1990, as completion of the Morrisville Sewage Treatment Plant expansion neared, Lower Makefield Township adopted the Lower Makefield Township Sewerage Facilities Plan Revisions that called for the elimination of the temporary Heacock Road Sewage Pumping Station and the implementation of the original recommendations set forth in the township's 1975 Plan. This plan revision was based upon a re-rating of the Morrisville Sewage Treatment plant from 7.1 million gallons per day (mgd) to 8.7 mgd and a proposed expansion and redirection of the flow from the Heacock Road Sewage Pumping Station to the Morrisville Sewage Treatment Plant.

Lower Makefield Township adopted a new comprehensive plan update in 2019. The sewage facilities section of the plan noted that:

The third Act 537 Plan that Lower Makefield Township needs to update is the Morrisville Municipal Authority Service Area. The Morrisville Municipal Authority owns a wastewater treatment plan (WWTP) that is near the end of its useful life and a major upgrade or replacement of the WWTP is required. Lower Makefield Township is currently evaluating all of the options for the long-term treatment and disposal of wastewater that is currently being conveyed to the Morrisville Municipal Authority. The Act 537 Plan will document all of the options and provide an analysis of each option. The Act 537 Plan will ultimately select a long-term alternative for meeting the wastewater needs of this portion of the township for the next twenty years.

The Department of Environmental Protection requires significant upgrades to the plant and the antiquated equipment cannot meet these future regulations. Discussions have taken place to consider

the relocation of the borough's wastewater treatment plant to the Keystone Industrial Port Complex (KIPC). The new site at KIPC has a 40-acre footprint which would allow room for equipment, expansion, and a regional approach for an essential services facility. KIPC is a brownfield site in an industrial areas and is three miles downhill from the current facility.

STORMWATER MANAGEMENT

Stormwater runoff is the term for rainwater that moves over the ground during and immediately following a rainfall event. The area of land through which stormwater runoff drains is referred to as a watershed. In a watershed undergoing land development and urban expansion, the amount of stormwater runoff from a rainfall event can increase dramatically. This is due to the amount of impervious land created by development and the accompanying reduction of natural grassy or wooded areas. Impervious surfaces are created when the natural landscape is covered by solid pavement, rooftops, and buildings that do not allow stormwater runoff to penetrate the ground. Rather than soaking in to the ground (or infiltrating), stormwater rapidly flows over it.

Increases in impervious surfaces are why we get increased amounts (volume) and speeds (rate) of runoff that are responsible for some of the localized flooding and drainage problems. As development increases in a watershed, so do the problems of dealing with greater quantities of stormwater runoff. Failure to properly manage this runoff can result in more flooding; greater stream channel erosion; siltation and sedimentation; and a reduction in groundwater recharge. These problems occur on a regional and watershed level and cannot be solved by individual municipalities. It is important to recognize the watershed scope of stormwater management problems and potential solutions.

Recognizing the need to address this serious and growing problem, the Pennsylvania General Assembly enacted the Pennsylvania Stormwater Management Act (P.L. 864, No. 167, October 4, 1978). Act 167 requires PaDEP to designate watersheds and establish guidelines for the preparation of stormwater management plans for these watersheds. Counties are responsible for preparing the plans and developing ordinance language that municipalities must adopt to manage the volume and rate of stormwater runoff and the impact on water quality.

Morrisville Borough is located in the Delaware River South DEP-designated watershed. The Delaware River South Stormwater Plan was prepared in 2004. The plan requires adequate storage and treatment facilities necessary to capture and treat stormwater runoff specifically for water quality purposes. In addition, a portion of the runoff volume must be infiltrated for groundwater recharge where feasible. There must be an attempt to maximize the capabilities of a development site to meet infiltration criteria. The plan also contains a design criterion to control the runoff release rates to prevent downstream flooding and streambank erosion. Low impact design and conservation development techniques must be considered for development sites, and design sequencing must be followed to avoid sensitive areas on a site, minimize site disturbance, and minimize increases in runoff and impacts to water quality. The plan also contains provisions for ensuring proper long-term operation and maintenance.

FLOODING ISSUES

Flooding during and after major storm events typically occurs along the Delaware Canal and not the Delaware River, although flooding can occur along southern shoreline areas. Areas in the borough most prone to this flooding are Williamson Park and adjacent neighborhoods. Although the levee along the

northern shoreline protects the borough from river flooding, when the canal floods the levee has the effect of keeping floodwaters from flowing back into the river.

Following the devastation of the floods of 2004, 2005, and 2006, the Delaware Canal State Park underwent a \$29 million flood repair project. The flood repair project was paid for by the Federal Emergency Management Agency (FEMA), which picked up 75 percent of the cost, and the Pennsylvania Emergency Management Agency, which funded 25 percent.

Morrisville will receive \$255,000 provided by the state's Commonwealth Financing Authority to pay for a flood protection study and levee accreditation. An accredited levee system is a system that FEMA has determined can be shown on a standard Digital Flood Insurance Rate Map (DFIRM) as providing a one percent annual chance or greater level of flood protection. If the levee is not accredited, the area will be mapped as a high-risk area, known as a Special Flood Hazard Area (SFHA). Floodplain management regulations must be enforced and the federal mandatory purchase of flood insurance applies to all properties in these areas.

The levee study is in a draft phase as of the year 2020. The study will identify the parameters to be accredited, then those recommendations must be implemented before FEMA is able to accredit the levee and remove it from the 100-year floodplain maps. Re-accreditation is required before the borough can move forward with any plans along the Delaware River.

As of 2020, a spillway project is currently under consideration for future development. The potential spillway would be located north of the Calhoun Street Bridge where River Road, the canal, and the Delaware River are closest to one another. The borough also recognizes the need for a pump station behind the levee to pump water back into the Delaware River.

GREEN STORMWATER INFRASTRUCTURE

Green stormwater infrastructure is a term that is generally used to describe several contemporary best management practices for managing stormwater runoff through natural processes that retain, absorb, or filter stormwater before it reaches a storm sewer system. This can reduce runoff caused by impervious surfaces and help to prevent pollutants from entering surface water or the storm sewer system. The difference between traditional stormwater infrastructure and "green" infrastructure is that traditional infrastructure manages stormwater by collecting it and piping away from the site to be treated and released elsewhere, while green infrastructure attempts to retain and treat stormwater on the site by using natural vegetation so that water is absorbed and filtered by plants.



MELVIN AVENUE STORMWATER DETENTION BASIN

Green infrastructure can be both environmentally and economically beneficial, as it reduces both pollution and the need for stormwater systems. At a larger scale, green stormwater infrastructure can include the restoration or preservation of wetlands and floodplains. On a smaller scale, this may include rain gardens, green roofs, rain barrels, planter gardens, street trees that absorb water, the use of pervious paving materials, and vegetated detention basins.

In 2018, the borough received a grant for \$187,922 to improve the stormwater detention basin on Melvin Avenue.

NPDES II REGULATIONS

The National Pollutant Discharge Elimination System (NPDES) is a two-phased federal program that seeks to establish local regulations resulting in a nationwide reduction of the pollutants in waterways. It includes stormwater discharge regulations. The municipal NPDES program must be correlated with the community's Act 167 stormwater management plan.

Phase 1 of NPDES targeted medium and large communities, as well as major and industrial facilities and development projects. Phase 2 of NPDES, aimed at smaller communities and construction activities on sites of 1 to 5 acres, requires municipalities to develop a stormwater management program that meets state permit requirements and includes six minimum control measures: public education and outreach, public participation, illicit discharge detection and elimination, and construction site and post-construction runoff control and pollution prevention. Over an eight-year period, communities must fully establish a program to satisfy these requirements and evaluate its effectiveness. Annual reports must be submitted to PaDEP to signify how the municipality is meeting incremental elements of the program.

Thus far, Morrisville Borough has submitted the requisite annual reports in accordance with NPDES 2 program. The borough is engaged in public education and outreach, providing educational materials to borough residents. Facilities and infrastructure will be inspected on an ongoing basis and the borough will continue to comply with the program requirements.

Bucks County is helping municipalities meet NPDES requirements by advising on methods and ordinance language. That assistance is provided in accordance with Act 167 guidelines and goals to merge critical stormwater management issues, including groundwater recharge, under the umbrella of water resources protection.

CHAPTER SUMMARY

PRINCIPLES – Livability, Equity, Resilience

FINDINGS

- The Morrisville Municipal Authority Water Filtration Plant is supplied by surface water from the non-tidal section of the Delaware River, which is managed by the Delaware River Basin Commission. The system serves all of Morrisville as well as portions of Lower Makefield Township and Falls Township.
- A source water assessment was completed in June 2002 by the PaDEP; results of the assessment found that the Delaware River is susceptible to contamination from treated and untreated sewage, urban, residential and agricultural runoff, industrial facilities, storage tanks, landfills, spills, and accidents.

- The Morrisville Municipal Authority Water Filtration Plant published a 2018 water-quality report that states the water provided meets or exceeds established water-quality standards.
- The Morrisville Municipal Authority owns and operates the wastewater treatment plant located on the Riverview Avenue extension, just off Delmorr Avenue. The plant serves about 40,000 residents in a 10-square-mile service area that covers Morrisville, Yardley, Lower Makefield, and a portion of Falls Township.
- Morrisville Borough is located in the Delaware River South DEP-designated watershed. The Delaware River South Stormwater Plan was prepared in 2004. The plan requires adequate storage and treatment facilities necessary to capture and treat stormwater runoff specifically for water quality purposes. In addition, a portion of the runoff volume must be infiltrated for groundwater recharge where feasible.
- Flooding during and after major storm events typically occurs along the Delaware Canal and not the Delaware River, although flooding can occur along southern shoreline areas. Areas in the borough most prone to this flooding are Williamson Park and adjacent neighborhoods. Although the levee along the northern shoreline protects the borough from river flooding, when the canal floods the levee has the effect of keeping floodwaters from flowing back into the river.

COMMUNITY SURVEY RESULTS

- Over half of the respondents (52 percent) are neutral on stormwater management facilities. 30 percent of respondents are satisfied or very satisfied. Eighteen percent of respondents are unsatisfied or very unsatisfied with stormwater management.
- Respondents noted in written comments that flooding in some neighborhoods is an issue.

RECOMMENDED ACTIONS FOR WATER SUPPLY

- Continue to comply with State Water Plan registration requirements.
- Continue to comply with federal and state Safe Drinking Water Acts and Bucks County Department of Health regulations for water supply systems.
- Continue to maintain interconnection with the Lower Makefield's water supply system.
- Continue planning and working relations with adjacent municipalities with regard to water supply issues.
- Continue to maintain the highest quality water treatment and distribution facilities possible while keeping user rates as reasonable as possible.

RECOMMENDED ACTIONS FOR WASTEWATER

- Continue to comply with federal, state, and Bucks County Department of Health regulations regarding wastewater collection, treatment, and disposal.
- Continue planning with adjacent municipalities of Lower Makefield, Yardley, and Falls to address future wastewater facility needs of the area.
- Coordinate with Lower Makefield Township on the relocation of the borough's wastewater treatment plant to the Keystone Industrial Port Complex (KIPC).
- Continue to maintain the highest quality of wastewater collection, treatment, and disposal facilities possible while protecting the public health and environment and keeping user rates as reasonable as possible.
- Prepare a joint Act 537 Plan in conjunction with Lower Makefield, Yardley, and Falls to be consistent with each municipality's comprehensive plan and zoning ordinance.

RECOMMENDED ACTIONS FOR STORMWATER

- Continue to enforce the recommendations of and ensure ordinance requirements remain consistent with the Delaware River South Stormwater Management Plan.
- Continue to ensure compliance with the NPDES program and file program reports.
- Continue with the flood protection study aimed at the reaccreditation of the levee and spillway project.
- Identify flood-prone areas at the municipal level and determine if further remediation measures are feasible.
- Establish regular maintenance programs for stormwater management facilities.
- Evaluate alternative best management practices (BMPs) for maintaining and retrofitting existing standard stormwater management basins.
- Implement green stormwater practices where feasible throughout the borough.
- Educate residents on how they can reduce their contribution of nonpoint source pollutants, such as fertilizers and pesticides that enter watercourse via stormwater runoff.

Chapter 11. Solid Waste Management

Solid waste management may be described as the process of providing an economically and environmentally sound means of storing, collecting, transporting, processing, and disposing of waste and recyclable materials. In Pennsylvania, Act 101, the Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988, requires that mandated municipalities (municipalities with populations greater than 10,000 and smaller municipalities with a population of 5,000 to 10,000 residents and a population density of more than 300 residents per square mile) establish a program to source-separate and collect a minimum of three types of recyclables, plus yard waste, and to



adopt resolutions, ordinances, regulations, and standards to carry out the responsibilities of solid waste management. These responsibilities may be accomplished through municipal programs or through the regulation of private firms that collect and haul municipal waste.

Act 101 also authorizes counties to prepare and periodically update a 10-year plan to guide the management of municipal solid waste. The *Bucks County Municipal Waste Management Plan* was approved by the Pennsylvania Department of Environmental Protection (PADEP) in January of 2019, and adopted by the Bucks County Commissioners in December of 2018. It was recently submitted to the municipalities, by the County of Bucks, for their adoption. By ordinance, dated June 18, 2018, the plan was adopted by the Morrisville Borough Council. The revised plan provides continued guidance for solid waste management throughout the county to the year 2028.

The management of residential municipal waste collection and recycling is provided by Morrisville Borough to its residents through a municipal contract with a private hauler, Republic Services.

Trash collection is Monday and Thursday for the entire borough; recycling day is based on individual streets. A brochure and collection map is available at Borough Hall. The waste collection program addresses an extensive list of recyclable materials including: aluminum and steel cans, three colors of glass food and beverage containers, #1 and #2 plastic bottles, newspaper, magazines, catalogs, and junk mail, as well as yard waste (which includes leaves, garden residue, shrubbery, tree trimmings and similar material). Residents are provided curbside collection of leaf waste during four weeks in the fall, whereby they may place the leaves in rigid containers or paper bags for pickup. Morrisville Borough also provides leaf drop-off at Riverview and Delaware Avenues. This site is for leaves only and is open during the months of November and December, Monday through Friday, from 7 AM – 3 PM; January through October is open by appointment only. The borough also collects Christmas trees for pickup during a period after the holidays.

Business owners in Morrisville Borough contract directly with private haulers for solid waste collection, disposal and recycling services. Haulers deliver the collected waste for disposal at a nearby landfill or waste-to-energy facility while the recyclable components are delivered to recycling facilities in the region. The borough also participates in the Southeast Pennsylvania Regional Household Hazardous Waste Collection Program. This program provides the opportunity for residents to properly dispose of the hazardous component of the residential waste stream that should not be disposed in local landfills or waste-to-energy facilities.

The figures noted in the table below, reported as part of the borough's annual municipal recycling report for 2018, show the results of the efforts of the residents and businesses of Morrisville Borough. Over 569 tons of recyclable materials were diverted from the waste stream by the residents of the borough, along with an additional 639 tons of material from borough businesses.

Table 41. Morrisville Borough Recycling Program, 2018

Residential Recycling (Tons)	Commercial Recycling (Tons)	Total Reported Recycled (Tons)
569.6	638.4	1,208.0

SOURCE: MUNICIPAL ANNUAL RECYCLING REPORT

Recycling efforts on the part of residents and businesses in Morrisville Borough will continue to conserve limited landfill space and contribute to the long-term sustainability of the environment.

FUTURE NEEDS

The Commonwealth of Pennsylvania set a goal in 1997 to recycle 35 percent of the municipal waste stream by 2003. The Commonwealth of Pennsylvania and the County of Bucks both reportedly reached this goal in 2002. Although this goal has been attained, continued effort on the part of each community is important in order to continue this success and possibly even increase these rates.

Contamination of the recycling stream with non-recyclable material is a growing problem. Efforts to educate residents increase proper residential involvement and decrease recycling contamination rates. Communication with businesses and schools in the borough can provide assurances that they have recycling programs in place and enable borough and county recycling staff to provide assistance in the review of their waste management programs. A program to institute a commercial recycling enforcement program could benefit businesses by reducing their waste stream while at the same time increase the rate and volume of recycling in the borough.

Food waste has become a growing concern for the waste stream. According to United States Environmental Protection Agency, 38 percent of the municipal waste stream is comprised of food and yard waste. The borough can help reduce their overall waste output and divert material away from the landfill by increasing efforts to educate residents on composting and providing programs to help reduce food waste throughout the borough.

These continued efforts will further increase the diversion of materials from the waste stream and these tonnages may be included on the municipal Act 101 Recycling Performance Grant application, resulting in greater grant funding being available to the borough.

CHAPTER SUMMARY

PRINCIPLES – Livability, Resilience

FINDINGS

- Act 101, the Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988, requires that mandated municipalities establish a program to source-separate and collect a minimum of three types of recyclables, plus yard waste, and to adopt resolutions, ordinances, regulations, and standards to carry out the responsibilities of solid waste management.
- Over 569 tons of recyclable materials were diverted from the waste stream by the residents of the borough, along with an additional 639 tons of material from borough businesses.
- Contamination of the recycling stream with non-recyclable material has become a growing problem.
- Food waste is a significant part of the waste stream. According to United States Environmental Protection Agency, 38 percent of the municipal waste stream is comprised of food and yard waste.

COMMUNITY SURVEY RESULTS

- Forty-one percent of respondents to the community survey are satisfied or very satisfied with yard waste and leaf collection community services. Thirty-two percent of respondents are neutral, and twenty-seven percent of respondents are either unsatisfied or very unsatisfied.

SUMMARY OF RECOMMENDATIONS

- Establish a program to obtain information from businesses operating in the borough to assure they have a recycling program in place.
- Expand recycling education efforts to reduce contamination in the recycling stream.
- Establish a yard waste pickup and compost operation and program for the benefit of borough residents.
- Provide a program to offer assistance to businesses and institutions in the borough to review their waste management programs and to assist them in their efforts to divert greater amounts of material from the waste stream.
- Work with the county recycling coordinator to conduct waste audits in businesses and schools to get a better understanding of their current recycling and solid waste output trends
- Sponsor a program, facilitate a program, or support an organization to address illegal dumping and littering problems in the borough.
- Work with county recycling coordinator and the DEP to increase composting education efforts and apply for grants to facilitate residential composting programs in the borough.

Chapter 12. Hazard Mitigation

Hazard mitigation planning is integral to a community as it addresses both natural hazards and those caused by human activity. Stakeholders such as emergency management personnel, elected officials, businesses, institutions, and local historical and environmental organizations collaborate to support proactive efforts that will minimize risks to life and property. Hazardous incidents and disasters can stretch local resources and budgets. Pre-disaster mitigation actions are taken in advance of a hazard event and are essential to breaking the disaster cycle of damage, reconstruction, and repeated damage. With careful selection, pre-planned mitigation actions can be cost-effective means of reducing the risk of loss.

The Disaster Mitigation Act of 2000 requires local and county governments to have an official mitigation plan in order to receive federal disaster mitigation funds. Bucks County adopted its Hazard Mitigation Plan Update (HMPU) in 2016 to identify and assess areas of vulnerability in municipalities, and prioritize the mitigation strategies with an implementation schedule. The updated plan is a pre-disaster plan that guides the county towards comprehensive multi-hazard mitigation, while respecting the needs and character of municipal communities. It is a blueprint for reducing property damage and saving lives from future disasters and enhancing community resiliency following an event. Furthermore, the approved plan qualifies Bucks County and its municipalities for pre- and post-disaster grant funding.

Morrisville Borough had two representatives who actively participated in the 2015-2016 planning process by attending meetings, completing assessment surveys, and submitting comments. The Borough Council adopted the HMPU on November 21, 2016.

Municipalities also prepare emergency operations plans that outline how the local government and its various departments will respond in the event of a disaster or emergency, including local fire, police, and public works personnel. Morrisville's Office of Emergency Management is responsible for the preparation and maintenance of the borough's emergency operation plan. The borough is capable and willing to work with neighboring communities in times of need.

RISK ASSESSMENT

The Bucks County 2016 HMPU identified 21 hazards as being prevalent throughout or in parts of the county. These are listed in Table 42.

The methodology for assessing risk factors assigns a weighted value for probability, impact, spatial extent, warning time, and duration. In assessing risks for Morrisville, it was noted that the borough's highest ranked hazards are (1) flood, flash, flood, and ice jam; (2) winter storm; (3) hurricanes, tropical storms, and nor'easters; (4) environmental hazards; and (5) utility interruption. The moderately ranked hazards are (1) transportation accident; (2) urban fire and explosion; and (3) pandemic. None of these hazards in the assessment are valued greater than those hazards for the county as a whole.

From this assessment, it appears that mitigation activities should be directed toward weather-related events. Recommended mitigation strategies for protecting property and life under such hazards include increasing resident awareness of emergency actions, reviewing the floodplain ordinance, incorporating snow removal and emergency access logistics with new development planning, and securing access to generator power.

Table 42. Bucks County Hazards

Natural Hazards	Human-Made Hazards
Drought	Dam Failure
Extreme Temperature	Structure Collapse (Infrastructure)
Flood, Flash Flood, Ice Jam	Terrorism
Hailstorm	Transportation Accident
Hurricane, Tropical Storm, Nor'easter	Urban Fire and Explosion
Landslide	Utility Interruption
Lightning Strike	
Pandemic	
Radon Exposure	
Subsidence, Sinkhole	
Tornado, Windstorm	
Wildfire	
Winter Storm	

SOURCE: BUCKS COUNTY 2016 HAZARD MITIGATION PLAN UPDATE

COVID-19 PANDEMIC

In the course of the preparation of this comprehensive plan the borough found itself in the midst of the COVID-19 pandemic, a worldwide event that affected the physical and economic well-being of the borough's residents. Since this event was ongoing the extent of the effects on the borough could not be known for some time. However, there are some lessons that can be taken from early experiences in Bucks County. Shortages of essential supplies and equipment and disruptions to business and government operations were evident in the initial stages of response to the event. These issues, along with coordination with county, state, and federal agencies, should be addressed in future emergency management and government operational planning efforts.

FLOODPLAIN MANAGEMENT

The HMPU identifies Morrisville Borough as a participant in the National Flood Insurance Program (NFIP) with local floodplain management regulations. The NFIP recognizes the 1 percent-annual-chance flood, also known as the base flood, as the standard for identifying properties subject to federal flood insurance purchase requirements. The boundary of the 1 percent annual flood event is regulated within the local floodplain management ordinance as the Special Flood Hazard Area. According to the HMPU, the borough has 133 structures within the Special Flood Hazard Area (SFHA). Included in the SFHA are 70 residential structures with a population of 338 people. The wastewater treatment plant is considered a critical facility and is also located within the SFHA.

Morrisville's floodplain ordinance, Chapter 195 of the Code of Morrisville Borough was updated in 2015. The ordinance contains provisions for the protection of floodplain areas that comply with the National Flood Insurance Program and the Pennsylvania Floodplain Management Act. The ordinance contains specifications that limit the expansion and enlargement of existing structures unless undertaken in compliance with pre-construction and pre-development floodplain permits. This includes strict limits on alteration or relocation of a watercourse, elevation and flood proofing requirements, and design and construction standards, including those for manufactured homes and recreational vehicles.

One unique feature of Morrisville Borough is the Delaware River Levee at Williamson Park. The levee is designed to provide flood protection for portions of the borough between the Calhoun Street Bridge and the Lower Trenton (Trenton Makes) Bridge. As part of the flood mapping process, the Federal Emergency Management Agency evaluates data and documentation to provide accreditation levee systems. Morrisville has undertaken the process to have the levee system accredited with funding provided through an ACT 13 Flood Mitigation Program grant. An accredited levee system is a system that FEMA has determined can be shown on a standard Digital Flood Insurance Rate Map (DFIRM) as providing a one percent annual chance or greater level of flood protection. If the levee is not accredited, the area will be mapped as a high-risk area, known as a Special Flood Hazard Area (SFHA). Floodplain management regulations must be enforced and the federal mandatory purchase of flood insurance applies to all properties in these areas.

The levee study is in a draft phase as of the year 2020. The study will identify the parameters to be accredited, then those recommendations must be implemented before FEMA is able to accredit the levee and remove it from the 100-year floodplain maps. Once accreditation is received, the hundreds of parcels currently mapped as a high-risk flood area, will be removed from the FEMA 100-year floodplain and will be recognized as protected by the levee. Therefore, homeowners will benefit from reduced flood insurance rates.

As of 2020, a spillway project is currently under consideration for future development. The potential spillway would be located north of the Calhoun Street Bridge where River Road, the canal, and the Delaware River are closest to one another. The borough also recognizes the need for a pump station behind the levee to pump water back into the Delaware River.

The accreditation of the levee and the spillway are both important projects that will provide necessary improvements to the borough. However, while these efforts may provide a more secure feeling to resident's living in areas protected by the levee, there remains a risk of living in a high-risk flood area.

CRITICAL FACILITIES

The HMPU also evaluates the vulnerability of the borough's critical facilities. For the purposes of the plan, critical facilities are those entities that are essential to the health and welfare of the community, transportation infrastructure, and facilities related to the care of children. This includes law enforcement, emergency response, medical services, wastewater plants, correctional facilities, airports, rail stations, municipal buildings, day cares, and schools. The list of critical facilities was developed based on information available from the Bucks County Emergency Management Agency (EMA), the Bucks County Geographic Information Systems (GIS) Department, PEMA, and FEMA. Table 43 provides a complete listing of the borough's critical facilities and their vulnerability to individual hazards.

MITIGATION ACTION PLAN

As background to specific actions for Morrisville, it is important to look at the six categories of mitigation actions that can be taken.

PREVENTION

Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning, zoning, building codes, code enforcement, subdivision regulations, hazard specific

regulations (such as floodplain regulations), capital improvement programs, and open-space preservation and stormwater regulations.

Table 43. Vulnerability to Identified Hazards

Critical Facility Type	Critical Facility	Street Address	Floods	Hazardous Materials	Landslides	Airport	Highway	Rail	Earthquake	Tornado
Day Care	Kiddie Academy	536 Hillcrest Avenue		Yes		Yes	Yes	Yes	Yes	
Day Care	Kids Express Preschool	541 Harper Avenue		Yes		Yes			Yes	
Day Care	Kimberly Foster	491 Harper Avenue		Yes		Yes			Yes	
Fire Department	Morrisville Fire Company	528 North Pennsylvania Avenue								
Municipal Building	Morrisville Borough Municipal Building	35 Union Street								
Nursing/ Retirement Home	Hill House Assisted Living	245 Hillcrest Avenue		Yes			Yes	Yes	Yes	
Police Department	Morrisville Borough Police Department	35 Union Street								
School	Holy Trinity School	99 Osborne Avenue								
School	The Montessori School	501 West Maple Avenue								
School	Morrisville Intermediate School	550 West Palmer Street		Yes		Yes			Yes	
School	Morrisville Middle/Senior High	550 West Palmer Street		Yes		Yes			Yes	
School	Grandview Elementary School	80 Grandview Avenue								
Wastewater Plant	Morrisville Municipal Authority	100 Riverview Avenue	Yes	Yes				Yes		

SOURCE: BUCKS COUNTY 2016 HAZARD MITIGATION PLAN UPDATE

PROPERTY PROTECTION

Actions that involve modifying or removing existing buildings or infrastructure to protect them from a hazard. Examples include the acquisition, elevation and relocation of structures, structural retrofits, flood-proofing, storm shutters, and shatter-resistant glass. Most of these property protection techniques are considered to involve “sticks and bricks”; however, this category also includes insurance.

PUBLIC EDUCATION AND AWARENESS

Actions to inform and educate citizens, elected officials, and property owners about potential risks from hazards and potential ways to mitigate them. Such actions include hazard mapping, signage indicating flood prone areas, outreach projects, library materials dissemination, real estate disclosures, the creation of hazard information centers, and school age / adult education programs.

NATURAL RESOURCE PROTECTION

Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, forest and vegetation management, wetlands restoration or preservation, slope stabilization, and historic property and archeological site preservation.

STRUCTURAL PROJECT IMPLEMENTATION

Mitigation projects intended to lessen the impact of a hazard by using structures to modify the environment. Structures include stormwater controls (culverts), dams, dikes, levees, and safe rooms.

EMERGENCY SERVICES

Actions that typically are not considered mitigation techniques but reduce the impacts of a hazard event on people and property. These actions are often taken prior to, during, or in response to an emergency or disaster. Examples include warning systems, evacuation planning and management, emergency response training and exercises, and emergency flood protection procedures.

Of all the mitigation actions listed for the HMPU, Morrisville is identified for the following general actions:

Table 44. Hazard Mitigation Priority Actions

Priority	Action	Implementation Schedule
High	Proceed with grant applications to suitably protect and continue operations of critical facilities in the 1 percent annual chance floodplain and at risk utilities interruption from flooding and other hazards.	Within 2 years (2022)
High	Proceed with grant applications for infrastructure that protects community from 1 percent annual chance floodplain.	Within 2 years (2022)
High	Evaluate, implement, and perform mitigation projects identified in this and other planning mechanisms, including acquisition, elevation, foundation and building stabilization, securing access to generator power and other mitigation methods.	Continuously for the next 5 years (2025)
Medium	Review and consider updates to the floodplain ordinance, on an annual basis.	Ongoing

SOURCE: BUCKS COUNTY 2016 HAZARD MITIGATION PLAN

Through the recommendations of the 2016 HMPU and this comprehensive plan, Morrisville Borough can implement the priority actions of the HMPU through the following specific actions:

Natural Resources

- Adopt provisions limiting the extent to which wetland margins can be disturbed.
- Identify and create a green infrastructure plan.

Water Resources

- Continue to enforce the recommendations of and ensure ordinance requirements remain consistent with the *Delaware River South Stormwater Management Plan*.

COMPREHENSIVE PLAN UPDATE

- Continue to ensure compliance with the NPDES program and file program reports.
- Develop a flood protection study aimed at the reaccreditation of the levee and consider a spillway project.
- Identify flood-prone areas at the municipal level and determine if further remediation measures are feasible.
- Establish regular maintenance programs for stormwater management facilities.
- Evaluate alternative best management practices (BMPs) for maintaining and retrofitting existing standard stormwater management basins.
- Implement green stormwater practices where feasible throughout the borough.

Hazard Mitigation

- Continue to regularly monitor the mitigation activities and hazard events listed in the HMPU.
- Improve coordination and communication among emergency providers so that resources are used appropriately and efficiently.
- Continue hazard mitigation education outreach efforts (e.g., presentations, courses, and fact sheets) to increase public awareness of actions to be taken during an emergency and opportunities for mitigation.
- Identify residents with the highest relative vulnerability to the effects of severe weather (elderly or people with special needs) and prepare an implementation plan to enhance response capabilities and foster mitigation measures.
 - Require disclosure of flood hazard risk in real estate transactions for properties located in floodplain.
 - Have high-risk residents sign a memo of understanding that if they do not evacuate when instructed, emergency personnel may not be able to respond to their needs.
- Review, on an annual basis, and update, as needed, the borough floodplain ordinance.

Future Land Use Plan – Riverfront Planning Area

- Develop a flood protection study aimed at the reaccreditation of the levee, and consider a spillway project.
- Identify flood-prone areas at the municipal level and determine if further remediation measures are feasible.

The HMPU is a living document, and it requires continuous monitoring. Like all of the municipalities in Bucks County, Morrisville should have a designated representative from the community, such as the local emergency management coordinator, to regularly review mitigation activities and hazard events. This person will be integral to the future planning process when the HMPU is again updated. The Bucks County Planning Commission will begin that process in 2020, collaborating with municipal representatives and the Bucks County Emergency Management Agency.

CHAPTER SUMMARY

PRINCIPLES – Resilience, Equity

FINDINGS

- The Disaster Mitigation Act of 2000 requires local and county governments to have an official mitigation plan in order to receive federal disaster mitigation funds. Bucks County adopted its Hazard Mitigation Plan Update (HMPU) in 2016 to identify and assess areas of vulnerability in municipalities, and prioritize the mitigation strategies with an implementation schedule.

- In assessing risks for Morrisville, the borough’s highest ranked hazards are (1) flood, flash, flood, and ice jam; (2) winter storm; (3) hurricanes, tropical storms, and nor’easters; (4) environmental hazards; and (5) utility interruption. The moderately ranked hazards are (1) transportation accident; (2) urban fire and explosion; and (3) pandemic. None of these hazards in the assessment are valued greater than those hazards for the county as a whole.
- Since the COVID-19 pandemic is ongoing, the extent of the effects on the borough could not be known for some time. However, lessons that can be taken from early experiences in Bucks County include shortages of essential supplies and equipment and disruptions to business and government operations in the initial of stages of response to the event.
- Morrisville’s floodplain ordinance, Chapter 195 of the Code of Morrisville Borough was updated in 2015. The ordinance contains provisions for the protection of floodplain areas that comply with the National Flood Insurance Program and the Pennsylvania Floodplain Management Act.
- According to Chapter 10: Water Issues, flooding during and after major storm events typically occurs along the Delaware Canal and not the Delaware River, although flooding can occur along southern shoreline areas. Areas in the borough most prone to this flooding are Williamson Park and adjacent neighborhoods.
- One unique feature of Morrisville Borough is the Delaware River Levee at Williamson Park. The levee is designed to provide flood protection for portions of the borough between the Calhoun Street Bridge and the Lower Trenton (Trenton Makes) Bridge.

COMMUNITY SURVEY RESULTS

- Over half of the respondents (52 percent) are neutral on stormwater management facilities. 30 percent of respondents are satisfied or very satisfied. Eighteen percent of respondents are unsatisfied or very unsatisfied with stormwater management.
- Respondents noted in written comments that flooding in some neighborhoods is an issue.

RECOMMENDATIONS

- Continue to regularly monitor the mitigation activities and hazard events listed in the HMPU.
- Improve coordination and communication among emergency providers so that resources are used appropriately and efficiently.
- Evaluate and implement the most effective mitigation actions and projects (e.g., acquisition, elevation, and buy-out of flood-prone properties) , in accordance with the 2016 HMPU, upcoming 2021 HMPU, and specific hazard mitigation actions recommended by this comprehensive plan.
- Continue hazard mitigation education outreach efforts (e.g., presentations, courses, and fact sheets) to increase public awareness of actions to be taken during an emergency and opportunities for mitigation.
- Identify residents with the highest relative vulnerability to the effects of severe weather (elderly or people with special needs) and prepare an implementation plan to enhance response capabilities and foster mitigation measures.
 - Require disclosure of flood hazard risk in real estate transactions for properties located in floodplain.
 - Have high-risk residents sign a memo of understanding that if they do not evacuate when instructed, emergency personnel may not be able to respond to their needs.
- Review, on an annual basis, and update, as needed, the borough floodplain ordinance.
- Participate in the update to the Bucks County HMPU.

Chapter 13. Energy and Sustainability

Sustainability is the achievement of meeting the needs of the present generation while protecting resources for future generations. Sustainability recognizes that natural resources and systems are essential to providing both economic benefits and improving the quality of life. Concepts of sustainability and sustainable development are implicit in the principles, strategies, and actions of the Morrisville Borough Comprehensive Plan Update. The borough's compact nature and older buildings make it inherently more sustainable, as its design encourages a walkable community, and the reuse of existing buildings and resources. Energy sustainability means becoming more energy efficient and making use of low-carbon, renewable energy sources. Bucks County is committed to reducing energy demand and greenhouse gas emissions. In 2007, Bucks County was the first among Pennsylvania's 67 counties to commit to the Cool Counties initiative, joining the ranks of counties and municipalities across the country pledging to reduce energy usage and greenhouse gas emission by 80 percent by the year 2050.

The availability of energy resources is important to residents, businesses, developers, institutions, and all levels of government. Energy is required and critical to our modern personal, vocational and professional lifestyles. As continuing technology advancements are made, our reliance on energy resources increases. Energy conservation is crucial as the consumption of nonrenewable resources impacts the borough's environment. The use of fossil fuels contributes to air and water pollution, advancing the impacts of climate change.

There are three primary categories that can be implemented at the municipal level that can increase energy conservation and efficiency and lower the borough's carbon footprint: transportation, municipal government operations, and building and development.

TRANSPORTATION

The use of energy for transportation includes fuels used by vehicles in transporting goods and services, as well as the energy required for vehicle manufacture and maintenance, building of transportation infrastructure and maintenance of the transportation systems. Energy sustainability requires a reduction in energy demand in the transportation sector through reducing vehicle miles traveled, improving energy efficiency, using more renewable fuels, and expanding travel options. The borough should take the following actions relative to energy conservation associated with transportation:

- Develop complete streets policies and design standards to provide support for walking and biking.
- Ensure that all schools, parks, and libraries are accessible via bike paths or sidewalks.
- Establish requirements for bicycle parking as part of new commercial and retail development.
- Establish publicly accessible electric vehicle charging stations.
- Promote the use of public transit facilities.

MUNICIPAL GOVERNMENT OPERATIONS

Morrisville Borough can set an example and consider the following actions relative to energy conservation associated within the operations of the borough government:

- Conduct periodic energy audits of borough facilities.
- Encourage decreases in energy consumption associated with municipal operations.

- Replace old and inefficient municipal vehicles with more energy efficient lower carbon vehicles.
- Institute a policy requiring that all lights and computers be shut off in municipal facilities when not in use.
- Seek assistance to replace incandescent signs, traffic control, and other such municipally-maintained fixtures with low-cost LEDs.
- Provide information to borough residents and businesses on energy conservation techniques and energy audits.

MORRISVILLE'S SUSTAINABLE ACTIONS

In 2013, the Morrisville Borough Council approved a \$1.4 million financing package to replace more than 600 streetlights with high-efficiency LED lamps. LED (light-emitting diode) lights reduce maintenance costs because they depreciate at much slower rates. LED lights do not use toxic chemicals such as mercury, consume little energy, and save money in the long run. In 2017, the LED streetlights were installed, creating lower energy and maintenance costs for the borough.

Windows and doors have been replaced in the borough hall, and new insulation was installed in the upstairs council chamber. LED lighting upgrades have been made to the interior and exterior of the borough hall. Sensors were installed in the borough hall as well as the library to conserve energy when the building is not in use. A newer more efficient HVAC system was installed in the borough hall building and the boiler was converted to natural gas.

The school district completed a \$7 million renovation in the summer of 2019, the largest improvement project in recent Morrisville history. The project involved extensive upgrades to the electrical, plumbing and heating, ventilation, and air conditioning systems at Grandview Elementary and Morrisville High School.

BUILDINGS AND DEVELOPMENT

More than 40 percent of U.S. energy consumption is devoted to heating and cooling residential and commercial buildings. Powering homes and businesses consumes over 70 percent of all U.S. electricity use. But over 20 percent of this energy is wasted; the borough should take the following actions to energy conservation associated with building and development.

- Provide incentives for developers who develop in accordance with green building design standards, alternative energy sources, or green roof standards. For example, bonus densities are provided to developers who develop in accordance with these features in the C-1 Central Commercial District.
- Encourage the use of Energy Star compliant products, LED light bulbs, tankless water heaters, programmable thermostats, high reflectance roofs on buildings, and high levels of insulation.
- Provide subdivision and land development ordinance provisions for solar orientation and building form to require primary living spaces on the south side of the structure and take advantage of natural cooling and ventilation.
- Prohibit homeowner associations from enacting restrictions that contravene energy efficiency.
- Provide information to borough residents and businesses on energy conservation techniques, energy audits, and retrofits.

Green building is the practice of creating or renovating structures using systems and materials that are environmentally responsible and resource-efficient throughout a building's life-cycle. Green buildings aim

to reduce the environmental impact of buildings by taking advantage of renewable resources, implementing good site design, improving energy, water and material usage, improving air quality, optimizing operations and maintenance, and reducing waste.

Although initial building costs may be greater with green buildings, the upfront investment pays off through lower utility bills, maintenance costs, and higher occupant satisfaction due to increased natural light and improved air quality. Several programs promote and encourage creating sustainable and efficient builds and developments:

ENERGY STAR HOME

This is a program developed by the United States Environmental Protection Agency. To earn the ENERGY STAR, a home or apartment must meet energy efficient requirements established by the ENERGY STAR Residential New Construction program. Program requirements are available for single family homes, multifamily buildings, manufactured homes, and homes undergoing gut rehab. ENERGY STAR certified homes and apartments are at least 10 percent more efficient than homes built to code and achieve a 20 percent improvement on average.

LEED

The Leadership in Energy and Environmental Design (LEED) is the most widely used green building rating system in the world. Available for virtually all building, community and home project types, LEED provides a framework to create healthy, high-efficient and cost-saving green buildings. LEED is for all building types and all building phases including new construction, interior fit outs, operations and maintenance, and core and shell.

GREEN BUILDING INITIATIVE

Green Building Initiative (GBI) is a 501(c)(3) nonprofit organization that owns and administers the Green Globes green building assessment and certification. Using the Green Globes certification process ensures energy conservation, lowered water consumption, and responsible use of materials.

SITES

Administered by the Green Business Certification Inc. (GBCI), SITES offers a comprehensive rating system designed to distinguish sustainable landscapes, measure their performance, and elevate their value. The SITES and LEED rating systems are complementary, and can be used independently or in tandem. SITES certification applies to new construction projects as well as existing sites that include major renovations. SITES can be applied worldwide to a variety of project types including open spaces, streetscapes and plazas, and commercial, residential, educational and institutional buildings.

ENERGY PRODUCTION

Equally important to energy conservation is the production of energy. Renewable energy is used to replace fossil fuel at the power plant and at the home or business of the end-user via the use of geothermal heat pumps, solar collectors, wind turbines, and hydro turbines. Access to affordable, secure supplies of energy is required for almost every activity of government, business, and residents. The goal of the borough's energy policy should be to assure and enhance the near-term and long-term quality of life for all current and future residents at the lowest costs to energy users and the environment. This can

be accomplished by supporting the development of energy systems which are sustainable and locally based, including those that can be built on the site of a home or commercial property.

SOLAR ENERGY

All energy comes from the sun, so it should follow that solar energy would be one of the simplest and most easily adopted renewable energy sources. Capturing free solar energy can be as simple as proper placement of buildings on a lot to provide for optimal solar access for heating by taking advantage of solar heat gain. Proven and still-evolving photovoltaic panels technology and solar water heating systems also provide realistic opportunities to harness the sun's free energy on both a commercial and an individual lot basis.

<https://www.dep.pa.gov/Business/Energy/OfficeofPollutionPrevention/Renewables/Pages/Solar.aspx>

The borough can adopt the following additional provisions designed to encourage the use of solar energy and the provision of solar access:

- Prohibit solar restrictions in homeowner associations' regulations (such as prohibiting solar panels on rooftops).
- Allow property sited and buffered solar panels as an accessory use.
- Require a minimum percentage of energy in new developments be obtained from solar energy.
- Establish standards for protecting solar access and maximizing solar orientation.
- Require energy-efficient windows for new construction and renovation.
- Develop standards for solar power in industrial and commercial districts.

WIND ENERGY

Wind power is a clean alternative to fossil fuels because it produces no greenhouse gas emissions during operation. It is also plentiful, renewable, widely distributed, and uses relatively little land. Electric power generation from wind energy is one of the fastest growing forms of new electricity generation in the United States. However, as with many Bucks County locations, Morrisville Borough has low potential for the use of wind power as an alternative energy source.

GEOHERMAL ENERGY

Geothermal heat pumps (GHPs) use the natural heat storage capacity of the earth or groundwater to provide energy efficient heating and cooling. GHPs should not be confused with air-source heat pumps that rely on heated air. Geothermal heat pumps use the relatively constant temperature of the ground or water several feet below the earth's surface as source of heating and cooling. Geothermal heat pumps are appropriate for retrofit or new homes, where both heating and cooling are desired. In addition to heating and cooling, geothermal heat pumps can provide domestic hot water. A geothermal heat pump system consists of indoor heat pump equipment, a ground loop, and a flow center to connect the indoor and outdoor equipment. The heat pump equipment works like a reversible refrigerator by removing heat from one location and depositing it in another location. The ground loop, which is invisible after installation, allows the exchange of heat between the earth and the heat pump.

Geothermal heat pumps can be open-loop or closed-loop. Closed-loop or earth-coupled systems use a water and antifreeze solution, circulated in a ground loop of pipe to extract heat from the earth. The type of system employed depends on many factors including the availability of groundwater, soil type, energy

requirements, and size of the lot. Despite their benefits, geothermal systems have a minimal risk of contaminating groundwater because of their placement into the ground or use of groundwater from wells. Therefore, the construction quality of the underground portion is the most critical component for ensuring that the system is environmentally sound. Additionally, water quality is an important issue with open loop systems. Mineral deposits can build up inside the heat exchanger, iron and other impurities can clog a return well, and organic matter from ponds and lakes can quickly damage a geothermal system. Water should be tested for acidity, mineral content and corrosiveness.

The Bucks County Health Department regulates the drilling of wells, including geothermal wells. The borough should periodically review these regulations to ensure they are in keeping with local requirements.

CHAPTER SUMMARY

PRINCIPLES – Resilience, Equity, Livability

FINDINGS

- There are three primary categories that can be implemented at the municipal level that can increase energy conservation and efficiency and lower the borough's carbon footprint: transportation, municipal government operations, and building and development.
- The goal of the borough's energy policy should be to assure and enhance the near-term and long-term quality of life for all current and future residents at the lowest costs to energy users and the environment. This can be accomplished by supporting the development of energy systems which are sustainable and locally based, including those that can be built on the site of a home or commercial property.

COMMUNITY SURVEY RESULTS

- Twenty-eight percent of respondents to the community survey stated that they would want renewable energy to be a better addressed issue in the borough.

RECOMMENDATIONS

- Reduce energy demand in the transportation sector by encouraging walking and bicycling, the use of public transit, and support for electric vehicles.
- Encourage green building standards in existing and new development.
- Support the development of renewable energy sources such as solar and geothermal energy.
- Conduct periodic energy audits of borough facilities.
- Encourage decreases for energy consumption associated with municipal operations.

Chapter 14. Revitalization and Planning for the Future

OVERVIEW OF ACCOMPLISHMENTS

The *Morrisville Borough 2008 Comprehensive Plan* outlined several goals and objectives and highlighted four main implementation priorities.

1. Adopt Form-Based Zoning
2. Continue Bridge Street Revitalization Efforts
3. Initiate a Comprehensive Property Maintenance Program
4. Restore and Enhance the Riverfront

The following is a summary of revitalization initiatives and plans that have been completed since the last comprehensive plan was adopted in 2008. This summary outlines the implementation goal that was set in 2008, and what the borough has done since that time to accomplish that goal.

ADOPT FORM-BASED ZONING

A common theme throughout the 2008 comprehensive plan was the need to revitalize the borough's downtown and make it a focus of future economic development efforts. Development that has occurred in the past in the borough's central business district has not always been the quality and type that is appropriate for a downtown main street setting. Form-based zoning controls design outcomes and can create a predictable public realm by controlling physical form through local regulations. It addresses the relationship between building facades and the public realms, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. Form-based zoning creates walkable neighborhoods, fosters distinctive and attractive communities, mixes land uses, and directs development towards already existing communities.

The Borough's Accomplishments since 2008

Morrisville's Downtown: A Blueprint for the Future

The purpose of this plan is to provide Morrisville Borough and its residents with a "blueprint" for achieving revitalization success in downtown Morrisville. The *Morrisville's Downtown: A Blueprint for the Future* plan was developed through the county's Municipal Economic Development Initiative (MEDI) program. The purpose of the blueprint is to outline Morrisville's current conditions, develop a proposed organizational structure for future revitalization efforts, and provide a list of potential funding sources. The plan reviews the strengths and weaknesses of the downtown area as well as presenting redevelopment scenarios for key properties. The Blueprint for the Future recognizes the borough's strengths, weaknesses, and opportunities. The Main Street Approach of the National Trust for Historic Place's Main Street Center is a downtown revitalization model that has been successfully used in downtowns across the United States. The blueprint outlines how this revitalization process could be applied to downtown Morrisville. The plan has not been adopted by borough council, but recommendations from the plan have been used by the borough.

COMPREHENSIVE PLAN UPDATE

Amend the C-1 Central Commercial Zoning District

The biggest recommendation to stem from the blueprint was to enact new zoning in Morrisville's downtown. The blueprint laid the groundwork for the ordinance, an open house was held, and many opinions on the direction of the downtown and amenities wanted were taken into careful consideration.

The majority of the downtown area is regulated by the C-1 Commercial zoning district. The zoning district did not sufficiently encourage new development that was compatible with the vision of a newly revitalized downtown. Many of the uses in the ordinance discouraged pedestrian circulation and required large amounts of surface parking.

In 2019, borough council adopted the proposal to amend the C-1 Central Commercial Zoning District. While the newly adopted amendment is not necessarily form-based, it implements the vision set forth in the borough's *Morrisville Borough's Downtown: A Blueprint for the Future*. Borough officials worked closely with the Bucks County Planning Commission to revise the C-1 Commercial District to provide zoning and design requirements that emulate a pedestrian-friendly, traditional downtown main street. New uses, incentives, design standards, and improvements were included in the ordinance, as well as new and improved dimensional requirements.

CONTINUE BRIDGE STREET REVITALIZATION EFFORTS

To complement the idea of form-based zoning, the borough set out to continue revitalization efforts on Bridge Street. Streetscape improvements, such as new pedestrian crossings, streetlights, and curbs and sidewalks were a goal to enhance the public's experience of the borough's commercial core. Further policy regulations such as new sign regulations aimed at controlling sign clutter and requirements for the planting of appropriate street trees, were necessary goals to complete physical and design-oriented improvements along this critical commercial corridor.

The Borough's Accomplishments since 2008

Local Economic Revitalization Tax Assistance Act (LERTA)

LERTA, created through Pennsylvania legislature in 1977, encourages investment and redevelopment of commercial industrial, and other business properties in areas experiencing disinvestment and deterioration. The law authorizes local taxing authorities to provide temporary tax exemptions on improvements to commercial properties in designated areas. In 2019, the Bucks County Commissioners, Morrisville Borough Council, and Morrisville Borough School District all approved resolutions to authorize the establishment of LERTA in Morrisville.

Enterprise Zone

The state-designated Enterprise Zone addresses deteriorated, distressed, and blighted industrial and manufacturing areas. The Enterprise Zone of Bucks County was established in 1997 and is administered by the Bucks County Redevelopment Authority (BCRDA). The designation aims to improve standards of living through revitalization and attraction of new business and job opportunities. In 2019, the boundaries of the certified redevelopment area were expanded to expand the Enterprise Zone to include additional parcels along Bridge Street. The expansion of the certified redevelopment area will initiate steps to facilitate the adaptive reuse of the vacant building on the corner of Pennsylvania Avenue and Bridge Street, commonly referred to as the "Stockham Building." This expansion encourages public/private partnerships to improve public infrastructure to support new investment in the Morrisville Town Center.

Renaissance Plaza

With redevelopment in mind as a goal of the community, input from the public demonstrated the concern for potential new buildings impacting the historic charm in the borough. In 2007, Renaissance Plaza, a 20,000 square foot mixed-use building was constructed along Bridge Street in downtown Morrisville. The building's design captures the traditional masonry factories of Morrisville's old steel town.

Lehigh Rubber Revitalization

The Lehigh Rubber building, which was owned by the Bucks County Redevelopment Authority (BCRDA), on Bridge Street has been redeveloped and has several tenants, including 21 Locks Brewing Company and David's Distillery. The BCRDA has since transferred ownership back to the Lehigh Rubber building owner.

Bridge Street Pedestrian Crossing

The borough received \$120,000 in grants to complete a design project that would eliminate a gap in the towpath crossing Bridge Street. As the towpath briefly stops at Bridge Street, east of Pennsylvania Avenue, users must walk up an eight-foot embankment, cross the two-lane street, and descend to the other side to complete their journey. This project to design and construct a safe pedestrian crossing is in partnership with Pennsylvania Environmental Council, Morrisville Borough, and PennDOT. As of September 2019, this project is in engineering. The crossing would be located where the canal and Bridge Street intersect.



Physical Improvements

In 2018, Infrastructure repair was at the top of the borough's priority list. For the first time in several years, the borough invested in its roads and has a paving program that will continue through 2020 and beyond. The borough began seeking funding for needed upgrades for traffic signals and enhancements to make the downtown more walkable.

Morrisville Borough received funding from the Commonwealth Financing Authority's Multimodal Transportation Fund and the Department of Conservation and Natural Resources Community Conservation Partnership program grant to have completed the installation of ADA curb ramp accessibility improvements throughout the borough. Additionally, the borough received a \$325,000 grant for sidewalk improvements. In 2020, the borough received a Multimodal grant for \$227,805 to improve the pedestrian and traffic signals at the intersection of Pennsylvania Avenue and Trenton Avenue.

The Morrisville public works department, in conjunction with the Morrisville Parks and Open Space Beautification Committee had lighting installed to illuminate Robert Morris Plaza and Statue at bridge Street and Pennsylvania Avenue. The Morrisville Parks and Open Space Beautification Committee maintains the landscaping and installed a cobblestone border behind the plaza.

INITIATE A COMPREHENSIVE PROPERTY MAINTENANCE PROGRAM

The 2008 Comprehensive Plan recommended that the borough review housing, health, and safety code provisions to insure that issues such as yard maintenance, rehabilitation of substandard properties, security of vacant structures, and prevention of health and safety hazards are addressed. Morrisville Borough set out to accomplish a goal of creating a comprehensive maintenance program aimed at raising the standards for residential property maintenance in the borough.

The Borough's Accomplishments since 2008**Code Enforcement**

The enactment and enforcement of property maintenance code standards for rental and owner-occupied housing is a key method of maintaining property values, sound buildings, and attractive neighborhoods. The goal of code enforcement is to remedy housing problems and ensure that issues are addressed. Morrisville's code inspection program has been successful in educating owners and maintaining housing quality. The code enforcement office reports on inspections, building permits, notices, and violations. Table 45 outlines the successes of the code enforcement through 2018 and 2019.

Table 45. Morrisville Borough Code Enforcement Office Report, 2018 and 2019

Morrisville Borough	2018	2019
Residential Inspections	145	259
Resale Inspections	186	337
Rental Inspections	263	320
Complaints	100	88
Blight/Cease & Desist	5	14
Building Permits	333	467
Property Maintenance Violations	84	96
Initial Sidewalk & Curb Letters	0	142
Fire Marshall Investigations	0	13
Bulk Notices	0	0
Grass Notices	0	64
Snow Notices	7	0
Illegal Dumping Letters	27	0
Total	1,150	1,800

SOURCE: MORRISVILLE BOROUGH CODE ENFORCEMENT OFFICE

RESTORE AND ENHANCE THE RIVERFRONT

Morrisville's most valuable asset is its riverfront location. Many riverfront communities use their location as the driving theme in their economic development efforts. These communities have worked to restore the natural functions of their river systems while redeveloping riverfront sites using environmentally responsible design and construction practices. Williamson Park is located north of Bridge Street between the downtown and the banks of the Delaware. It is a large community park whose levee walking path capitalizes on the views of the river. To the south of Bridge Street, the borough has purchased a number of riverfront properties that have significant natural characteristics. The goal in 2008 for the borough was to further protect and enhance these resources, as well as promote a riverfront identity.

The Borough's Accomplishments since 2008

Certified Redevelopment Areas

The Tate & Lyle site in southern Morrisville is zoned for potential redevelopment. Once the location of Staley Manufacturing, a subsidiary of Tate & Lyle and producer of agro-industrial products, the 47-acre tract has been rezoned RN Riverview Neighborhood with the intention of promoting mixed-use development along the Delaware River at this vacant and underutilized location. The RN Riverview Neighborhood permits a variety of land uses, housing types and density.

Williamson Park, located along the Delaware River and north of Bridge Street, is a current topic of discussion in the borough. Borough council has recently received a proposal to have Williamson Park redeveloped and become a mixed-use town center. Council is currently evaluating the merits of this proposal. The town center concept at Williamson Park continues the pattern of potential redevelopment proposal and mixed land uses along the Delaware River.

Levee Recertification

Morrisville has started the levee recertification process as a result of flood mitigation efforts. The borough will receive \$255,000 provided by the state's Commonwealth Financing Authority to pay for a flood protection study and levee accreditation. As of 2020, the levee study is in a draft phase. The study will identify parameters to be accredited, then those recommendations must be implemented before FEMA is able to accredit the levee and remove areas of Williamson Park and the surrounding parcels identified as Special Flood Hazard Area (SFHA) from the 100-year floodplain maps.

Morrisville Riverfront Preserve

The Morrisville Riverfront Preserve is located along the upper portion of the Delaware River and is recognized in the Natural Lands Inventory of Bucks County. The borough is working to restore the 8.8 acres of land along the Delaware River and the area will be maintained as a natural preserve to enhance wildlife and to provide the public with recreational activities.

In 2010, the site was re-zoned as Natural Lands and Community Service Districts and was preserved as open space. The area received herbicide treatments to combat invasive species. In 2012, preliminary trails were also established throughout the Preserve. In 2013, signage to educate the public about the value of riparian buffers was developed and installed at the north entrance. Concrete and asphalt were removed from the northern end and were replaced by plantings. In 2014, an information brochure was developed which describes the Preserve and the value of a natural riverfront. Access improvements were made at the upper lot section and evergreen buffers were planted. In 2015, regular community stewardship

workdays to maintain trails and clear invasive plants were established. Since 2012, over 800 native trees have been planted at the preserve.

OTHER ACCOMPLISHMENTS

Patriots Park

MR Reiter Elementary School closed down in 2011 but had not been operational since a boiler explosion accident in 2008. The borough purchased the property from the Morrisville Borough School District and demolition began in 2018. As a result, Patriots Park was developed in its place, as a passive park designed to enhance Historic Summerseat. Gilmore & Associates, Inc. created a concept plan rendering for the development of Patriots Park. The proposed concept plan will provide a recreational gathering space for the community. With its prominent location to Summerseat, Patriots Park will attract heritage tourism to Morrisville and serve as a passive recreation facility.



Playground Improvements

Imagination Island, the community-built wooden playground in Williamson Park was torn down in 2016 due to disrepair and safety reasons. In 2018, the borough was awarded \$191,054 for Williamson Park playground improvements. In 2019, the Tot Lot at Williamson Park was constructed. The Tot Lot was Phase one of the borough's playground improvement plans. A playground with equipment suited for older children will be Phase Two of the improvement plans.

Morrisville Dog Park

Friends of Morrisville Dog Park (FMDP) is a 501(c)(3), Pennsylvania non-profit organization that was established in 2009 with the mission to create an off-leash dog park. In June 2011, FMDP and the Borough

of Morrisville opened the off-leash dog park for dogs of all sizes to play, exercise, and socialize. FMDP is responsible for the park's general maintenance, upkeep, improvements, and expenses. The borough contributes to park maintenance by regularly mowing the grass and picking up the trash and recycling.

A VISION FOR THE FUTURE

PLAN PRINCIPLES

At the core of a comprehensive plan are the values of the community and a vision of a better future. Comprehensive plans should articulate and express these ideas so that future policy choices are clear and consensus-driven. The Morrisville Borough Comprehensive Plan Update puts forth a set of principles that will guide the plan's direction and recommendations. These principles function as both value statements and ideals that this plan strives to attain. The principles were developed based on responses from the community survey sent out to residents as part of the comprehensive plan update, public discussions with the borough planning commission and council, and findings of the plan.

Five plan principles organize the Morrisville Borough Comprehensive Plan. These are:

Livability

Livability are the things that make up a community's quality of life, including the built and natural environments, economic development, community health, social stability, educational opportunity, and cultural, entertainment and recreation possibilities.

Heritage

Heritage is the pride and value we take in the Morrisville's historic and natural resource legacy.

Equity

Equity is the just and fair inclusion into a society in which all can participate, prosper, and reach their full potential. Equity challenges institutions to provide economic and social opportunity to disadvantaged groups and provide fairness in decision and policy-making.

Mobility

Mobility is the ability to move freely and access goods and services affordably and safely.

Resilience

Resilience is the ability of a community to anticipate risk, limit impact, and build capacity to face change in an uncertain world.

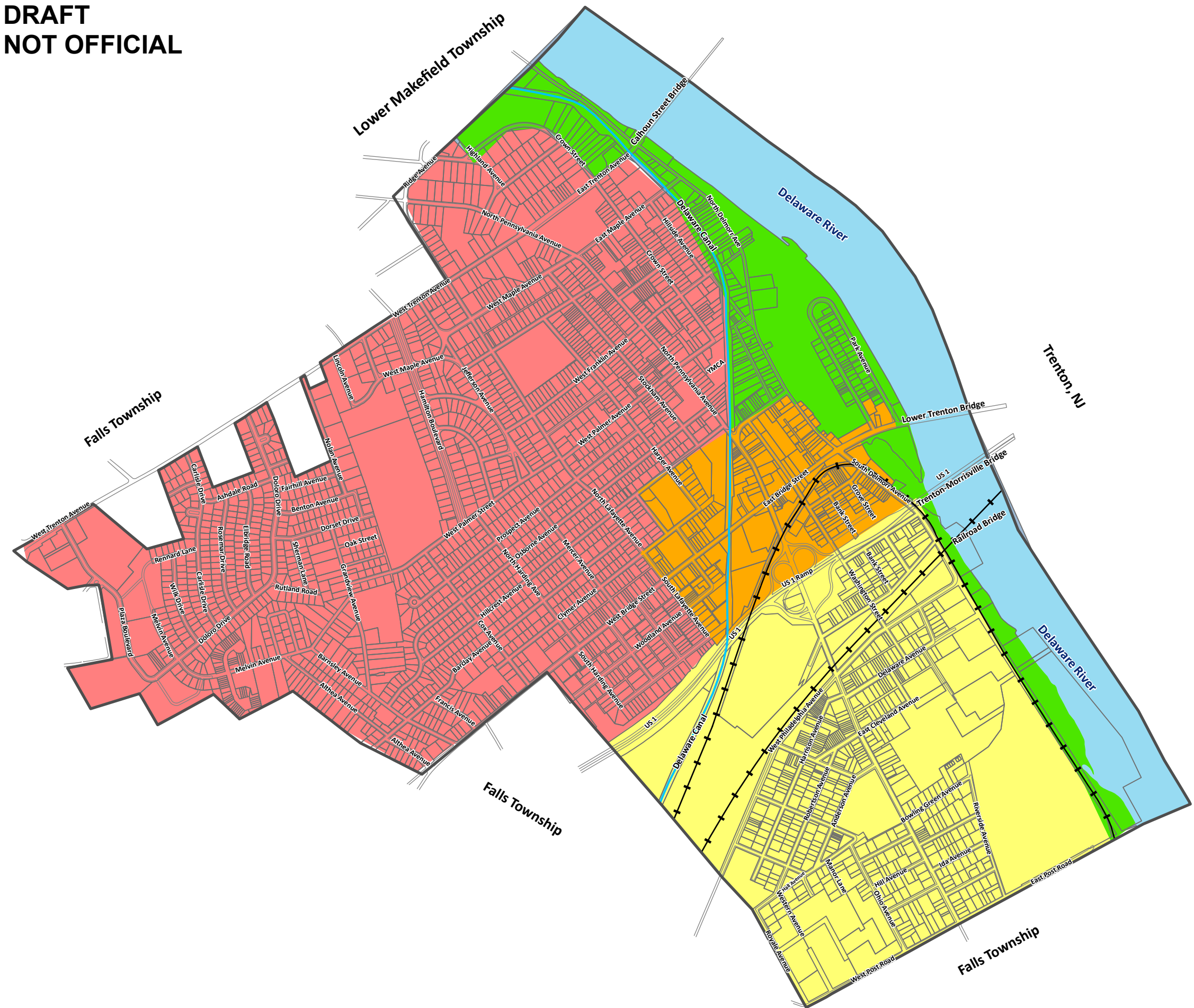
Each of the five principles guide the plan elements of this comprehensive plan and serve as a lens through which the future land use vision and plan recommendations should be viewed.

FUTURE LAND USE PLAN

The main purpose of a comprehensive plan is to set out a vision of the future of a community and provide a physical plan for realizing this vision. The Future Land Use Plan for Morrisville Borough provides a framework for planning for the future. The plan is based on the borough's existing mix of development, zoning districts, land use patterns, and its base of historic, cultural, and natural resources. Future Land Use brings together recommended actions and sets forth land use policy for Morrisville Borough in keeping with the values of the principles of the *Morrisville Borough Comprehensive Plan Update* (2020). The following map outlines four major planning areas within the borough—the Riverfront Planning Area, the Residential North Planning Area, the Downtown Planning Area, and the Residential South Planning Area.

Planning Area	Description
Riverfront	The Riverfront planning area encompasses the eastern side of Morrisville Borough, along the Delaware River. This planning area contains several natural, historic, and recreational resources such as the Delaware River, the Morrisville Riverfront Preserve, Graystones, the Pennsylvania Historical Marker, the Delaware Canal State Park, Williamson Park, the Levee Trail, and the Delaware River Joint Toll Bridge Commission. This area also connects the Calhoun Street Bridge, the Lower Trenton Bridge, and the Trenton-Morrisville Bridge to the rest of the borough. The Riverfront Planning Area is directly linked to Trenton New Jersey, is bordered by Lower Makefield Township to the north and Falls Township to the south.
Zoning Districts	
C-1 Central Commercial	R-2 Residential
C-3 Neighborhood Commercial	R-2A Residential
CS-1 Community Service	R-3 Residential
CS-2 Natural Lands Preservation	RN Riverview Neighborhood
R-1 Residential	
Challenges	
<ul style="list-style-type: none"> • Traffic congestion across bridges • Connected to a major metropolitan area (Trenton, NJ) • Flood hazards 	
Opportunities/Strengths	
<ul style="list-style-type: none"> • Close proximity to public transportation for commutes to New York City and Philadelphia • Delaware Riverfront is mostly in public ownership • Cultural heritage tourism • Williamson Park • Morrisville Riverfront Preserve • Levee trail • Delaware Canal Trail access points • Graystones 	
Recommended Actions	
<ul style="list-style-type: none"> • Explore opportunities for helping to realize the goal of establishing a public riverwalk along the Delaware River. • Develop the proposed sidewalk and trail connections, as well as lighting and visibility and access improvements in the <i>Morrisville Borough Active Transportation Plan, 2019</i>. • Explore opportunities for increasing access to water-based recreation in the borough such as creating new canoe/kayak launch sites, providing opportunities for fishing and other water-based recreation. • Nominate Graystones to the National Register of Historic Places. • Continue river restoration efforts at the Morrisville Riverfront Preserve. • Recognize opportunities for riverfront recreational amenities and facilities. • Develop a flood protection study aimed at the reaccreditation of the levee and consider a spillway project and pumping station north of the Calhoun Street Bridge where River Road, the canal, and the Delaware River are closest to one another. • Identify flood-prone areas at the municipal level and determine if further remediation measures are feasible. • Work with the DRJTC to implement solutions to congestion problems identified in the <i>Southerly Crossings Corridor Study, 2002</i>. • Consider working with the Pennsylvania Department of Transportation and Lower Makefield Township to provide a safe crossing of River Road to the boat launch area. • Prepare a formal Parks and Recreation Plan to guide future park development and redevelopment. • Evaluate and implement the most effective mitigation actions, in accordance with the 2016 HMPU, upcoming 2021 HMPU, and specific hazard mitigation actions recommended by this comprehensive plan. 	

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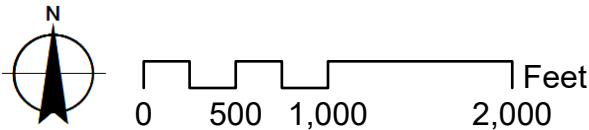


Map 7. Future Land Use
Planning Areas

Morrisville Borough
Comprehensive Plan Update

Future Land Use Planning Areas:

- Downtown
- Riverfront
- South/Residential
- North/Residential



Planning Area	Description
Residential South	This planning area encompasses the industrial zoned areas in the borough, as well as the residential areas that are south of the Downtown District and US Route 1. This area makes up the majority of the southwestern portion of the borough that is bordered by Falls Township. This area contains the Delaware Canal State Park, the Morrisville Cemetery, Morrisville Lake, the Morrisville Borough Dog Park, the historical marker for the Robertson Art Tile Company, Manor Park Playground, Toll Integrated Systems, the Senior Services Center, the US Route 1 ramp, the rail lines, the Cloverleaf property and the Tate & Lyle property. This planning area has a mix of residential, commercial, transportation, and industrial land uses.
Zoning Districts	
CS-1 Community Service	R-2 Residential
C-2 Shopping Center	R-2A Residential
C-3 Neighborhood Commercial	R-3 Residential
I-1 Industrial	R-4 Residential
I-2 Industrial Technology	RN Riverview Neighborhood
LI Light Industrial	
Challenges	
<ul style="list-style-type: none"> • Morrisville Lake • Separation from borough core by Route 1 corridor • Floodplain areas • Underutilized and vacant industrial areas • Incompatible adjacent land uses 	
Opportunities/Strengths	
<ul style="list-style-type: none"> • Industrial redevelopment areas • Possible SEPTA train station location • Riverview Neighborhood District zoning • Vacant lots • Riverview Certified Redevelopment Area • Town Center Redevelopment Area • Tate & Lyle property • Cloverleaf property • Possible relocation of Morrisville Wastewater Treatment Plant • Morrisville Cemetery • Morrisville Borough Dog Park 	
Recommended Actions	
<ul style="list-style-type: none"> • Develop the proposed sidewalk and trail connections, as well as lighting and visibility and intersection improvements in the <i>Morrisville Borough Active Transportation Plan, 2019</i>. • Work with SEPTA and Bucks County to conduct a feasibility study for a new station in the “opportunity area” identified between the Delaware Canal, the SEPTA Trenton rail line, and South Pennsylvania Avenue. • Explore potential sources of funding for housing rehabilitation or improvements to streets, sewer lines, sidewalks, and other neighborhood infrastructure. • Develop community greening and gardening programs. • Work towards preservation of the Morrisville Cemetery, as the space offers stories, history, art and craftsmanship, and open space for the community to enjoy. • Complete an environmental assessment of Morrisville Lake. • Support the Bucks County Redevelopment Authority’s (BCRDA) efforts to redevelop and reuse vacant and underutilized parcels such as the Cloverleaf property. • Recognize opportunity for waterfront recreational amenities and facilities. 	

Planning Area	Description
Downtown	This area consists of the Bridge Street corridor through Morrisville’s Downtown “Main Street” and the surrounding residential and commercial areas. The Downtown Planning Area is located centrally in Morrisville, with the Delaware River to the East. The Downtown Planning Area contains several economic development opportunities and is the location of many natural and historic resources as well as community services. The Downtown Planning Area contains the Delaware Canal State Park, Historic Summerseat, Patriots Park, the Police Department, and the Morrisville Municipal Authority. The SEPTA 127 bus route runs through this area and serves as public transportation for Morrisville residents.
Zoning Districts	
C-1 Central Commercial	C-4 Downtown Industrial
CS-1 Community Service	I-2 Industrial Technology
C-3 Neighborhood Commercial	R-2A Residential
	R-3 Residential
	NPEH Non-Profit Elderly Housing
	P-1 Professional
Challenges	
<ul style="list-style-type: none"> • Undesirable businesses and lack of places to attract outsiders to stay • Lack of street infrastructure • Lack of parking • Car-oriented developments (driveways, garages, parking in front) do not contribute to a “Main Street” walkable atmosphere 	
Opportunities/Strengths	
<ul style="list-style-type: none"> • C-1 Zoning District • Historic areas and architecture • Traditional mixed use buildings • Base of local businesses in place • Access to parks and recreation—Williamson Park, Levee Trail, Delaware Canal State Park, and Patriots Park • Highly traveled transportation corridor with public transit • Existing network of sidewalks along most downtown streets • Town Center Certified Redevelopment Area • Mill Pond • Blocks are small and lined with buildings constructed up to the sidewalks, creating a small-scale environment 	
Recommended Actions	
<ul style="list-style-type: none"> • Develop pedestrian and bike facilities found within the <i>Morrisville Borough Active Transportation Plan</i>, 2019. • Develop complete streets policies and design standards in order to make the downtown more walkable and more easily accessible for bicyclists. • Adopt the <i>Morrisville’s Downtown: A Blueprint for the Future</i> plan and continue to follow the plan’s recommendations for achieving revitalization success in the downtown. • Adopt design guidelines for downtown and designated historic areas. • Develop a parking study to identify parking locations, supply and demand, potential sites for public parking, and shared parking opportunities. • Capitalize on Mill Pond as a key site through acquisition and restoration. • Enhance the existing environment—façade improvements, outdoor dining, additional landscaping, incorporate attractive gateways, enhance crosswalks and sidewalks. • Continue to pursue grant funding to implement physical improvements in the downtown and adjacent neighborhoods. • Develop Patriots Park at Historic Summerseat per the renderings designed by Gilmore & Associates, Inc. • Update the zoning map to rezone the C-4 Downtown Industrial District and select parcels along Delmorr Avenue and Bridge Street to C-1 Central Commercial, as shown in the Downtown Planning Area on the Future Land Use Map. 	

Planning Area	Description
Residential North	This planning area encompasses the residential and commercial areas that are west of the Downtown District. The Residential North Planning Area encompasses the majority of the northwestern portion of the borough and is bordered by Falls Township. This section of the borough is primarily single-family residential land uses, contains Grandview Elementary, Morrisville Middle and High School, Holy Trinity School, the fire department, and the Morrisville Public Library. The “A” Field and portions of the Delaware Canal State Park can be found in this planning area.
Zoning Districts	
C-2 Shopping Center	R-1 Residential
CS-1 Community Service	R-2 Residential
C-3 Neighborhood Commercial	R-2A Residential
LI Light Industrial	R-3 Residential
Challenges	
<ul style="list-style-type: none"> • School district funding, enrollment, and school maintenance • Neighborhood preservation 	
Opportunities/Strengths	
<ul style="list-style-type: none"> • Majority owner-occupied housing • Pedestrian and bicycle access to the Trenton Transit Center • Concentration of community facilities 	
Recommended Actions	
<ul style="list-style-type: none"> • Consider developing bike facilities along East Trenton Avenue to the Calhoun Street Bridge and along Bridge Street to the Lower Trenton Bridge. • Review the zoning standards along east Trenton Avenue and Bridge Street to ensure public infrastructure and commercial development enhances the look and function of these important entrance corridors and is compatible with adjacent neighborhoods. • Explore a merger of the Morrisville school district with Pennsbury. • Continue to explore potential sources of funding for housing rehabilitation or improvements to streets, sewer lines, sidewalks, and other neighborhood infrastructure. • Develop community greening and gardening programs. • Coordinate efforts to publicize the borough’s historic nature, affordability, charm, and walkable scale for owner-occupied housing. • Adhere to zoning standards to preserve the appearance of neighborhoods by preventing reconstruction of housing at an inappropriately large scale. 	

COMPATIBILITY WITH ADJACENT EXISTING AND PROPOSED DEVELOPMENT

The Pennsylvania Municipalities Planning Code (PaMPC) requires that comprehensive plans take into account the planning efforts in the surrounding areas, county, and region. Development impacts do not stop at municipal boundary lines, but rather transcend a region. The purpose of the following discussion is to ensure that policies developed for Morrisville do not create conflicts with adjoining lands, but encourage a regional approach to address planning problems and issues.

Morrisville Borough sits adjacent to three municipal entities, two in Bucks County, and the other across the Delaware River in New Jersey. In Bucks County, Falls Township surrounds much of the borough, encompassing land to the northwest, west, and south. Lower Makefield borders a portion of the borough to the north. Across the three bridges to the east is the city of Trenton, New Jersey. Each of these bordering municipalities has development, land use plans, and zoning controls that must be examined to ensure the compatibility of this comprehensive plan.

FALLS TOWNSHIP

The most recent comprehensive plan for Falls Township was adopted in 2004. As part of this plan, a future land use map was incorporated to guide future land use policy decisions, including zoning.

In general, the land use policy and existing development of Falls Township is compatible with the policies and land use of Morrisville Borough. The future land use map of the Falls Township Comprehensive Plan shows industrial land use to the south and southwest, commercial land use to the west between Route 1 and Bridge Street, recreational land use to the west, and neighborhood commercial and single-family residential land use to the north.

South of Morrisville, Falls Township adopted an RD Riverfront District along the Delaware River. The purpose of the RD Riverfront District in Falls is to encourage the revitalization and redevelopment of industrial properties along portions of the Delaware River. The intent of the RD Riverfront District is to eliminate blight and improve the visual appearance of the river, provide a compatible relationship of mixed land uses and encourage public access to the river. The RD Riverfront District in Falls complements Morrisville's RN Riverview Neighborhood District, which permits a mix of residential, institutional, recreational, educational, office and commercial uses. The RN district was established to foster the redevelopment of underutilized land along the river into planned, pedestrian-oriented neighborhoods.

LOWER MAKEFIELD TOWNSHIP

A short border with Lower Makefield Township exists between Yardley-Morrisville Road and the Delaware River. Morrisville is an older, more densely developed borough and as such, has zoning districts that allow for higher densities. Lower Makefield Township adopted a new comprehensive plan in 2019. This plan includes a future land use map to guide future land use policy decisions. The map identifies areas adjacent to Morrisville's north border as Medium Density Residential and Residential/Resource Protection. This is compatible with the parks, recreation and protected open space land uses (Graystones property) and single-family residential land uses in Morrisville.

TRENTON, NEW JERSEY

While the city of Trenton is located over 1,000 feet across the Delaware River from the borough, planning and land use occurring in the city has a large impact on the quality of life in the borough.

Trenton is the state capital of New Jersey, and in recent years, has worked to revitalize its neighborhoods and underutilized and abandoned industrial sites. During the morning and early evening hours, commuters, including state workers and users of the Trenton Transit Center, travel through Morrisville on their



TRENTON, NEW JERSEY

way to and from jobs in Trenton and New York City. Trenton also has a number of entertainment options, including a sporting arena, minor league baseball stadium, theater, and nightclubs, all of which increase traffic volumes in the borough during off-peak hours. In addition to traffic impacts, noise from the stadium and nightclubs on the waterfront can be an annoyance to borough residents and decrease the quality of life. The borough should coordinate with the city to ensure that waterfront users remain in compliance with local noise ordinances and continue to look for traffic management solutions that would reduce volumes (See Chapter 9: Transportation and Circulation).

REGIONAL

Bucks County Comprehensive Plan

The Bucks County Comprehensive Plan (2011) seeks to coordinate and assist the county's municipalities, agencies, and general public in the planning, development, and management of its natural and built environment. The plan reaffirms the county's long-term goals of sustainability and good stewardship. The following principles identify priorities of the plan and serve to guide future decisions:

- Protect natural, historic, and scenic resources
- Promote energy conservation and efficiency
- Protect water resources and reduce waste
- Mitigate hazards to life and property
- Provide adequate community facilities and services
- Enhance transportation mobility
- Promote economic opportunity, housing diversity and efficient use of land

The Future Land Use Plan map provides a countywide vision to implement the principles of Smart Growth. Smart Growth is a land use planning strategy which seeks to focus development on existing developed areas, preserve open space and natural resources, and link transportation and land use planning efforts. This map is meant to assist in the coordination and implementation of local and regional planning efforts. On the Future Land Use Map in the County Plan, the borough falls within the Town Center category. Town Centers have unique history, character and a sense of place that are typified by high-density land uses and mixed-use building types. Town Centers are pedestrian-oriented and may include SEPTA regional rail services and public services including hospitals, schools, and social services. The residential areas are traditional neighborhoods and the primary commercial areas are typical of "Main Street."

Morrisville Borough complies with the Bucks County Comprehensive Plan (2011) by addressing the plan's principles. Part I of the Morrisville Comprehensive Plan (2020) addresses existing conditions and trends, and contains plans for housing, land use, natural resources, community services and facilities, parks and recreation, historic resources, transportation, water resources, solid waste management, hazard mitigation and energy. Part II of the Morrisville Comprehensive Plan (2020) provides recommendations and a framework in which the borough can implement its revitalization and future land use plan. The future land use plan of the Morrisville Comprehensive Plan is in accordance with the county's future land use designation of Town Center for Morrisville Borough.

DVRPC: Connections 2045 Plan for Greater Philadelphia

Adopted in 2017 by the Delaware Valley Regional Planning Commission (DVRPC), Connections 2045 is the long-range plan for Greater Philadelphia that establishes a vision for the growth and development of the region. The DVRPC is the federally designated Metropolitan Planning Organization for a diverse nine-county region in two states. Connections 2045 considers transportation, land use, the environment,

economic competitiveness, equity, and quality of life issues in planning for the region’s long-term growth. The plan was developed around five integrated core principles:

1. Sustain the Environment
2. Develop Livable Communities
3. Expand the Economy
4. Advance Equity and Foster Diversity
5. Create an Integrated, Multimodal Transportation Network

Similar to the Bucks County Comprehensive Plan (2011), DVRPC: Connections 2045 designates Morrisville Borough as a Town Center. This plan describes Town Center as having a mixture of high-density residential and commercial uses that also display a unique history and sense of place. They are often identifiable by a thriving downtown or Main Street that is pedestrian friendly, transit oriented, and surrounded by traditional residential development. Additionally, Connections 2045 designates Morrisville Borough as a Developed Community, which is described as a place that has already experienced most of its population and employment growth.

SUMMARY OF RECOMMENDED ACTIONS AND IMPLEMENTATION

This section summarizes the recommendations of this comprehensive plan by each chapter. Each recommendation includes recommended activities and a “Record of Action” where municipal officials can note the completion of the activity.

Housing		
Recommended Action		Record of Action
1.	Update the zoning ordinance to incorporate provisions for additional housing types that may be suitable for new infill construction, such as townhouses, mixed-use, transit-oriented development, and age-restricted or age-targeted housing.	
2.	Adhere to zoning standards to preserve the appearance of neighborhoods by preventing reconstruction of housing at an inappropriately large scale.	
3.	Explore potential sources of funding for housing rehabilitation or improvements to streets, sewer lines, sidewalks, and other neighborhood infrastructure.	
4.	Develop community greening and gardening programs. Maintain pocket parks and plant street and shade trees wherever possible.	
5.	Coordinate efforts to publicize the borough’s historic nature, affordability, charm, walkable scale, and highway access as marketing incentives for owner-occupied housing. Coordinate efforts with community-based, first-time homebuyers programs operated by the Bucks County Housing Group, the Consumer Credit Center, and financial institutions.	

Natural Resources		
Recommended Action		Record of Action
1.	Protect the Delaware River from residential and commercial development.	
2.	Capitalize on Mill Pond through acquisition and restoration of the site.	
3.	Complete an environmental assessment of Morrisville Lake.	
4.	Adopt riparian buffer zoning standards.	
5.	Adopt provisions limiting the extent to which wetland margins can be disturbed.	
6.	Develop a greenway and trail system along the Delaware River.	
7.	Establish a Shade Tree Commission for the purpose of creating and maintaining optimum tree cover and species diversity throughout neighborhoods. The borough should ensure budgeting for tree plantings and watering.	
8.	Establish more stringent regulations relative to the protection of forests in environmentally sensitive areas.	
9.	Amend the SALDO to require all new development to require the planting of shade trees.	
10.	Adopt the recommendations contained in the Street Tree Inventory report.	
11.	Identify and create a green infrastructure plan.	

Nonresidential Activity		
Recommended Action		Record of Action
1.	Consider a comprehensive update to the zoning ordinance.	
2.	Support the BCRDA's efforts to redevelop and reuse vacant and underutilized parcels, including the Cloverleaf site, Tate & Lyle property, and Stockham building.	
3.	Adopt the <i>Morrisville's Downtown: A Blueprint for the Future</i> and incorporate the plan's recommendations into the borough's revitalization efforts.	
4.	Continue to incorporate the recommendations of the Morrisville Town Center Redevelopment Area Plan as part of future revitalization initiatives.	
5.	Review zoning standards along Trenton Avenue and Bridge Street to ensure public infrastructure and commercial development—where permitted—enhances the look and function of these important entrance corridors and is compatible with adjacent neighborhoods.	
6.	Continue to pursue grant funding to implement physical improvements, such as sidewalks, crosswalks, and park and recreation improvements, in the downtown and adjacent neighborhoods.	

Community Services and Facilities		
Recommended Action		Record of Action
1.	Assess space and security needs for the police department and evaluate the need for expansion or relocation and redesign.	
2.	Maintain and enhance a cooperative relationship between the borough and the school district. Explore a merger of the Morrisville School District with the Pennsbury School District.	
3.	Increase borough tax base by attracting additional non-residential development and redevelopment.	
4.	Support the provision of programs to enhance public health.	
5.	Ensure the borough website is updated with events, meeting dates, and other current information.	
6.	Update the borough's telecommunications regulations in the zoning ordinance, in accordance with state and federal law, and continue to be proactive in oversight of emerging technologies and legislation.	

Parks, Recreation, and Open Space		
Recommended Action		Record of Action
1.	Continue to implement the recommendations contained in the <i>Borough of Morrisville Open Space Plan 2009</i> , including identifying and prioritizing Action Steps not achieved to date.	
2.	Remain an active partner in local and regional planning efforts related to parks, recreation and open space including the Delaware River Heritage Trail, East Coast Greenway, Delaware River Water Trail and the Tidal Delaware Water Trail.	
3.	Explore opportunities for helping to realize the goal of establishing a continuous public riverwalk and trail along the Delaware River.	
4.	Develop a parks and recreation plan to guide the development of new park and recreation facilities and guide redevelopment efforts of existing facilities. As part of that planning process, continue to explore new recreational opportunities such as community gardens.	
5.	As part of the borough's revitalization efforts, recognize that recreational facilities and activities can play a role in those efforts and should be considered as part of the revitalization planning process.	
6.	Continue to explore opportunities for increasing access to water-based recreation in the borough including exploring opportunities for enhancing Morrisville Lake, creating new canoe/kayak launch sites, and providing opportunities for fishing and other water-based recreation.	
7.	Implement the recommendations contained in the recently adopted <i>Morrisville Borough WalkWorks Active Transportation Plan</i> focusing initially on improving existing facilities and filling in missing segments of the pedestrian and bicycle network to ensure full connectivity throughout the borough.	
8.	Consider working with the Pennsylvania Department of Transportation and Lower Makefield Township to provide a safe crossing of River Road to the boat launch area.	

Historic and Cultural Resources		
Recommended Action		Record of Action
1.	Conduct a historic survey in order to identify any historic resources that are to be protected.	
2.	Review the zoning ordinance to ensure that existing standards promote historic preservation-add or amend provisions for adaptive re-use and delay of demolition.	
3.	Adopt design guidelines for downtown and designated historic areas.	
4.	Promote the history of the borough through tourism and signage.	
5.	Coordinate efforts to preserve and maintain Morrisville Cemetery.	
6.	Support community events which strengthen cultural heritage.	
7.	Apply for grants offered by the Pennsylvania Historical and Museum Commission.	
8.	Nominate Graystones to the National Register of Historic Places.	

Transportation and Circulation		
Recommended Action		Record of Action
1.	Work with SEPTA to conduct a study on the feasibility of train station for Morrisville and to ensure that the public transportation needs of its residents are being met.	
2.	Work with the Bucks County Planning Commission to develop a list of transportation improvements needed within the borough. These improvements should be ranked and submitted to the county for consideration for future regional TIPs.	
3.	Develop complete streets policies and design standards, including the participation of residents from any neighborhood that could be affected by these new standards.	
4.	Develop pedestrian and bike facilities found within the <i>Morrisville Borough Active Transportation Plan 2019</i> .	
5.	Perform analysis of borough roadways to identify if access management is necessary. If deemed necessary, develop an access management plan.	
6.	Work with the Delaware River Joint Toll Bridge Commission to implement solutions to congestion problems identified in the <i>Southerly Crossings Corridor Study, 2002</i> and adapt those strategies to today's conditions.	
7.	Upon completion of the Scudder Falls Bridge work with the Delaware River Joint Toll Bridge Commission and state officials to ensure that any increase in traffic volume from the bridge does not negatively impact the carrying capacity of the Trenton-Morrisville Bridge.	
8.	Correct the discrepancies of roadway classification found between the subdivision and land development ordinance and official highway map.	

Water Resources		
Recommended Action		Record of Action
1.	Continue to enforce the recommendations of and ensure ordinance requirements remain consistent with the Delaware River South Stormwater Management Plan.	
2.	Continue to ensure compliance with the NPDES program and file program reports.	
3.	Continue with the flood protection study aimed at the reaccreditation of the levee and spillway project.	
4.	Identify flood-prone areas at the municipal level and determine if further remediation measures are feasible.	
5.	Establish regular maintenance programs for stormwater management facilities.	
6.	Evaluate alternative best management practices (BMPs) for maintaining and retrofitting existing standard stormwater management basins.	
7.	Implement green stormwater practices where feasible throughout the borough.	
8.	Educate residents on how they can reduce their contribution of nonpoint source pollutants, such as fertilizers and pesticides that enter watercourse via stormwater runoff.	

Solid Waste Management		
Recommended Action		Record of Action
1.	Establish a program to obtain information from businesses operating in the borough to assure they have a recycling program in place.	
2.	Expand recycling education efforts to reduce contamination in the recycling stream.	
3.	Establish a yard waste pickup and compost operation and program for the benefit of borough residents.	
4.	Provide a program to offer assistance to businesses and institutions in the borough to review their waste management programs and to assist them in their efforts to divert greater amounts of material from the waste stream.	
5.	Work with the county recycling coordinator to conduct waste audits in businesses and schools to get a better understanding of their current recycling and solid waste output trends.	
6.	Sponsor a program, facilitate a program or support an organization to address illegal dumping and littering problems in the borough.	
7.	Work with county recycling coordinator and the DEP to increase composting education efforts and apply for grants to facilitate residential composting programs in the borough.	

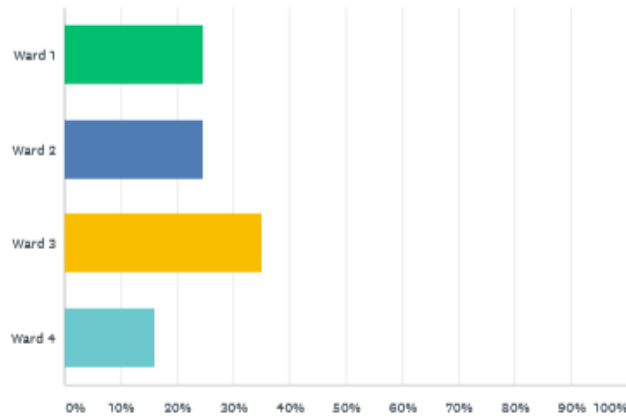
Hazard Mitigation		
Recommended Action		Record of Action
1.	Continue to regularly monitor the mitigation activities and hazard events listed in the HMPU.	
2.	Review, on an annual basis, and update, as needed, the borough floodplain ordinance.	
3.	Participate in the update to the Bucks County HMPU.	
4.	Improve coordination and communication among emergency providers so that resources are used appropriately and efficiently.	
5.	Evaluate and implement the most effective mitigation actions and projects (e.g., acquisition, elevation, and buy-out of flood-prone properties) , in accordance with the 2016 HMPU, upcoming 2021 HMPU, and specific hazard mitigation actions recommended by this comprehensive plan.	
6.	Continue hazard mitigation education outreach efforts (e.g., presentations, courses, and fact sheets) to increase public awareness of actions to be taken during an emergency and opportunities for mitigation.	
7.	Identify residents with the highest relative vulnerability to the effects of severe weather (elderly or people with special needs) and prepare an implementation plan to enhance response capabilities and foster mitigation measures.	
8.	Require disclosure of flood hazard risk in real estate transactions for properties located in the floodplain.	
9.	Have high-risk residents sign a memo of understanding that if they do not evacuate when instructed, emergency personnel may not be able to respond to their needs.	

Energy & Sustainability		
Recommended Action		Record of Action
1.	Reduce energy demand in the transportation sector by encouraging walking and bicycling, the use of public transit, and support for electric vehicles.	
2.	Encourage green building standards in existing and new development	
3.	Support the development of renewable energy sources such as solar and geothermal energy.	
4.	Conduct periodic energy audits of borough facilities.	
5.	Encourage decreases for energy consumption associated with municipal operations	

Appendix A. Community Survey Results¹

WHAT WARD DO YOU LIVE IN?

Answered: 353 Skipped: 0

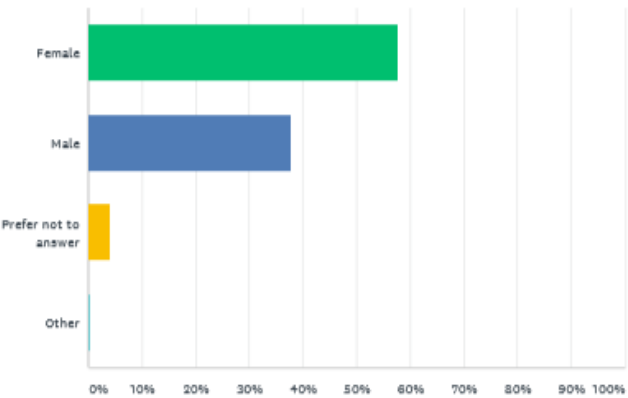


ANSWER CHOICES	RESPONSES	
Ward 1	24.65%	87
Ward 2	24.65%	87
Ward 3	34.84%	123
Ward 4	15.86%	56
TOTAL		353

¹ Survey comments are available at the Morrisville Borough offices.

WHAT IS YOUR GENDER?

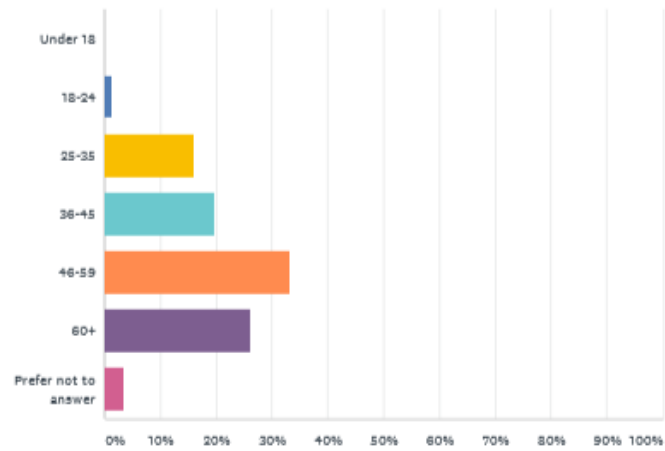
Answered: 352 Skipped: 1



ANSWER CHOICES	RESPONSES	
Female	57.67%	203
Male	37.78%	133
Prefer not to answer	4.26%	15
Other	0.28%	1
TOTAL		352

HOW OLD ARE YOU?

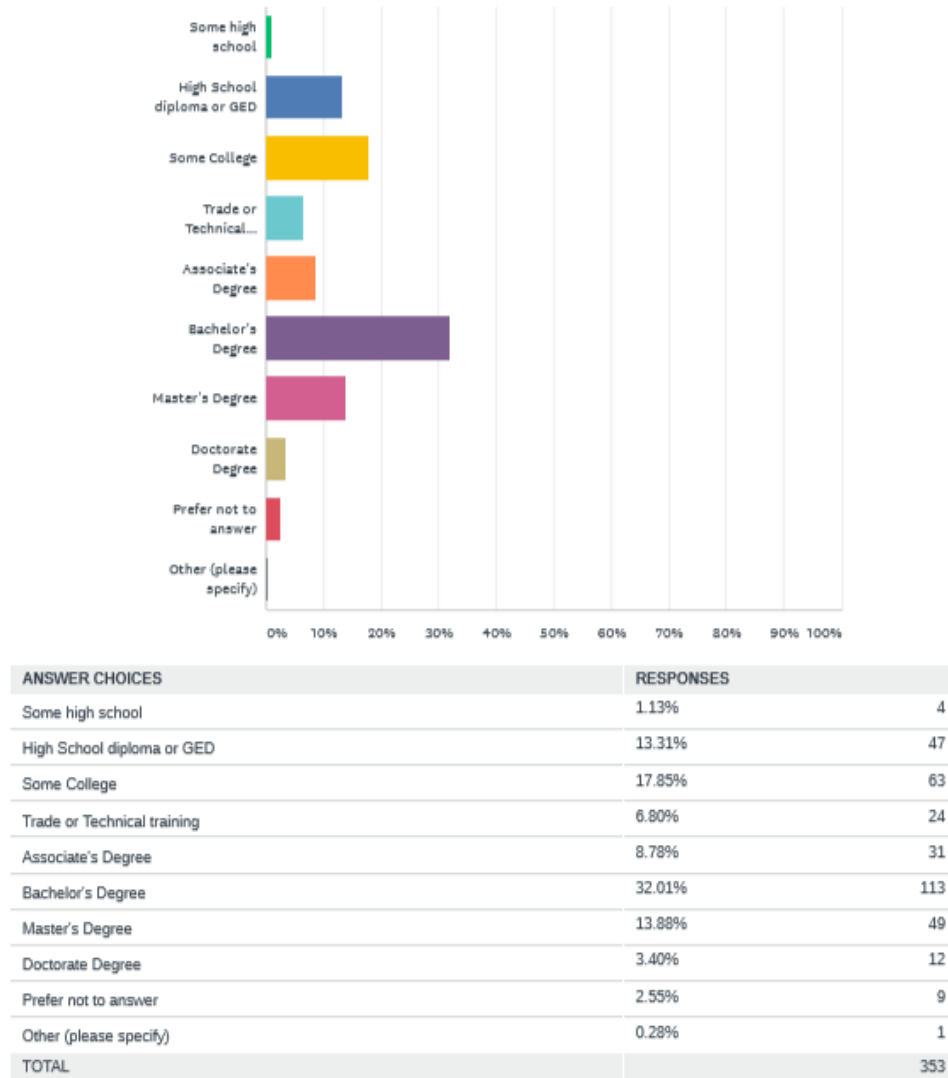
Answered: 352 Skipped: 1



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18-24	1.42%	5
25-35	15.91%	56
36-45	19.89%	70
46-59	33.24%	117
60+	26.14%	92
Prefer not to answer	3.41%	12
TOTAL		352

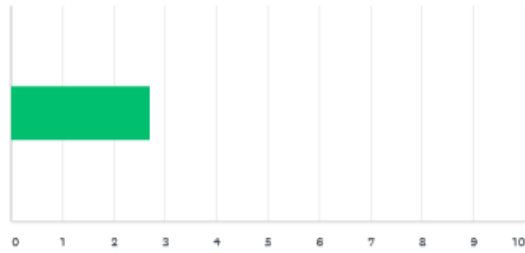
WHAT IS THE HIGHEST LEVEL OF EDUCATION YOU HAVE COMPLETED?

Answered: 353 Skipped: 0



HOW MANY RESIDENTS ARE IN YOUR HOUSEHOLD (INCLUDING YOURSELF)?

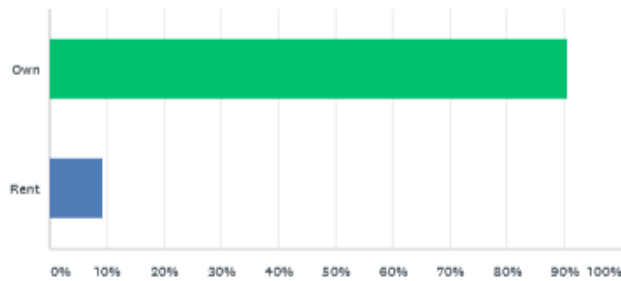
Answered: 345 Skipped: 8



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	3	934	345
Total Respondents: 345			

DO YOU OWN OR RENT YOUR HOME?

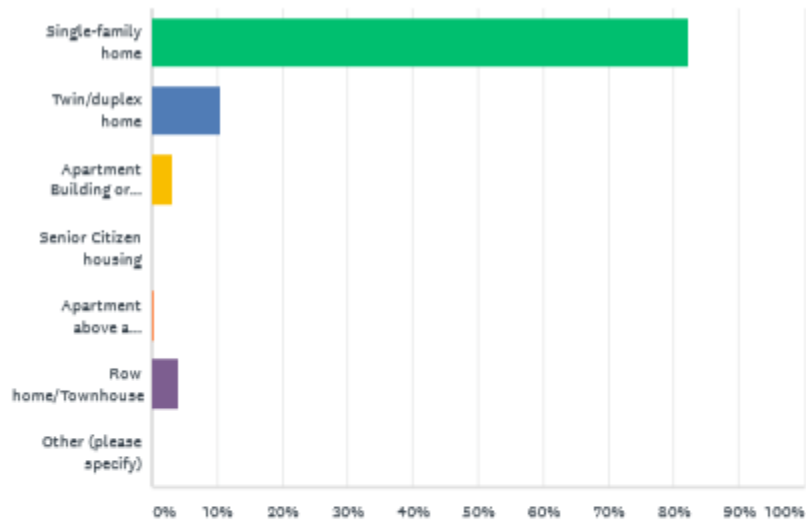
Answered: 353 Skipped: 0



ANSWER CHOICES	RESPONSES	
Own	90.65%	320
Rent	9.35%	33
TOTAL		353

WHAT TYPE OF RESIDENCE DO YOU LIVE IN?

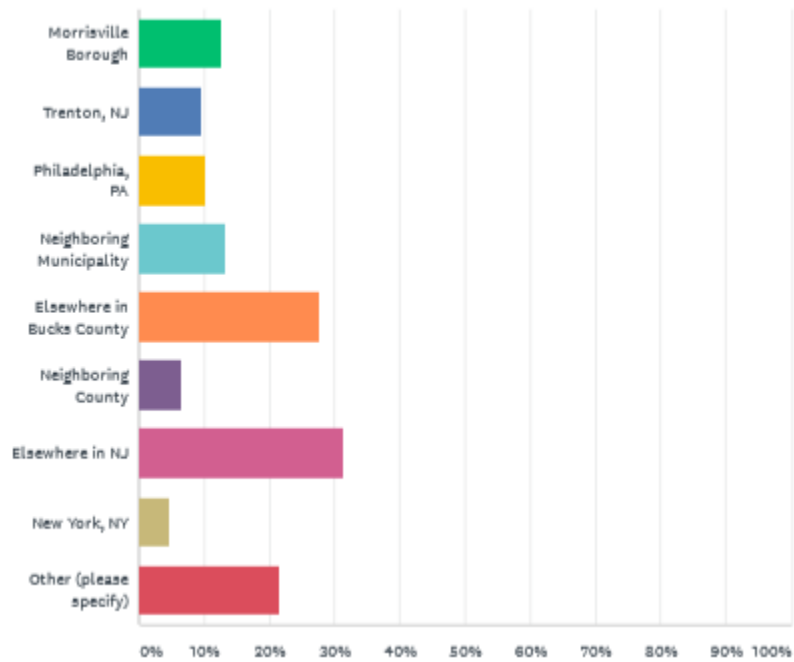
Answered: 353 Skipped: 0



ANSWER CHOICES	RESPONSES	
Single-family home	82.15%	290
Twin/duplex home	10.48%	37
Apartment Building or Condo	3.12%	11
Senior Citizen housing	0.00%	0
Apartment above a business	0.28%	1
Row home/Townhouse	3.97%	14
Other (please specify)	0.00%	0
TOTAL		353

WHERE DO RESIDENTS IN YOUR HOUSEHOLD WORK?

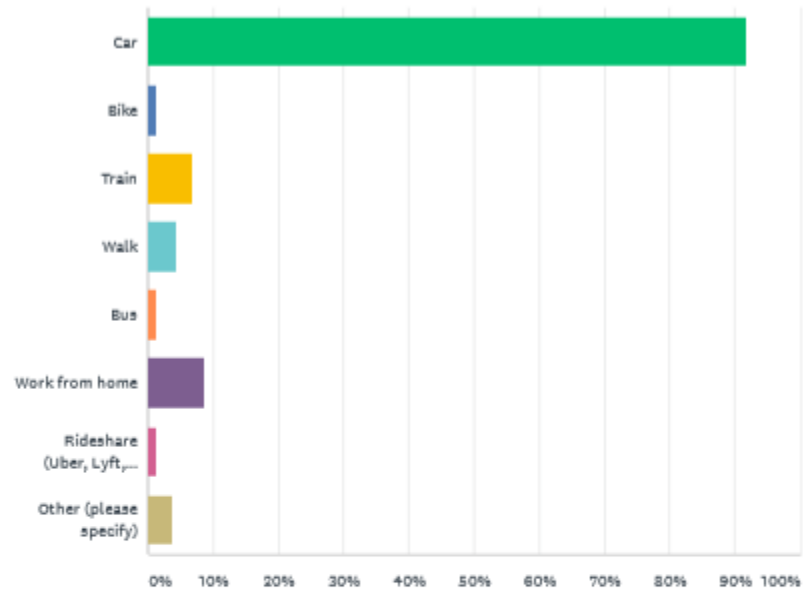
Answered: 351 Skipped: 2



ANSWER CHOICES	RESPONSES	
Morrisville Borough	12.82%	45
Trenton, NJ	9.69%	34
Philadelphia, PA	10.26%	36
Neighboring Municipality	13.11%	46
Elsewhere in Bucks County	27.64%	97
Neighboring County	6.55%	23
Elsewhere in NJ	31.34%	110
New York, NY	4.56%	16
Other (please specify)	21.65%	76
Total Respondents: 351		

WHAT TRANSPORTATION DO THE RESIDENTS IN YOUR HOUSEHOLD USE TO GET TO WORK?

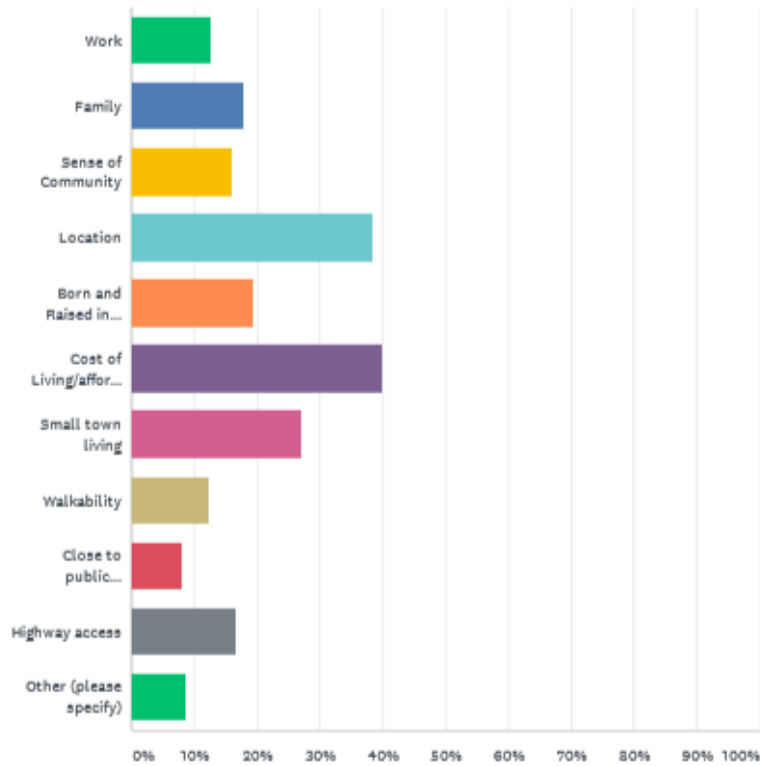
Answered: 346 Skipped: 7



ANSWER CHOICES	RESPONSES	
Car	91.91%	318
Bike	1.16%	4
Train	6.94%	24
Walk	4.34%	15
Bus	1.45%	5
Work from home	8.67%	30
Rideshare (Uber, Lyft, etc.)	1.16%	4
Other (please specify)	3.76%	13
Total Respondents: 346		

WHY DID YOU CHOOSE TO LIVE IN MORRISVILLE?

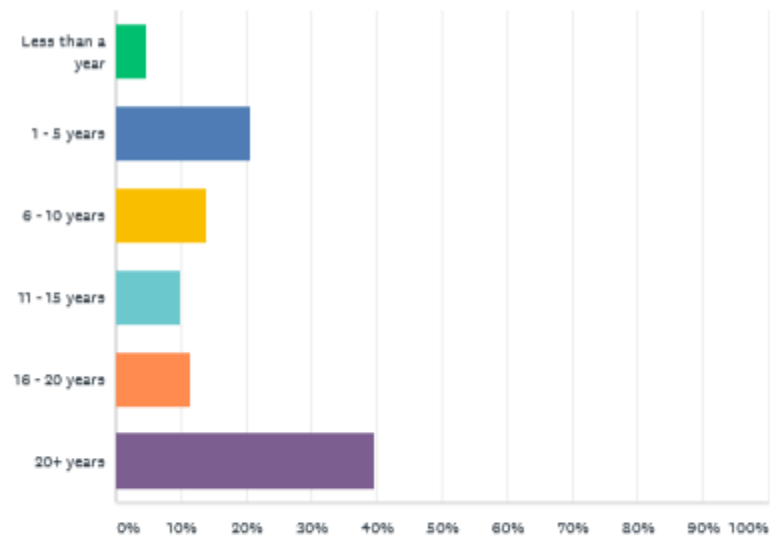
Answered: 351 Skipped: 2



ANSWER CHOICES	RESPONSES	
Work	12.82%	45
Family	17.95%	63
Sense of Community	15.95%	56
Location	38.46%	135
Born and Raised in Morrisville	19.37%	68
Cost of Living/affordable housing	39.89%	140
Small town living	27.07%	95
Walkability	12.25%	43
Close to public transportation	8.26%	29
Highway access	16.52%	58
Other (please specify)	8.55%	30
Total Respondents: 351		

HOW LONG HAVE YOU LIVED IN THE BOROUGH?

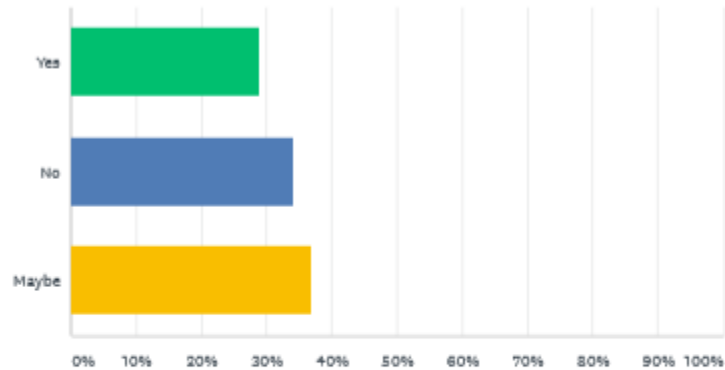
Answered: 352 Skipped: 1



ANSWER CHOICES	RESPONSES	
Less than a year	4.83%	17
1 - 5 years	20.45%	72
6 - 10 years	13.92%	49
11 - 15 years	9.94%	35
16 - 20 years	11.36%	40
20+ years	39.49%	139
TOTAL		352

DO YOU PLAN ON RETIRING IN MORRISVILLE?

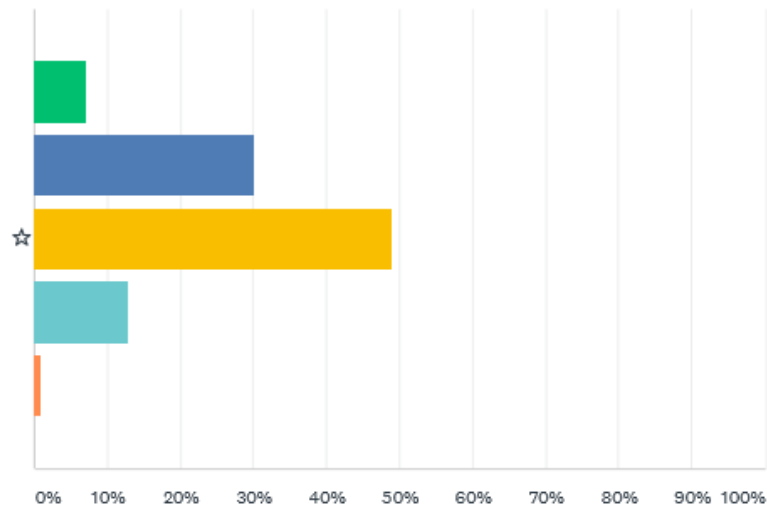
Answered: 347 Skipped: 6



ANSWER CHOICES	RESPONSES	
Yes	29.11%	101
No	34.01%	118
Maybe	36.89%	128
TOTAL		347

HOW WOULD YOU RATE THE QUALITY OF LIFE WITHIN MORRISVILLE BOROUGH?

Answered: 339 Skipped: 14

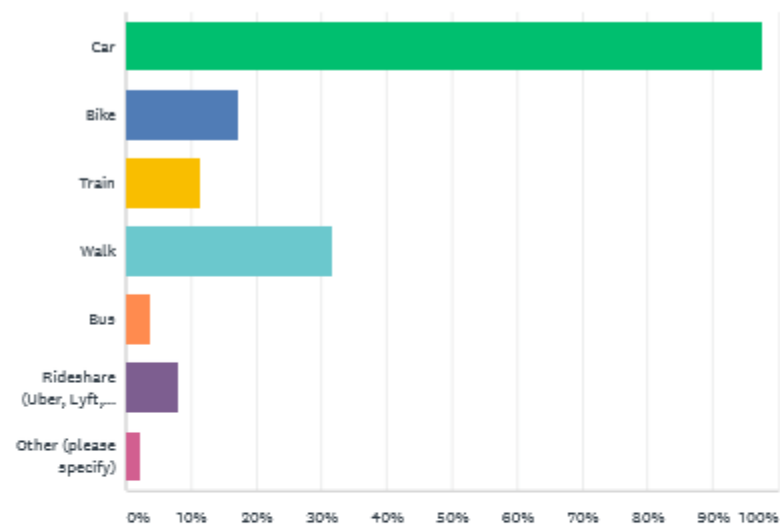


■ Poor
 ■ Fair
 ■ Good
 ■ Very Good
 ■ Excellent

	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT	TOTAL	WEIGHTED AVERAGE
☆	7.08%	30.09%	48.97%	12.98%	0.88%	339	2.71
	24	102	166	44	3		

WHAT TRANSPORTATION DO RESIDENTS IN YOUR HOUSEHOLD
USE TO GET AROUND (OUTSIDE OF WORK)?

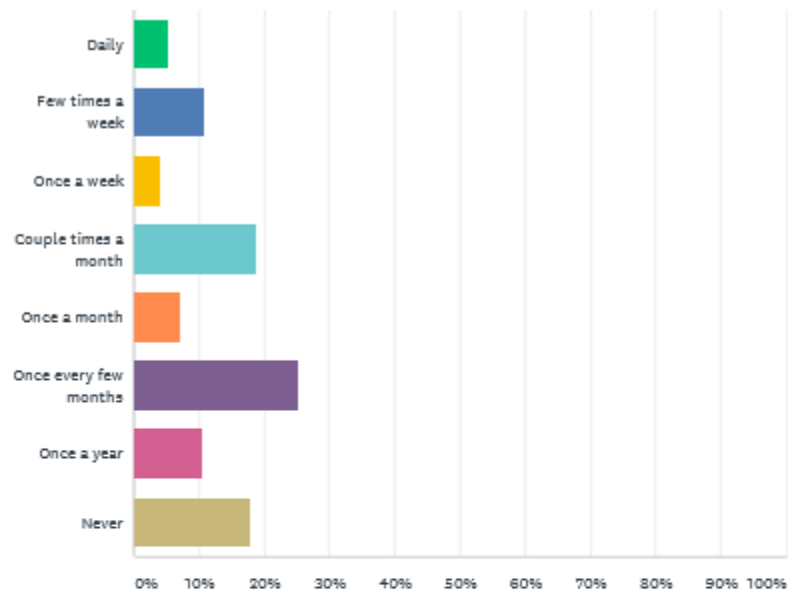
Answered: 349 Skipped: 4



ANSWER CHOICES	RESPONSES	
Car	97.42%	340
Bike	17.19%	60
Train	11.46%	40
Walk	31.52%	110
Bus	3.72%	13
Rideshare (Uber, Lyft, etc.)	8.02%	28
Other (please specify)	2.29%	8
Total Respondents: 349		

HOW OFTEN DO YOU FREQUENT PARKS IN MORRISVILLE BOROUGH?

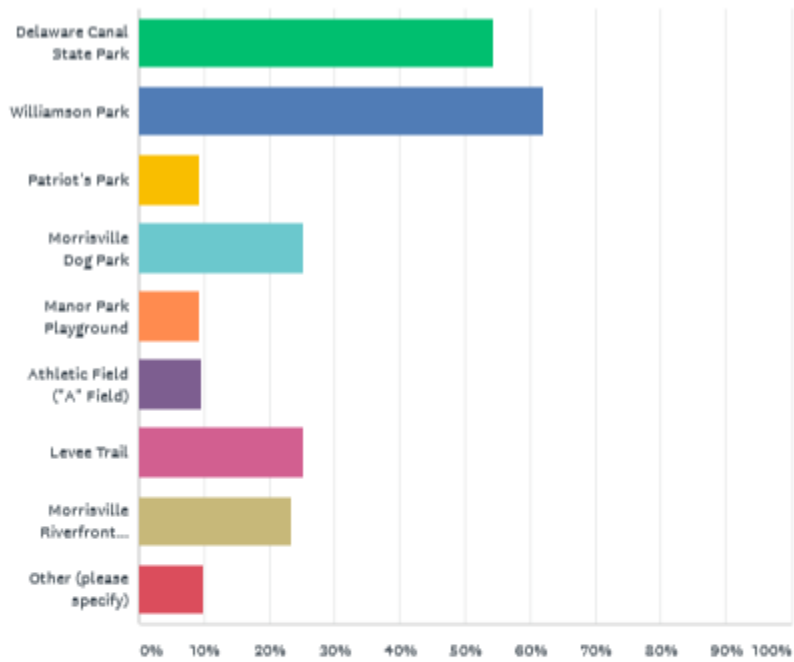
Answered: 350 Skipped: 3



ANSWER CHOICES	RESPONSES	
Daily	5.14%	18
Few times a week	10.86%	38
Once a week	4.29%	15
Couple times a month	18.86%	66
Once a month	7.14%	25
Once every few months	25.14%	88
Once a year	10.57%	37
Never	18.00%	63
TOTAL		350

WHICH PARKS DO YOU FREQUENT?

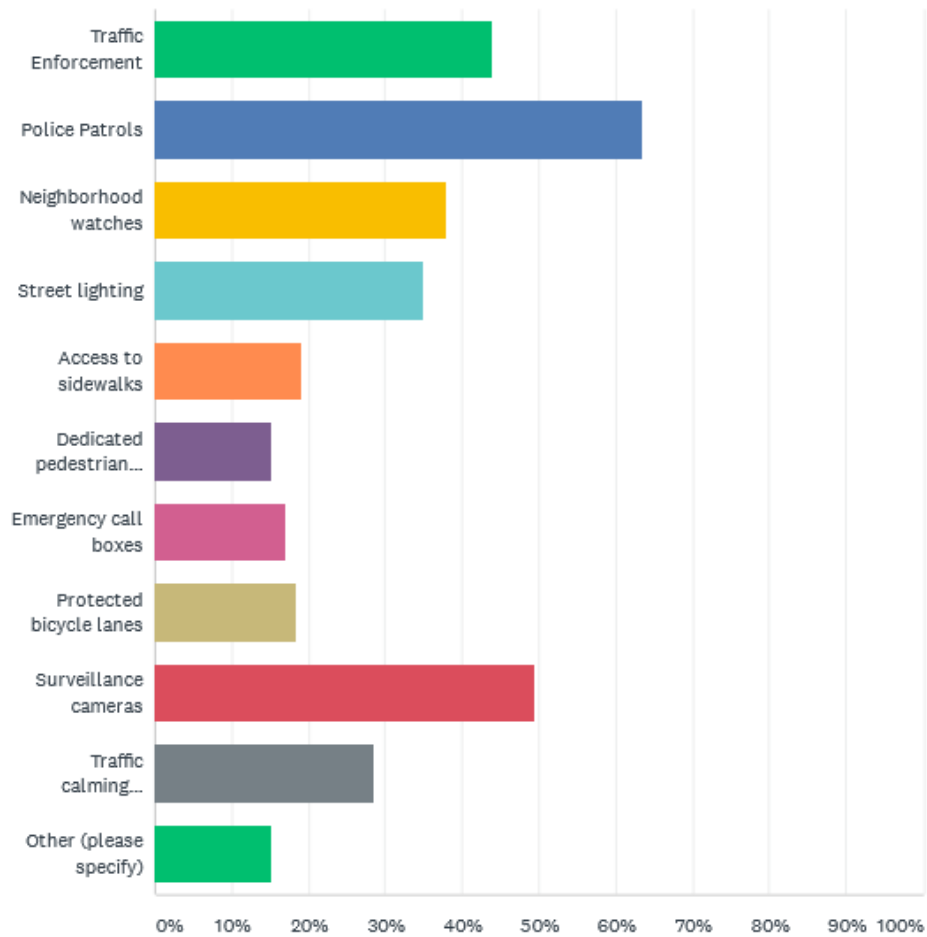
Answered: 303 Skipped: 50



ANSWER CHOICES	RESPONSES	
Delaware Canal State Park	54.46%	165
Williamson Park	62.05%	188
Patriot's Park	9.24%	28
Morrisville Dog Park	25.08%	76
Manor Park Playground	9.24%	28
Athletic Field ("A" Field)	9.57%	29
Levee Trail	25.08%	76
Morrisville Riverfront Preserve	23.43%	71
Other (please specify)	9.90%	30

WHAT COULD BE IMPLEMENTED TO ENHANCE PUBLIC SAFETY INITIATIVES?

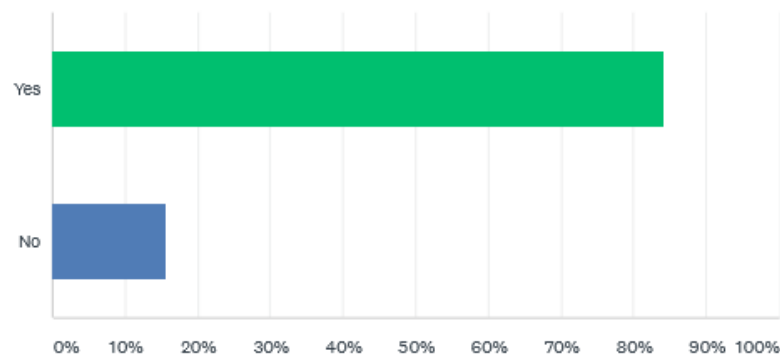
Answered: 352 Skipped: 1



ANSWER CHOICES	RESPONSES	
Traffic Enforcement	44.03%	155
Police Patrols	63.35%	223
Neighborhood watches	38.07%	134
Street lighting	34.94%	123
Access to sidewalks	19.03%	67
Dedicated pedestrian space	15.34%	54
Emergency call boxes	17.05%	60
Protected bicycle lanes	18.47%	65
Surveillance cameras	49.43%	174
Traffic calming initiatives	28.41%	100
Other (please specify)	15.34%	54

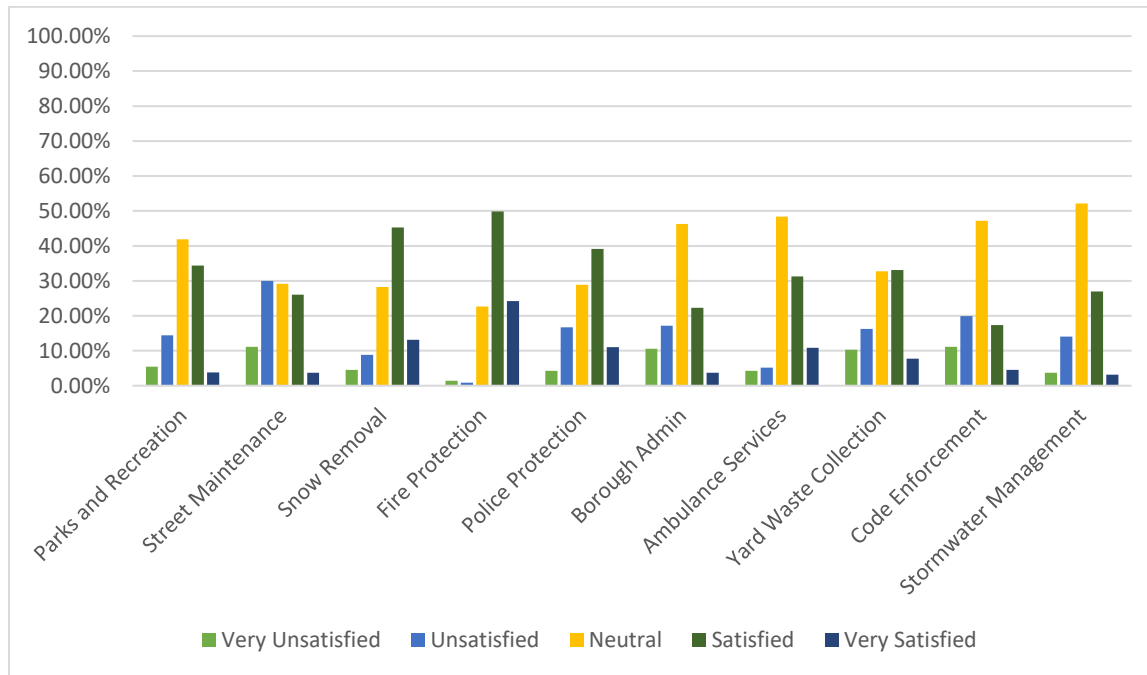
WOULD YOU WANT TO SEE TAX MONEY REDIRECTED TO ENHANCE THOSE PUBLIC SAFETY INITIATIVES?

Answered: 345 Skipped: 8



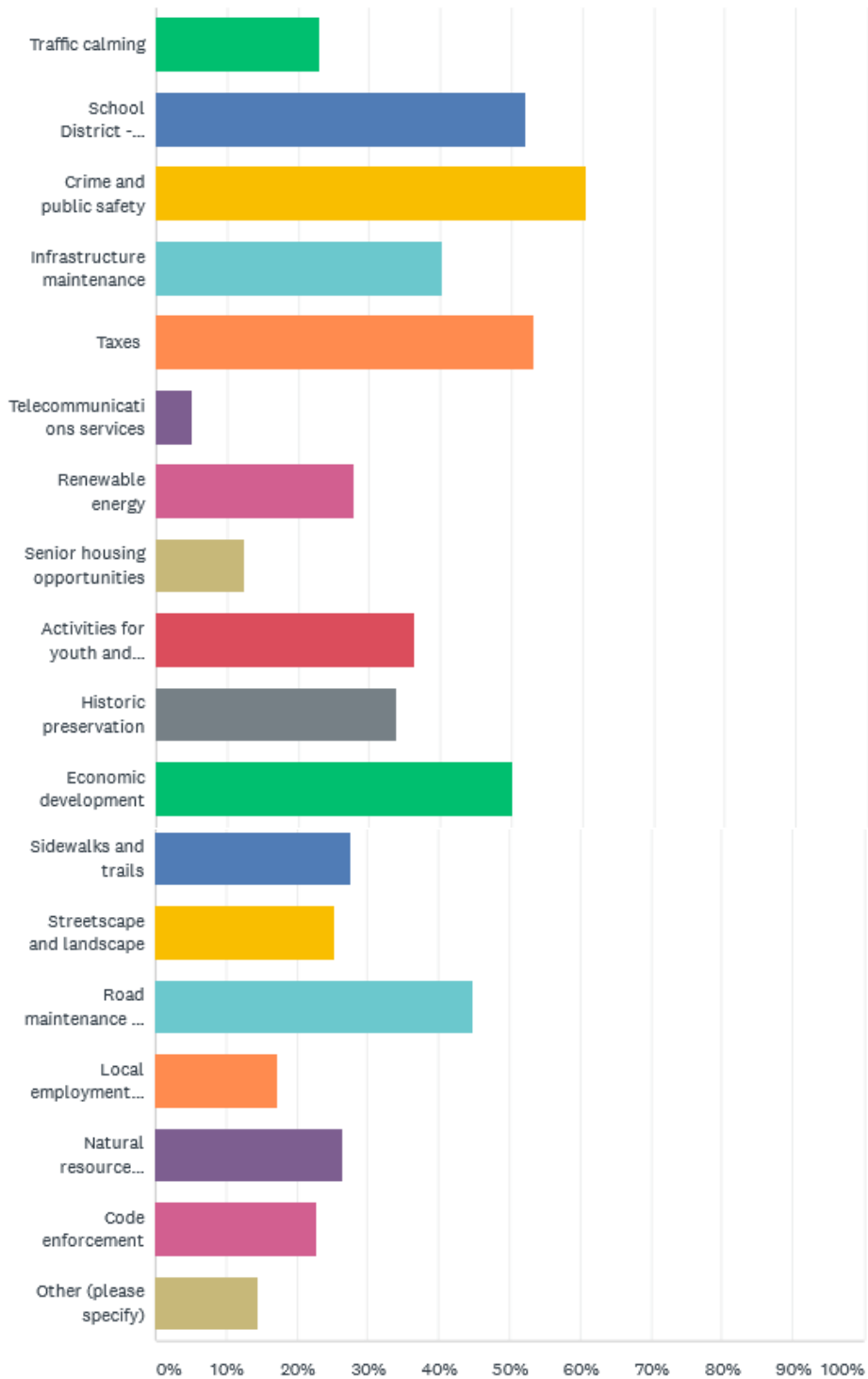
ANSWER CHOICES		RESPONSES	
Yes		84.35%	291
No		15.65%	54
TOTAL			345

HOW SATISFIED ARE YOU WITH THE FOLLOWING COMMUNITY SERVICES THAT MORRISVILLE BOROUGH PROVIDES?



	VERY UNSATISFIED	UNSATISFIED	NEUTRAL	SATISFIED	VERY SATISFIED	TOTAL
Parks and recreation	5.49% 19	14.45% 50	41.91% 145	34.39% 119	3.76% 13	346
Street Maintenance/improvements	11.14% 39	30.00% 105	29.14% 102	26.00% 91	3.71% 13	350
Snow removal	4.56% 16	8.83% 31	28.21% 99	45.30% 159	13.11% 46	351
Fire protection	1.42% 5	0.85% 3	22.66% 80	49.86% 176	25.21% 89	353
Police protection	4.25% 15	16.71% 59	28.90% 102	39.09% 138	11.05% 39	353
Borough administration	10.57% 37	17.14% 60	46.29% 162	22.29% 78	3.71% 13	350
Ambulance services	4.30% 15	5.16% 18	48.42% 169	31.23% 109	10.89% 38	349
Yard waste/leaf collection	10.26% 36	16.24% 57	32.76% 115	33.05% 116	7.69% 27	351
Code enforcement	11.08% 39	19.89% 70	47.16% 166	17.33% 61	4.55% 16	352
Stormwater management	3.72% 13	14.04% 49	52.15% 182	26.93% 94	3.15% 11	349

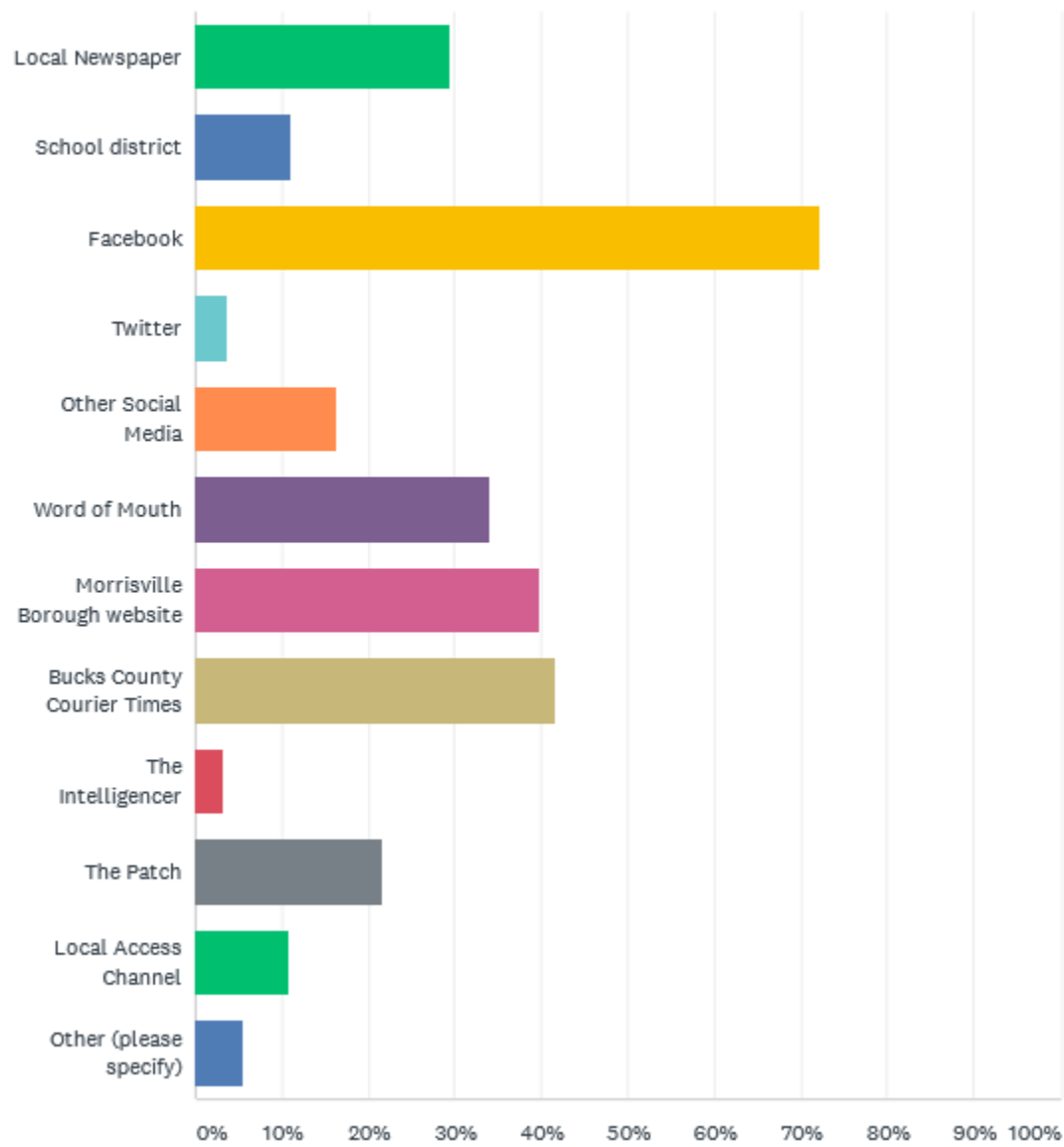
WHAT ISSUES WOULD YOU LIKE TO BE BETTER ADDRESSED IN THE BOROUGH?



ANSWER CHOICES	RESPONSES	
Traffic calming	23.01%	81
School District - declining enrollment	51.99%	183
Crime and public safety	60.51%	213
Infrastructure maintenance	40.34%	142
Taxes	53.13%	187
Telecommunications services	5.11%	18
Renewable energy	27.84%	98
Senior housing opportunities	12.50%	44
Activities for youth and families	36.36%	128
Historic preservation	33.81%	119
Economic development	50.28%	177
Sidewalks and trails	27.56%	97
Streetscape and landscape	25.28%	89
Road maintenance and improvements	44.89%	158
Local employment opportunities	17.33%	61
Natural resource protection	26.42%	93
Code enforcement	22.73%	80
Other (please specify)	14.49%	51

WHERE DO YOU RECEIVE YOUR MORRISVILLE NEWS?

Answered: 349 Skipped: 4



ANSWER CHOICES	RESPONSES	
Local Newspaper	29.51%	103
School district	11.17%	39
Facebook	72.21%	252
Twitter	3.72%	13
Other Social Media	16.33%	57
Word of Mouth	34.10%	119
Morrisville Borough website	39.83%	139
Bucks County Courier Times	41.55%	145
The Intelligencer	3.15%	11
The Patch	21.49%	75
Local Access Channel	10.89%	38
Other (please specify)	5.44%	19

