

COMPREHENSIVE PLAN 2020

UPPER SAUCON TOWNSHIP

LEHIGH COUNTY, PENNSYLVANIA



DRAFT



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EXECUTIVE SUMMARY



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EXECUTIVE SUMMARY



INTRODUCTION

Regional Setting

Upper Saucon Township is situated in the southeastern corner of Lehigh County located approximately 60 miles north of Philadelphia, 80 miles east of Harrisburg, and 90 miles west of New York City. The Township is part of the New York Metropolitan Area. And, for decades, Upper Saucon has been a bedroom community for cities in the Lehigh Valley region including Allentown, Bethlehem, and Easton.

The Township is characteristic of rolling hills, farmland, and suburban style development with easy access to PA Route 309, Interstate 78, and US Route 22. It is these characteristics and location that have made Upper Saucon a very attractive place to live for those wanting a somewhat rural atmosphere with access to regional amenities.

Source: Upper Saucon Township, Website

Local Landscape Today

Over the past three decades, the Township has become more suburbanized. The remaining rural landscapes in the Township are located outside of those areas along major transportation corridors that are densely developed with housing, commercial, industrial, and institutional uses. In 2010, Upper Saucon Township was classified as an urbanized area according to 2010 US Census standards. Based upon growth trends, the Township is one of the five fastest growing municipalities in the Lehigh Valley with respect to population and employment.

Sustainable Comprehensive Plan

The overarching Comprehensive Plan goal is that development will occur in a sustainable manner that protects and supports the suburban and rural character of Upper Saucon Township. This plan sets out to address comprehensive plan elements in the context of achieving and maintaining community sustainability measured through a framework of environmental, economic, and social 2040 target goals. The plan is designed to provide a vision for the future while keeping planning goals, objectives, and strategies realistic and implementable.

Planning for Sustainability

This plan outlines a vision for future growth management and preservation by identifying existing conditions, trends, opportunities, policies, and strategies to guide appointed and elected officials and property owners responsible for land use decision-making.

The community development goals and objectives in this plan provide the framework for land use policies and implementation through regulations (e.g. zoning, subdivision/land development, and others). The plan contains basic elements outlined in Article III of the Pennsylvania Municipalities Planning Code (MPC).

The vision, goals, objectives, policies, strategies, and guidance offered in this plan are focused around achieving long-term sustainable outcomes for Upper Saucon Township. This plan applies basic sustainability principles outlined by the American Planning Association (APA) such as:

- Creating a livable built environment – Ensure that all elements of the built environment including land use, transportation, housing, energy, and infrastructure work together to provide sustainable, green places to live, work, and recreate with a high quality of life.
- Developing in harmony with the environment – Ensure that contributions of natural resources to human wellbeing is explicitly recognized and valued and that maintaining the health of the environment is a primary objective.
- Building a resilient economy – Ensure that the community is prepared to deal with both positive and negative changes to its economic health and to initiate sustainable development and redevelopment that foster business growth and reliance on local assets.
- Interweaving equity with land use policies – Ensure fairness and equity of all citizens and groups when providing for the needs for housing, services, health, safety, and livelihood.
- Maintaining a healthy community – Ensure that public health needs are recognized and addressed through provisions for healthy foods, physical activity, access to recreation, health care, environmental justice, and safe neighborhoods.
- Acting as a responsible regional partner – Ensure that all local proposals account for, connect with, and support the plans of adjacent jurisdictions and the surrounding region.
- Encouraging authentic participation – Ensure that the planning process actively involves all segments of the community in analyzing issues, generating visions, developing plans, and monitoring outcomes.
- Programming accountability through implementation – Ensure that responsibilities for carrying out the plan are clearly stated, along with metrics for evaluating progress in achieving desired outcomes.

Source: American Planning Association (APA), *Sustaining Places – The Role of the Comprehensive Plan*

Sustainable Communities

Sustainable communities are places where people strive to enjoy good health and create a high quality of life. A sustainable community reflects the interdependence of economic, environmental, and social issues by acknowledging communities must continue to exist into the future without diminishing the land, water, air, natural and cultural resources that support them.

In a sustainable community, the management of housing, transportation, and resource conservation are conducted in ways that retain the economic, ecological, and scenic values of the environment. These communities also have policies that minimize consumption of fossil fuels, emissions of greenhouse gases, impacts on water resources, and pollution.

Source: *Sustainable Communities and Smart Growth*, Natural Resource Defense Council



Photograph by April Showers, JMT

Indicators of Sustainability

An indicator of sustainability can be defined as the “measurable aspect of environmental, economic, or social systems that is useful for monitoring changes in system characteristics relevant to the continuation of human and environmental well-being” (US EPA, 2012). The planning principle of sustainability, sustainable development, and sustainable community involves achieving and maintaining a desired Quality of Life (QOL) for Township residents.



Figure 1: Sustainability Diagram

QOL is the general well-being of individuals and societies, outlining negative and positive features of life. It observes life satisfaction, including everything from physical health, family, education, employment, wealth, safety, security to freedom, religious beliefs, and the environment (Wikipedia 2018). The following twenty-five indicators of sustainability have been assessed as part of the plan analysis and will be used to support the metrics of this plan to measure change over time to determine how well the Township is achieving sustainability in the context of the natural and cultural resource environment, social environment, and economic environment.

Table 1: Sustainability Indicators

| Natural/Cultural Resource Environment | Social Environment | Economic Environment |
|---------------------------------------|---|-----------------------------|
| Sustainable Land Use Practices | Population | Jobs/Economic Growth |
| Agricultural Lands | Quality of Education | Revenue/Tax Rates |
| Quality of Development | Crime & Safety | Unemployment |
| Community Character & Design | Physical Wealth/Wellbeing | Business Innovation |
| Historic/Cultural Resources | Partnerships | Asset Management |
| Regulations & Codes | Energy Efficiency | Housing Types/Affordability |
| Open Space/Park and Recreation | Accessibility/Traffic Congestion and Safety | Household Income/Poverty |
| Air and Water Quality | Infrastructure & Utilities | |
| Flooding/Runoff | | |
| Waste Recycling | | |

Source: Sustainable Measures, Organizing Indicators, <http://www.sustainablemeasures.com/node/96>

Key Definitions

- Sustainability – Meeting the needs of the present without compromising the ability of future generations to meet their own needs (United Nations December 11, 1987).
- Sustainable Development – Development that involves the simultaneous pursuit of economic prosperity, environmental quality, and social equity (World Business Council on Sustainable Development).
- Sustainable Communities – Communities that are economically, environmentally, and socially healthy and resilient and meet challenges through integrated solutions rather than through fragmented approaches. Sustainable communities take a long-term perspective focusing on both the present and the future well beyond the next budget or election cycle (Institute of Sustainable Communities).

THE PROCESS

A fact-based, citizen-driven planning process was used to create the future vision for the Township and to develop sustainable community development goals and objectives. A Comprehensive Plan Steering Committee and the Planning Commission provided input, review, and policy guidance to the planning consultant and Township staff. The Steering Committee was composed of longtime residents, recent arrivals, representatives of the business and agricultural communities, representatives of the School District and higher education, and others. The Committee members played an important role in the planning process by participating in a series of work sessions designed to support development of the plan. Citizens were engaged during the process through a community survey, a public workshop, and public meetings.

SUSTAINABLE VISION AND GOALS

Based upon identified priority community issues, it is the desire of the citizens of the Township that community development will occur in an orderly, sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township. The following vision, goals, and objectives make up the framework for sustainable development when considering priority community issues.

Sustainable Community Vision & Priority Community Issues

Vision Statement

Upper Saucon Township is a municipality with rural, suburban, and urban amenities that coexist in harmony to support a sustainable community.

This vision intends to maintain and strengthen Upper Saucon Township as a community where:

- People thrive, enjoy good health, and experience a high quality of living.
- A strong governmental structure and leadership understands the interrelationship of solutions to economic, environmental, and social issues such as potential solutions to priority community issues shown to the right.
- Decision-makers embrace innovative land use policies and regulations that manage housing, economic development, and transportation while preserving and protecting valuable environmental resources and community assets.
- Sustainable community development meets citizen expectations for a healthy community with healthy choices and a demand for walkable, compact, mixed-use, and transit-accessible development.

Priority Community Issues

The following issues, in order of priority, were identified by the Steering Committee as part of a SWOT Analysis, participants of a Visioning Workshop as part of meeting activities, and public preferences as part of a community survey.

1. Farmland and green space preservation
2. Transportation congestion
3. Land use along major corridors and sustainable retail
4. Balanced tax base
5. Impacts of urban growth
6. Water and sewer capacity
7. Lack of a town center
8. Stormwater infrastructure
9. Lack of walkability
10. Housing choice

These issues provided a framework for continued discussion, study, and planning by Township staff, planning consultant, and the Steering Committee.

Source: Steering Committee and 2017-2018 Community Survey

The principles of a sustainable community are intertwined with building a healthy community. Research indicates that properly designed buildings, appropriately placed structures, easy-to-reach parks, programmed community spaces, and access to healthy foods can have an extraordinary impact on community health. Healthy communities with opportunities for healthy living and eating result in improved personal health and improved quality of life.

For example, living closer to healthy food retail establishments is associated with better eating habits and decreased risk for obesity and diet-related diseases (The Food Trust). And, most people who live in neighborhoods with parks, trails, and greenways are twice as healthy as people who live in neighborhoods without such facilities (Urban Land Institute).

Important Planning Themes Identified by the Public

The following are the top five planning themes that were identified during the Visioning Workshop to guide the Comprehensive Plan update process:

- Emphasize rural and suburban character of the community.
- Regulate type, amount, and timing of development to lessen community impacts.
- Preserve farms and open land.
- Plan long-term, not short-term.
- Balance development and preservation goals to achieve sustainability for the Township.

Source: Public Input documented in the Public Workshop Summary (April 2018).

Community Development Goals and Objectives

A summary of community development goals and objectives for each plan element with a specific anticipated outcome and land use policy objective is contained on the following pages. This information is also repeated in each plan element section for ease of reading and understanding the intent of each element. The land use policy objectives from the 1985 Comprehensive Plan were updated and revised based upon public input, existing conditions assessment, and guidance from the Steering Committee.

This section of the plan is developed in accordance with the Pennsylvania Municipalities Planning Code (MPC), Article III – Comprehensive Plan, Section 301(a) basic elements, subsection (1) which “requires a statement of objectives of the municipality concerning its future development, including, but not limited to, the location, character and timing of future development, that may also serve as a statement of community development objectives as provided in Section 606.” Section 606 of the MPC requires that “the municipality’s zoning ordinance reflect the policy goals and include a statement of community development objectives by reference to the comprehensive plan.”

Source and Reference: PA MPC – <https://dced.pa.gov/download/pennsylvania-municipalities-planning-code-act-247-of-1968/?wpdmdl=56205&ind=0>

Table 2: Summary of Community Development Goals, Objectives, Expected Outcome, and Policies

| | | |
|--|--|--|
| <p>Overarching Comprehensive Plan Goal: Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township.</p> | | |
| <p>Growth Management Goal: Promote sustainable community development to become a sustainable community. Primary Objective: Minimize environmental, community, and fiscal Impacts. Expected Outcome: Strike a balance between community and economic development and environmental preservation.</p> | <p>Community Character & Design Goal: Preserve and enhance the existing character of residential neighborhoods, villages, natural landscapes, and other unique or special places. Primary Objective: Maintain a sense of place where people want to live, work, and play. Expected Outcome: Create a strong sense of place identifiable by residents, businesses, and visitors.</p> | <p>Economy Goal: Concentrate commercial and industrial development to maximize infrastructure investment and to minimize impacts on residential neighborhoods. Primary Objective: Direct private and public investment that leads to sustained economic growth to provide living wages and career path opportunities for employees. Expected Outcome: Achieve and maintain a diverse local employment base and sustainable local tax base.</p> |
| <p>Overarching Land Use Policy: Work with neighborhoods, property owners, and developers to accommodate growth in a flexible, connected, and sustainable manner.</p> | <p>Overarching Land Use Policy: Promote design standards for buildings, streets, and open space that work together to define a sense of place.</p> | <p>Overarching Land Use Policy: Focus on new development and redevelopment of sites that provide a balanced tax base.</p> |
| <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> Promote smart growth based upon sound decision making that accounts for competing interests, goals, objectives, and strategies across all plan elements. Achieve performance goals and provide an annual report on metrics related to 2040 targets. Coordinate the phasing of development with public investments for the expansion of public water, sewer, roads, and utilities. | <p>Design Policy Objectives:</p> <ol style="list-style-type: none"> Promote walkable neighborhoods by adopting and applying a Complete Streets Policy and Design Guidelines for all public and private development. Continue to incorporate high standards for site design and architectural design of buildings. Offer incentives and development bonuses for mixed-use, walkable development. Promote sustainable design and architectural principles and LEED® certified development, buildings, facilities, and neighborhoods. Use a Historic Village Zoning District integrated with a TND Overlay for villages and village centers to blend the new with the old. Promote vertically and horizontally mixed-use development patterns at various levels of density and intensity based upon rural or suburban landscapes. Creatively incorporate aspects of urban farming into mixed-use development (e.g., farmers' markets, community gardening, roof top farming, small plot intensive farming, and similar). | <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> Create opportunity for businesses offering high paying jobs and diversification of the labor force. Streamline processes and create tax incentives to attract and create "New Economy" industries. Concentrate on retaining and expanding local businesses and reinvesting in commercial areas. Foster local entrepreneurship to increase the number of small businesses to support village center development and Traditional Neighborhood Development (TND). Retain a strong agricultural base as part of the local and regional food supply. Concentrate on attracting new businesses as part of the strategy to strengthen the Town Center and to support mixed-use development in the Enterprise Zone. Protect natural and cultural resources and valued community assets that strengthen community character to create an enjoyable place to live and to attract a diverse labor force. Encourage partnerships with major landholders and institutions of higher education. Assist local businesses seeking expansion and growth opportunities. |

Table 2: Summary of Community Development Goals, Objectives, Expected Outcome, and Policies

| | | |
|---|--|---|
| Overarching Comprehensive Plan Goal: Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township. | | |
| <p style="text-align: center;">Community Facilities and Services</p> <p>Goal: Provide adequate public facilities and services to meet the needs of a growing population.</p> <p>Primary Objective: Develop adequate public facilities as part of private development and through implementation of a public Capital Improvement Program (CIP).</p> <p>Expected Outcome: Achieve and maintain a high quality of life through community facilities and services that meet the basic needs for water, sewer, recreation, and public health, safety, and welfare and provide other life sustaining and social functions.</p> | <p style="text-align: center;">Natural Resources</p> <p>Goal: Maintain the health of the environment and the community.</p> <p>Primary Objective: Recognize the importance of natural resources, geographic features, and man-made features that make the Township a desirable place to live. Preserve and protect natural landscapes of the Township.</p> <p>Expected Outcome: Achieve and maintain harmony with the environment through preservation of as many natural resources and geographic features as possible.</p> | <p style="text-align: center;">Cultural Resources</p> <p>Goal: Maintain and enhance cultural landscapes that help define community character.</p> <p>Primary Objective: Preserve and protect the cultural landscape of the Township.</p> <p>Expected Outcome: Contribute to a high quality of life, maintain a sense of place, and preserve local heritage recognized by residents and visitors.</p> |
| Overarching Land Use Policy: Provide for adequate public facilities and services through partnerships between local government, authorities, and the development community. | Overarching Land Use Policy: Collaborate with local and regional partners to reclaim, conserve, protect, and enhance natural, cultural, and agricultural resources and man-made community assets. | |
| Land Use Policy Objectives: <ol style="list-style-type: none"> 1. Recognize that sustainable public and private development has a social responsibility to create a high-quality built environment with accessible local services, open space, and adequate community facilities and services. 2. Understand that the Township has an obligation to ensure compatibility of public buildings, facilities, and uses with surrounding private development. 3. Apply facility design that promotes the use and uniqueness of community facilities for all ages and abilities of users. 4. Plan for the expansion of public facilities and services as an integrated aspect of private development. 5. Meet the collective needs of a multi-cultural and inclusive population. | Land Use Policy Objectives: <ol style="list-style-type: none"> 1. Protect and preserve natural, cultural (historic), agricultural, and scenic resources. 2. Utilize information about topography, soils, and other natural features to determine the most suitable type, location, and density of development. 3. Utilize environmental impacts assessments to evaluate and mitigate development impacts. 4. Apply soil and water conservation best practices and integrated water resource management strategies to all development. 5. Incorporate natural features and stormwater best management practices into the design and layout of development. 6. Protect and preserve environmentally sensitive areas such as steep slopes, forested land, floodplains, water recharge areas, areas prone to sinkholes, and similar areas. | |

Table 2: Summary of Community Development Goals, Objectives, Expected Outcome, and Policies

| Overarching Comprehensive Plan Goal: Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township. | | |
|---|--|--|
| Agricultural Preservation | Transportation | Housing |
| <p>Goal: Preserve agricultural land.</p> <p>Primary Objective: Preserve those lands best suited for sustainable agriculture that protect the food supply, economic base, and rural character of the Township.</p> <p>Expected Outcome: Increase public and privately preserved agricultural land productively farmed.</p> | <p>Goal: Develop and maintain a local multimodal transportation network as part of a larger regional network.</p> <p>Primary Objective: Develop and maintain a multimodal transportation network providing accessibility, mobility, and safety for all users.</p> <p>Expected Outcome: Improve connectivity and interconnectivity for all modes of transportation that integrates local and regional traffic.</p> | <p>Goal: Maintain the character of existing residential neighborhoods and develop new neighborhoods with a variety of housing types.</p> <p>Primary Objective: Provide affordable housing choice for households of all income levels.</p> <p>Expected Outcome: Achieve a mixture of housing types, unit size, and affordability commensurate with housing needs and goals.</p> |
| <p>Overarching Land Use Policy: Collaborate with local and regional partners to reclaim, conserve, protect, and enhance natural, cultural, and agricultural resources and community assets.</p> | <p>Overarching Land Use Policy: Recognize that transportation is a land use and that investment in multimodal transportation improvements contributes to short- and long-term sustainability.</p> | <p>Overarching Land Use Policy: Encourage expanded choices in housing location and types and improve access to jobs and opportunities.</p> |
| <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> 1. Protect and preserve agricultural land and rural landscapes. 2. Encourage sustainable farming. 3. Conserve, preserve, and protect agricultural land for future farmers. 4. Continue to provide land use regulations for the protection of agricultural lands and allow for secondary uses that strengthen the economic viability of farming. 5. Continue to be an active partner in Lehigh County's Municipal Partnership Program for Agricultural Land Preservation. | <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> 1. Require improvements such as sidewalks, bike lanes, off-road facilities, and/or space for future transit stops as part of all land development. 2. Implement pedestrian/bicycle improvements that connect residential neighborhoods with community valued assets such as schools, employment, shopping centers, parks and recreation, and other public facilities. 3. Embrace transit-oriented design standards to make the Township development patterns transit friendly and ready for future service. 4. Coordinate with LANta early in the land development process to incorporate appropriate transit infrastructure. 5. Ensure the scope of Traffic Impact Studies are adequately defined and improvements are made as part of public and private development projects. 6. Partner with other agencies, organizations, and the private sector to prepare local infrastructure and communications for autonomous and connected vehicle technology. | <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> 1. Provide for diversity of housing types, size, tenure, and design within respective land use classifications, density standards, and development constraints. 2. Incentivize and remove barriers to production of moderately priced rental housing through land use policy and other regulatory mechanisms. 3. Focus housing development in a way that is sustainable where public infrastructure exists. 4. Ensure safe and code compliant housing. 5. Continue to require energy and water efficiency in all new, renovated, and existing housing through the UCC. 6. Promote housing development that protects environmentally sensitive areas and environmentally constrained lands. 7. Promote mixed-income neighborhoods. 8. Increase housing density in village centers, traditional neighborhood developments (TNDs), and mixed-use campus style developments. 9. Adopt land use regulations that facilitate development in village centers and TNDs using mixed-use development standards. |

EXISTING CONDITIONS

Community Conditions, Demographics, and Projections

The following community factors with associated conditions and demographics are indicators of sustainability. A brief explanation of the impact of each indicator on sustainability is provided along with information and/or statistics associated with each.

Population is a social environment indicator impacting the natural and cultural resources environment and a factor contributing to the economy in areas such as employment and housing. Population is a measurable indicator to use when planning for government facilities and services as well as when assessing the potential for economic development. Population is also used as the basis for projecting revenue and estimating the demand on public services such as water, sanitary sewer, schools, parks and recreation, fire and rescue, and emergency medical services.

In nearly four decades since 1980, the population of the Township has grown 72% to approximately 16,585 persons in 2018. The projected population and household count, using an alternative method applying a growth rate based upon changes in population of school aged children, is estimated to be 21,793 persons living in 7,167 households by 2040. The projected population growth from 14,808 in 2010 to 21,793 in 2040 results in a 47% increase over three decades with a subsequent 42% change in households from 5,039 in 2010 to 7,167 in 2040. Reference Appendix B Trends for additional details.

Household Income is determined based upon where you live and based upon the associated cost of living, number of people in the household, employed number of dependents, health, level of education, transportation, and housing costs. According to the Department of Housing & Urban Development (HUD), spending 30% or more of a household's income on housing is considered "housing-cost burdened." Cost burden based upon housing costs can occur at all income levels. In the Township, approximately 23.8% of homeowners and 41% of renters are cost burdened.

Currently, the median household income is approximately \$94,212. This is nearly 70% higher than both the state and national median income and 64% higher than that of Lehigh County. As previously stated, the projected 2040 number of households is expected to reach 7,167; this is nearly a 27% increase in households since 2018 (estimated 5,650 households). Refer to Appendix B Trends and Appendix C Housing Analysis for additional details about housing supply and demand.

Housing availability, cost, and choice directly affects financial security and sustainability of households and affordable housing for all income levels affects the quality of life of residents with respect to health, access to education, and employment prospects. The Township's 2019 millage rate is either comparable or lower than surrounding suburban and urban municipalities in the region. Competitive or comparable property taxes, quality public education, and access to good jobs locally and regionally has attracted residential development to Upper Saucon Township and surrounding municipalities in the region.

More than three-quarters of the homes in the Township are valued above \$200,000. A 4.2% vacancy rate suggests a strong housing market in the Township with little to no ability to absorb incremental housing demands unless new construction should occur. Significant growth in households in age categories 65-74 and 75+ are expected in the region through 2030 due to the desire to age in place or the desire to live in a place of preference. It is anticipated that there will be also an increase in households in age category 35-44 (first-time home buyers) between 2018 and 2023. According to the US Census, approximately 21.3% of the 639 renter households in the Township are considered

“severely rent-burdened” – meaning these households spend at least 50% of their income on housing costs.

Adequate community facilities and utilities are essential to a sustainable community and impact the quality of life. Public facility and utility providers plan for service expansion needs, conduct operations and maintenance programs, and implement capital improvement programs to assure quality service is provided to current and future customers. The Township has ordinances in place to require developers to address roadways, utilities, open space, and park/recreational facility improvements and dedication. The Township has adopted an Official Map identifying potential locations of land to be dedicated and used as future roadways, parks, open space, and recreation.

Approximately 1,966 acres in the Township are devoted to public and private park, recreation, and open space. As residential development occurs, additional lands will be either dedicated or a fee in lieu of will be offered to the Township for open space and/or park and recreation space improvements. Upper Saucon Township has an annual budget for operations, maintenance, and capital improvements for public facilities such as roadways, stormwater facilities, and wastewater collection and treatment.

Natural and cultural resource and agricultural preservation is important to achieving long-term community sustainability. The Township along with the State and the County Conservation District apply regulations to protect natural resources through permitting, inspection, and enforcement programs to monitor short- and long-term impacts and compliance. Additionally, the Township has adopted an Agricultural Protection Zoning District (1,409 acres) covering a portion of the more rural landscapes including 1,035 acres of land in Agricultural Security Areas. In partnership with property owners, the County, the State, and the Township has preserved 392 acres of these agricultural lands.

The economy and economic development drives growth and creates jobs that contribute to a high quality of life for residents at an acceptable cost to both the environment and social aspects of the community. The Township continues to experience a very low unemployment rate and is well positioned to compete for mixed-use campus style development including corporate headquarters and businesses associated with technology and innovation. Agricultural lands and farming contribute to the local and regional economy and food supply. See page 117 for campus style development.

The Township's residents are highly educated – 45% hold a bachelor's degree and 21% hold a graduate or professional degree. These statistics are twice that of education levels for residents in other municipalities in the region. In 2010, the Township had an employment base of 9,976 people working in UST. While limited lands remain for commercial, institutional, and industrial development, LVPC employment projections identify a 66% increase from 2010 (9,976) to 2040 (16,519).

The transportation network is part of all landscapes across the Township and has an economic impact on the community. And, if designed properly, the network can provide safe and efficient travel while maintaining and strengthening community character. It is important to make short- and long-term transportation decisions that influence the quality of life for years to come. Nearly 85% of residents of the Township commute to work in personal vehicles with an average travel time of 20-30 minutes with 75% of households having two or more vehicles. Traffic safety and congestion are concerns during peak travel times along the Route 309 corridor and other key locations.

The Township has adopted an Official Map identifying potential roadway and path/trail connections for the Township. And, the Township has a Capital Improvement Plan (CIP) identifying transportation projects to be sponsored by the Township or sponsored through a partnership between the Township, PennDOT, and/or the development community.

Land is a limited resource. Growth management results in a healthy mix of land use with private and public investment focused on mitigating impacts on the environment and minimizing financial costs to providing public infrastructure that ultimately achieves community sustainability. Land in Upper Saucon Township has been predominantly developed at varying densities and types of residential land use (43.8% or 6,919 acres). Development trends suggest that the Township could reach build-out sooner than 2040. The Township has approximately 10.7% (1,689 acres) of lands classified as undeveloped, underdeveloped, and vacant land. Underdeveloped land includes developed land with additional development potential to reach maximum build-out.

Approximately 8.6% (1,360 acres) of all lands are developed as non-residential uses excluding utilities, transportation, park, recreation, and open space uses.

Approximately 17.1% or 2,695 acres are classified as agricultural lands of which 1,035 acres are in Agricultural Security Areas (ASA) with 392 of those acres permanently preserved.

Table 3: 2018 Land Use Classification

| Land Use Classification | 2018 | |
|---|---------------|-------------|
| | Acres | Percent |
| Residential | 6,919 | 43.8% |
| Commercial | 335 | 2.1% |
| Industrial & Warehouse | 153 | 1.0% |
| Public & Institutional | 872 | 5.5% |
| Utility & Transportation | 1,155 | 7.3% |
| Park, Recreation, & Open Space (public & private) | 1,966 | 12.5% |
| Agricultural | 2,695 | 17.1% |
| Undeveloped/ Underdeveloped*/ Vacant Land | 1,689 | 10.7% |
| Total | 15,784 | 100% |

Source: Lehigh County Tax Assessment Data, Township GIS Data, and Township Review/Update of Land Use Data.

*Underdeveloped land includes developed land with additional development potential.

Implications of Current Land Use Policies

Large areas zoned and developed as low- to medium-density residential development with capacity for future development of a similar nature and density will continue to negatively impact natural resources, and contribute to loss of agricultural land and will result in increased energy consumption, stormwater runoff, infrastructure and equipment investments, maintenance and operational costs, traffic congestion, public services costs, and local and school district taxes.

Understanding the Township cannot stop development, the planning process focuses on establishing a sustainable land use allocation introducing changes that promote compatibility of adjacent land uses, neighborhood compactness, infill development, mixed-use development, and redevelopment.



Factors Contributing to a High Quality of Life

Factors contributing to a high quality of life are those asset, attributes, or qualities of the Township that are important to the community and that make the Township unique. These important factors were identified by the Steering Committee via a SWOT Activity, by responses to a community survey, and by participants of a Public Workshop. The following factors important and of value to the community help shape the planning goals, objectives, polices, and strategies outlined in this plan.

Table 4: Factors Contributing to Quality of Life

| Valued Natural Resources | Valued Community Resources & Infrastructure |
|---|---|
| Preserved and Actively Farmed Agricultural Land | DeSales University, Penn State, and Lehigh |
| Scholl Woodlands Preserve | Promenade Shops |
| Wildlands Conservancy Buehler Memorial Park | School District Facilities and Quality of Education |
| Open Space and Parklands | Community Park and other Park Facilities |
| Conservation of Natural Resources | Saucon Rail Trail |
| Valued Community Character | Golf Courses/Country Clubs |
| Location in the Region | Library |
| Rural and Suburban Landscapes | Public Water and Sewer |
| Historical Properties and Districts | Transportation Network provides Good Access |

Source: Public Input 2018

Land Use Trends

The way land is used changes over time depending upon community needs and market factors. The table below reflects the changes in land use from 1966 through 2018 by acres and percentages for each land use classification using data provided by the LVPC, Lehigh County, and Upper Saucon Township. The 2018 Township land use was derived from Lehigh County data with staff verification to improve on the accuracy of the data with respect to use classification. Major changes include increases in leisure activities, industry and business, and housing to accommodate growth.

Table 5: Land Use Trends 1966 – 2018

| Land Use Classification ¹ | LVPC Land Use Trends | | | | | | Township Land Use | |
|---|----------------------|---------|--------|---------|--------|---------|-------------------|---------|
| | 1966 | | 1982 | | 2012 | | 2018 | |
| | Acres | Percent | Acres | Percent | Acres | Percent | Acres | Percent |
| Residential | 3,632 | 22.7% | 3,985 | 24.8% | 5,964 | 37.8% | 6,919 | 43.8% |
| Commercial ² | 80 | 0.5% | 69 | 0.4% | 245 | 1.5% | 335 | 2.1% |
| Industrial/Warehouse ² | 80 | 0.5% | 62 | 0.4% | 155 | 1.0% | 153 | 1.0% |
| Public/Institutional | 464 | 2.9% | 456 | 2.9% | 844 | 5.3% | 872 | 5.5% |
| Utility/Transportation | | | | | 1,183 | 7.5% | 1,155 | 7.3% |
| Park and Recreation ³ (public & private) | 304 | 1.9% | 1,344 | 8.4% | 1,530 | 9.7% | 1,966 | 12.5% |
| Agricultural ⁴ | 10,400 | 65.0% | 6,555 | 41.0% | | | 2,695 | 17.1% |
| Undeveloped/ Underdeveloped/ Vacant Land ⁵ | 1,040 | 6.5% | 3,529 | 22.1% | 5,863 | 37.1% | 1,689 | 10.7% |
| Total | 16,000 | 100% | 16,000 | 100% | 15,784 | 100% | 15,784 | 100% |

¹Sources: 1985 Comprehensive Plan, LVPC Municipal Profile, Lehigh County Tax Assessment Office, and UST Existing Land Use Map Data –

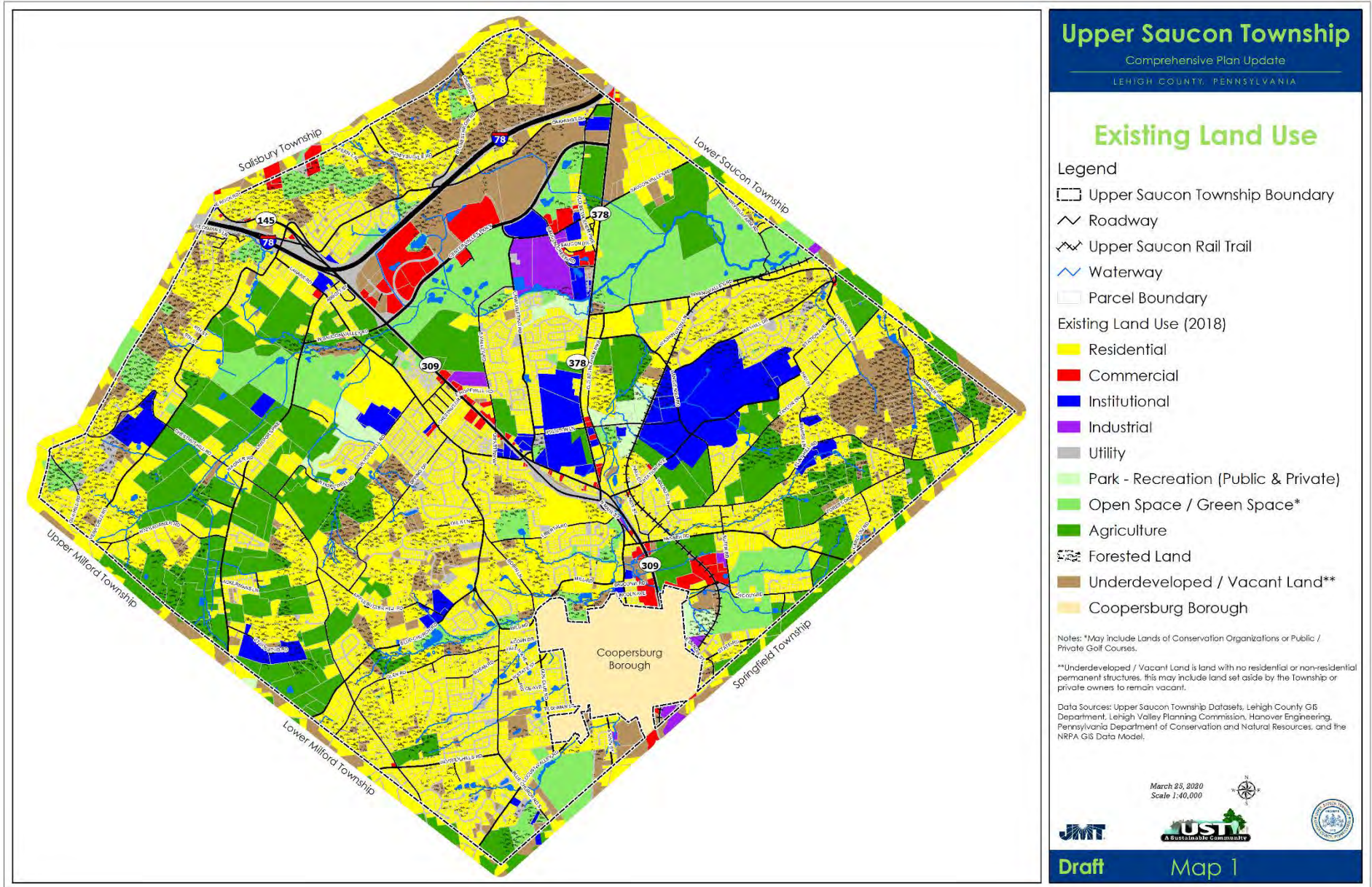
²There are some discrepancies in the data from 1966 to 1982 with respect to commercial and industrial/warehouse uses.

³Includes Parks, Recreation, and Open Space/Green Space. ⁴Includes land currently farmed available for future development.

⁵Underdeveloped land includes developed land with additional development potential – 2018 acres includes undeveloped and vacant land only including lands planned or approved for pending development.

Data obtained from Lehigh County Tax Assessment Office was used to prepare Map 1: Existing Land Use to reflect the current land use patterns for 2018 based upon standard land use classifications.

Map 1: Existing Land Use



DEVELOPMENT CONCEPTS

CENTER VALLEY VILLAGE CENTER



The following master plan concept and design guidelines focus on promoting high-quality improvements, adaptive reuse, and infill development that will compliment and enhance the overall character of the village. These guidelines are not intended to restrict creativity or limit design solutions. This graphic vision is intended to demonstrate the potential to improve and enhance the overall scale, quality, and character of areas within the village. This concept promotes a level of quality, compatibility, and consistency that will help make the village attractive and distinguishable from surrounding development.



LEGEND

- 1. Walkable Streetscape with 2-Way Traffic**
Within the existing right-of-way provide for two-way traffic, sidewalk, and a large shoulder design and signed for pedestrian and bicycle use.
- 2. Adaptive Reuse of Underutilized Commercial Structure**
Improve the physical appearance and second floor deck to allow for a unique restaurant setting.
- 3. Adaptive Reuse of Residential Structure**
Improve the physical appearance including commercial storefront on first floor, from patio, and upper floor residence to provide small-scale commercial office or retail space.
- 4. Infill Development**
Small-scale commercial strip development designed as first floor office or retail space with upper living space. The architectural design is compatible with existing development.
- 5a. Northern Gateway**
Gateway signage and landscaping to identify the Center Valley Village Center.
- 5b. Southern Gateway**
Gateway signage and landscaping to identify the Center Valley Village Center.
- 6. Route 309 Widening for Northbound Travel**
Widening of Route 309 to include two lanes north bound to divert through traffic from the Village Center.
- 7. Intersection Improvements**
Intersection improvements to provide safe access to the Village Center, school campus, and surrounding development.
- 8. Pedestrian Bridge**
Pedestrian bridge in right-of-way of former historic Centennial Bridge to make pedestrian and bicycle connections to the Village Center, adjacent neighborhood, and the Saucon Rail Trail.

Concept for SR 309 Northbound Lanes around Center Valley Village Center



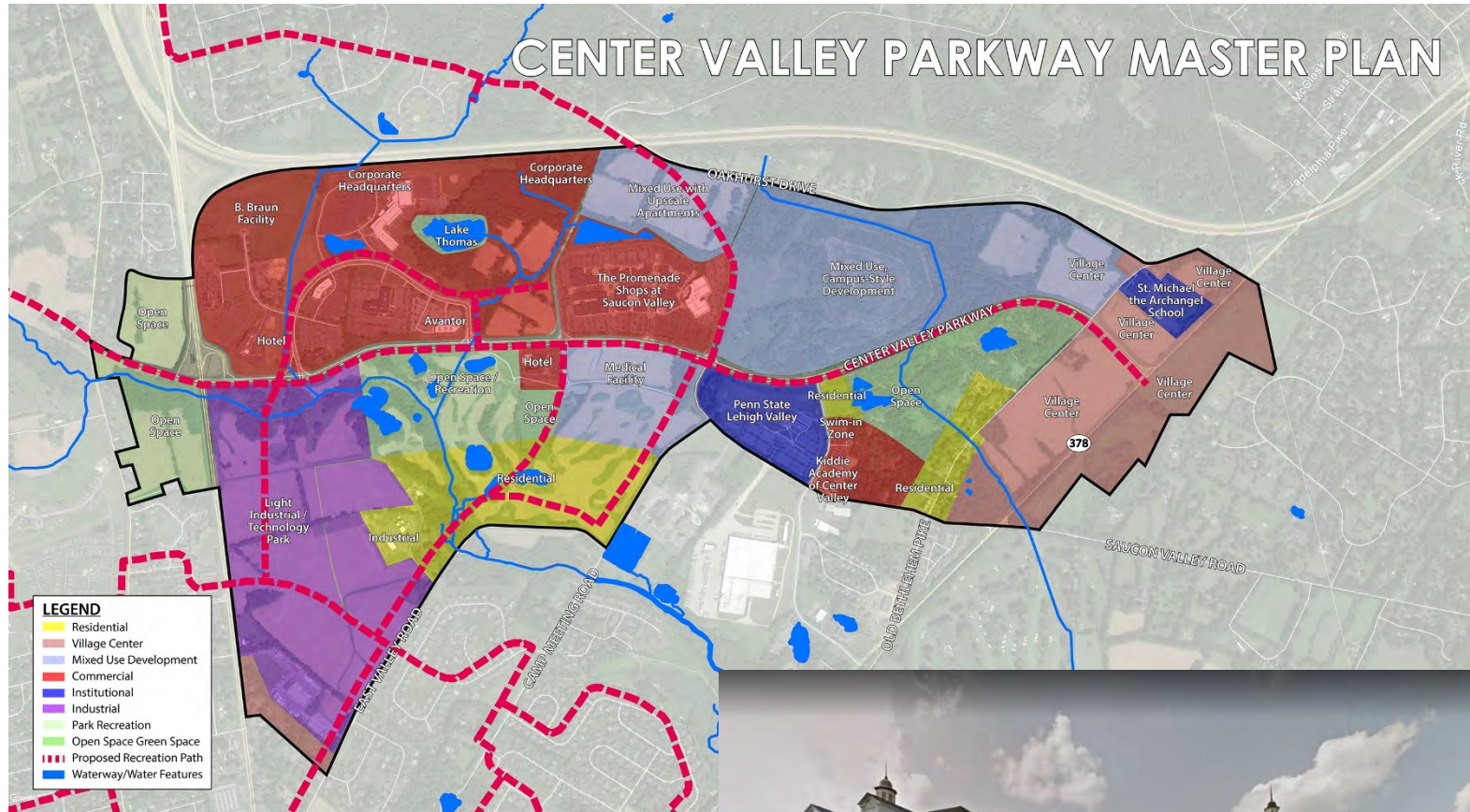
Source: Upper Saucon Township, Township Engineer – Hanover Engineering

Concept for SR 309 Northbound Lanes around Center Valley Village Center



Source: Upper Saucon Township, Township Engineer – Hanover Engineering

Center Valley Parkway Master Plan for Mixed-Use Development to Support the Town Center



Campus Style Development Trends

- Productively using green space.
- Preserving natural resources.
- Linking development to trails and paths.
- Using alternative energy sources.
- Using technology.
- Integrating a mix of uses.
- Sharing parking.



Example of Campus-Style Development – Livingston Town Center – Livingston, NJ. Source: Internet

Age Restricted Community / Transitional Housing Concept



Transitional Senior Development Concept

Redevelopment of the abandoned Golf Course provides opportunity for preservation of open space and senior transitional housing integrated with natural features. The concept includes:

- Affordable residential duplexes.
- Assisted care facility and nursing home.
- Water features as an amenity and stormwater infrastructure.
- Indoor/outdoor recreation facilities, paths, and trail connections.
- Parking and grounds keeping facility.

TND Concept for New Development or Redevelopment

The following is a concept applying Traditional Neighborhood Design (TND) standards and LEED Site and Building Design standards that promote sustainable development. The concept depicts compact, mixed-use development for an approximate 20-acre site surrounded by existing residential and commercial development.

TND Concept for New Development or Redevelopment



Bicycle and Pedestrian Guidelines

A complete streets policy and design guideline can offer a safer, inclusive, and aesthetically pleasing transportation system for all modes of travel and for people of all ages and abilities. The following identify aspects of a complete streets policy and depict graphic concepts for a suburban community.

Complete Streets Policy

- Integrate bicycling and walking into the transportation system.
- Incorporate bicycling and walking facilities into all development and transportation projects unless exceptional circumstances exist.
- Provide buffers for off-road shared use paths or trails in areas of high volumes of truck traffic.
- Include a minimum four-foot wide on-street striped bicycle lane and accessible sidewalks and crosswalks on collector and arterial streets as needed where traffic volumes and speeds increase.
- Include a minimum four-foot paved shoulder and accessible sidewalks and crosswalks as needed where traffic volumes and speeds increase along rural roadways.
- Use traffic calming measures to reduce motor vehicle speeds to levels more compatible with biking and walking in high pedestrian and bicycling areas.

Safety and Sustainability

Suburban and rural roadway options are identified in this section featuring bicycle and pedestrian facilities for residents who do not feel safe sharing the road with motor vehicles including heavy truck traffic.

Pedestrians and bicyclists are attracted to safe and accessible facilities that provide neighborhood connections to parks and recreation, neighborhood shopping, government facilities, and schools.

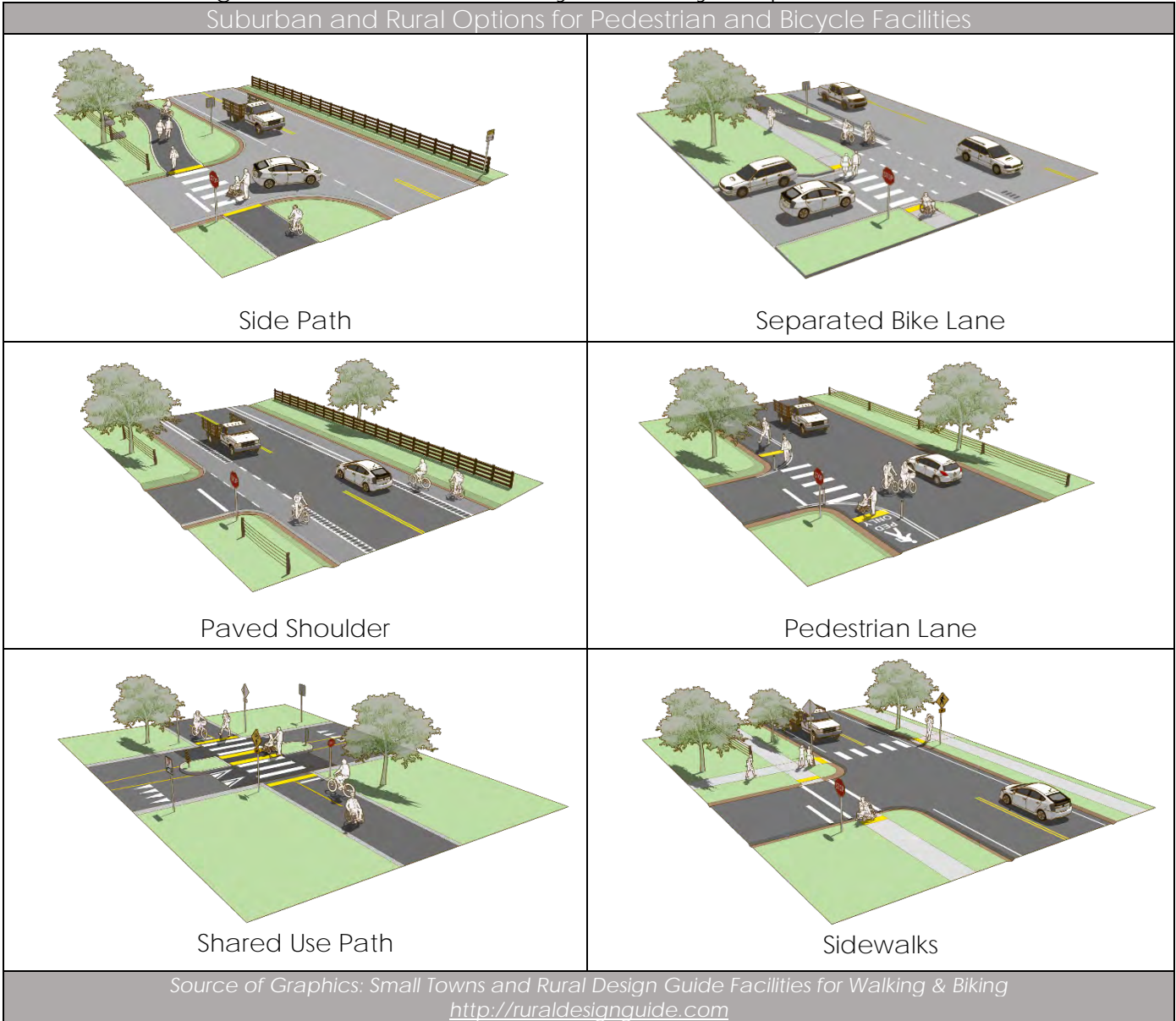
Source: FHWA, Complete Streets

Design Guideline and Graphic References

Refer to FHWA, AASHTO, NACTO, ADA, and PennDOT when developing and adopting design guidelines and standards for pedestrian and bicycle facilities.

Additionally, the Small Towns and Rural Design Guide Facilities for Walking & Biking website provides a range of guidelines for bicycle and pedestrian facilities in urban, suburban, and rural environments. The graphics depicted in Figure 2 on the following page have been selected from this publication as a reference to demonstrate for educational purposes options that address specific safety concerns for pedestrians and bicyclists expressed by residents who are not avid on-road bicyclists.

Figure 2: Pedestrian and Bicycle Facility Graphic References
 Suburban and Rural Options for Pedestrian and Bicycle Facilities



Similar graphics of pedestrian and bicycle improvements to those shown in this section should be prepared to be used along with current and new Township design standards to visualize public improvements to be made as part of a public or private development proposal, as part of public roadway projects, or as part of a public/private partnership for redevelopment.

LAND USE POLICY & PLAN

This Land Use Policy and Plan will play an important role in managing growth in the form of both new development and redevelopment. The land use plan builds on the vision, goals, and objectives to establish a desired policy framework in which future development can occur. The land use plan also provides a guide for managing future development and growth by determining the location, type, and character of future land uses and development intensity and density as well as identifies areas for environmental and agricultural protection.

The results from Appendix C – Housing Analysis, Appendix D – Economic Analysis, and Appendix E – Build-Out Analysis are used to determine future land use that can accommodate household and employment growth based upon market demands and the capacity for development under current zoning. This land use plan takes into consideration lands available for development and key opportunity sites to determine a desired future land use that achieves the sustainable community vision, goals, and objectives. Map 10 – Future Land Use and the policy outlined in this chapter provides a visual and written guide for growth management and future development.

Preferred Land Use Types

- Residential – predominantly single-family homes.
- Commercial – predominantly villages, walkable main streets, and mixed-use.
- Industrial – predominantly agriculture and active farming.
- Institutional – predominantly colleges, universities, technical schools, medical facilities, and hospitals.
- Recreation – predominantly public parks, paths, and trails.

Source: 2018 Public Visioning Workshop and 2017-2018 Community Survey

Land Use Goals & Policy Statements

The overarching goal and policies of this section are augmented with sustainable goals, objectives, and policies detailed in other plan elements.

Overarching Goal – Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township.

This land use policy and plan sets out to address comprehensive plan elements in the context of growth management to achieve and maintain community sustainability expressed through a framework including:

- Environmental Policy
- Economic Policy
- Social Policy



Figure 3: Sustainability Diagram

Overarching Policies Specific to Plan Elements:

- Policy 1: Community Facilities & Services – Provide for adequate public facilities and services through a partnership between local and regional government, service providers, and the development community.
- Policy 2: Natural, Cultural, & Agricultural Resources – Collaborate with local and regional partners to reclaim, conserve, protect, and enhance natural, cultural, and agricultural resources and man-made community assets.
- Policy 3: Transportation – Recognize that transportation is a land use and invests in multimodal transportation choices contribute to short- and long-term sustainability.
- Policy 4: Housing – Encourage expanded choices in housing location and types that improve access to jobs and education opportunities.
- Policy 5: Economy – Focus on new development and redevelopment of sites that provide a balanced tax base.
- Policy 6: Community Character and Design – Focus on design standards for buildings, streets, and open space that work together to define a sense of place.

Defining Growth Policy and Growth Management

A growth management policy guiding decisions about development and public investment is at the heart of this comprehensive plan.

Growth management is a broad planning term consisting of a set of traditional and evolving techniques, tools, strategies, and actions that can be used by the Township to guide local patterns of land use and to ensure that as population grows there are adequate public services and infrastructure put in place to meet local and regional needs. Growth management policies seek to shape the timing and type of growth instead of controlling or preventing growth.

Applying a strategy of growth management to become a sustainable community means to apply specific regulatory policies aimed at influencing how growth occurs by focusing on availability and location of land for development, density and intensity of development, mixture of uses, and timing of development. Planning techniques to achieve growth management goals include adopting smart growth and/or sustainable community policies and regulations that encourage higher density development, encourage mixed-use zoning, reduce travel by private vehicles, revitalize older areas of development, and preserve agricultural land and open space.

Growth management policies are implemented through regulatory tools such as zoning and subdivision/land development ordinances, environmental performance standards, design standards, and financing tools such as development exactions and incentives (e.g. private development

Goals, Objectives & Policies

Growth Management Goal: Be a sustainable community.

Primary Objective: Minimize environmental, community, and fiscal impacts.

Expected Outcome: Achieve a balance between community and economic development and environmental preservation.

Overarching Land Use Policy: Work with neighborhoods, property owners, and developers to accommodate growth in a flexible, connected, and sustainable manner.

Land Use Policy Objectives:

1. Promote smart growth based upon sound decision making that accounts for competing interests, goals, objectives, and strategies across all plan elements.
2. Achieve performance goals and provide annual reporting using metrics related to 2040 target goals.
3. Coordinate the phasing of development with public and private investments to expand public water, sewer, roads, schools, and utilities.

contingent upon public infrastructure improvements with dedication requirements, traffic impact fees, lands dedicated for park and recreation or fee in lieu of, conservation design preservation requirements, bonus densities, and similar techniques). The implementation of growth management policies, techniques, and strategies should be guided by performance goals, political support, regulation, and developer cooperation.

Growth Management Strategies

- Promote higher density development and redevelopment along the Route 309 corridor and Center Valley Parkway. This will create a denser core and will promote preserving open space and agricultural land within a less dense outer ring of development.
- Consider Transfer of Development Rights (TDRs) in conjunction with mixed-use zoning to allow higher densities of residential development mixed with other uses in areas identified to receive development.
- Allocate adequate Township funding to support agricultural conservation easements to meet the 2040 local agricultural conservation goal of preserving a total of 1,000+ acres.
- Promote conservation easements, agricultural conservation easements, cluster development, conservation by design, and mixed-use campus-style development.
- Understand the timing of development will occur based upon expansion of public water and sewer, upgrade of the water and wastewater treatment plants, and roadway improvements.
- Continue to study and understand market factors that drive the demand for various types of land use in the region as well as locally in the Township.
- Create flexibility in zoning to integrate technology with land use regulations that promotes sustainable development.
- Incorporate flexibility for mixed-use development at appropriate levels of density, intensity, and mix in the Village Center Overlay Zone, the Enterprise Zone, and the Enterprise Overlay Zone using a form-based code for these zones.
- Conduct a Health Impact Assessment (HIA) and require a review of development and redevelopment plans, capital projects, programs, and/or policies against this plan and the HIA before adopting and implementing policies and programs and designing or building projects. This will allow the Township to make informed choices about sustainable community development that will result in improved physical health and fiscal responsibility.

Campus-Style Development

Campus-style development is a mixed-use development integrating building type and design (including low-rise and high-rise buildings) using environmentally suitable building and site design.

Campus-style design utilizes open space, public plazas, landscaping, amenities, streetscapes, and signage to integrate use, design, and density of development.

Campus-style development trends included a mix of use including office, education, health care, housing, hospitality, and research and development.

Source: Chapter 9, Community Character and Design.

Potential Developable Lands

The existing land use map, zoning map, potential net developable lands, and opportunity sites were used along with analysis contained in the appendices to prepare the Future Land Use Map (Map 10). The following is a summary of potential net developable land inside and outside of the Township's Act 537 Service Area and agricultural and non-agricultural land identified by zoning district. Net Developable Lands (NDL) are lands available for development minus environmentally constrained lands (e.g. water bodies, wetlands, steep slopes, and floodplains).

Table 6: Potential Net Developable Lands by Zoning District

| Zoning District | Total Acres Zoned | Acres of Potential Net Developable Land ¹ | Acres of Potential Net Developable Land Inside 537 Service Area | Acres of Potential Net Developable Land Outside 537 Service Area |
|--|-------------------|--|---|--|
| Agricultural Zoning Districts | | | | |
| Agricultural Preservation (A) – Non-Ag Lands | 1,408.98 | 5.44 | 5.44 | 0.00 |
| Agricultural Preservation (A) – Ag Lands | | 340.41 | 45.77 | 294.64 |
| Total Agricultural Lands | 1,408.98 | 345.85 | 51.21 | 294.64 |
| Residential Zoning Districts | | | | |
| Rural Residential (R1) – Non-Ag Lands | 3,622.36 | 236.15 | 68.68 | 167.47 |
| Rural Residential (R1) – Ag Lands | | 878.29 | 32.27 | 846.02 |
| Suburban Residential (R2) – Non-Ag Lands | 5,911.87 | 274.19 | 172.15 | 102.04 |
| Suburban Residential (R2) – Ag Lands | | 404.66 | 265.33 | 139.33 |
| Multi-Family Residential (R3) – Non-Ag Lands | 552.44 | 8.15 | 6.20 | 1.95 |
| Multi-Family Residential (R3) – Ag Lands | | 30.32 | 30.32 | 0.00 |
| Open Space Residential (OSR) – Non-Ag Lands | 933.44 | 21.70 | 0.44 | 21.26 |
| Open Space Residential (OSR) – Ag Lands | | 105.62 | 0.00 | 105.62 |
| South Mountain Conservation (SMC) – Non-Ag | 1,853.07 | 291.92 | 50.55 | 241.37 |
| Total Residential Lands | 12,873.13 | 2,251.00 | 625.94 | 1,625.06 |
| Commercial Zoning Districts | | | | |
| Commercial (C) – Non-Ag Lands | 195.65 | 9.75 | 9.75 | 0.00 |
| Commercial (C) – Ag Lands | | 51.31 | 51.31 | 0.00 |
| Industrial Zoning Districts | | | | |
| Industrial (I) – Non-Ag Lands | 450.88 | 22.39 | 1.70 | 20.69 |
| Industrial (I) – Ag Lands | | 156.28 | 136.28 | 20.00 |
| Enterprise Zoning District | | | | |
| Enterprise (E) – Non-Ag Lands | 855.19 | 259.88 | 259.88 | 0.00 |
| Enterprise (E) – Ag Lands | | 115.40 | 115.40 | 0.00 |
| Total Non-Residential Lands | 1,501.72 | 615.01 | 574.32 | 40.69 |
| Sub-Total Non-Ag Lands | | 1,129.57 | 574.79 | 554.78 |
| Sub-Total Ag Lands | | 2,082.29 | 676.68 | 1,405.61 |
| Totals | 15,783.88 | 3,211.86 | 1,251.47 | 1,960.39 |
| Overlay Zoning Districts² | | | | |
| Enterprise Overlay Zone (EOZ) – Non-Ag Lands | 193.18 | 135.25 | 135.25 | 0.00 |
| Village Commercial Overlay (VC) ³ | 21.93 | 0.00 | 0.00 | 0.00 |
| Sub-Totals | 215.11 | 135.25 | 135.25 | 0.00 |

Source: Build-Out Analysis (revised 8/14/2020) – Total acres within Zoning District includes roadways, rights-of-way, and public utilities.

¹Total Net Developable Land – Land available for development minus environmentally constrained lands. Lands available for development with an area under 0.5 acres were considered too small for development and were removed from consideration.

²Calculations for Overlay Zoning Districts covers acreages already accounted for in the top portion of the table.

³The AQC Overlay Zone has been repealed but remains identified on the Zoning Map.

Note: The existing land use was used to determine non-agricultural and agricultural land use acreages by zoning district and planned and approved residential development tracked by the Township is not included in the acreages above. Agricultural and non-agricultural lands include forested land where present – refer to Maps 1, 4, and 6 in the Map Book to view forested areas.

As part of the planning process, a build-out analysis was used to determine the potential location of development to illustrate a pattern that growth could take in the future if land use policies and regulations do not change. This analysis determined the number of additional dwelling units and non-residential square feet of development that could be built on developable land under existing zoning regulations. The results paint a picture of the potential probable future and identify implications of existing policies and regulations to help the Township discuss what steps should be taken to manage future growth (refer to Appendix E – Build-Out Analysis and the Future Land Use Chapter).

Table 6 on the previous page identifies the total potential net developable land by zoning district. Potential Net Developable Lands (NDL) are lands available for development minus environmentally constrained lands. There are approximately 3,212 acres of potential net developable land (1,130 acres of non-agricultural land and 2,082 acres of agricultural land) considered for build-out.

Net Developable Non-Agricultural Lands (Comparison of Tables 5 and 6): Of the 2018 lands classified as undeveloped and/or vacant in Table 5 (1,689 gross acres including environmentally sensitive lands) scattered across various zoning districts, there is potentially 1,130 acres of net developable non-agricultural land located in residential, commercial, and industrial zoning districts available for future development. The remaining gross acres of undeveloped and/or vacant land are made up of planned and approved development plans being tracked by the Township.

Net Developable Agricultural Lands (Comparison of Tables 5 and 6): Of the 2018 lands classified agriculture in Table 3 (2,695 gross acres including environmentally constrained lands) scattered across the Township, there is potentially 2,082 acres of net developable agricultural land located in residential, commercial, agricultural, and industrial zoning districts available for future development. A small percentage of the gross agricultural acres are impacted by the planned and approved development plans being tracked by the Township.

Compatibility of Existing Zoning to Meet Future Needs

The following are suggested considerations for zoning changes to meet housing, economic development, and agricultural preservation goals.

- Increase Opportunity for High Density Residential Development. The demand for moderately priced affordable housing suggests a need for more land zoned for high density residential dwellings with the option for townhouses, multi-family dwelling, or apartments in areas identified for village center development and mixed-use/town center development on Map 10 Future Land Use. The remaining 39 acres of potential net developable land zoned R3 with density limited to a maximum of 6 units per acre does not provide adequate opportunity to meet the demand for both moderately priced affordable housing for first time home buyers and rental housing. Specific considerations include:
 - Allowing for TND in the Village Center development areas by permitting upper floor living with first floor commercial uses and multi-family residential uses including professionally managed apartments with a density greater than 8 units per acre.
 - Allowing for a mix of uses in the Enterprise/Enterprise Overlay Zone that will result a variety of upper floor living and live work opportunities as part of a mixed-use campus style development.
- Expand the A-Agricultural Preservation Zoning District. Expand this district to incorporate lands current used as agriculture outside of the Act 537 Sewer Service Area and specifically lands used for agriculture production located in the western portion of the Township identified as an agricultural security area consisting of prime farmland, and/or farmland of statewide

importance. (Note: The are in the western portion of the Township is identified as Opportunity Site 13 on Figure 2 and in Table 4 of Appendix E – Build-Out Analysis).

Sustainability Strategies

The following growth management strategies will contribute to ensuring adequate infrastructure to accommodate growth.

- Ensure developers meet the policies and standards specified within this land use plan and current or amended land use controls including zoning and subdivision ordinances, stormwater management ordinance, and the official map components.
- Streamline the current permitting and development processes to facilitate the type of development and redevelopment desired.
- Coordinate the plans for housing with plans for industrial and commercial businesses to achieve a balance of land uses, to enhance the quality of life, and to meet residents' needs for employment, goods, and services. Foster a positive business climate for light industrial and commercial business and to expand the Township's tax base.
- Ensure compatibility of adjacent land uses and provide for safe separation using buffering and screening standards between residential and non-residential uses. In mixed-use developments apply various design standards outlined in Chapter 9 of the plan to ensure compatibility.
- Promote a well-planned, multi-modal community with pedestrian facilities connecting neighborhoods with shopping, dining, employment, education, and recreation. Require new development and redevelopment activity to include pedestrian and bicycle facilities such as sidewalks, trails, and connections to existing and future pedestrian, bicycle, or transit facilities.
- Participate in public-private partnerships to provide adequate and timely infrastructure improvements to support growth and redevelopment activity. This plan considers the Township's Capital Improvement Plan (CIP), LVPC Transportation Improvement Plan, Township water policies, and the Township's Act 537 Plan designated Service Area when determining the ability to accommodate the 2040 growth forecasts and build-out under current zoning.
- Continue to require developers to pay their proportionate share of infrastructure improvement costs as permitted and dedicate lands or offer a fee in lieu of for open space, park, and recreation facilities.
- Consider zoning changes that promote implementation of this plan.
- Conduct a Cost of Community Services (COCS) Study to examine both the tax revenues generated by different land uses and the costs to the Township of providing services to those same uses. This study will help residents, businesses, and property owners understand the fiscal impacts of keeping land in agriculture or as open space versus developing land for other purposes.

Sustainable Strategy Outcomes

- Livable Built Environment
- Harmony with the Environment
- Resilient Economy
- Equity
- Healthy Community
- Responsible Regionalism
- Authentic Public Participation
- Accountable Implementation

Source: Plan Introduction – American Planning Association (APA)

Future Land Use Map

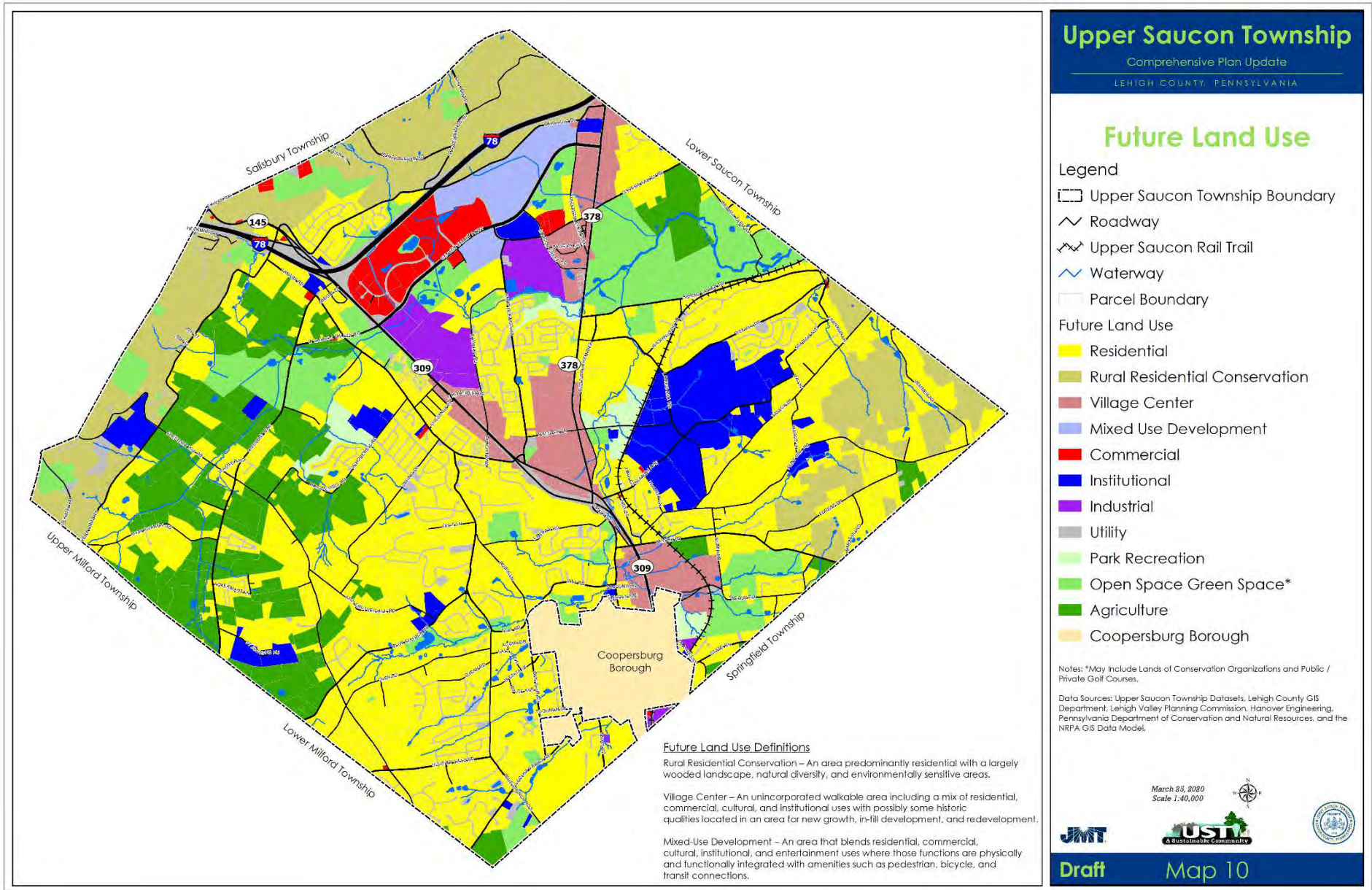
The Future Land Use Map for Upper Saucon Township (referred to as Map 2 here and labeled as Map 10 for use in the plan document) is shown on the following page. This map depicts the following allocation of land by classification.

Table 7: Future Land Use Classification and Percentages

| Percentage of Land | Land Use Classification |
|--------------------|---|
| 11.01% | Agricultural – Land that consists of Class I and/or Class II soils in the Soil Conservation Service land use compatibility classification; and other soils suitable for use actively in the production of food, fiber, or livestock. Agricultural land also includes wasteland that is part of the farm unit. |
| 12.72% | Rural Residential Conservation – Land including sparsely developed areas where the land is primarily used for farming, forestry, open space, or very low-density residential uses. |
| 42.54% | Residential – Land designated for residential and residential support uses including areas identified for low, medium, and high-density residential uses of various types including, but not limited to single-family attached and detached dwellings, townhouses, apartments, and condominiums. |
| 4.66% | Village Center – Land where villages exist or land designated for newly created small, compact centers of predominantly residential character with a core of small-scale, lower density mixed-use commercial, institutional, residential, public space, and community services. A village center typically has a recognizable center, discrete physical boundaries, and a pedestrian scale and orientation. |
| 1.60% | Mixed-Use/Town Center Development – Land designated for integration of a variety of medium to large-scale and higher density land uses including residential, office, commercial retail, services, public open space, entertainment, research and development, education, and employment. These areas can result in measurable reductions in traffic impacts. |
| 1.98% | Commercial – Land designated for retail or wholesale marketing of goods and services, offices or office complexes, shops, hotels, restaurants, and/or similar uses. |
| 5.02% | Institutional – Land designated for nonprofit or quasi-public or private uses such as religious institutions, libraries, public or private schools, colleges and universities, technical schools, hospitals or government-owned or operated facilities. |
| 1.91% | Industrial – Land designated for production, manufacturing, distribution, fabrication, or research and development activities including but not limited to industrial parks for light and heavy industrial uses. |
| 7.37% | Utility – Land designated for the transportation networks (roads) and public and private utility infrastructure, wastewater treatment facilities, stormwater facilities, overhead electric transmission, and other similar uses. |
| 1.44% | Park/Recreation – Land designated for public or private recreation (parks, trails, paths, playing fields, and similar), nature-based or athletic education, cultural, aesthetic uses, and/or similar uses. |
| 9.75% | Open Space/Green Space – Lands designated for public or private use with natural vegetation and landscaping used for passive recreation or open lands eligible for future use and improvement as park and recreation facilities. |

Sources: APA, A Planners Dictionary (definitions) and Acreages from Future Land Use Map.

Map 2: Future Land Use



IMPLEMENTATION PLAN

Implementation of this plan will assist Upper Saucon Township government and its citizens, businesses, and institutions to reach the vision for future development of the Township and to achieve long-term sustainability. Implementation is essentially the methods, actions, projects, or programs required to carry out the vision for the Township expressed in this plan.

Decision makers of sustainable communities apply a framework – a clear set of community development goals, objectives, policies, and strategies – with standards to achieve a vision of creating livable, healthy communities through a balance of development opportunities with open space preservation protecting natural and agricultural resources. This framework outlined in the chapters of the plan provides the basis for the following short-, mid-, and long-term actions implemented through various partnerships.

Relationship to Other Plans

This plan is an update to the 1985 Comprehensive Plan with the refinement of the vision and plan goals, objectives, policies, strategies, and actions. This plan is intended to consider the purpose and intent of other adopted plans by the Township, County, LVTS/LVPC, and State. Implementation of this plan should be coordinated with the implementation and expected outcomes of other adopted plans in partnership with local, county, state, and federal agencies, and relevant organizations.

Relationship to Capital Improvement Plan, and Annual Budget

The Capital Improvement Plan (CIP) and Annual Budget are the mechanisms to implementing public facility and infrastructure improvements outlined in this plan. These are also implementing tools that can be used to coordinate decision making within the Township and between other jurisdictions (e.g. surrounding municipalities, Lehigh County, LVTS/LVPC, PennDOT, DEP, and other similar entities) to ensure capital investments promote community goals and objectives outlined in this plan. This plan identifies community facilities and infrastructure capital investments, phasing strategies and timeframes, grants, and financing options for projects and programs which are implemented through the CIP and Annual Budget process.

Performance Metrics

Moving forward, the indicators of sustainability serve as a tool to evaluate the impacts of proposed development and plan implementation on the natural and cultural resource environment, social environment, and the economic environment. The 2040 target goals and performance metrics contained in Chapter 11 of the plan document provide the measures to evaluate the level of progress and success of plan implementation.

The level of measurability of these indicators has been documented in various chapters and the Appendices of the plan. Tracking and assessing various indicators to demonstrate progress is important to help determine appropriate regulation and mitigation of impacts as well as to determine future validity of the plan and any need to update the plan in whole or in part as time passes, as preferences and challenges change, as federal and state regulations change, and/or as local policies and priorities change.

Vision 2040

Upper Saucon Township is a municipality with rural, suburban, and urban amenities that coexist in harmony to support a sustainable community.

Note: It is expected that development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township.

Tracking and Reporting Performance

The Township Planning staff with input from other Departments and agencies shall track, analyze, and report on the status of implementation of the plan by evaluating the performance of the Township and private development. Chapter 11 identifies a series of 2040 target goals along with industry recognized performance metrics associated with each of the 25 identified indicators of sustainability that should be used to track and report performance.

Implementation Strategy

- Promote sustainable community development and implementation of sustainability strategies identified in the plan through public-private partnerships.
- Utilize sustainability indicators, metrics, and 2040 target goals to measure and report on successful implementation of the plan and progress toward achieving community sustainability.
- Develop and use a Sustainability Checklist including various sustainability indicators that help with planning, reviewing, and measuring sustainability of land development plans and project proposals for new development, redevelopment, and infrastructure improvements.
- Consider water, energy, and infrastructure in an integrated approach in cooperation and collaboration with various public and private partners. Treat the private sector as partners to analyze alternatives, implement, and identify financial strategies.
- Continue to work collaboratively with public and private utilities and infrastructure owners to set sustainability goals and objectives that support the community goals, objectives, and policies outlined in this plan.
- Use the Implementation Schedule to guide measurable actions.

Implementation Schedule

Those items identified for immediate action are crucial to further strengthening the regulatory framework to manage growth as outlined in this plan and to minimize further loss of agricultural land and open space as part of the Township’s economic base. The following identifies actions with time references and responsibilities to be implemented immediately (1 yr.) and in the short-term (1-3 yrs.), mid-term (1-5 yrs.), or long-term (1-10 yrs.).

Table 8: Implementation Schedule

| Land Use | | | | |
|---|-------------|--------------------------------|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Amend Zoning Ordinance to include the community development goals and objectives identified in this plan. | Immediately | Staff Time | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning Budget |
| Evaluate TND standards in PA MPC and LVPC Guidance Document to develop specific regulatory design standards as part of VC Overlay. | Immediately | Staff and Solicitor | Township Staff, Planning Commission, and Board of Supervisors | General Fund – Community Development/Planning Budgets |
| Amend VC Zoning District use, bulk, and other requirements and Zoning Map consistent with this plan. Allow for various types and densities of mixed-use development – Town Center, Mixed-Use Campus Style Development, TND, and Rural Village Center. | Immediately | Staff Time and Solicitor | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning Budget |
| Update Zoning Ordinance and Zoning Map to build consistency with this plan and with the Future Land Use Map. Changes include but are not limited to zoning changes along Routes 309 & 378. | Immediately | \$30,000 - \$40,000 Consultant | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning and Engineering Budget, DCED Planning Grant |
| Amend Zoning Ordinance to address inclusionary zoning to achieve affordable housing goals and objectives. | Immediately | Staff Time and Solicitor | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning Budget |
| Update Official Map based upon content for relevant elements in this plan. | Immediately | \$2,000 - \$3,000 | Staff Time, Engineer and Solicitor | Community Development/Planning and Engineering Budget |
| Conduct a Market Assessment, Master Plan, and evaluation of EOZ District to determine Ordinance Changes and Partnership for development of lands. | 1-5 Years | \$85,000 - \$100,000 | Lehigh University and Township | General Fund and PA DCED Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 8: Implementation Schedule

| Land Use | | | | |
|--|--------------------------|--|--|---------------------------------|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Complete the codification of the Township ordinances with virtual zoning map and make information available on Township web site. | 1-5 Years | \$20,000 - \$40,000 plus annual fee to Codification Company | Township Manager and Board of Supervisors | General Fund |
| Feasibility/Needs Assessment with requirements for On-Line Permitting, Plan Review, Credit Card Payment, and Mobile Inspection Reporting Systems – Explore possibility of allowing residents to pay utility bills and permit fees with a credit card either in person at the Township building or on-line. | 1-5 Years Immediately | Feasibility/Needs Assessment & Requirements \$20,000 - \$30,000 Consultant | Township Manager, Building Permit/Inspection Staff, and Board of Supervisors | General Funds |
| Develop policies and incentives to stimulate redevelopment of older, vacant, or blighted properties (TIF, LERTA, zoning changes for denser mixed-use development, etc.). | 1-5 Years | Staff time. | Township Manager, Community Development | General Funds |
| Explore opportunities for open space preservation via implementation tools such as Transferrable Development Rights (TDR), conservation easements, agricultural conservation easements, or cluster development/conservation design alternatives. | Immediately | Staff time. | Community Development | General Funds |
| Conduct a Cost of Community Service (COCS) Study to determine if development pays for itself. | 1-3 Years | \$50,000 - \$65,000 Consultant | Township Manager and Community Development | PA DCED Grants and General Fund |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 8: Implementation Schedule

| Community Facilities and Services | | | | |
|---|------------|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Continue an aggressive sewer maintenance program to reduce inflow and infiltration within the system. | Ongoing | Annual Budget Allocation | Township and | Sewer Maintenance & Operations Budget and Sewer Fund |
| Implement the Sewer and Water System upgrade Capital Improvement Plan with supporting documentation – update the Act 537 Sewage Facilities Plan and conduct a Water System Study. | Ongoing | \$1M Engineering Consulting Engineer \$5-10M Construction | Township, Upper Saucon Township Municipal Authority, and Upper Saucon Township Sewerage Treatment Authority | Maintenance & Operations Annual Budgets, Capital Improvement Budget, and Municipal Authority Bonds |
| Feasibility Study and Master Plan for Township Building expansion versus new construction options. | 1-5 Years | \$75,000 to \$100,000 Consultant | Township Manager, Departments, and Board of Supervisors | General Fund/Capital Improvement Program/Municipal Bond Funds |
| Assist the Volunteer Fire Department in volunteer recruitment, retention, training, and equipment so the Department can continue to successfully serve the community. | Ongoing | Annual Allocation for Promotion and Support | Fire Department and Township | General Fund, Fire Company & Emergency Medical Service Grants and Volunteer Loan Assistance Program |
| Investigate implementing a pay-per call system in compliance with the Fair Labor Standards Act (FLSA) and investigate the liability for the Township. | 1-5 Years | Staff and Solicitor Time | Fire Department, Township, and Solicitor | Fire Department funds and Township General Funds |
| Continue implementation of the Upper Saucon Community Park Master Plan. | Ongoing | \$300,000 - \$500,000 | Township Manager, Board of Supervisors, Department of Public Works, and Park/Rec Commission | DCNR Grants, General Funds |
| Continue to promote recycling and education through Township website, newsletter, school district, and social media. | Ongoing | In-House Resources | Township Manager and Department of Public Works | General Fund |
| Feasibility Study to identify appropriate locations and partners for one-stop drop-off centers for recycling and reuse of a range of items/materials. | 1-3 Years | \$15,000 - \$20,000 plus, up to \$7,500 free assistance from DEP | Township and PA DEP | PA DEP Free Recycling Technical Assistance Program, PA DEP Recycling Grants and General Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 8: Implementation Schedule

| Community Facilities and Services | | | | |
|---|--|---|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Partner with for-profit and non-profit recycling processors, and institutions to establish one-stop drop-off centers for recycling and reuse. | Ongoing | Cost of 5-6 drop-off centers Containers, Signage, Lighting, and Security Fencing | Township, Recycling Businesses, Non-Profit Thrift Stores | PA DEP Recycling Grants, General Funds, and Business Partner Contribution |
| Establish a Recycling Coordinator position responsible for promotion, education, managing the drop-off centers, and tracking/reporting. | Ongoing | \$22,500 - \$27,500 Annually | Township Manager, Department of Public Works, and Board of Supervisors | PA DEP Recycling Grants, General Funds, and User Fees |
| Update the Township Recycling & Solid Waste Ordinance and develop a recycling promotions strategy and host recycling events for the community (e.g., electronics, furniture, hazardous waste, etc.). | 1-3 Years (Ongoing) | Township Staff | Township Manager and Department of Public Works | General Fund, and PA DEP Grants (e.g., 902 Recycling Grant and Recycling Performance Grant). |
| Consider assistance for maintenance of the Southern Lehigh County Community Pool to keep membership rates affordable. | Ongoing | In-kind Services and possibly a monetary amount TBD by the Board of Supervisors | Township Manager, Parks & Recreation, and Board of Supervisors | General Fund |
| Meet quarterly and coordinate with the School District on issues of mutual concern. | Ongoing | Township Staff | Township Manager, Community Development, and other Departments as needed | General Fund |
| Partner with St. Luke's University Health Network and Universities to conduct a Health Impact Assessment using EPA and Center for Disease Control (CDC) guidelines addressing sustainability indicators and performance metrics outlined in this plan and addressing other key personal and community health trends in the HIA to meet Healthy Places and Sustainable Community principles. | 1-5 Years With updates every 5 years. | \$45,000 - \$60,000 Consultant And Partner In-Kind Services (\$10,000 per partner) Cost of 5-year update TBD. | St. Luke's University Health Network, Lehigh University, DeSales University, and Penn State University. | CDC and EPA grant funds, Township General Funds, PA DCED grant funds, PA Department of Health grant funds, and Partner In-Kind Services. ¹ |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

¹CDC grant funding source – https://www.cdc.gov/healthyplaces/HIA_funding.htm.

Table 8: Implementation Schedule

| Community Facilities and Services | | | | |
|--|------------------------------|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Develop and implement a Healthy Community and Personal Health Campaign, Education, Coordinated Services, and Year-Round Events. | Ongoing | Township Staff, Health Care Providers, Red Cross, and others | Township Manager and Departments | General Fund, In-Kinds Services from Partners, Donations, and Business Sponsors |
| Augment the Township recreation offerings by programming additional diverse cultural events and educational opportunities for art and culture (e.g. theater, painting, dance, etc.). | Ongoing | Sponsored Events and User Fees | Park and Recreation Department, Non-Profit Organizations, Neighborhood Associations, and other Organizations | General Fund, User Fees, and Sponsorships |
| Coordinate programming and promotion of cultural events, activities, and public art with local and regional partners. | Ongoing | Township Staff | Township Manager, Parks and Recreation, DeSales University, Penn State University, Lehigh University, and other Partners | General Fund |
| Develop a comprehensive Records Management System with the goal of digitizing all Township records. | 1-3 Years | Cost TBD (Phased Implementation) | Township Manager and Departments | General Fund |
| Expand customer service delivery through e-government (internet based) solution for all services provided by the Township. | 1-3 Years | Cost TBD | Township Manager and Departments | General Fund |
| Identify and maintain awareness of major threats to local and regional public safety including technology-based threats and large-scale disasters. | Service Provided | Current 911 Tax | Lehigh County – CodeRED to notify citizens of an emergency. | Lehigh County Department of Emergency Management ² |
| Improve the level of citizen disaster preparedness through outreach and education so citizens may ready and educate themselves about their role in emergency management efforts. | Immediate Outreach Available | Current 911 Tax | Lehigh County-Community Emergency Response Team (CERT) education and training, Family Readiness Kit, Checklist, and Family Communications Plan. | Lehigh County Department of Emergency Management** and LVPC Hazardous Mitigation Plan |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

²Source Lehigh County Department of Emergency Management – <https://www.lehighcounty.org/Departments/Emergency-Management-9-1-1/Sections/Citizens-Corp>

Table 8: Implementation Schedule

| Community Facilities and Services | | | | |
|--|---------------------------------------|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Explore the possibility of partnering with the Greater Valley YMCA to build a recreation center somewhere in the Township. | 1-5 Years | In-Kind Technical Support Services | Township Manager and Planning Staff. | General Fund |
| Encourage management and key personnel to attend educational conferences and seminars to keep informed about best practices and regional and national trends in their respective fields. | Ongoing | TBD based upon need | Township Manager and Board of Supervisors | General Fund |
| Promote partnerships with local hospitals to promote community engagement programs (e.g., education, screenings, and services through community programming). | Existing Program Immediately | No Cost to Township | Lehigh Valley Health Network | Lehigh Valley Health Network Sponsors |
| Participate in Color Outside of the Lines initiative – Strategic Plan for Diversity and Inclusion for the Lehigh Valley. | Initiated in October 2019 Immediately | Township Staff | Community Action Committee of Lehigh Valley and Municipalities | General Fund (Staff time) |
| Community Character and Design | | | | |
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Prepare and adopt by resolution a Complete Streets Policy consistent with concepts identified in Chapter 8. | Immediately | Staff, Representing Engineer, and Solicitor time | Planning Commission and Board of Supervisors | General Fund – Community Development/Planning & Engineering Budgets |
| Strengthen the Subdivision/Land Development Ordinance consistent with the Complete Street Policy. | 1-3 Years | Township Staff | Township Staff, Engineer, Planning Commission, and Board of Supervisors | General Fund – Community Development/Planning and Engineering Budgets |
| Strengthen the Subdivision/Land Development Ordinance to include site and building design standards that address crime prevention through environmental design (CPTED) requirements. | 1-3 Years | Consultant Costs \$15,000 - \$25,000 | Township Staff, Engineer, Planning Commission, and Supervisor | General Fund – Community Development/Planning and Engineering Budgets |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 8: Implementation Schedule

| Community Character and Design | | | | |
|--|---|--|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Coordinate with PPL to gain easement to overhead utility rights-of-way to allow pedestrian and bicycle paths and trails. | 1-10 Years (ongoing implementation of capital projects) | Township Staff | Township Staff, Planning Commission, and Board of Supervisors | General Fund and CIP |
| Economy | | | | |
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Routinely update the Economic Analysis (Appendix D of this Plan). | 3-5 Year Update Cycle | \$15,000 - \$25,000 Consultant | Township Manager, Planning Staff, Planning Commission, and Board of Supervisors | General Fund, PA DCED Planning Grant |
| Complete a study to define affordable housing in the Township and identify strategies to preserve and enhance workforce housing. | 1-5 Years | \$25,000 - \$35,000 Consultant | Township Manager, Planning Staff, Planning Commission, LVPC, and Board of Supervisors | General Fund, PA DCED Planning Grant |
| Complete the WWTP Expansion and Other Capital Projects. | 1-10 Years | Reference Act 537 Plan Revision \$30 M Capital Project | Authority and Township | Authority Capital Funds/Reserve Funds, Authority Bonds, and PENNVEST Loans |
| Conduct market research and recruitment activity of new retail and entertainment establishments. | 1-10 Years | \$75,000 - \$100,000 Annually Consultant/Developers | Township Manager and Community Development | PA DCED Planning Grants and General Funds |
| Develop public/private partnership for the redevelopment of the Fairmont Village Shopping Center – TND Concept. | 1-5 Years | \$15 M - \$18 M | Private/Public Investment | Developer, Township, State – Commonwealth Financing Authority (CFA), Building in Our Sites Program Funds, and Redevelopment Assistance Capital Program (RACP) Funds/Grants |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 8: Implementation Schedule

| Economy | | | | |
|---|----------------------------------|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Partner with the Chamber of Commerce, Lehigh University, DeSales University, and Penn State University to provide incubator space for startup technology companies. Note: Lehigh University is a resource center for the PA SBA and houses a Small Business Development Center and the sole applicant for the Pennsylvania Infrastructure Alliance (PITA). And, Penn State hosts Lehigh Valley Launchbox (LVLB) business accelerator program for entrepreneurs. | 1-3 Years | Utilize existing funding and programs that Lehigh University is designated in as a partner with PA DCED and Carnegie Mellon. | Township, Chamber of Commerce, Lehigh University Small Business Development Center, and PA DCED in partnership with DeSales University, and Penn State University | Various PA DCED Grants/Programs: Ben Franklin Technology Partners Grant, Ben Franklin Technology Development Authority; Venture Investment Program, Small Diverse Business Capital Access Program. Additionally, gain mentoring and training resource from the Partnership for Regional Economic Performance (PREP) program. (Penn State) LVLB no-cost support, resources and facilities and microgrants. |
| Develop a "Doing Business in Upper Saucon Township" brochure to provide necessary information to the business community. | 1-3 Years | \$1,000 - \$1,500 Inhouse Services | Township Manager, Planning Staff, Chamber of Commerce and other partners above. | General Fund and Partner Resources |
| Partner with Southern Lehigh School District and universities to establish an education and workforce development program which may include design contests, internships, and continuing education. | 1-3 Years | Staff time and use of State and Local Partner resources. | Southern Lehigh School District, Penn State University, Lehigh University, DeSales University and Local Businesses. | Use of state and local partner resources. |
| Establish a Design Guideline to encourage energy efficient and environmentally sound building and promote architectural standards for residential and commercial construction applying LEED® standards as a guideline. | 1-3 Years | \$15,000 - \$25,000 Consultant or Design Student Workshop | Township Manager, Community Development Staff, and Board of Supervisors | General Fund, University of Pennsylvania School of Design Student Workshop |
| Promote partnerships with local hospitals to provide educational opportunities for residents (e.g., high school, college, and continuing education programs). | Existing Programs Immediately | No Cost to Township | Lehigh Valley Health Network | Lehigh Valley Health Network Sponsors |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 8: Implementation Schedule

| Natural and Cultural Resources | | | | |
|--|----------------------|---|--|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Conservation, Preservation, & Protection | | | | |
| Update the Comprehensive Recreation & Open Space Plan addressing recreational needs for the next 20 years and greenways. | 1-5 Years | Consultant \$50,000 - \$75,000 | Township Staff, Park & Recreation Commission, Planning Commission, and Board of Supervisors | Township and DCNR Grant |
| Open Space Referendum – ¼ of a percent of the Earned Income Tax earmarked for open space preservation. | 1-3 Years | Township Manager and Solicitor | Planning Commission, Board of Supervisors, Solicitor, Environmental Advisory Council (EAC), and Township Staff | Staff Time/General Funds |
| Stream buffer preservation and protection by landowners and Township – buffer designs and tree planting program. | Ongoing | Application Costs | Township and Landowners | DCNR Bureau of Forestry Service and PENNVEST Grants |
| Adopt updated FEMA Floodplain Maps and update relevant Township ordinances and codes to comply with floodplain requirements. | 1-5 Years | Consulting Engineer | Community Development and Consulting Engineer | General Funds |
| Continue to partner with the Wildlands Conservancy and other preservation organizations to protect, promote, and maintain open spaces. | Ongoing | In-Kind Services | Township, Wildlands Conservancy, and other partners. | General Funds and Partner Services |
| Coordinate with the School District, PA Department of Agriculture, Lehigh County, Lehigh Organizations and farmers, and SBDC to educate and promote farming as well as provide training and incubator for new farmers. | 1-10 Years (ongoing) | School District, State and County Program Funds | School District, Lehigh County, The Seed Farm, Flint Hill Farm Education Center, Pennsylvania Farm Link, Department of Agriculture, and Pennsylvania Association for Sustainable Agriculture (PASA). | Program Funds, Grants, Volunteers, and Non-Profit Programs ³ |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

³Source of PA Grant Programs: <https://dced.pa.gov/program/>. Small Business Administration Online Learning Center: <https://www.sba.gov/learning-center>. Lehigh University is the sole applicant for the Pennsylvania Infrastructure Alliance (PIA). <https://dced.pa.gov/programs/pennsylvania-infrastructure-technology-alliance-pita/>.

Table 8: Implementation Schedule

| Natural and Cultural Resources | | | | |
|---|----------------------|--|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Conservation, Preservation, & Protection | | | | |
| Explore with partners the potential to create a farmer’s market in the Township and participate in the Greater Lehigh Valley Buy Fresh, Buy Local Program and identify community supported agriculture (CSA) drop off sites. ⁴ | 1-3 Years | In-Kind Services | Township and Partners of the Greater Lehigh Valley Buy Fresh, Buy Local program. Note: DeSales is the local food promoter with Wegman’s and St. Luke’s are other partners. Local Churches and other partners serve as drop off sites in the region. | General Services for Staff Time. |
| Subsidize the permanent preservation of lands registered as Agricultural Security Areas. | 1-10 Years (ongoing) | \$150,000 - \$200,000 Township Annual Allocation | Property Owner Support, Lehigh County Ag Board, and Board of Supervisors | Township General Funds, Lehigh County and State Funds |
| Implement capital improvements outlined in the Township’s MS4 Pollution Reduction Plan (PRP). | 1-5 Years | Refer to PRP for details. | | |
| Coordinate with the SHPO to conduct a review and inventory of the Township’s property information of historic resources to prepare a comprehensive survey and to identify historic preservation projects. | 1-3 Years | Consultant \$15,000 - \$25,000 | Township and LVPC staff, Planning Commission, and Board of Supervisors | General Fund and PHMC Historic Preservation Planning Grant |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

⁴Source: Greater Lehigh Valley By Fresh, By Local partnership – http://www.buylocalglv.org/wp-content/uploads/2016/01/BFBL_LocalFoodGuide2017.pdf and CSA drop off sites – <http://www.buylocalglv.org/csa/>.

Table 8: Implementation Schedule

| Transportation | | | | |
|--|------------|---|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Roadway Improvements | | | | |
| Northbound Route 309 from split south of Route 378 to Camp Meeting Road (2 northbound lanes widening of Southbound Route 309) – Main Street Revert to 2-way local roadway with painted pedestrian/bike lane as part of northbound lane and sidewalk along southbound lane. | 1-20 Years | \$7M - \$10M (Engineering and Construction) 1 Mile of two lane widening of SR 309 ¾ Mile Sidewalk along Main Street | PennDOT District 5-0 and Township | TIP, PennDOT 12-Year Plan – Highway Funds, Transportation Alternative Funds |
| Interchange Improvements | | | | |
| Partnership with PennDOT for SR 309/Center Valley Parkway Interchange Improvements. | 1-10 Years | \$35.5M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan |
| Intersection Improvements | | | | |
| Mill Road (SR 2024) and Main Street (SR 2024) Intersection Improvements (consider a roundabout as a potential solution). | 1-5 Years | \$2.5 M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan – Highway Funds, LVTS Intersection and ITS Improvement Fund |
| Vera Cruz Road (SR 2023) and Lanark Road (SR 2039) Intersection Improvements. | 1-5 Years | \$3.0 M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan – Highway Funds, LVTS Intersection and ITS Improvement Fund |
| Vera Cruz Road (SR 2023), Oakhurst Drive (SR 2038), and Pike Avenue Intersection and Pedestrian/Bicycle Improvements. | 1-5 Years | \$2.5 M | LVPC, PennDOT District 5-0 and Township | PennDOT 12-Year Plan – Highway Funds, LVTS Intersection and ITS Improvement Fund, and Transportation Alternative Funds |
| Bridge Rehabilitation/Replacement | | | | |
| Limeport Pike (SR 2029) over Tributary of Saucon Creek. | 1-10 Years | \$2.4 M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan and Bridge Program |
| Blue Church Road (SR 2024) Bridge. | 1-10 Years | TBD | PennDOT District 5-0 and Township | PennDOT 12-Year Plan and Bridge Program |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 8: Implementation Schedule

| Transportation | | | | |
|---|------------|------------------------------------|--|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Studies | | | | |
| Traffic Signal Optimization Studies. | 1-5 Years | Consultant \$75,000 - \$100,000 | Department of Public Works and Planning | LVTS and General Funds |
| Bicycle/Ped Improvements/Programs | | | | |
| Active (Pedestrian and Bicycle) Transportation Master Plan (including Safe Routes to School). | 1-5 Years | Consultant \$50,000 - \$75,000 | LVTS/LVPC and Township | PennDOT and PA DCED Multimodal Funds, PennDOT and LVTS Transportation Alternative Set Aside Funds, DCNR Grant, and General Funds |
| Bike-Share Program to serve the Stabler Business Park, the Promenade Shops at Saucon Valley, and future development along Center Valley Parkway. ⁵ | 1-10 Years | | | |
| • First Three Years – 2 Stations/20 Bikes. | 1-3 Years | \$60,000 | Township, LVTS/LVPC, LANta, and Businesses | General Funds, Better Bike Share Partnership Grants, and FTA Grants |
| • Second Three Years – 4 Stations/40 Bikes. | 3-6 Years | \$120,000 | | |
| • Third Three Years – 6 Stations/60 Bikes. | 7-9 Years | \$180,000 | | |
| Pedestrian / Bicycle Bridge over Route 309 at Saint Luke’s Medical Center (southbound side) and the Reed Property (northbound side). | 1-10 Years | \$3.5 M - \$5 M | Township, LVTS/LVPC, and Businesses | PennDOT and PA DCED Multimodal Funds, PennDOT and LVTS Transportation Alternatives Set Aside Funds, General Funds, DCNR Grants, Business Contributions, and Municipal Bond Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

⁵Sources: Better Bike Share Partnership Grants: <http://betterbikeshare.org/grants/> and FTA Grants: <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/livable-sustainable-communities/fta-program-bicycle>

Table 8: Implementation Schedule

| Transportation | | | | |
|--|------------|---|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Plan, design, and construct off-road bicycle and pedestrian facilities at priority locations through the Township CIP based upon Active Transportation Plan identified in the Transportation section of this schedule. | | | | |
| <ul style="list-style-type: none"> • First Mile of Liberty Bell Trolley Rail Trail (refer Figure 4 page 41). | 1-10 Years | \$175,000 Engineering \$1M Construction | Township, PennDOT, PA DCED, DCNR, LTVS | PennDOT and PA DCED Multimodal Funds, PennDOT and LTVS Transportation Alternatives Set Aside Funds, DCNR Grants, Business Contributions, Municipal Bond Funds, and Developer Improvements |
| <ul style="list-style-type: none"> • ½ Mile Sidewalk Connections between Stabler Business Park and Promenade Shops at Saucon Valley. | 1-5 Years | \$85,000 - \$90,000 \$500,000 - \$750,000 | PennDOT, PA DCED, LTVS, Developer and Township | |
| <ul style="list-style-type: none"> • Path/Trail Connections between Stabler Business Park and Promenade Shops at Saucon Valley – 10 to12 foot path/trail (approximately 1/4 mile). | 1-5 Years | \$45,000 - \$60,000 Engineering \$250,000 - \$300,000 Construction | Township, PennDOT, PA DCED, DCNR, LTVS | |
| Gateways & Wayfinding Signage | | | | |
| Gateway Improvements at Route 309 and Center Valley Parkway, Route 309 at Bucks County borders, Route 378 at Northampton County borders, and Route 145 (Pike Avenue) south of East Rock Road. | 1-10 Years | \$75,000 - \$100,000 | PennDOT District 5-0 and Township | Township CIP and PennDOT 12-Year Plan Projects |
| Develop a Wayfinding Signage Plan with Implementation Schedule. | 1-10 Years | \$25,000 - \$40,000 (Plan) \$40,000 - \$70,000 (Signage) | Township and Business Community | General Funds and Private Funds |
| Developer Investment Ordinances | | | | |
| Update Traffic Fee Ordinance using this Plan as the basis for land use assumptions. | 1-5 Years | Consultant \$75,000 - \$100,000 | Planning, Township Manager, Planning Commission, and Board of Supervisors | General Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

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7248 Tilghman Street, Suite 100
Allentown, PA 18106

PLAN



Plan



DRAFT



Foreword

The Plan

The Pennsylvania Municipalities Planning Code (MPC) defines the municipal comprehensive plan as the framework for guiding community development. Upper Saucon Township has approached the comprehensive planning process applying planning principles and methods in the context of what is needed to establish and maintain a sustainable community.

The Township recognizes that community sustainability exists at the intersection of the economic, natural resource, and social environments of community development. Under this approach, the sustainability of the Township depends on maintaining its economic and environmental health, promoting social aspects of the community, and fostering broad-based citizen participation in creating a vision and plan to guide future development.

This plan provides a vision for sustainability, planning principles, goals, objectives, policies, and strategies to support plan implementation for the purpose of achieving long-term sustainability and improved quality of life for residents today and tomorrow with a planning horizon of 20 years.

Building Upon Past and Current Planning

This plan is built upon past and current planning efforts, visions, policies, and practices. The Township's 1985 Plan paved the way for preservation of community character and agricultural lands, conservation of natural resources, and management of growth. While the 1985 Plan has served the Township well to guide growth and development, this update takes a fresh look at the vision and goals for future development and preservation and provides best practices as well as new strategies to achieve a future of sustainability. Below are highlights of past comprehensive planning efforts.

Upper Saucon Township's first comprehensive plan was adopted in 1970. This plan enabled the Township to provide for orderly growth and development accounting for development covering approximately 29% of the Township through 1985.

In 1985, the Township adopted the Upper Saucon Comprehensive Plan, A Guide for the Preservation and Development of the Township. The 1985 Plan had a two-fold purpose of preserving the quality of life within Upper Saucon and providing for the orderly growth and management of change within the Township. The plan served as a guide for the development and preservation of land in Upper Saucon Township.

The major goal of the 1985 Plan was to provide the Township with a plan and strategies to protect and preserve those qualities which would enhance the Township's value for residential and agricultural uses. The goal was to have and maintain a community with the scenic atmosphere and feeling of openness to create an attractive setting for homes and a desirable place to live and to raise families. The plan focused around open space preservation, land use, highways, and public services and facilities.

Source: Upper Saucon Township 1985 Comprehensive Plan

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INTRODUCTION



Source: Google Earth – Upper Saucon Township

Regional Setting

Upper Saucon Township is situated in the southeastern corner of Lehigh County located approximately 60 miles north of Philadelphia, 80 miles east of Harrisburg, and 90 miles west of New York City. The Township is part of the New York Metropolitan Area. And, for decades, Upper Saucon has been a bedroom community for cities in the Lehigh Valley region including Allentown, Bethlehem, and Easton.

The Township is characteristic of rolling hills, farmland, and suburban style development with easy access to PA Route 309, Interstate 78, and US Route 22. It is these characteristics and location that have made Upper Saucon a very attractive place to live for those wanting a somewhat rural atmosphere with access to regional amenities.

Source: Upper Saucon Township, Website

Local Landscape Today

Over the past three decades, the Township has become more suburbanized. The remaining rural landscapes in the Township are located outside of those areas along major transportation corridors that are densely developed with housing, commercial, industrial, and institutional uses. In 2010, Upper Saucon Township was classified as an urbanized area according to 2010 US Census standards. Based upon growth trends, the Township is one of the five fastest growing municipalities in the Lehigh Valley with respect to population and employment.

Sustainable Comprehensive Plan

The overarching Comprehensive Plan goal is that development will occur in a sustainable manner that protects and supports the suburban and rural character of Upper Saucon Township. This plan sets out to address comprehensive plan elements in the context of achieving and maintaining community sustainability measured through a framework of environmental, economic, and social 2040 target goals. The plan is designed to provide a vision for the future while keeping planning goals, objectives, and strategies realistic and implementable.

Township History

The Township has been influenced by Native American and European culture with remnants of both an agriculture and industrial society.

"Upper Saucon Township was established in 1743. Often called *the Crossroad* because of its connections to the areas around it, the tracks of the North Pennsylvania Railroad awakened the small town of Center Valley in 1856. From there, the Liberty Bell trolley line was added, making transportation of goods and people even easier within the township. Milk trolleys ran daily, and mills lined the creeks running through the predominantly agricultural township. As the connections grew, so did the needs of one of Upper Saucon Township's towns – Coopersburg. With the needs of a burgeoning town, Coopersburg petitioned to become a distinct borough in 1879. Coopersburg brought attention to the area with its industries and annual cattle sale. It was dubbed "the town of possibilities" for all it had to offer." *Author – Kelly Ann Butterbaugh, resident of Upper Saucon Township*

Indians were the first inhabitants of Upper Saucon Township. Saucon was derived from an Indian word "Suakunk" referring to an Indian village at the mouth of Saucon Creek. The Village of Center Valley formed as a principle gathering spot with the community evolving linearly around major travel routes. In 1856, the North Pennsylvania Railroad was constructed providing linkages to the region and access to urban markets and established the Center Valley Station. In 1875, local commissioners authorized financial resources to construct the Centennial Bridge.

The community around the Center Valley Station was known as "Milk Town" because of its dairy cattle, milk processing, and milk being shipped from this region throughout the Valley. The Township was also known for being a central location for mining of zinc ore with the Friendsville Zinc Mine operations dating as early as 1845. Mining first occurred on the Jacob Ueberroth farm and was purchased by the Lehigh Zinc Company who installed the Cornish pump known as "The President" pump.

Source: Upper Saucon Township – A Bicentennial Tribute 1743-1976



Source: Google Earth – Upper Saucon Township

Planning for Sustainability

This plan outlines a vision for future growth management and preservation by identifying existing conditions, trends, opportunities, policies, and strategies to guide appointed and elected officials and property owners responsible for land use decision-making.

The community development goals and objectives in this plan provide the framework for land use policies and implementation through regulations (e.g. zoning, subdivision/land development, and others). The plan contains basic elements outlined in Article III of the Pennsylvania Municipalities Planning Code (MPC).

The vision, goals, objectives, policies, strategies, and guidance offered in this plan are focused around achieving long-term sustainable outcomes for Upper Saucon Township. This plan applies basic sustainability principles outlined by the American Planning Association (APA) such as:

- Creating a livable built environment – Ensure that all elements of the built environment including land use, transportation, housing, energy, and infrastructure work together to provide sustainable, green places to live, work, and recreate with a high quality of life.
- Developing in harmony with the environment – Ensure that contributions of natural resources to human wellbeing is explicitly recognized and valued and that maintaining the health of the environment is a primary objective.
- Building a resilient economy – Ensure that the community is prepared to deal with both positive and negative changes to its economic health and to initiate sustainable development and redevelopment that foster business growth and reliance on local assets.
- Interweaving equity with land use policies – Ensure fairness and equity of all citizens and groups when providing for the needs for housing, services, health, safety, and livelihood.
- Maintaining a healthy community – Ensure that public health needs are recognized and addressed through provisions for healthy foods, physical activity, access to recreation, health care, environmental justice, and safe neighborhoods.
- Acting as a responsible regional partner – Ensure that all local proposals account for, connect with, and support the plans of adjacent jurisdictions and the surrounding region.
- Encouraging authentic participation – Ensure that the planning process actively involves all segments of the community in analyzing issues, generating visions, developing plans, and monitoring outcomes.
- Programming accountability through implementation – Ensure that responsibilities for carrying out the plan are clearly stated, along with metrics for evaluating progress in achieving desired outcomes.

Source: American Planning Association (APA), *Sustaining Places – The Role of the Comprehensive Plan*

Sustainable Communities

Sustainable communities are places where people strive to enjoy good health and create a high quality of life. A sustainable community reflects the interdependence of economic, environmental, and social issues by acknowledging communities must continue to exist into the future without diminishing the land, water, air, natural and cultural resources that support them.

In a sustainable community, the management of housing, transportation, and resource conservation are conducted in ways that retain the economic, ecological, and scenic values of the environment. These communities also have policies that minimize consumption of fossil fuels, emissions of greenhouse gases, impacts on water resources, and pollution.

Source: *Sustainable Communities and Smart Growth*, Natural Resource Defense Council



Photo by April Showers, JMT

Indicators of Sustainability

An indicator of sustainability can be defined as the “measurable aspect of environmental, economic, or social systems that is useful for monitoring changes in system characteristics relevant to the continuation of human and environmental well-being” (US EPA, 2012). The planning principle of sustainability, sustainable development, and sustainable community involves achieving and maintaining a desired Quality of Life (QOL) for Township residents.



Figure 1: Sustainability Diagram

QOL is the general well-being of individuals and societies, outlining negative and positive features of life. It observes life satisfaction, including everything from physical health, family, education, employment, wealth, safety, security to freedom, religious beliefs, and the environment (Wikipedia 2018). The following twenty-five indicators of sustainability have been assessed as part of the plan analysis and will be used to support the metrics of this plan to measure change over time to determine how well the Township is achieving sustainability in the context of the natural and cultural resource environment, social environment, and economic environment.

Table 1: Sustainability Indicators

| Natural/Cultural Resource Environment | Social Environment | Economic Environment |
|---------------------------------------|---|-----------------------------|
| Sustainable Land Use Practices | Population | Jobs/Economic Growth |
| Agricultural Lands | Quality of Education | Revenue/Tax Rates |
| Quality of Development | Crime & Safety | Unemployment |
| Community Character & Design | Physical Wealth/Wellbeing | Business Innovation |
| Historic/Cultural Resources | Partnerships | Asset Management |
| Regulations & Codes | Energy Efficiency | Housing Types/Affordability |
| Open Space/Park and Recreation | Accessibility/Traffic Congestion and Safety | Household Income/Poverty |
| Air and Water Quality | Infrastructure & Utilities | |
| Flooding/Runoff | | |
| Waste Recycling | | |

Source: Sustainable Measures, Organizing Indicators, <http://www.sustainablemeasures.com/node/96>

Key Definitions:

- Sustainability – Meeting the needs of the present without compromising the ability of future generations to meet their own needs (United Nations December 11, 1987).
- Sustainable Development – Development that involves the simultaneous pursuit of economic prosperity, environmental quality, and social equity (World Business Council on Sustainable Development).
- Sustainable Communities – Communities that are economically, environmentally, and socially healthy and resilient and meet challenges through integrated solutions rather than through fragmented approaches. Sustainable communities take a long-term perspective focusing on both the present and the future well beyond the next budget or election cycle (Institute of Sustainable Communities).

CHAPTER 1: SUSTAINABLE VISION AND GOALS

It is the desire that community development will occur in an orderly, sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township. The following vision, goals, and objectives make up the framework for sustainable development when considering community issues.

Sustainable Community Vision

Vision Statement: Upper Saucon Township is a municipality with rural, suburban, and urban amenities that coexist in harmony to support a sustainable community.

This vision intends to maintain and strengthen Upper Saucon Township as a community where:

- People thrive, enjoy good health, and experience a high quality of living.
- A strong governmental structure and leadership understands the interrelationship of solutions to economic, environmental, and social issues such as potential solutions to priority community issues shown to the right.
- Decision-makers embrace innovative land use policies and regulations that manage housing, economic development, and transportation while preserving and protecting valuable environmental resources and community assets.
- Sustainable community development meets citizen expectations for a healthy community with healthy choices and a demand for walkable, compact, mixed-use, and transit-accessible development.

The principles of a sustainable community are intertwined with building a healthy community. Research indicates that properly designed buildings, appropriately placed structures, easy-to-reach parks, programmed community spaces, and access to healthy foods can have an extraordinary impact on community health. Healthy communities with opportunities for healthy living and eating result in improved personal health and improved quality of life.

For example, living closer to healthy food retail establishments is associated with better eating habits and decreased risk for obesity and diet-related diseases (The Food Trust). And, most people who live in neighborhoods with parks, trails, and greenways are twice as healthy as people who live in neighborhoods without such facilities (Urban Land Institute).

Innovative Land Use Policies and Regulations that Build Sustainability

The Zoning and Subdivision/Land Development Ordinances are a means of implementing innovative policies of the Comprehensive Plan. Examples of innovative land use policies and regulations to achieve a Sustainable Community vision are defined in the table on the following pages.

Priority Community Issues

The following issues, in order of priority, were identified by the Comprehensive Plan Steering Committee as part of a SWOT Analysis, participants of a Visioning Workshop as part of meeting activities, and public preferences as part of a community survey.

1. Farmland and green space preservation
2. Transportation congestion
3. Land use along major corridors and sustainable retail
4. Balanced tax base
5. Impacts of urban growth
6. Water and sewer capacity
7. Lack of a town center
8. Stormwater infrastructure
9. Lack of walkability
10. Housing choice

These issues provided a framework for continued discussion, study, and planning by Township staff, planning consultant, and the Steering Committee.

Source: Steering Committee and 2017-2018 Community Survey

Table 2: Innovative Policies, Regulations, Standards, and Technology

| Innovative Policies | Benefits/Intent |
|---|---|
| Sustainable Communities | Refer to the bottom of page 4 for the definition of sustainability, sustainable development, and sustainable communities. And, refer to page 3 for sustainability principles guiding this plan. |
| Healthy Places | Refer to pages 7 and 8 for principles of healthy places. |
| Smart Communities | Smart Community strategies require sustainability-based approaches as a framework for action. |
| Diversity Inclusion | Refer to the bottom of page 13 and Chapter 3 page 24 – Community Culture and Diversity. |
| Energy Diversification | Refer to pages 30 and 31 for Alternative Energy Initiatives. |
| Sustainable Farming | Refer to pages 64 and 65 for Sustainable Agriculture/Farming and strategies. |
| Innovative Tools, Techniques, Regulations, and Standards* | Benefits/Intent |
| Conservation Design Standards | <p>Conservation by Design rearranges the development on each parcel as it is being planned so that half or more of the buildable land is set aside as open space. This method of development does not reduce the rights of landowners to develop their land.</p> <p>Source: https://conservationtools.org/guides/9-growing-greener-conservation-by-design</p> |
| Transfer of Development Rights (TDRs) | <p>TDRs permanently protect land with conservation value by purchasing development rights from a landowner to be used on another parcel zoned for higher development densities with suburban or urban design standards.</p> <p>Source: https://conservationtools.org/guides/12-transfer-of-development-rights</p> |
| LEED Neighborhood Development (LEED-ND) | <p>LEED-ND contains a set of measurable standards that collectively identify whether a development or proposed development of two buildings or more can be deemed environmentally superior, considering the development’s location and access, its internal pattern and design, and its use of green technology and building techniques.</p> <p>Source: https://www.nrdc.org/sites/default/files/citizens_guide_LEED-ND.pdf</p> |
| Form-Based Codes | <p>Form-based codes address the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks.</p> <p>Source: https://formbasedcodes.org/definition/</p> |
| Traditional Neighborhood Development (TND) | <p>Traditional Neighborhood Development creates compact, mixed-use, non-automobile dependent neighborhoods and communities. It serves the needs of people and accommodates growth with minimal waste of land.</p> <p>Source: https://conservationtools.org/guides/46-traditional-neighborhood-development</p> |
| Access Management | <p>Access management is the proactive management of vehicular access points to land parcels adjacent to all manner of roadways. Good access management promotes safe and efficient use of the transportation network.</p> <p>Source: https://ops.fhwa.dot.gov/access_mgmt/what_is_accsmgmt.htm</p> |
| Inclusionary Housing Ordinance | <p>Inclusionary housing ordinances work to overcome economic barriers and establish incentives that may make affordable housing development feasible.</p> <p>Source: https://www.lvpc.org/pdf/inclusionaryZoning.pdf</p> |

*Many of these innovative tools, techniques, regulations, and standards are further discussed in chapters of this plan.

Table 2: Innovative Policies, Regulations, Standards, and Technology (continued)

| Innovative Tools, Techniques, Regulations, and Standards* | Benefits/Intent |
|---|--|
| Low Impact Development (LID) | Low Impact Development (LID) is a sustainable stormwater management strategy of meeting regulatory compliance and resource protection goals. Source: https://www.wbdg.org/resources/achieving-sustainable-site-design-through-low-impact-development-practices |
| Integrated Water Resource Management (IWRM) | This process promotes the coordinated development and management of water, land, and related resources to maximize economic and social welfare without compromising sustainability of vital ecosystems. This is also a climate change adaption tool. Source: https://www.planning.org/knowledgebase/watermanagement/ |
| Innovative Technology** | Benefits/Intent |
| Intelligent Transportation Systems (ITS) | ITS uses sensing, data collection, analysis, and control and communications technologies to improve safety, mobility and efficiency with results including reduced congestion, improved traffic management and safety, and minimal environmental impacts. Source: USDOT – https://www.its.dots.gov/factsheets/benefits_factsheet.htm |
| Smart Cities Technology | The Smart city concept integrates information and communication technology (ICT), and various physical devices connected to the IoT network to optimize the efficiency of city operations and services and connect to citizens. Source: Wikipedia – https://en.wikipedia.org/wiki/Smart_city |
| Artificial Intelligence (AI) | Using artificial intelligence (AI) to clean up our land, air, and water as well as to assist with government functions to increase efficiency and accelerate sustainability efforts. Source: https://www.recode.net/ad/18027288/ai-sustainability-environment |
| Automated Vehicle (AV)/Connected Vehicle (CV) Technology | Smarter transportation systems are sustainable with reduced impacts on the environment. There are planning and infrastructure investment implications to be considered. Source: http://www.planhillsborough.org/wp-content/uploads/2018/07/Revised-FDOT-MPO-ACES-PolicyGuide-May-2018.pdf |

*Many of these innovative tools, techniques, regulations, and standards are further discussed in chapters of this plan.

**Several of these innovative technologies are discussed in chapters of this plan.

Principles for Building Healthy Places

The Township and the development community will be challenged by future generations to make healthy choice the easy and affordable choice. The following principles are important to create a new approach to building healthy communities. The incremental adoption of one or a few of the following principles will allow UST to leverage its health advantages and reimagine how public and private property is developed to stay competitive and relevant to future populations.

- Put People First – The Township must make smart decisions that affect public health by incorporating healthy decision making intentionally at the outset of policy or investment decisions to help create the environment that offers healthy choices. For example, people must be prioritized over cars. Strategy and Expected Outcomes: Conduct a Health Impact Assessment (HIA) and require a review of development/redevelopment plans, capital projects, programs, and/or policies against this plan and the HIA before adopting, building, or implementing programs and projects. This will allow the Township to make informed choices about sustainable community development that will result in improved public health, decision-making, and fiscal responsibility. The HIA uses sustainability indicators as previously outlined in this comprehensive plan and others to assess communities and specific use performance

metrics as outlined in Chapter 11 Implementation Plan. Other communities are using a HIA to assess development and redevelopment plans to measure impacts and to determine appropriate measures to avoid, mitigate, or minimize social, environmental, and economic impacts.

Sources: EPA – <https://www.epa.gov/healthresearch/health-impact-assessments> and CDC – <https://www.cdc.gov/healthyplaces/hia.htm>.

- Recognize the Economic Value – Demographics and lifestyle shifts suggest that residents of all ages increasingly want to live in walkable, mixed-use, transit-rich communities. Strategy and Expected Outcomes: Adopt and implement Complete Streets Policies and Mixed-Use Development Standards. Reinvent the Township as a healthy mixed-use place to enhance marketability and economic opportunity by using active living to attract investment to the community, foster growth, and increase revenues.
- Empower Champions for Health – A shared vision of a healthy community is crucial to implementation and realizing the benefits. Strategy: Foster a community education campaign and a grassroots movement to support a healthy community initiative, brand the Township as a healthy community, and forge public-private partnerships to implement aspects of this initiative.
- Energize Shared Spaces – Create vibrant places throughout the Township that are well-designed and programmed spaces that offer opportunities for people to get out of their homes to exercise, socialize, and hold events. Strategy: Create a mix of public and private places open to the public through public-private partnerships.
- Make Healthy Choice Easy – Provide a menu of healthy choices that are easy, affordable, and accessible to all. Strategy: Provide safe, accessible, fun, and easy healthy choices.
- Ensure Equitable Access – Provide access to healthier living choices for people of all ages, ethnicity, and income levels. Design for all ages and abilities, integrate land use and transit, and focus on schools as an education center, community center, and recreation center. Strategy: Provide better access to services, amenities, and opportunities to all UST citizens.
- Mixed-Use Development – Promote mixed-use development integrating a combination of residential, office commercial, cultural, institutional, and public space uses. Strategy: Incentivize the mix of uses, remove regulatory barriers, balance parking requirements, and optimize the use of space.
- Embrace Unique Character – Unique ecological, architectural, historic, or geographic features contribute to a sense of place with proximity to natural and man-made spaces having direct positive effect on physical and mental health. Strategy: Identify key assets and prioritize development that integrates natural systems and cultural resources with man-made improvements.
- Promote Access to Healthy Food – Building a healthy community starts with access to healthy foods through healthy food cultivation, retaining, and consumption. Strategy: Preserve agricultural land, promote active farming, support private and community gardening, make food a destination, promote healthy cooking or nutrition programs, and promote agricultural tourism and farmers markets.
- Make it Active – Create healthy environments that encourage healthy lifestyles and provide opportunities for physical activity. Strategy: Land development improvements should incorporate aspects of active living by applying a set of adopted flexible design guidelines with active-living design principles.

Source: Urban Land Institute, *Ten Principles for Building Healthy Places*, 2013

Community Development Goals and Objectives

A summary of community development goals and objectives for each plan element with a specific anticipated outcome and land use policy objective is contained on the following pages. This information is also repeated in each plan element section for ease of reading and understanding the intent of each element. The land use policy objectives from the 1985 Comprehensive Plan were updated and revised based upon public input, existing conditions assessment, and guidance from the Steering Committee.

This section of the plan is developed in accordance with the Pennsylvania Municipalities Planning Code (MPC), Article III – Comprehensive Plan, Section 301(a) basic elements, subsection (1) which “requires a statement of objectives of the municipality concerning its future development, including, but not limited to, the location, character and timing of future development, that may also serve as a statement of community development objectives as provided in Section 606.” Section 606 of the MPC requires that “the municipality’s zoning ordinance reflect the policy goals and include a statement of community development objectives by reference to the comprehensive plan.”

Source and Reference: PA MPC – <https://dced.pa.gov/download/pennsylvania-municipalities-planning-code-act-247-of-1968/?wpdmdl=56205&ind=0>

Table 2: Summary of Community Development Goals, Objectives, Expected Outcome, and Policies

| | | |
|--|--|--|
| <p>Overarching Comprehensive Plan Goal: Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township.</p> | | |
| <p>Growth Management Goal: Promote sustainable community development to become a sustainable community. Primary Objective: Minimize environmental, community, and fiscal Impacts. Expected Outcome: Strike a balance between community and economic development and environmental preservation.</p> | <p>Community Character & Design Goal: Preserve and enhance the existing character of residential neighborhoods, villages, natural landscapes, and other unique or special places. Primary Objective: Maintain a sense of place where people want to live, work, and play. Expected Outcome: Create a strong sense of place identifiable by residents, businesses, and visitors.</p> | <p>Economy Goal: Concentrate commercial and industrial development to maximize infrastructure investment and to minimize impacts on residential neighborhoods. Primary Objective: Direct private and public investment that leads to sustained economic growth to provide living wages and career path opportunities for employees. Expected Outcome: Achieve and maintain a diverse local employment base and sustainable local tax base.</p> |
| <p>Overarching Land Use Policy: Work with neighborhoods, property owners, and developers to accommodate growth in a flexible, connected, and sustainable manner.</p> | <p>Overarching Land Use Policy: Promote design standards for buildings, streets, and open space that work together to define a sense of place.</p> | <p>Overarching Land Use Policy: Focus on new development and redevelopment of sites that provide a balanced tax base.</p> |
| <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> Promote smart growth based upon sound decision making that accounts for competing interests, goals, objectives, and strategies across all plan elements. Achieve performance goals and provide an annual report on metrics related to 2040 targets. Coordinate the phasing of development with public investments for the expansion of public water, sewer, roads, and utilities. | <p>Design Policy Objectives:</p> <ol style="list-style-type: none"> Promote walkable neighborhoods by adopting and applying a Complete Streets Policy and Design Guidelines for all public and private development. Continue to incorporate high standards for site design and architectural design of buildings. Offer incentives and development bonuses for mixed-use, walkable development. Promote sustainable design and architectural principles and LEED® certified development, buildings, facilities, and neighborhoods. Use a Historic Village Zoning District integrated with a TND Overlay for villages and village centers to blend the new with the old. Promote vertically and horizontally mixed-use development patterns at various levels of density and intensity based upon rural or suburban landscapes. Creatively incorporate aspects of urban farming into mixed-use development (e.g., farmers' markets, community gardening, roof top farming, small plot intensive farming, and similar). | <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> Create opportunity for businesses offering high paying jobs and diversification of the labor force. Streamline processes and create tax incentives to attract and create "New Economy" industries. Concentrate on retaining and expanding local businesses and reinvesting in commercial areas. Foster local entrepreneurship to increase the number of small businesses to support village center development and Traditional Neighborhood Development (TND). Retain a strong agricultural base as part of the local and regional food supply. Concentrate on attracting new businesses as part of the strategy to strengthen the Town Center and to support mixed-use development in the Enterprise Zone. Protect natural and cultural resources and valued community assets that strengthen community character to create an enjoyable place to live and to attract a diverse labor force. Encourage partnerships with major landholders and institutions of higher education. Assist local businesses seeking expansion and growth opportunities. |

Table 2: Summary of Community Development Goals, Objectives, Expected Outcome, and Policies

| | | |
|---|---|---|
| Overarching Comprehensive Plan Goal: Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township. | | |
| <p style="text-align: center;">Community Facilities and Services</p> <p>Goal: Provide adequate public facilities and services to meet the needs of a growing population.</p> <p>Primary Objective: Develop adequate public facilities as part of private development and through implementation of a public Capital Improvement Program (CIP).</p> <p>Expected Outcome: Achieve and maintain a high quality of life through community facilities and services that meet the basic needs for water, sewer, recreation, and public health, safety, and welfare and provide other life sustaining and social functions.</p> | <p style="text-align: center;">Natural Resources</p> <p>Goal: Maintain the health of the environment and the community.</p> <p>Primary Objective: Recognize the importance of natural resources, geographic features, and man-made features that make the Township a desirable place to live. Preserve and protect natural landscapes of the Township.</p> <p>Expected Outcome: Achieve and maintain harmony with the environment through preservation of as many natural resources and geographic features as possible.</p> | <p style="text-align: center;">Cultural Resources</p> <p>Goal: Maintain and enhance cultural landscapes that help define community character.</p> <p>Primary Objective: Preserve and protect the cultural landscape of the Township.</p> <p>Expected Outcome: Contribute to a high quality of life, maintain a sense of place, and preserve local heritage recognized by residents and visitors.</p> |
| Overarching Land Use Policy: Provide for adequate public facilities and services through partnerships between local government, authorities, and the development community. | Overarching Land Use Policy: Collaborate with local and regional partners to reclaim, conserve, protect, and enhance natural, cultural, and agricultural resources and man-made community assets. | |
| Land Use Policy Objectives: <ol style="list-style-type: none"> 1. Recognize that sustainable public and private development has a social responsibility to create a high-quality built environment with accessible local services, open space, and adequate community facilities and services. 2. Understand that the Township has an obligation to ensure compatibility of public buildings, facilities, and uses with surrounding private development. 3. Apply facility design that promotes the use and uniqueness of community facilities for all ages and abilities of users. 4. Plan for the expansion of public facilities and services as an integrated aspect of private development. 5. Meet the collective needs of a multi-cultural and inclusive population. | Land Use Policy Objectives: <ol style="list-style-type: none"> 1. Protect and preserve natural, cultural (historic), agricultural, and scenic resources. 2. Utilize information about topography, soils, and other natural features to determine the most suitable type, location, and density of development. 3. Utilize environmental impact assessments to evaluate and mitigate development impacts. 4. Apply soil and water conservation best practices and integrated water resource management strategies to all development. 5. Incorporate natural features and stormwater best management practices into the design and layout of development. 6. Protect and preserve environmentally sensitive areas such as steep slopes, forested land, floodplains, water recharge areas, areas prone to sinkholes, and similar areas. | |

Table 2: Summary of Community Development Goals, Objectives, Expected Outcome, and Policies

| Overarching Comprehensive Plan Goal: Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township. | | |
|---|--|--|
| Agricultural Preservation | Transportation | Housing |
| <p>Goal: Preserve agricultural land.</p> <p>Primary Objective: Preserve those lands best suited for sustainable agriculture that protect the food supply, economic base, and rural character of the Township.</p> <p>Expected Outcome: Increase public and privately preserved agricultural land productively farmed.</p> | <p>Goal: Develop and maintain a local multimodal transportation network as part of a larger regional network.</p> <p>Primary Objective: Develop and maintain a multimodal transportation network providing accessibility, mobility, and safety for all users.</p> <p>Expected Outcome: Improve connectivity and interconnectivity for all modes of transportation that integrates local and regional traffic.</p> | <p>Goal: Maintain the character of existing residential neighborhoods and develop new neighborhoods with a variety of housing types.</p> <p>Primary Objective: Provide affordable housing choice for households of all income levels.</p> <p>Expected Outcome: Achieve a mixture of housing types, unit size, and affordability commensurate with housing needs and goals.</p> |
| <p>Overarching Land Use Policy: Collaborate with local and regional partners to reclaim, conserve, protect, and enhance natural, cultural, and agricultural resources and community assets.</p> | <p>Overarching Land Use Policy: Recognize that transportation is a land use and that investment in multimodal transportation improvements contributes to short- and long-term sustainability.</p> | <p>Overarching Land Use Policy: Encourage expanded choices in housing location and types and improve access to jobs and opportunities.</p> |
| <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> 1. Protect and preserve agricultural land and rural landscapes. 2. Encourage sustainable farming. 3. Conserve, preserve, and protect agricultural land for future farmers. 4. Continue to provide land use regulations for the protection of agricultural lands and allow for secondary uses that strengthen the economic viability of farming. 5. Continue to be an active partner in Lehigh County's Municipal Partnership Program for Agricultural Land Preservation. | <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> 1. Require improvements such as sidewalks, bike lanes, off-road facilities, and/or space for future transit stops as part of all land development. 2. Implement pedestrian/bicycle improvements that connect residential neighborhoods with community valued assets such as schools, employment, shopping centers, parks and recreation, and other public facilities. 3. Embrace transit-oriented design standards to make the Township development patterns transit friendly and ready for future service. 4. Coordinate with LANta early in the land development process to incorporate appropriate transit infrastructure. 5. Ensure the scope of Traffic Impact Studies are adequately defined and improvements are made as part of public and private development projects. 6. Partner with other agencies, organizations, and the private sector to prepare local infrastructure and communications for autonomous and connected vehicle technology. | <p>Land Use Policy Objectives:</p> <ol style="list-style-type: none"> 1. Provide for diversity of housing types, size, tenure, and design within respective land use classifications, density standards, and development constraints. 2. Incentivize and remove barriers to production of moderately priced rental housing through land use policy and other regulatory mechanisms. 3. Focus housing development in a way that is sustainable where public infrastructure exists. 4. Ensure safe and code compliant housing. 5. Continue to require energy and water efficiency in all new, renovated, and existing housing through the UCC. 6. Promote housing development that protects environmentally sensitive areas and environmentally constrained lands. 7. Promote mixed-income neighborhoods. 8. Increase housing density in village centers, traditional neighborhood developments (TNDs), and mixed-use campus style developments. 9. Adopt land use regulations that facilitate development in village centers and TNDs using mixed-use development standards. |

CHAPTER 2: EXISTING CONDITIONS

Assessment of existing conditions along with a review of trends and population projections provide the basis for future planning. The information in this chapter is a summary of detailed information contained in Appendix B – Trends, information from various LVPC plans and documents, an assessment of existing land use, and potential for build-out under current zoning regulations.

Quality of Life

Many who participated in the planning process stressed that the Quality of Life (QOL) today for Upper Saucon Township residents is very good. Their desire is that this high QOL be protected, maintained, and enhanced for current and future generations and that new opportunities be created by implementing policies and strategies of this plan. Levels of satisfaction, perception of QOL, and support for various sustainability factors for newly arriving residents versus long-term residents may differ with notable influence on planning for the future of the Township.

Those assets, attributes, or qualities that are important were identified by the Comprehensive Plan Steering Committee via a SWOT Activity, by respondents to the community survey, and by participants in the Public Workshop. The following things that are important and of value to the community help shape the planning goals, objectives, policies, and strategies outlined in this plan.

Table 4: Factors Contributing to Quality of Life

| Valued Natural Resources | Valued Community Resources & Infrastructure |
|---|---|
| Preserved and Actively Farmed Agricultural Land | DeSales University, Penn State, and Lehigh |
| Scholl Woodlands Preserve | Promenade Shops |
| Wildlands Conservancy Buehler Memorial Park | School District Facilities and Quality of Education |
| Open Space and Parklands | Community Park and other Park Facilities |
| Conservation of Natural Resources | Saucon Rail Trail |
| Character | Golf Courses/Country Clubs |
| Location in the Region | Library |
| Rural and Suburban Landscapes | Public Water and Sewer |
| Historical Properties and Districts | Transportation Network provides Good Access |

Source: Public Input 2018

Diversity Inclusion

As the Lehigh Valley and the national population continues to become more diverse, the population of the Township is expected to reflect some level of diversity in culture, background, and identity. The Township’s current Diversity Index of 28 out of 100 indicates that as growth occurs, diversity is expected to increase. The Diversity Index is on a scale of 100. Once a jurisdiction reaches 100, the population is evenly divided into two or more race/ethnic groups. The Township should be encouraging diversity through various policies and programs.

Minority populations in the Lehigh Valley are expected to quadruple in less than four decades.

Indicators of a growing diverse population include:

- Increased number of languages spoken.
- Increased cultural activity, cultural-based opportunities, businesses, service, and non-profit agencies.
- Expanded community identity to embrace the new social and cultural make-up of the Township and the region.

Sources: LVPC, Future LV Regional Plan and Diversity Index –

<https://pennsylvania.hometownlocator.com/counties/subdivisions/data.n.township%20of%20upper%20saucon.id.4207779288.cfips.077.cfm>

Community Conditions, Demographics, and Projections

The following community factors with associated conditions and demographics are indicators of sustainability. A brief explanation of the impact of each indicator on sustainability is provided along with information and/or statistics associated with each.

Population is a social environment indicator impacting the natural and cultural resources environment and a factor contributing to the economy in areas such as employment and housing. Population is a measurable indicator to use when planning for government facilities and services as well as when assessing the potential for economic development. Population is also used as the basis for projecting revenue and estimating the demand on public services such as water, sanitary sewer, schools, parks and recreation, fire and rescue, and emergency medical services.

In nearly four decades since 1980, the population of the Township has grown 72% to approximately 16,585 persons in 2018. The projected population and household count, using an alternative method applying a growth rate based upon changes in population of school aged children, is estimated to be 21,793 persons living in 7,167 households by 2040. The projected population growth from 14,808 in 2010 to 21,793 in 2040 results in a 47% increase over three decades with a subsequent 42% change in households from 5,039 in 2010 to 7,167 in 2040. Reference Appendix B Trends for additional details.

Household Income is determined based upon where you live and based upon the associated cost of living, number of people in the household, employed number of dependents, health, level of education, transportation, and housing costs. According to the Department of Housing & Urban Development (HUD), spending 30% or more of a household's income on housing is considered "housing-cost burdened." Cost burden based upon housing costs can occur at all income levels. In the Township, approximately 23.8% of homeowners and 41% of renters are cost burdened.

Currently, the median household income is approximately \$94,212. This is nearly 70% higher than both the state and national median income and 64% higher than that of Lehigh County. As previously stated, the projected 2040 number of households is expected to reach 7,167; this is nearly a 27% increase in households since 2018 (estimated 5,650 households). Refer to Appendix B Trends and Appendix C Housing Analysis for additional details about housing supply and demand.

Housing availability, cost, and choice directly affects financial security and sustainability of households and affordable housing for all income levels affects the quality of life of residents with respect to health, access to education, and employment prospects. The Township's 2019 millage rate is either comparable or lower than surrounding suburban and urban municipalities in the region. Competitive or comparable property taxes, quality public education, and access to good jobs locally and regionally has attracted residential development to Upper Saucon Township and surrounding municipalities in the region.

More than three-quarters of the homes in the Township are valued above \$200,000. A 4.2% vacancy rate suggests a strong housing market in the Township with little to no ability to absorb incremental housing demands unless new construction should occur. Significant growth in households in age categories 65-74 and 75+ are expected in the region through 2030 due to the desire to age in place or the desire to live in a place of preference. It is anticipated that there will be also an increase in households in age category 35-44 (first-time home buyers) between 2018 and 2023. According to the US Census, approximately 21.3% of the 639 renter households in the Township are considered "severely rent-burdened" – meaning these households spend at least 50% of their income on housing costs.

Adequate community facilities and utilities are essential to a sustainable community and impact the quality of life. Public facility and utility providers plan for service expansion needs, conduct operations and maintenance programs, and implement capital improvement programs to assure quality service is provided to current and future customers. The Township has ordinances in place to require developers to address roadways, utilities, open space, and park/recreational facility improvements and dedication. The Township has adopted an Official Map identifying potential locations of land to be dedicated and used as future roadways, parks, open space, and recreation.

Approximately 1,966 acres in the Township are devoted to public and private park, recreation, and open space. As residential development occurs, additional lands will be either dedicated or a fee in lieu of will be offered to the Township for open space and/or park and recreation space improvements. Upper Saucon Township has an annual budget for operations, maintenance, and capital improvements for public facilities such as roadways, stormwater facilities, and wastewater collection and treatment.

Natural and cultural resource and agricultural preservation is important to achieving long-term community sustainability. The Township along with the State and the County Conservation District apply regulations to protect natural resources through permitting, inspection, and enforcement programs to monitor short- and long-term impacts and compliance. Additionally, the Township has adopted an Agricultural Protection Zoning District (1,409 acres) covering a portion of the more rural landscapes including 1,035 acres of land in Agricultural Security Areas. In partnership with property owners, the County, the State, and the Township has preserved 392 acres of these agricultural lands.

The economy and economic development drives growth and creates jobs that contribute to a high quality of life for residents at an acceptable cost to both the environment and social aspects of the community. The Township continues to experience a very low unemployment rate and is well positioned to compete for mixed-use campus style development including corporate headquarters and businesses associated with technology and innovation. Agricultural lands and farming contribute to the local and regional economy and food supply. See page 117 for campus style development.

The Township's residents are highly educated – 45% hold a bachelor's degree and 21% hold a graduate or professional degree. These statistics are twice that of education levels for residents in other municipalities in the region. In 2010, the Township had an employment base of 9,976 people working in UST. While limited lands remain for commercial, institutional, and industrial development, LVPC employment projections identify a 66% increase from 2010 (9,976) to 2040 (16,519).

The transportation network is part of all landscapes across the Township and has an economic impact on the community. And, if designed properly, the network can provide safe and efficient travel while maintaining and strengthening community character. It is important to make short- and long-term transportation decisions that influence the quality of life for years to come. Nearly 85% of residents of the Township commute to work in personal vehicles with an average travel time of 20-30 minutes with 75% of households having two or more vehicles. Traffic safety and congestion are concerns during peak travel times along the Route 309 corridor and other key locations.

The Township has adopted an Official Map identifying potential roadway and path/trail connections for the Township. And, the Township has a Capital Improvement Plan (CIP) identifying transportation projects to be sponsored by the Township or sponsored through a partnership between the Township, PennDOT, and/or the development community.

Land is a limited resource. Growth management results in a healthy mix of land use with private and public investment focused on mitigating impacts on the environment and minimizing financial costs to providing public infrastructure that ultimately achieves community sustainability. Land in Upper Saucon Township has been predominantly developed at varying densities and types of residential land use (43.8% or 6,919 acres). Development trends suggest that the Township could reach build-out sooner than 2040. The Township has approximately 10.7% (1,689 acres) of lands classified as undeveloped, underdeveloped, and vacant land. Underdeveloped land includes developed land with additional development potential to reach maximum build-out.

Approximately 8.6% (1,360 acres) of all lands are developed as non-residential uses excluding utilities, transportation, park, recreation, and open space uses.

Approximately 17.1% or 2,695 acres are classified as agricultural lands of which 1,035 acres are in Agricultural Security Areas (ASA) with 392 of those acres permanently preserved.

Table 5: 2018 Land Use Classification

| Land Use Classification | 2018 | |
|---|---------------|-------------|
| | Acres | Percent |
| Residential | 6,919 | 43.8% |
| Commercial | 335 | 2.1% |
| Industrial & Warehouse | 153 | 1.0% |
| Public & Institutional | 872 | 5.5% |
| Utility & Transportation | 1,155 | 7.3% |
| Park, Recreation, & Open Space (public & private) | 1,966 | 12.5% |
| Agricultural | 2,695 | 17.1% |
| Undeveloped/ Underdeveloped*/ Vacant Land | 1,689 | 10.7% |
| Total | 15,784 | 100% |

Source: Lehigh County Tax Assessment Data, Township GIS Data, and Township Review/Update of Land Use Data
 *Underdeveloped land includes developed land with additional development potential.

Implications of Current Land Use Policies

Large areas zoned and developed as low- to medium-density residential development with capacity for future development of a similar nature and density will continue to negatively impact natural resources, and contribute to loss of agricultural land and will result in increased energy consumption, stormwater runoff, infrastructure and equipment investments, maintenance and operational costs, traffic congestion, public services costs, and local and school district taxes.

Understanding the Township cannot stop development, the planning process focuses on establishing a sustainable land use allocation introducing changes that promote compatibility of adjacent land uses, neighborhood compactness, infill development, mixed-use development, and redevelopment.



Land Use Trends and Current Zoning

The way land is used changes over time depending upon community needs and market factors. The table below reflects the changes in land use from 1966 through 2018 by acres and percentages for each land use classification using data provided by the LVPC, Lehigh County, and Upper Saucon Township. The 2018 Township land use was derived from Lehigh County data with staff verification to improve on the accuracy of the data with respect to use classification. The data accounts for gross acres of land broken down by land use classification including all environmentally constrained lands. Major changes include increases in leisure activities, industry and business, and housing reflecting growth over five decades. Data obtained from Lehigh County Tax Assessment Office was used to prepare Map 1: Existing Land Use to reflect the current land use patterns for 2018 based upon these standard land use classifications.

Table 6: Land Use Trends 1966 – 2018

| Land Use Classification ¹ | LVPC Land Use Trends | | | | | | Township Land Use | |
|---|----------------------|-------------|---------------|-------------|---------------|-------------|-------------------|-------------|
| | 1966 | | 1982 | | 2012 | | 2018 | |
| | Acres | Percent | Acres | Percent | Acres | Percent | Acres | Percent |
| Residential | 3,632 | 22.7% | 3,985 | 24.8% | 5,964 | 37.8% | 6,919 | 43.8% |
| Commercial ² | 80 | 0.5% | 69 | 0.4% | 245 | 1.5% | 335 | 2.1% |
| Industrial/Warehouse ² | 80 | 0.5% | 62 | 0.4% | 155 | 1.0% | 153 | 1.0% |
| Public/Institutional | 464 | 2.9% | 456 | 2.9% | 844 | 5.3% | 872 | 5.5% |
| Utility/Transportation | | | | | 1,183 | 7.5% | 1,155 | 7.3% |
| Park and Recreation ³ (public & private) | 304 | 1.9% | 1,344 | 8.4% | 1,530 | 9.7% | 1,966 | 12.5% |
| Agricultural ⁴ | 10,400 | 65.0% | 6,555 | 41.0% | | | 2,695 | 17.1% |
| Undeveloped/ Underdeveloped/ Vacant Land ⁵ | 1,040 | 6.5% | 3,529 | 22.1% | 5,863 | 37.1% | 1,689 | 10.7% |
| Total | 16,000 | 100% | 16,000 | 100% | 15,784 | 100% | 15,784 | 100% |

¹Sources: 1985 Comprehensive Plan, LVPC Municipal Profile, Lehigh County Tax Assessment Office, and UST Existing Land Use Map Data –

²There are some discrepancies in the data from 1966 to 1982 with respect to commercial and industrial/warehouse uses.

³Includes Parks, Recreation, and Open Space/Green Space. ⁴Includes land currently farmed available for future development.

⁵Underdeveloped land includes developed land with additional development potential – 2018 acres includes undeveloped and vacant land only including lands planned or approved for pending development.

Table 7: Land by Zoning District

| Zoning District | Acres | Percentage of Total Acreage |
|-----------------------------------|---------------|-----------------------------|
| Agricultural Preservation (A) | 1,409 | 8.9% |
| Rural Residential (R1) | 3,622 | 23.0% |
| Suburban Residential (R2) | 5,912 | 37.5% |
| Multi-Family Residential (R3) | 552 | 3.5% |
| Open Space Residential (OSR) | 933 | 5.9% |
| Commercial (C) | 196 | 1.2% |
| Industrial (I) | 451 | 2.9% |
| South Mountain Conservation (SMC) | 1,853 | 11.7% |
| Enterprise (E) | 855 | 5.4% |
| Total | 15,783 | 100% |

Source: Zoning Map – Total acres within Zoning District includes roadway, rights-of-way, and public utilities. No acreage is shown for Overlay Zoning Districts

Land Use Classifications Versus Zoning

Zoning acreages should not be confused with acres of land identified by Land Use Classification above.

Land use reflects the existing development patterns in an area of the Township based upon a land use classification system. Zoning districts more specifically define and regulate what type of uses are allowed on specific parcels.

General Impacts of Land Use on Local Tax Revenues

The way land is used affects taxpayers and the quality of life as well as affects the Township and School District's ability to respond to the needs of citizens (both short-term and long-term). Generally, for most Pennsylvania communities, land use policies, regulations, and decisions impact revenues in the following manner:

- High value uses such as industrial and commercial enterprises or expensive homes typically generate higher tax revenue from real property and realty transfer taxes.
- Population growth of employed individuals of higher economic status heavily influence the amount of earned income tax, occupation tax, and per capita tax.
- Due to school expenses, residential land uses typically require more from the Township and School District than it contributes in taxes.

Homeowners benefit from industrial, commercial, farm, and open land in the local tax base because these land uses help subsidize both local government and school expenses.

Source: Penn State Extension

Source: Penn State Extension, Fiscal Impacts of Different Land Uses – <https://extension.psu.edu/fiscal-impacts-of-different-land-uses-the-pennsylvania-experience-in-2006>

Suburban Sprawl

For the most part, the land use patterns of Upper Saucon Township are a result of suburban sprawl that was historically fueled by a rising population regionally, a demand for low-density residential housing (increased living space), a set of local land use regulations built around single-use or Euclidean zoning, and a reliance on private automobiles for transportation. These conditions are not unique to the Township, instead they are consistent throughout the region, the state, and across the national. Construction of many of the Township's neighborhoods contain similar or identical homes on parcels with nearly identical lot size, dimensions, and building placement.



Source: Britannica – Example of Suburban Sprawl – Depicts development patterns comparable to Upper Saucon Township.

Lands Available for Development (Potential for Build-Out)

As part of the planning process, a build-out analysis was used to determine the potential location of development to illustrate a pattern that growth could take in the future if land use policies and regulations do not change. This analysis determined the number of additional dwelling units and non-residential square feet of development that could be built on developable land under existing zoning regulations. The results paint a picture of the potential probable future and identify implications of existing policies and regulations to help the Township discuss what steps should be taken to manage future growth (refer to Appendix E – Build-Out Analysis and the Future Land Use Chapter).

Table 8, on the following page, summarizes the potential net developable land by zoning district for lands inside and outside of the Township's Act 537 Service Area and agricultural and non-agricultural lands. Net Developable Lands (NDL) are lands available for development minus environmentally constrained lands (e.g. water bodies, wetlands, steep slopes, and floodplains). There is approximately 3,212 acres of potential net developable land of which 61% (1,960 acres) is located outside of the Act 537 Service area and 65% (2,082 acres) is agricultural land located townshipwide.

Table 8: Potential Net Developable Lands by Zoning District

| Zoning District | Total Acres Zoned | Acres of Potential Net Developable Land ¹ | Acres of Potential Net Developable Land Inside 537 Service Area | Acres of Potential Net Developable Land Outside 537 Service Area |
|--|-------------------|--|---|--|
| Agricultural Zoning Districts | | | | |
| Agricultural Preservation (A) – Non-Ag Lands | 1,408.98 | 5.44 | 5.44 | 0.00 |
| Agricultural Preservation (A) – Ag Lands | | 340.41 | 45.77 | 294.64 |
| Total Agricultural Lands | 1,408.98 | 345.85 | 51.21 | 294.64 |
| Residential Zoning Districts | | | | |
| Rural Residential (R1) – Non-Ag Lands | 3,622.36 | 236.15 | 68.68 | 167.47 |
| Rural Residential (R1) – Ag Lands | | 878.29 | 32.27 | 846.02 |
| Suburban Residential (R2) – Non-Ag Lands | 5,911.87 | 274.19 | 172.15 | 102.04 |
| Suburban Residential (R2) – Ag Lands | | 404.66 | 265.33 | 139.33 |
| Multi-Family Residential (R3) – Non-Ag Lands | 552.44 | 8.15 | 6.20 | 1.95 |
| Multi-Family Residential (R3) – Ag Lands | | 30.32 | 30.32 | 0.00 |
| Open Space Residential (OSR) – Non-Ag Lands | 933.44 | 21.70 | 0.44 | 21.26 |
| Open Space Residential (OSR) – Ag Lands | | 105.62 | 0.00 | 105.62 |
| South Mountain Conservation (SMC) – Non-Ag | 1,853.07 | 291.92 | 50.55 | 241.37 |
| Total Residential Lands | 12,873.13 | 2,251.00 | 625.94 | 1,625.06 |
| Commercial Zoning Districts | | | | |
| Commercial (C) – Non-Ag Lands | 195.65 | 9.75 | 9.75 | 0.00 |
| Commercial (C) – Ag Lands | | 51.31 | 51.31 | 0.00 |
| Industrial Zoning Districts | | | | |
| Industrial (I) – Non-Ag Lands | 450.88 | 22.39 | 1.70 | 20.69 |
| Industrial (I) – Ag Lands | | 156.28 | 136.28 | 20.00 |
| Enterprise Zoning District | | | | |
| Enterprise (E) – Non-Ag Lands | 855.19 | 259.88 | 259.88 | 0.00 |
| Enterprise (E) – Ag Lands | | 115.40 | 115.40 | 0.00 |
| Total Non-Residential Lands | 1,501.72 | 615.01 | 574.32 | 40.69 |
| Sub-Total Non-Ag Lands | | 1,129.57 | 574.79 | 554.78 |
| Sub-Total Ag Lands | | 2,082.29 | 676.68 | 1,405.61 |
| Totals | 15,783.88 | 3,211.86 | 1,251.47 | 1,960.39 |
| Overlay Zoning Districts² | | | | |
| Enterprise Overlay Zone (EOZ) – Non-Ag Lands | 193.18 | 135.25 | 135.25 | 0.00 |
| Village Commercial Overlay (VC) ³ | 21.93 | 0.00 | 0.00 | 0.00 |
| Sub-Totals | 215.11 | 135.25 | 135.25 | 0.00 |

Source: Build-Out Analysis (revised 8/14/2020) – Total acres within Zoning District includes roadways, rights-of-way, and public utilities.

¹Total Net Developable Land – Land available for development minus environmentally constrained lands. Lands available for development with an area under 0.5 acres were considered too small for development and were removed from consideration.

²Calculations for Overlay Zoning Districts covers acreages already accounted for in the top portion of the table.

³The AQC Overlay Zone has been repealed but remains identified on the Zoning Map.

Note: The existing land use was used to determine non-agricultural and agricultural land use acreages by zoning district and planned and approved residential development tracked by the Township is not included in the acreages above. Agricultural and non-agricultural lands include forested land where present – refer to Maps 1, 4, and 6 in the Map Book to view forested areas.

Net Developable Non-Agricultural Lands (Tables 6 and 8 Comparison): Of the 2018 lands classified as undeveloped and/or vacant in Table 5 (1,689 gross acres including environmentally sensitive lands) scattered across various zoning districts, there is potentially 1,130 acres of net developable non-agricultural land located in residential, commercial, and industrial zoning districts available for future development. The remaining gross acres of undeveloped and/or vacant land are made up of planned and approved development plans being tracked by the Township.

Net Developable Agricultural Lands (Tables 6 and 8 Comparison): Of the 2018 lands classified agriculture in Table 3 (2,695 gross acres including environmentally constrained lands) scattered across the Township, there is potentially 2,082 acres of net developable agricultural land located in residential, commercial, agricultural, and industrial zoning districts available for future development. A small percentage of the gross agricultural acres are impacted by the planned and approved development plans being tracked by the Township.

Prohibitions and Moratoria on Development: Preliminary to the development of this Comprehensive Plan, the Township conducted a resident survey which, among other things, revealed a strong desire to stop or otherwise limit development. While the Township is sympathetic to these desires, the courts have held that such policies are illegal. The major court decisions in this area of the law include *Naylor v. Township of Hellam* and *Surrick v. Upper Providence Township*.

Initially it should be understood that the State law governs land development and zoning. In this regard the Legislature passed the Pennsylvania Municipalities Planning Code (MPC) in 1968. This law authorizes the Township to enact zoning and land development regulations. Pursuant to the MPC, which has been amended over the years, the Township enacted a new Zoning Ordinance in 2009 (ZO) and a new Subdivision and Land Development Ordinance in 2011 (SALDO).

Under the MPC and Pennsylvania law, the Township's authority is not unlimited; instead, it is constrained. Indeed, the Township's authority extends only to that which is expressly granted by the Legislature or is necessarily implicated by that grant. With this background, the court decisions noted above can be better understood and placed in context.

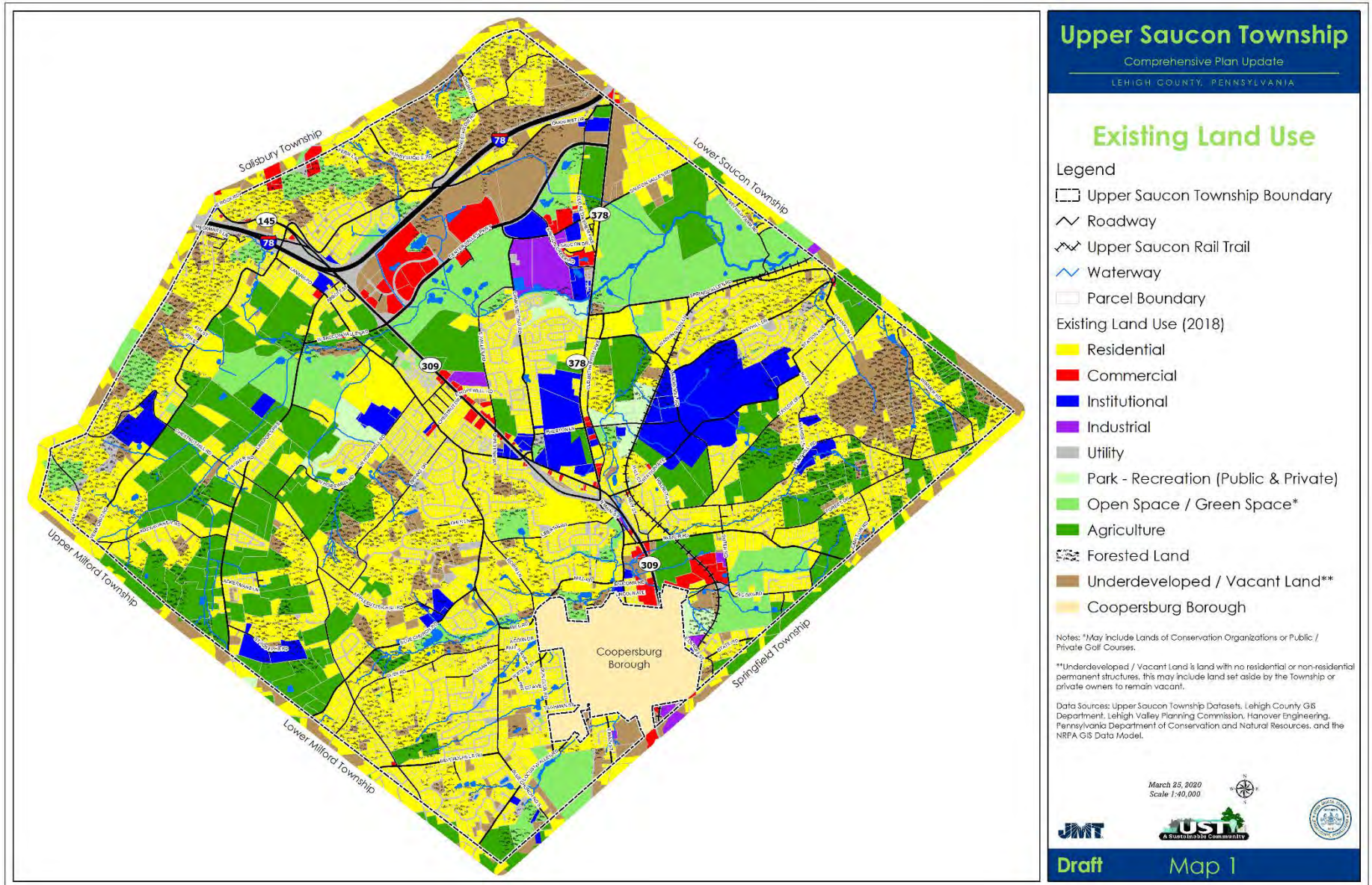
Turning to moratoria and prohibitions on development, the Pennsylvania Supreme Court held in *Naylor* that the power to enact even a temporary moratorium on land development while the township revised its comprehensive plan was not incidental to the express powers granted in the MPC. In other words, the express powers to enact a comprehensive plan and to regulate land development did not include or imply a power to suspend development. The Court stated that the MPC is "silent regarding land planning through temporary suspension of development" and declined to approve the same. Although decided in 2001, this case has withstood the test of time and remains good law in Pennsylvania.

As to the preclusion of certain types of land uses, Upper Saucon Township must abide by the Pennsylvania Supreme Court's 1977 ruling in *Surrick*. In that case, a township sought to preclude multi-family dwellings (apartments) by severely limiting the available locations and acreage for their construction. Finding that the ordinance unconstitutionally excluded multi-family dwellings, the Supreme Court cited the "fair share principle" requiring "local political units to plan for and provide land use regulations which meet the legitimate needs of all categories of people who desire to live within its boundaries." While this case addressed housing, the "fair share doctrine" has been applied to other uses, including, for example, billboards and commercial uses.

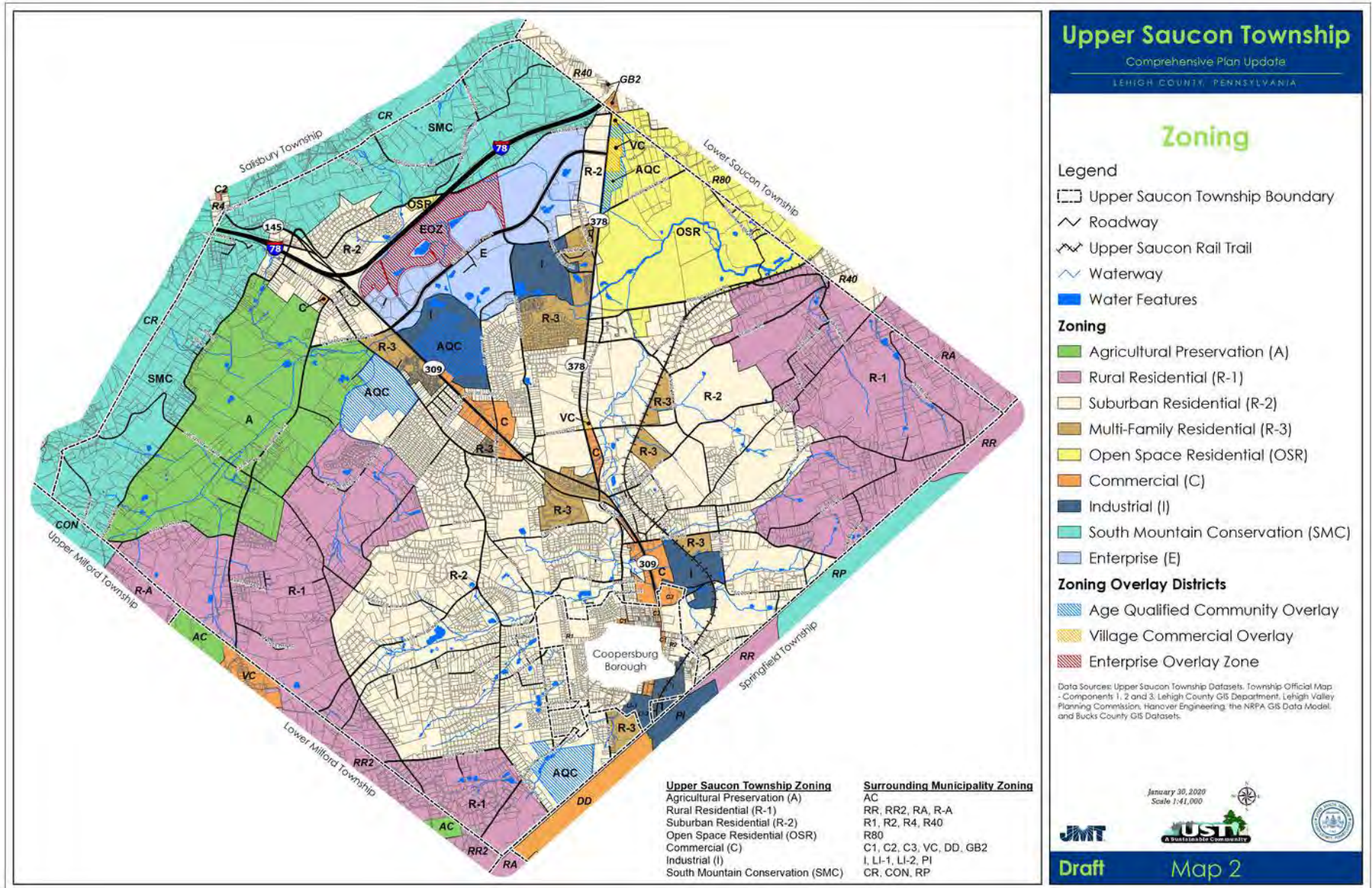
In sum, while the Township understands and appreciates the desire of many of its residents to limit, suspend and, in some instances, preclude development or certain uses, it cannot lawfully do so. While acknowledging its legal obligations in this regard, the Township has consistently worked to safeguard the public health, safety, and general welfare, as evidenced by its substantial investment in the 2009 ZO and the 2011 SALDO.

Source: Legal Interpretation of Moratoria on Development from Township Solicitor, 6-25-2019.

Map 1: Existing Land Use



Map 2: Zoning



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Source: Upper Saucon Township

CHAPTER 3: COMMUNITY FACILITIES AND SERVICES

Community facilities and services have an impact and influence on both the quality of life for residents of the Township and the sustainability of the community. Community facilities are established primarily for the benefit and service to the population of the Township and are typically physical facilities but also include a range of public services.

“The Township government is dedicated to providing high quality municipal services through the efficient use of the community’s available resources.”

Source: Upper Saucon Township website

Community facilities are also referred to as social and community infrastructure and are defined as physical facilities for individuals and communities which are provided by a range of public, private, and voluntary organizations.

Community facilities and services provide for the health, safety, welfare, social, educational, spiritual, recreational, leisure, and cultural needs of the community. These facilities and services play an important role in the development of vibrant neighborhoods by creating a sense of place and providing opportunities for people to meet and interact socially.

Goals, Objectives, & Policy

Goal: Provide adequate public facilities and services to meet the needs of a growing population.

Primary Objective: Develop adequate public facilities as part of private development and through implementation of a public Capital Improvement Program (CIP).

Expected Outcome: Achieve and maintain a high quality of life through community facilities and services that meet basic needs for water, sewer, recreation, and public health, safety, and welfare and that provide other life sustaining and social functions.

Land Use Policy Objectives:

1. Recognize that sustainable public and private development has a social responsibility to create a high-quality built environment with accessible local services, open space, and adequate community facilities and services.
2. Understand that the Township has an obligation to ensure compatibility of public buildings, facilities, and uses with surrounding land uses.
3. Apply facility design promotes the use and uniqueness of community facilities for all ages and abilities of users.
4. Plan for the expansion of public facilities and services as an integrated aspect of private development.
5. Meet the collective needs of a multi-cultural and inclusive population.

Source of Land Use Policy objectives – 1985 Comprehensive Plan and 2019 Public Involvement Process.

Community Culture and Diversity

Demographics and population projections are used to identify future demand for public facilities and services. Today, Upper Saucon Township is less diverse than other communities within the region. According to the US Census and other sources, the Township's 2017 Diversity Index of 28 is low when compared to the US Diversity Index of 60.6. The Index is on a scale of 100. Once a jurisdiction reaches 100, the population is evenly divided into two or more race/ethnic groups.

An explanation of equity, inclusion, and social diversity is provided in the blue box to give proper context of these terms with respect to this plan and community services.

As the population of the Township grows and diversifies, the needs for public and private services and opportunities will change and will require the Township to modify and develop programs and facilities, allocate resources, and modify regulations and processes to meet life safety, social, and cultural needs of a more inclusive community.

Strategies to address anticipated needs include:

- Creating a social climate that accepts and encourages diversity.
- Designing facilities and services to address barriers to access and participation.
- Providing multi-cultural inclusive communications, education, and information about public regulations, policies, programs, and services.
- Identifying existing programs and services that may require modification or adjustment and new programs and services to meet current and future needs of a diverse population.
- Ensuring that police, procedures, and regulations promote equity and inclusion in services and enforcement.
- Supporting growth of a diverse population by modifying land use regulations to provide housing and other land uses to meet the needs of a diverse culture and the demands for small-business development and unique entertainment and to meet diverse recreation needs.
- Expanding diversity in hiring practices to provide a multi-cultural, bilingual Township staff serving a diverse community and visitors.
- Enhancing cultural amenities, programs, and activities to meet demands for multi-cultural theaters, concerts, public art, dancing, comedy clubs, and other similar entertainment and social interactions.

Source: *Diversity Index* –

<https://pennsylvania.hometownlocator.com/counties/subdivisions/data,n,township%20of%20upper%20saucon,i,d,4207779288,cfips,077.cfm>

Equity and Inclusion

By the nature of their function and responsibility, municipalities are major contributors to the quality of life of their residents.

Equity and inclusion of all residents creates a more sustainable community where people from all walks of life have the right to and can participate fully in social, economic, political, and cultural life.

Social diversity is characteristic of a successful community in which individuals of different race, ethnicity, religious beliefs, socioeconomic status, language, geographical origin, gender, and/or sexual orientation bring their different knowledge, background, experience and interest for the benefit of their community.

Source: *Advancing Equity and Inclusion, a Guide for Municipalities*

Township Administration

Upper Saucon is a Township of the Second Class under the Commonwealth of Pennsylvania's system of municipal classification. The Board of Supervisors is comprised of five members who are elected for staggered terms. The Supervisors are supported by a Manager to handle the day-to-day administrative operation of the Township. The Township is served by an elected Tax Collector and several Boards and Commissions with appointed members. Additional information with respect to the Township organization structure, facilities, and services can be found on the Township website.

Source: <https://www.uppersaucon.org/>



Police Services

The Police Department operates out of the Township Municipal Building and is comprised of 21 full-time officers, a clerk, and a Chief of Police. The Department provides 24-hour patrol services and crime investigation, sponsors a local DARE program, participates in a regional DUI Task Force, conducts aggressive driving patrols, and administers a community service program for first-time juvenile offenders.



- Juvenile Community Justice Panel – Volunteer citizens serve on a panel to provide alternative methods for dealing with first-time juvenile offenders who committed low-level, non-violent crimes. This program is part of the Lehigh County Juvenile Probation Department and a local private social service agency initiative referred to as The Impact Project.
- Aggressive Driving Patrols – This local initiative is part of a statewide initiative – the Pennsylvania Aggressive Driving Enforcement and Education Project – that uses crash data to identify aggressive driving locations for high level enforcement and public awareness and training to reduce the number of aggressive driving injuries and deaths. Due to the number of accidents, Route 309 has been targeted for aggressive driving patrols.
- DARE Program and Resource Officers – As part of the national DARE Program, the Police Department has Resource Officers assigned to the public schools to provide a level of support for students of all ages through classroom lessons, discussions, and events.

Source: *Upper Saucon Township website*

Office of Emergency Management

Upper Saucon Township is committed to protecting the lives and property of private citizens. The Township's emergency management policies and philosophy includes the community in emergency prevention, protection, mitigation, response, and recovery efforts.

The Board of Supervisors established the Office of the Emergency Coordinator in accordance with Pennsylvania Title 35, Health and Safety. This office is responsible for maintaining the Emergency Operations Plan and the Emergency Operations Center and responsible for providing training for emergency management. Additionally, this office is responsible for maintaining the Continuity of Operations Plan – a plan that ensures the municipal government can continue to provide essential services to the community in the event of an emergency that affects Township facilities, equipment, and/or personnel. Additional details with respect to responsibilities and services is outlined on the Township's website.



Upper Saucon Township uses Code Red, an emergency notification system, to keep residents informed of emergency situations such as water, sewer, weather, and other public safety emergencies.

Source: <https://www.uppersaucon.org/township-government/emergency-management/>

Emergency Medical Services (EMS)

Upper Saucon Ambulance Corps provides emergency medical services for Upper Saucon Township, Coopersburg Borough, eastern Lower Milford Township, and northwestern Springfield Township. Service has been provided to the Township since 1976 with advanced life support and on-site medical assistance services improving the quality of life and health for residents and others.



The mission of this organization is to be a community-based health and public safety service dedicated to providing high quality pre-hospital medical care, transport, education, and improvement of health in the community. A subscription service is offered to residents to reduce the cost of services when needed and to help provide continuous service to the community.

Source: <https://www.uppersauconems.org/>

Upper Saucon Volunteer Fire Department

Upper Saucon Volunteer Fire Department (USVFD) is a volunteer organization with a paid Fire Chief. The mission of the USVFD is to provide a quick, safe, and effective response to emergencies in the Township and to surrounding communities with highly trained personnel. The Department currently has 40 firefighters and fire police officers and operates from two stations – the Hopewell Station and the Lanark Station. In 2018, the Department responded to approximately 443 incidents.



The Department hosts numerous annual events to engage the community in fire safety and prevention. A Junior Firefighter Program is offered within the Southern Lehigh High School curriculum. Each year the Department conducts a fundraising drive to support functions and services provided to the community.

Source: <http://www.uppersauconfd.com/index.htm>



Photo by April Showers, JMT



Photo by April Showers, JMT

Road Department

This Department is comprised of 12 full-time employees. The Department’s primary duties include repair and re-construction of 77 miles of Township roads, snow and ice control on Township roads, posting traffic and street signs, maintenance and upkeep of Township owned facilities including the Township Park, storm sewer and drainage work, and managing the leaf drop-off center on Liberty Road. Each spring, the Township sweeps all roadways at least once to remove cinders spread during the winter months with additional street sweeping conducted periodically throughout the year.

Source: Upper Saucon Township website

Water Distribution System

The Township owns and operates a potable water distribution system that services a portion of the Township. The distribution system includes approximately 58 miles of water main and two water reservoir tanks. The Township provides water service to approximately 7,200 customers. The northern portion of the Township is served by the City of Bethlehem’s water distribution system. Water comes from various groundwater sources located within the Township in addition to water purchased from the City of Bethlehem. The Township’s water sources include:

- Township Well located at the Former NJ Zinc Company Mine Site – The Township has a potable water well at the site of the former New Jersey Zinc Company mine located off Camp Meeting Road. This well is permitted to withdraw up to 100,000 gallons of water per day. In addition, the Township has constructed a water blending station at this location. The purpose of this facility is to blend water from the City of Bethlehem with water from the Township well. By blending the Township’s water with the City’s water, the hardness of the Township’s water is reduced to more acceptable levels.
- Township Wells located at the Colonial Crest Subdivision – The Township owns and operates two wells at the Colonial Crest (Pond’s Edge) subdivision which is located near Gun Club Road in the southwestern portion of the Township. These wells are permitted to withdraw up to 290 gallons per minute (GPM), and 450 GPM, respectively. The water from these wells is distributed throughout the Township’s water system.
- Gun Club Well – The Township owns and operates a potable water well off Blue Church Road South. This well is permitted to withdraw up to 400 GPM. The water from this site is distributed throughout the Township’s water distribution system.
- City of Bethlehem Water Distribution System – The City of Bethlehem provides water directly to approximately 450 users within Upper Saucon Township.

Source: Upper Saucon Township website

The table below projects water demand for residential growth through 2040. Household consumption of water accounts for only a portion of water demand for the Township. Non-residential uses of concern locally and regionally include current and future industrial users of water such as bottling plants, food and beverage operations, plastic container manufacturers, and other operations requiring water as part of manufacturing and processing.

Table 9: Projected 2040 Residential Water Demand

| Projected Residential Water Demand | | | |
|------------------------------------|--------------------|--------------------|--------------------|
| | 2018 | 2030 | 2040 |
| Population | 16,585 | 19,153 | 21,793 |
| Monthly Water Demand* | 49.755 Million GPD | 57.459 Million GPD | 65.379 Million GPD |

*Assumes 100 gallons per person per day and 30 days per month.

Source of Population and Population Projections: Appendix B Trends.

Sanitary Sewer System and Wastewater Treatment Plant (WWTP)

The Township's sanitary sewer system is designed to collect and transport wastewater to the Township's wastewater treatment plant located near PA Route 378. The collection system is comprised of approximately 96 miles of underground pipe ranging from 8 inches to 30 inches in diameter. There are three pumping stations in the system: Old Bethlehem Pike, Spring Valley, and Saucon Valley Country Club. The Township provides wastewater service to approximately 7,000 customers.

The wastewater treatment plant operates in accordance with the Pennsylvania Department of Environmental Protection NPDES permit No. PA0053147. Approximately 1.2 million gallons per day (MGD) flow through the treatment plant.

The treatment plant employs biological and chemical treatment processes to attain an effluent quality which consistently meets Pennsylvania Department of Environmental Protection permit requirements. The wastewater process facilities consist of four influent pumps, a mechanically cleaned bar screen, a grit removal system, an activated sludge secondary treatment system, two secondary clarifiers and disinfection by ultraviolet radiation. Treated effluent is discharged to the Saucon Creek. Sludge handling facilities at the plant consist of a mechanical thickener and two aerobic digesters. Digested sludge is disposed of through incineration.

Maintenance Activities

- Sewer Main Cleaning – The Township's collection system flushing program is intended to prevent blockages in the sewer lines. Each year, tens of thousands of linear feet of sewer lines are cleaned using the Township's sewer jet vac truck.
- Infiltration/Inflow Reduction Program – The Township initiated a massive infiltration/inflow (I/I) reduction program to reduce unwanted flows to the wastewater treatment plant during wet weather conditions. The program included:
 - Rebuilding and rehabbing manholes in the collection system to reduce inflow sources.
 - Raising manholes in known floodplain areas.
 - Installing plastic manhole inserts to reduce inflow through manhole covers.
 - Using recently purchased flow monitoring equipment to identify main segments that are nearing capacity or to help locate potential sources of infiltration.
 - Slip lining thousands of linear feet of sewer lines to repair cracked or broken joints.
 - Using TV inspection equipment to see the inside of sewer lines and identify sources of infiltration. Approximately 20,000 linear feet of sewer lines are TV inspected annually.
 - Repairing broken sewer clean-outs and point repairs.

The Township recently recorded a reduction in peak flows during wet weather conditions which suggests that the I/I reduction program is working. If the I/I reduction program is successful, the Township has the potential to provide additional sewer service to the community without the need for costly capital improvements at the sewer treatment plant.

Source: Upper Saucon Township website

Upper Saucon Township Act 537 Plan

The Township routinely reviews and updates the Act 537 Plan with updates considered as revisions to the Plan. The Pennsylvania Sewage Facilities Act requires all municipalities to develop and implement comprehensive official plans that provide for the resolution of existing sewage disposal problems, for future sewage disposal needs of new land development, and for future sewage disposal needs of the municipality. The Act 537 Plan should be developed in a manner that is consistent with the Township's Comprehensive Plan to serve areas identified for future growth. The Act 537 Plan identifies the area served by public sewer. This area is referred to in this plan (the Comprehensive Plan) as the Act 537 Service Area.

The Act 537 Plan is intended to be implemented in various stages. The needs identified in the plan translate into implementation of select alternative projects including the following:

- Expansion of the WWTP to a design flow capacity of 4.0 MGD.
- Implementation of several alternatives for sewer improvements.
 - Construction of North Branch Interceptor Extension
 - Construction of Oakhurst Drive Sewer Extension
 - Construction of Brinley Court and Traditions of America Pumping Stations
 - Construction of Future Sewers in certain areas of the Township

Implementation of a Septic Management District – The Township will be implementing a sewage management program under current PADEP regulations. The following are necessary to establish this program as a full sewage management district:

- Adoption of a Township Septic Management District Ordinance.
- Development of permits, forms, and other administrative tools required for program implementation.
- Formal permit process for septic haulers.

Once this program is in place, the Township will require permitting of all septic haulers who desire to continue providing this service to Township property owners.

Source: Upper Saucon Township, 2019 Draft Act 537 Revision.

Stormwater Management, MS4 Program, and Pollution Reduction

In 2017, the Township adopted an MS4 Program Pollutant Reduction Plan (PRP) for Saucon Creek and Laurel Run. This plan is support documentation for the Township's 2018-2023 MS4 Permit. The Township promotes eco-system ponds and rain gardens which clean and infiltrate runoff from roofs, driveways, and parking lots. Recommended projects include:

- Modification of an existing swale into a bioswale to be constructed on private property near the PA 309 overpass of Center Valley Parkway.
- Installation of a nutrient sediment box in the right-of-way near 3350 Center Valley Parkway.

Municipal Separate Storm Sewer System (MS4) Program

MS4s are conveyances or systems of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that are owned or operated by a public entity, are designed or used for collecting or conveying stormwater, and are not a combined sewer or part of a publicly-owned treatment works.

A municipality is bound by US Environmental Protection Agency (EPA) regulations for an MS4 when all or a portion of a municipality lies within an urbanized areas (UA), as determined by the US Census Bureau. Upper Saucon Township lies within an urbanized area and is an MS4 community.

Source: PA DEP

Water Conservation and Recycling

Water conservation, wastewater recycling, and reuse are important issues for the future of not only the Township but for the region. As growth occurs, the demand for water increases. The following are ways for private and public water conservation, recycling, and reuse:

- On-Lot Sewage Systems Water Recycling – Septic systems naturally recycle wastewater by recharging ground water with appropriately treated effluent. Greywater is used for subsurface irrigation of plants, shrubs, trees, and turf.
- Reclaimed Water – Water from municipal wastewater, industrial process water, or stormwater is an important component of good water management. Reclaimed water can be used for surface irrigation, industrial processing and cooling, toilet flushing, dust control, construction activities, and other similar non-potable water uses. Reclaimed water can also be used to enhance wetlands, recharge groundwater supplies, and increase the flows in rivers and streams.
- Rainwater Harvesting and Re-Use Systems – This includes rain barrels, eco-system ponds, rain gardens, and rain harvesting systems. Residents are encouraged to use rain barrels to collect and reuse rainwater.

Solid Waste and Recycling

Trash pick-up and recycling is handled through private waste haulers. Residents are responsible for contacting their own waste hauler and making the necessary arrangements for the collection of trash and recyclables. Additionally, the Township hosts two electronic recycling events each year.

Currently, the Township has a small paper recycling center located in the parking lot at the site of the Township Administration Building. There is an opportunity to create a public-private partnership to provide Community Recycling Centers strategically located throughout the Township. These centers will provide facilities for collection of a range of recyclable items, educational opportunities for residents, and services and resources that lead to better overall sustainability.

Public Utilities

The Township is served by various public utilities including phone companies such as Verizon, AT&T, Sprint, Frontier Communications, and MCI; gas companies such as UGI; electric companies such as PP&L; and cable companies such as RCN; and Service Electric.

Source: http://www.lehighvalleyhomesonline.com/ServiceUtility_Companies/page_1745515.html

Alternative Energy Initiatives

Energy Diversification

According to research conducted by the LVPC as part of preparing the Future LV Regional Plan, society will consume more energy (specifically electricity) as we become more technologically advanced. Much of the region's and nation's electrical generation and distribution system is vulnerable due to aging infrastructure compounded by population growth and high demands on the system. LVPC anticipates the following:

- State government will modify regulations such as building codes and other aspects of regulation to meet the demand for local and regional energy production and distribution.
- Local governments will need to develop new zoning, land use and development classifications, and amend comprehensive plans and official maps to adapt to a new energy future.
- Businesses, homeowners, and cars will be able to generate their own power.

- The federal, state, and local governments will need to plan for vehicle electrification and other post-oil future fuels.
- Markets will change to meet the demand for new energy sources.

Source: LVPC, *Future LV Regional Plan*

Alternative Fuels Incentive Programs

The goal of the following state programs is to improve Pennsylvania's air quality and reduce consumption of imported oil by using homegrown fuels that help both the economy and the environment. Programs include:

- Alternative Fuels Incentive Grant – Grant funds for school districts, municipal authorities, political subdivisions, nonprofit entities, corporations, limited liability companies or partnerships incorporated or registered in the Commonwealth. Eligible projects include investment in alternative fuels, deployment of alternative fuel vehicles, fleets, and technologies.
- Alternative Fuels Technical Assistance Program – Provides technical assistance to eligible organizations to maximize the benefits of alternative fuel use. A qualified professional consulting firm is assigned by DEP to work directly with eligible organizations to develop technically viable and economically sustainable alternative fueling strategies.

Source: <https://www.dep.pa.gov/Citizens/GrantsLoansRebates/Alternative-Fuels-Incentive-Grant/Pages/default.aspx>

Electric Vehicle (EV) Charging Rebate Program

Level 2 EV Charging Rebate Program – A rebate program for installing Level 2 EV charging stations for public use at government owned property, public use at non-government owned property, non-public use at workplaces, and non-public use at multi-unit dwellings.

Source: <http://www.depgis.state.pa.us/DrivingPAForward/>

Financial Incentives for Residents

The following are renewable energy and energy efficiency financial incentives to help homeowners to take steps to make their home more energy efficient.

- Weatherization Assistance Program – Assistance for low income homes to reduce energy costs and increase comfort while safeguarding health and safety.
- Homeowners Energy Efficiency Loan Program (HEELP) – Loans up to \$10,000 with low fixed interest rates for specific energy efficiency repairs.
- Federal Rebates for Energy Star Products – Rebates for purchasing and installing energy efficient products. Energy Star partners will occasionally sponsor special offers sales tax exemptions, credits, or rebates for certified products.
- Renewable Energy Tax Credit – Tax credits for products such as geothermal heat pumps, small wind turbines, solar energy, fuel cells, and microturbine systems.
- Alternative Fuel Vehicle (AFV) Rebate Program – Pennsylvania provides a cash rebate to consumers for the purchase of a new plug-in hybrid, plug-in electric, natural gas, propane, and hydrogen fuel cell vehicle.

Source: <https://www.dep.pa.gov/Citizens/Energy/EnergyEfficiencyandConservation/Pages/Incentives-Fact-Sheet-PA-PUC-Electric-Choice.aspx>

Southern Lehigh Public Library

Southern Lehigh Public Library serves the educational, informational, and recreational reading needs of the residents of Coopersburg Borough, Lower Milford Township, and Upper Saucon Township using the full range of available resources.

Located in Upper Saucon Township adjacent to the Township's Community Park, the library offers a variety of youth and adult programs, events, and activities to residents of the Township and the region. Various resources of the library are outlined on the website.

Source: <https://www.solehipl.org/>

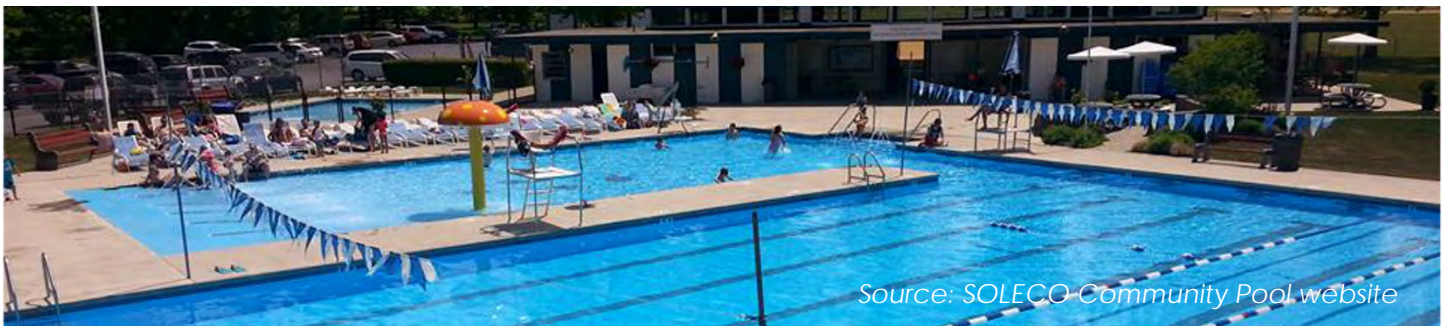


Source: Southern Lehigh Public Library website

Southern Lehigh County (SOLECO) Community Pool

The SOLECO Pool is a regional facility that promotes swimming and other aquatic sports activities. Programs and events offered include educational and instructional opportunities, local competitions personal fitness and low impact aquatic exercise, physical rehabilitation programs, lifeguard certification, and daycare programming. Amenities include a snack bar open during operating hours and tables and benches available for guest picnicking.

Source: <https://www.facebook.com/Southern-Lehigh-Community-Pool-SOLECO-116752481669577/> and <http://www.solecopool.org/>



Source: SOLECO Community Pool website

Park and Recreation Facilities

Most of the Township's park facilities and open space resources are devoted to active recreation. As residential development occurs, the Township is expected to provide adequate park, recreation, and open space through dedication of land by the developer or fee in lieu of for acquisition of lands for new facilities or for maintenance and operations of existing facilities.

The Township has been proactive in identifying lands for future public park, recreation, and open space and has adopted these areas as part of an Official Map.

The Official Map shows an abundance of potential opportunities for future park, recreation, and open space to accommodate future demand based upon population growth. These sites provide opportunity to protect environmentally sensitive areas for either future recreational use and/or conservation of natural resources as open space. The Township routinely updates the Comprehensive Recreation and Open Space Plan and through that planning process will evaluate and prioritize these sites identified on the Official Map for potential active and passive recreational uses or permanent preservation as open space.

Demand for Park, Recreation, and Open Space

The Township owns and operates the Community Park, a 70-acre public park, recreation, and open space and the recently constructed 70-acre Hopewell Park. The Township has two planned community parks – the Benckini Tract Park (15.49 acres) and the Haring Tract Park (73.90 acres). The Township has allocated 229.39 acres of public park, recreation, and open space for active and passive recreation with access to regional facilities including 7.5 miles of the Saucon Rail Trail, the Southern Lehigh Living Memorial Park, and the Southern Lehigh Community Pool.

Source: <https://www.uppersaucon.org/parks-and-recreation/park-facilities/>

The table below identifies the National Park and Recreation Association (NPRA) standards and the Pennsylvania Department of Natural & Cultural Resource (DCNR) guidelines for acres of park and recreation facilities to meet the demand for both the current 2018 population and the projected 2040 population.

Potential Benefits of Parks, Open Space, and Greenways

- Increased property values by 15-20% for those living adjacent or near parks, open space, and greenways.
- Increased tax revenue.
- Decreased medical costs through increased exercise.
- Increased tourism revenue.
- Improved community character to attract homebuyers and businesses.
- Decreased stormwater treatment costs.

Sources: Pennsylvania Land Trust Association, Conservation Tools and National Association of Homebuilders

Table 10: NPRA Standards and DCNR Park/Recreation Guidance

| Comparison of National and State Guidance | 2018 Demand | 2040 Projected Demand |
|---|---|---|
| | Population 16,585 | Population 21,793 |
| NPRA Standards recommend between 6.25 and 10 acres of local space in the municipal park system per 1,000 residents. | 103.66 – 165.86 acres | 136.21 – 217.93 acres |
| NPRA Standards recommend 15 to 20 acres of regional space per every 1,000 residents. | 248.78 – 331.70 acres | 326.90 – 435.86 acres |
| Total | 352.44 – 497.56 acres | 463.11 – 653.79 acres |
| DCNR Guidelines recommend 1 acre of tot-lot parks and 1-5 acres of neighborhood parks per every 1,000 residents. | 16.59 acres tot-lots 16.59 – 82.93 acres | 21.80 acres tot-lots 21.79 – 108.97 acres |
| DCNR Guidelines recommend 10-50 acres of community open space per 1,000 residents. | 165.85 – 829.25 acres | 217.93 – 1,089.65 acres |
| Total | 16.59 acres tot lots 182.44 – 692.18 acres | 21.60 acres tot-lots 239.72 – 1,198.62 acres |

Sources: National Park & Recreation Association (NPRA) 2019 Performance Benchmarks – <https://www.nrpa.org/siteassets/nrpa-agency-performance-review.pdf>

Both the NPRA and PA DCNR considers public, private, and non-profit park and recreation facilities as part of a community’s system of space and facilities. A municipal park system are those spaces and facilities owned, maintained, and programmed by the municipality. The definition of various types of facilities including community parks, neighborhood parks, tot lots/pocket parks, and linear parks can be reviewed at – <https://conservationtools.org/guides/17-public-dedication-of-land-and-fees-in-lieu-for-parks-and-recreation>.

Inventory of Existing Park and Recreation Facilities and Open Space (Public/Private)

The Township offers a wide range of active and passive public and private recreation and open space opportunities. The table on the following page is a listing of the various public and private park, recreation, and open space located in the Township. Additionally, public parks are identified on Map 3: Community Services located at the end of this chapter.

Table 11: Private/Public Parks, Recreation, Conservation, and Open Space Areas

| Facility Type | Location | Owner | Public Access | Acres |
|---|--------------------------|---|---------------|----------|
| Total | | | | 1,495.65 |
| Open Space | See details on page 53. | | No | 315.41 |
| Conservation Easement/Open Space | See details on page 53. | | No | 54.29 |
| Open Space/Trails | See details on page 53. | | Yes | 44.43 |
| Wetlands/Open Space | See details on page 53. | | No | 10.30 |
| Rail Trail | | | | 27.16 |
| Rail Trail | 3670 Flint Hill Road | SEPTA | Yes | 1.10 |
| Rail Trail | 3632 Jacoby Road | SEPTA | Yes | 1.08 |
| Rail Trail | 5790 Landis Mill Road | SEPTA | Yes | 9.20 |
| Rail Trail | 5791 Landis Mill Road | SEPTA | Yes | 0.40 |
| Rail Trail | 5797 Landis Mill Road | SEPTA | Yes | 3.00 |
| Rail Trail | 4249 Landis Mill Road | SEPTA | Yes | 2.72 |
| Rail Trail | 6766 Passer Road | SEPTA | Yes | 3.60 |
| Rail Trail | 1561½ Spring Valley Rd | SEPTA | Yes | 1.30 |
| Rail Trail | 3598 Station Avenue | SEPTA | Yes | 2.74 |
| Rail Trail/Trailhead | 3601 Station Avenue | SEPTA | Yes | 2.02 |
| Campgrounds | | | | 25.31 |
| Campground | 5482 Blue Church Road | Moyer | No | 20.72 |
| Campground | 5547 Camp Meeting Rd | Elm Grove | No | 4.59 |
| Community Centers | | | | 57.55 |
| Municipal Complex | 5503 Rt. 309 | Township (Future Expansion) | No | 0.46 |
| Municipal Complex | 5484 Camp Meeting Rd | Township (Future Expansion) | No | 1.50 |
| Community Center | 5831 Vera Cruz Road | Jewish Community Center | No | 55.59 |
| Municipal Facilities | | | | 35.59 |
| Municipal Storage Facility | 3274 Preston Lane | Township | No | 3.20 |
| Yard Waste Drop Off Center | 4461 Liberty Court | Township | No | 32.39 |
| Park/Recreation Facilities (Public and Private) | | | | 925.61 |
| Hopewell Park | 4493 W Hopewell Road | Township (Future Park) | Yes | 5.90 |
| Hopewell Park | 4865 W Hopewell Road | Township (Future Park) | Yes | 36.20 |
| Hopewell Park | 4400 Lanark Road | Township (Future Park) | Yes | 18.50 |
| School/Playing Fields | 4625 W Hopewell Road | SL School District | No | 27.13 |
| Public Swimming Pool | 3900 Jacoby Road | SV Living Memorial | No | 31.85 |
| Residences/Clubhouse/Pool/Courts | 4500 Lanark Road | Traditions of America HOA | No | 96.45 |
| Softball Field | 6090 Landis Mill Road | DeSales University | No | 10.14 |
| High School/Playing Fields/Courts | 5800 Main Street | SL School District | No | 57.94 |
| Church/School/Playing Fields | 4101 Old Bethlehem Pike | Assump. BVM Church | No | 11.80 |
| Sustainable Nature Park | 5653 Old Bethlehem Pike | Township (Future Park) | Yes | 12.50 |
| Sustainable Nature Park | 3361 Preston Lane | Township (Future Park) | Yes | 3.00 |
| Library/Playing Fields/Paths/Tot Lot | 3200 Preston Lane | Township | Yes | 19.18 |
| Pavilion/Concession Stand/Playing Fields/Paths | 3231 Preston Lane | Township/Upper Saucon Township Community Park | Yes | 18.56 |
| Soccer Fields/Paths | 3251 Preston Lane | Township | Yes | 8.63 |
| School/Football Field/Courts | 3715 Preston Lane | SL School District | No | 49.32 |
| School/Playing Fields | 5550 Rt. 378 | SL School District | No | 31.75 |
| Softball Field | 3500 Corporate Pkwy | Olympus America Corp. Campus | No | 54.00 |
| County Park | 4562 E Rock Road | South Mountain Big Rock Park | Yes | 57.15 |
| Church/School/Playing Fields | 5050 Saint Joseph's Road | St. Joseph's Church & School | No | 14.11 |
| Campus/Playing Fields/Basketball | 2809 Saucon Valley Rd | Penn State University | No | 29.00 |
| Campus/Playing Field | 2755 Station Avenue | DeSales University | No | 214.62 |
| Track & Field Facilities | 3078 Station Avenue | DeSales University | No | 20.40 |
| Fields/Courts/Indoor Rec Facility | 3155 Station Avenue | DeSales University | No | 74.48 |
| Pumping Engine House Park | Center Valley Parkway | Township (Future Park) | Yes | 23.00 |

 Current and Planned Public Park & Recreation Facilities
Source: Upper Saucon Township

Table 11: Private and Public Parks, Recreation, Conservation, and Open Space Areas

| Facility Type | Location | Owner | Public Access | Acres |
|----------------------------|-----------------------|--------------------------------|---------------|--------|
| Golf Course | | | | 871.10 |
| Tumblebrook | 3584 Jacoby Road | Township | No | 71.10 |
| Saucon Valley Country Club | 2050 Saucon Valley Rd | SV County Club | No | 550.00 |
| Wedgewood Golf Course | 4875 Limeport Pike | Wedgewood Golf Inc. | No | 250.00 |
| Commercial Recreation | | | | 5.21 |
| Miniature Golf | 5180 E Valley Road | Bloch (Putt U) | Yes* | 2.97 |
| Indoor Pool Facility | 4355 Saucon Creek Rd | Saucon Property (Swim in Zone) | Yes* | 2.24 |

*Commercial recreation facilities open to the public for a fee.

Source: Upper Saucon Township

Needs Assessment of Park/Recreation Facilities and Open Space

This section determines the need for park and recreation facilities and open space applying the NPRA and DCNR guidelines based upon the projected 2040 population and the existing and planned inventory of these facilities and spaces.

Table 12: Park, Recreation, and Open Space Needs

| Acres | System with Public Access | 2040 NPRA Guideline (Acres) | Acres Needed |
|---------------------------------------|---|-----------------------------|-----------------|
| 202.62 44.43 | Township/Local Park System* Open Space/Trails | 136.21 – 217.93 acres | 0 |
| 57.15 27.16 | County/Regional Park System Rail Trail | 326.90 – 435.86 acres | 242.59 – 351.52 |
| Acres | Open Space & Park/Rec Facilities (No Public Access) | 2040 DCNR Guideline (Acres) | Acres Needed |
| 369.70 10.30 391.58 1,624.61 | Private Open Space/ Conservation Easements** Wetlands/Open Space** Preserved Agricultural Land*** Private Park/Recreation Space | 217.93 – 1,089.65 acres | 0 |

*Includes existing facilities and planned facilities.

**Refer to pages 35, 35, and 54 for details. These are recognized spaces by DCNR.

***Refer to Chapter 5 for Preserved Agricultural Lands. DCNR recognizes preserved agricultural land as open space.

As you can see from the inventory on previous pages and the summary table above, public space is augmented by several park and recreation facilities open to the public for fee as well as numerous private facilities open to members of Homeowners Associations and facilities or organization members. The Township, School District, and non-profit organizations form an inter-related system of recreation facilities, services, and programs.

Based upon the inventory of acreage alone, the Township may have adequate public and private space for today and tomorrow's population. An update to the Township's Comprehensive Recreation and Open Space Plan will determine if there are adequate types of facilities provided for today and what will be the needs and demands for future facilities.



Photo by April Showers, JMT

Upper Saucon Township Community Park

This 70-acre community park is centrally located affording ease of access for all residents. The park offers both passive and active recreation facilities as well as access to the Saucon Rail Trail. The facilities are used by several independent volunteer sports organizations offering team sports to the youth of the Township. Facilities at the park are identified on the park master plan located on the Township’s website using the link below.

Conveniently located in the central portion of the Township, the park was designed to meet the current and future recreation needs of Township residents. The Township routinely partners with the Saucon Valley Community Center to hold a youth summer recreation program.

Source: Upper Saucon Township – <https://www.upsaucon.org/parks-and-recreation/park-facilities/>

Link to Master Plan - <https://www.upsaucon.org/wp-content/uploads/2016/09/USTCParkMap2016.pdf>

Hopewell Park

The construction of Hopewell Park located on W. Hopewell Road next to Hopewell Elementary School began in the summer of 2019. This park is about 70 acres in size with a variety of playing fields, courts, restrooms, and parking lot. Future amenities will include an amphitheater, tot-lot, and pavilion. The park is expected to be open for use in early 2021.

Sustainable Community Parks

Sustainable parks are a big trend in the design of public space as eco-friendly outdoor space. Communities are looking for outdoor spaces that are both beautiful and sustainable. A sustainable park is a park that is designed and made to preserve natural resources and to promote quality of life for the residents living around it. The design and improvement of park facilities uses existing native plants and geographic features to be more efficient and enjoyable. Upper Saucon Township is committed to creating two sustainable community parks.

The Township’s Board of Supervisors created a Sustainable Community Park Committee responsible for working with a consultant to prepare master site development plans for two sustainable community parks – the Benckini Tract and the Haring Tract. These plans are under consideration.

- Benckini Tract Park – Approximately 16 acres of meadows with trails, educational signage, bird watching, outdoor classrooms, and preserved log cabin and farmhouse with trail connections to UST Community Park.

Sustainable Parks

- Maintain high quality soils.
- Retain as much of the pre-existing landscape as possible.
- Minimize environmental impacts.
- Energy-efficient / green buildings.
- Utilize long-lasting materials.
- Conserve/restore natural areas.
- Protect habitats.
- Minimize non-porous surfaces.
- Easy-to-maintain native plants and landscaping.
- Utilize organic mulch, fertilizers, and compost.
- Utilize natural stormwater management systems.
- Protect wetlands for increased flood control.
- Provide recycling bins for park patrons.
- Include on-site composting.
- Provide ADA access when possible.

Source: Pennsylvania Land Trust Association, Conservation Tools

- Haring Tract Park – Approximately 74 acres of forested and open space with trails, educational signage, outdoor classrooms, picnic/gathering space, and trail connection to Saucon Rail Trail.

If a decision is made to move forward to develop these parks, funding will be crucial to preserving natural features while making improvements consistent with the environment.

Source: Upper Saucon Township – <https://www.upsaucon.org/boards-commissions/park-recreation-commission/>

Future Pumping Engine House Park

The Township in partnership with property owner, Lehigh University, is exploring the opportunity to convert a 23-acre section of the old Ueberroth Zinc Mine to a community park. The purpose of the park is to preserve the historical integrity of the site and incorporate the history of the site and mining industry in the region into the community. The park could include walking trails, a pavilion, scenic views, informational plaques displaying the history of the site and the region, and other recreational features.

Lehigh University has received a Keystone Historic Preservation Grant to conduct studies and assessments to determine eligibility to be listed on the National Register of Historic Places. Preservation of this place with enhancements as a community park will contribute to strengthening the heritage and community character of Upper Saucon Township and the surrounding region.



Source: Upper Saucon Township

Southern Lehigh Living Memorial Park

Southern Lehigh Living Memorial Park is a privately-owned community park covering 54 acres with 32 of those acres located in Upper Saucon Township with the remainder of the park in Coopersburg Borough. The park is owned by the Southern Lehigh School District and leased to Living Memorial Association. The park is open to the public and serves active recreation needs in the community. Features and amenities include the following:

- SOLECO Community Pool
- Pavilions
- Multi-Purpose Fields
- Snack Bars
- Sand Volleyball Courts
- Baseball Fields
- Tennis Courts
- Picnic Areas
- Playground Areas
- Community Building
- Football Field
- Basketball Courts
- Grills
- Restroom Facilities
- Boy Scout Cabin

Source: *Master Site Development Plan for Upper Saucon Township Sustainable Community Parks* – <https://www.uppersaucon.org/wp-content/uploads/2015/12/17-08-09-Upper-Saucon-Township-MSDP-Report.pdf>

Lehigh County Parks

There are two Lehigh County Parks open to the public located in Upper Saucon Township.

- Scholl Woodlands Preserve – A 21-acre wooded area located at the base of the South Mountain Big Rock Park offering passive recreation opportunities.
- South Mountain Big Rock Park – A 77-acre wooded area on the slopes of the South Mountain offering a mix of passive and active recreation with approximately 56 acres located in Upper Saucon Township. Bauer Rock is the key geologic feature of the park on the crest of the South Mountain. This park is a node for the Pennsylvania Highlands Greenway identified in the Lehigh Valley Planning Commission's Greenways Plan.

Source: *Master Site Development Plan for Upper Saucon Township Sustainable Community Parks* – <https://www.uppersaucon.org/wp-content/uploads/2015/12/17-08-09-Upper-Saucon-Township-MSDP-Report.pdf>

Saucon Rail Trail

Formerly the North Pennsylvania Railroad (NPRR), the Saucon Rail Trail offers 7.5 miles of crushed stone surface trail connecting four communities including Hellertown, Lower and Upper Saucon Townships, and Coopersburg. This trail offers recreation to pedestrians, bicyclists, and cross-country skiers and offers a flat surface providing access to those in wheelchairs. The trail runs from Bachman Street in Hellertown Borough to the Southern Lehigh Living Memorial Community Park and East Landis Street in Coopersburg Borough.

The trail connects four parks offering a wide array of amenities and passive and active recreational activities, parking, and restrooms – Water Street Park, Grist Mill Park, Upper Saucon Township Community Park, and Southern Lehigh Living Memorial Community Park.

Source: *Saucon Rail Trail* – <http://sauconrailtrail.org/> and trail map – <https://www.uppersaucon.org/wp-content/uploads/2015/12/Saucon-Rail-Trail-20170222-1.pdf>



Source: Upper Saucon Township



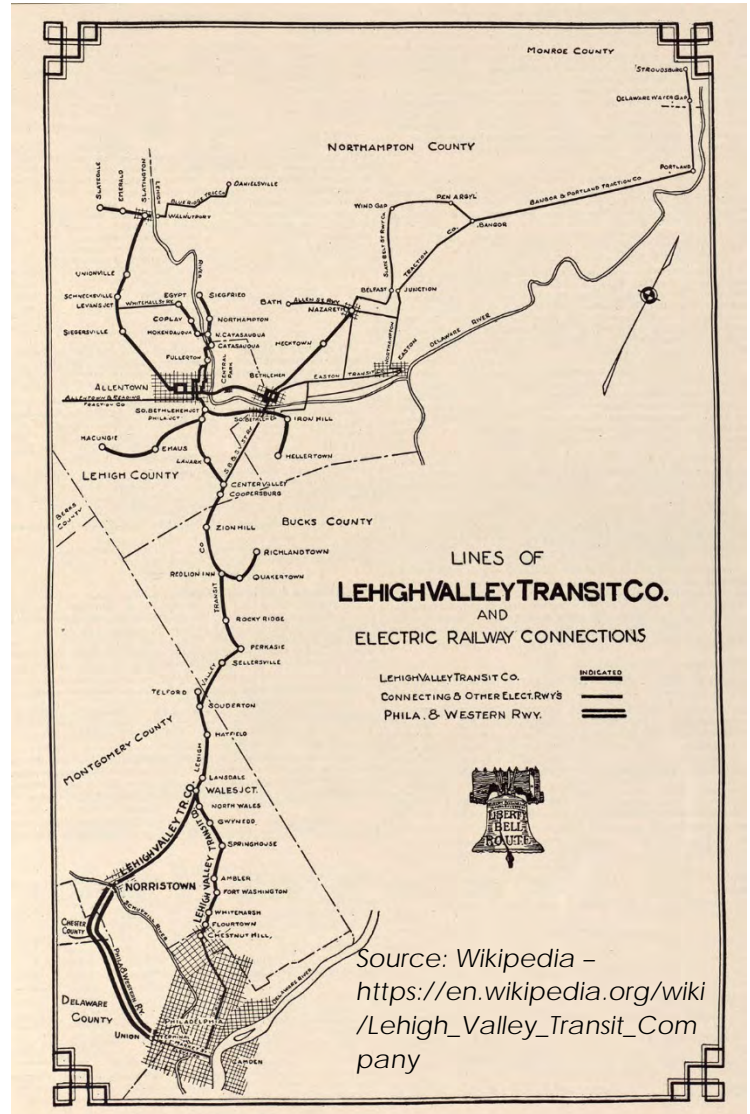
Liberty Bell Trail

The Liberty Bell High-Speed Trolley Line was owned and operated by the Lehigh Valley Transit Company (LVT) from 1901 until 1952. The line

ran like a local streetcar through the towns and ran as a high-speed railroad between towns providing a 36-mile interurban rail service from Allentown to Philadelphia. Most, if not all, of the track in the Township has been removed and the right-of-way has been assimilated in hundreds of private properties with several large segments owned by PPL used as easements for residential power lines.

Once fully completed, the Liberty Bell Trail will connect South Mountain Bauer Rock Park to the north of Upper Saucon and Coopersburg Borough to the south. An east-west connection could be made at Route 378 to link to the Saucon Rail Trail.

The graphic on the following page depicts the full extent of the Liberty Bell Trail project based upon research of the original rail line. Due to current development patterns, improvement of a trail may require some deviation from the original rail line. Trail improvements would include a proposed alignment following existing public roadways and minimizing crossing of Route 309 to provide a safe and direct north south connection within the Township.

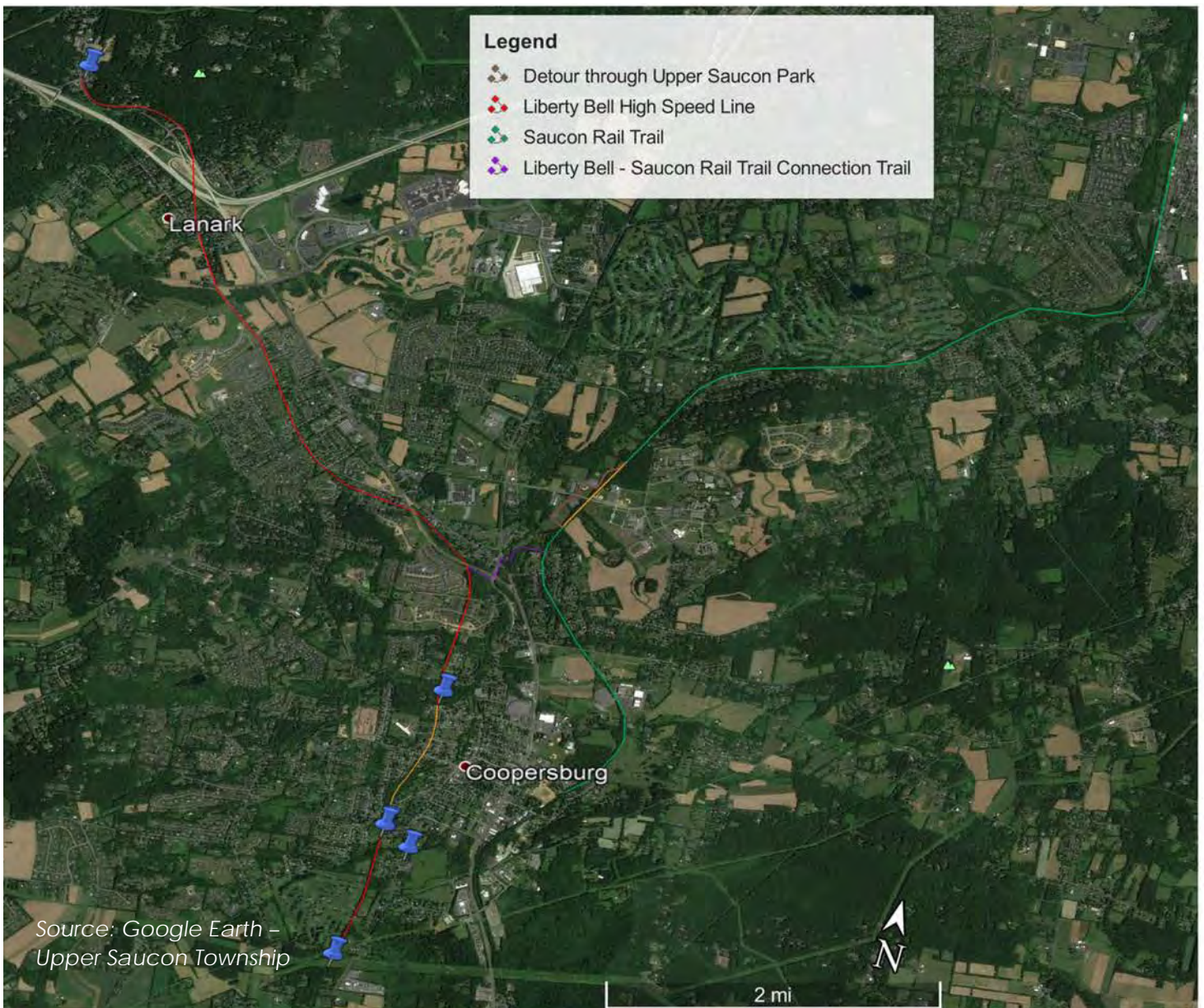


Source: Wikipedia - https://en.wikipedia.org/wiki/Lehigh_Valley_Transit_Company



Source: Facebook - Liberty Bell Trolley

Figure 3: Mapping of Liberty Bell Trolley Line



Liberty Bell Trail construction is anticipated to occur in multiple stages over multiple years with the “first mile” of improvements shown on the following page. Improvements include an off-road trail for segments of the connection along with on-road paved shoulders, marked crosswalks and pavement markings where appropriate, share the road signage, and distinct wayfinding signage. Off-road segments of the trail will include a minimum 10-foot wide multiuse path, ADA access, distinct wayfinding signage, and fencing, landscaping, or buffering where appropriate.

In the Summer of 2019, Coopersburg Borough completed a portion of the Liberty Bell Trail following the original Liberty Bell Trolley Line within Borough-owned right-of-way. The ½ mile recreational trail provides both on-road and off-road improvements from W. State Street south to Linden Street following North/South Liberty Street and within the unimproved right-of-way from the southern terminus of South Liberty Street. These improvements provide an opportunity for a northern connection to the Township at the terminus of North Liberty Street in the Borough using the existing PPL easement (a portion of the original Liberty Bell Trolley line).

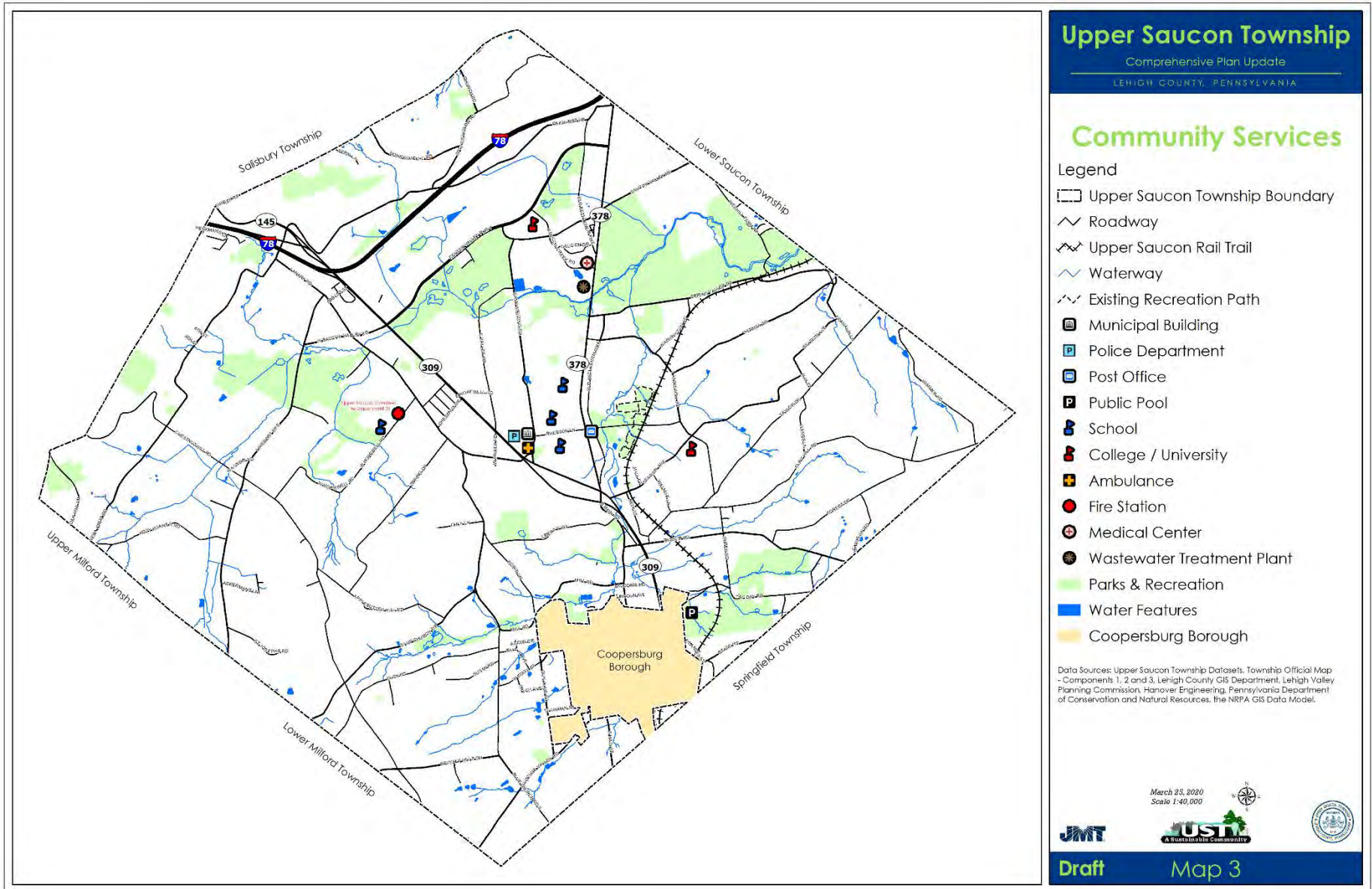
Potential Liberty Bell Trail Improvements

First Mile of Improvements in the Township – The concept below identifies the first mile of off-road improvements starting at the northern extent of North Liberty Street in Coopersburg Borough running within the existing PPL utility easement north to Liberty Road in the Township. This connection will provide a 1.14-mile recreational trail along the original Liberty Bell Trolley Line. This project will be a cooperative effort between the Borough and the Township with trail improvements both in the Borough and the Township.

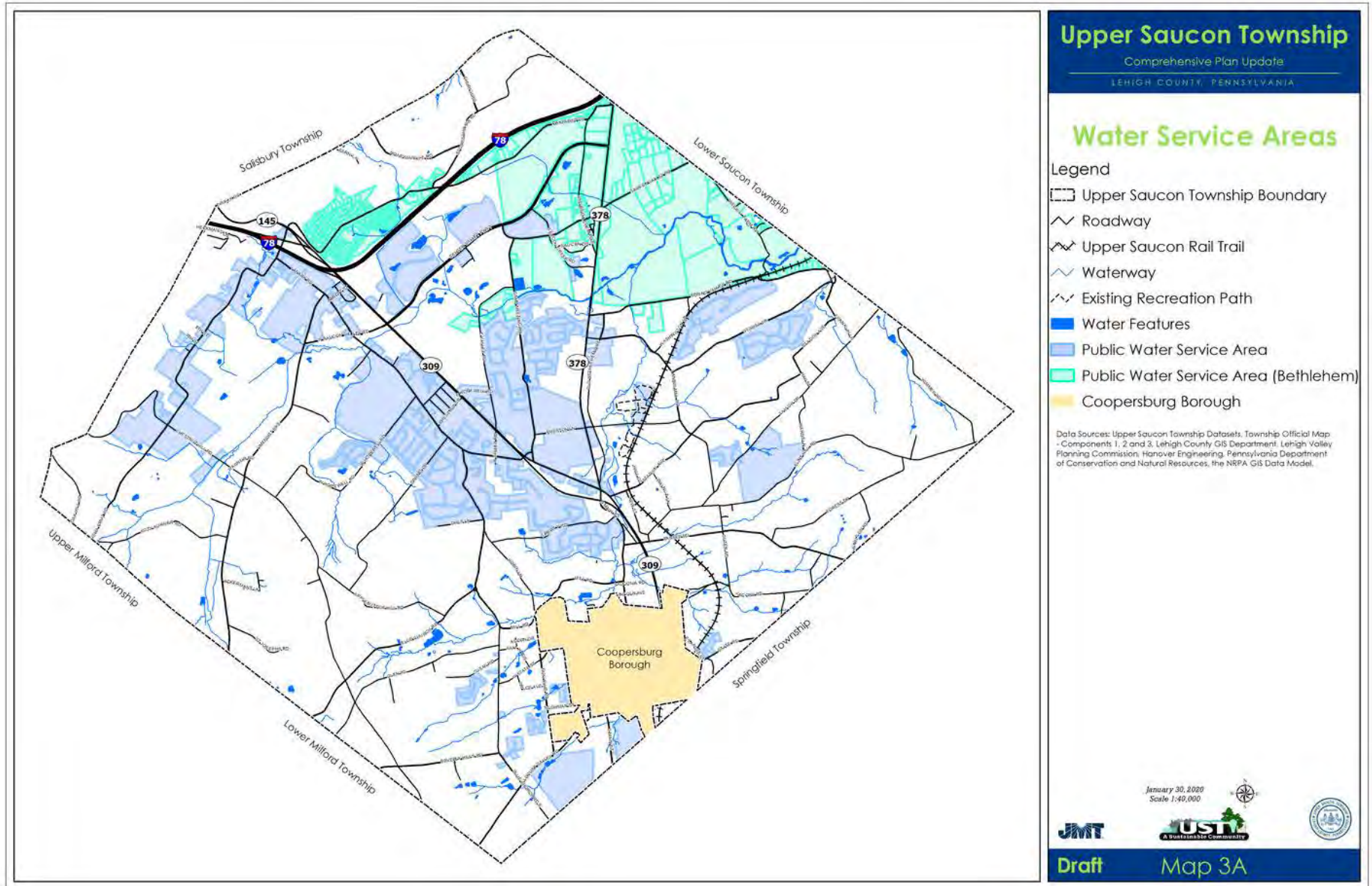
Second Mile of Improvements in the Township – The concept below also identifies a second mile of off- and on-road improvements that will connect neighborhoods to the Saucon Rail Trail and to Coopersburg Borough. This segment deviates a bit from the original trolley line eliminating the crossing of Route 309 by using the existing PPL utility easement (following portions of the original Liberty Bell Trolley line) to improve safety and to minimize the need for easements from residential property owners. Once reaching Lanark Road, a significant portion of the trail can be signed as an on-road connection to future improvements of northern sections of the Liberty Bell Rail Trail within the Township.



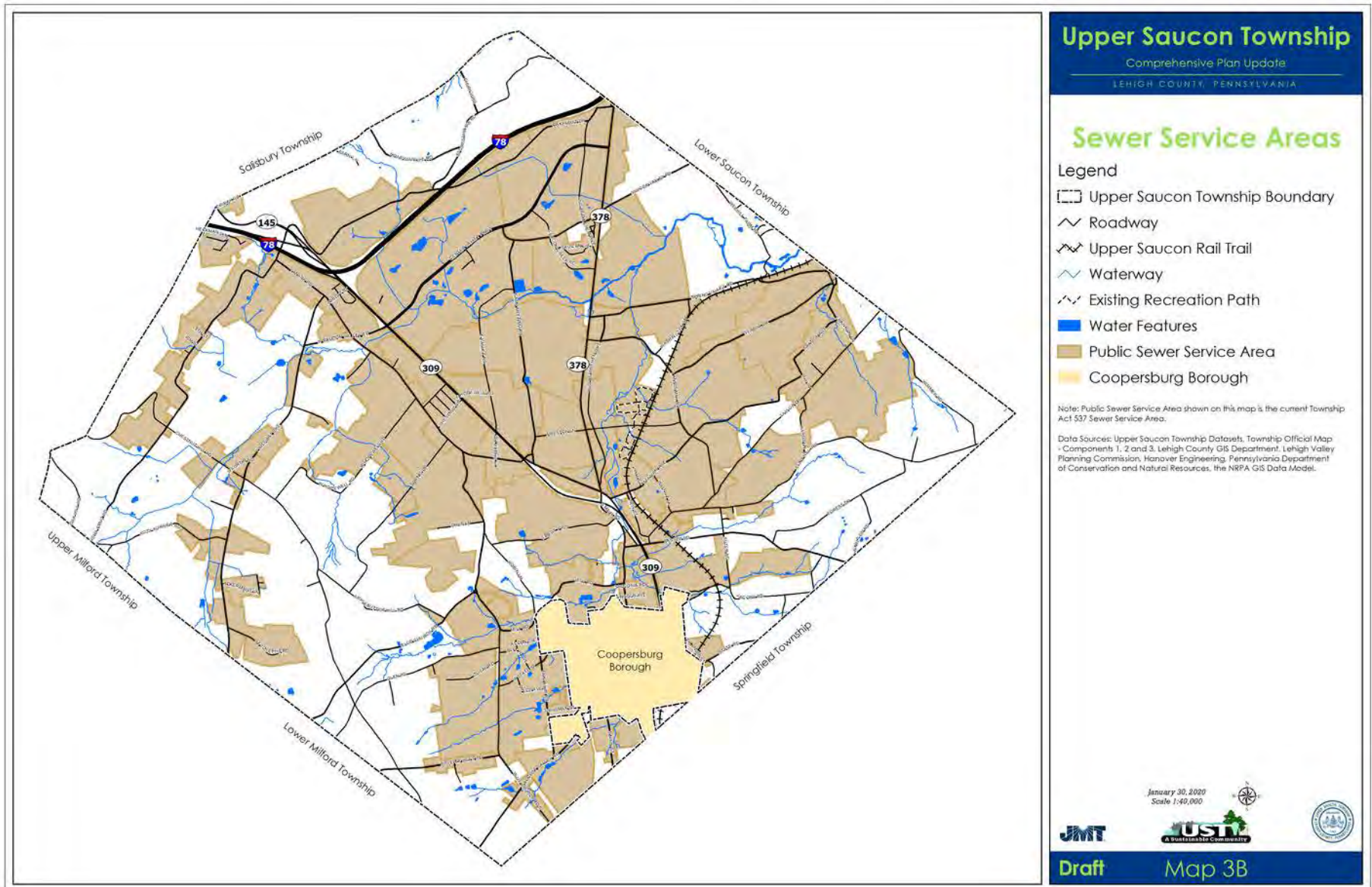
Map 3: Community Services



Map 3A: Water Service Areas



Map 3B: Sewer Service Areas



CHAPTER 4: NATURAL & CULTURAL RESOURCES

Goals, Objectives, & Policy

Goal: Maintain the health of the environment and the community.

Primary Objective: Recognize the importance of natural resources, geographic features, and man-made features that make the Township a desirable place to live. Preserve and protect natural landscapes of the Township.

Expected Outcome: Achieve and maintain harmony with the environment through preservation of as many natural resources and geographic features as possible.

Land Use Policy Objectives:

1. Protect and preserve natural, cultural (historic), agricultural, and scenic resources.
2. Utilize information about topography, soils, and other natural features to determine the most suitable type, location, and density of development.
3. Utilize environmental impact assessments to evaluate and mitigate development impacts.
4. Apply soil and water conservation best practices and integrated water resource management strategies to all development.
5. Incorporate natural features and stormwater best management practices into the design and layout of development.
6. Protect and preserve environmentally sensitive areas such as steep slopes, forested land, floodplains, water recharge areas, areas prone to sinkholes, and similar areas.

'Natural features play an important role in determining the most desirable patterns of land use. These features can either provide optimum conditions for development or severely limit development.'

Source: 1985 Comprehensive Plan

Respect for the environment can be accomplished through implementation of land use policy objectives focused around a simple sustainable goal of maintaining the health of the environment. This goal focuses on quality of life built around protection, preservation, and conservation of adequate resources to maintain regional ecosystems that meet current and future needs of residents.

Natural Resources

Land use and land management practices have a major impact on natural resources. Achieving and maintaining harmony with the environment will ensure that contributions of natural resources to human wellbeing is explicitly recognized and valued and that maintaining the health of the environment is a primary goal of this plan (APA sustainability principle).

Natural resources are materials such as air, land, water, natural gas, coal, oil, petroleum, minerals, wood, topsoil, fauna, flora, forests, and wildlife. There are two types of natural resources that affect the sustainability of communities.

- Renewable natural resources – Resources such as sunlight, wind, air, wood, and fresh water can be replenished.
- Nonrenewable natural resources – Resources that cannot be easily replenished such as minerals and fossil fuels (e.g. natural gas, coal, and oil).

Integrated Water Resource Management (IWRM)

IWRM is "a process which promotes the coordinated development and management of water, land, and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems."

Source: *The International Water Association (IWA)*

The natural resource protection guidelines for development and preservation strategies in this chapter contribute to achieving IWRM and sustainability.

The federal, state, and local government protects the use of natural resources through regulation, permits, and user fees or taxation. Communities, developers, industries, businesses, and individuals must carefully consider the use of both renewable and nonrenewable natural resources and strategies for the protection, preservation, and conservation or use, re-use, and recycling of these important resources.

Natural Resource Protection Guidelines for Development

The strategic conservation, management, and development of land contributes to maintaining an abundance of natural resources providing value to achieve economic prosperity, quality of life, and a sustainable healthy community. This section builds upon content from the 1985 Comprehensive Plan contained below with respect to constant physiographic characteristics of the Township. The following natural resources provide a framework to guide both the nature of land use and development patterns. Several of these natural resources are identified on Map 4: Environmentally Sensitive Areas (ESAs).

Since the 1985 Plan, the Township has adopted policies, regulations, and procedures to protect various natural resources to implement protection guidelines covered in this chapter.

Moving forward, to ensure sustainability of the local community and the region, the Township should continue to be vigilant to protect, preserve, and conserve valuable natural resources.

Topographic Features

Topography is basically how land rises and dips in hills and valleys, and how it slopes to allow streams and rivers to flow. Natural resource preservation can occur by studying the topography and planning the best way around geographical features – regulations in development ordinances facilitate preservation and protection of natural resources.

The Township's natural topographic features have influenced Upper Saucon's present pattern of development. Most development has continued to be concentrated on the flat to gently sloping land in the broad Saucon Creek Valley and around the Borough of Coopersburg. The steep slopes of South Mountain and Flint, Saucon, and Applebutter Hills are largely undeveloped. (Upper Saucon Township, 1985 Comprehensive Plan)

- Slope of the Land / Steep Slopes – The slope of the land frequently influences the type and intensity of development that a site can accommodate. The steeper the slope, the greater the potential is for storm water runoff and soil erosion problems.
 - Slopes with grades of 15% or over are steep; and if disturbed, these areas can yield heavy sediment loads on streams,
 - Slopes with grades of 25% or over are considered very steep slopes and produce heavy soil erosion and sediment loading.

The costs of roadway construction and maintenance increases greatly on steep slopes. On-lot septic systems for sewage disposal are impractical to construct and maintain on very steep slopes. A notable characteristic of steep slopes is that these areas are nearly all wooded.

Design standards and methods to eliminate potential impacts of development on steep slopes should be contained in development ordinances.

- Enforce the Steep Slope Overlay District and relevant ordinances Townshipwide.
- Steep slopes of 15% or greater should be delineated on all subdivision and land development plans using an acceptable methodology of enough accuracy that is reviewed and accepted by the Township Engineer.

- In appropriate ordinances, identify permitted, prohibited, and conditional uses and development on slopes of 15%, 25%, or greater. Future development is not recommended on slopes greater than 25%.
- On slopes of 15% to 25%, large lots with low site coverage standards should be maintained and special erosion and storm drainage controls enforced.
- Township zoning and subdivision/land development regulations should manage development, grading, and forestry on steep slopes.

Sources: 1985 UST Comprehensive Plan, LVPC 2030 Comprehensive Plan, and the Lehigh Valley Planning Commission, 2008 Steep Slopes Guide/Model Regulations

- Geology – Geology has strong ties to biodiversity influencing the distribution of types of habitats and species and karst geology can present certain hazards to urban and suburban development. Most of the Saucon Valley is underlain with limestone or karst geology which subsurface water tends to dissolve. Karst geology can present certain hazards to development such as unstable soil foundations for structures, flood hazards, groundwater contamination, and public safety hazards related to collapses. Design standards and methods to address these hazards should be contained in development ordinances.
 - Sinkholes exist in many locations, especially along a broad band extending west of Route 309 and east of Limeport Pike in the vicinity of Lanark. Development should be designed to avoid these problem areas.
 - Caverns, faults, and fractures in limestone bedrock also pose a threat of groundwater pollution resulting from rapid percolation of sewage from septic tanks and stormwater discharge. Development should be designed to avoid these problem areas.
 - Develop a sinkhole management program and subdivision/land development regulations to identify and mitigate risks in these areas and to manage development in these areas.

Sources: 1985 UST Comprehensive Plan, LVPC 2030 Comprehensive Plan

Soil Types and Characteristics

Soil types affect land use – the goal is to match the use of the land with soil type. The following provides some parameters for future land use and suitable soils. Geology, topography, and water resources determine soil types.

- Alluvial Soils – Alluvial soils deposited in the past by flooding are a reliable indication that heavy runoff conditions will probably cause flooding in the future. Alluvial soils exist along the Saucon Creek and most of its tributaries. Because of their vital natural function in absorbing storm water runoff and because of potential flooding, these alluvial soils provide logical areas for open space preservation.
- High Water Table Soils – Permanent and seasonal high-water table soils exist in the Township, mostly in the low-lying areas along streams. Development of these wet soil areas could result in poor foundation stability, ponding, and chronic wetness in homes and other buildings. These areas are generally unsuitable for conventional on-lot sewage disposal systems because of the potential for groundwater contamination.
- Shallow Soils to Bedrock – Some soils, mostly in the areas northeast and southwest of Coopersburg, have bedrock which is generally less than three feet below the surface. These shallow soils have severe on-lot sewage disposal limitations and pose a threat of groundwater contamination because of rapid percolation. Also, development could be expensive in these areas whenever hard bedrock is encountered.

- Prime Soils – Prime agricultural soils cover most of the northern half of the Township and are found at scattered locations in the southern half of the Township. These soils are deep and well-drained and are well-suited for agricultural use. They are also well-suited for development. Soil health is integral to sustainable agriculture. Threats to healthy soil are compaction, agrochemicals to increase crop yields, erosion, and nutrient depletion.

Water Resources

Water is the source of life and prosperity and is a driver of sustainable growth and development. The optimal management of water quantity and quality is an important sustainability factor to support population growth, to meet increasing demand, and to respond to climate change and declining water supplies.

- Streams and Drainage – Upper Saucon has a distinct drainage system consisting of the Saucon Creek and its tributaries. Together, there are approximately 23 miles of streams in the Township. Drainage basin boundaries delineated by ridgelines are important because they are natural areas for planning and designing sanitary sewage and storm drainage facilities. Streams are important because they affect the quality of water resources and contribute to overall environmental health.
- Groundwater Sources – The Beekmantown-Jacksonburg Limestone Aquifer is one of the largest aquifers in the eastern United States and an asset as a potable water source for Upper Saucon and the region. Located in the Beekmantown-Jackson limestone formation, this aquifer runs in a band across the northern portion of the Township just below South Maintain. It begins in the west near Kozy Korner Road and extends eastward across the Township.
- Groundwater Recharge Areas – Groundwater recharge areas exist where surface water is most likely to infiltrate the soil and replenish the subsurface water supply. In Upper Saucon Township those areas include the most permeable soils with the flattest slopes which overlie limestone. Reduction in the rate of infiltration in these areas may result in lowering the water table.

Saucon Creek Watershed

The Saucon Creek Watershed predominantly covers Upper Saucon Township, Lower Saucon Township, and a portion of eastern Upper Milford and Lower Milford Townships.

Saucon Creek is a tributary of the Lehigh River with a total drainage area of 57.99 square miles with six major tributaries. Due to sediment, all segments of the Saucon Creek are impaired.

Segments of the Saucon Creek Watershed have been designated with several different classifications.

- Cold Water Fisheries (CWF) designed for protection of aquatic life native to a cold-water environment.
- High Quality – Cold Water Fishes (HQ-CWF) designed to regulate activities to meet standards to preserve the chemistry and biology of the receiving stream.
- Migratory Fisheries (MF) designed to support the passage, maintenance, and propagation of fish which move to or from flowing waters to complete their life cycle in other waters.

To comply with the Clean Water Act, alternatives for reducing Total Maximum Daily Load (TMDL) include the following recommended Best Management Practices (BMPs):

- Agricultural BMPs
- Construction Erosion & Sedimentation BMPs
- Street Sweeping
- Legacy Sedimentation Remediation
- Basin Retrofits
- Point Source Effluent Limits
- Riparian Buffer Restoration
- Stream and Floodplain Restoration
- Low Impact Development Practices
- Disconnect Impervious Surfaces
- Landscape Restoration

Source: Saucon Creek TMDL Alternatives Report, LVPC (2011)

- Wetlands, Lakes, and Ponds – Wetlands exist where water covers the soil or where water is at or near the surface of the soil all year or for varying periods of time during the year. Wetland may support both aquatic and terrestrial species. A pond is a body of standing water, either natural or artificial, that is usually smaller than a lake. Stormwater control measures (SCMs) such as constructed ponds and constructed stormwater wetlands (CSWs) are designed to regulate runoff hydrology and quality. These natural and created ecosystems provide a range of benefits.

Source: 1985 Upper Saucon Township Comprehensive Plan

Low Impact Development (LID)

Low Impact Development (LID) is a sustainable stormwater management strategy of meeting regulatory compliance and resource protection goals. The LID strategy controls water (rainfall and stormwater runoff) at the source. LID promotes the highest and best use of landforms and built structures to distribute stormwater and to collect rainwater treating water as a valuable and viable resource for use or reuse onsite. LID promotes the use of various devices that filter water and infiltrate water into the ground. By reducing water pollution and increasing groundwater recharge, LID helps to improve the quality of receiving surface waters and to stabilize the flow rates of nearby streams.

Several LID techniques include:

- Preserving existing soils, vegetation, and natural areas.
- Using pervious pavement to allow rainwater to soak through the pavement providing filtration, reducing runoff, and enabling water to replenish groundwater.
- Using rain gardens with a special soil mix and a variety of plants to hold moisture and to allow water to soak into the ground.
- Using rain barrel and cistern systems for rooftop rainwater catchment and reuse.
- Topping structures with vegetated (green) roofs reducing pollutants and slowing down roof water runoff.
- Using detention basins and bio-retention basins on- and off-site for reducing peak discharges and infiltrating stormwater.

While infiltration of rainwater into soils is desirable, directing water to some locations can create problems with septic system drain fields, can flood crawl spaces, or destabilize slopes.

Source: <https://www.wbdg.org/resources/achieving-sustainable-site-design-through-low-impact-development-practices>



Photo by April Showers, JMT – Township Rain Garden



Photo by April Showers, JMT – Township Detention Basin

Floodplains

A floodplain is an area of land adjacent to a stream or river which stretches from the banks of its channel to the base of the enclosing valley walls, and which experiences flooding during periods of high discharge. The National Flood Insurance Program (NFIP) provides insurance to communities that adopt and enforce floodplain management ordinances to reduce future flood damage. Floodplain management is a decision-making process that aims to achieve the wise use of the nation's floodplains. Design standards and methods to address these hazards should be maintained in development ordinances. The Township should:

- Continue to utilize zoning and subdivision/land development regulations to prohibit or control development in the 100-year and 500-year floodplain.
- Reference up to date NFIP floodplain maps and accurate delineation of alluvial soils to identify areas prohibited or controlled for development.
- Continue to enforce a floodplain and floodplain management ordinance for areas delineated as 100-year and 500-year floodplains, alluvial soils, and floods of record.
- Continue to regulate protection of the 500-year floodplain as the recommended standard for a greater level of floodplain protection.
- Promote park, greenway, and open space proposals to protect and preserve floodplains.

Sources: *RothPlan Correspondence on Floodplains (2015)* and *LVPC 2030 Comprehensive Plan*

Identified Natural Areas

According to the Lehigh and Northampton Counties Natural Areas Inventory (2005) and the Natural Heritage Inventory of Lehigh and Northampton Counties (2013), the following are areas of some level of significance:

- Saucon Creek Wetlands/Limeport Wetlands – A site of statewide significance including the headwaters of Saucon Creek and its tributaries and wetlands located along an unnamed creek north of Coopersburg. Wetlands along the floodplain west of Hellertown host plant species of concern.
- Friedensville Quarry Natural Area – An area of statewide significance containing a fair population of globally-rare and state-endangered plants.
- Mest Marsh Natural Area – An area of statewide significance and valuable habitat for bird species, amphibians, and reptiles. The site would benefit from allowing a buffer to grow in between the marsh and adjacent land uses.
- Bauer Rock Natural Area – An area of local significance of a geologic formation of pinnacle of banded gneiss rising approximately 40 feet above the ridgeline.

Benefits of Floodplain Protection

- Reduced soil erosion and sedimentation of creeks, rivers, and lakes.
- Reduced harmful floodwater velocities and peak flow levels.
- Improved surface water quality by filtering harmful pollutants and nutrient.
- Increased levels of naturally absorbed and processed organic wastes.
- Increased moderation of water temperature fluctuation.
- Recharged groundwater aquifers.
- Experienced slower gradual release of surface water into intermittent and low flow channels.
- Increased opportunity for breeding and feeding habitats, especially for waterfowl.
- Protected sensitive natural features for rare and endangered species.
- Minimized personal and property damage.
- Reduced cost of flood-related repairs and eliminated costs for complex community flood defense improvements.

Source: *RothPlan Correspondence on Floodplains (2015)*

- Robert Rodale Reserve Natural Area – An area of statewide significance of over 600 acres with a small amount of this reserve in the northwestern portion of the Township.
- Passer Road Woodland – An area of statewide significance consisting of a wooded lot with a railroad embankment.
- Saucon Creek Watershed – An area of regional significance – Wetlands and riparian zones supporting sensitive species of concern with the area noted as a watershed supporting landscape.

Source: LVPC Natural Areas Inventory of Lehigh and Northampton Counties, PA

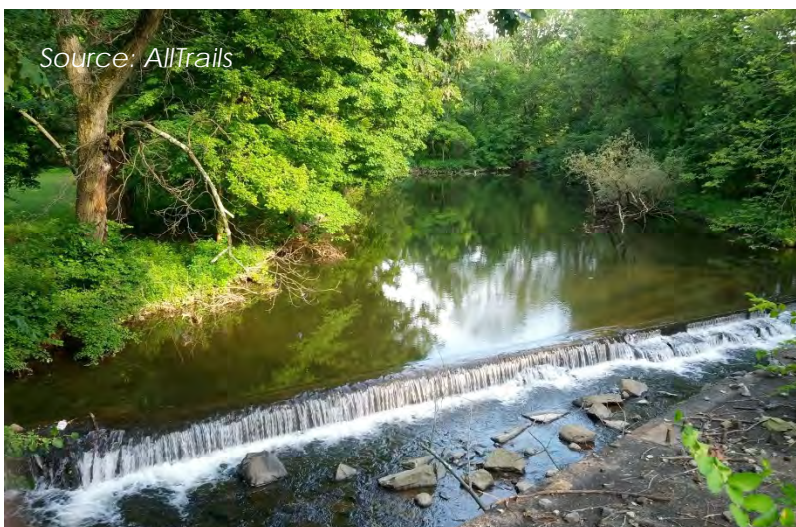
Wooded/Forested Areas

Wooded or forested areas are very important because they reduce soil erosion and air pollution while providing shade. Much of the Township’s woodland has been cleared for agricultural use or for development purposes. Most of the existing woodland is found on steep slopes and along the stream valleys. The largest wooded/forested areas are on the steep slopes of the South Maintain.

Hazard Mitigation

The Township has adopted the Lehigh Valley 2018 Hazard Mitigation Plan by resolution as the official Hazard Mitigation Plan for the Township (Resolution 2018-22). As part of this resolution, the Board of Supervisors directed the appropriate Township officials and agencies identified in the plan to implement recommendations and activities outlined for Upper Saucon Township.

Refer to the Upper Saucon Township portion of the plan – https://www.lvpc.org/pdf/Hazard%20Mitigation%20File%20PDFs/LV_HazMitPlan2018_Annex_UpperSaucon.pdf



Source: AllTrails

Environmental Benefits of Healthy Woodlands

- Water Quality and Quantity – Forested watersheds provide clean water by helping to recharge aquifers. Forested stream banks capture and filter water.
- Resilience – Well-managed woodlands are more resilient and resistant to insects, pathogens, and diseases.
- Wildlife Habitat – Forests provide shelter and habitat for diverse plant and animal species.
- Carbon Storage and Pollution Reduction – Forests help reduce air and water pollution.
- Micro-Climates – Forests reduce and channel surface winds and alter temperatures and moisture content of the underlying soils.

Social Benefits of Healthy Woodlands

- Recreation – Woodlands provide outdoor recreation and education.
- Health and Wellbeing – Forested lands contribute to mental and physical well-being.
- Quality of Life – Privately owned forests provide the backdrop to small parcels or subdivisions providing a range of environmental benefits listed above.

Source: Pennsylvania Department of Conservation and Natural Resources, PA Woodland Stewardship, 2015

Open Space Conservation

Identifying and preserving large areas of high-quality habitats, corridors, stream buffers, and wetlands will help the Township become more proactive in achieving environmental protection goals.

Ideally, larger parcels of open space connected by wildlife corridors offer the most ecological benefit. Additionally, these wildlife corridors or conservation easements when accessible to community members offer passive recreation opportunities and have value by directing growth to areas in and around existing development.

Objectives of conservation easements include:

- Maintaining and improving water quality.
- Perpetuating and fostering the growth of healthy woodland/forested areas.
- Maintaining and improving wildlife habitat and migration corridors.
- Protecting scenic vistas visible from roads and other public areas.
- Ensuring that lands are managed so that they are always available for sustainable agriculture and forestry.

Sources: US EPA and <https://conservationtools.org/guides/19-conservation-easement>.

Locally, the Township tracks dedicated open space and conservation easements as part of its parcel and taxation databases. The Township has 424 acres of land dedicated to open space of which 380 acres are either privately or publicly held with no access to the public. The table on the following page identifies dedicated open space, dedicated open space with trails, and conservation easements by location and acreage. Map 4 and other maps in this plan depict various forms of open space. Additionally, lands considered as open space include agricultural easements identified in Chapter 5 Agricultural Preservation and park and recreation facilities (public, private, and commercial) identified in Chapter 3 Community Facilities & Services. Refer to these chapters for details about other types of open space.

Regionally, the Lehigh Valley Planning Commission (LVPC) addresses conservation and preservation of natural resources in the plan entitled, "Livable Landscapes, A Park, Recreation, Open Space, Agriculture, and Historic Lands Plan for Lehigh County" (2018).

Conservation Plans

The US Environmental Protection Agency (EPA) suggests that, "locally based, long-term open space conservation plans help communities protect their environment, improve quality of life, and preserve critical elements of the local heritage, culture, and economy."

Conservation Easement

A conservation easement may encompass an entire fee simple interest in a parcel of real property as described in the deed to the property or any portion thereof or estate therein.

Source: PA Conservation & Preservation Easement Act

Table 13: Dedicated Open Space, Open Space with Trails, and Conservation Easements

| Facility Type | Location | Owner | Public Access | Acres |
|----------------------------------|-------------------------|-----------------------------|---------------|--------|
| Total | | | | 424.43 |
| Breakdown of Space | | | | |
| Open Space | | | | 315.41 |
| Open Space | 6300 Blue Church Road S | Township | No | 9.86 |
| Open Space | 3175 Chestnut Hill Road | Lehigh Valley Conservancy | No | 10.90 |
| Open Space | 3181 Chestnut Hill Road | Wildlands Conservancy | No | 10.50 |
| Open Space | 3191 Chestnut Hill Road | Wildlands Conservancy | No | 18.60 |
| Open Space | 3350 Church Road | Wildlands Conservancy | No | 5.86 |
| Open Space | 3390 Church Road | Wildlands Conservancy | No | 6.26 |
| Open Space | 2946 Fern Lane | Township | No | 4.00 |
| Open Space | 3130 Fern Lane | Lehigh County | No | 19.75 |
| Open Space | 6050 Glen Road | Township | No | 1.00 |
| Open Space | 3511 Jacoby Road | Township | No | 8.00 |
| Open Space | 3571 Jacoby Road | Township | No | 8.30 |
| Open Space | 3900 Liberty Creek Pkwy | Reserve at Saucon Creek | No | 10.47 |
| Open Space | 4200 Liberty Creek Pkwy | Reserve at Saucon Creek | No | 5.90 |
| Open Space | 4540 Mill Road | Township | No | 10.00 |
| Open Space | 4981 Mill Road | Township | No | 10.00 |
| Open Space | 3151 Oak Hill Road | Wildlands Conservancy | No | 13.43 |
| Open Space | 3162 Oak Hill Road | Wildlands Conservancy | No | 17.91 |
| Open Space | 3350 Oak Hill Road | Wildlands Conservancy | No | 4.84 |
| Open Space | 1437 Spring Valley Road | Township | No | 2.00 |
| Open Space | 7486 Passer Road | Township | No | 73.90 |
| Open Space | 1023 W. State Street | SL School District | No | 9.20 |
| Open Space | 2501 Stonestrow Road | Wildlands Conservancy | No | 6.91 |
| Open Space | 4505 E. Valley Road | Township | No | 13.60 |
| Open Space | 4231 Vera Cruz Road | Township | No | 10.00 |
| Open Space | 4241 Vera Cruz Road | Township | No | 8.40 |
| Open Space | 5049 Vera Cruz Road | Wildlands Conservancy | No | 4.20 |
| Open Space | 5605 Vera Cruz Road | Township | No | 3.10 |
| Open Space | 5330 White Oak Drive | Township | No | 0.82 |
| Open Space | 5517 Locust Valley Road | CAMRRA LLC (LV TOA) | No | 7.70 |
| Conservation Easement/Open Space | | | | 54.29 |
| CE/Open Space | 7600 Blue Church Road S | Ridge & Valley Gun Club | No | 24.60 |
| CE/Open Space | 6618 N Main Street | Weikel | No | 7.50 |
| CE/Open Space | 3300 Oakhurst Drive | Heritage Conservancy | No | 22.19 |
| Open Space/Trails | | | | 44.43 |
| Open Space/Trails | 3250 Bay Hill Drive | Valley Green So HOA | Yes | 3.09 |
| Open Space/Trails | 4659 Camp Meeting Road | Village of Valley Green HOA | Yes | 8.49 |
| Open Space/Trails | 5086 Rt. 378 | Valley Green HOA | Yes | 32.85 |
| Wetlands/Open Space | | | | 10.30 |
| Wetlands/Open Space | 5833 Old Bethlehem Pike | PennDOT | No | 8.80 |
| Temp Basin/Open Space | 6005 Patrick Lane | Township | No | 1.50 |

Refer to page 35 and 36 for a range of public and private park and recreation facilities.
Source: Upper Saucon Township

Photo by April Showers, JMT



Goals, Objectives, & Policy

Goal: Maintain and enhance cultural landscapes that help define community character.

Primary Objective: Preserve and protect the cultural landscape of the Township.

Expected Outcome: Contribute to a high quality of life, maintain a sense of place, and preserve local heritage recognized by residents and visitors.

Land Use Policy Objectives:

Refer to the land use policy objectives for natural resources on page 11 or 46.

Cultural Resources

There is an interrelationship between natural and cultural resources goals, objectives, and land use policy objectives. While this section calls out a specific goal, primary objective, and expected outcome, the land use policy objectives are the same as for natural resources.

Inappropriate land uses can have devastating effects on cultural resources. The real value of preservation of cultural resources is realized when one generation recognizes the connection to another generation using a place, object, or structure to bring people together to explore history and their ancestry. In many communities, park resources are the physical remains of local and regional heritage.



Photo by April Showers, JMT

The National Park Service defines cultural resources as physical evidence or place of past human activity including a site, object, landscape, structure, or a natural feature of significance to a group of people traditionally associated with it.

Cultural resources are both tangible and intangible remains of society transformed over time to establish cultural heritage. These resources strengthen the character of a local community or region and can be used to promote tourism and economic development.

Source: National Park Service

Cultural Resource Inventory

The LVPC Comprehensive Plan has identified one property (a structure) in Upper Saucon Township listed on the National Register of Historic Places – the former Centennial Bridge. The bridge was a historic stone arch bridge built 1876 with horse-shoe shaped arches across Saucon Creek. The bridge was closed in 1988 and was lost to demolition by neglect in 2013. The location of the bridge has been replaced with a small park and monument.

The remaining cultural resources in Upper Saucon Township include National Register eligible and undetermined resources are listed in Table 14 on the following page and identified on Map 5: Cultural Resources.

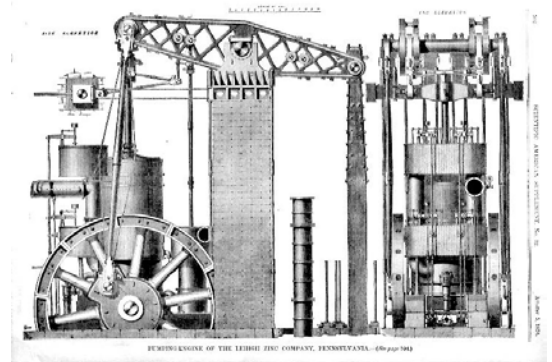
“The President Pump Engine House was one of the world’s largest stationary engines put into operation in the zinc mines in the Village of Friedensville. The President pumping engine cleared the high ground water from the mine pit and shafts allowing zinc ore extraction. What remains today is a massive stone Cornish engine house. The adjacent Ueberroth quarry is full of aquamarine water in a bucolic setting that has the potential to be an attractive park with historical and archeological significance. The engine house is on private property owned by Lehigh University and the property is not open to the public. Lehigh University and the Township have partnered to apply and receive a Keystone Historic Preservation Grant to conduct investigations, evaluations, and assessments of remains to determine how best to preserve what is left of the engine house to be enjoyed by future generations.”

“Much of the massive stone walls and foundation of the engine house still exist. This engine house is the only surviving example of a Cornish-style, house-built pumping engine structure in the US and one of only a few existing examples in the Western Hemisphere. Similar pumping engine houses in Cornwall now form the key monuments of a UNESCO World Heritage landscape.”

Additional information about the history of the site and operations can be found at <https://lutzfranklin.files.wordpress.com/2018/05/lsths-sp-app18.pdf>.

Source: *Upper Saucon Township 2019 Municipal Directory and Map, Volume 3* Source of Image from ASCE, *Lehigh Valley Section* -

<http://events.r20.constantcontact.com/register/event?llr=gzdb7zgab&oeidk=a07eeksplek8c9c8e70>



Source of President Pump Images: ASCE, Lehigh Valley Section.



Eligibility for National Register

Those properties identified in the table below as eligible are those sites, buildings, or structures identified through a cultural resources survey with completion of standard Historic Resource Survey Forms (HRSFs). The HRSFs are then reviewed by a committee of the State Historic Preservation Office (SHPO) using the National Register criteria to determine if the property, building, or structure is eligible for listing in the National Register of Historic Places. If the property owner approves, then the eligible resource can be formally nominated to the National Register filing the appropriate forms along with the SHPO, Pennsylvania Historic Preservation Board, and National Park Service review, and processed to determine eligible status. Some resources may require re-evaluation if determined eligible five or more years ago.

Source: National Register – <https://www.phmc.pa.gov/Preservation/National-Register/Pages/Process.aspx>

Table 14: Cultural Resources

| Eligible and Undetermined Cultural Resources | | | |
|--|-----------------------|---|--|
| Map 5 Site Number | Status | Name | Description |
| 1 | Eligible | St. Andrew's Lutheran Church | Tudor Revival, Late Gothic Revival Circa 1928, 1934 |
| 2 | Eligible ¹ | Friedensville Union Church, Friedensville Lutheran Church | Federal Style, Stone Structure Circa 1839 |
| 3 | Eligible ¹ | Heller's Tavern | Stone, Stucco Circa 1800 |
| 4 | Eligible | Farmhouse, Barn & Outbuildings Oakhurst Drive | Stone Structure Circa 1813 |
| 5 | Eligible | Hartman Residence (demolished) | Master's House Plaque placed at location |
| 6 | Undetermined | Helney Lime Kilns | Agriculture/Commercial Four lime kilns, one is still intact Circa 1800, 1899 |
| 7 | National Register | Location of Former Centennial Bridge | Bridge - Stone arch bridge built with horseshoe shaped arches across Saucon Creek Circa 1876 |
| 8 | Eligible ¹ | Ueberroth Zinc Mine Historic District, New Jersey Zinc Mine | Stone Extraction Facility Circa 1845 |
| 9 | Undetermined | Reuben Mohr Property- Historic District ² | Farm and Farmhouse Circa 1885 |
| 10 | Undetermined | William Landis Property- Mill Historic District | Mill Historic District - 3 Story stone home and stone barn exists. Circa 1820 |
| 11 | Undetermined | Tumblebrook Golf Course | A 71- acre golf course designed in the 1930's by Donald J. Ross known for designing holes that fit perfectly with the environment |

Source: PHMC & PennDOT CRGIS – <https://www.dot7.state.pa.us/CRGIS/main.htm>

¹PHMC has indicated that re-evaluation of National Register eligibility may be necessary.

² The site is subject to a proposed subdivision; but could potentially be purchased by the Township to be included as part of an adjacent park.

Cultural landscapes – Landscapes that include both natural resources and man-made features that contribute to the local and regional heritage of the community. Man-made features that contribute to the cultural landscape include schools, buildings with architectural significance, recreation and open space areas, churches, and gathering places all of which contribute to the quality of life for residents in the Township and region.

Natural/Cultural Resource Protection Policies and Ordinances

The following is a listing of natural and cultural protection, preservation, and conservation policies and regulations in place in various Township ordinances that contribute to achieving goals and objectives related to protection, preservation, and/or conservation of natural and cultural resources.

Table 15: Natural and Cultural Resource Protection Policies and Ordinances

| Policy or Ordinance | Specific Tools to Protect, Preserve, & Conserve Natural Resources |
|--|---|
| Official Map | Component 1 – Existing Environmental Features |
| Zoning | Section 109 Zoning & Natural and Cultural Features Map |
| | Section 200 (SMC) South Mountain Conservation Zone |
| | Section 201 (A) Agricultural Preservation Zone |
| | Section 210 (OSR) Open Space Residential Zone |
| | Section 315 On-Lot Sewage Disposal Requirements (2 site requirement) |
| | Section 316 Open Space Requirements |
| | Section 317 Operations & Performance Standards |
| | Section 321 Screening & Landscaping Requirements |
| | Section 427 Conservation Design Development |
| | Section 455 Man-Made Lakes, Dams, Ponds & Impoundments |
| | Article 5 Environmental Protection (detailed regulations) |
| Subdivision/Land Development Ordinance | Section 301 Sketch Plan Standards, 301.D Existing Features |
| | Section 302 Preliminary/Final Plan Standards, 302. D Existing Features |
| | Section 305 Required Plans, Reports, Studies, & other Information |
| | Section 305.A.2. Phase 1 Environmental including Stormwater Management Report; Natural and Cultural Features; and Water Resources Impact Report |
| | Design Standards <ul style="list-style-type: none"> ▪Section 501.B. Environmental Protection ▪Section 515 Stormwater Management ▪Section 516 Floodplains ▪Section 517 Wetlands ▪Section 518.A. Existing Wooded Areas |
| Subdivision/Land Development Ordinance (continued) | <ul style="list-style-type: none"> ▪Section 519 Steep Slopes ▪Section 523 Carbonate Areas ▪Section 524 Wellhead Protection |
| Watershed Plan & Stormwater Management | Ordinance 108-B: Saucon Creek Watershed Act 167 – Stormwater Management Ordinance |

Sources: *Upper Saucon Township website – Ordinances.*

Environmental Advisory Council

The Township has an Environmental Advisory Council (EAC) responsible for advising the Board of Supervisors and other boards, commissions, and committees on matters dealing with protection, conservation, management, promotion, and use of open space, recreation, historic, and natural resources located within the Township. The EAC partners with the Penn State Master Gardeners to provide educational seminars through the Backyard Natural Habitat Program (BNH). These seminars help educate residents and provide ideas for backyard projects to protect natural resources.

Source: <https://www.upsaucon.org/boards-commissions/environmental-advisory-council/>

Natural Resource Strategies

Protecting, preserving, restoring, and conserving the natural environment is crucial for achieving and maintaining community sustainability. Strategies include:

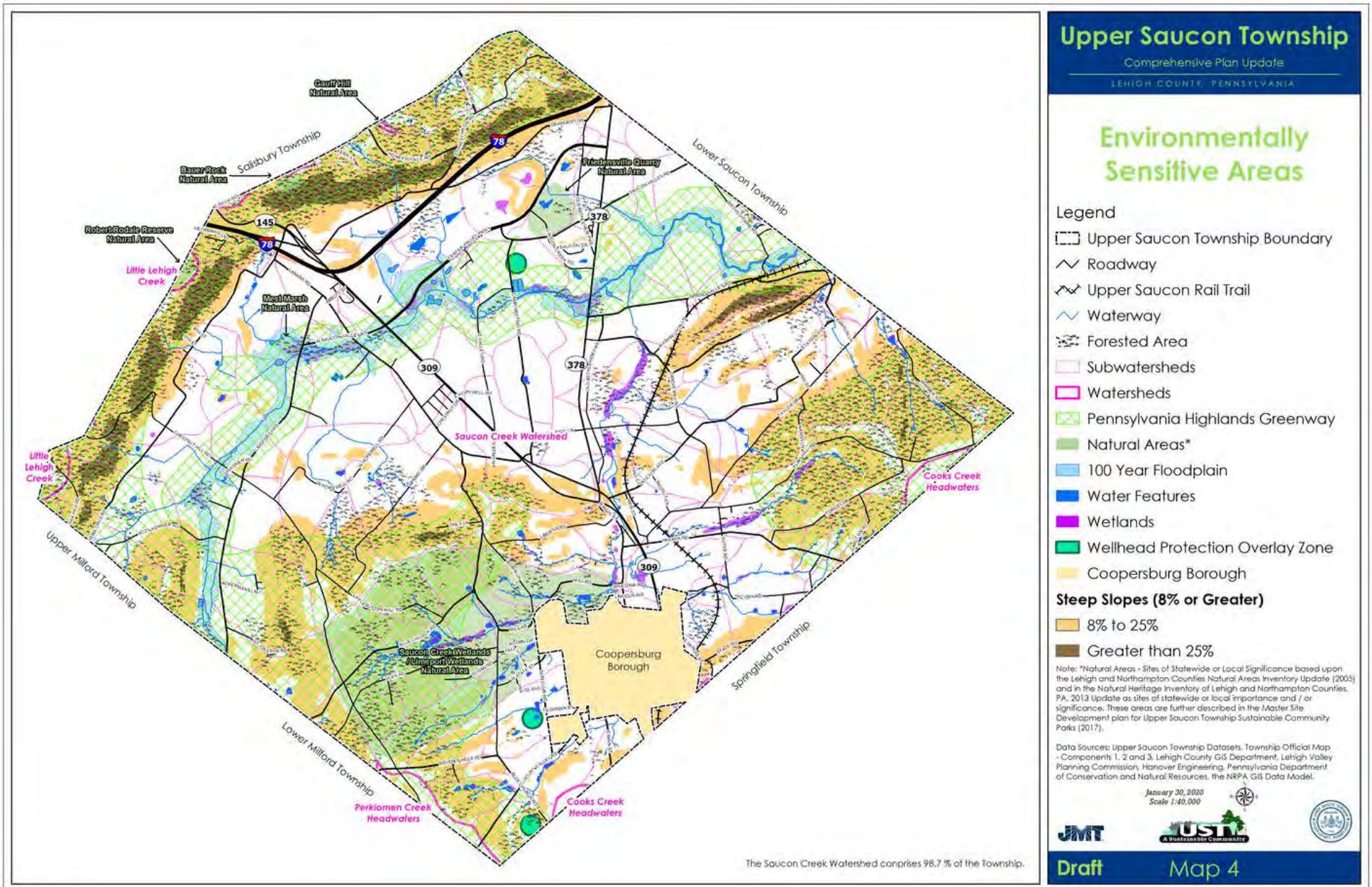
- Continue planning by routinely updating the Township's Official Map to identify targeted areas for land acquisition or developer dedication of natural features and resources to be used as public open space for active or passive resource-based recreation, trails, water recharge, and interpretive learning.
- Incorporate low impact development (LID) standards, best practices, codes, and regulations in zoning, subdivision/land development, and stormwater management ordinances.
- Continue to regulate and enforce development to control the amount and rate of runoff, erosion, and sedimentation, chemical, and biological pollution using industry standards, state regulations, and best practices. Solutions should include the integration of structural devices (engineered systems) and non-structural devices (vegetated, natural systems) to create a balanced, hydrologically functional, and sustainable site. This strategy focuses on:
 - Conservation – Preserve native trees, vegetation, and soils to maintain natural drainage patterns.
 - Small-scale Controls – Mimic natural hydrology and processes.
 - Customized Site Design – Ensure that each site helps protect the entire watershed.
 - Direct Runoff to Natural Areas – Encourage infiltration and recharge of streams, wetlands, and aquifers.
 - Maintenance, Pollution Prevention, and Education – Reduce pollutant loads increase efficiency and longevity; and educate and involve the public.
- Preserve the rural character by protecting woodlands, scenic vistas, and landscapes by requiring conservation design or cluster policies and regulations.
- Promote the proper management of natural resources on private property through education and outreach and continue to enforce current regulations where applicable.
- Promote recycling and energy conservation through public awareness, education, and municipal programs.
- Preserve key scenic corridors and viewsheds.
- Continue to implement the Township's Hazard Mitigation Plan through public and private development as part of the land development process, the capital improvement program, and routine maintenance and operation of facilities and infrastructure.

Cultural Resource Management Strategies

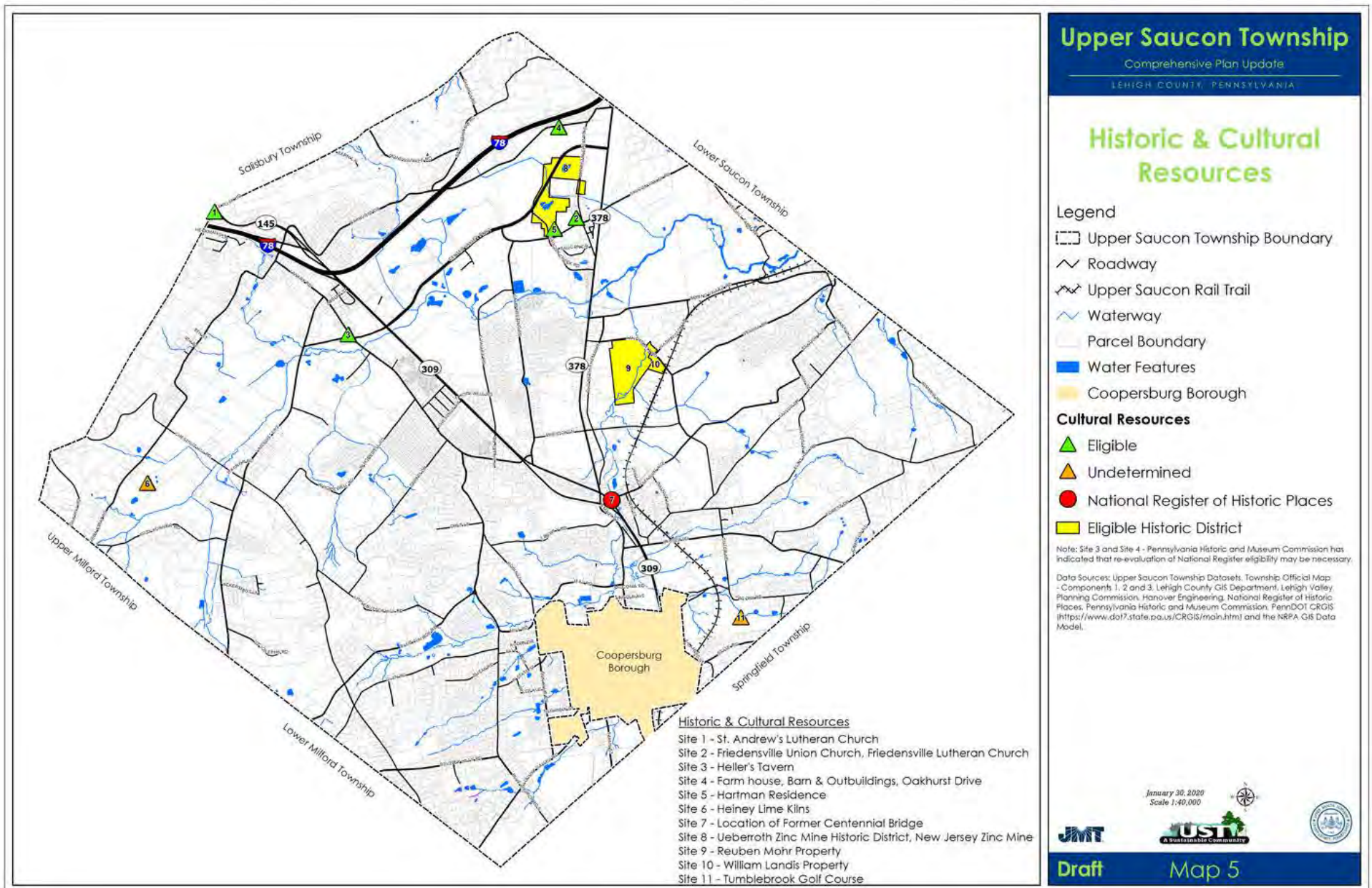
Protection of irreplaceable historic and cultural resources and documentation of the stories associated with them is important to preserving the heritage of the Township and region. Local heritage contributes to the quality of life, community character, and streetscapes. Cultural Resource Management (CRM) strategies include:

- Collaborate with LVPC to verify the cultural resource inventory and provide appropriate documentation of these resources.
- Require a CRM Plan as part of a subdivision/land development plan which documents resources, identifies strategies to avoid and/or mitigate impacts to significant resources, and defines how the resource will be preserved and incorporated into the design and layout of new development. Demonstrate compatibility of new development to those identified resources for preservation, protection, and reuse when appropriate.
- Explore opportunities to partner with the Coopersburg Historical Society to preserve, display, and document cultural resources.

Map 4: Environmentally Sensitive Areas



Map 5: Historic and Cultural Resources



Goals, Objectives, & Policy

Goal: Preserve agricultural land.

Primary Objective: Preserve those lands best suited for sustainable agriculture that protect the food supply, economic base, and rural character of the Township.

Expected Outcome: Increase public and privately preserved agricultural land productively farmed.

Land Use Policy Objectives:

1. Protect and preserve agricultural land and rural landscapes.
2. Encourage the sustainable farming.
3. Conserve, preserve, and protect agricultural land for future farmers.
4. Continue to provide land use regulations for the protection of agricultural lands and allow for secondary uses that strengthen the economic viability of farming.
5. Continue to be an active partner in Lehigh County's Municipal Program for Agricultural Land Preservation.

Benefits of Preserving and Promoting Farming

- Farming provides affordable fresh foods.
- Protecting local farmland keeps property taxes down.
- Preserving farmland protects rural landscapes and vistas and promotes local tourism.
- Farming creates local jobs that contribute to local and regional economies.
- Protecting farms with healthy soils benefit the environment.

Source: *Lehigh County website, Why Preserve Farmlands?*

CHAPTER 5: AGRICULTURAL PRESERVATION



Source: Internet

"Farmers in the Township are encouraged to continue farming."

Source: 1985 Comprehensive Plan

Agricultural lands play an important role in the Township with respect to environmental protection, water quality, economic development, sustainability, and community character – preserving both history and culture.

Agricultural land represents areas of historic development, early industrial uses as well as areas preserved for today and future sustainability of the Township and region.

Agriculture and the natural resources are interrelated. Natural resources, especially soil, water, plant and animal diversity, vegetation cover, renewable energy sources, climate, and ecosystem services are fundamental for the structure and function of agricultural systems. Important definitions include:

Agricultural Lands – Lands including all ecosystems modified or created by man specifically to grow or raise biological products for human consumption or use such as cropland, pasture, orchards, groves, vineyards, nurseries, ornamental horticultural areas, forested/wooded areas, and confined feeding areas.

Act 38 also known as the Pennsylvania Agriculture, Communities, and Rural Environment (ACRE) Act defines silviculture (forestry) also as an agricultural use. Additionally, Silviculture is a "Normal Agricultural Operation" ("NAO") and "forestry and forestry products" are agricultural commodities as defined by the Right to Farm Act 3 P.S. §952.

This plan recognizes forestry as an agricultural use. Forested/wooded areas are uniquely identified in mapping and specific strategies for protection, preservation, and management.

Other Agricultural Land – Ecosystems that are modified or created by man to produce food and fiber, but do not fall into the defined categories of agricultural land (cropland and pasture, orchards, groves, vineyards, nurseries and ornamental horticultural areas; confined feeding operations). This includes farmsteads, holdings for livestock such as corrals, breeding and training facilities on horse farms, farm lanes and roads, ditches and canals, small farm ponds, and similar uses. Local, small-scale farmers are vital to domestic food security for Township residents and others in the region.

Source of Definitions: *A Land Use and Land Cover Classification System for Use with Remote Sensing Data*

Agricultural Land Use Trends

The 1985 Comprehensive Plan identified approximately 6,555 acres or 41% of total land in the Township as agricultural land with 4,189 acres (26%) under Acts 319 or 515 encouraging farmers to keep their land in agriculture and open space uses. Today’s agricultural resources are shown on Map 6: Agricultural & Preservation/Conservation Land depicting agricultural easements and Agricultural Security Areas. Since the 1985 Plan, the acres of agricultural land have decreased significantly as identified in the table below.

Since 1982, the Township lost **3,860 acres** of agricultural land to **development**.
 In 2018, about **2,695 acres** of agricultural land remain in the Township.

According to Township records, approximately 10 farms or 392 acres are permanently preserved in Upper Saucon Township. That places the Township 10th in the County with respect to farmland preservation. In the Township, there are approximately 1,035 acres of land enrolled as Agricultural Security Areas (including agricultural conservation easements).

“Agricultural Security Areas (ASA) are created by local municipalities in cooperation with individual landowners who agree to collectively place at least 250 acres in an ASA. ASA’s provide certain protections to farmers provided criteria are met to gain ASA enrollment and is the first step to eligibility to enter the agricultural easement program.”

Source: Lehigh County, PA – <https://www.lehighcounty.org/Departments/Agricultural-Land-Preservation/Preserved-Farmland-by-Municipality>

Table 16: Agricultural Land Use Trends

| Land Use Class | 1966 | | 1982 | | 2012 ¹ | | 2018 | |
|-------------------|--------|------------|-------|------------|-------------------|------------|-------|------------|
| | Acres | % of Total | Acres | % of Total | Acres | % of Total | Acres | % of Total |
| Agricultural Land | 10,400 | 65.0% | 6,555 | 41.0% | 5,863 | 37.1% | 2,695 | 17.1% |
| Undeveloped Land | 1,040 | 6.5% | 3,529 | 22.1% | | | 1,689 | 10.7% |

Source: 1985 Comprehensive Plan and Land Use Calculations for 2020 Comprehensive Plan

¹Source: LVPC – Agricultural land and undeveloped land acreages are combined in their reporting.

NA- Not Available

Lehigh County Agricultural Conservation Easements

Conservation easements prevent farmland from being lost to non-agricultural development. The following information is provided directly from the Lehigh County Agricultural Conservation Easement Program documentation. Lehigh County and the Sterling Raber Agricultural Land Preservation Board have created a Municipal Partnership Program to aide townships in the preservation of farmland and provide funding for farmland preservation across the County. Lehigh County along with participating municipalities and property owners have preserved 324 farms totaling 24,113.78 acres. Lehigh County is ranked fourth in the state for number of farms preserved and ranked fifth for number of acres preserved.

Upper Saucon Township currently participates in the Municipal Partnership Program and contributes to the preservation of local farmland and preservation of farmland in the region to achieve Lehigh County's goal of preserving 25% of the land for farming activity.

Agricultural Easement – An agricultural conservation easement is a legal restriction on land development that limits all future uses of the land to agriculture. Qualifying farmland owners can apply to sell perpetual conservation easements to the Commonwealth of Pennsylvania, Lehigh County, and to local municipalities. The conservation easement term is perpetual. The following deed provisions are associated with an agricultural easement:

- Agricultural uses are permitted including crop and livestock production and construction of buildings for the storage, processing, and marketing of products produced on the farm.
- Commercial, industrial, institutional, recreation, and residential development is typically prohibited.
- Farm-related development including barns, sheds, greenhouses, livestock housing, and similar structures is permitted provided the total areas covered with buildings is no more than 10% of the total easement area.
- One additional residence can be built on the farm for housing the landowner, an immediate family member, or farm employees.
- Agricultural production must be conducted in accordance with an approved conservation plan.
- If the easement property is sold, the conservation easement restrictions must be included verbatim in the transfer deed.
- The conservation easement does not give the public access to the property.

Source: Lehigh County Agricultural Easement Program –

<https://www.lehighcounty.org/Departments/Agricultural-Land-Preservation/Conservation-Easements>

Inventory of Agricultural Conservation Easements

The table on the following page identifies the inventory of permanently preserved farmland through Agricultural Conservation Easements in Upper Saucon Township. The location of these agricultural conservation easements is depicted on Map 6 – Agricultural & Preservation/ Conservation Lands located at the end of this chapter.

Requirements to Receive State Funding for Agricultural Conservation Easement

- Lands must be in an agricultural security area (ASA) consisting of 500 acres or more.
- The area for easement must be 35 contiguous acres or 10 acres adjoining a preserved property with a perpetual conservation easement.
- 40% of the soils must be available for agricultural production and of a class I-IV soils as defined by the USDA – Natural Resources Conservation Service.
- The area must contain the greater of 50% or 10 acres of harvested cropland, pasture, and grazing land.

Source: Lehigh County



Source: Upper Saucon Township

Table 17: Inventory of Agricultural Conservation Easements

| Location | Parcel Identification Number (PIN) | Description and Date of Preservation | Acres |
|--|------------------------------------|--------------------------------------|--------|
| 6495 Blue Church Road ¹ | 641315382531 | Boyer Farm | 9.27 |
| 1922 Flint Hill Road | 643464286856 | Fields, Kathleen Property | 25.80 |
| 4900 Vera Cruz Road 4946 Vera Cruz Road | 640580956297 640571805019 | Former Voortman Farm | 48.82 |
| 4393 Limeport Pike | 641501726187 | Mest Property | 71.40 |
| 5622 Vera Cruz Road 5832 Vera Cruz Road | 640467806506 640456934217 | Groff Farm | 68.51 |
| 5702 Limeport Pike | 6404933354341 | Tucciarone Conservation Easement | 29.80 |
| 3853 Chestnut Hill Road 5516 Vera Cruz Road | 640486453926 640487470642 | Lichtenwalner Farm | 82.98 |
| 7750 Passer Road | 643421638956 | Slekovac Fruit Farm | 19.20 |
| 6864 Passer Road | 642472319888 642471071285 | Bixel Farm | 24.60 |
| 2280 Reinbold Road ¹ | 640431549934 | Ricci Farm | 11.20 |
| Total | | | 391.58 |

Source: Upper Saucon Township

¹Pending Final Approval of Agricultural Conservation Easement.

LVPC Farmland Preservation Plan

The LVPC Future LV Regional Plan includes a Farmland Preservation Plan to guide preservation efforts by private property owners, municipalities, and others. This plan includes a map generated using existing agricultural easements, locally designated agricultural easement areas, high-priority soils, and proximity to other farms. The map can be viewed on the LVPC website to determine areas that the LVPC will highly discourage development that is not compatible with active agricultural uses.

Source: LVPC, Future LV Regional Plan – Farmland Preservation Plan – <https://lvpc.org/goal-1.html> and Food Source Map – <https://lvpc.org/data-lv-agriculture.html>.

Sustainable Agriculture

Sustainable agriculture is an integrated system of plant and animal production practices having a site-specific application that will over the long term:

- Satisfy human food and fiber needs.
- Enhance environmental quality and the natural resource.
- Make the most efficient use of nonrenewable resources and on-farm resources and integrate these resources where appropriate.
- Sustain the economic viability of farm operations and support uses.
- Enhance the quality of life for farmers and the community.
- Minimize subdivisions and wasteful use of prime agricultural soils.

This systematic approach focuses on the interrelationship between farming and other aspects of the environment.

Source: National Sustainable Agriculture Coalition

Food Security

Food security is defined as the availability of food and physical and economic access to food meeting dietary needs as well as individual food preferences. Food security is not just a poverty issue; instead, it is much larger and involves the entire food system and affects everyone of us in some way.

Source: <https://www.disabled-world.com/fitness/nutrition/foodsecurity/>

Agricultural Preservation Strategies

Agriculture offers social, environmental, and economic benefits to achieving community sustainability. Strategies include the following:

- Extend the Agricultural Preservation Zoning District to include additional farmlands to protect prime agricultural lands from development; and, to permit types of businesses that support agriculture.
- Continue to partner with Lehigh County Agricultural Land Preservation Board and property owners of lands in Agricultural Security Areas to offer financial incentives to permanently preserve lands through agricultural easements and other means.
- Continue participation in Lehigh County's Municipal Partnership Program providing contributions to the County's Farmland Preservation appropriation funds to preserve local farmland and farmland across the Lehigh County.
- Conduct an outreach program to the large landowners to discuss benefits and opportunities to permanently preserve farmland.
- Consider the Township purchase of agricultural land to be leased to farmers as a means of preserving agricultural land, sustaining the local and regional food supply, and gaining revenue to support future preservation activity.
- Promote farmer collaboration with the County Conservation District and PA DCNR to provide technical assistance to farmers to complete Conservation Plans, identify property specific environmental issues, and encourage best management practices to address regulatory compliance issues.
- Promote innovative farming alternatives such as vertical farming, rooftop farming, backyard gardening, small lot no till farming, micro-farming (1-5 acre lots), and other solutions for low impact or no dig agricultural activity integrated within existing and new residential developments.
- Continue to promote private property owner collaboration with PA Forestry Association, PA DCNR, and Penn State Extension to gain technical assistance and guidance to prepare and implement Forestry Management Plans.

Of the **1,035 acres** in **Agricultural Security Areas**

approximately **392 acres** are permanently preserved with the remaining **643 acres** eligible for future preservation.

Approximately **2,082 acres** of potential net developable lands are currently agricultural lands in residential, commercial, agricultural, and industrial zones.

The **2040 target** goal for agricultural preservation is a total of **1,000+ acres**.



Source: Vertical Farming – <https://interestingengineering.com/13-vertical-farming-innovations-that-could-revolutionize-agriculture>

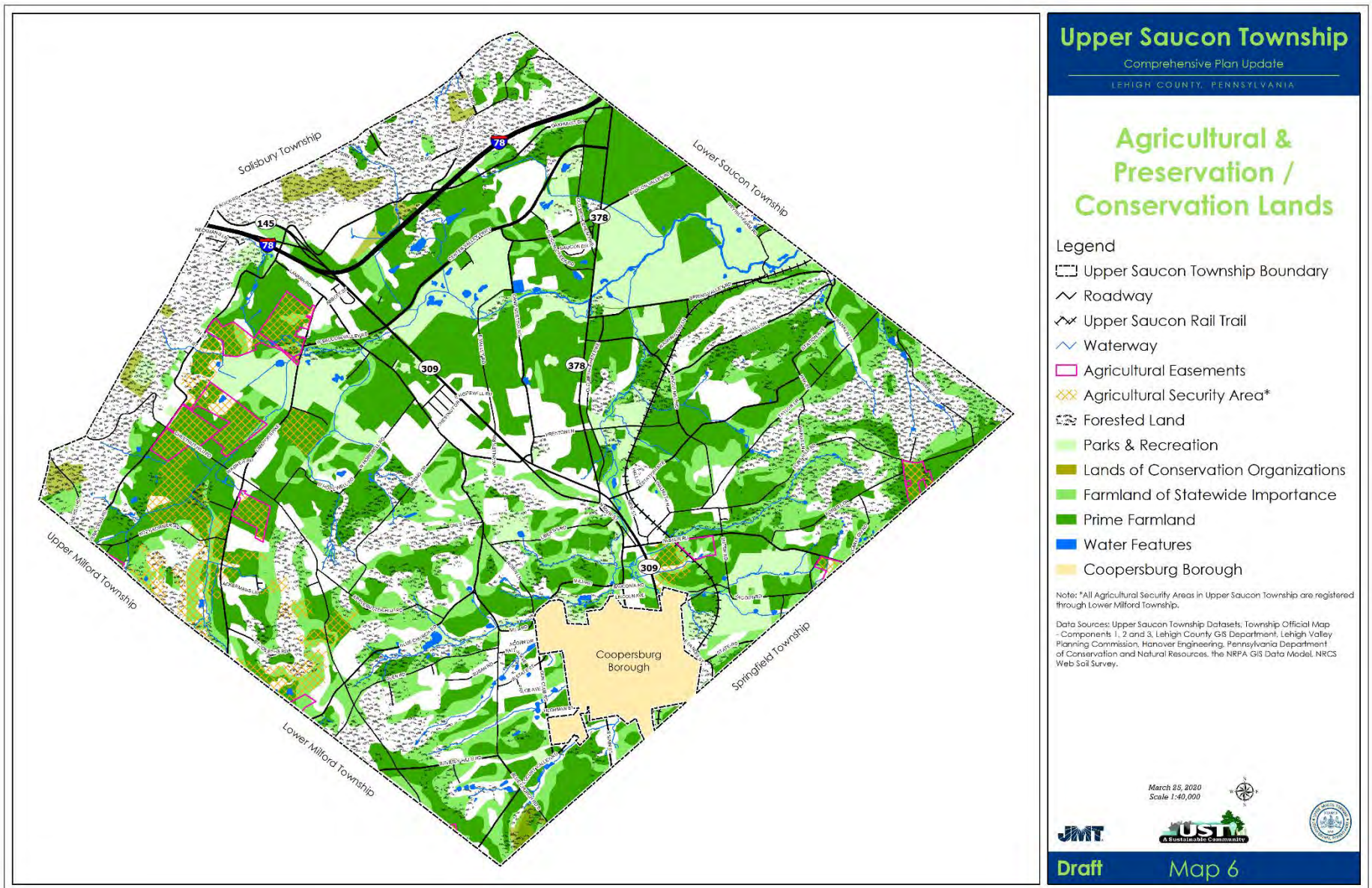
- Continue to regulate the separation of land uses with buffers, screening, and setbacks to minimize nuisances and conflicts.
- Provide awareness to the farming community of grant and loan programs and technical resources for training, education, and outreach to local farmers and processors to comply with state regulations and to obtain resources for marketing and sustainable farming.
 - Local Food Safety Collaborative (LFSC) providing guidance on Produce Safety and Preventive Controls rules of the Food Safety Modernization Act (FSMA) – <https://nfu.org/farmsafety/local-food-safety-collaborative/>.
 - Penn State Extension grant and loan programs for farmers and those wanting to start a farm and Farmland Assessment Checklist for those wanting to lease land for farming – <https://extension.psu.edu/grant-and-loan-opportunities-for-starting-your-farm>.
 - Pennsylvania Department of Agriculture assistance with respect to commodity marketing, specialty crops grant programs, and farmer's toolkit – <https://www.agriculture.pa.gov/Food/ag-commodity-marketing-boards/Pages/default.aspx>.



Source of Images – Internet – No Dig Farming



Map 6: Agricultural & Preservation/Conservation Lands



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CHAPTER 6: TRANSPORTATION

Photo by April Showers, JMT



An important factor of sustainable development is the relationship between transportation, land use, and the economy. Access to a reliable transportation network impacts local and regional economies and opportunities for economic development.

Transportation systems and land use patterns influence each other. For example, low-density, sprawled land use patterns increase the demand for more transportation investments and more reliance on one mode of travel – vehicular travel. Roads, transit, pedestrian, and bicycle infrastructure shape land development, while the location and types of land uses affect travel patterns and desired types of transportation infrastructure.

Connectivity

Roadway design and connectivity reduces congestion. “Connectivity addresses the distribution of traffic across the entire street network. If local streets are poorly connected, local trips are forced to use the arterial system, which is designed to handle longer or commuter trips. The combination of short and long trips using the same streets creates congestion problems. Connected local streets keep local trips off arterial streets and reduce the need for widening and construction improvements on collector and arterial streets.”

Source: LVPC, Guidance Document – Street Connectivity

The Township is using an Official Map to identify the placement of new roadways, roadway extensions, and

Goals, Objectives & Policy

Goal: Develop and maintain a local multimodal transportation network as part of a larger regional network.

Primary Objective: Develop and maintain a multimodal transportation network providing accessibility, mobility, and safety for all users.

Expected Outcome: Improve connectivity and interconnectivity for all modes of transportation that integrates local and regional traffic.

Land Use Policy Objectives:

1. Require improvements such as sidewalks, bike lanes, off-road facilities, and/or space for future transit stops as part of all land development.
2. Implement pedestrian/bicycle improvements that connect residential neighborhoods with community valued assets such as schools, employment, shopping centers, parks/recreation, and other public facilities.
3. Embrace transit-oriented design standards to make the Township development patterns transit friendly and ready for future service.
4. Coordinate with LANta early in the land development process to incorporate transit infrastructure.
5. Ensure the scope of Traffic Impact Studies are adequately defined and improvements are made as part of public and private development projects.
6. Partner with agencies, organizations, and the private sector to prepare local infrastructure and communications for autonomous/connected vehicle technology.

pedestrian and bicycle trails and paths connecting neighborhoods to community valued assets and services. Map 7: Transportation shows the Federal Functional Classification of existing roadways, future road extensions, average annual daily traffic, and transportation capital improvements. Map 8: Connections shows a detailed pedestrian and bicycle network of existing and future connections to key land uses including, but not limited to employment centers, parks and recreation, shopping centers, village and town centers, and residential neighborhoods.

Roadway Classification

The following describes PennDOT roadway classifications by the intended function establishing guidance for design standards and a level of priority for future improvements. Classifications have direct relationship to land use intensity, density, and trip generation. Refer to Map 7 for mapped roadway classifications.

Table 18: PennDOT Roadway Classifications

| Roadway Class | Roadway Type | Desired Operating Speed | Ave Trip Length (mi) | Volume (AADT) | Intersection Spacing (ft) | Definition |
|------------------------|--------------|-------------------------|----------------------|---|--|--|
| Interstate/ Expressway | Interstate | 55-70 mph | 25-350+ | Rural 12,000 - 34,000 Urban 35,000 – 129,000 | 1 mi (urban interchanges) 2-6 mi (rural interchanges) | Designed for high-speed connections between regions and parts of a metropolitan area. Designed for high volumes of traffic with limited access. |
| Arterial | Regional | 30-55 mph | 15-35 | 10,000 – 40,000 | 600 – 1,320 | Designed to provide the fastest method of travel with low access from adjacent roads. Designed with long distance travel in mind. Access management is used to provide safe accessibility for commercial uses. |
| | Community | 25-55 mph | 7-25 | 5,000 – 25,000 | 300 – 1,320 | |
| Collector | Community | 25-55 mph | 5-10 | 5,000 – 15,000 | 300 – 660 | Designed to connect local roads and arterial roads for moderate volumes and speeds providing a balance between access and mobility. |
| | Neighborhood | 25-35 mph | <7 | <6,000 | 300 – 660 | |
| Local | Local | 20-30 mph | <5 | <3,000 | 200 – 660 | Designed for low speeds and high accessibility from residential driveways with connection to collector and arterial roads. |

Source: PennDOT, Design Manual, Part 2 – Highway Design and USDOT, FHWA, Highway Functional Classification https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/ and Safety Assessment of Interchange spacing on Urban Freeways <https://www.fhwa.dot.gov/publications/research/safety/07031/>

Additional information with respect to required lane and shoulder widths, parking lane, bike lane, median, curb return, number of travel lanes, roadside amenities (e.g., sidewalks, buffers, etc.), and desired operating speed for each of the classifications in the context of urban, suburban, and rural settings is detailed in PennDOT’s Design Manual – these are Smart Transportation standards incorporated into the Design Manual.

PennDOT’s Design Manual has incorporated bicycle and pedestrian standards. This manual should be referenced routinely to make updates to design standards and requirements in the Township’s Subdivision/Land Development Ordinance and/or a Design Standards Manual.

Reference: PennDOT, Design Manual, Part 2- <https://www.dot.state.pa.us/public/Bureaus/design/PUB13M/Chapters/TOC-2.pdf>

Roadway Congestion and Safety

Mobility and safety are important to local and regional travelers, goods movement, quality of life, and economic vitality. Roadways with insufficient capacity and/or poor management and maintenance result in congestion and safety issues. Traffic congestion in the Township and the region has significantly increased over the past decade due largely in part to growth and development shaped by local land use policies and decisions of the Township, surrounding municipalities, and municipalities within Lehigh Valley. Studies support the relationship between traffic congestion and safety with examples of unstable flow and roadway conditions, abrupt changes in traffic flow, or congested conditions resulting in increased frequency of crashes.

Congestion Performance Measures

- Level of Service (LOS)
- Crash (trucks, vehicles, bicycles, and pedestrians) Frequency and Severity
- Public Health Impacts
- Reliability of Travel Time
- Travel Speeds
- Quality of Life

Source: FHWA -

https://ops.fhwa.dot.gov/congestion_report_04/appendix_B.htm

Congested Corridors

In 2017, the LVPC identified roadway segments in the region as congested corridors with a 2040 projected peak hour LOS of D or lower assuming the implementation of transportation investment projects in the current Transportation Improvement Plan (TIP) and Long-Range Transportation Plan (LRTP). Congested corridors take a higher priority on the TIP over other projects. SR 378 from Seidersville Road to Center Valley Parkway is a major corridor of concern affecting the region. Both roadway segments are included in the regional Congestion Management Process and are important for freight movement.

Congestion Management Process (CMP) – The CMP is a performance-based approach to managing regional roadway congestion by identifying congested locations and recommending strategies to alleviate congestion. Map 7 identifies congested corridors in the Township – a section of Route 309.

Strategies to reduce congestion include:

- Deploying intelligent transportation systems.
- Making traffic signal modifications, intersection improvements, and roadway realignments.
- Applying access management solutions.
- Increasing public transit service.
- Investing in pedestrian and bicycle improvements.

Source: LVPC, *MOVELV Congestion Management Process (2017)*

Level of Service

The 2010 Highway Capacity Manual defines Level of Service (LOS), “as a quantitative stratification of a performance measure or performance measures that represent quality of service measured on a A-F scale with LOS A representing the best operating conditions from the traveler’s perspective and LOS F the worst.” The table on the following page provides a general description of A through F levels of service. While traffic projections and LOS are used as a performance metric, these measures have historically resulted in the movement of vehicular and truck traffic taking priority over preserving the character of neighborhoods. The engineering community has decided that generally LOS C in most communities and LOS D in urban environments is a good balance between congestion versus loss of neighborhood character.

Table 19: General Definitions of Level of Service (LOS)

| Level of Service | General Operating Conditions |
|------------------|---|
| A | Free flow, with low volumes and high speeds. |
| B | Reasonably free flow, but speeds beginning to be restricted by traffic conditions. |
| C | Stable flow, but most drivers are restricted in the freedom to select their own speeds. |
| D | Approaching unstable flow, drivers have little freedom to select their own speeds. |
| E | Unstable flow; may be short stoppages. |
| F | Forced or breakdown flow; unacceptable congestion; stop-and-go traffic. |

Sources: Adapted from the AASHTO Green Book and Flexibility in Highway Design

There is no state or federal mandate to apply LOS standards or targeting 20 years into the future for traffic projections to dictate roadway and highway design. The sole use of LOS letter grade for the free flow of traffic based upon vehicular travel is to measure of the transportation network performance.

While congestion should be addressed with the desire for free flow of traffic, designing every intersection for demand during the highest peak hour results in oversized and over designed roadways negatively impacting public spaces between the edges of roads and buildings – space typically reserved for pedestrian and bicycle travel.

Source: USDOT, *Evolving Level of Service Metrics in Transportation Analysis – Introduction*

https://cms.dot.gov/sites/dot.gov/files/docs/mission/office-policy/transportation-policy/266046/los-case-study-intro508_0.pdf

Integrated Corridor Management

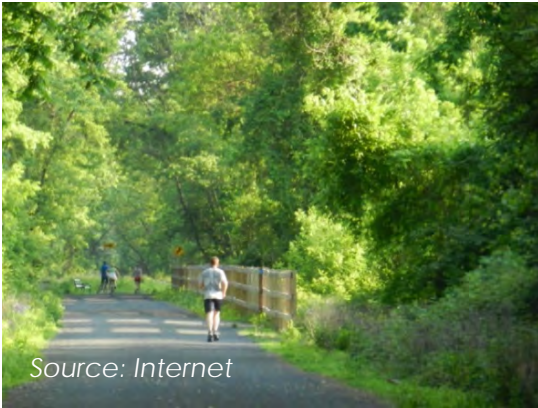
An integrated approach to corridor management provides the framework for the Township to work collaboratively with PennDOT and LVTS/LVPC transportation professionals to improve operations of corridors such as routes 309 and 378. Considering these corridors and others such as Center Valley Parkway as a multimodal system will guide operational decisions and improvements that balance transportation, land use, and economic development goals and objectives. This type of approach to corridor analysis and management is most successful in collaboration with LVTS/LVPC and with the surrounding municipalities that these corridors serve.

- Integrated Corridor Management (ICM) Programs – Program that focus on significant improvements to the efficient movement of people and goods through the integrated, proactive management of existing infrastructure along major corridors.
- Transportation Corridor – A transportation corridor is “ a combination of discrete, adjacent surface transportation networks (e.g., freeways, arterials, transit networks, etc.) that link the same major origins and destinations.”

Source USDOT, FHWA <https://ops.fhwa.dot.gov/publications/fhwahop16036/ch1.htm>

Bridges

The maintenance and replacement of bridges is crucial to accessibility, mobility, and safety in the region and locally for the Township. PennDOT’s Visualization TIP identifies two bridges of concern for improvement at the following locations – Limeport Pike (SR 2029) bridge over tributary of Saucon Creek and Blue Church Road (SR 2024) bridge.



Source: Internet

Multimodal Transportation

Multimodal planning refers to planning that considers various modes (walking, cycling, automobile, and public transit) and connections among modes. National sustainability and livability Initiatives emphasize integrating transportation and land use planning, fostering multimodal transportation systems and multimodal connections, and minimizing environmental impacts by reducing emissions. The following discusses the importance of non-vehicular modes of travel in Upper Saucon Township and in the region.

Active Transportation – Investment in Pedestrian and Bicycle Facilities

Connectivity is not just associated with vehicular improvements but also includes pedestrian and bicycle facilities. Greater street connectivity with pedestrian and bicycle facilities contributes to higher rates of adults walking and biking to work and to shop which reduces levels of congestion on roadways. Walking and biking for recreation also improves overall health of individuals and the community. Investing in active transportation and public transport can help to reduce congestion, delays from collisions, the unreliability of travel time, fuel and transport costs and improve residents' ability to access community facilities and services.

A Complete Streets policy and strategies to address pedestrian and bicycle accessibility, mobility, and safety in the Township is contained in Chapter 9: Community Character & Design. Pedestrian and bicycle terms to be familiar with include:

- Active Transportation – Choosing to walk or cycle as your day-to-day way of travel from one place to the other.
- Pedestrian Facilities – Pedestrian access routes and reasonable amenities, including but not limited to benches, bus shelters, lighting, and water fountains as well as provisions to accommodate, enhance, or encourage walking.
- Bicycle Facilities – Improvements and reasonable amenities and provisions to accommodate, enhance, or encourage bicycling, including but not limited to bicycle lanes and paths, traffic control devices, parking, storage facilities, and bike share systems.

Benefits of Active Transportation

- Health Benefits
- Environmental Benefits
- Economic Benefits
- Social Benefits
- Safety Benefits

Source: LVPC

As previously mentioned, Map 8: Connections shows a detailed pedestrian and bicycle network of existing and future connections to major land uses including, but not limited to employment centers, parks and recreation, shopping centers, village and town centers, and residential neighborhoods.

PennDOT Connects Initiative

This initiative focuses PennDOT staff to work collaboratively with Metropolitan Planning Organizations (MPOs such as LVTS), municipalities, and community leaders to gain valuable input on transportation projects early in the planning phase of project development to ensure that projects are designed to address local concerns. This initiative complements a local Complete Street Policy by providing local and regional governments an opportunity to identify where sidewalks, bicycle paths, and other desired amenities should be included in a project to improve safety and livability.

Source: PennDOT Connects – <https://www.penndot.gov/ProjectAndPrograms/Planning/Pages/PennDOT-Connects.aspx>

LANta and Transit-Oriented Design Standards

The Lehigh and Northampton Transportation Authority (LANta) provides public fixed-route bus services to Lehigh and Northampton counties. The main service is focused in urban areas including Allentown, Bethlehem, Easton, and surrounding municipalities. The fixed-route services are made up of 28 routes and are supplemented by LANtaVan – a door-to-door paratransit service for the disabled and elderly.

Service to Upper Saucon Township

LANta provides weekday bus service to the Penn State Lehigh Valley Campus and Corporate Parkway in Upper Saucon Township via Bus Route 323 providing service to the Township and the region to and from the Allentown Transportation Center.

Transit-Oriented Design to Support LANta Service

Transit-Oriented Design (TOD) integrates land use, zoning, and transportation planning elements to promote higher-density mixed-use development that is easily accessible by various modes of transportation. Pedestrian-friendly and street-oriented site design are also important elements of TOD and transit access design to assure that development sites are accessible by transit vehicles.

In 2013, LANta published a Transit Supportive Land Use document for the Lehigh Valley containing design standards appropriate for suburban landscapes. As growth and development occurs in the Township and surrounding region, it will be important to be transit-friendly and ready with the following design policy and public/private improvements:

- Design guidelines that facilitate improvements to allow ease of transit to enter and exit development sites via main thoroughfares.
- Design standards for placement of pedestrian facilities and transit stops for a one to five-minute walk from neighborhoods to transit stops.
- Space reserved for future transit stops in employment centers, business parks, retail clusters, shopping centers, high-density residential neighborhoods, and healthcare and educational campuses.
- Build a comprehensive pedestrian network connected to current and future transit stops including sidewalks, crosswalks, and lighting.
- Place the building setback for commercial uses immediately behind the sidewalk to provide easy access by pedestrians to and from the sidewalk and to and from transit stops.

Source: LANta, *Transit Supportive Land Use (2013)* – <http://www.lantabus.com/wp-content/uploads/2014/01/LANTA-Transit-Supportive-Design-for-the-LV-FINAL-V3.pdf>

Aviation – Lehigh Valley International Airport

Lehigh Valley International Airport located in Hanover Township in Lehigh County is primarily a commercial passenger airport serving the greater Allentown area. Due to the growth of e-commerce in the region, the airport has become a hub for air cargo handling a significant amount of freight and mail. The airport provides shuttle service within the region.

Benefits of Public Transportation

- Economic benefits to the community.
- Health benefits to the community.
- Transit reduces congestion.
- Increased mobility for the disabled and those who do not have access to a vehicle.
- Reduced travel costs for households.
- Increased social connections.
- Transit is a safe and equitable mode of travel.
- Commuters are more productive on public transit.

Source: SMARTCITIESDIVE

Future Transportation Network

The transportation network for the future will involve more advanced technology. The LVPC has identified that, “*technology will lay the groundwork for future transportation innovations such as connected and autonomous vehicles and real time information services*” (LVPC, LRTP 2015). Studies conducted by the US Department of Transportation suggest that suburban communities, especially higher-income, lower density and lower-income, higher density suburban communities may see the greatest impact of autonomous vehicles (Autonomous Vehicles and Commercial Real Estate 2016). This change will be built around an AV-based shuttle service reducing driving and travel cost as well as suggests impacts to other modes such as walking and bicycling for non-recreational purposes.

Connectivity Strategies

Improved local connectivity for all modes of transportation protects public infrastructure investment and improves the efficiency of both the local and regional transportation network. Providing better access to and from neighborhoods is important to both residents and businesses. Determining the right balance between connectivity and through traffic and the right balance of land use are crucial factors of livability for the Township. The following are practical strategies to improve connectivity:

- Restrict the number of cul-de-sacs in design of residential subdivisions.
- Require stub streets that connect to future phases of development.
- Require the construction of sidewalks and bicycle facilities.
- Promote Traditional Neighborhood Design (TND) where appropriate.
- Maintain an Official Map identifying areas for expansion of a multimodal transportation network.

Source: LVPC, *Guidance Document, Street Connectivity*.

Intelligent Transportation Systems Strategy

Technology is used to reduce congestion and improve safety for the traveling public. Today, a variety of technology is used to collect road and vehicle data and improve connectivity (e.g. smarter/automated cars, driving apps, and other technology to improve conditions).

Intelligent Transportation Systems (ITS) – ITS is an application of sensing and data collection, analysis, and control and communications technologies to improve safety, mobility, and efficiency. ITS includes a range of applications that process and share information to reduce congestion, improve traffic management and safety, minimize environmental impacts, and increase the benefits of transportation to all users.

Implementing technology is the first step to preparing for Connected/Autonomous Vehicles (C/AV).

Source: USDOT – https://www.its.dots.gov/factsheets/benefits_factsheet.htm

Connected/Autonomous Vehicle (C/AV) Strategies

It is anticipated that suburban communities with higher incomes, like Upper Saucon Township, will experience this technology sooner than later and over time, will experience the greatest impact of implementation and use of autonomous vehicles. The following will help the Township to prepare for emerging driverless technology to achieve sustainable transportation goals and objectives.

- Increased Public Investment – Develop smart streets that use adaptive traffic signals and ITS on arterials and congested roadways to integrate and manage driver and driver-less vehicles.
- Increased Efficient Use of Roadways – Support federal, state, and regional initiatives for driverless fleet-based services, shuttles, or minibus services instead of single ownership of autonomous vehicles.

- Reduced Parking Demand – Plan and design for the decrease in the number of parking spaces and impervious surface with additional drop-off space close to building entrances.
- Increased Truck Traffic – C/AVs coupled with e-commerce technology will result in increased efficiency and higher capacity for distribution to meet consumer demands.
- Expanded Communication Systems – Expand broadband, 5G, and future wireless technologies. Develop procedures for communication and interaction with police and emergency services with autonomous vehicles.
- Changed Revenue Sources – Plan for the loss of traffic violation revenue and the impact on police services due to speed controlled driverless technology. As state policies change, establish new policies for road usage fees, as legislation permits, for autonomous vehicles giving preference to a fleet-based use, shuttle/ride sharing, and efficient use of vehicles.
- Added Infrastructure – Design roadway improvements and fueling stations with autonomous services and vehicle electrification and other new fueling stations.

Congestion Mitigation and Safety Strategies

With a greater emphasis on performance-based strategies, there is a move to transition from using Level of Service (LOS) to a broader base of performance measures. The following are methods and strategies that reduce local and regional congestions improving safety for all modes of travel.

- Collaborate with the LVPC through the Transportation Improvement Plan (TIP) process focusing on multimodal transportation planning to build a network of connected local roads to relieve congestion and improve safety for local traffic.
- Consider public and private partnerships and available grants to identify and realize multimodal solutions.
- Use various measures such as travel speed, reliability, safety, asset preservation, quality of life and other measures to support transportation investment decisions – do not rely on LOS exclusively in this decision-making process.
- Continue to partner with LVPC and PennDOT to implement the Integrated Corridor Management Program (ICM) for major corridors and continue to implement access management requirements as part of the Township SALDO.
- Improve operations of the network by deploying ITS solutions to reduce congestion and improve safety. These solutions are a first step toward preparing for C/AV.
- Continue to improve driver behavior through public education and awareness initiatives and enforcement initiatives.
- Collaborate with the PennDOT and LVPC to establish a transportation asset management system that links user expectations with performance of assets.

Capital Improvement Projects

The following is a list of transportation capital improvement projects identified by the Township, LVPC, and PennDOT to address accessibility, mobility, and safety on state highways and roadways in the Township. These improvements include roadway, bridge, and pedestrian/bicycle improvements anticipated over the next eight to twelve years. A crucial project affecting current development and future development of Upper Saucon Township is the I-78-Route 309/Center Valley Parkway intersection improvements. Most improvements identified below can be found on PennDOT's TIP Visualization website.

Table 20: Capital Improvement Projects

| Project | Description | Roadway Classification and Timeframe | Cost | Partners |
|---|---|---|-----------|-----------------------------------|
| Intersection Improvements | | | | |
| Mill Road (SR 2024) and Main Street (SR 2045) Intersection Improvements (consider a roundabout as potential solution) | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Urban Collector Federal Aid System of Roads TBD | \$2.5 M | PennDOT District 5-0 and Township |
| Vera Cruz Road (SR 2023) and Lanark Road (SR 2039) Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Major and Minor Collectors Federal Aid System of Roads TBD | \$3 M | PennDOT District 5-0 and Township |
| Vera Cruz Road (SR 2023), Oakhurst Drive (SR 2038), and Pike Avenue (SR 0145) Intersection Improvements | Provide improved geometry, turning lanes, and pedestrian/bicycle accommodations | Principal and Minor Arterials Federal Aid System of Roads TBD | \$2.5 M | PennDOT District 5-0 and Township |
| Route 378 and E. Oakhurst Drive (SR 2038)/Colesville Road Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Principal Arterial and Local Roadway TBD | \$500,000 | Township and Developers |
| Route 378 and Landis Mill Road Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Principal Arterial and Local Roadway TBD | \$500,000 | Township and Developers |
| Main Street (SR 2045) and Liberty Road Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Principal Arterial and Local Roadway TBD | \$700,000 | Township and Developers |
| Blue Church Road (SR 2022) and Blue Church Road South (SR 2024) Safety Improvements | Realign Intersection | Collectors TBD | \$500,000 | Township and Developers |
| Limeport Pike (SR 2029) and Saucon Valley Road (SR2036) Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Collectors TBD | \$650,000 | Township and Developers |
| Blue Church Road (SR 2024) and Lanark Road (SR 2039) Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Collectors TBD | \$650,000 | Township and Developers |
| Route 378 at Saucon Creek Road (T-837) Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Principal Arterial and Local Roadway TBD | \$500,000 | Township and Developers |

Sources: PennDOT, TIP Visualization Project Reports, Upper Saucon Township CIP, and Hanover Engineering, Inc. PennDOT Visualization TIP Capital Projects – <http://www.projects.penndot.gov/projects/TipVisMap.aspx>

Table 20: Capital Improvement Projects (continued)

| Project | Description | Roadway Classification and Timeframe | Cost | Partners |
|---|---|--------------------------------------|-----------|-----------------------------------|
| Camp Meeting Road (SR 2049) at Preston Lane (T-844) Intersection Improvements | Provide signalization, turning lanes, and pedestrian/bicycle accommodations | Collector and Local Roadway TBD | \$700,000 | Township and Developers |
| Landis Mill Road and Taylor Drive Intersection Improvements | Realignment/Reconfiguration | Local Roadways TBD | \$250,000 | Township and Developers |
| Robin Lane and Blue Church Road Intersection Improvements | Realignment/Reconfiguration | Local Roadways TBD | \$250,000 | Township and Developers |
| Left-turn lane improvements at Pike Avenue (SR 0145) and protected left turn phase and shoulder upgrades along Oakhurst Drive (SR 2038) from SR 0145 to SR 0378 | Roadway improvements and signal phasing upgrade | Collectors TBD | TBD | Township and Developers |
| Create an additional EB left-turn lane for Center Valley Parkway and NB receiving lane onto SR 0378 | Roadway improvements | Arterials TBD | TBD | Township and Developers |
| SR 2038, Oakhurst Drive/ Colesville Road & SR 0378 and evaluate Oakhurst Drive and Old Bethlehem Pike for Multi-way Stop Control | Signal and stop control, left turn lanes improvements and evaluation for multi-way stop control | Collector and Arterial TBD | TBD | Township and Developers |
| Install NB left-turn lane at Saucon Valley Road and Center Valley Parkway with NB left-turn protected permitted signal phasing | Roadway and signal improvements | Collector and Arterial TBD | \$310,000 | Township and Developers |
| Provide SB left-turn lane at intersection of Lanark Road (SR 2039) and West Saucon Valley Road (SR 2036) | Roadway / intersection improvements | Collectors TBD | TBD | Township and Developers |
| Interchange/Intersection Improvements | | | | |
| SR 309/Center Valley Parkway Intersection Improvements | Improvements include changes of existing at-grade signalized intersection into a full direction grade-separated interchange to address current and future planned development as well as provide pedestrian and bicycle improvements and connections. | Anticipated 2023-2030 | \$38.2 M | PennDOT District 5-0 and Township |

Sources: PennDOT, TIP Visualization Project Reports, Upper Saucon Township CIP, and Hanover Engineering, Inc. PennDOT Visualization TIP Capital Projects – <http://www.projects.penndot.gov/projects/TipVisMap.aspx>

Table 20: Capital Improvement Projects (continued)

| Project | Description | Roadway Classification and Timeframe | Cost | Partners |
|--|--------------------------------------|--------------------------------------|---------|-----------------------------------|
| Bridge Rehabilitation and Replacement Projects | | | | |
| Limeport Pike (SR 2029) over Tributary of Saucon Creek | Replacement/Rehabilitation of bridge | Construction anticipated 2023-2026 | \$2.4 M | PennDOT District 5-0 and Township |
| Blue Church Road (SR 2024) Bridge | Bridge Replacement | TBD | TBD | PennDOT District 5-0 and Township |

Sources: PennDOT, TIP Visualization Project Reports, Upper Saucon Township CIP, and Hanover Engineering, Inc. PennDOT Visualization TIP Capital Projects – <http://www.projects.penndot.gov/projects/TipVisMap.aspx>

SR 309/Center Valley Parkway Intersection

This is an important intersection to the Township for the following reasons:

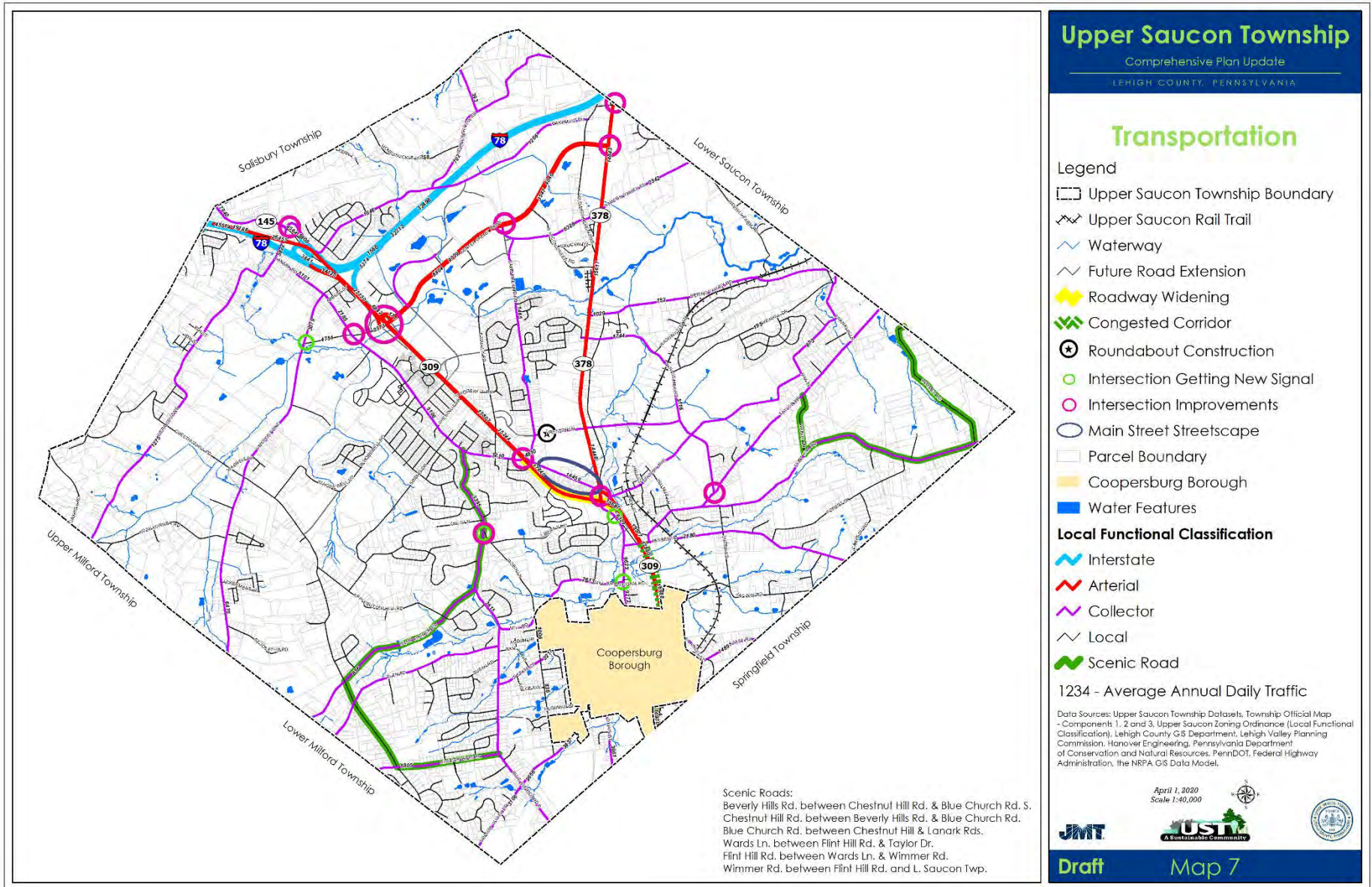
- This is highly visible gateway to the Township.
- The intersection provides access to local and regional commuters who work at the business center and to future business park expansion along Center Valley Parkway as well as future development on lands located at the southeast corner of the intersection as part of the Township’s business park and employment hub.
- The intersection provides access to the Promenade Shops at Saucon Valley – a town center development – for local and regional patrons and employees.
- Route 309 is a major arterial in the Township and region carrying significant volumes of vehicular and truck traffic. This intersection provides access to regional commuters to points north along Route 378 and the movement of goods within the region.
- The intersection provides access to the regional interstate system.

Based upon the location and importance of this intersection to mobility, access, economic development, and goods movement within the region, the following are two suggested concepts identified by the community through the public involvement process. Community input suggests the need for pedestrian and bicycle connections along Center Valley Parkway and Route 309 as well as the need for a reduction in congestion along Route 309 eliminating delays by removing existing signalization of the intersection. Gateway signage and landscaping should be part of the improvements at this highly visible entrance to the Township.



Source: <https://streets.mn/2017/11/17/are-roundabouts-safer-for-pedestrians/> - Keystone Project Roundabout, Indiana

Map 7: Transportation



CHAPTER 7: HOUSING



Photo by April Showers, JMT

Affordable housing choices for all income levels is important to quality of life and sustainability of communities. Successful communities strive to work with people, organizations, developers, and communities to design housing that addresses affordability, equity, and diversity to create thriving neighborhoods and wonderful places to call home.

Affordable housing is used to describe rental or owner-occupied housing that is affordable for all individuals and all income levels. The Department of Housing and Urban Development (HUD) defines housing costs at or below 30% of income to be affordable.

Affordable housing choice for all income levels is influenced by a high-quality transportation network, public amenities, diversity in employment opportunities, and quality of schools.

Housing construction is affected by the following key factors:

- Projected population growth.
- Housing supply and demand.
- Developable land.
- Government regulations.

This chapter provides a summary of housing analysis results contained in Appendix C: Housing Analysis.

Goals, Objectives & Policy

Goal: Maintain the character of existing residential neighborhoods and develop new neighborhoods with a variety of housing types.

Primary Objective: Provide affordable housing choice for households of all income levels.

Expected Outcome: Achieve a mixture of housing types, unit size, and affordability commensurate with housing needs and goals.

Land Use Policy Objectives:

1. Provide for a diversity of housing types, size, tenure, and design within respective land use classifications, density standards, and development constraints.
2. Incentivize and remove barriers to the production of moderately priced rental housing through land use policy and other regulatory mechanisms.
3. Focus housing development in a way that is sustainable where public infrastructure exists.
4. Ensure safe and code compliant housing.
5. Continue to require energy and water efficiency in all new, renovated, and existing housing through the UCC.
6. Promote housing development that protects environmentally sensitive areas and environmentally constrained lands.
7. Promote mixed-income neighborhoods.
8. Increase housing density in village centers, traditional neighborhood developments (TNDs), and mixed-use campus style developments.
9. Adopt land use regulations that facilitate development in village centers and TNDs using mixed-use development standards.

Projected Growth

The Township is in the path of residential growth averaging 87 residential building permits per year from 2008 through 2018 with nearly 99% of the units constructed being single-family dwellings. As of January 2019, there are 876 housing units in the development pipeline for the Township.

The US Census Bureau and LVPC provide population data and projections at the municipal level. Upper Saucon Township 2018 population was 16,585 with a LVPC projected 2040 population of 25,238. This growth places the Township in the top five fastest growing municipalities in the Lehigh Valley. Detailed LVPC projections are presented in Appendix B Trends.

To determine a more accurate population and housing unit projection, the Township considered a 2018 study conducted by the Southern Lehigh School District with a “most likely” or more conservative projection of growth based upon projected increase of school age children. To be consistent with the School District, the Township used an alternative method for projecting population and housing units. Table 21 below presents these conservative projections.

This section uses households as one of the inputs to determine demand for housing units.

Note: The US Census defines a household to include all the people who occupy a housing unit as their usual place of residence and defines housing unit as a house, an apartment, a mobile home or trailer, a group of rooms or single room occupied as separate living quarters. Refer to Appendix B Trends and Appendix C Housing Analysis for additional demographic data and projections and housing trends.

Relevant Local Housing Facts

- 50% of households are 1 and 2-person households.
- 46.9% of households are 4 or more persons.
- The Township’s median household income of \$102,653 is the highest in the Lehigh Valley.
- 15.8% of households have incomes of \$200,000+.
- Significant growth in households for 65-74 and 75+ are expected in the region through 2030.
- A projected increase in households 35-44 (first-time home buyer) between 2018 and 2023.
- 88.7% of units are owner-occupied with 11.3% of units are renter-occupied
- 2018 vacancy rate was 4.2%.
- The supply of moderately priced affordable housing in the Township is very limited – 8.1% of UST homes are valued in the \$100,000 - \$200,000 range while 31.4% of homes in the region are valued in this range.
- Estimated median value for owner-occupied homes in the Township was \$339,471 in 2018.

Source: Appendix C: Housing Analysis and US Census statistics

Table 21: Township Population and Household Projections

| Projections | 2010 Census | 2018 (Esri) | 2023 (Esri Projection) | 2030 (Projected) | 2040 (Projected) |
|--------------------------------|-------------|-------------|------------------------|------------------|------------------|
| Township Population | 14,808 | 16,585 | 17,497 | 19,153 | 21,793 |
| Township Household Projections | 5,039 | 5,650 | 5,960 | 6,457 | 7,167 |

Sources: Appendix C – Housing Analysis, extension of Esri population trend line (1.3% growth rate per year and a 1.0% or 71 household increase per year to 2030 and 2040).

The US Census reported that “the population age cohort 18-to-34 in Lehigh Valley has grown by more than 1% on an annual basis in four of the last five years.” This is a rate that is greater than the overall population growth rate for Lehigh and Northampton Counties. *Source: US Census and LVPC*

Growth in this age group drives the market demand in the Township and the region for moderately priced affordable housing for first-time homeowners.

Housing Trends and LVPC Projections

Household growth is a primary driver of housing demand. Historically, the number of households in the Township grew from 2000 to 2010 and significantly decreased from 2010-2018 and analysis suggest that a slower growth trend will continue through 2023. The LVPC projects an average gain of households through 2030 for a total of 2,296 new housing units in the primary market area (PMA) consisting of the Southern Lehigh School District.

Anticipated Housing Demand

The estimated demand expressed as housing units is a function of four factors: projected household growth, need to replace obsolete or deteriorated housing units, shifts in household age and income characteristics, and PMA capture rates for the Township. Therefore, housing demand will be greater than the projected households based upon a simple linear projection of population identified on the previous page. The following are key points from Appendix C – Housing Analysis.

- National trends suggest that an average of 0.4% of suburban housing stock was lost each year from 2011-2013. Applying this factor to occupied units in the PMA, there is an estimated replacement demand of 384 housing units through 2030 in the PMA.
- The potential demand for a minimum of 1,330 new housing units in the Township is estimated through 2030.
- The Township has 876 potential housing units in the development pipeline (refer to Table 22).
- The potential net demand exists for 454 to 1,306 additional housing units through 2030.



Housing Supply

In 2018, there were a total of 5,843 housing units located within the Township with an additional 305 units projected by 2023. Between 2010 and 2018, the number of housing units in the Township increased by 581 units while overall growth in the primary market area (PMA) increased by 611 units – 95% of residential growth in the PMA took place in the Township. This is expected based upon the fact that Coopersburg is largely built out and Lower Milford is largely a rural community.

A low vacancy rate of 4.2% in the Township suggests a strong housing market in the Township with no ability to absorb incremental housing demand. As a result, household growth and housing replacement demand must be satisfied through new home construction or the substantial rehabilitation of functionally obsolete or deteriorated units.

In 2018, there were an estimated 639 rental housing units in the Township – this accounted for 50% of the primary market area rental supply. Most of the rental units are single-family attached and detached units and two-unit housing structures. According to Township staff, the Township does not have apartment buildings of more than 10 units and there is no income-restricted housing in the Township. Approximately 21.3% of the 639 renter-occupied units in the Township are considered “severely rent-burdened” – meaning these households spend at least 50% of their income on housing



costs. This suggests a housing affordability problem for some renters with the potential for some impact on affordability by off-campus student housing in the Township.

Planned and Approved Residential Development

The future housing supply in the Township will be impacted by the following pending residential development and development under construction.

Table 22: Planned or Under Construction Residential Developments

| Development | Type | Units Planned | Status |
|----------------------------|------------------------------|---------------|---------------------------------|
| Strawberry Hill | Single Family Detached | 13 | Pending Recordation |
| Toscana | Single Family Detached | 43 | Pending Recordation |
| North 40 Estates | Single Family Detached | 22 | Pending Approval |
| Brinley Court | Townhouse | 217 | Pending Recordation |
| Old Saucon AQC | Age-Restricted Single Family | 80 | Phase 1 Under Construction (33) |
| Sacred Heart Senior Living | Independent Living | 167 | Phase 1 Under Construction (31) |
| Kay Landis Mill | Single Family Detached | 92 | Pending Approval |
| Spring Valley Estates | Single Family Detached | 7 | Pending Approval |
| TOA Locust Valley | Single Family Detached | 125 | Pending Recordation |
| Estates at Saucon Valley | Single Family Detached | 110 | Pending Approval |
| Total | | 876 | |

Source: Upper Saucon Township. Pending Recordation – Plan has been conditionally approved; conditions have not been met. Pending Approval – Plan has not yet been acted on.

Residential Development Potential to Meet Housing Demand

Residential development potential is estimated applying build-out methods outlined in Appendix E. This analysis suggests an estimated capacity for 1,858 new housing units based upon potential net developable land applying Conservation Design standards to R1, R2, and R3 Zoning Districts – predominantly areas where public water and sewer exists to support higher levels of density of development. When added to the 876 housing units in the Township’s development pipeline, the Township’s estimated capacity has the potential to supply a total of 2,734 new housing units through 2040 and beyond. The table below identifies the potential net developable land by zoning district permitting residential development that supports this projected potential increase in housing units to meet demand. This potential development could possibly result in a population higher than projected in Table 21 – a potential population of 23,421 for 2040 or beyond based upon build-out described in Appendix E.

Table 23: Potential Residential Build-Out Under Current Zoning

| Residential Zoning District | Total Gross Acres | Percentage of Residential Zoning | Potential Net Developable Land** | Potential Projected New Housing Units*** |
|-------------------------------------|-------------------|----------------------------------|----------------------------------|--|
| Agricultural Protection (A)* | 1,409 | 0 | 346 | 173 |
| Residential Zoning Districts | | | | |
| Rural Residential (R1) | 3,622 | 28.1% | 1,114 | 669 |
| Suburban Residential (R2) | 5,912 | 46% | 679 | 815 |
| Multi-Family Residential (R3) | 552 | 4.3% | 39 | 92 |
| Open Space Residential (OSR) | 933 | 7.2% | 127 | 51 |
| South Mountain Conservation (SMC) | 1,853 | 14.4% | 292 | 58 |
| Total Residential Zoning | 12,872 | 100% | 2,220 | 1,858 |

Source: Appendix E – Build-Out Analysis. *The Agricultural Protection zone allows residential development. **Potential Net Lands Available for Development does not include lands available subject to adjacent Township regulation; and, excludes environmentally constrained lands. ***Housing unit estimate when applying Conservation Design standards. The 25% decision for roads and utilities is not applied to low density development in OSR and SMC.

Conclusions

- The housing market relies heavily on supply and demand within a defined Primary Market Area (PMA) – in this case, the Southern Lehigh School District. And, the supply of housing is in a constant state of change.
- The Housing Analysis in Appendix C and the Build-Out Analysis in Appendix E suggests the Township can meet a 2030 housing demand of a minimum of 1,330 new housing units in the Township with the estimated potential housing capacity of 2,734 new housing units through 2040 under current zoning. The Township has adequate lands zoned for residential development to meet the anticipated housing demand of 2030 and beyond.
- In general, growth in the adult population will increase the number of households. However, the distribution of housing across different age cohorts is also important because rates of housing independence vary by age.
- Because of changing household age patterns, specifically a projected reduction in the number of households in the 45-64 age cohort predominantly occupying large single-family detached homes on large lots, the demand for single-family detached homes may weaken over the planning horizon.
- The projected growth in the number of senior households (65-74 and 75+ age cohorts) suggests an ongoing market for low maintenance, accessible units regardless if they are formally age restricted.
- Growth in the population of the 18-to-34 age cohort and growth of households in the 35-44 age cohort may create an increased market demand for apartments and support entry level homeownership options.
- More affordable housing options for all ages and all income levels would help to diversify the Township's residential inventory.
- Land use decisions that promote village center development, traditional neighborhood development (TND), and mixed-use development with increased housing choice and density may be a solution to provide an adequate supply of moderately priced affordable housing.



Strategies

- Provide quality public amenities and well-functioning road and highway infrastructure to support residential growth.
- Regulate land use and provide incentives and density bonuses that encourage diversity of residential products in terms of density, structure type, sales price/rental rate levels, and tenure to offer opportunities for households to live at all life stages.
- Consider zoning changes that allow increased density and diversity to maximize the value of the remaining developable land and its contribution to the tax base and housing choice to include professionally managed apartment buildings.
- Promote the development of income-restricted affordable housing to address the needs of over 20% of severely cost-burdened renter households currently residing in the Township.

CHAPTER 8: ECONOMY



Because of factors such as excellent highway access, an educated workforce, and a growing affluent population, Upper Saucon Township has been and will continue to be an attractive location for people to live as well as an attractive location for a range of businesses. This chapter is a summary of the detailed analysis contained in Appendix D: Economic Analysis.

Sustained economic growth can provide competitive incomes for the local labor force, profitable business opportunities for employers and tax revenues for maintaining an infrastructure to support this continued growth. Economic development involves the creation of wealth in which community benefits are created.

Economic development is a program, group of policies, or activity that seeks to improve the economic well-being and quality of life for a community, by creating and/or retaining jobs that facilitate growth and provide a stable tax base.

Successful economic development resulting in a healthy mix of land use on remaining developable lands involves the concerted effort on the part of the Township to influence the direction of private sector investment toward opportunities that can lead to sustained economic growth.

Successful economic development will support achieving community development goals and objectives and the process for making the Township a better place to live, work, and play.

Successful economic development activities are carried out through partnerships with other levels of government, economic development organizations, property owners and developers, and local business groups such as the chamber of commerce.

Goals, Objectives & Policy

Goal: Concentrate commercial and industrial development to maximize infrastructure investment and minimize impacts on residential neighborhoods.

Primary Objective: Direct private and public investment that leads to sustained economic growth that provides living wages and career path opportunities.

Expected Outcome: Achieve and maintain a diverse local employment base and sustainable local tax base.

Land Use Policy Objectives:

1. Create opportunity for businesses offering high paying jobs and diversification of the labor force.
2. Streamline processes and create tax incentives to attract and create "New Economy" industries.
3. Concentrate on retaining and expanding existing local businesses and reinvesting in commercial areas.
4. Foster local entrepreneurship to increase the number of small businesses to support village center development and Traditional Neighborhood Development (TND).
5. Retain a strong agricultural base as part of the local and regional food supply.
6. Concentrate on attracting new businesses as part of the strategy to strengthen the Town Center and to support mixed-use development in the Enterprise Zone.
7. Protect natural and cultural resources and valued community assets that strengthen community character to create an enjoyable place to live and to attract a diverse labor force.
8. Encourage partnerships with major landholders and institutions of higher education.
9. Assist local businesses seeking expansion and growth opportunities.

There are three approaches used to enhance local economic development – business retention and expansion or enhancing existing businesses, business expansion through attracting new businesses, and business start-ups encouraging the growth of new businesses.

Emphasis should be placed on stimulating economic development through support for high growth industries that drive the “New Economy.” The new economy includes high-growth industries using cutting edge technology and are driving economic growth. Since the 1990s, the new economy is defined as a shift from a manufacturing and commodity-based economy to using technology to create new products and services at a much faster rate than traditional manufacturing.

Source: Investopedia – <https://www.investopedia.com/terms/n/neweconomy.asp>

Economic development is impacted by both the advantages and challenges of location as well as workforce characteristics and trends present in a broader Lehigh Valley labor market area. Upper Saucon Township is well positioned with a highly educated workforce with access to Universities as partners to attract new high-tech businesses.

There is no substitute to private sector investment for economic growth – but there are initiatives the Township can support to encourage investments where the community identifies they are needed the most. The role of the Township in economic development includes the following:

- Identifying opportunity sites and ensuring that they are zoned to match the needs of desired business and industry types.
- Ensure that permitting processes are simple and efficient.
- Maintain a competitive tax structure.
- Invest in public improvements that strengthen the municipality both as a business location and a residential area of choice for employees.
- Entering public-private-educational partnerships to stimulate economic development and workforce training.

Target Industry Groups for Regional Business Attraction

- High Performance Manufacturing
- High Value Business Services
- Life Science Research and Manufacturing
- Food and Beverage Processing

Source: Lehigh Valley Economic Development Corporation (LVEDC)

Locally Target High-Tech Industries

- New Energy / Energy Conservation / Environmental Protection
- Transportation
- Advanced Materials
- Information Technology
- High Tech Research & Development
- Biotech
- Advanced Equipment Manufacturing
- Culture, Sports, and Entertainment

Source: Upper Saucon Township Innovative Zone Presentation

Source: Internet



Office Market Potential

The 600-acre Stabler Corporate Center is zoned for office and corporate headquarters development. The office park includes undeveloped land for future development. Other opportunities for smaller-scale office space exist predominantly in locations scattered along the Route 309 corridor for new development, adaptive reuse, or redevelopment.

Retail Market Potential

The shift from retail stores to e-commerce has greatly affected this market. Limited retail supply exists in and around the Township due to the low-density character of residential development and farmland marked for preservation. The exception is the Promenade Shops – a high-end, open-air shopping center. In 2018, this shopping center has an estimated vacancy rate of 9% with the potential for increased vacancies in the future.

Fairmont Village Shopping Center, with a large vacant obsolete commercial space due to the closure of an anchor tenant (Weis Market), is the other shopping center in the Township. Shopping centers within a 5-mile radius of the Township are struggling with high vacancy rates more than 30%.

There is limited space for smaller independent specialty retailers. Opportunity exists with the enhancement of the Center Valley Village Center as depicted in the Community Character and Design chapter of this plan and opportunity for establishment of a new village center along Route 378 as shown on the Future Land Use Map. Small-scale retail in these locations should be supported by entertainment, fitness, restaurant, health care, and services in a pedestrian-oriented commercial cluster development pattern avoiding commercial strip development.

Approximately 61 acres of potential net developable land zoned commercial remain for new development. The Future Land Use Map depicts approximately 736 gross acres carved out for village center development and/or redevelopment incorporating existing commercial uses with opportunity for growth of a mix of small to medium-scale commercial uses including retail along major corridors with direct access from existing residential development. Chapter 9 provides village center development guidelines for areas along commercial corridors to avoid strip commercial development.

Factors Affecting Local Economy

- 45% of adult residents have a bachelor's degree and 21% hold a graduate or professional degree – these amounts are double compared to the region.
- 4.1% unemployment rate regionally.
- Nearly 8,300 workers commute into the Township for work and more than 5,900 residents commute to other municipalities for work.
- Commute to work destinations include the City of Allentown, City of Bethlehem, and Upper Macungie Township.
- Education and health services has the second highest number of employed in the region.
- Highest employers in the Township are in the manufacturing and wholesale trade industry.
- Other strong sectors include retail trade, administrative services, accommodation, and food services.
- A significant portion of the labor force supports the professional, scientific, and technical services.

Source: Appendices

This area identified for future village center development includes lands currently zoned Village Commercial Overlay (22 acres) and additional areas to be considered for village center development because of future rezoning. There is pending development or existing development on all lands currently zoned Village Commercial Overlay resulting in zero capacity for additional future village center development.

Industrial Market

While the region is competitive in both warehouse, distribution, and manufacturing and the Township is well located for this type of development with access to major highways, industrial development of this nature is not consistent with the existing land use patterns nor is it desired of the community. The high demand for industrial space may cause market pressure for warehouse development in the Township given several large undeveloped sites have good access to the highway network. Currently, there is 179 acres of net developable land zoned for industrial development remaining and an addition 375 acres of net developable land zoned for enterprise development remaining.

Conclusions

Conclusions are identified by type of development opportunities based upon analysis which is associated with Map 9: Land Available for Development, Map 10: Future Land Use, master plan concepts, and landscape design guidelines contained in the Community Character and Design chapter of this plan.

Office, retail, and residential development have been important land uses in the Township, coexisting with the agricultural and rural landscapes, traditional village landscapes, and new suburban residential landscapes. Historically, each non-residential use—office and retail—has been concentrated on single-use parcels. Major changes in the economics of each of these sectors as well as evolving tenant and consumer preferences suggest a need for more mixed-use environments and campus style development to allow the Township to remain competitive in the years ahead.

Village center development/redevelopment opportunities exist in several locations spanning the Route 309 corridor with opportunity for a newly developed village center along the Route 378 corridor in the northern portion of the Township. Obsolete residential and underutilized or abandoned commercial development along the Route 309 corridor should be developed in a manner to create a village center corridor with access to the following unique spaces:

- Center Valley Village Center – an historic crossroads development with unrealized potential due to the separation of Route 309, a one-way pair system where the northbound roadway is the historic main street of the village. Reclaim this village and enhance it as a walkable, village with small-scale local businesses established through infill development or adaptive reuse of vacant commercial and residential structures intermixed with existing residences. This would include relocation of Route 309 northbound travel lanes through the village with southbound travel lanes of Route 309. Refer to the Community Character & Design chapter for village master plan details and village center guidelines.
- Fairmont Village Shopping Center – a redevelopment opportunity for this site and undeveloped sites along Route 309 offer the opportunity to create a Traditional Neighborhood Development (TND) of mixed-use, walkable office and commercial environment that serves as a gateway to the Township.
- Village Center Development – a new village center is envisioned along Route 378 at the intersection of Center Valley Parkway incorporating undeveloped land in and around this intersection and undeveloped and developed land fronting along Route 378 south of the

intersection. This development concept would incorporate the village center guidelines described in the Community Character & Design chapter of this plan.

- Center Valley Parkway Town Center/Mixed-use Development – undeveloped land around Center Valley Parkway provides an opportunity for a fully developed town center as an extension of existing development including the Stabler Corporate Center, Promenade Shoppes, hospitality uses, and Penn State Lehigh Valley campus.

Refer to the master plan concept in the Community Character & Design chapter depicting types of uses for this development. This town center development provides opportunity for a mix of residential, commercial, institutional, entertainment, hospitality, research and development, and other compatible uses.

This development should capitalize on local educational assets such as the Southern Lehigh School District, Penn State Lehigh Valley, and DeSales University and other similar institutions in proximity to this location. The land owned by Lehigh University offers the potential for research facilities developed in partnership with corporate and private employers. The local student population presents opportunity for partnerships with corporate businesses at the Stabler Corporate Center through mentorship programs, research, and internships.



Source: Google Earth – Upper Saucon Township

Strategies

Office Market Strategies

A strategy of creating conditions that are attractive to contemporary office users to increase the range of high-quality employment opportunities by:

- Encourage residential development in and around the Enterprise Overlay zone to create a sustainable mixed-use town center.
- Encourage renovation of older office space to meet the layout and energy efficiency characteristics that are increasingly in demand for the market.
- Encourage co-working spaces as a component of office development to provide options for resident sole practitioners and start-up businesses.
- Consider rezoning lands shown on the Future Land Use map for village center development as Village Commercial Overlay zoning (an increase from 22 acres currently zoned Village Commercial Overlay to a total of 736 acres).
- Support traffic improvements and congestion mitigation efforts to improve access to area businesses for workers and customers.
- Continue to improve quality of life amenities to maintain the desirability of the community as a live/work/play environment.
- Enhance multimodal transportation and infrastructure along Center Valley Parkway to increase accessibility to amenities for the Stabler Corporation Center.
- Facilitate partnerships between local corporate employers and universities such as Penn State, Lehigh University, and DeSales.

Retail Market Strategies

- Identify additional areas for retail development or redevelopment that allows for clustering of small- to medium-scale commercial retail with commercial services such as entertainment, fitness, restaurant, health care, and services.
- Promote the development and redevelopment along the Route 309 corridor that creates a village center corridor.
- Route 309 widening to accommodate north bound traffic so that the local roadway can be re-established in the Center Valley Village Center to promote a walkable, pedestrian friendly small-scale commercial district mixed with existing residences.
- Create a new village center for small-scale commercial retail and service development mixed with residential development around the intersection of Route 378 and Center Valley Parkway.
- Redevelopment of older, partially vacant shopping centers for mixed-use, walkable office and commercial environment that serves as a gateway to the Township.

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CHAPTER 9: COMMUNITY CHARACTER & DESIGN



Source: Joslyn Institute for Sustainable Development

There is a strong desire for Upper Saucon Township to create a sense of place and connectedness through strengthening aspects of community character that may be in place today and as future development occurs. This chapter builds upon content in the Appendices of this plan – Appendix B Trends, Appendix C Housing Analysis, and Appendix D Economic Analysis – and supports the Future Land Use Plan for the Township. Community character is addressed in this chapter considering the following desired landscapes: rural landscapes, suburban landscapes, and mixed-use landscapes.

Except for loss of agricultural land to suburban style development, Upper Saucon Township’s community character has been strengthened since the 1985 Comprehensive Plan through preservation and development activity. As the Township continues to implement change to realize the vision of this plan, applying policies, guidelines, concepts, and strategies contained in this chapter will contribute to further enhancement of the character, identity, and sense of place across various landscapes in the community.

The intent is to strike a balance between the suburban and rural character of the Township while strengthening the local and regional economy. Strategies and design standards for managing growth to promote prosperity and sustainability over the long run helps strengthen community character. Both land use and design policy are used to articulate various physical aspects of community character that will be addressed in this chapter.

Goals, Objectives & Policies

Goal: Preserve and enhance the existing character of residential neighborhoods, villages, natural landscapes, and other unique or special places.

Primary Objective: Maintain a sense of place where people want to live, work, and play.

Expected Outcome: Create a strong sense of place identifiable by residents, businesses, and visitors.

Design Policy Objectives:

1. Promote walkable neighborhoods by adopting and applying a Complete Streets Policy and Design Guidelines for all public and private development.
2. Continue to incorporate high standards for site design and architectural design of buildings.
3. Offer incentives and development bonuses for mixed-use, walkable development.
4. Promote sustainable design and architectural principles and LEED® certified development, buildings, and facilities and neighborhoods.
5. Use a Historic Village Zoning District integrated with a Traditional Neighborhood Development (TND) Overlay for villages and village centers – blending new with old.
6. Promote vertically and horizontally mixed-use development patterns at various levels of density and intensity based upon rural or suburban landscapes.
7. Creatively incorporate aspects of urban farming into mixed-use development (e.g., farmers markets, community gardening, roof top farming, greenhouses, indoor farming, and SPIN – small plot intensive – farming).

Design Policy

Design policy is the process by which the Township translates the community vision into practices, programs, and actions that support development of regulations and standards that promote the effective implementation of community development through private and public investment. The details to follow include design policies in support of land use policies that are geared to achieving the vision of sustainable community development. Innovation in design includes development concepts, land conservation and preservation strategies, growth management strategies, and basic Leadership in Energy and Environmental Design (LEED®) standards that build a sustainable community.

LEED Site and Building Design Standards

In addition to zoning, site design, and subdivision/land development regulations, the following are supplemental development standards to enhance sustainable neighborhoods and developments. These standards can be adopted as design policy to guide the development community.

- Place building entries on front facades with building entries placed at minimum intervals.
- Locate ground-floor retail along street-level facades.
- Install clear glass, doors, and windows along ground-level facades.
- Build elevated finished floors for ground-level dwelling units.
- Locate garages, service bays, and parking lots behind buildings.
- Allow narrow street widths and alleyways.
- Encourage developers to go beyond the Building Code to construct green buildings, green roofs and high reflectance roofs, rainwater collection and reuse, water-efficient plumbing fixtures, and energy-efficiency buildings.

Source: Technical Guidance Manual for Sustainable Neighborhoods—How to Use the LEED for Neighborhood Development Rating System to Evaluate & Amend Local Plans, Codes, and Policies

Rural Landscape Development Guidelines

Since the 1985 Comprehensive Plan, the Township has taken extensive measures to provide development guidelines to promote the preservation of rural landscapes including the natural environment and agricultural resources. The Township includes development regulations to support the preservation of this aspect of community character identified in Chapter 4: Natural and Cultural Resources and Chapter 5: Agricultural Preservation.

While the Township has land preservation and environmental protection guidelines, the following content and graphic concepts are provided for educational purposes to describe current policies, guidelines, and tools and techniques as the guidance for future development.

Defining and Measuring Community Character

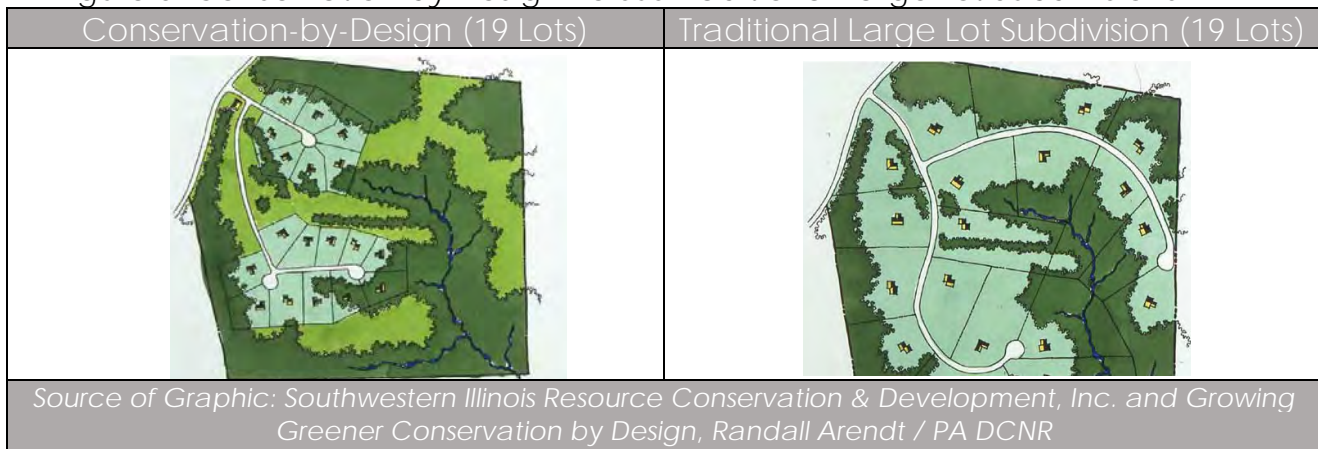
Community character can be described or measured by the unique natural, visual, cultural, and built characteristics of Upper Saucon Township.

Community character can be further defined by how people live, work, and shop. And, community character can be described based upon Upper Saucon Township's relationship to other communities, its size and social and economic characteristics.

Upper Saucon Township is predominantly a suburban community with a desire to preserve remaining rural landscapes and strengthen community character through design of town centers, village centers, and mixed-use areas to support strong healthy residential neighborhoods that are connected to places to work, play, and shop.



Figure 5: Conservation by Design versus Traditional Large Lot Subdivisions



The above concepts used to depict how to maximize the preservation and conservation of natural, cultural, and agricultural resources should be used with current conservation by design standards to visualize the potential for compact development. The tools and techniques identified on the following page provide the basics for land preservation and conservation.

Strategies to Strengthen the Rural Character of the Township

- When appropriate, conservation design development standards should be applied to development outside of the Act 537 Service Area where logical extension of public water and sewer is appropriate or where lot size is large enough to support on-lot septic systems. Parcels outside of the Act 537 Service Area are more rural in nature and character and where open space and natural resource protection are defining factors of rural landscapes.
- Continued participation in Lehigh County's Municipal Program to financially support agricultural preservation locally and regionally – agricultural land is a defining factor of rural landscapes.
- Expand the Agricultural Protection Zoning District to include additional agricultural lands outside of the Act 537 Service Area – again, agricultural land is a defining factor of rural landscapes.
- Use cluster development applying conservation design development standards to transition from suburban development and villages to rural landscapes including farming.
- Use conservation design development standards to avoid fragmentation of agricultural lands and wildlife habitats as well as to reduce infrastructure costs and to avoid or minimize environmental impacts.

Reference: Conservation Design Development in current Zoning Ordinance for specific requirements.

Rural Village Center Concept

The concept on the following page provides some ideas for enhancement of the Center Valley Village. This concept provides the following elements:

- Widen Route 309 to accommodate parallel northbound lanes along the existing southbound route alignment to eliminate the one-way pair making Main Street a two-way streetscape.
- A schematic for incorporating pedestrian and bicycle facilities within the existing right-of-way.
- North and south gateways to identify the village center with signage and landscaping.
- An example of adaptive reuse of a residential structure to include a small first floor shop.
- Example of infill development for several small-scale commercial uses with upper floor living.
- Pedestrian connections to adjacent residential neighborhood, Saucon Rail Trail, and proposed Liberty Bell Trolley Rail Trail.
- Vehicular, pedestrian, and gateway Improvements at the intersections of Main Street/Route 309 and Main Street/Route 378.

Figure 6: Center Valley Village Center Enhancements

CENTER VALLEY VILLAGE CENTER



The following master plan concept and design guidelines focus on promoting high-quality improvements, adaptive reuse, and infill development that will compliment and enhance the overall character of the village. These guidelines are not intended to restrict creativity or limit design solutions. This graphic vision is intended to demonstrate the potential to improve and enhance the overall scale, quality, and character of areas within the village. This concept promotes a level of quality, compatibility, and consistency that will help make the village attractive and distinguishable from surrounding development.



LEGEND

- 1. Walkable Streetscape with 2-Way Traffic**
Within the existing right-of-way provide for two-way traffic, sidewalk, and a large shoulder design and signed for pedestrian and bicycle use.
- 2. Adaptive Reuse of Underutilized Commercial Structure**
Improve the physical appearance and second floor deck to allow for a unique restaurant setting.
- 3. Adaptive Reuse of Residential Structure**
Improve the physical appearance including commercial storefront on first floor, from patio, and upper floor residence to provide small-scale commercial office or retail space.
- 4. Infill Development**
Small-scale commercial strip development designed as first floor office or retail space with upper living space. The architectural design is compatible with existing development.
- 5a. Northern Gateway**
Gateway signage and landscaping to identify the Center Valley Village Center.
- 5b. Southern Gateway**
Gateway signage and landscaping to identify the Center Valley Village Center.
- 6. Route 309 Widening for Northbound Travel**
Widening of Route 309 to include two lanes north bound to divert through traffic from the Village Center.
- 7. Intersection Improvements**
Intersection improvements to provide safe access to the Village Center, school campus, and surrounding development.
- 8. Pedestrian Bridge**
Pedestrian bridge in right-of-way of former historic Centennial Bridge to make pedestrian and bicycle connections to the Village Center, adjacent neighborhood, and the Saucon Rail Trail.

Figure 7: Engineering Concept for SR 309 Northbound Lanes around Center Valley Village Center



| | | |
|--|---|--|
| <p>Hanover Engineering Berksheim Office 2518 Berksheim Road, Suite 100 Berksheim, PA 19312-2508 PH: 610.397.2508 FAX: 610.397.2509</p> | UPPER SAUCON TOWNSHIP LEHIGH COUNTY PENNSYLVANIA <small>NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF HANOVER ENGINEERING, INC. ALL RIGHTS RESERVED. THIS DRAWING IS THE PROPERTY OF HANOVER ENGINEERING, INC. AND IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED HEREON.</small> | SHEET NO. DATE DRAWN BY CHECKED BY APPROVED BY |
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| UPPER SAUCON TOWNSHIP LEHIGH COUNTY PENNSYLVANIA PROJECT NO. 19-014 PROJECT NAME: ROUTE 309 NORTHBOUND RELOCATION PROJECT LOCATION: CENTER VALLEY VILLAGE CENTER PROJECT DATE: 8/27/19 | | SHEET NO. 1 OF 2 |

Source: Upper Saucon Township, Township Engineer – Hanover Engineering

Figure 7A: Engineering Concept for SR 309 Northbound Lanes around Center Valley Village Center



Source: Upper Saucon Township, Township Engineer – Hanover Engineering

Village Center Development Guidelines Along Commercial Corridors

As population grows, residents demand that goods and services be available closer to their homes. For decades, the market response has been commercial development along major arterials providing accessibility to large numbers of consumers generally referred to as commercial strip development. Businesses will locate along suburban arterials because they can attract customers who are driving past in addition to those who live or work nearby.

The sustainability and healthy places principles outlined earlier in this plan suggest that commercial strip development results in environmental, social, and economic impacts. And, commercial strip development is not a desired development pattern in any suburban community.

Strategies to Control and/or Eliminate Commercial Strip Development

The desire to control and/or eliminate strip development through policy, regulations, and design standards involves promoting neighborhood-serving commercial development or village center (mixed-use) development patterns along major commercial corridors by applying the following strategies:

- Allow compact mixed-use development at the appropriate scale and density integrated with the neighborhoods they border.
- Provide for secondary or parallel street patterns to make local circulation convenient and to minimize interference with major corridor through traffic.
- Use site design, landscaping, and architectural standards to create a transition between mixed-use development and abutting neighborhoods.
- Regulate mixed-use development to include several individual buildings with single and/or multiple tenants occupying space vertically and/or horizontally with shared site access and shared parking with internal vehicular circulation with pedestrian and bicycle facilities designed to connect with local public roadways.
- Create nodes of village center development along commercial corridors increasing opportunities for transit stops along a major corridor with easy access to and from the corridor to support feasibility of transit service to village center development and abutting neighborhoods.
- Utilize and expand as needed, the Village Commercial Overlay zoning to support this development pattern.

Commercial Strip Development

Commercial strip development is a linear pattern of retail and other commercial businesses along a major roadway, characterized by box-like buildings with prominent parking lots visible from the roadway, multiple driveways, large signs, and a dependency on automobiles for access and circulation.

Source: Controlling Strip Development, APA, Planning Commissioners Journal, Number 53, Winter 2004

Suburban Residential Landscape Development Guidelines

In response to market demands, Upper Saucon Township has focused on the development of suburban landscapes predominantly consisting of residential development. Moving forward, emphasis should be placed on sustainable suburban residential landscapes designed to improve human well-being with guidelines to retrofit existing developments and to provide high quality living as new residential development occurs. In addition to the Township’s existing development regulations, the following design elements should be considered:

- All suburban residential neighborhoods should be improved with sidewalks, paths, and trails with connections to adjacent neighborhoods, planned town centers, existing village centers, shopping centers, public-schools, parks/recreation, public open space, and regional trails.
- Where possible provide bike-friendly streets with separate bike lanes or multiuse paths that connect to a larger bicycle/pedestrian network and bike parking and/or rack where appropriate.
- Design safe, pedestrian-friendly streets including – wide sidewalks on both sides of the street; street furniture; street trees and other landscaping; space for future transit stops/shelters, and on-street parking with narrower streets to reduce speeds and impervious surfaces.
- Allow for mixed densities and residential types as part of a development plan – single-family detached and attached dwellings, townhomes, apartments, and/or condominiums. Promote block level housing diversity with respect to type, choice, and level of affordability. The following is an example of mixed-use housing types and densities that contribute to sustainability.

Table 24: Smart Growth Example Versus Township’s Conservation by Design

| Smart Growth Example of Mixed Density Housing Served by Public Water and Sewer | | |
|---|-------------------------------------|---|
| Density | Housing Type | Example for 10 Acre Development* |
| 6 units/acre | Mix of Detached/Attached Dwellings | 2 acres Attached/Detached units (12 units) |
| 8-10 units/acre | Townhomes | 4.5 acres Townhomes (36-45 units) |
| 10-20 units/acre | Apartments | 1 acre of Apartments (10-20 units) |
| | | 2.5 acres Infrastructure, Open Space, Natural Features, and Parking |
| | Total Units | 58-77 Units |
| Conservation by Design Example of Mixed Density Housing inside the Act 537 Service Area in Township R3 Zone | | |
| Density | Housing Type | Example for 10 Acre Development |
| 6 units/acre for entire tract | Mix of Detached/Attached Dwellings | 2 acres Detached/Attached units (12 units) |
| | Townhomes | 1 acre of Townhomes (6 units) |
| | Apartments (Multi-family Dwellings) | 1 acre of Multi-family Dwellings (6 units) |
| | | 5 acres Required Open Space, Natural Features and Stormwater Management |
| | | 1 acre of Infrastructure and Parking |
| | Total Units | 24 Units |

*Ten (10) acres is the average block size for traditional neighborhood development.

Source: EPA, Smart Growth Guidelines for Sustainable Design and Development (2009).

**Conservation Design Development standards in Township R3 Zone (Section 427 of Zoning Ordinance) applying the maximum of 6 units/acre – the density is based on the entire tract.

- Layout development to maximize potential for use of alternative energy sources such as solar and natural cooling by orienting the longer side of the street grid and/or buildings along the east-west axis.

- Within the Act 537 Service Area, locate housing within a 15-minute walk of commercial and retail uses with community-oriented services.
- Locate front building facades near the front property line. Garages should not replace or block the fronts of residential buildings and entranceways.
- Use green stormwater infrastructure including a range of soil-water-plant systems that intercept stormwater, infiltrate a portion of it into the ground, evaporate a portion of it into the air, and in some cases release a portion of it slowly back into the stormwater sewer system.

Source: EPA, *Smart Growth Guidelines for Sustainable Design and Development (2009)* and *Best Practices can be referenced* – <https://www.epa.gov/green-infrastructure>

Suburban Mixed-Use Landscapes Development Guidelines

Suburban mixed-use landscapes effectively utilize land by creating compact, connected, and walkable development across a community allowing opportunity to preserve open space, natural resources, and agricultural land. Mixed-use development has become one of the most active development models within the real estate sector. Developers and investors are increasingly looking for opportunities to combine different uses with an eye toward “place-making” and the goal of creating destinations that offer multiple draws.

Mixed-used developments contain a variety of uses, including some or all uses, such as multi-family residential, single-family residential, commercial, institutional, industrial and other uses, all conceived, planned, and integrated to create vibrant, workable, livable and attractive neighborhoods where people want to live, work, and play.

Mixed-use landscapes come in various sizes, densities, and economic scale under conditions including, but not limited to the following:

- Mixed-use development options create new village and town centers, expand, and strengthen existing centers and energize old commercial strip malls and shopping centers with renovations and redevelopment projects.
- Mixed-use development is pedestrian-oriented and contains elements of a live-work-play environment.
- Mixed-use development maximizes space usage, has amenities and architectural expression, and may mitigate traffic and sprawl.
- A mixed-use development is generally proposed as a real estate project with a planned integration of uses.

Source: Metro Commercial – <https://www.metrocommercial.com/news/mixed-use-developments-a-look-at-whats-driving-this-trend/>

Place Making

Placemaking is the “process of creating quality places that people want to live, work, play, and learn in.”

Elements Defining the Quality of a Place

- Mix of uses
- Effective public spaces
- Access to technology
- Multimodal transportation options
- Housing options
- Historic preservation
- Preservation of community heritage
- Arts, culture, and creativity
- Recreation and green space
- Visually attractive and good design of buildings and space

Source: *Public Square, Four Types of Placemaking*

Town Center Development Guidelines

A Town Center is a vibrant, economically diverse, and connected development with a strong sense of place supported by an integrated and well-designed public realm. The character of roadways, landscape plantings, lighting, street furniture, and pedestrian facilities helps to shape perception and identity drawing people into this well-defined space.

The public realm is defined as the space around, between and within buildings that are publicly accessible, including streets, squares, parks, and open spaces. These areas and settings support or facilitate public life and social interaction. The public realm and public space must be well designed and programmed year-round. A successful public realm provides a mechanism for an easy mix of commerce, social interaction, and leisure activity that attracts people to a memorable, enjoyable place.

A Town Center may start out with components that are present at the Stabler Business Center and Promenade Shops and develop over time into a dense and compact diverse community with a strong development mix to ensure economic vitality. A vision to create a town center is just the beginning – such as the concept identified in Figure 8: Center Valley Parkway Master Plan on page 104. This concept should be used to develop partnerships to further envision a phased development plan supported by robust market analysis.

The following elements of a town center strategy provide a flexible framework for creative thinking, developing partnerships, and design of a town center or central place where local and regional residents can experience aspects of a walkable, livable, shopping, and entertainment environment in a rural suburban setting.

1. Understand Market Realities – Thriving town centers understand the market they support including factors such as population/critical mass, incomes, anticipated growth, competition, access, and aspirations. In a mixed-use setting such as a town center, retail uses drive residential and office uses. High density residential as part of the town center mix provides a strong market base for retail.
2. Public Realm – A public-private partnership to develop a well-connected and attractive public realm to support town center development and enhance the human experience with a range of pedestrian-scale amenities.

Components of a Strong Town Center

- Anchor Retail, Specialty Stores, and Supermarket
- Dining and Leisure Uses
- Vertical and Horizontal High-Density Residential Uses
- Office Uses
- Hospitality/Hotel Uses
- Civic and Cultural Uses
- Entertainment Uses (Cinemas, Performing Arts, etc.)
- Public Plazas, Water Features, and Natural Features
- Pedestrian Amenities
- Strong Connections to Surrounding Development

Source: Urban Land Institute, Ten Principles for Developing Successful Town Centers

Benefits of Higher Density

- Higher density increases walkability.
- Higher density supports housing choice and affordability.
- Higher density expands transportation choices including access to transit.
- Higher density supports community economic health.
- Higher density helps protect the environment and preserve agricultural lands.

Source: Urban Land Institute, Ten Principles for Developing Successful Town Centers

3. Shared Investment and Shared Risk – The successful development of a town center involves a collaborative public-private partnership to create a vibrant successful development and to leverage private and public assets and investments.
4. Planned Development – A strategy of phased development supported by market demand with unique financing strategies supported by a strong public-private partnership.
5. Integrated Mix of Uses – A mixed-use town center offers a variety of activities such as employment, living, shopping, entertainment, and leisure. The integration of uses creates a neighborhood appealing to those who will be drawn to these uses.
6. Flexible Regulations - Creating a town center requires flexibility of a phased development plan supported by mixed-use zoning* that allows for density and a range of uses that support market changes and flexibility of placement of public infrastructure.
7. Density – Density creates a sense of place and community character. A successful town center is the most densely developed pedestrian-friendly place in the community.
8. Connections – A town center has strong connections to the community and if successful is viewed as a public center not a shopping center. Connectivity includes roads, pedestrian ways, transit, open space, and surrounding neighborhoods.
9. Sustainable Development – Development of the town center must consider economic, social, and environmental considerations. Optimize efficiencies of all systems – multimodal transportation network, building systems, water, and sewer systems, and take advantage of design to utilize alternative energy sources.
10. Commitment to Programming and Management – Development of the town center is a public-private partnership with operation and maintenance of buildings and public realm crucial to long-term success of the town center to sustain an enjoyable place attracting local and regional residents and visitors.

Source: Urban Land Institute – Ten Principles for Development Successful Town Centers

Benefits of Mixed-Use Development and TNDs

Community Character

- Fosters a greater diversity of uses.
- Creates walkable neighborhoods structured around Complete Streets.
- Strengthens the character of the Township as an attractive place to live, work, and play.

Increased Development Options

- Offers more alternatives for residential, office, and commercial development.
- Offers opportunity for diversity of housing with potential for attainable housing.

Flexibility and Efficiency

- Provides flexibility of use.
- Minimizes need to amend ordinances to meet market demands for a diverse mix of development types.

Sustainability

- Decreases vehicular trips and increases walking and biking
- Focuses on form rather than use resulting in development that can accommodate adaptive re-use in response to market changes.
- Promotes concentrated development around high-quality core infrastructure reducing sprawl.

Mixed-use zoning is necessary to support a town center development strategy for living space that blends residential, commercial, cultural, institutional, or entertainment uses, where the mix of uses are physically and functionally integrated with public realm infrastructure, public space, and pedestrian connections.

Strategies to Expand Center Valley Parkway Town Center Development

- Establish public-private partnership with landowners and partnerships with developers.
- Build upon the existing core allowing for the Town Center to become larger using “shopping mall” tools (e.g., land assembly, financing, etc.) to help create development– but do not assume that means new development must behave and look like a shopping mall.
- Conduct Market Analysis and develop a more detailed Phased Master Plan.
- Encourage individual ownership of some parcels and cultivate locally owned businesses.
- Evaluate current zoning and identify zoning necessary to support a Phased Master Plan (e.g. town center or mixed-use campus-style development or other similar types of development).
- Include residential as part of the mix of land uses both as a vertical and horizontal component of development.
- Identify public investment for public spaces, government facilities, and other capital improvements necessary to support development.
- Identify grants and financing mechanisms to support planning, design, and development of the Town Center.

References to Town Centers below are examples of desired development patterns.



Livingston Town Center – Livingston, NJ
Source: Internet



Downtown Robbinsville – Robbinsville, NJ
Source: Internet



Storrs Center – Mansfield, CT
Source: Internet

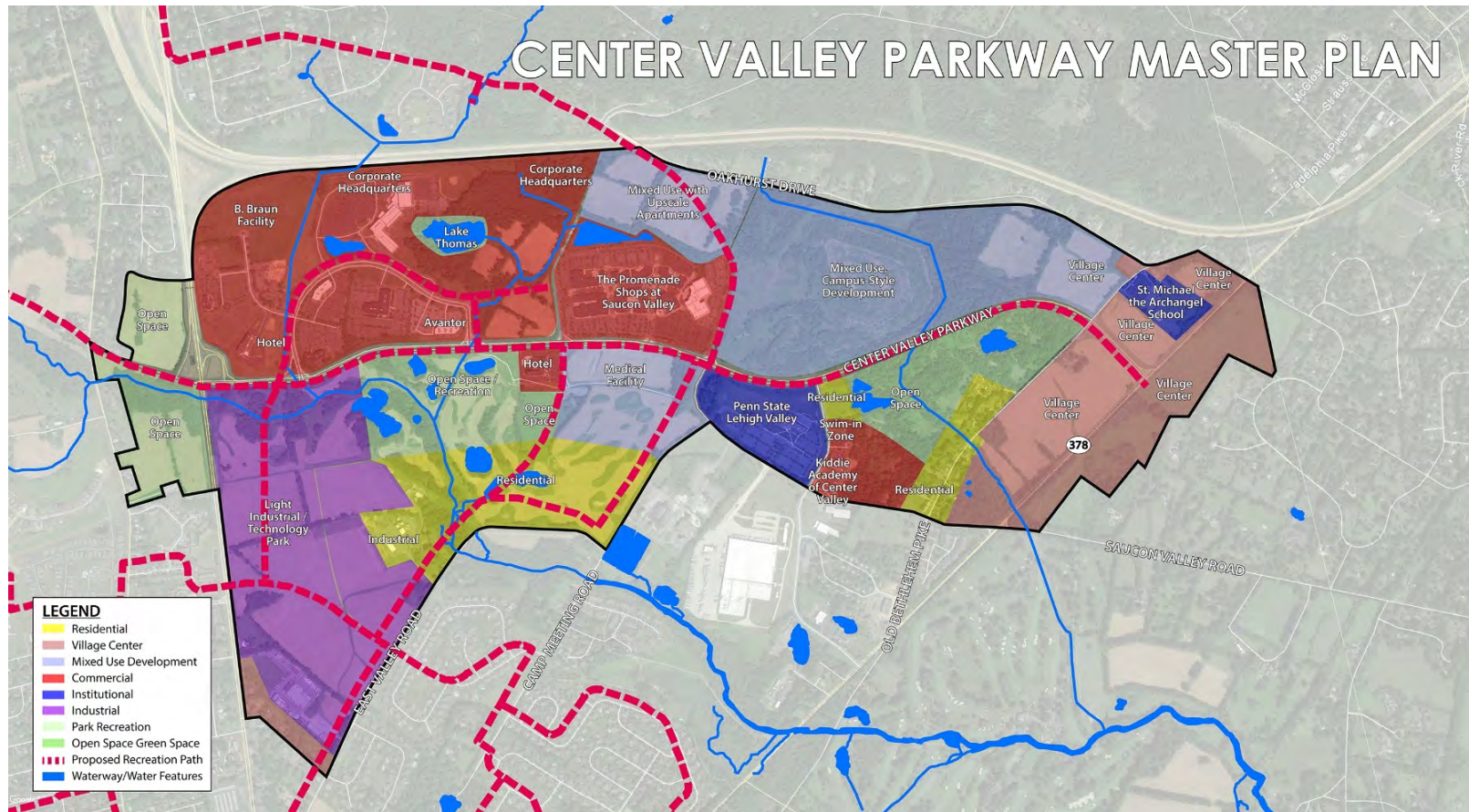


Crocker Park – Westlake, OH
Source: Internet



Southside – Greensboro, NC
Source: Internet

Figure 8: Center Valley Parkway Master Plan for Mixed-Use Development to Support the Town Center



| Master Plan Elements | |
|----------------------|------------------------------------|
| Acres | Mix of Land Use |
| 143.21 | Residential/55+ Community |
| 305.97 | Mixed-Use Development |
| 282.22 | Commercial |
| 40.7 | Institutional |
| 145.75 | Light Industrial/Technology Center |
| 90.35 | Park/Recreation |
| 126.92 | Open Space/Green Space |
| 138.21 | Village Center |
| 1,183.56 | Total |

- ### Campus Style Development Trends
- Productive use of green space.
 - Preservation of natural resources.
 - Links to trails and paths.
 - Use of alternative energy sources.
 - Use of technology.
 - Mixed-use campuses integrating uses.
 - Shared parking.

Figure 9: Center Valley Parkway Master Plan for Mixed-Use Development – Age Restricted Community Concept



Transitional Senior Development Concept

Redevelopment of the abandoned Golf Course provides opportunity for preservation of open space and age restricted development integrated with natural features. The concept includes:

- Affordable residential duplexes
- Assisted care facility
- Nursing home
- Water features as an amenity and stormwater infrastructure
- Indoor and outdoor recreation facilities and paths/trails
- Parking and ground keeping facility

Village Center & Traditional Neighborhood (TND) Development Guidelines

The Township has an opportunity to maximize on the existing Center Valley Village and areas identified on the Future Land Use Map for either new or expanded village center development. Village center landscapes are characteristic of the following:

- A distinct settlement surrounded by other development and rural landscapes.
- A strong sense of community identity based upon history, function, physical environment, and social and cultural environment.
- Residences and small-scale shops, and employment located close to each other.
- Civic and or historic buildings with public space to create a visual landmark or symbol the community can identify.
- A crossroads, visually unified public square, or greenspace.
- Clustered small to medium scale buildings lining the main street uninterrupted by parking lots.
- Development size, scale, and location of buildings promotes pedestrian travel within the village and to and from adjacent residential neighborhoods.
- A mix of smaller scale nonresidential uses with a stronger integration of residential uses and economic development opportunity than a Town Center.

A Traditional Neighborhood Development (TND) is defined by the Pennsylvania Municipalities Planning Code (MPC) as “an area of land typically developed for a compatible mixture of residential units for various income levels and nonresidential commercial and workplace uses, including some structures that provide for a mix of uses within the same building.” Residences, shops, offices, workplaces, public buildings, and parks are interwoven within the neighborhood so that all are within relative proximity to each other.

“A TND is relatively compact and oriented toward pedestrian activity. It has an identifiable center and a discernible edge. The center of the neighborhood is in the form of a public park, commons, plaza, square or prominent intersection of two or more major streets. And, generally, there is a hierarchy of streets laid out with an interconnected network of streets and blocks that provide multiple routes from origins to destinations and are

Village & TND Design Standards

The goal is to ensure that the village center becomes a vibrant, pedestrian-oriented business area rather than a line of shops along a congested roadway.

Site Planning – locate new buildings or additions close to the roadway with parking and loading areas in the rear with appropriate screening.

Encourage variety and uniqueness of infill development location and design. And, create public space for gathering.

Architecture – reuse, adapt, and expand existing buildings with new buildings of similar scale and compatible with existing architecture.

Parking and Traffic – Parking located to the rear of the building with shared and connected parking with landscaping of lots. Traffic calming measures to slow traffic with pedestrian crossings.

Utilities – Where possible overhead utilities should be placed underground.

Zoning – Utilize Traditional Neighborhood Development standards to support mixed-use, village-style development with upper floor living opportunities.

Streetscape – Provide pedestrian and bicycle facilities, lighting, and other amenities.

Signage – Small scale indirectly illuminated signage.

Building Mass & Height – Encourage residential and non-residential building heights proportionally scaled to that of a 2 to 3 story residence.

appropriately designed to serve the needs of pedestrians and vehicles equally.”

Article VII-A of the MPC “encourages innovation in residential and nonresidential development and renewal applying a mixed-use form of development. A TND zoning district or overlay promotes new development of mixed-use neighborhood or village center and extension of existing mixed-use development of varied scale – village center, town center, and other similar mixed-use types of development.”

Source: Pennsylvania Municipalities Planning Code (MPC) <https://dced.pa.gov/download/pennsylvania-municipalities-planning-code-act-247-of-1968/?wpdmdl=56205&ind=0>

TND Concept for New Development or Redevelopment

The following is a concept applying TND Design Standards and LEED Site and Building Design Standards that promote sustainable development. The concept depicts compact, mixed-use development for an approximate 20-acre site surrounded by existing residential and commercial development.

Figure 10: TND Concept for New Development or Redevelopment



The TND concept on the previous page depicts the potential redevelopment of an outdated, underutilized shopping center. The goal of this concept is to demonstrate a walkable village center with various elements of a traditional neighborhood supporting a convenient and healthy lifestyle.

Mixed-use developments are places where people want to live, work, and play. This concept creates a possibility for new development in a similar location or for energizing and redeveloping a tired shopping center. This concept paints a picture of the potential for mixed-use development with uses and densities shown that may not be consistent with current zoning in the Village Commercial Overlay District. This mixed-use redevelopment concept includes townhouses, retail/service space with upper floor living, commercial office space with upper floor living, a range of small-scale commercial uses, and a childcare facility with playground. Amenities include on-street and shared parking, streetscape improvements, pedestrian paths with connections to adjacent neighborhood, and a public plaza.

Conclusions about TND Development

- Mixed-use or traditional neighborhood development has become one of the most active models for developers. These mixed-use developments focus on place-making with a goal of creating destinations.
- This mixed-use concept embraces creating an urban environment in a suburban location focusing on a walkable environment as an extension of Coopersburg Borough with connections to adjacent suburban neighborhoods.
- A fresh look at financial and economic drivers of this development pattern may require the Township to revisit current zoning regulations to accommodate this type of development with the appropriate mix of uses, densities, bulk standards, parking, and other requirements to assure quality development with appropriate safeguards to promote safe, convenient lifestyles.

Gateways and Wayfinding Signage

Gateway designs contribute to branding the Township by reinforcing the character of the community with improvements such as welcome signs, banners, lighting, hardscapes, and landscaping. These improvements can be augmented with PennDOT signage along state routes. Key locations for gateway improvements include:

- Route 309 at Center Valley Parkway
- Route 309 at Bucks County border
- Route 378 at Northampton County border
- Route 145 (Pike Avenue) south of East Rock Road

Demand for Traditional Neighborhood Development

Mixed-use development or TND is a response to changing lifestyle preferences. The following six key factors that drive the demand for this type of development or redevelopment activity.

- Suburban areas becoming more urbanized. Consumers are willing to pay higher rents to live near or in these developments.
- Changing lifestyles where consumers search for locally owned, specialty goods and services.
- Demand for rental units to live closer to jobs and within walking distance to amenities.
- Emergence of co-working spaces to support the desire to work remotely.
- Tax revenue potential is greater for mixed-use developments.
- Sustainable healthier land use pattern.

Source: The Robert Weiler Company

Additional gateways can be placed at locations of transition within the Township such as from suburban and rural landscape to the Town Center, Village Center, and Villages. The strategic placement of wayfinding signage will further strengthen the Township’s branding by identifying valued community resources such as the Township Administration Building, parks, the library, and other amenities. The design of wayfinding signage should be consistent with gateway design elements.

Gateway Goal: Create a gateway design concept that brands the Township uniquely from adjoining municipalities.

Objective: Brand the Township as a sustainable community with urban, suburban, and rural landscapes and amenities.

Strategy: Develop a gateway design concept that is adaptable to various locations. The design concept should include design elements that can be used as part of a wayfinding signage system within the Township.

Concepts of Gateway, Wayfinding, and Bicycle Network Signage

Examples from the internet are shown below to demonstrate the concept of gateways, wayfinding, and bicycle network signage. As part of plan implementation, the Township would explore a design concept for a system of signage that brands the Township’s community character and identity.

Figure 11: Example of Gateway, Wayfinding, and Pedestrian/Bicycle Network Signage



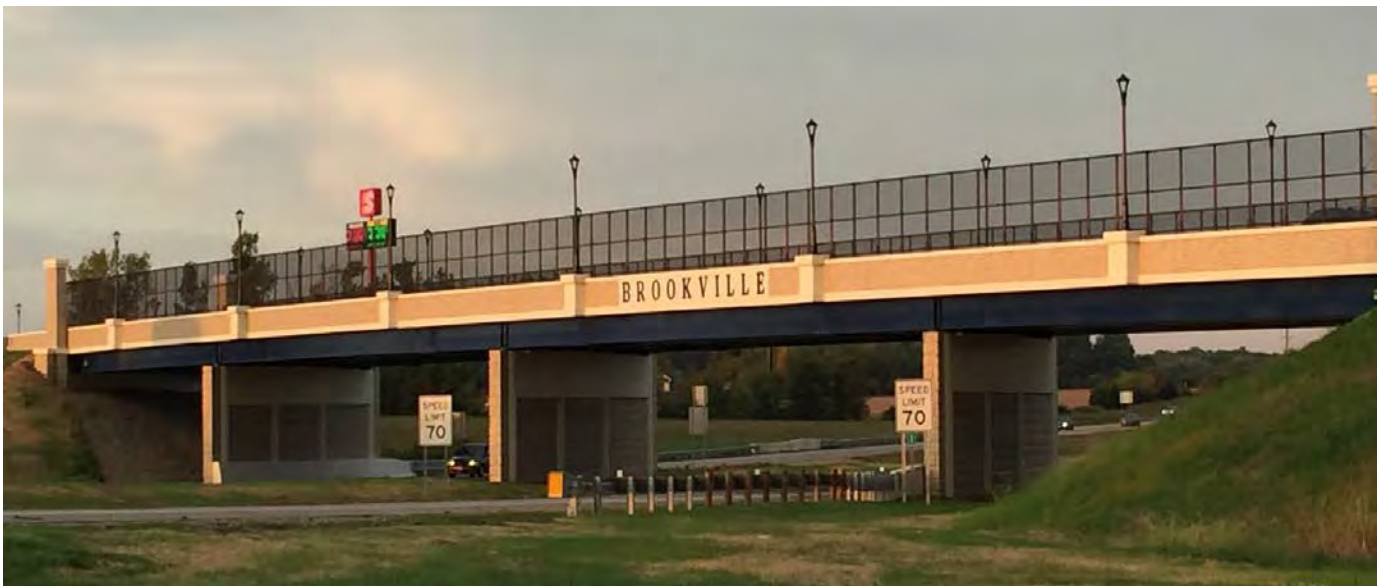
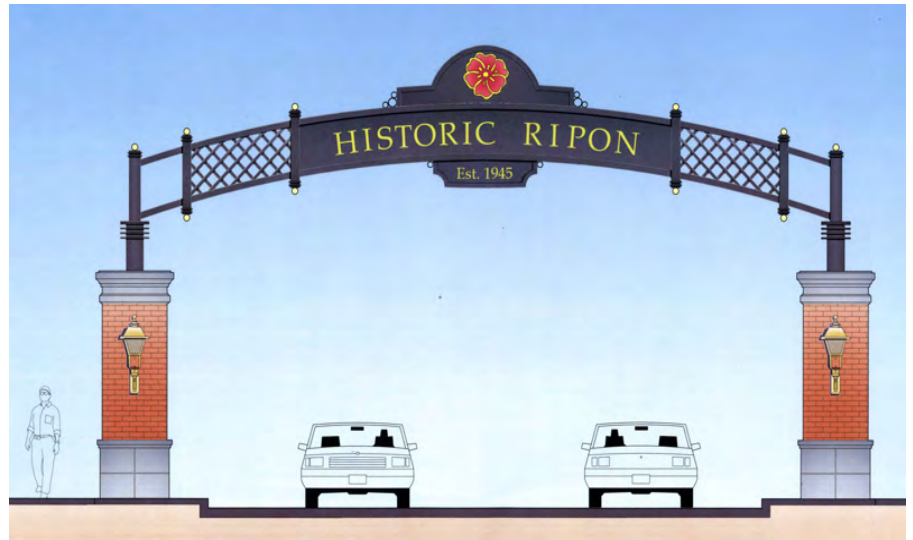
Source: Internet

Purpose of Gateways

- Gateways contribute to building a community brand.
- Gateways contribute to beautification and building community character.
- Gateways can be used to encourage economic growth by improving the visual landscape.
- Gateways can be used to attract and guide consumer traffic to the Town Center and Villages.
- Gateways welcome people entering the Township.

Source: How to Create a Gateway in Your Community, Columbus, OH

Figure 12: Example of Gateways



Source of Images: Internet – Jersey Village, Ripon, and Brookville.

Bicycle and Pedestrian Guidelines

A complete streets policy and design guidelines can offer a safer, more inclusive, and aesthetically pleasing transportation system for all modes of travel and for people of all ages and abilities. The following identify aspects of a complete streets policy and graphic concepts for a suburban community.

- Integrate bicycling and walking into the transportation system.
- Incorporate bicycling and walking facilities into all development and transportation projects unless exceptional circumstances exist.
- Provide buffers for off-road shared use paths or trails in areas of high volumes of truck traffic.
- Include a minimum four-foot wide on-street striped bicycle lane and accessible sidewalks and crosswalks on collector and arterial streets as needed where traffic volumes and speeds increase.
- Include a minimum four-foot paved shoulder and accessible sidewalks and crosswalks as needed where traffic volumes and speeds increase along rural roadways.
- Use traffic calming measures to reduce motor vehicle speeds to levels more compatible with biking and walking in high pedestrian and bicycling areas.

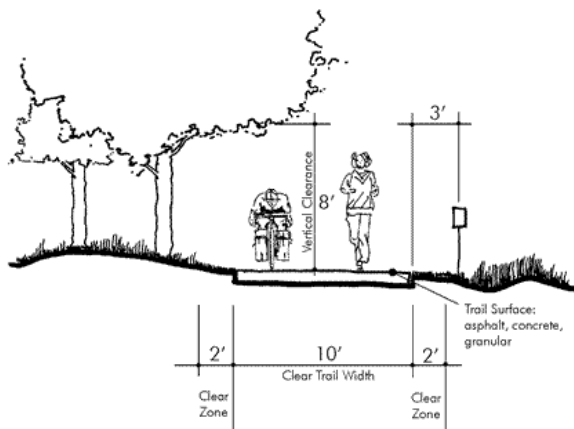
Safety and Sustainability

Suburban and rural roadway options are identified in this section featuring bicycle and pedestrian facilities for residents who do not feel safe sharing the road with motor vehicles including heavy truck traffic.

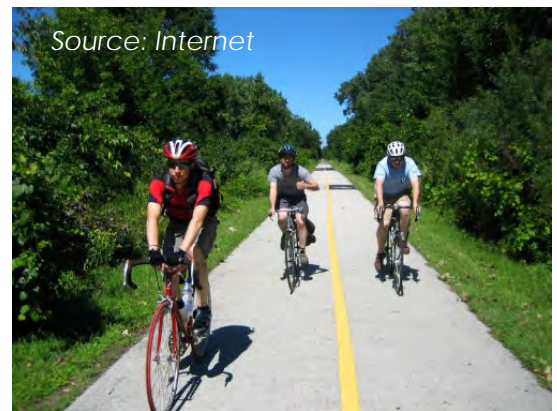
Pedestrians and bicyclists are attracted to safe and accessible facilities that provide neighborhood connections to parks and recreation, neighborhood shopping, government facilities, and schools.

Source: FHWA, Complete Streets

Figure 13: Profile of Trail / Rail Trail Facilities

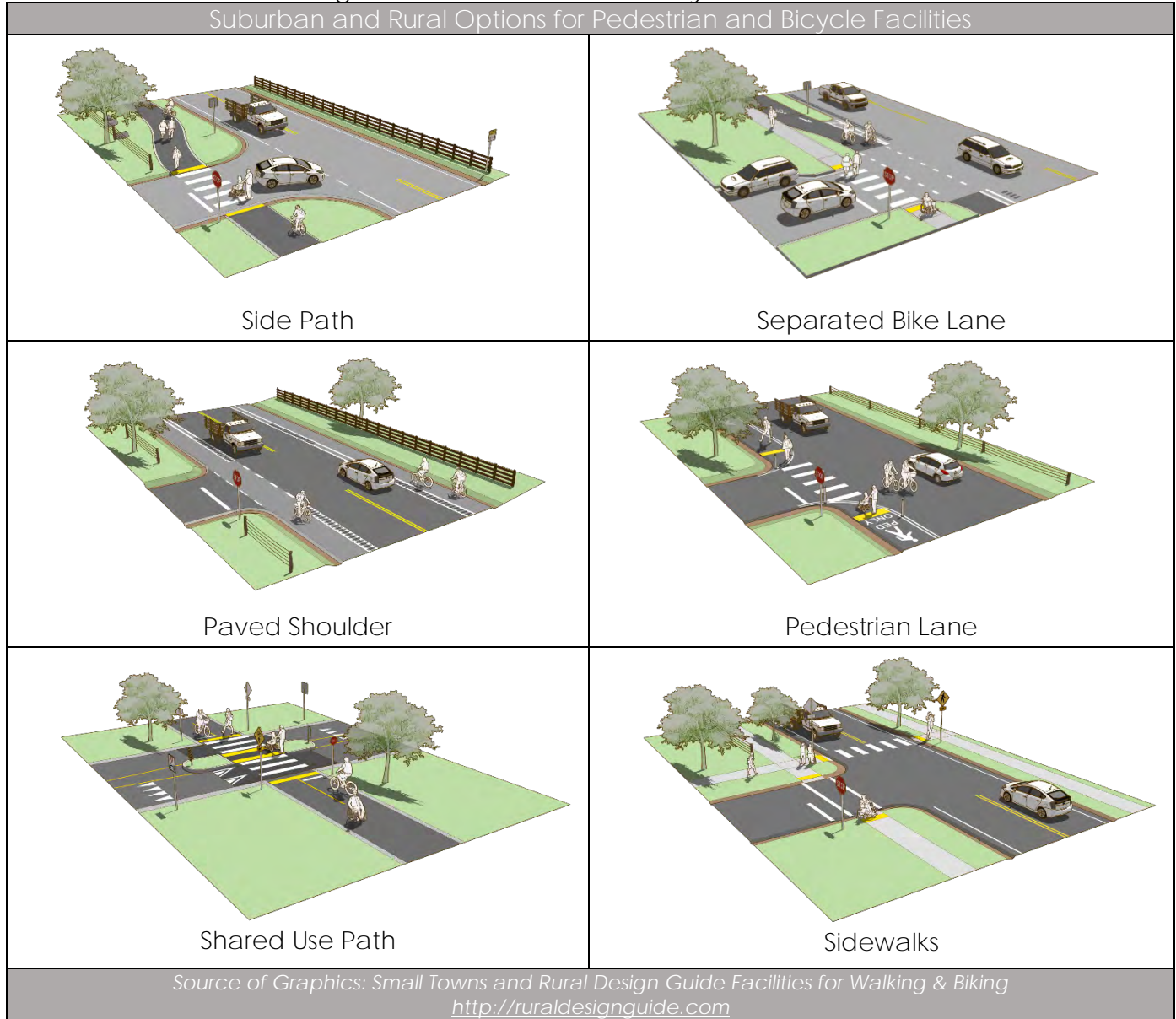


Note: NACTO Shared Use Path Accessibility Guidelines suggest widths from 10-14 feet.



In addition to FHWA, AASHTO, NACTO, ADA, and PennDOT design standards for pedestrian and bicycle facilities, the Small Towns and Rural Design Guide Facilities for Walking & Biking website provides a range of guidelines for bicycle and pedestrian facilities in urban, suburban, and rural environments. The following graphics have been selected from this publication to demonstrate options that address specific safety concerns for pedestrians and bicyclists expressed by residents who are not avid on-road bicyclists.

Figure 14: Pedestrian and Bicycle Facilities



The pedestrian and bicycle concepts shown in this section of the plan should be used along with current design standards to visualize public improvements to be made as part of a development proposal, as part of a public roadway projects, or as part of a public/private partnership.

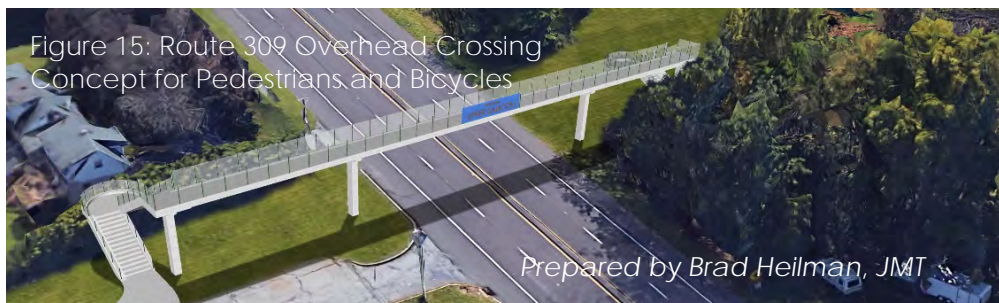
Connection Strategies

Pedestrian walkways and connections are important to creating a sense of place. Map 8 identifies the existing and potential future off-road pedestrian and bicycle facilities providing connections within the Township and regional connections outside of the Township. Strategies to expand connections include:

- Sidewalks/pedestrian walkways must be next to retail space, commercial office, and residential uses.
- Promote construction of missing links in the pedestrian/bicycle networks.
- Sidewalks should be well maintained and located appropriately connecting neighborhoods with schools, shopping centers, government centers, parks/ recreation, and similar uses.
- Sidewalks should be lined with mature trees, improved with high-quality landscaping, illuminated with pedestrian-scale lighting, and improved with pedestrian amenities where appropriate (e.g. such as in Town Centers, Village Centers, and similar types of development).
- Sidewalks should provide access to safe pedestrian street crossings.
- Connect regional trails to centers, corridors, and historic assets.

Potential Bicycle Facility Project

As development opportunities are proposed along the Route 309 corridor, consider the potential to provide an east-west overhead connection with a bike wheel gutter as part of the staircase design with additional improvements to provide ADA compliance. A potential location for consideration is a crossing at St. Luke's Pediatrics to proposed commercial development on the east side of Route 309.



Connections

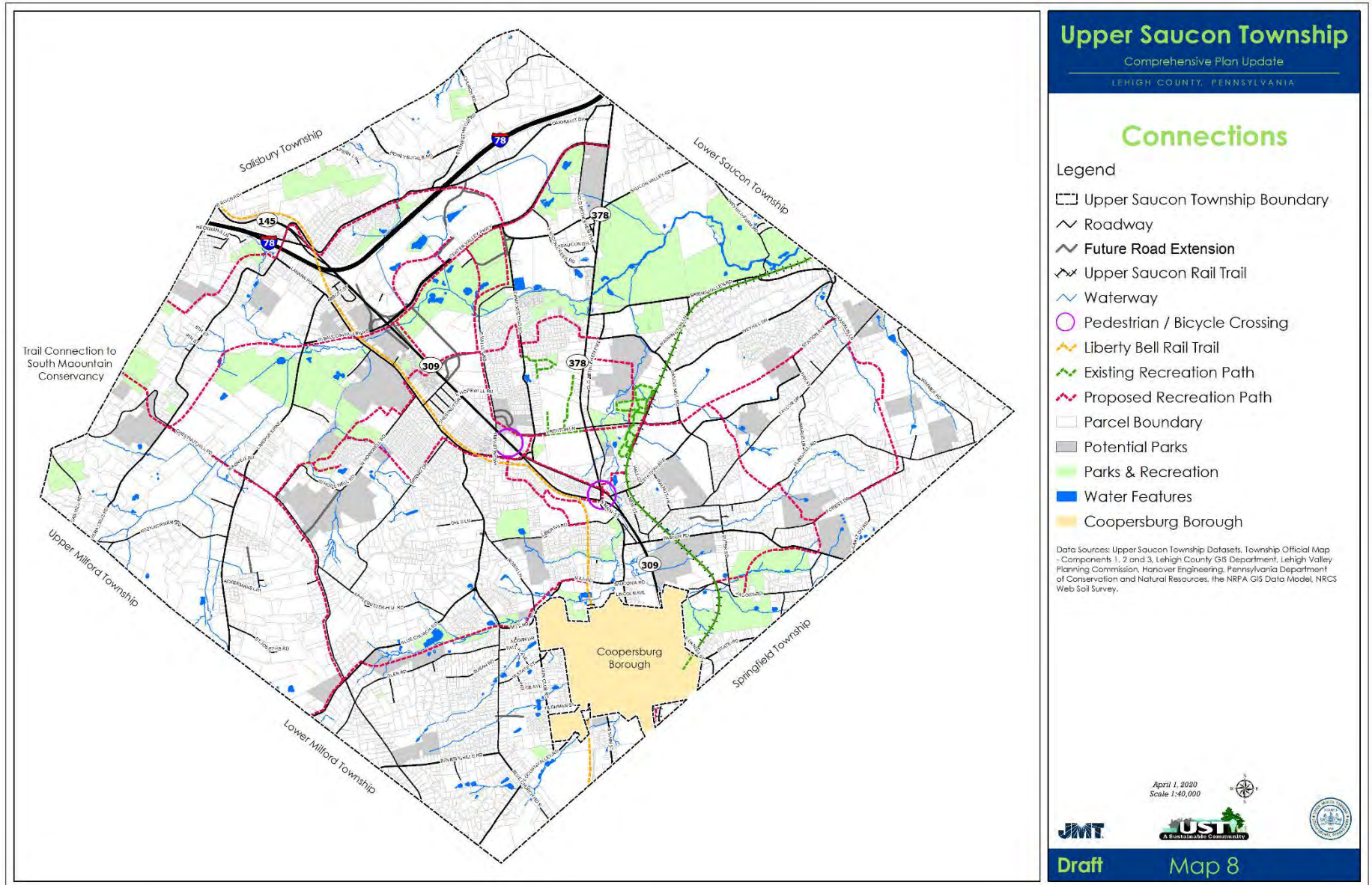
Healthy corridors contribute to all aspects of sustainability (environmental, social, and economic environments). Non-vehicular connections should apply guidance and design standards containing the following relevant planning documents and publications:

- Walk/BikeLV – LVPC’s Active Transportation Plan for the Lehigh Valley
- PennDOT’s Statewide Bicycle & Pedestrian Plan
- FHWA and PennDOT’s Linking Land Use and Transportation Policy integrated with Local Economy and Culture of the Community
- PennDOT’s Connects Initiative
- Pedestrian and Bicycle Safety Index
- FHWA’s Complete Streets Policy
- MUTCD Standards and FHWA Flexibility in Design
- PennDOT Design Manual and AASHTO Standards
- NACTO, FHWA, and NCHRP Design Guidelines
- Americans with Disabilities Act (ADA) Compliance

Sources: LVPC, PennDOT, FHWA, NACTO, NCHRP, and ADA



Map 8: Connections



CHAPTER 10: LAND USE POLICY & PLAN

This Land Use Policy and Plan will play an important role in managing growth in the form of both new development and redevelopment. The land use plan builds on the vision, goals, and objectives to establish a desired policy framework in which future development can occur. The land use plan also provides a guide for managing future development and growth by determining the location, type, and character of future land uses and development intensity and density, as well as identifying areas for environmental and agricultural protection.

The results from Appendix C: Housing Analysis, Appendix D: Economic Analysis, and Appendix E: Build-Out Analysis are used to determine future land use that can accommodate household and employment growth based upon market analysis and the capacity for development under current zoning. This land use plan takes into consideration lands available for development and key opportunity sites to determine a desired future land use that achieves the vision, goals, and objectives of this plan. Map 10 – Future Land Use and the policy outlined in this chapter provide a visual guide for growth management and future development.

Preferred Land Use Types

- Residential – predominantly single-family homes
- Commercial – predominantly villages, walkable main streets, and mixed-use
- Industrial – predominantly agriculture and active farming
- Institutional – predominantly colleges, universities, technical schools, medical facilities, and hospitals
- Recreation – predominantly public parks, paths, and trails

Source: 2018 Public Visioning Workshop and 2017-2018 Community Survey

Land Use Goals & Policy Statements

The overarching goal and policies of this section are augmented with sustainable goals, objectives, and policies from other plan elements detailed in previous chapters.

Overarching Goal – Development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township.

This land use policy and plan sets out to address comprehensive plan elements in the context of growth management to achieve and maintain community sustainability expressed through a framework including:

- Environmental Policy
- Economic Policy
- Social Policy

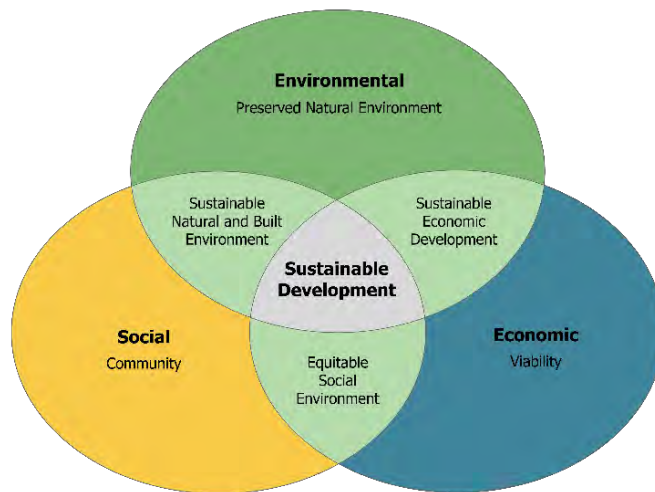


Figure 16: Sustainability Diagram

Overarching Policies Specific to Plan Elements:

- Policy 1: Community Facilities & Services – Provide for adequate public facilities and services through partnerships between local government, authorities, and the development community.
- Policy 2: Natural & Cultural Resources – Collaborate with local and regional partners to reclaim, conserve, protect, and enhance natural, cultural, and agricultural resources and man-made community assets.
- Policy 3: Agricultural Preservation – Collaborate with local and regional partners to reclaim, conserve, protect, and enhance natural, cultural, and agricultural resources and community assets.
- Policy 4: Transportation – Recognize that transportation is a land use and that investment in multimodal transportation improvement contribute to short- and long-term sustainability.
- Policy 5: Housing – Encourage expanded choices in housing location and types, and improved access to jobs and opportunities.
- Policy 6: Economy – Focus on new development and redevelopment of sites to provide a balanced tax base.
- Policy 7: Community Character & Design – Promote design standards for buildings, streets, and open space that work together to define a sense of place.

Defining Growth Policy and Growth Management

A growth policy guiding decisions about development and public investment is the heart of this comprehensive plan. Growth management is a broad planning term consisting of a set of traditional and evolving techniques, tools, plans, and actions that can be used by the Township to guide local patterns of land use and to ensure that as population grows there are adequate public services and infrastructure put in place to meet the demands of growth. Growth management policies seek to shape growth instead of controlling or preventing growth.

Applying a strategy of growth management to become a sustainable community means to apply specific regulatory policies aimed at influencing how growth occurs such as density, availability, and location of land for development, mixture of uses, and timing of development. Planning techniques to achieve growth management goals and to define growth management objectives include adopting smart growth and sustainable community policies and regulations that encourage higher density development, encourage mixed-use zoning, reduce travel by private vehicles, revitalize other areas, and preserve open space.

Goals, Objectives & Policies

Growth Management Goal: Be a sustainable community.

Primary Objective: Minimize environmental, community, and fiscal impacts.

Expected Outcome: Achieve a balance between community and economic development and environmental preservation.

Overarching Land Use Policy: Work with neighborhoods, property owners, and developers to accommodate growth in a flexible, connected, and sustainable manner.

Land Use Policy Objectives:

1. Promote smart growth based upon sound decision making that accounts for competing interests, goals, objectives, and strategies across all plan elements.
2. Achieve performance goals and provide annual report on metrics related to 2040 targets.
3. Coordinate the phasing of development with public and private investment in expansion of public water, sewer, roads, and utilities.

Growth management policies are implemented through regulatory tools such as zoning and subdivision/land development ordinances, environmental performance standards, design standards, and financing tools such as development exactions (e.g. private development contingent upon public infrastructure improvements with dedication requirements, traffic impact fees, lands dedicated for park and recreation or fee in lieu of, conservation design preservation requirements, etc.). The implementation of growth management policies, techniques and strategies should be guided by performance goals, political support, regulation, and developer cooperation.

Growth Management Strategies

- Promote high density development and redevelopment along the Route 309 corridor and Center Valley Parkway creating a denser core and preserving land with a less dense outer ring of development.
- Consider Transfer of Development Rights (TDRs) in conjunction with mixed-use zoning to allow higher densities of residential development mixed with other uses in areas identified to receive development.
- Allocate adequate Township funding to support agricultural conservation easements to meet 2040 local agricultural conservation goal of preserving a total of 1,000+ acres.
- Promote conservation easements, agricultural conservation easements, cluster development/conservation by design, and mixed-use development.
- Understand the timing of development will occur based upon expansion of public water and sewer, upgrade of the water and wastewater treatment plants, and roadway improvements.
- Continue to study and understand market factors that drive the demand for various types of land use in the region as well as locally in the Township.
- Create flexibility in zoning to integrate technology with land use regulations that promotes sustainable development.
- Incorporate flexibility for mixed-use development at appropriate levels of density, intensity, and mix in the Village Center Overlay Zone, the Enterprise Zone, and the Enterprise Overlay Zone using form-based code for these zones.
 - Incorporate Traditional Neighborhood Development standards using form-based codes as part of the Village Center Overlay Zone.
 - Incorporate campus-style development standards using form-based codes as part of the Enterprise Zone and the Enterprise Overlay Zone.
- Conduct a Health Impact Assessment (HIA) and require a review of development/redevelopment plans, capital projects, programs, and/or policies against this plan and the HIA before adopting, building, or implementing polices, programs, and/or projects. This will allow the Township to make informed choices about sustainable community development that will result in improved public health, decision-making, and fiscal responsibility.

Campus-Style Development

Campus-style development is a mixed-use development integrating building type and design (including low-rise and high-rise buildings) using environmentally suitable building and site design.

Campus-style design utilizes open space, public plazas, landscaping, amenities, streetscapes, and signage to integrate use, design, and density of development.

Campus-style development trends included a mix of use including office, education, health care, housing, hospitality, and research and development.

Potential Developable Lands

The existing land use map, potential net developable lands, and opportunity sites were used along with analysis to prepare the Future Land Use Map (Map 10). The following is a summary of potential net developable land inside and outside of the Township's Act 537 Service Area identified by current zoning district. As previously defined, potential Net Developable Lands (NDL) are lands available for development minus environmentally constrained lands. Refer to Map 9 in Appendix E – Build-Out Analysis to view land available for potential development.

Table 25: Potential Net Developable Lands by Zoning District

| Zoning District | Total Acres Zoned | Acres of Potential Net Developable Land ¹ | Acres of Potential Net Developable Land Inside 537 Service Area | Acres of Potential Net Developable Land Outside 537 Service Area |
|--|-------------------|--|---|--|
| Agricultural Zoning Districts | | | | |
| Agricultural Preservation (A) – Non-Ag Lands | 1,408.98 | 5.44 | 5.44 | 0.00 |
| Agricultural Preservation (A) – Ag Lands | | 340.41 | 45.77 | 294.64 |
| Total Agricultural Lands | 1,408.98 | 345.85 | 51.21 | 294.64 |
| Residential Zoning Districts | | | | |
| Rural Residential (R1) – Non-Ag Lands | 3,622.36 | 236.15 | 68.68 | 167.47 |
| Rural Residential (R1) – Ag Lands | | 878.29 | 32.27 | 846.02 |
| Suburban Residential (R2) – Non-Ag Lands | 5,911.87 | 274.19 | 172.15 | 102.04 |
| Suburban Residential (R2) – Ag Lands | | 404.66 | 265.33 | 139.33 |
| Multi-Family Residential (R3) – Non-Ag Lands | 552.44 | 8.15 | 6.20 | 1.95 |
| Multi-Family Residential (R3) – Ag Lands | | 30.32 | 30.32 | 0.00 |
| Open Space Residential (OSR) – Non-Ag Lands | 933.44 | 21.70 | 0.44 | 21.26 |
| Open Space Residential (OSR) – Ag Lands | | 105.62 | 0.00 | 105.62 |
| South Mountain Conservation (SMC) – Non-Ag | 1,853.07 | 291.92 | 50.55 | 241.37 |
| Total Residential Lands | 12,873.13 | 2,251.00 | 625.94 | 1,625.06 |
| Commercial Zoning Districts | | | | |
| Commercial (C) – Non-Ag Lands | 195.65 | 9.75 | 9.75 | 0.00 |
| Commercial (C) – Ag Lands | | 51.31 | 51.31 | 0.00 |
| Industrial Zoning Districts | | | | |
| Industrial (I) – Non-Ag Lands | 450.88 | 22.39 | 1.70 | 20.69 |
| Industrial (I) – Ag Lands | | 156.28 | 136.28 | 20.00 |
| Enterprise Zoning District | | | | |
| Enterprise (E) – Non-Ag Lands | 855.19 | 259.88 | 259.88 | 0.00 |
| Enterprise (E) – Ag Lands | | 115.40 | 115.40 | 0.00 |
| Total Non-Residential Lands | 1,501.72 | 615.01 | 574.32 | 40.69 |
| Sub-Total Non-Ag Lands | | 1,129.57 | 574.79 | 554.78 |
| Sub-Total Ag Lands | | 2,082.29 | 676.68 | 1,405.61 |
| Totals | 15,783.88 | 3,211.86 | 1,251.47 | 1,960.39 |

Source: Build-Out Analysis (revised 8/14/2020) – Total acres within Zoning District includes roadways, rights-of-way, and public utilities.

¹Total Net Developable Land – Land available for development minus environmentally constrained lands. Lands available for development with an area under 0.5 acres were considered too small for development and were removed from consideration.

²Calculations for Overlay Zoning Districts covers acreages already accounted for in the top portion of the table.

³The AQC Overlay Zone has been repealed but remains identified on the Zoning Map.

Note: The existing land use was used to determine non-agricultural and agricultural land use acreages by zoning district and planned and approved residential development tracked by the Township is not included in the acreages above. Agricultural and non-agricultural lands include forested land where present – refer to Maps 1, 4, and 6 in the Map Book to view forested areas.

Table 25: Potential Net Developable Lands by Zoning District

| Overlay Zoning Districts ² | Total Acres Zoned | Acres of Potential Net Developable Land ¹ | Acres of Potential Net Developable Land Inside 537 Service Area | Acres of Potential Net Developable Land Outside 537 Service Area |
|--|-------------------|--|---|--|
| Enterprise Overlay Zone (EOZ) – Non-Ag Lands | 193.18 | 135.25 | 135.25 | 0.00 |
| Village Commercial Overlay (VC) ³ | 21.93 | 0.00 | 0.00 | 0.00 |
| Sub-Totals | 215.11 | 135.25 | 135.25 | 0.00 |

Source: Build-Out Analysis (revised 8/14/2020) – Total acres within Zoning District includes roadways, rights-of-way, and public utilities.

¹Total Net Developable Land – Land available for development minus environmentally constrained lands. Lands available for development with an area under 0.5 acres were considered too small for development and were removed from consideration.

²Calculations for Overlay Zoning Districts covers acreages already accounted for in the top portion of the table.

³The AQC Overlay Zone has been repealed but remains identified on the Zoning Map.

Note: The existing land use was used to determine non-agricultural and agricultural land use acreages by zoning district and planned and approved residential development tracked by the Township is not included in the acreages above. Agricultural and non-agricultural lands include forested land where present – refer to Maps 1, 4, and 6 in the Map Book to view forested areas.

Compatibility of Existing Zoning to Meet Future Needs

The following are suggested considerations for zoning changes to meet housing, economic development, and agricultural preservation goals.

- Increase Opportunity for High Density Residential Development. The demand for moderately priced affordable housing suggests a need for more land zoned for high density residential dwellings with the option for townhouses, multi-family dwelling, or apartments in areas identified for village center development and mixed-use/town center development on Map 10 Future Land Use. The remaining 39 acres of potential net developable land zoned R3 with density limited to a maximum of 6 units per acre does not provide adequate opportunity to meet the demand for both moderately priced affordable housing for first time home buyers and rental housing.
 - Allow for Traditional Neighborhood Development (TND) in the Village Center development areas by permitting upper floor living with first floor commercial uses and by permitting multi-family residential uses including professionally managed apartments with a density greater than 8 units per acre.
 - Allow for a mix of uses in the Enterprise/Enterprise Overlay Zone that will result a variety of upper floor living opportunities as part of a mixed-use campus style development.
- Expand the A-Agricultural Preservation Zoning District. Expand this district to incorporate lands current used as agriculture outside of the Act 537 Sewer Service Area and lands used for agriculture production located in the western portion of the Township identified as opportunity site 13 on Map 9 Land Available for Potential Development for these lands making up this opportunity site shown on Map 6 Agricultural & Preservation/Conservation Lands as ASA, prime farmland, and/or farmland of statewide importance.

Relationship with Surrounding Municipalities

Upper Saucon Township is located along the southwest border of Lehigh County with surrounding municipalities described below. The Township partners with surrounding Townships for a variety of projects, shared services, and planning matters.

- Upper Milford Township, Lehigh County (west) and Lower Milford Township, Lehigh County (southwest) – Both municipalities are part of a multi-municipal comprehensive plan entitled the Southwestern Lehigh Comprehensive Plan. The Future Land Use Map for this region suggests consistency at the border with Upper Saucon Township’s Future Land Use Map. Both municipalities are rural in nature – rural landscapes with villages nestled within rolling hills and scenic valleys – with LVPC projected 2040 population of 4,604 for Lower Milford and 9,099 for Upper Milford. The Official Map for Upper Milford does not show any transportation or trail/path projected capital projects that would involve Upper Saucon Township. The multi-municipal plan identifies the top three challenges for this region to include: 1) protection of open space and natural resources; 2) maintenance or reduction of traffic congestion; and 3) increase of job opportunities. Both Lower Milford Township and Upper Saucon Township are subject to the Saucon Creek Watershed Act 167 Plan.

Source: <https://www.uppermilford.net/southwestern-lehigh-comprehensive-plan/> and LVPC Population and Employment Projections – <https://www.lvpc.org/pdf/2017/Pop+Employment%20Projections.pdf>

- Borough of Coopersburg, Lehigh County (south) – The Borough of Coopersburg is surrounded by Upper Saucon Township to the west, north, and east. There are opportunities for the Township and the Borough to cooperate and collaborate on the following projects: regional bicycle and walking trails such as the Saucon Rail Trail and the Liberty Bell Trolley Rail Trail—the Borough has improvements scheduled in 2019 for both projects; a joint wastewater treatment plant and congestion management and safety improvements along Route 309 in partnership with PennDOT. The 2040 population projection for the Borough is 2,812. The Borough recently adopted a Zoning Map update. Generally, there is consistency between existing land use patterns and zoning with some areas that may require special attention.
 - Along the norther boundary, the Township’s Commercial Zoning District abuts the Borough’s R-2 Medium Density Residential District – both zones have existing developed patterns. The potential redevelopment of the Fairmount Shopping Center as a TND would provide compatible infill development with surrounding development in both the Township and the Borough. A crosswalk should be considered to access the site from the Borough’s abutting local roadway and a pedestrian trail to make connections to and from surrounding neighborhoods.
 - Along the southern boundary, the Township’s R-3 High Density Residential District abuts two low density residential districts (R-1 and R-10) in the Borough and a CN-Neighborhood Commercial District. Future development in the Township’s R-3 District to the south of the Borough should provide a transition between residential development (possibly some open space and/or an appropriate level of screening) in the Township with pedestrian access to the Borough’s CN-Neighborhood Commercial District.

Source: <http://www.coopersburgborough.org/wp-content/uploads/2019/01/Coopersburg-Comprehensive-Plan-Adopted-2010.pdf> and <http://www.coopersburgborough.org/streetscape/>

- Salisbury Township, Lehigh County (northwest) – Salisbury Township has a Comprehensive Plan with a Future Land Use Map showing land use classifications that are predominantly conservation, residential, low density residential, and public recreation/open space land uses bordering Upper Saucon Township. While Salisbury has similar land use patterns, they are not as densely developed and have a 2040 population projection of 17,336 – significantly lower than that of Upper Saucon Township. They too have goals of preserving the rural character of their Township.
Source: <https://www.salisburytownship.org/township-info/comprehensive-plans/>
- Lower Saucon Township, Northampton County (northeast) – Lower Saucon Township is part of a multi-municipal comprehensive plan with the Borough of Hellertown and Saucon Valley School District. The Future Land Use Map depicts rural residential, estate residential, very low density residential, and open space as land uses along the border with Upper Saucon Township – all of which are consistent with Upper Saucon Township’s Future Land Use Map.
Source: *Joint Comprehensive Plan* – <https://www.lowersaucontownship.org/pdf/jointcompplan.pdf>
- Springfield Township, Bucks County (southeast) – Springfield Township is predominantly a rural township with a 2040 projected population of 6,055. Their Future Land Use Map indicates Upper Saucon Township abuts an area identified as a Special Attention Area as a land use classification subject to protection of natural resources with this same area zoned as an Agricultural District in Springfield Township. Two of the most-dense developments recently approved in Upper Saucon Township abuts the boundary with Springfield Township – TOA Locust Valley and Brinley Court developments – creating some level of incompatibility with lower density residential development and/or preservation/conservation efforts across municipal boundaries in Springfield Township. Strategies to lessen impacts should focus on assuring stormwater management facilities continue to function properly, homeowners are encouraged to recycle rainwater, and that existing zoning and nuisance ordinances are effectively enforced to assure minimal impact on the environment (e.g. conservation and/or preservation of land and water resources) and on any existing or future public uses and/or rural residential development of a lower density.
Source: *Township Comprehensive Plan* – https://www.springfieldbucks.org/comp_plan.pdf and *Future Land Use Map* – <https://www.springfieldbucks.org/futurelanduse.pdf>
- Milford Township, Bucks County (south) – Milford Township is part of the Quakertown Area Comprehensive Plan and has developed a Planning Direction Document for the Township. The DVRPC has projected the 2040 population for Milford Township at 14,280. This is a predominantly rural township with suburban style development patterns, large warehouse development adjacent to the interchange, and an industrial corridor along Route 663. This rural community has several small villages unique in character with English and German influence. Their planning is built around Development Districts with high density development and natural resource protection through performance zoning with emphasis on preservation of open space.
Source: *Regional Comprehensive Plan* – <https://milfordtownship.org/wp-content/uploads/2018/08/QAPC.pdf> and *Planning Direction Document* https://milfordtownship.org/wp-content/uploads/2018/08/planning_direction.pdf

Sustainability Strategies

The following growth management strategies will contribute to ensuring adequate infrastructure to accommodate growth.

- Ensure developers meet the policies and standards specified within this land-use plan and official land use controls including zoning and subdivision ordinances, stormwater management ordinance, and official map components.
- Streamline the current permitting and development processes to facilitate the type of development and redevelopment desired.
- Coordinate the plans for housing with plans for light industrial and commercial businesses to balance land uses, serve the quality of life needs of the residential areas, foster a positive business climate for light industrial and commercial business, and expand and balance the community's tax base.
- Ensure compatibility of adjacent land uses and provide for safe separation using buffering and screening standards between residential and non-residential uses. In mixed-use developments apply various design standards outlined in Chapter 9 Community Character and Design instead of typical buffering and screening solutions to provide separation where necessary.
- Promote a well-planned, multi-modal community with pedestrian facilities connecting neighborhoods with shopping, dining, employment, education, and recreation. Require new development and redevelopment activity to include pedestrian and bicycle facilities such as sidewalks and trails and connections to existing and future pedestrian, bicycle, or transit facilities.
- Participate in public-private partnership to provide adequate infrastructure to support new growth and redevelopment activity. Note: This plan considers the Township's Capital Improvement Plan (CIP), LVPC Transportation Improvement Plan, Township water policies, and the Township's Act 537 Plan and designated Service Area when determining the ability to accommodate the 2040 growth forecasts and build-out.
- Continue to require developers to pay their proportionate share of infrastructure improvement costs as permitted and dedicate lands for open space, park, and recreation or offer fee in lieu of dedication of lands.
- Consider zoning (zone changes, use of overlays, and zone regulation changes) changes that promote implementation of this plan.
- Conduct a Cost of Community Services (COCS) Study to examine both the tax revenues generated by different land uses and the costs to the Township of providing services to those same uses. They help people understand the fiscal impacts of keeping land in agriculture or as open space versus developing land for other purposes.

Sustainable Strategy Outcomes

- Livable Built Environment
- Harmony with the Environment
- Resilient Economy
- Equity
- Healthy Community
- Responsible Regionalism
- Authentic Public Participation
- Accountable Implementation

Source: Plan Introduction – American Planning Association (APA)

Future Land Use Map

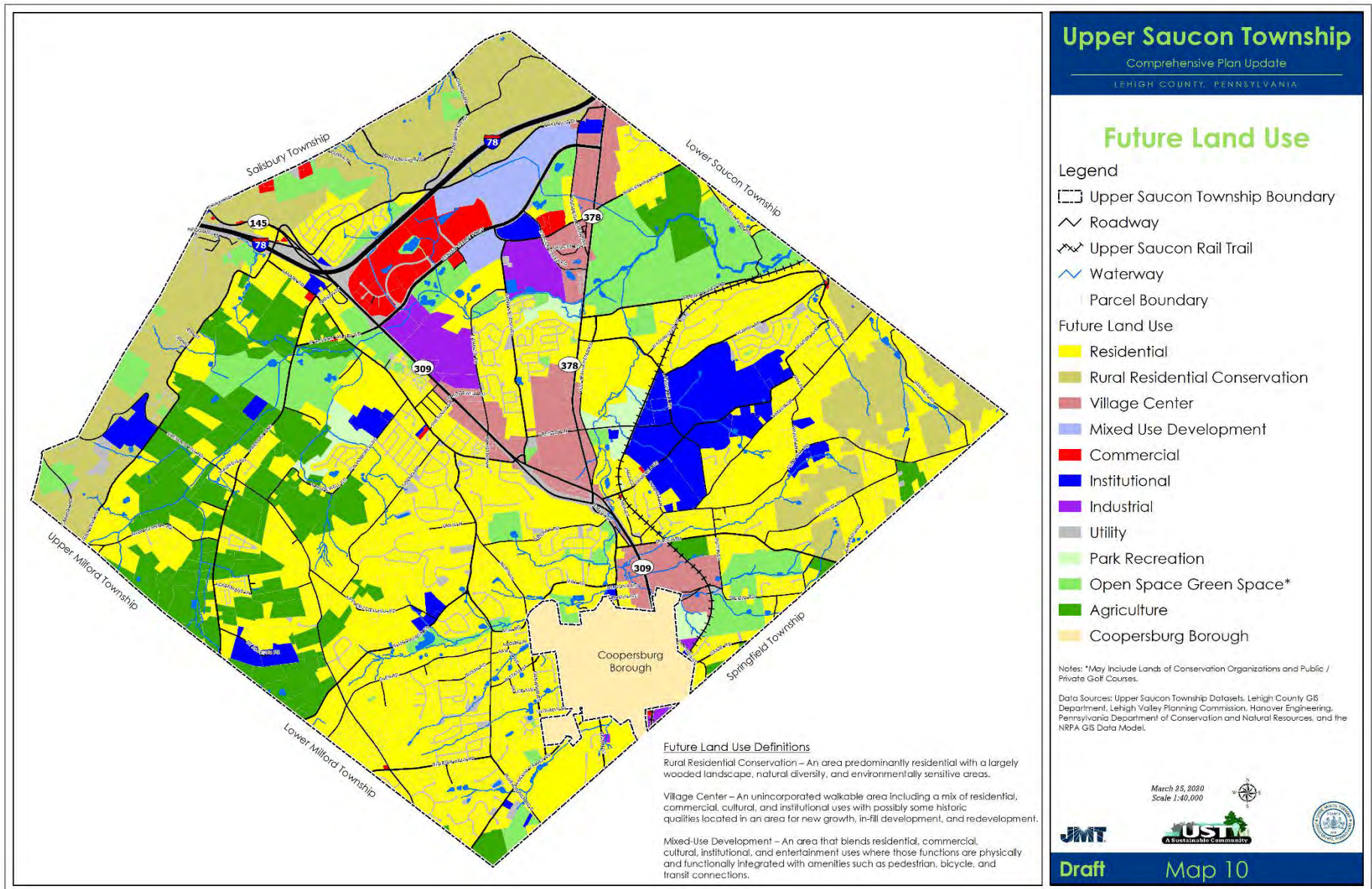
Map 10 – Future Land Use for Upper Saucon Township is shown on the following page. This map depicts the allocation of land by classification with explanation of each described below.

Table 26: Future Land Use Classification and Percentages

| Percentage of Land | Land Use Classification |
|--------------------|---|
| 11.01% | Agricultural – Land that consists of Class I and/or Class II soils in the Soil Conservation Service land use compatibility classification: and other soils suitable for use actively in the production of food, fiber, or livestock. Agricultural land also includes wasteland that is part of the farm unit. |
| 12.72% | Rural Residential Conservation – Land including sparsely developed areas where the land is primarily used for farming, forestry, open space, or very low-density residential uses. |
| 42.54% | Residential – Land designated for residential and residential support uses including areas identified for low, medium, and high-density residential uses of various types including, but not limited to single-family attached and detached dwellings, townhouses, apartments, and condominiums. |
| 4.66% | Village Center – Land where villages exist or land designated for newly created small, compact centers of predominantly residential character with a core of small-scale, lower density mixed-use commercial, institutional, residential, public space, and community services. A village center typically has a recognizable center, discrete physical boundaries, and a pedestrian scale and orientation. |
| 1.60% | Mixed-Use/Town Center Development – Land designated for integration of a variety of medium to large-scale and higher density land uses including residential, office, commercial retail, services, public open space, entertainment, research and development, education, and employment. These areas can result in measurable reductions in traffic impacts. |
| 1.98% | Commercial – Land designated for retail or wholesale marketing of goods and services, offices or office complexes, shops, hotels, and restaurants. |
| 5.02% | Institutional – Land designated for nonprofit or quasi-public or private uses such as religious institutions, libraries, public or private schools, colleges and universities, technical schools, hospitals or government-owned or operated facilities. |
| 1.91% | Industrial – Land designated for production, manufacturing, distribution, fabrication, or research and development activities including but not limited to industrial parks for light and heavy industrial uses. |
| 7.37% | Utility – Land designated for the transportation networks (roads) and public and private utility infrastructure, wastewater treatment facilities, stormwater facilities, overhead electric transmission, and other similar uses. |
| 1.44% | Park/Recreation – Land designated for public or private recreation (parks, trails, paths, playing fields, and similar), nature-based or athletic education, cultural, or aesthetic uses. |
| 9.75% | Open Space/Green Space – Lands designated for public or private use with natural vegetation and landscaping used for passive recreation or lands eligible for future use and improvement as park and recreation facilities. |

Sources: APA Planners Dictionary (classification definitions) and Acres from Future Land Use GIS Mapping.

Map 10: Future Land Use



CHAPTER 11: IMPLEMENTATION PLAN

Implementation of this plan will assist Upper Saucon Township government and its citizens, businesses, and institutions to reach the vision for future development of the Township and to achieve long-term sustainability. Implementation is essentially the methods, actions, projects, or programs required to carry out the vision for the Township expressed in this plan.

Decision makers of sustainable communities apply a framework – a clear set of community development goals, objectives, policies, and strategies – with standards to achieve a vision of creating livable, healthy communities through a balance of development opportunities with open space preservation protecting natural and agricultural resources. This framework outlined in the chapters of the plan provides the basis for the following short-, mid-, and long-term actions implemented through various partnerships.

Relationship to Other Plans

This plan is an update to the 1985 Comprehensive Plan with the refinement of the vision and plan goals, objectives, policies, strategies, and actions. This plan is intended to consider the purpose and intent of other adopted plans by the Township, County, LVTS/LVPC, and State. Implementation of this plan should be coordinated with the implementation and expected outcomes of other adopted plans in partnership with local, county, state, and federal agencies, and relevant organizations.

Relationship to Capital Improvement Plan, and Annual Budget

The Capital Improvement Plan (CIP) and Annual Budget are the mechanisms to implementing public facility and infrastructure improvements outlined in this plan. These are also implementing tools that can be used to coordinate decision making within the Township and between other jurisdictions (e.g. surrounding municipalities, Lehigh County, LVTS/LVPC, PennDOT, DEP, and other similar entities) to ensure capital investments promote community goals and objectives outlined in this plan. This plan identifies community facilities and infrastructure capital investments, phasing strategies and timeframes, grants, and financing options for projects and programs which are implemented through the CIP and Annual Budget process.

Performance Metrics

Moving forward, the indicators of sustainability serve as a tool to evaluate the impacts of proposed development and plan implementation on the natural and cultural resource environment, social environment, and the economic environment. The 2040 target goals and performance metrics contained in Chapter 11 of the plan document provide the measures to evaluate the level of progress and success of plan implementation.

The level of measurability of these indicators has been documented in various chapters and the Appendices of the plan. Tracking and assessing various indicators to demonstrate progress is important to help determine appropriate regulation and mitigation of impacts as well as to determine future validity of the plan and any need to update the plan in whole or in part as time

Vision 2040

Upper Saucon Township is a municipality with rural, suburban, and urban amenities that coexist in harmony to support a sustainable community.

Note: It is expected that development will occur in a sustainable manner that protects and supports the suburban and rural characteristics of Upper Saucon Township.

passes, as preferences and challenges change, as federal and state regulations change, and/or as local policies and priorities change.

Tracking and Reporting Performance

As implementation occurs, the Township Planning staff shall track, analyze, and report on the status of implementation of the plan by evaluating the performance of the Township and private development in response to local and state regulations and regional and national trends by measuring change over time associated with indicators of sustainability described below.

The following are various metrics and relevant 2040 targets applying data from the Technical Reports in the Appendices of this plan and other noted sources. Initial tracking and reporting will focus on the use of readily available data for items that can be easily measured. For those items that data is not currently available, future tracking and reporting will occur as data is collected and published or as technology becomes available to allow for efficient data collection and tracking. For those metrics and targets that are somewhat vague, more definitive metrics and targets will be identified over time as data, metrics, and technology becomes available.

The metrics and targets identified in this section should be used to guide policy decisions, growth management, and implementation of sustainability strategies, actions, and projects. In accordance with the MPC, the staff and the Planning Commission will prepare an Annual Report of activity relevant to achieving sustainability through policy, regulation, and public and private development to submit to the Board of Supervisors.

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|---|---|--|
| Land Use and Environment | | |
| <p>Sustainable Land Use Policies Homeowners benefit from industrial, commercial, agricultural land, and open space as part of the local tax base – these land uses subsidize school expenses and cost of public services.</p> | <ul style="list-style-type: none"> • Change in land use. • Acres of mixed-use development. • Acres of higher density residential development. • Acres of natural resources and land preserved and conserved. | <ul style="list-style-type: none"> • Promote approximately 20 acres of mixed-use TND redevelopment and approximately 50 acres of new rural village center development. • Promote approximately 10 acres of new high-density residential development as part of mixed-use development. • Provide incentives and enforce regulations to reach a total of 1,000+ acres of preserved or conserved natural resources, woodlands, and watersheds. |
| <p>Agricultural Lands To meet future challenges of food security, the preservation of agricultural land and the future development of agriculture is necessary. Agricultural lands if farmed provide economic, environmental, and social benefits.</p> | <ul style="list-style-type: none"> • Acres of preserved agricultural land. • Acres of agricultural land productively and environmentally sustainably farmed protecting air, water, soils, and habitats. • Reduction of CO₂ emissions and increase in energy efficiency. | <ul style="list-style-type: none"> • Preserve and protect 1,000+ acres of agricultural land. • Encourage 80-90% of preserved agricultural land to be sustainably farmed. • Reduce CO₂ by 20% and increase energy efficiency by 20%. • Encourage the use of autonomous equipment, robotics, and precision techniques. • Encourage the use of 100% biodegradable feedstock. |

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|---|---|---|
| Land Use and Environment | | |
| <p>Quality of Development Walkable and bikeable mixed-used neighborhoods contribute to sustainability and quality of life.</p> | <p>Current Walk/Bike/Transit Scores</p> <ul style="list-style-type: none"> • Walk Score 20 – Car dependent. * • Bike Score 29– Somewhat bikeable. ** • Transit Score 0 – No access to transit. • Miles of pedestrian and bicycle facilities and number of accessible transit-stops. | <p>Improve the Walk/Bike/Transit Score:</p> <ul style="list-style-type: none"> • Achieve a Walk Score of 50-69 – Somewhat walkable • Achieve a Bike Score of 50-69 – Some bike infrastructure • Achieve a Transit Score of 25-49 – a few nearby public transportation options. • Increase pedestrian, and bicycle connections by 10-12 miles and 2 additional transit stops. |
| <p>Community Character & Design Design standards define a sense of place integrating buildings, streets, and open space.</p> | <ul style="list-style-type: none"> • The number of walkable and bikeable mixed-use neighborhoods – complete streets policy and SALDO design standards. • Design guidelines. • Acres of open space preserved via conservation-by-design. • Number of preserved historic structures on National Register. | <ul style="list-style-type: none"> • Require all new development to include pedestrian and bicycle facilities, connected open space, and quality architectural characteristics. • Enhance 50% of existing neighborhoods by providing connections to planned village centers, mixed-use development, and town centers. |
| <p>Historic/Cultural Resources Historic preservation plays an important role in the evolution of the villages, neighborhoods, and older areas of the community having direct impact on the quality of life of residents and workers.</p> | <ul style="list-style-type: none"> • Number of preserved historic structures and/or districts on National Register of Historic Places. • Preservation and salvage measures as part of development and redevelopment activity. | <ul style="list-style-type: none"> • Preserve, adaptively reuse, develop, or redevelop in a sympathetic manner the properties or districts eligible for the National Register of Historic Places. • Continue to survey and undertake preservation and salvage measures for the eligible and undetermined cultural resources. |
| <p>Regulations & Codes Land use controls achieve economic and ecological sustainability.</p> | <ul style="list-style-type: none"> • Agricultural Protection zoning. • Traditional Neighborhood Development combined with Historic Preservation. • Acres of protected environmentally sensitive areas (ESA). • Density and height bonuses for mixed use development. • Act 537 Service Area serves as Urban Growth Boundary (UGB) for the Township. • Dedication of land or perpetual easements for park and recreation, trails, and paths. | <ul style="list-style-type: none"> • Preserve and protect 1,000+ acres of agricultural land. • Promote Village preservation, enhancement, and expansion and planned village centers. • Protect, preserve, and conserve a total of 1,000+ acres of natural resources, woodlands, and watersheds with implementation of stewardship and management plans. • Provide no public water or sewer facilities outside of the Act 537 Sewer Service Area. • Improve approximately 10-12 miles of potential connections through public/private partnerships as shown on Map 8. |

*Source: Walk Score Methodology – <https://www.walkscore.com/methodology.shtml>.

**Source: Bike Score Methodology – <https://www.walkscore.com/bike-score-methodology.shtml>.

***Source: Transit Score Methodology – <https://www.walkscore.com/transit-score-methodology.shtml>.

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|---|---|---|
| Land Use and Environment | | |
| <p>Open Space/Park and Recreation Local parks, recreation, open space, trails, and paths reconnect people to nature. Park, recreation, and open space conserve natural resources and wildlife habitats, protect air and water quality, and preserve open space for current and future generations.</p> | <ul style="list-style-type: none"> • Dedication of lands as development occurs or fee in lieu of for expansion and maintenance of existing park and recreation space. • Private preservation or conservation of environmentally sensitive lands as part of land development. | <ul style="list-style-type: none"> • Provide additional public park acres dedicated or fee in lieu of – 10 acres per 1,000 persons. • Provide additional 10 acres per 1,000 persons of preserved or conserved natural resources, woodlands/forestland, and watersheds. • Encourage the implementation of Forest Stewardship Plans. |
| <p>Air Quality Pollutants in the air affect public health directly and indirectly and, also affects natural and built environments. Transportation and manufacturing are significant contributors to air pollution.</p> | <ul style="list-style-type: none"> • Air Quality Index Daily Report. • Asthma rates – American Lung Association rating of D for region. * • 1 acre of new forest can absorb 2.5 tons of carbon annually with trees 10 years old reaching their most productive carbon storage of 48 lbs. of CO₂/year. | <ul style="list-style-type: none"> • Improve Air Quality Level C or better. • Reduce vehicle emissions – use of alternative fuels and technology. • Reduce travel time to work to less than 25 minutes for 80% of population (smart land use). • Plant tree species that absorb high levels of CO₂ - increase tree cover 20%**. • Encourage forest stewardship and tree planting. |
| <p>Water Quality Ground and surface water quality is at the core of sustainable development and affects local economies, ecosystems, and human health. Surface water quality also affects recreation, aesthetics, and protection of aquatic life and ecosystems.</p> | <ul style="list-style-type: none"> • Township Annual Water Report • DEP water quality monitoring • Waterway designations. • Wellhead protection. • Proper disposal of hazardous household waste. | <ul style="list-style-type: none"> • Increase the LF of watershed restoration and protection. • Protect floodplains from development and preserve floodplains. • Implement Wellhead protection plan. • Implement Nutrient Management Plans for farms. • Explore possibility of a hazardous household waste disposal program. • Reference flooding/runoff below. |
| <p>Flooding/Runoff Polluted runoff and flooding are recognized by the EPA as the single largest threat to water quality. Sustainable development is built to minimize increases in runoff.</p> | <ul style="list-style-type: none"> • Upper Saucon Creek Watershed Act 167 Plan performance standards. • Pollution Reduction Plan targets. • Zoning Ordinance regulation to control runoff and Best Management Practices (BMPs), and performance standards. | <ul style="list-style-type: none"> • Increase the LF of storm sewer and green stormwater infrastructure. • Increase the number of functioning BMPs – reduction in runoff by 1" and 50% reduction of pollutants. • Increase the LF of watershed restoration and protection. • Eliminate illicit discharge. • Decrease the area of non-porous pavement. |

*Sources: <https://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/states/pennsylvania/> and <http://www.dep.state.pa.us/dep/deputate/airwaste/aq/aqm/psiabe.htm>.

**Reference: <https://learn.eartheasy.com/articles/10-carbon-storing-trees-and-how-to-plant-them/> and reference the Township list of permitted trees.

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|--|--|---|
| Land Use and Environment | | |
| <p>Waste/Recycling</p> <p>Sustainability can be achieved through conversion of waste management operations to a reprocessing and low carbon energy producing industry.</p> | <ul style="list-style-type: none"> • % household solid waste and food waste. • % waste recovery. • % waste to energy. • Manufacture processing efficiencies. • Best practices and technology advancement. <p><i>Note: Currently, these items are difficult to measure, but with technology improvements these items can be measured within the planning horizon of this plan.</i></p> | <ul style="list-style-type: none"> • Reduce household solid waste and food waste by 30%. • Recycle, recover, reuse 65%+ of waste. • Promote fully automated sorting and recycling facilities for recovery/energy efficiency. • Convert carbon-rich waste into biofuel. • Encourage landfill mining and resource recovery. • Encourage waste reprocessing to return valuable resources to manufacturers. |
| Comprehensive Plan Topic | Metric | 2040 Target |
| Social Environment | | |
| <p>Population</p> <p>According to US Census Bureau definitions, the Township is considered an Urban Cluster (UC) – at least 2,500 and less than 50,000 people. Population growth poses challenges and impacts of suburban sprawl.</p> | <ul style="list-style-type: none"> • Population amount, density, and diversity – US Census Diversity Index – Township Diversity Index is 28 out of 100. * • 2017 US Population Diversity Index is 60.6 out of 100. * • Growth rates are the annual changes in population resulting from births, deaths, and net migration during the year. | <ul style="list-style-type: none"> • Understand that a population projection of 28,672 for 2040 may not be sustainable. This is a 52% increase with a population density of 1,383 people/square mile. • Recognize that a more sustainable population projection for 2040 is 21,793 with 7,167 households. • Strive for a UST Diversity Index of 50. |
| <p>Quality of Education</p> <p>Quality education of students integrates academics with real-life problem solving around community sustainability (e.g. recycling, farming and nutritious food supply, neighborhoods, environmental protection, physical health and active lifestyles, and energy conservation).</p> | <ul style="list-style-type: none"> • Regional, State, and National rankings (Southern Lehigh School District ranked 71 in the top 100 of PA’s schools). ** • School District and Township education around community sustainability indicators on page 4. • Classroom size and student to teacher ratio. • Job placement rates. • College and trade school acceptance rates. | <ul style="list-style-type: none"> • Continue investments to maintain current ranking and strive to improve rankings where possible. • Continued education around sustainability factors (e.g. website, workshops, presentations, flyers/brochures, etc.). |
| <p>Crime & Safety</p> <p>Safety of the community, fear of crime, and anti-social behavior have a great impact on quality of life and determine where people choose to live, work, and send their children to school.</p> | <ul style="list-style-type: none"> • An overall rating currently – B-. ** • Law enforcement activity – arrest statistics and tracking. • Site and building design to increase safety – CPTED (crime prevention through environmental design) standards in SALDO. • Traffic crash data. | <ul style="list-style-type: none"> • Strive for an overall safety rating – A. • Routinely conduct a CPTED Audit and Site Assessments. • Improve driver safety conditions to reduce crashes at the 3 worst intersections. |

*Source: Diversity Index – The Index is on a scale of 100. Once a jurisdiction reaches 100, the population is evenly divided into two or more race/ethnic groups.

<https://pennsylvania.hometownlocator.com/counties/subdivisions/data,n,township%20of%20upper%20saucon,id,420777928&cfips,077.cfm>

**Sources: NICHE – <https://www.niche.com/places-to-live/upper-saucon-township-lehigh-pa/> and <https://www.niche.com/k12/search/best-school-districts/t/upper-saucon-township-lehigh-pa/>

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|---|--|--|
| Social Environment | | |
| <p>Physical Health/Wellbeing</p> <p>Sustainable communities focus on factors that affect health, life expectancy, wellbeing, and quality of life.</p> | <ul style="list-style-type: none"> • Air Quality Index – D rating. * • Access to physical activity/recreation • Access to health care • Walk and Bike Scores • Healthy work environment • Community health ranking – http://www.countyhealthrankings.org/ | <ul style="list-style-type: none"> • Refer to Air Quality section. • Provide park, recreation, open space, trails, and paths – active recreation opportunities. Refer to Regulations and Codes section. • Provide lands zoned for medical and health care facilities. • Provide quality development – refer to Quality Development section (page 10). • Maintain buildings codes and other regulations that create healthy work environments. |
| <p>Partnerships</p> <p>Public private partnerships build sustainability through increased access to capital, innovation, transfer of risk, and capacity building.</p> | <ul style="list-style-type: none"> • Number of plans and projects developed, designed, and implemented. • Public and private cooperative agreements, mutual support, and formal and informal partnerships. • Technology based employment statistics. • Economic base including technology and research and development employment opportunities. | <ul style="list-style-type: none"> • Increase the amount of private investment. • Increase the level of innovation, efficiency, and cost savings. • Increase in types of employment opportunity in areas requiring technology degrees, certifications, and training. • Increase in economic base including technology and research and development in the Township. |
| <p>Energy Efficiency</p> <p>Use of renewable energy sources reduces water pollution, hazardous waste, and air pollution contributing to achieving sustainability - ensuring access to affordable, reliable, sustainable, and modern energy for all.</p> | <ul style="list-style-type: none"> • Residential monthly consumption of electricity is 857kWh. ** • Percentage of businesses using renewable energy sources. | <ul style="list-style-type: none"> • Reduce residential monthly consumption of electricity by 15%. • Encourage businesses and residents to use renewable energy sources. • Increase the number of major employers, Southern Lehigh School District and commercial and industrial development utilizing renewable energy sources by 30%. |

*Sources: <https://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/states/pennsylvania/> and <http://www.dep.state.pa.us/dep/deputate/airwaste/aq/aqm/psiabe.htm>.

**Source: <https://www.electricchoice.com/blog/electricity-on-average-do-homes/>

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|---|---|--|
| Social Environment | | |
| <p>Accessibility/Traffic Congestion/Safety</p> <p>Strong links between all modes of transportation by “completing the streets for all users” contribute to achieving sustainable development goals.</p> | <ul style="list-style-type: none"> • Vehicle miles traveled (VMT). • LOS D or better for suburban. • LOS C or better for rural. • Increased traffic volumes and congestion increase noise and air pollution. Transportation accounts for 17% of greenhouse gas emissions (well-to-wheel). • Traffic impact studies to measure traffic congestion and impacts on human health, the natural environment, property values, and quality of life. • Traffic safety improvements (e.g. intersection, roadway, and drainage improvements). • Miles of pedestrian/bicycle facilities. • Number of neighborhoods connected to shopping, schools, parks/recreation, and trails/paths. | <ul style="list-style-type: none"> • As population density increases, transit service should increase. • Design and/or upgrade infrastructure to support automated and connected vehicle technology. • Reduce VMT and improve accessibility, mobility, and safety by 20%. • Reduce bicycle and pedestrian fatalities towards zero. • Collaborate regionally to provide diversity in types of jobs within a 20-minute travel time. • Acceptable levels of service throughout the transportation network. • Refer to Quality of Development – walkability, bikeability, and transit. |
| <p>Infrastructure & Utilities</p> <p>The demands of growth require both innovation and the integration of infrastructure and utility planning, design, and construction to support sustainable economic development. Inadequate investment in infrastructure and utilities will deter economic development and impact the quality of life of current and future residents.</p> | <ul style="list-style-type: none"> • Miles of roadway, sanitary sewer and storm sewer line, and equipment and facility improvements, extensions, and maintenance & operations. • Planning, design, and construction of highway access improvements to reduce the truck and commuter travel distance to and from employment hub. • Acres and investment for new park and recreation facilities, expansions, and maintenance & operations. • Utility expansion, upgrades, new technology, and resiliency improvements. • Maintenance, upgrade, and expansion of government buildings, facilities, and equipment. • Number of private installations of new technology, equipment, and systems to support renewable energy. | <ul style="list-style-type: none"> • Township Capital Improvement Plan (CIP), Annual Budget, and Maintenance & Operations program. • Develop partnerships between PennDOT, LVPC/LVTS, the Township, and surrounding municipalities for major roadway capital improvements (e.g. projects on the STIP/TIP, and LVTS Unified Planning Work Program (UPWP)). • Development community investments. • Foster private investment and partnerships with utilities. • Improved regulatory compliance with DEP and other regulatory agencies. • Optimize traffic signals to achieve desired timing and level of service at key intersections and along key corridors. |

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|--|---|--|
| Economic Environment | | |
| <p>Jobs/Economic Growth</p> <p>Sustainable community development promotes development-oriented policies that are formulated to support productive activities, creativity and innovation, entrepreneurship, job creation, and encourage growth of small- and medium-sized businesses.</p> | <ul style="list-style-type: none"> • Number of jobs increase as local and regional population growth occurs – low levels of unemployment locally and regionally. • >20 jobs/acre • Number of green jobs. • Number of commercial, health care, and education jobs. • Increase diversity of jobs to reduce commuter travel times and reduce transportation costs. | <ul style="list-style-type: none"> • Development and redevelopment that produce maximum jobs in a smaller building footprint. • Increase of jobs by 30% collectively in commercial, research and development, and health care markets. • Contribute job creation to maintain low level of local and regional unemployment rates. • Diversity of employment base to reduce commuter travel times. |
| <p>Revenue/Tax Rates</p> <p>A stable adequate source of revenue allows the community to achieve sustainable goals and objectives.</p> | <ul style="list-style-type: none"> • Development Fees • Real Estate Tax • Earned Income Tax • Realty Transfer Tax • School Tax • Local Service Tax | <ul style="list-style-type: none"> • Utilize Municipal Bonds, Green Bonds, and other similar financing to achieve sustainability goals. • Develop public-private partnerships to achieve goals and objectives. |
| <p>Unemployment</p> <p>The unemployment rate is a vital measure of economic performance. An unemployment rate below the natural rate suggests that the economy is growing faster than its maximum sustainable rate, which places upward pressure on wages and prices.</p> | <ul style="list-style-type: none"> • Unemployment rate. • Job retention and job creation. • Diversification of market sectors and supply of jobs for various skill levels and professionals. | <ul style="list-style-type: none"> • Maintain low level of unemployment while providing an available workforce in the region to continue the attraction of business development. • Diversify market sectors. • Continue job retention and job creation strategies. • Increase in employment opportunities that increase household incomes. |
| <p>Business Innovation</p> <p>Technology and innovation not only benefit business but also provides opportunity to develop an intelligent community. Technology and innovation impact environmental, economic, and social sustainability providing a foundation for a change in policies and provide a platform for sustainable growth.</p> | <ul style="list-style-type: none"> • Return on investment. • Competitiveness. • Diversification of products and services. • Productivity levels. • Energy efficiency/savings. | <ul style="list-style-type: none"> • Increase in demand for skilled labor. • Diversify job opportunities. • Higher wages and opportunity for skill development and advancement of labor force. • Foster startup and spin-off business development. • Increase in revenues and greater protection of the environment. |

Table 27: Performance Metrics

| Comprehensive Plan Topic | Metric | 2040 Target |
|--|---|---|
| Economic Environment | | |
| <p>Asset Management</p> <p>Incorporating asset management programs and aligning these programs with community sustainability goals can help ensure a more balanced focus across the lifecycle of various infrastructure. A sustainable focus through procurement, construction, operations, maintenance, renewal, and replacement strategies for public and private infrastructure assets results in environmental benefits and impactful outcomes.</p> | <ul style="list-style-type: none"> • Incorporation of technology and innovation will require more investment through public-private partnerships. • Level of service and other performance measures. • Life-cycle analysis. • Risk assessment. • Project prioritization. • Triple Bottom Line (TBL) – balance between social, financial, and environmental impacts. | <ul style="list-style-type: none"> • Increase the number of public-private partnerships – quantified on a project or program basis. • Improve level of service or performance – measurements unique to type of infrastructure. • Reduce environmental impacts – refer to land and environmental topics. • Increase benefits to community development (social) – refer to social environment topics. • Support continued sustainable economic growth – measure of various indicators of economic growth – refer to economic environment topics. |
| <p>Housing Types/Affordability</p> <p>Land use regulations that permit a range of housing types to meet the needs of families, young professionals, and the elderly is one of several building blocks of a sustainable, equitable, and inclusive neighborhoods.</p> | <ul style="list-style-type: none"> • Housing costs 30% or more of household income is cost burdened. * • Rental unit supply and demand. • Housing for aging population. • Transportation alternatives affect affordability – 18% of household incomes is spent on transportation. • Upper Saucon Township has a Housing Affordability Index of 132 compared to the State Housing Affordability Index of 131.** | <ul style="list-style-type: none"> • Provide 15% -20% of housing supply as rental units in all types of housing for all income levels – apartments, condos, townhouses, and single-family dwellings. • Provide at least 10% of housing supply for age 55+ in various types of housing. • Housing affordability index of 150. |
| <p>Household Income/Poverty</p> <p>Low household incomes and poverty affects the economic prosperity of a community, productivity of the economy, strains government services, and affects quality of life.</p> | <ul style="list-style-type: none"> • Attract and retain jobs that provide a living wage for all levels of education, skills, and professional training. • Wages/household incomes that increase greater than annual cost of living increases. • Continue to promote increased education levels and opportunities for skills training, certifications, higher education, continuing education, and specialized training. • Upper Saucon Township has a Wealth Index of 209 compared to the State Wealth Index of 99.** | <ul style="list-style-type: none"> • Diversify economic base to provide jobs for all skill and education levels. • Foster partnerships between education providers and employers. • Continue education and job training availability for skilled labor jobs. |

*Source: HUD Rent Affordability Index – <https://www.huduser.gov/portal/pdredge/pdr-edge-trending-110716.html>

**Source: Housing Affordability Index indicates that values above 100 affordability increases. Wealth Index indicates that values above 100 wealth is above average.

<https://pennsylvania.hometownlocator.com/counties/subdivisions/data,n,township%20of%20upper%20saucon,id,4207779288,cfips,077.cfm>

Implementation Strategy

- Promote sustainable community development and implementation of sustainability strategies through public-private partnerships.
- Utilize sustainability indicators, metrics, and 2040 targets to measure and report on successful implementation of the plan and progress toward achieving community sustainability.
- Develop and use a Sustainability Checklist including various sustainability indicators that help with planning, reviewing, and measuring sustainability of land development plans and project proposals for new development, redevelopment plans, and infrastructure improvements.
- Consider water, energy, and infrastructure in an integrated approach in cooperation and collaboration with various public and private partners. Treat the private sector as partners and analyze alternatives, implementation, and financial strategies.
- Continue to work collaboratively with public and private utilities and infrastructure owners to set sustainability goals and objectives that support the community goals, objectives, and policies outlined in this plan.
- Use the Implementation Schedule to guide measurable actions.

Implementation Schedule

Those items identified for immediate action are crucial to further strengthening the regulatory framework to manage growth as outlined in this plan and to minimize further loss of agricultural land and open space as part of the Township’s economic base. The following identifies actions with time references and responsibilities to be implemented immediately (1 yr.) and in the short-term (1-3 yrs.), mid-term (1-5 yrs.), or long-term (1-10 yrs.).

Table 28: Implementation Schedule

| Land Use | | | | |
|---|-------------|-----------------------------------|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Amend Zoning Ordinance to include the community development goals and objectives identified in this plan. | Immediately | Staff Time | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning Budget |
| Evaluate TND standards in PA MPC and LVPC Guidance Document to develop specific regulatory design standards as part of VC Overlay. | Immediately | Staff and Solicitor | Township Staff, Planning Commission, and Board of Supervisors | General Fund – Community Development/Planning Budgets |
| Amend VC Zoning District use, bulk, and other requirements and Zoning Map consistent with this plan. Allow for various types and densities of mixed-use development – Town Center, Mixed-Use Campus Style Development, TND, and Rural Village Center. | Immediately | Staff Time and Solicitor | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning Budget |
| Update Zoning Ordinance and Zoning Map to build consistency with this plan and with the Future Land Use Map. Changes include but are not limited to zoning changes along Routes 309 & 378. | Immediately | \$30,000 - \$40,000 Consultant | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning and Engineering Budget, DCED Planning Grant |
| Amend Zoning Ordinance to address inclusionary zoning to achieve affordable housing goals and objectives. | Immediately | Staff Time and Solicitor | Township Staff, Planning Commission, and Board of Supervisors | General Funds – Community Development/Planning Budget |
| Update Official Map based upon content for relevant elements in this plan. | Immediately | \$2,000 - \$3,000 | Staff Time, Engineer and Solicitor | Community Development/Planning and Engineering Budget |
| Conduct a Market Assessment, Master Plan, and evaluation of EOZ District to determine Ordinance Changes and Partnership for development of lands. | 1-5 Years | \$85,000 - \$100,000 | Lehigh University and Township | General Fund and PA DCED Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 28: Implementation Schedule

| Land Use | | | | |
|--|--------------------------|--|--|---------------------------------|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Complete the codification of the Township ordinances with virtual zoning map and make information available on Township web site. | 1-5 Years | \$20,000 - \$40,000 plus annual fee to Codification Company | Township Manager and Board of Supervisors | General Fund |
| Feasibility/Needs Assessment with requirements for On-Line Permitting, Plan Review, Credit Card Payment, and Mobile Inspection Reporting Systems – Explore possibility of allowing residents to pay utility bills and permit fees with a credit card either in person at the Township building or on-line. | 1-5 Years Immediately | Feasibility/Needs Assessment & Requirements \$20,000 - \$30,000 Consultant | Township Manager, Building Permit/Inspection Staff, and Board of Supervisors | General Funds |
| Develop policies and incentives to stimulate redevelopment of older, vacant, or blighted properties (TIF, LERTA, zoning changes for denser mixed-use development, etc.). | 1-5 Years | Staff time. | Township Manager, Community Development | General Funds |
| Explore opportunities for open space preservation via implementation tools such as Transferrable Development Rights (TDR), conservation easements, agricultural conservation easements, or cluster development/conservation design alternatives. | Immediately | Staff time. | Community Development | General Funds |
| Conduct a Cost of Community Service (COCS) Study to determine if development pays for itself. | 1-3 Years | \$50,000 - \$65,000 Consultant | Township Manager and Community Development | PA DCED Grants and General Fund |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 28: Implementation Schedule

| Community Facilities and Services | | | | |
|---|------------|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Continue an aggressive sewer maintenance program to reduce inflow and infiltration within the system. | Ongoing | Annual Budget Allocation | Township and | Sewer Maintenance & Operations Budget and Sewer Fund |
| Implement the Sewer and Water System upgrade Capital Improvement Plan with supporting documentation – update the Act 537 Sewage Facilities Plan and conduct a Water System Study. | Ongoing | \$1M Engineering Consulting Engineer \$5-10M Construction | Township, Upper Saucon Township Municipal Authority, and Upper Saucon Township Sewerage Treatment Authority | Maintenance & Operations Annual Budgets, Capital Improvement Budget, and Municipal Authority Bonds |
| Feasibility Study and Master Plan for Township Building expansion versus new construction options. | 1-5 Years | \$75,000 to \$100,000 Consultant | Township Manager, Departments, and Board of Supervisors | General Fund/Capital Improvement Program/Municipal Bond Funds |
| Assist the Volunteer Fire Department in volunteer recruitment, retention, training, and equipment so the Department can continue to successfully serve the community. | Ongoing | Annual Allocation for Promotion and Support | Fire Department and Township | General Fund, Fire Company & Emergency Medical Service Grants and Volunteer Loan Assistance Program |
| Investigate implementing a pay-per call system in compliance with the Fair Labor Standards Act (FLSA) and investigate the liability for the Township. | 1-5 Years | Staff and Solicitor Time | Fire Department, Township, and Solicitor | Fire Department funds and Township General Funds |
| Continue implementation of the Upper Saucon Community Park Master Plan. | Ongoing | \$300,000 - \$500,000 | Township Manager, Board of Supervisors, Department of Public Works, and Park/Rec Commission | DCNR Grants, General Funds |
| Continue to promote recycling and education through Township website, newsletter, school district, social media, and events. | Ongoing | In-House Resources | Township Manager and Department of Public Works | General Fund |
| Feasibility Study to identify appropriate locations and partners for one-stop drop-off centers for recycling and reuse of a range of items/materials. | 1-3 Years | \$15,000 - \$20,000 plus, up to \$7,500 free assistance from DEP | Township and PA DEP | PA DEP Free Recycling Technical Assistance Program, PA DEP Recycling Grants and General Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 28: Implementation Schedule

| Community Facilities and Services | | | | |
|---|--|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Partner with for-profit and non-profit recycling processors, and institutions to establish one-stop drop-off centers for recycling and reuse. | Ongoing | Cost of 5-6 drop-off centers Containers, Signage, Lighting, and Security Fencing | Township, Recycling Businesses, Non-Profit Thrift Stores | PA DEP Recycling Grants, General Funds, and Business Partner Contribution |
| Establish a Recycling Coordinator position responsible for promotion, education, managing the drop-off centers, and tracking/reporting. | Ongoing | \$22,500 - \$27,500 Annually | Township Manager, Department of Public Works, and Board of Supervisors | PA DEP Recycling Grants, General Funds, and User Fees |
| Update the Township Recycling & Solid Waste Ordinance and develop a recycling promotions strategy and host recycling events for the community (e.g., electronics, furniture, hazardous waste, etc.). | 1-3 Years (Ongoing) | Township Staff | Township Manager and Department of Public Works | General Fund, and PA DEP Grants (e.g., 902 Recycling Grant and Recycling Performance Grant). |
| Consider assistance for maintenance of the Southern Lehigh County Community Pool to keep membership rates affordable. | Ongoing | In-kind Services and possibly a monetary amount TBD by the Board of Supervisors | Township Manager, Parks & Recreation, and Board of Supervisors | General Fund |
| Meet quarterly and coordinate with the School District on issues of mutual concern. | Ongoing | Township Staff | Township Manager, Community Development, and other Departments as needed | General Fund |
| Partner with St. Luke's University Health Network and Universities to conduct a Health Impact Assessment using EPA and Center for Disease Control (CDC) guidelines addressing sustainability indicators and performance metrics outlined in this plan and addressing other key personal and community health trends in the HIA to meet Healthy Places and Sustainable Community principles. | 1-5 Years With updates every 5 years. | \$45,000 - \$60,000 Consultant And Partner In-Kind Services (\$10,000 per partner) Cost of 5-year update TBD. | St. Luke's University Health Network, Lehigh University, DeSales University, and Penn State University. | CDC and EPA grant funds, Township General Funds, PA DCED grant funds, PA Department of Health grant funds, and Partner In-Kind Services. ¹ |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

¹CDC grant funding source – https://www.cdc.gov/healthyplaces/HIA_funding.htm.

Table 28: Implementation Schedule

| Community Facilities and Services | | | | |
|--|------------------------------|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Develop and implement a Healthy Community and Personal Health Campaign, Education, Coordinated Services, and Year-Round Events. | Ongoing | Township Staff, Health Care Providers, Red Cross, and others | Township Manager and Departments | General Fund, In-Kinds Services from Partners, Donations, and Business Sponsors |
| Augment the Township recreation offerings by programming additional diverse cultural events and educational opportunities for art and culture (e.g. theater, painting, dance, etc.). | Ongoing | Sponsored Events and User Fees | Park and Recreation Department, Non-Profit Organizations, Neighborhood Associations, and other Organizations | General Fund, User Fees, and Sponsorships |
| Coordinate programming and promotion of cultural events, activities, and public art with local and regional partners. | Ongoing | Township Staff | Township Manager, Parks and Recreation, DeSales University, Penn State University, Lehigh University, and other Partners | General Fund |
| Develop a comprehensive Records Management System with the goal of digitizing all Township records. | 1-3 Years | Cost TBD (Phased Implementation) | Township Manager and Departments | General Fund |
| Expand customer service delivery through e-government (internet based) solution for all services provided by the Township. | 1-3 Years | Cost TBD | Township Manager and Departments | General Fund |
| Identify and maintain awareness of major threats to local and regional public safety including technology-based threats and large-scale disasters. | Service Provided | Current 911 Tax | Lehigh County – CodeRED to notify citizens of an emergency. | Lehigh County Department of Emergency Management ² |
| Improve the level of citizen disaster preparedness through outreach and education so citizens may ready and educate themselves about their role in emergency management efforts. | Immediate Outreach Available | Current 911 Tax | Lehigh County-Community Emergency Response Team (CERT) education and training, Family Readiness Kit, Checklist, and Family Communications Plan. | Lehigh County Department of Emergency Management** and LVPC Hazardous Mitigation Plan |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

²Source Lehigh County Department of Emergency Management – <https://www.lehighcounty.org/Departments/Emergency-Management-9-1-1/Sections/Citizens-Corp>

Table 28: Implementation Schedule

| Community Facilities and Services | | | | |
|--|---------------------------------------|--|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Explore the possibility of partnering with the Greater Valley YMCA to build a recreation center somewhere in the Township. | 1-5 Years | In-Kind Technical Support Services | Township Manager and Planning Staff. | General Fund |
| Encourage management and key personnel to attend educational conferences and seminars to keep informed about best practices and regional and national trends in their respective fields. | Ongoing | TBD based upon need | Township Manager and Board of Supervisors | General Fund |
| Promote partnerships with local hospitals to promote community engagement programs (e.g., education, screenings, and services through community programming). | Existing Program Immediately | No Cost to Township | Lehigh Valley Health Network | Lehigh Valley Health Network Sponsors |
| Participate in Color Outside of the Lines initiative – Strategic Plan for Diversity and Inclusion for the Lehigh Valley. | Initiated in October 2019 Immediately | Township Staff | Community Action Committee of Lehigh Valley and Municipalities | General Fund (Staff time) |
| Community Character and Design | | | | |
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Prepare and adopt by resolution a Complete Streets Policy consistent with concepts identified in Chapter 8. | Immediately | Staff, Representing Engineer, and Solicitor time | Planning Commission and Board of Supervisors | General Fund – Community Development/Planning & Engineering Budgets |
| Strengthen the Subdivision/Land Development Ordinance consistent with the Complete Street Policy. | 1-3 Years | Township Staff | Township Staff, Engineer, Planning Commission, and Board of Supervisors | General Fund – Community Development/Planning and Engineering Budgets |
| Strengthen the Subdivision/Land Development Ordinance to include site and building design standards that address crime prevention through environmental design (CPTED) requirements. | 1-3 Years | Consultant Costs \$15,000 - \$25,000 | Township Staff, Engineer, Planning Commission, and Supervisor | General Fund – Community Development/Planning and Engineering Budgets |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 28: Implementation Schedule

| Community Character and Design | | | | |
|--|---|--|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Coordinate with PPL to gain easement to overhead utility rights-of-way to allow pedestrian and bicycle paths and trails. | 1-10 Years (ongoing implementation of capital projects) | Township Staff | Township Staff, Planning Commission, and Board of Supervisors | General Fund and CIP |
| Economy | | | | |
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Routinely update the Economic Analysis (Appendix D of this Plan). | 3-5 Year Update Cycle | \$15,000 - \$25,000 Consultant | Township Manager, Planning Staff, Planning Commission, and Board of Supervisors | General Fund, PA DCED Planning Grant |
| Complete a study to define affordable housing in the Township and identify strategies to preserve and enhance workforce housing. | 1-5 Years | \$25,000 - \$35,000 Consultant | Township Manager, Planning Staff, Planning Commission, LVPC, and Board of Supervisors | General Fund, PA DCED Planning Grant |
| Complete the WWTP Expansion and Other Capital Projects. | 1-10 Years | Reference Act 537 Plan Revision \$30 M Capital Project | Authority and Township | Authority Capital Funds/Reserve Funds, Authority Bonds, and PENNVEST Loans |
| Conduct market research and recruitment activity of new retail and entertainment establishments. | 1-10 Years | \$75,000 - \$100,000 Annually Consultant/Developers | Township Manager and Community Development | PA DCED Planning Grants and General Funds |
| Develop public/private partnership for the redevelopment of the Fairmont Village Shopping Center – TND Concept. | 1-5 Years | \$15 M - \$18 M | Private/Public Investment | Developer, Township, State – Commonwealth Financing Authority (CFA), Building in Our Sites Program Funds, and Redevelopment Assistance Capital Program (RACP) Funds/Grants |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 28: Implementation Schedule

| Economy | | | | |
|---|----------------------------------|--|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Partner with the Chamber of Commerce, Lehigh University, DeSales University, and Penn State University to provide incubator space for startup technology companies. Note: Lehigh University is a resource center for the PA SBA and houses a Small Business Development Center and the sole applicant for the Pennsylvania Infrastructure Alliance (PITA). And, Penn State hosts Lehigh Valley Launchbox (LVLB) business accelerator program for entrepreneurs. | 1-3 Years | Utilize existing funding and programs that Lehigh University is designated in as a partner with PA DCED and Carnegie Mellon. | Township, Chamber of Commerce, Lehigh University Small Business Development Center, and PA DCED in partnership with DeSales University, and Penn State University | Various PA DCED Grants/Programs: Ben Franklin Technology Partners Grant, Ben Franklin Technology Development Authority; Venture Investment Program, Small Diverse Business Capital Access Program. Additionally, gain mentoring and training resource from the Partnership for Regional Economic Performance (PREP) program. (Penn State) LVLB no-cost support, resources, and facilities and microgrants. |
| Develop a "Doing Business in Upper Saucon Township" brochure to provide necessary information to the business community. | 1-3 Years | \$1,000 - \$1,500 Inhouse Services | Township Manager, Planning Staff, Chamber of Commerce, and other partners above. | General Fund and Partner Resources |
| Partner with Southern Lehigh School District and universities to establish an education and workforce development program which may include design contests, internships, and continuing education. | 1-3 Years | Staff time and use of State and Local Partner resources. | Southern Lehigh School District, Penn State University, Lehigh University, DeSales University and Local Businesses. | Use of state and local partner resources. |
| Establish a Design Guideline to encourage energy efficient and environmentally sound building and promote architectural standards for residential and commercial construction applying LEED® standards as a guideline. | 1-3 Years | \$15,000 - \$25,000 Consultant or Design Student Workshop | Township Manager, Community Development Staff, and Board of Supervisors | General Fund, University of Pennsylvania School of Design Student Workshop |
| Promote partnerships with local hospitals to provide educational opportunities for residents (e.g., high school, college, and continuing education programs). | Existing Programs Immediately | No Cost to Township | Lehigh Valley Health Network | Lehigh Valley Health Network Sponsors |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 28: Implementation Schedule

| Natural and Cultural Resources | | | | |
|---|----------------------|---|--|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Conservation, Preservation, & Protection | | | | |
| Update the Comprehensive Recreation & Open Space Plan addressing recreational needs for the next 20 years and greenways. | 1-5 Years | Consultant \$50,000 - \$75,000 | Township Staff, Park & Recreation Commission, Planning Commission, and Board of Supervisors | Township and DCNR Grant |
| Open Space Referendum – ¼ of a percent of the Earned Income Tax earmarked for open space preservation. | 1-3 Years | Township Manager and Solicitor | Planning Commission, Board of Supervisors, Solicitor, Environmental Advisory Council (EAC), and Township Staff | Staff Time/General Funds |
| Stream buffer preservation and protection by landowners and Township – buffer designs and tree planting program. | Ongoing | Application Costs | Township and Landowners | DCNR Bureau of Forestry Service and PENNVEST Grants |
| Adopt updated FEMA Floodplain Maps and update relevant Township ordinances and codes to comply with floodplain requirements. | 1-5 Years | Consulting Engineer | Community Development and Consulting Engineer | General Funds |
| Continue to partner with the Wildlands Conservancy and other preservation organizations to protect, promote, and maintain open spaces. | Ongoing | In-Kind Services | Township, Wildlands Conservancy, and other partners. | General Funds and Partner Services |
| Coordinate with the School District, PA Department of Agriculture, Lehigh County, Lehigh Organizations, and farmers, and SBDC to educate and promote farming as well as provide training and incubator for new farmers. | 1-10 Years (ongoing) | School District, State and County Program Funds | School District, Lehigh County, The Seed Farm, Flint Hill Farm Education Center, Pennsylvania Farm Link, Department of Agriculture, and Pennsylvania Association for Sustainable Agriculture (PASA). | Program Funds, Grants, Volunteers, and Non-Profit Programs ³ |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

³Source of PA Grant Programs: <https://dced.pa.gov/program/>. Small Business Administration Online Learning Center: <https://www.sba.gov/learning-center>. Lehigh University is the sole applicant for the Pennsylvania Infrastructure Alliance (PIA). <https://dced.pa.gov/programs/pennsylvania-infrastructure-technology-alliance-pita/>.

Table 28: Implementation Schedule

| Natural and Cultural Resources | | | | |
|--|----------------------|--|--|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Conservation, Preservation, & Protection | | | | |
| Explore with partners the potential to create a farmer’s market in the Township and participate in the Greater Lehigh Valley Buy Fresh, Buy Local Program and identify community supported agriculture (CSA) drop off sites.** | 1-3 Years | In-Kind Services | Township and Partners of the Greater Lehigh Valley Buy Fresh, Buy Local program. Note: DeSales is the local food promoter with Wegman’s and St. Luke’s are other partners. Local Churches and other partners serve as drop off sites in the region. ⁴ | General Services for Staff Time. |
| Subsidize the permanent preservation of lands registered as Agricultural Security Areas. | 1-10 Years (ongoing) | \$150,000 - \$200,000 Township Annual Allocation | Property Owner Support, Lehigh County Ag Board, and Board of Supervisors | Township General Funds, Lehigh County and State Funds |
| Implement capital improvements outlined in the Township’s MS4 Pollution Reduction Plan (PRP). | 1-5 Years | Refer to PRP for details. | | |
| Coordinate with the SHPO to conduct a review and inventory of the Township’s property information of historic resources to prepare a comprehensive survey and to identify historic preservation projects. | 1-3 Years | Consultant \$15,000 - \$25,000 | Township and LVPC staff, Planning Commission, and Board of Supervisors | General Fund and PHMC Historic Preservation Planning Grant |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

⁴Source: Greater Lehigh Valley By Fresh, By Local partnership – http://www.buylocalglv.org/wp-content/uploads/2016/01/BFBL_LocalFoodGuide2017.pdf and CSA drop off sites – <http://www.buylocalglv.org/csa/>.

Table 28: Implementation Schedule

| Transportation | | | | |
|--|------------|---|---|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Roadway Improvements | | | | |
| Northbound Route 309 from split south of Route 378 to Camp Meeting Road (2 northbound lanes widening of Southbound Route 309) – Main Street Revert to 2-way local roadway with painted pedestrian/bike lane as part of northbound lane and sidewalk along southbound lane. | 1-20 Years | \$7M - \$10M (Engineering and Construction) 1 Mile of two lane widening of SR 309 ¾ Mile Sidewalk along Main Street | PennDOT District 5-0 and Township | TIP, PennDOT 12-Year Plan – Highway Funds, Transportation Alternative Funds |
| Interchange Improvements | | | | |
| Partnership with PennDOT for SR 309/Center Valley Parkway Interchange Improvements. | 1-10 Years | \$35.5M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan |
| Intersection Improvements | | | | |
| Mill Road (SR 2024) and Main Street (SR 2024) Intersection Improvements (consider a roundabout as a potential solution). | 1-5 Years | \$2.5 M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan – Highway Funds, LVTS Intersection and ITS Improvement Fund |
| Vera Cruz Road (SR 2023) and Lanark Road (SR 2039) Intersection Improvements. | 1-5 Years | \$3.0 M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan – Highway Funds, LVTS Intersection and ITS Improvement Fund |
| Vera Cruz Road (SR 2023), Oakhurst Drive (SR 2038), and Pike Avenue Intersection and Pedestrian/Bicycle Improvements. | 1-5 Years | \$2.5 M | LVPC, PennDOT District 5-0 and Township | PennDOT 12-Year Plan – Highway Funds, LVTS Intersection and ITS Improvement Fund, and Transportation Alternative Funds |
| Bridge Rehabilitation/Replacement | | | | |
| Limeport Pike (SR 2029) over Tributary of Saucon Creek. | 1-10 Years | \$2.4 M | PennDOT District 5-0 and Township | PennDOT 12-Year Plan and Bridge Program |
| Blue Church Road (SR 2024) Bridge. | 1-10 Years | TBD | PennDOT District 5-0 and Township | PennDOT 12-Year Plan and Bridge Program |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

Table 28: Implementation Schedule

| Transportation | | | | |
|---|------------|------------------------------------|--|--|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Studies | | | | |
| Traffic Signal Optimization Studies. | 1-5 Years | Consultant \$75,000 - \$100,000 | Department of Public Works and Planning | LVTS and General Funds |
| Bicycle/Ped Improvements/Programs | | | | |
| Active (Pedestrian and Bicycle) Transportation Master Plan (including Safe Routes to School). | 1-5 Years | Consultant \$50,000 - \$75,000 | LVTS/LVPC and Township | PennDOT and PA DCED Multimodal Funds, PennDOT and LVTS Transportation Alternative Set Aside Funds, DCNR Grant, and General Funds |
| Bike-Share Program to serve the Stabler Business Park, the Promenade Shops at Saucon Valley, and future development along Center Valley Parkway. ⁵ | 1-10 Years | | | |
| • First Three Years – 2 Stations/20 Bikes. | 1-3 Years | \$60,000 | Township, LVTS/LVPC, LANta, and Businesses | General Funds, Better Bike Share Partnership Grants, and FTA Grants |
| • Second Three Years – 4 Stations/40 Bikes. | 3-6 Years | \$120,000 | | |
| • Third Three Years – 6 Stations/60 Bikes. | 7-9 Years | \$180,000 | | |
| Pedestrian / Bicycle Bridge over Route 309 at Saint Luke’s Medical Center (southbound side) and the Reed Property (northbound side). | 1-10 Years | \$3.5 M - \$5 M | Township, LVTS/LVPC, and Businesses | PennDOT and PA DCED Multimodal Funds, PennDOT and LVTS Transportation Alternatives Set Aside Funds, General Funds, DCNR Grants, Business Contributions, and Municipal Bond Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

⁵Sources: Better Bike Share Partnership Grants: <http://betterbikeshare.org/grants/> and FTA Grants: <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/livable-sustainable-communities/fta-program-bicycle>

Table 28: Implementation Schedule

| Transportation | | | | |
|--|------------|---|---|---|
| Action | Timeframe* | Cost | Implementation Partners | Funding Sources |
| Plan, design, and construct off-road bicycle and pedestrian facilities at priority locations through the Township CIP based upon Active Transportation Plan identified in the Transportation section of this schedule. | | | | |
| <ul style="list-style-type: none"> • First Mile of Liberty Bell Trolley Rail Trail (refer Figure 4 page 41). | 1-10 Years | \$175,000 Engineering \$1M Construction | Township, PennDOT, PA DCED, DCNR, LTVS | PennDOT and PA DCED Multimodal Funds, PennDOT and LTVS Transportation Alternatives Set Aside Funds, DCNR Grants, Business Contributions, Municipal Bond Funds, and Developer Improvements |
| <ul style="list-style-type: none"> • ½ Mile Sidewalk Connections between Stabler Business Park and Promenade Shops at Saucon Valley. | 1-5 Years | \$85,000 - \$90,000 \$500,000 - \$750,000 | PennDOT, PA DCED, LTVS, Developer and Township | |
| <ul style="list-style-type: none"> • Path/Trail Connections between Stabler Business Park and Promenade Shops at Saucon Valley – 10 to12 foot path/trail (approximately 1/4 mile). | 1-5 Years | \$45,000 - \$60,000 Engineering \$250,000 - \$300,000 Construction | Township, PennDOT, PA DCED, DCNR, LTVS | |
| Gateways & Wayfinding Signage | | | | |
| Gateway Improvements at Route 309 and Center Valley Parkway, Route 309 at Bucks County borders, Route 378 at Northampton County borders, and Route 145 (Pike Avenue) south of East Rock Road. | 1-10 Years | \$75,000 - \$100,000 | PennDOT District 5-0 and Township | Township CIP and PennDOT 12-Year Plan Projects |
| Develop a Wayfinding Signage Plan with Implementation Schedule. | 1-10 Years | \$25,000 - \$40,000 (Plan) \$40,000 - \$70,000 (Signage) | Township and Business Community | General Funds and Private Funds |
| Developer Investment Ordinances | | | | |
| Update Traffic Fee Ordinance using this Plan as the basis for land use assumptions. | 1-5 Years | Consultant \$75,000 - \$100,000 | Planning, Township Manager, Planning Commission, and Board of Supervisors | General Funds |

*Note: Timeframe is prioritized based upon effectiveness, required coordination with partners and/or granting agencies, and budget constraints of the Township and implementation partners.

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APPENDIX



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COMPREHENSIVE PLAN 2020 APPENDIX

UPPER SAUCON TOWNSHIP

LEHIGH COUNTY, PENNSYLVANIA



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Appendices Book

This book assembles information gathered, studied, and analyzed during the planning process. Topics include trends and projections, public input, marketing analysis of housing and economic sector supply and demand and impacts of buildout under current zoning with emphasis on targeted opportunity sites. The information contained in this book supports the development of various Comprehensive Plan elements. Appendix A is a summary documenting public input and engagement with the remaining Appendices (B through E) presented as Technical Reports.

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Appendix A: Summary of Public Input – This document summarizes input received for the following forms of public engagement/involvement: Steering Committee meetings/workshops, public meetings/workshops, and community survey. The Township provided opportunity for citizens, property owners, and businesses to engage in discussions about land use policy to support update of the plan. Public involvement was designed to allow each participant to gain a better understanding of facts, issues, and potential consequences or outcomes, and allowed the sharing of different perspectives.

Appendix B: Trends – This report presents relevant trends, demographics, and some projections to describe population characteristics and conditions of housing and the local economy. These factors influence land use policy and development controls as well as provides a baseline for projecting appropriate public facilities and services.

Appendix C: Housing Analysis – This report presents an understanding of housing market conditions providing important context for land use policies. The analysis offers insights into how well the Township's current and proposed residential inventory matches demand and what segments of the market may be underserved. This analysis reviews existing housing supply and market conditions in Upper Saucon and the surrounding competitive market area. And, the analysis then addresses historic and projected demand through 2030, based on LVPC projections.

Appendix D: Economic Analysis – This report presents economic development from the perspective of both regional and local government. The LVEDC has identified the following industry groups for targeted business attraction and retention efforts in Lehigh and Northampton Counties: high performance manufacturing; high value business services; life science research, and manufacturing and food and beverage processing. LVEDC is also focused on recruiting professional office, industrial users, and manufacturers to downtowns and urban redevelopment areas within the Lehigh Valley.

Appendix E: Build-Out Analysis – This report presents Build-Out Analysis is quantified to determine impacts such as 1) population projection; 2) projected number of residential units; 3) number of additional non-residential square feet and projected number of jobs; 4) additional traffic; 5) acres of lost farmland; 7) projected water usage; and 9) other community impacts.

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APPENDIX A SUMMARY OF PUBLIC INPUT



UPPER SAUCON
TOWNSHIP
LEHIGH COUNTY,
PENNSYLVANIA

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Note: Photos/images used in this section are from the internet, public meetings, and Steering Committee meetings and are used for educational purposes.

Upper Saucon Township

2017-2018 Summary of Public Input



INTRODUCTION

The Township provided opportunity for citizens, property owners, and businesses to engage in discussions about land use policy to support update of the Comprehensive Plan. A summary of input is outlined in this document. Public involvement was designed to allow each participant to gain a better understanding of facts, issues, and potential consequences or outcomes, and allowed participants to see and hear the perspective of others. This document summarizes input received during the following forms of public engagement and involvement:

- Steering Committee Work Sessions
- Public Meeting/Workshop
- Community Survey

COMPREHENSIVE PLAN STEERING COMMITTEE

A Steering Committee was established to help guide the Township staff and the Planning Consultant team on various aspects of community development to be addressed in the Comprehensive Plan. The responsibilities of the Committee included identifying priority community issues, determining how to best engage the community, establishing a draft vision for the future of the Township, discussing future use of targeted opportunity sites, and reviewing land use policy, strategies, tools, techniques to achieve the desired vision for the Township.

The Committee routinely met with Township staff and the Planning Consultant throughout the comprehensive planning process. Steering Committee members include:

- Allen Cassaday
- Jack DeMatos
- Tom Gettings
- Samantha Ciotti Falcone
- George Bloeser, Jr.
- Peter Staffeld
- Carolyn Dunham
- Nathan Jones
- Erin Kintzer
- Todd Bergey

CREATING A DRAFT VISION STATEMENT WITH STEERING COMMITTEE INPUT

The Committee completed a series of activities, discussions, and a word association to draft a vision statement to describe the future of the Township. A vision statement is a short description of your hopes and dreams for the future. Additionally, the Committee provided input for a logo and slogan for the Comprehensive Plan update. The following draft vision statement was prepared by the Committee for review and comment by the public as part of the April 2018 Visioning Workshop.

Draft Vision Statement: Upper Saucon Township is a municipality with rural, suburban, and urban amenities that coexist in harmony to support a sustainable community.

APRIL 2018 VISIONING WORKSHOP



YOU'RE INVITED

**SHARE YOUR VISION FOR THE FUTURE OF
OUR COMMUNITY**

WHAT: PUBLIC INTERACTIVE WORKSHOP TO DISCUSS
THE ISSUES AND PLAN FOR THE FUTURE OF UPPER
SAUCON TOWNSHIP

WHEN: MONDAY, APRIL 23, 2018 7:00 - 8:30 pm

WHERE: SOUTHERN LEHIGH HIGH SCHOOL CAFETERIA

WHY: WE NEED YOUR INPUT ON HOW TO GUIDE GROWTH
AND ADDRESS COMMUNITY CONCERNS

DON'T MISS THIS OPPORTUNITY TO PARTICIPATE
UPPER SAUCON TOWNSHIP COMPREHENSIVE PLANNING COMMITTEE

VISIONING WORKSHOP AGENDA

Upper Saucon Township

Comprehensive Plan Update – Public Meeting April 23, 2018

Tonight, you will have a chance to share your vision for the future of the Township.

Meeting Agenda

Upper Saucon Township is updating its comprehensive plan and vision for the future of our community. The planning process includes study, discussion, and community input to determine the appropriate locations in the Township for development, preservation, and conservation of land.

6:45 – 7:10 PM Sign-In

If you have not already done so, please take the community survey while waiting for the meeting to start. Use the link below to access the survey on your smart phone.

<https://www.surveymonkey.com/r/BLZPYV5>

7:10 – 7:15 PM Welcome

Trisha Lang, AICP, Director of Community Development
Upper Saucon Township, Lehigh County, PA

7:15 – 7:30 PM Planning Process, Schedule & Meeting Activity Overview

April Showers, AICP, Planning Consultant
Johnson, Mirmiran & Thompson, Inc.

7:30 – 8:30 PM Group Activity Instructions & Station Identification

Group Instructions

- Meeting attendees are divided into groups based upon the colored dot displayed on name tags.
- Each group will participate in all four stations – given 15 minutes for each station.
- Group members are encouraged to provide independent opinions, preferences, and ideas as well as collaborate with other group members to provide important input.

Once you have finished all four workstations you are free to go –
Thank you!

COMMUNITY SURVEY

Meeting participants were encouraged to use their smart phone or paper questionnaire to respond to a quick community survey about future development of the Township. The survey was posted on the Township website for two months to gain maximum input. Results of the survey are detailed later in this document. The results were used along with study analysis and Committee guidance to support plan development.

WORKSHOP PRESENTATION



The presentation to meeting attendees included a brief introduction and explanation of the Comprehensive Plan update was provided by Trisha Lang, AICP, Director of Community Development for Upper Saucon Township. Trisha provided background and insight related to the decision to update the Township's 1985 Comprehensive Plan. The Pennsylvania Municipalities Planning Code (MPC) requires the Township to evaluate their plan every 10 years to determine if still relevant.

Township staff and the Planning Commission determined that although there may be some important aspects of the 1985 plan that may be still valuable, for the most part, the plan requires a fresh look, vision, and strategy for the future preservation and development of the Township.

Implementable Plan

The Township has tasked the JMT consultant to develop an "implementable plan" built around a process of collaboration, citizen engagement, and education. Implementable aspects of the plan will include an action-oriented section with policy and land use regulation recommendations, capital projects, programs, and strategies including partners, ranges of costs and/or investments, funding sources, and timeframes.

Implementation will also be focused on what the Township can accomplish working with local, regional, and state partners including, but not limited to the following:

- Property owners and the development community
- Surrounding municipalities
- Lehigh County, Lehigh Valley Planning Commission, Lehigh Valley Economic Development Corporation
- LANta
- PennDOT District 5-0
- Others to be determined through the planning process.

Developing an Implementable Plan

Planning Approach – Providing Intelligence for Decision Making



A process and plan that local officials and citizens embrace.
Focus on relevant and real community issues.



Sustainable vision, goals, objectives and policies tied to actions.
Facts, practical tools and workable recommendations.



Community buy-in through public engagement, involvement and input.
Political buy-in through participation and education of elected officials throughout the planning process.



Organizational structure to plan and implement.
Partners who help to plan and build capacity to implement.

Start implementation while planning is underway!

Project Schedule

The project commenced in August of 2017 working with the Township staff to review and refine the scope of work, identify opportunity sites for community development, review of plans and maps, and other projects running concurrently. The Township identified members for a Steering Committee and scheduled an introductory meeting for JMT to present an overview of project approach, plan update schedule, and meeting/work session frequency for the Steering Committee.

The Steering Committee participated in a series of meetings including presentations of key information, interactive discussions, activities, and reading assignments. The Steering Committee members provided input and guidance to Township staff and the Planning Consultant as part of the plan update process involving stakeholders, citizens, and business/institution representatives. Working with the Committee and Township staff, a draft plan and a series of edits were completed from 2018 through 2019. A final draft plan was submitted in early 2020 with Committee and Planning Commission review. Township Staff took several months to review the plan followed by editing by the Planning Consultant. Planning Commission final review, a public meeting, a public hearing, and formal adoption was scheduled for the last quarter of 2020.

Fact-Based Plan to Achieve Sustainability

Citizen and stakeholder input were used to provide a basis to further investigate, analyze, and interpret socio-economic data, traffic data, land use/development, housing trends, and economics. This fact-based approach uses issues, opinions, and preferences with technical analysis to support development of policies, strategies, and a phased implementation plan. Readily available data from the Township, Lehigh County, Lehigh Valley Planning Commission (LVPC), Lehigh Valley Economic Development Corporation (LVEDC), the US Census, and other recognized data sources were used in the planning analysis.

The following [definition of a sustainable community](#) is used to describe what the Township has targeted to achieve through fact-based analysis, policy, and strategies to guide local and regional decision makers.

Sustainable communities are “economically, environmentally, and socially healthy and resilient” and meet “challenges through integrated solutions rather than through fragmented approaches.” Sustainable communities take a long-term perspective, focusing on “both the present and future, well beyond the next budget or election cycle.” (Institute for Sustainable Communities)

Sustainability metrics analyzed as part of this process include such factors as:

- [People & Households](#) including population projections, income, special needs populations, individuals in the workforce, education attainment, and labor force.
- [Housing](#) including household income, housing types, cost, and, housing demand.
- [Land Use](#) including agricultural, open space, parks, recreation, residential, commercial, institutional, and Industrial uses, vacancies and opportunities, and development trends.
- [Transportation](#) including accessibility, mobility, multimodal options, and reliability.
- [Economics](#) including growth, employment sectors/jobs, cost of living, government tax and organization structure, budgets, and capital improvement program.



TOP THEMES



- Emphasize rural and suburban character of the community
- Regulate type, amount, and timing of development to lessen community impacts
- Preserve farms and open land
- Plan long-term, not short-term
- Balance development and preservation goals to achieve sustainability for the Township

Public Workshop Summary

Upper Saucon Township hosted a Visioning Workshop on April 23, 2018. Participants reviewed and prioritized challenges facing the Township and identified what they would like to see the Township focus on regarding growth and long-range plans for the Township.

Participants reviewed and edited a draft slogan and vision statement, ranked bicycle and pedestrian facility types based on their preferences, and identified community resources that should be preserved and expanded.

Example of a Draft Vision Statement Used to Gain Workshop Input

“Upper Saucon Township is a municipality that **balances** preservation of **open space** with **development** and **effective infrastructure**.”

Note: This draft vision statement was reviewed and considered by the public and the Steering Committee as part of their work to develop a vision statement for the plan and other details that support that statement. The above example was used to start the discussion to gain input from the participants of the Public Workshop.

Top Community Issues:

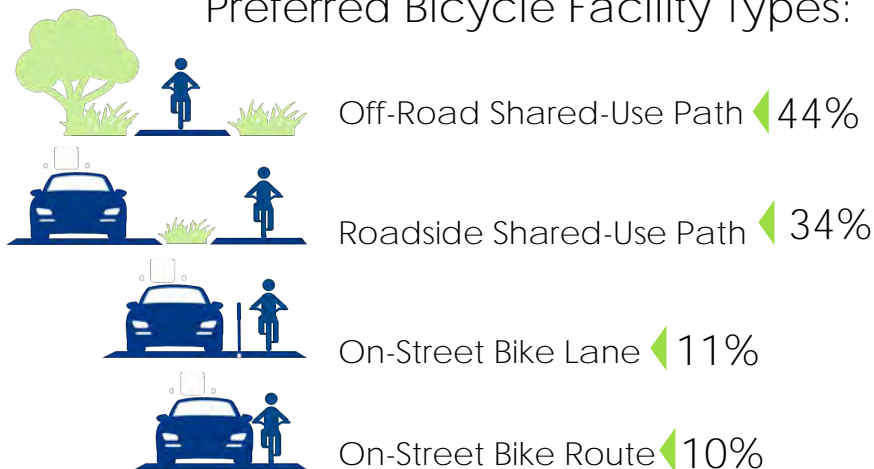


Missing Bicycle & Pedestrian Connections:

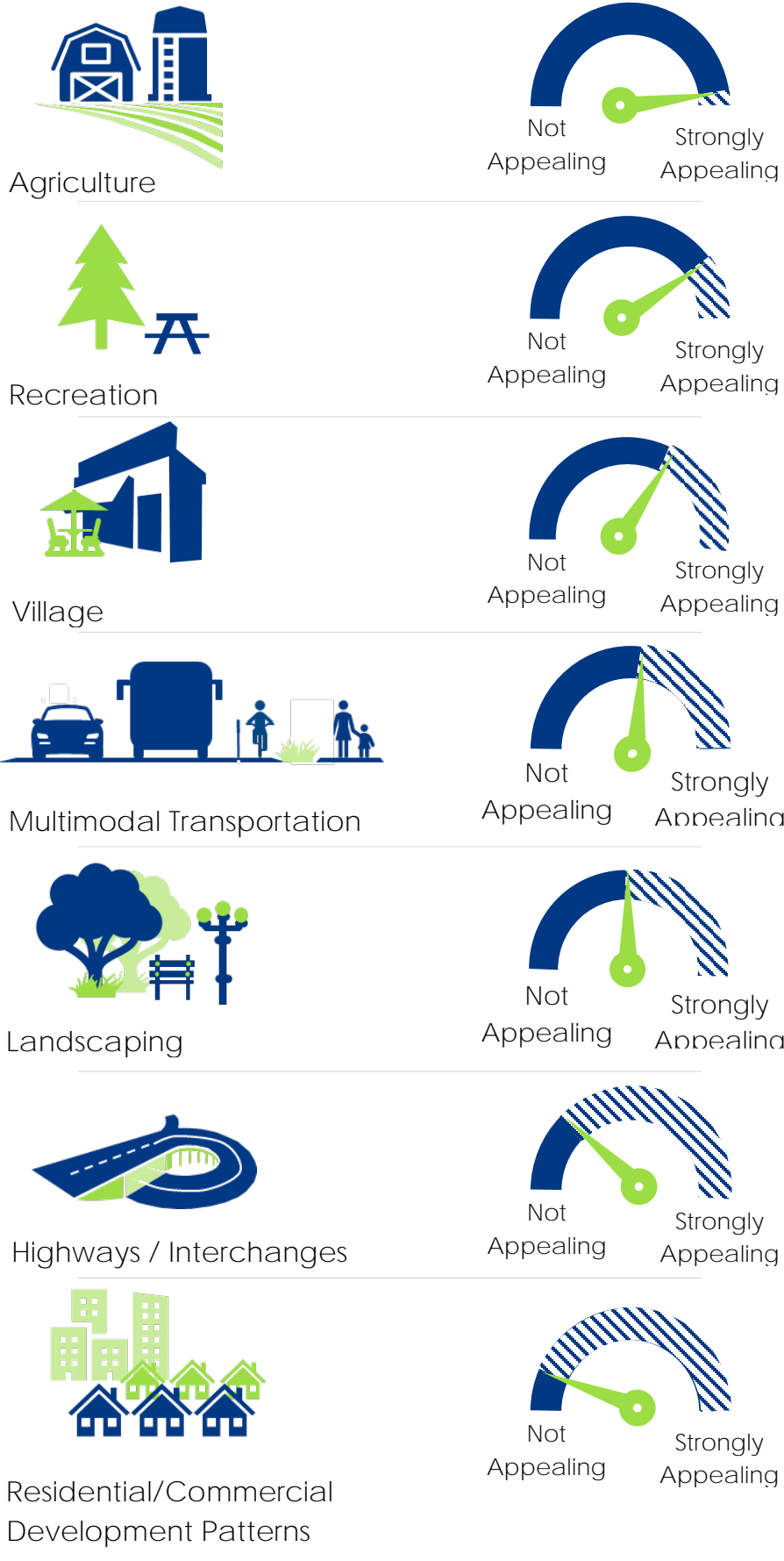
- ▶ Route 309 grade separated crossing
- ▶ Connections between schools, libraries, and residential areas
- ▶ More connections to the Promenade



Preferred Bicycle Facility Types:



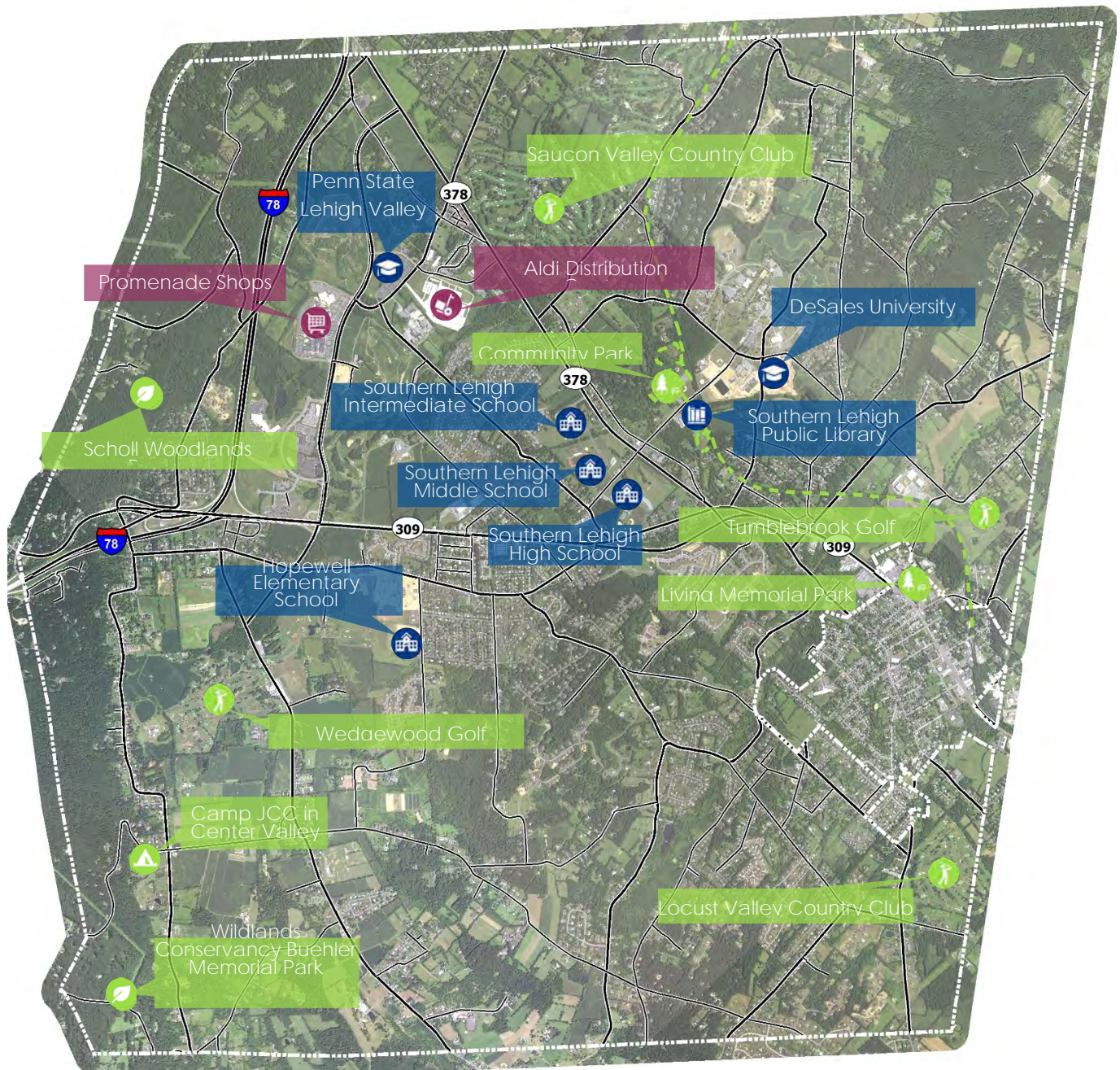
What Type of New Development Do You Prefer?



What places in the Township are important to you? Where would you take a visitor to showcase the Township?

Other Comments:

- Scenic views along roads with old houses and farms
- Open Space Areas
- Forested Areas



DETAILS OF PUBLIC INPUT

Station 1 – Visioning Station Activity Instructions and Results

Visioning Station – How would you describe in writing the vision for the future of the Township?

Participants reviewed and prioritized issues. And, reviewed and edited the draft slogan and vision statement. Participations also had an opportunity to read the Sustainability Principles that will be used to guide update of the plan. A vision statement is a short description of your hopes and dreams for the future.

Draft Slogan: Healthy, Sustainable Community

Draft Vision Statement: Upper Saucon Township is a municipality with rural, suburban, and urban amenities that coexist in harmony to support a sustainable community.

Source: Drafted by the Steering Committee with input from the Public Workshop.

Visioning Station – How would you describe, in writing, the vision for the future of the Township?

Suggested revisions to draft vision statement ([revisions noted using blue text](#)):

- Upper Saucon Township is a municipality with rural, suburban, and [prioritized or limited](#) urban amenities that coexist in harmony to support a sustainable [and a healthy](#) community.
- Upper Saucon Township is a municipality with rural [and](#) suburban [characteristics and urban amenities](#) that coexist in harmony to support a sustainable community.
- ([Suggested vision statement](#)) Upper Saucon Township is a municipality that balances preservation of [open space with development and effective infrastructure](#).

Written comments include the following in no order of priority:

- Do not reference urban.
- Include open space preservation. Open space, less development. Preserve more farmland.
- Yes, please include the reference to urban amenities.
- Better infrastructure and the recognition of need for future cost effectiveness.
- Plan long-term, not short-term.
- No warehouses.
- Emphasize rural and suburban character of the community.
- Stop development.
- Ability to regulate rate of development to avoid bulges of development which creates temporary problems.
- Preserve open space while keeping development under control.
- Preserve green spaces and develop more green spaces.
- More cohesive planning to connect resources and make us a more livable space.
- Preserve farms and open land.
- Rural stays rural, commercial stays commercial. Provide public services (roads, police, etc.). Preserve open green land.
- Balance use of space (rural, suburban, and urban) with planned preservation coexisting with future planning (industry that compliments sustainability/forward thinking).

Visioning Station – What community issues concern you the most?

Participants had an opportunity to prioritize issues identified by the Steering Committee with the ability to include additional issues that may not have been on the original list. Participants were asked to rank the issues to provide input on the level of importance/priority of community issues to be addressed in the plan.

Results of prioritizing community issues:

Priority ranking system used included colored dots with the following assigned ranking.

RED-Highest Priority (5 pts); **GREEN**-Medium-High Priority (4 pts). **YELLOW**-Medium Priority (3pts).

BLUE-Medium to Low Priority (2 pts); **ORANGE**-Low Priority (1 pt).

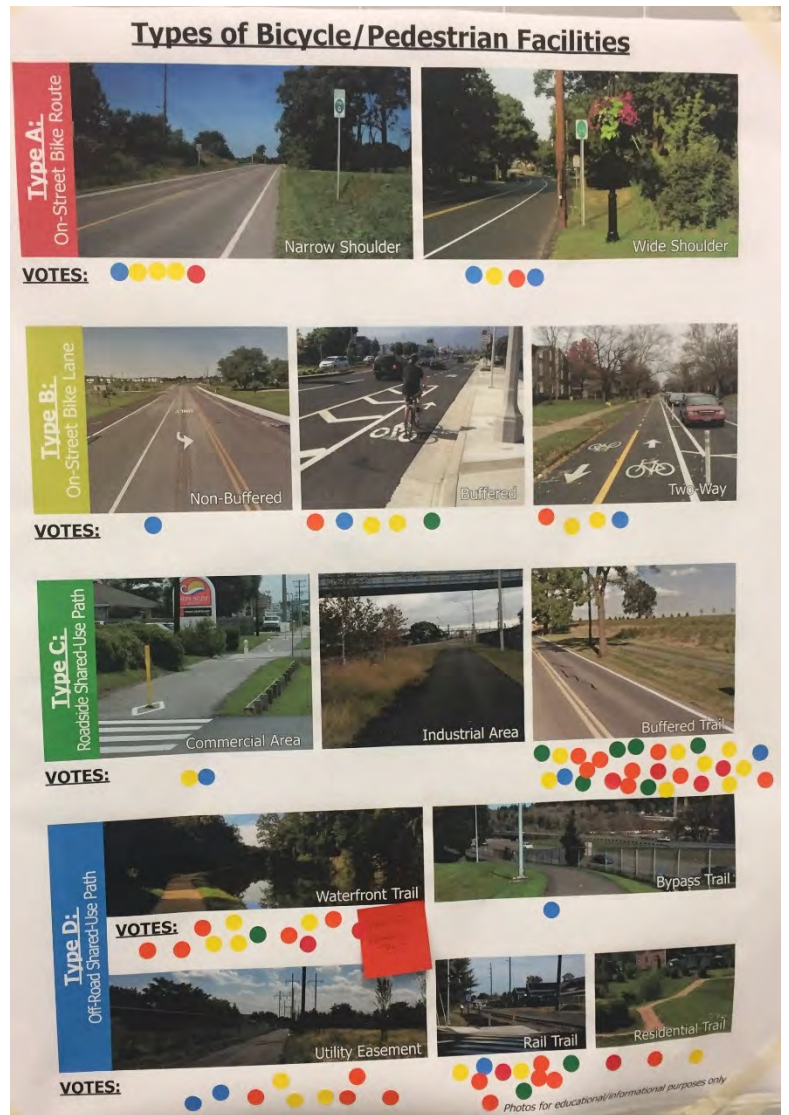
| Issue Prioritization | | | |
|-------------------------------------|---|---|--|
| Priority Ranking | Ranking Dots Received | Issue | Comment |
| Top Five Priority Issues of Concern | | | |
| 1 | 24-Red; 7-Green = (148) | Farmland & Greenspace Preservation | |
| 2 | 4-Red; 8-Green; 8-Yellow; 2-Blue; 1-Orange = (81) | Transportation Congestion | |
| 3 | 4-Green; 2-Yellow; 6-Blue; 2-Orange = (40) | Water and Sewer Capacity (Cost of Plant Expansions, Lines and Pump Stations) | |
| 4 | 1-Red; 1-Green; 6-Yellow; 4-Blue; 3-Orange = (38) | Stormwater/Storm Sewers (I&I Impacts on Sanitary Sewer, Waterways, etc.) | |
| 5 | 3-Green; 1-Yellow; 7-Blue; 2-Orange = (31) | Land Use along Major Transportation Corridors | Locate commercial and industrial along highways. |
| 5 | 1-Red; 5-Green; 2-Yellow = (31) | Potential for Urban Growth (Focus Growth – We are vulnerable!) | Minimize urban growth, stop growth. Too much urban growth - schools get too crowded, school taxes go up, and roads get too busy. |
| Lower Priority Issues of Concern | | | |
| 6 | 1-Red; 2-Green; 1-Blue; 1-Orange = (16) | Viable Retail in Enterprise Zone (e.g. Promenade and other locations) | |
| 7 | 1-Yellow; 11-Orange = (14) | Affordable Housing for All Incomes | |
| 7 | 3-Yellow; 1-Blue; 3-Orange = (14) | Lack of Urban Walkability | |
| 7 | 3-Yellow; 1-Blue; 3-Orange = (14) | Lack of Town Center | |
| 8 | 1-Green; 2-Orange = (6) | Balanced Tax Base (Residential development does not balance tax base) | |
| 9 | 2-Yellow = (6) | Crime Statistics | |
| 10 | 1-Green = (4) | More Types of Zones | Soft Commercial, Neighborhood Commercial (Dense/Sparse) |

Station 2 – Connections Station Instructions and Results

Where would you like to walk and/or bike? What are your preferences for the types of pedestrian and bicycle facilities?

Participants identify on a map pedestrian and bicycle connections to and from places they would like to access without use of a vehicle. Some preliminary opportunities for connection were provided for reaction from the public and they are encouraged to identify other connections. Participants were asked to identify the types of bicycle and pedestrian facilities they support for the Township. Colored dots were used to identify images that they like for the Township (note, color of dots has no ranking/preference assignment the volume of dots suggest the level of ranking/preference).

| Type A – On-Street Bike Route | | |
|-----------------------------------|---------|---|
| Narrow Shoulder | 5 Dots | ✓ |
| Wide Shoulder | 4 Dots | ✓ |
| Type B – On-Street Bike Lane | | |
| Non-Buffered | 1 Dot | |
| Buffered | 5 Dots | ✓ |
| Two-Way | 4 Dots | ✓ |
| Type C – Roadside Shared-Use Path | | |
| Commercial Area | 2 Dots | |
| Industrial Area | No Dots | |
| Buffered Trail | 28 Dots | ✓ |
| Type D – Off-Road Shared-Use Path | | |
| Waterfront Trail | 13 Dots | ✓ |
| Bypass Trail | 1 Dot | |
| Utility Easement | 9 Dots | |
| Rail Trail | 12 Dots | ✓ |
| Residential Trail | 3 Dots | |



A map of the Township depicting existing trails/paths and proposed trails/paths from the Township's Official Map were used to get additional input from participants. Notes from participant mark ups on the map are shown on the next page with comments including the following:

- Favor off-road connections.
- State and Blue Church needs roundabouts.
- Prioritize crossing Route 309 (grade separation).
- Need sidewalks between schools and residential.
- Need Bike/Ped crossing for Route 309 (location in Coopersburg Borough identified along Route 309 at the park) – make it a gateway feature.
- Connect DeSales with other schools and bike/ped routes.
- Need wide shoulders along Limeport Pike (from W. Saucon Valley Road to Township line).
- Need traffic light at Limeport Pike and Chestnut Hill Road (include skid control at intersection).
- Improve Route 309 to get traffic off Main Street.
- Route 309 and W. Saucon Valley Road – need updated intersection to reduce delay.
- E. Valley Road – Vehicles speeding is an issue.

- Lanark Road and W. Hopewell Road – need a traffic light.
- Route 309 and W. Hopewell Road – no traffic light – too much traffic.
- Existing abandoned roadway between Spring Valley Road and Route 378 could be connected and used but need crossing at Route 378 to get to Promenade.
- Residential development north of Southern Lehigh Intermediate School provides high pedestrian traffic that would walk to the Promenade if there were a safe pedestrian/bicycle connection.
- Trail between Elementary Schools, Middle School, High School, and Library.
- Lanark Road and Oakhurst Drive – Dangerous intersection – no shoulder or pedestrian facilities.
- Move proposed recreation path from extension of Courtney Drive across farmland to Huckleberry Drive north to the existing power line.
- Proposed recreation path around DeSales with connection to the Township Community Park and other points should be an off-road two-way bike lane.



Station 3 – Opportunity Sites and Results

What land uses are missing in the Township and where would they be best located?

Participants were asked to view a map identifying 5 targeted sites for development and asked how they would like those sites to develop. The group was asked to identify their preferences for development types by viewing photos of various types of development (residential, commercial, institutional campuses, and industrial).

What are your preferences for the types of new development?








Visual Preference Survey of Development Types Results








A preference ranking system was used to identify individual preferences for various types of development in the Township based upon land use categories. The preference ranking system included: **RED** – Strongly Appealing (5 pts); **GREEN** – Appealing (4 pts); **YELLOW** – Neutral (3 pts); **BLUE** – Somewhat Appealing (2 pts); and **ORANGE** – Not Appealing (1pt).




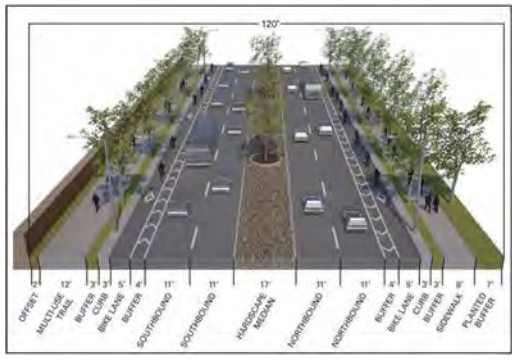
The images are grouped by land use category with two images depicting landscaping and development patterns. Images are ranked within each category.


Flip Chart Comments

- Open land and farmland preservation
- Return Main Street Center Valley to small town shops
- No more warehouses
- More regulations for residential development
- Minimum lot size of 2 acres
- More regulations on all development
- Developers should pay true cost of development


| Visual Preference Survey | | |
|---------------------------------|--|--|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Land Use Category – Agriculture | | |
| 2 | 6 Blue; 1 Green = (16) |  |
| 1 | 23 Red; 9 Green; 1 Yellow (163) |  |
| Land Use Category - Recreation | | |
| 2 | 3 Red; 5 Green; 4 Yellow; 1 Blue = (46) |  |
| 1 | 12 Red; 7 Green; 1 Yellow; 2 Orange = (93) |  |
| 3 | 5 Red; 4 Green; 1 Yellow; 1 Orange = (45) |  |
| Land Use Category – Village | | |
| 2 | 3 Red; 4 Green; 3 Yellow = (40) |  |
| 1 | 11 Green; 6 Yellow; 5 Blue = (72) |  |

| Visual Preference Survey | | |
|---|---------------------------------|--|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Land Use Category – Village (continued) | | |
| 6 | 1 Green; 2 Yellow = (10) |  |
| 5 | 1 Red; 1 Green; 1 Blue = (11) |  |
| 8 | 2 Yellow = (6) |  |
| 8 | 2 Yellow = (6) |  |
| 3 | 1 Red; 6 Green; 1 Yellow = (32) |  |
| 4 | 1 Green; 6 Blue = (16) |  |
| 7 | 1 Green; 2 Blue = (8) |  |

| Visual Preference Survey | | |
|------------------------------------|---|--|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Land Use Category – Transportation | | |
| 2 | 2-Red; 4 Yellow; 3 Blue; 3 Orange = (31) |  |
| 1 | 1 Red; 2 Green; 4 Yellow; 2 Blue; 6 Orange = (35) |  |
| 4 | 5 Orange = (5) Not Appealing. |  |
| 3 | 3 Red; 1 Yellow = (18) |  |

| Visual Preference Survey | | |
|--------------------------|---|--|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Landscaping | | |
| N/A | 1 Red; 3 Green; 4 Yellow; 6 Blue = (41) Somewhat Appealing to Strongly Appealing |  |

Note: N/A – Ranking not applicable.

| Visual Preference Survey | | |
|--------------------------|--|--|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Development Patterns | | |
| N/A | 1 Red; 1 Green; 1 Yellow; 13 Orange = (25) Overwhelming Not Appealing to Strongly Appealing |  |

Note: N/A – Ranking not applicable.

| Visual Preference Survey | | |
|------------------------------------|---|--|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Mixed Use (Residential/Commercial) | | |
| 2 | 1 Red; 1 Yellow = (8) |  |
| 3 | 1 Yellow, 2 Blue; 1 Orange = (8) |  |
| 1 | 1 Red; 1 Green, 7 Yellow; 3 Blue; 2 Orange = (38) |  |

| Visual Preference Survey | | |
|------------------------------------|--|--|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Mixed Use (Residential/Commercial) | | |
| N/R | 18 Orange = (18) Not Appealing |  |
| N/R | No dots received. |  |
| N/R | 1 Yellow; 1 Orange = (4) |  |
| N/R | 1 Blue; 1 Orange = (3) Somewhat Appealing to Not Appealing |  |

Note: N/R – Not ranked due to percentage of orange dots.

| Visual Preference Survey | | |
|------------------------------------|---|---|
| Preference Ranking | Preference Dots Received | Images of Development Type |
| Mixed Use (Residential/Commercial) | | |
| N/R | 2 Blue; 4 Orange = (8) Somewhat Appealing to Not Appealing |  |
| N/R | 7-Orange = (7) Not Appealing |  |

Note: N/R – Not ranked due to percentage of orange dots.

Opportunity Sites 1a, 1b, 1c, 1d and 1e (Undeveloped/Developed Lands along Route 309 South of Center Valley Parkway to Route 378)

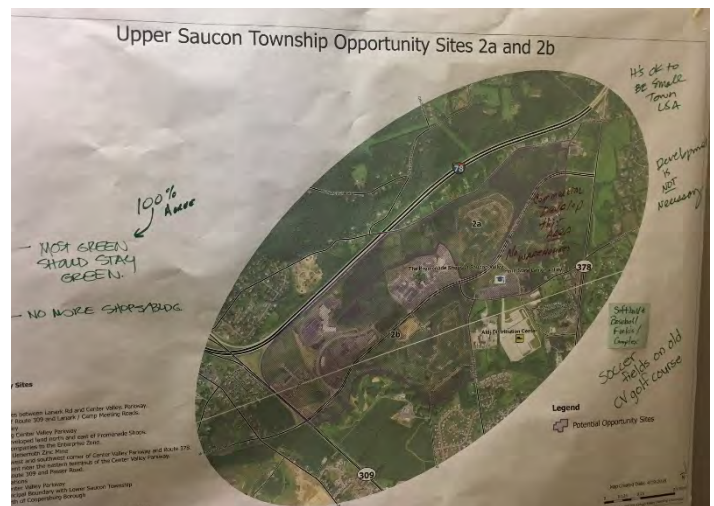
Comments:

- 1b – Preserve some as open space and make ball fields.
- 1e – Route 309 split south side – get PennDOT to make four lanes.
- No warehouses.

Opportunity Sites 2a and 2b (Area around Promenade – Center Valley Parkway)

Comments:

- Commercial development on these sites.
- No warehouses.
- Soccer fields on old CV golf course.
- Softball and baseball fields/complex.
- Most of the green space should remain green.

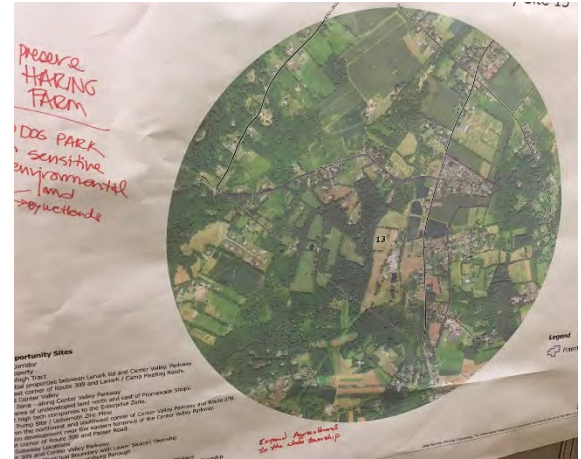


- No more buildings/shops.
- Development is not necessary.
- It is ok to be Small Town USA.

Opportunity Site 13 (Area of Township Boundary and Kozy Korner Road)

Comments:

- Expand agriculture to the whole Township.
- Preserve Haring Farm.
- No Dog Parks on sensitive environmental lands (by wetlands).
- Expand preservation space (agriculture).



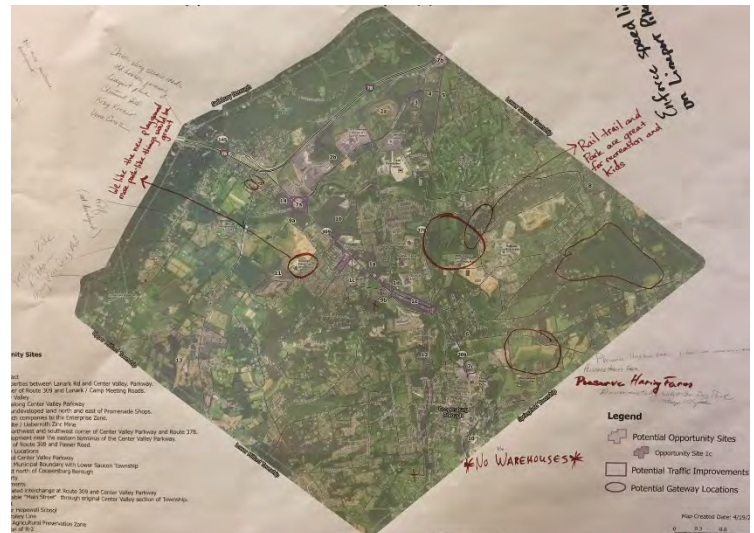
Station 4 – Valued Community Resources and Results

What places in the Township are important to you? What would be important to show a visitor to tell them about the Township?

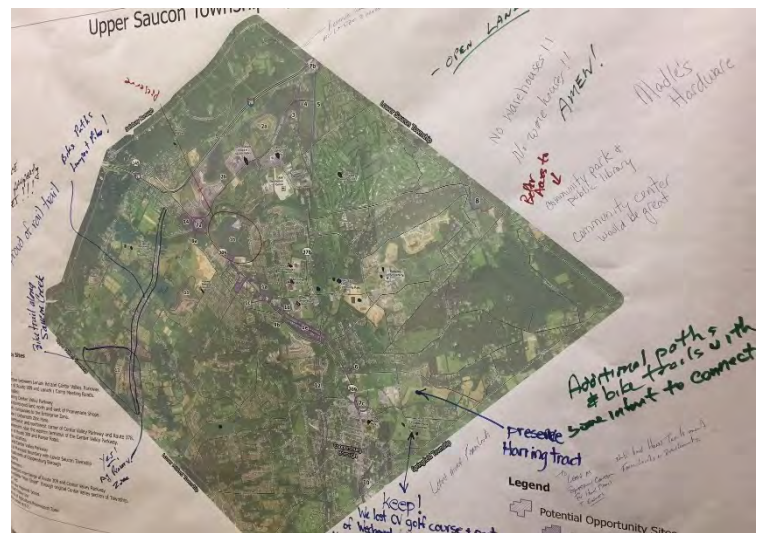
Participants are asked to identify on a map uses in the community that are important – things that you would take a visitor to see, experience, and learn about the community. NOTE: Be aware that the purple shaded areas are opportunities for new development and will be addressed in Station 3.

Comments:

- Hopewell Elementary School – We like the new playground – more park-like things would be great.
- Around Wildlands Conservancy Buehler Memorial Park along Vera Cruz Road include trails and bike paths.
- Wedgewood Golf Course – remain golf course, no development.
- No more townhouse development.
- Rural stay rural – commercial stay commercial.
- Scenic views along roads with old houses and farming – Limeport Pike, Chestnut Hill, Kozy Corner, and Vera Cruz Road.
- Enforce the speed limit on Limeport Pike.
- Area near Upper Saucon Township Community Park around Washington Lane and Landis Mill Road – Rail-Trail and Park are great for recreation and kids.
- No warehouses.
- Preserve Haring Farm (area between Passer Road, Suter Road, and Jacoby Road) and many other open parcels – Environmentally unfit for dog park (steep slopes).
- Preserve forested area between Wimmer Road, Flint Hill Road, Wards Lane, and Taylor Drive.
- Preserve opportunity site 1b.
- Bike paths along Limeport Pike.
- Opportunity site 13 – Agriculture Preservation Zone.
- Bike trail along Saucon Creek.
- Proud of Rail Trail.
- Develop and enhance the Stabler property – no warehouses.
- Open land.
- Enforcement of what is being built so it does not impact others (example failed sediment basin).



- Area of Stonestrow Road – Preserve woodlands, minimum lot size 2 acres in old growth forest.
- No warehouses.
- Better access to community park and public library
- Community park and public library.
- Madle's Hardware.
- A community center would be great.
- Additional paths and bike trails (connected).
- Preserve Haring Tract.
- Leave more farmlands.
- Keep Tumblebrook Golf Course – we lost CV Golf Course and part of Wedgewood and Locust Valley Golf Courses.
- Should have horse trails around farmlands and around the community.
- Preserve Haring Tract – lease as Equestrian Center.
- No more trucking.
- Valued resources marked on the map include:
 - Tumblebrook Golf Course
 - Living Memorial Park
 - DeSales University
 - Upper Saucon Township Community Park
 - Southern Lehigh Middle School
 - Southern Lehigh High School
 - Southern Lehigh Intermediate School
 - Saucon Valley Country Club
 - Penn State Lehigh Valley
 - Hopewell Elementary School
 - Sod farm off Limeport Pike
 - Wedgewood Golf Course
 - Scholl Woodlands Preserve
 - The Promenade Shops at Saucon Valley
 - Library
 - Forested land throughout the Township





TOP THEMES



- Limit growth
- Reduce traffic congestion & improve roadway maintenance
- More affordable single-family housing
- Preserve farmland, open space, greenspace
- More working farms, agribusinesses, technology, and corporate headquarters
- Walkable, small scale shops
- More shopping, restaurants and entertainment
- Enhance existing parks, More parks and recreation facilities
- Enhance schools and increase higher education, medical facilities, childcare, and adult care facilities

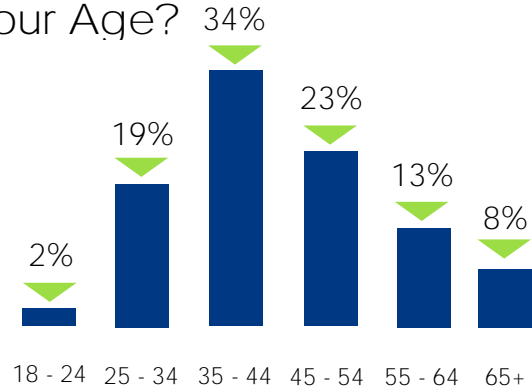
PUBLIC SURVEY SUMMARY

Upper Saucon Township asked residents from the Township and surrounding areas to participate in an online public and paper survey to share what is most important to them and prioritize the most important challenges facing the Township. Upper Saucon Township received over 800 survey responses from the public.

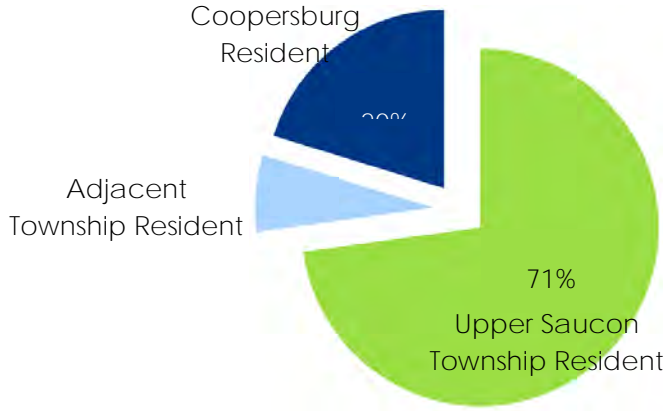
Survey participants were asked a variety of questions ranging from where they live, commuting habits, preferred land use types, and opinions on community character. This section includes a summary of information gathered from the survey respondents.

52% of Respondents live in the Southern Lehigh School District.

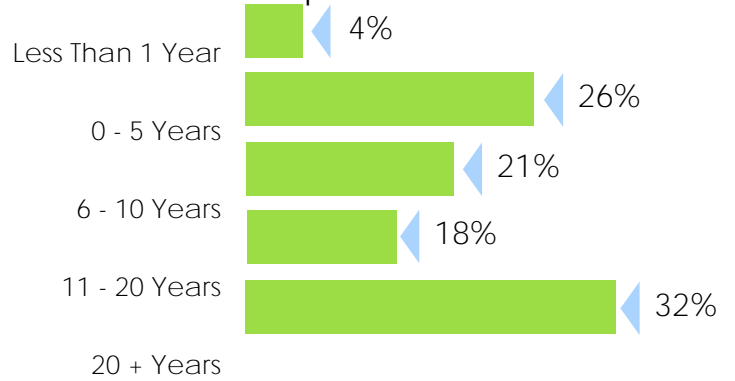
What is Your Age?



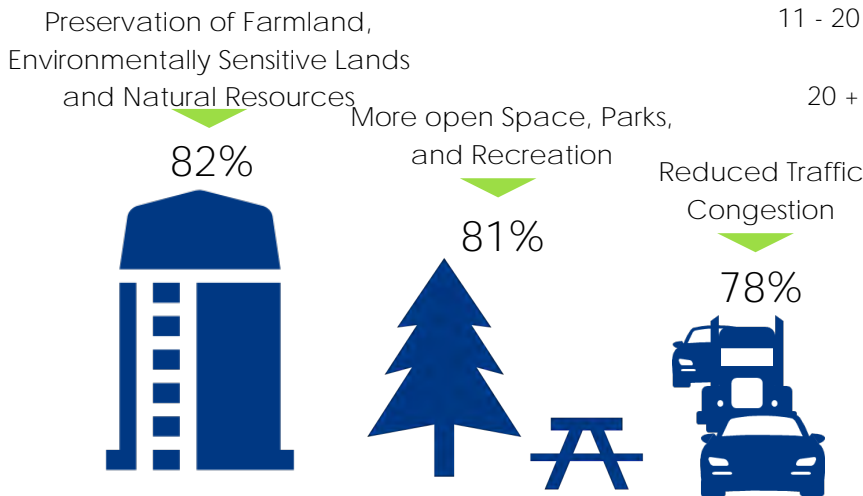
Where Do You Live?



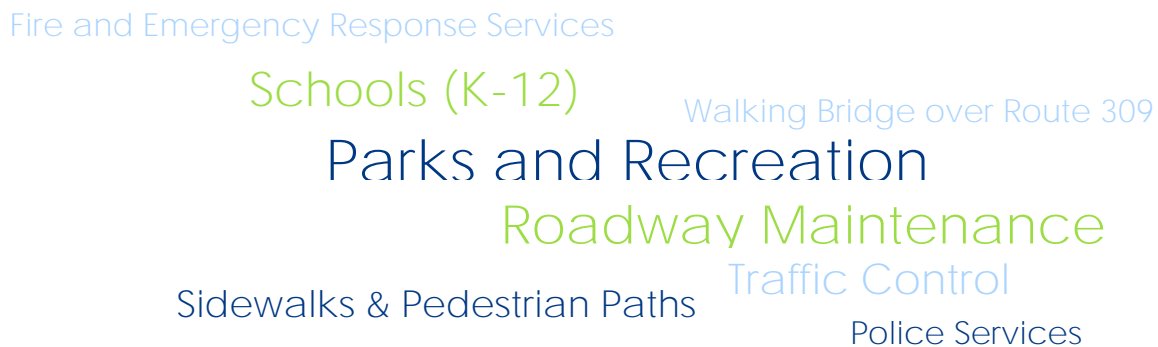
How Long Have You Lived in the Township?



What is Most Important to You?



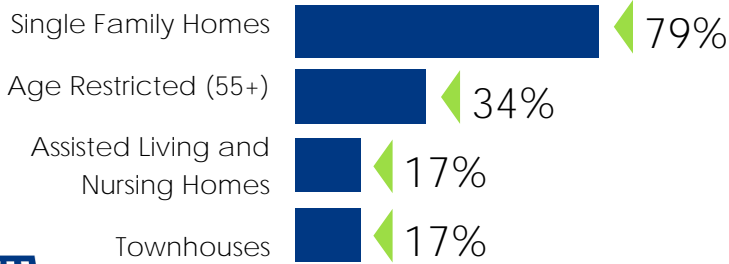
What Community Services are Most Important to Enhance?



Most Preferred Uses by Land Use Type:



Residential

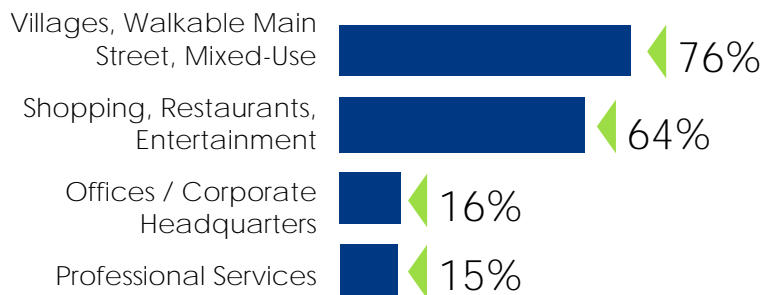


Common Comments:

- Need more affordable single-family housing [under \$250,000].
- Stop building apartments, duplexes, condos, townhouses & mansions.
- We are over-crowded, no more housing development.



Commercial

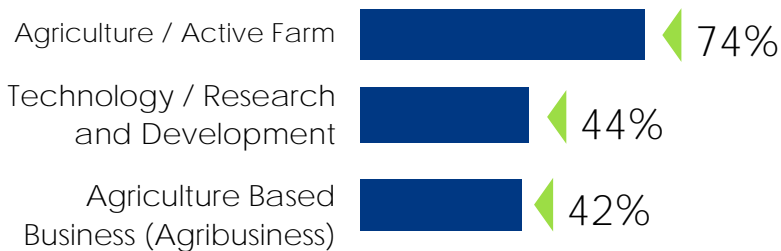


Common Comments:

- No more Commercial Development.
- Small Mixed-Use Development are the only type that should be built.



Industrial

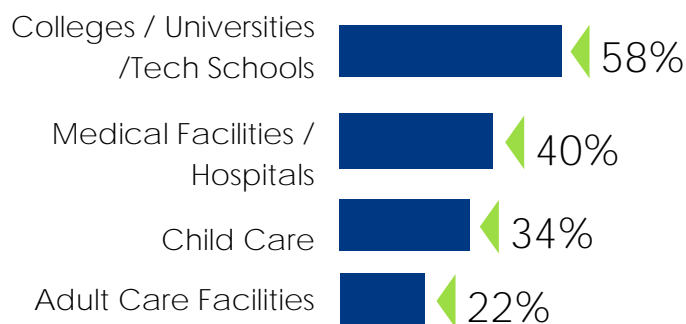


Common Comments:

- No more Industrial Development.
- Limit industrial uses to Education-Based facilities or Corporate Headquarters.



Institutional



Common Comments:

- More Community Facilities to keep Children active. (YMCA; Community Center; sports fields/complex; public library upkeep)
- Combine Nursing Homes with Pre-Schools or Sports Complexes.



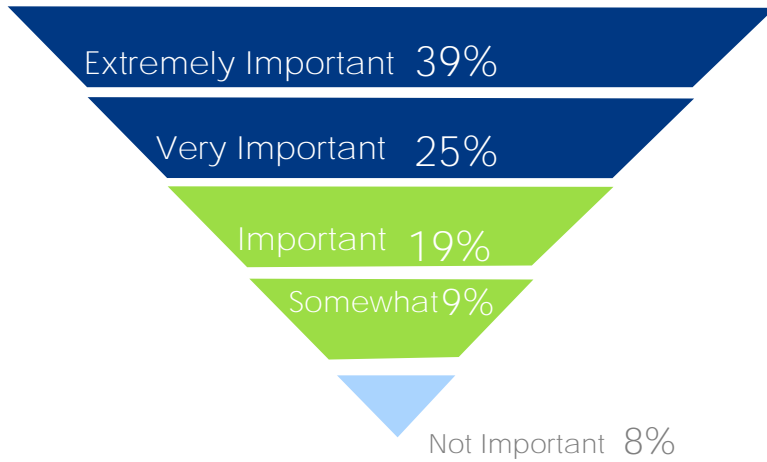
Recreation



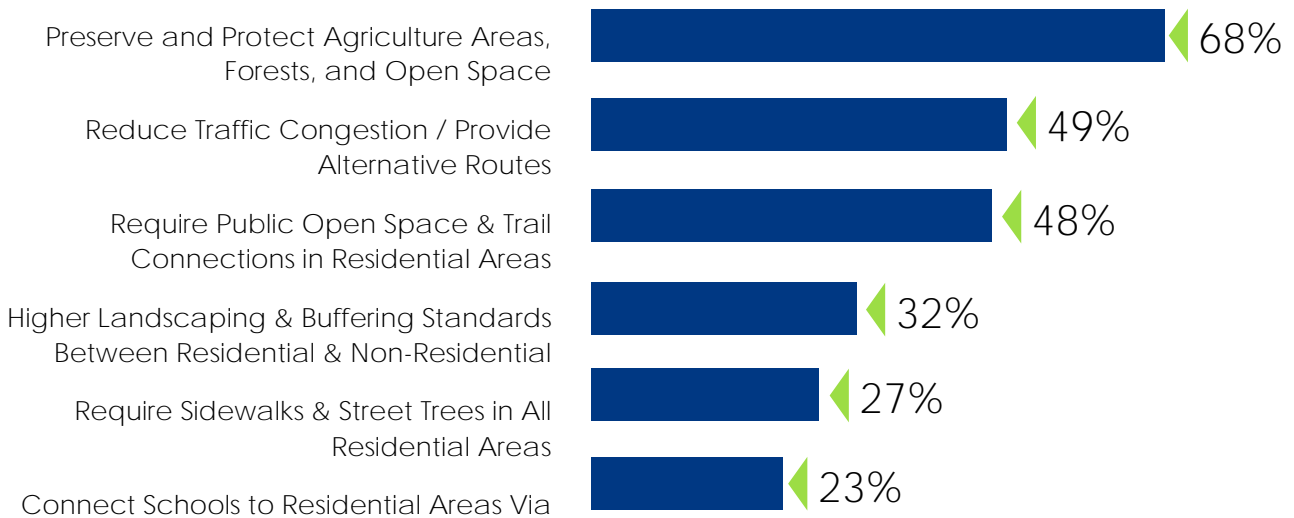
Common Comments:

- More Dog parks; community pools, community centers, community recreation facilities such as public tennis courts and band stand/amphitheater.
- Commercial Facilities such as fitness center with indoor pool, movies, bowling, ice rink.

How important is it to have more sidewalks and pathways for pedestrian and bicyclists in the Township and connect to the region?



How can the Township protect the community character of places / neighborhoods and protect the quality of life for all residents?




How would you like to travel locally within the region to access work, schools, shopping, and recreation?

81%Personal Vehicle 

46%Walk 

35%Bicycle 

12% Bus / LANTA 



SUMMARY OF STEERING COMMITTEE ACTIVITY & SCHEDULE

The Steering Committee met routinely throughout the planning process to provide guidance and assistance to the Township staff and the Planning Consultant. The following summarizes the level of involvement by the committee.

| Committee Meeting | Involvement |
|---|---|
| October 2017 – Project Initiation | Review of scope of work and schedule, circulate meeting materials (background information) and notebooks, begin visioning discussion and SWOT analysis. |
| November 2017 – SWOT & Issue Identification | Continue SWOT analysis, prioritize issues, identification of stakeholders, draft vision statement, and information sharing by LVPC staff. |
| January 2018 – Sustainability | Sustainability discussion and identification of factors, review prioritization of issues, refine vision, evaluation of plan logo, data and information sharing (development trends, farmland preservation, urban growth boundary, open space preservation, and commercial corridor development, review and update 1985 plan goals, and identification of transportation corridors and intersections of concern. |
| February 2018 – Opportunity Sites | Review and discuss potential of opportunity sites (13 sites identified by TWP staff and evaluated by committee) and review of on-line community survey questions. |
| March 2018 – Prepare for Public Meeting | Committee review and assignment of public meeting agenda and activities and discuss logistics of April Public Meeting. |
| July 2018 – Finalize Guidance | Review results of On-Line Survey Report, Public Meeting Result Summary, and Demographic Report. Finalize committee input on opportunity sites. |
| July 2018 – January 2019 Prepare Draft Plan | Prepare draft plan for circulation to Staff and Committee for review and comment. |
| March 2019 – July 2020 Review Draft Plan | Staff review and Committee review and input on draft plan, appendices and map book. |
| September – December 2020 Review & Adoption Process | Planning Commission, surrounding Municipalities, School District, and other agency reviews. Community participation in public meeting and public hearing. |

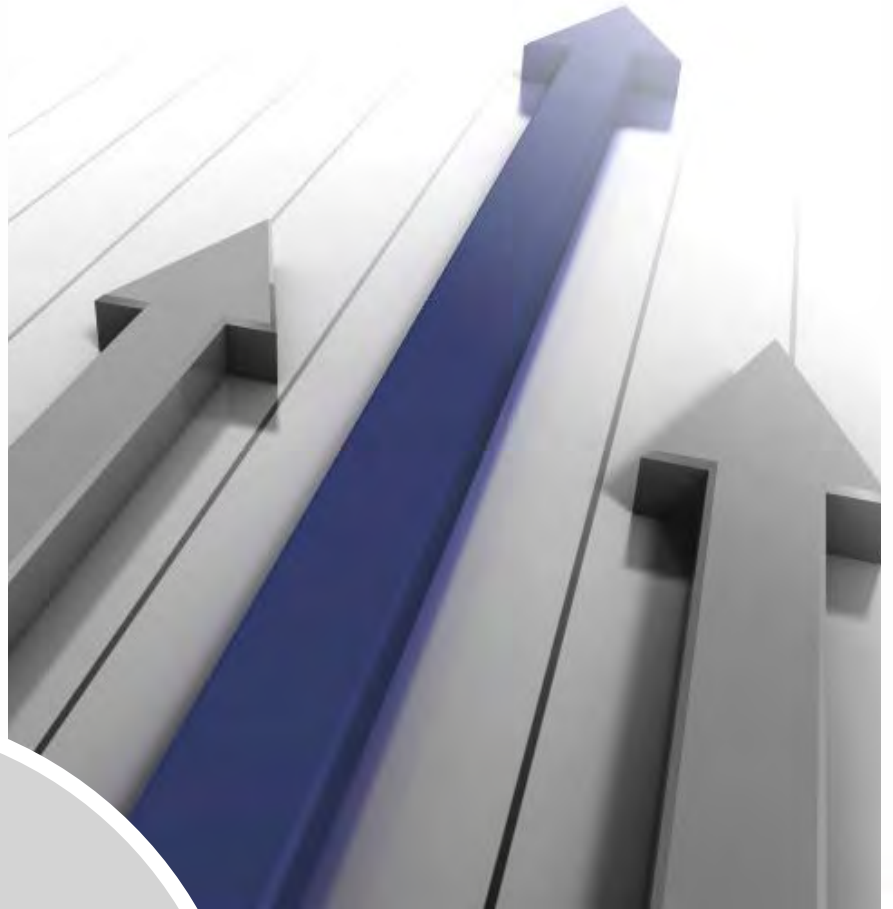
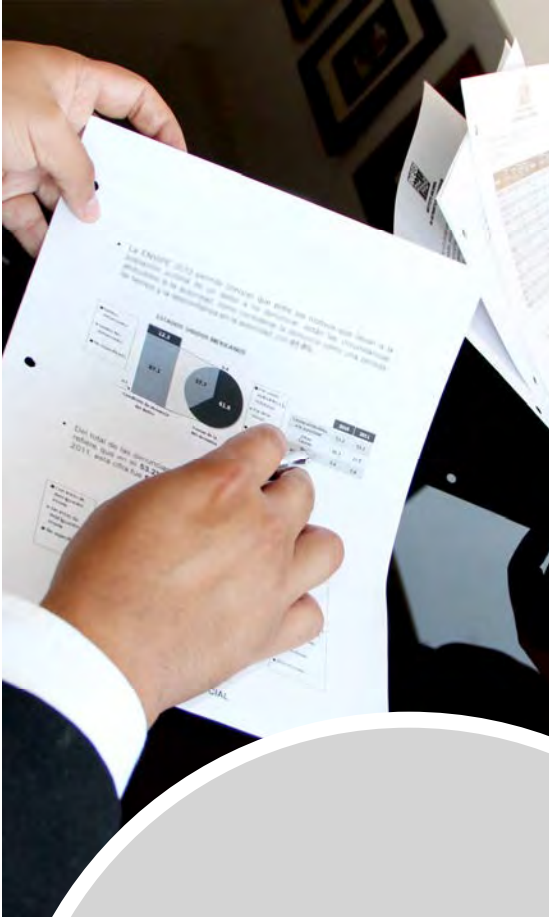
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7248 Tilghman Street, Suite 100
Allentown, PA 18106



APPENDIX B TRENDS



UPPER SAUCON
TOWNSHIP
LEHIGH COUNTY,
PENNSYLVANIA

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Data Sources – This report was one of the first reports prepared to provide a baseline of data and information to be used as part of public meetings, meetings with the Steering Committee, and discussions with Township staff. Other Appendices reports were created later in the process using newer data and information to support analysis. Various data sources are referenced in the Plan, other Appendices, and this report. For example, data will not tie exactly between ACS 2012-2016 depicted in this report and ACS 2013-2017 depicted in Appendix C – Housing.

Report prepared by Johnson, Mirmiran & Thompson, Inc.



QUICK FACTS

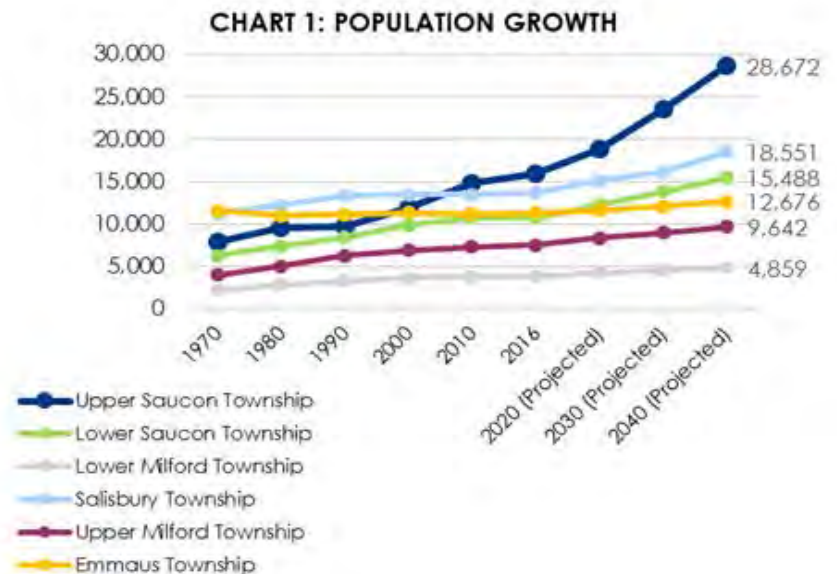


- Residents are highly educated with a percent of persons with a bachelor's degree or higher being above for Lehigh County
- Upper Saucon household incomes are well above national and regional averages
- Upper Saucon is not as densely populated compared to surrounding communities
- The Southern Lehigh School District is experiencing more growth than adjacent districts
- LVPC's projected growth in population for the Township of 58.7% by 2040 may not be desired
- A more conservative population and household projection suggests a 37% increase in population by 2040

DEMOGRAPHIC TRENDS

Population Changes

Data from the U.S. Census Bureau, Population Division Annual Estimates of the Resident Population (2016) and projections from the LVPC and Southern Lehigh School District indicate that Upper Saucon continues to attract residents at a faster rate than surrounding communities. LVPC population projections below indicate 58.7% growth by 2040 for the Township. The following sections explore alternative methods for population projections that paint a more desirable growth rate.



Sources: US Census Bureau and LVPC Population Projections 2020-2040

Between 2000 and 2016, the population of Upper Saucon Township grew from 11,939 to 15,904 persons, an increase of 33.3%. The Lehigh Valley Planning Commission (LVPC) anticipates that the

population growth in the region will continue. Upper Saucon Township population as most recently projected by LVPC is expected to reach 25,238, a 58.7% increase by 2040 (See Table 1A).

| | 1970 | 1980 | 1990 | 2000 | 2010 | 2016 | 2020 (Projected) | 2030 (Projected) | 2040 (Projected) |
|------------------------|---------|---------|---------|---------|---------|---------|------------------|------------------|------------------|
| Upper Saucon Township | 7,954 | 9,635 | 9,775 | 11,939 | 14,808 | 15,904 | 18,880 | 23,568 | 28,672 |
| Lower Saucon Township | 6,246 | 7,372 | 8,448 | 9,884 | 10,772 | 10,796 | 12,336 | 13,840 | 15,488 |
| Lower Milford Township | 2,189 | 2,865 | 3,269 | 3,617 | 3,775 | 3,864 | 4,252 | 4,541 | 4,859 |
| Salisbury Township | 11,285 | 12,259 | 13,401 | 13,498 | 13,505 | 13,697 | 15,120 | 16,120 | 18,551 |
| Upper Milford Township | 3,992 | 5,013 | 6,304 | 6,889 | 7,292 | 7,516 | 8,382 | 9,012 | 9,642 |
| Emmaus Township | 11,511 | 11,001 | 11,157 | 11,313 | 11,211 | 11,363 | 11,607 | 12,088 | 12,676 |
| Lehigh County | 255,304 | 272,349 | 291,130 | 312,090 | 349,497 | 358,792 | 385,710 | 427,162 | 469,975 |

Sources: US Census Bureau; 2012-2016 American Community Survey (ACS) 5-Year Estimates and LVPC Projections.

Refining Population & Households Projections

Since the above projections were published, LVPC has updated the population and employment projects for municipalities within the region for the expressed purpose of providing input into the regional travel demand forecasting model to support transportation planning to calculate the expected demand for transportation facilities. The following population and employment projections were generated by the LVPC for the region using the Regional Economic Models, Inc. (REMI) TranSight 4.0 modeling tool. Baseline population and employment projections beginning in 2015 are used with adjustments made based on large development proposals to further refine projected population and employment conditions in the region. The projections below suggest a 52% increase in population from the 2018 baseline population of 16,585 to the projected 2040 population of 25,238.

| | 2010 | 2018* | 2020 (Projected) | 2030 (Projected) | 2040 (Projected) |
|------------------------|--------|--------|------------------|------------------|------------------|
| Population Projections | | | | | |
| Upper Saucon Township | 14,808 | 16,858 | 18,122 | 21,952 | 25,238 |
| Employment Projections | | | | | |
| Upper Saucon Township | 9,976 | | 13,484 | 15,015 | 16,519 |

Source: The People 2017, Population and Employment Projections – <https://www.lvpc.org/pdf/2017/Pop+Employment%20Projections.pdf> and Esri 2018 population based upon US Census data*.

The 2018 Southern Lehigh School Districtwide Facilities Feasibility Study reported data on school enrollment suggesting the “most likely” increase in school enrollment from 2018-2028 is projected at 7%. Considering this projection scenario suggests the need for a more conservative approach to project population and housing to 2040 for the Township as described below to support Plan development. The projections below are based upon a trend line using a growth rate projected by demographic vendor Esri extended from 2023 to 2040 (refer to Appendix C – Housing Analysis). Additional projections are provided base upon Appendix E – Build Out Analysis.

| Population | 2010 Census | 2018 Esri | 2023 Esri Projection | 2030 Esri Projection | 2040 Esri Projection |
|---|-------------|-----------|----------------------|----------------------|----------------------|
| Upper Saucon Township Population Projections | 14,808 | 16,585 | 17,497 | 19,153 | 21,793 |
| Upper Saucon Township Households ¹ | 5,039 | 5,650 | 5,960 | 6,457 | 7,167 |
| Upper Saucon Township Housing Units | 5,262 | 5,843 | 6,148 ² | 7,478 ² | 8,537 ³ |

¹Source: Appendix B Trends. Conservative household estimates are based upon ESRI linear projection established in Appendix C applying a 1.3% growth rate per year and a 1.0% or 71 household increase per year for 2030 and 2040 estimates.

²Source: Appendix C Housing Analysis estimated housing units (US Census and Esri projections).

³Source: Build-Out projected an additional 2,694 housing units based upon lands available for development under current zoning.

Note: Appendix C Housing Analysis projects household growth of 1,016 from 2018 thru 2030 based upon potential demand with a potential yield an estimated number of households reaching 6,666 as the high end of estimated households through 2030.

The projections on the previous page suggest a 31% increase in population from the 2018 baseline population of 16,585 to the projected 2040 population of 21,793. The 2030 and 2040 projections are based on an annual growth rate of 1.3% in population and an annual growth rate of 1.0% in households. The projected growth of population through 2040 still places the Township among the top five (5) fastest growing Townships in the region.

| TABLE 2: POPULATION DENSITY | | |
|-------------------------------|-----------------------|---------------|
| | Upper Saucon Township | Lehigh County |
| Total Population | 14,808 | 349,497 |
| Total Occupied Housing Units | 5,262 | 142,613 |
| Land Area in Square Miles | 24.6 | 345.2 |
| Population per Square Mile | 605.4 | 1,012.5 |
| Housing Units per Square Mile | 215.1 | 413.2 |

Source: US Census Bureau - Population, Housing Units, Area, and Density: 2010

In 2010, Upper Saucon Township had fewer persons per square mile in comparison to Lehigh County and many of the neighboring townships. The density of housing units per square mile is also approximately half as dense as Lehigh County as a whole.

Undeveloped land, land use policy and regulation (zoning), population projections, and preferred housing densities can indicate the level to which a municipality can accommodate additional growth.

| TABLE 3: POPULATION DENSITY COMPARISONS | | |
|---|-------------------------------------|----------------------------|
| | Approximate Land Area (squaremiles) | Population Per Square Mile |
| Lehigh County | 345 | 1,013 |
| Pennsylvania | 44,742.7 | 283.9 |
| Upper Saucon Township | 24.5 | 605.4 |
| Lower Saucon Township | 25.7 | 1,546.90 |
| Lower Milford Township | 19.7 | 191.70 |
| Salisbury Township | 11.2 | 1,208.80 |
| Upper Milford Township | 18.0 | 406.1 |
| Emmaus Borough | 2.9 | 3,873.60 |

Source: US Census Bureau - Population, Housing Units, Area, and Density: 2010

The Township is approximately 24 square miles in land area, larger than many of the municipalities within the surrounding region and has a population density of 605.4 persons per square mile.

While the Township exhibits both rural and suburban characteristics, recent growth renders it highly suburbanized with a population density and housing density consistent with other suburban communities in the region. These densities along with land use patterns indicate that development within the Township is characteristic of the following:

- clustered development with higher housing and population densities with access to major roadways and amenities creating a highly suburbanized landscape along major transportation routes; and
- lower density development with large areas of open space and historic crossroads development patterns sprawled across the rural landscape of the Township.

This development pattern is largely the result of existing zoning regulations that has influenced development and conservation of land to realize the preferred vision put forth by the Township avoiding a more aggressive development scenario as suggested by growth projections prepared by the LVPC.



Photography by April Showers, AICP

Age Composition

The largest portion of the population in Upper Saucon Township is represented by individuals that are between the ages of 35 and 54. According to the 2016 ACS Census data, the median age of a person in Upper Saucon Township is 41.8 years. This is higher than the Lehigh County median age of 39.5 years.

As illustrated by the population pyramids in Charts 3 and 4, Upper Saucon's population is not as evenly distributed between age cohorts as Lehigh County. Upper Saucon's population is comprised of a lower percentage of children under age 5 and a lower percentage of population in the 25 to 34 age cohort. However, Upper Saucon has a higher percentage of its population within the 55 to 74 age cohorts, when compared to Lehigh County.



Photography by April Showers, AICP

CHART 2: AGE COMPOSITION UPPER SAUCON TOWNSHIP

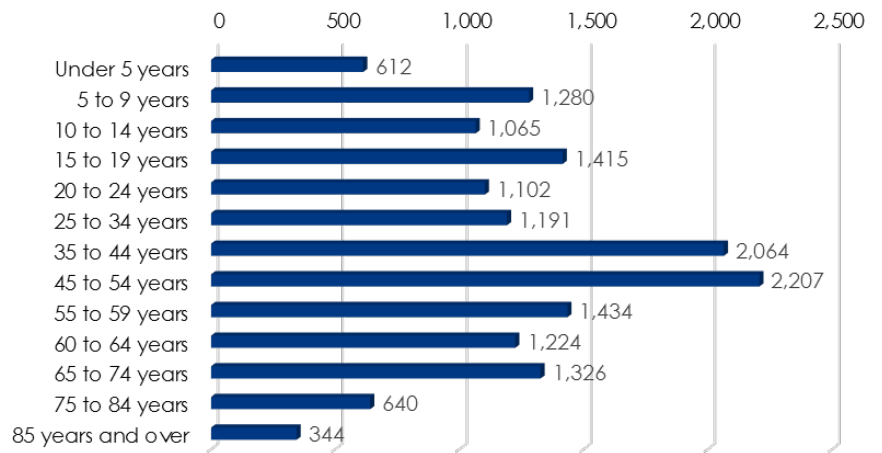


CHART 3: POPULATION BY AGE & SEX UPPER SAUCON TOWNSHIP

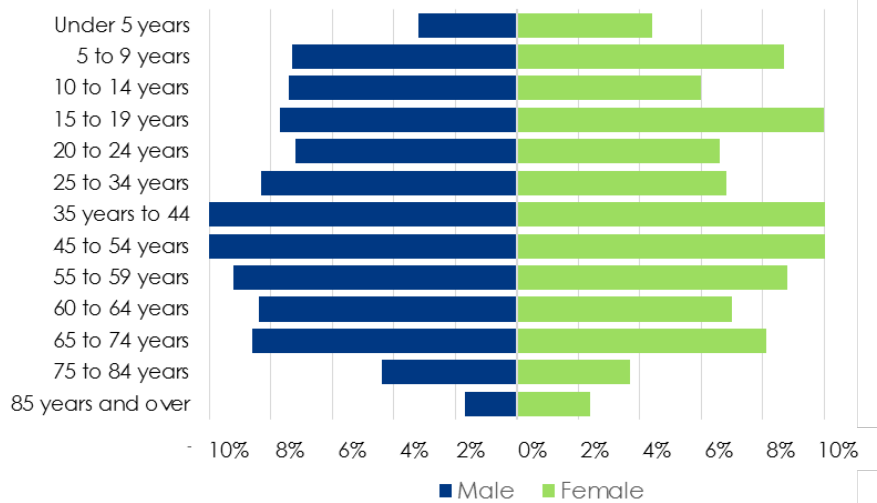
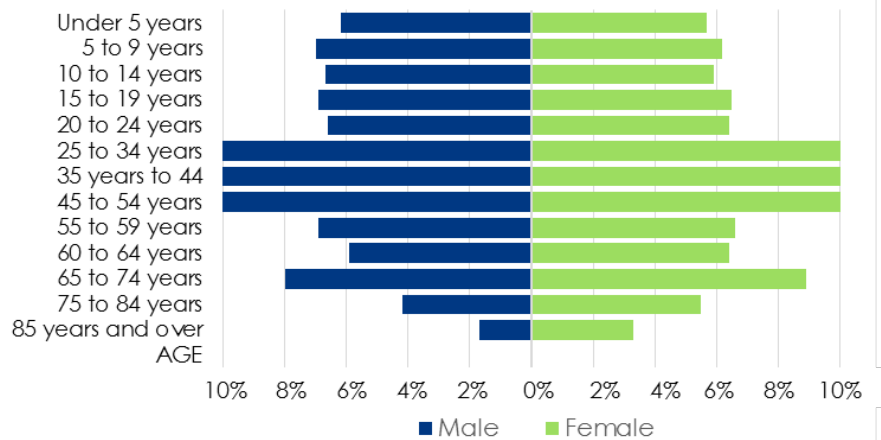


CHART 4: POPULATION BY AGE & SEX LEHIGH COUNTY



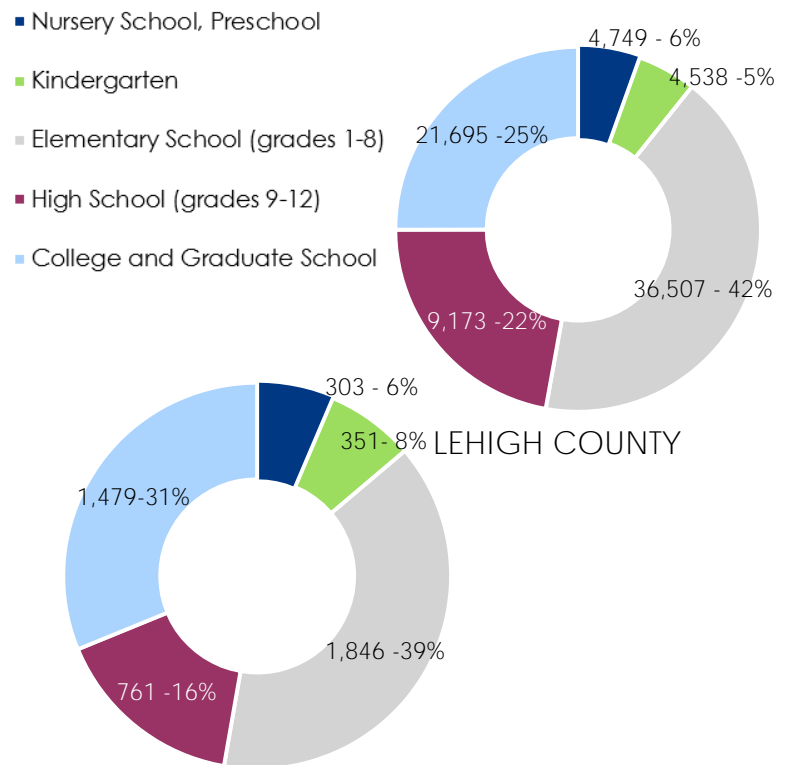
Source: US Census – Age and Sex 2012-2016 American Community Survey 5-Year Estimates

School Aged Population

Chart 5 reflects school aged children who reside in Upper Saucon Township and illustrates the percentage of the school aged population by the type of school in which they are enrolled. According to the 2016 ACS Census data, it is estimated that 30% of the total population of Upper Saucon Township (4,740 people) are enrolled in school. The largest school age group is the elementary school students, representing 39% of the total school age population.

Compared to Lehigh County, Upper Saucon has a lower percentage of school aged students in kindergarten, elementary, and high school. However, Upper Saucon has a higher percentage (31%) of college and graduate school students.

CHART 5: SCHOOL AGE POPULATION ENROLLED IN SCHOOL



UPPER SAUCON TOWNSHIP

Source: US Census Bureau; American Community Survey 2016 (ACS) 5-Year Estimates

Southern Lehigh School District Enrollment History and Projections

Upper Saucon is included in the Southern Lehigh School District, which also includes the Borough of Coopersburg and Lower Milford Township. There were 3,150 students enrolled in Southern Lehigh School District for the 2016-2017 school year. Compared to surrounding school districts, Southern Lehigh had the largest percent increase (1.7%) in enrollment from 2012 to 2017. Comparatively, Salisbury Township School District has had an increase of only 0.3% and both East Penn and Saucon Valley School Districts have experienced a decrease in enrollment. An historically steady increase in enrollment in the Southern Lehigh School District in comparison to surrounding school districts, with a projected 7% increase from 2018 through 2028 as previously stated, is an indicator of the quality of education and the desire to reside in this district.

CHART 6: SCHOOL DISTRICT ENROLLMENT

| School Districts | 2012 - 2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018* | Projected 2027-2028* |
|--------------------|-------------|-----------|-----------|-----------|-----------|------------|----------------------|
| Southern Lehigh | 3,097 | 3,121 | 3,104 | 3,131 | 3,150 | 3,206 | 3,434 |
| East Penn | 8,152 | 8,058 | 8,071 | 8,035 | 8,077 | | |
| Saucon Valley | 2,294 | 2,269 | 2,269 | 2,196 | 2,193 | | |
| Salisbury Township | 1,590 | 1,615 | 1,540 | 1,566 | 1,595 | | |

Sources: PA Dept of Education, Parkland School District and 2018 District-wide Facilities Feasibility Study*

Note: Study projections are based upon 400 new detached single-family homes through the 2027-2028 academic year. In 2018, UST issued 61 permits for residential development, of which 32 were for single-family dwellings.

Educational Attainment

As depicted in Chart 7 the educational attainment in Upper Saucon Township is significantly higher than Lehigh County. Over 95% of Upper Saucon Township residents over the age of 25 have a high school diploma equivalency or higher. Approximately 45.9% of township residents over the age of 25 have bachelor's degree or higher.

Household Income

When compared to the region and nation, Upper Saucon's household incomes are well above average. To put things in perspective, the \$94,212 median household income in Upper Saucon Township is nearly 70% higher than the national average, 76% higher than the state average, and 64% higher than the Lehigh County average.

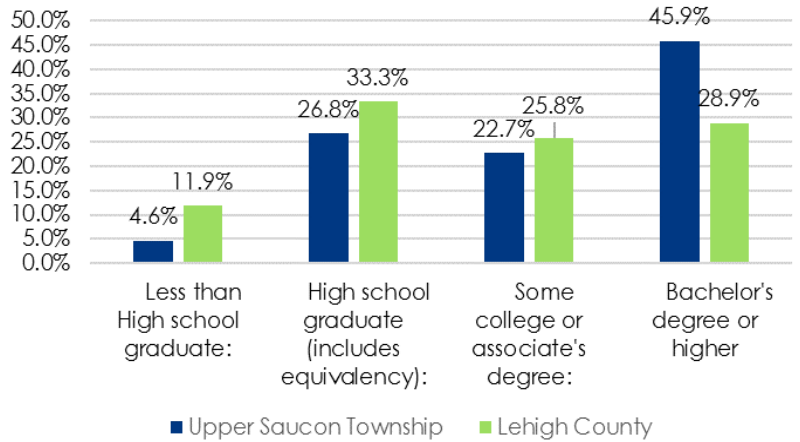
Poverty Status

The high household income enjoyed by township residents' correlates to the low percent of residents living at or below the poverty level. As shown in Chart 9, approximately 3.5% of the population of Upper Saucon Township is living at or below the poverty level, which is significantly lower than Lehigh County (13.0%).



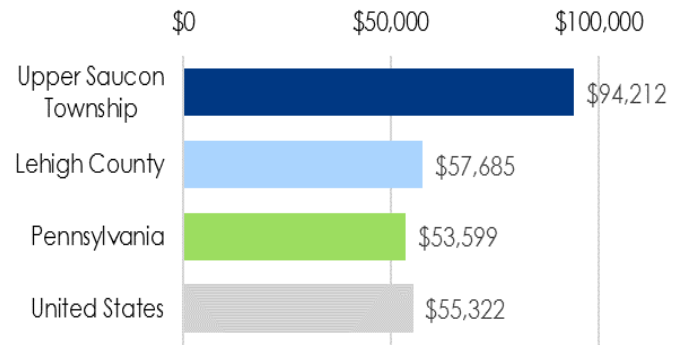
Photography by April Showers, AICP

**CHART 7: EDUCATIONAL ATTAINMENT
PERSONS AGE 25 & OVER**



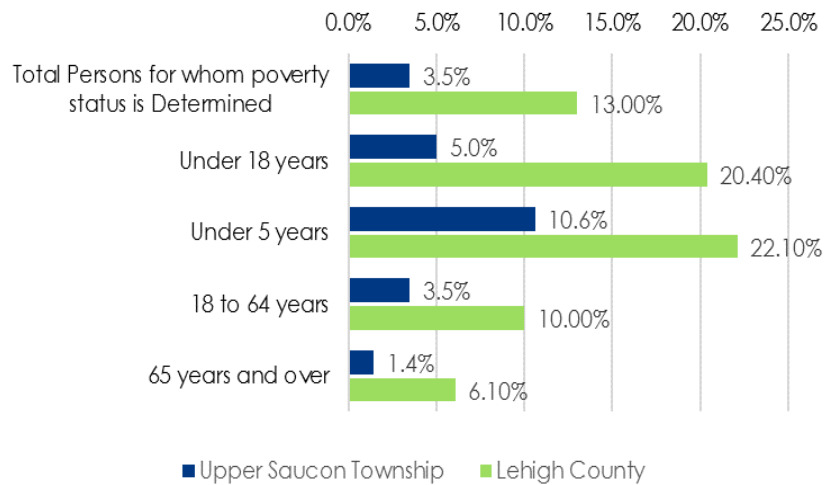
Source: 2012-2016 American Community Survey 5-Year Estimates

**CHART 8: MEDIAN HOUSEHOLD
INCOME 2016**



Source: 2012-2016 American Community Survey 5-Year Estimates

CHART 9: POVERTY BY INDIVIDUAL



Source: 2012-2016 American Community Survey 5-Year Estimates

Race & Ethnicity

In 2016, Upper Saucon Township was predominantly one-race (white, 94.5%), with a higher percentage of Asians (3.0%) than Black or African American (.7%) and .4% of the population having two or more races. The Hispanic or Latino population represented less than seven percent (6.4%) of the total population.

Table 4 illustrates the race and ethnicity of the population for Upper Saucon Township and Lehigh County. Hispanic or Latino identification is separate from race identification, as a person can identify as one race while still identifying their ethnicity as Hispanic or Latino, therefore Hispanic or Latino data is not part of the race data's totals.



Source: Southern Lehigh School District Website

TABLE 4: RACE & ETHNICITY

| | Upper Saucon Township | | Lehigh County | |
|--|-----------------------|---------|---------------|---------|
| | Total | Percent | Total | Percent |
| Total | 15,904 | 100.0% | 358,792 | 100.0% |
| White alone | 15,032 | 94.5% | 282,360 | 78.7% |
| Black or African American alone | 117 | 0.7% | 24,174 | 6.7% |
| American Indian and Alaska Native alone | 32 | 0.2% | 701 | 0.2% |
| Asian alone | 473 | 3.0% | 11,680 | 3.3% |
| Native Hawaiian and Pacific Islander alone | 8 | 0.1% | 134 | 0.0% |
| Some other race alone | 180 | 1.1% | 29,356 | 8.2% |
| Two or more races | 62 | 0.4% | 10,387 | 2.9% |
| Hispanic or Latino | 1,010 | 6.4% | 78,318 | 21.8% |

Source: 2012-2016 American Community Survey 5-Year Estimates



QUICK FACTS

- The Township has a 4.2% vacancy rate
- Renter occupied housing demand is increasing rapidly in the Township
- More than three-quarters of homes are valued above \$200,000
- Approximately 23.8% of homeowners and 41% of renters are cost burdened
- Most householders are within the 35 to 64-year-old age range
- Approximately 35% of all householders have children under 18 years old

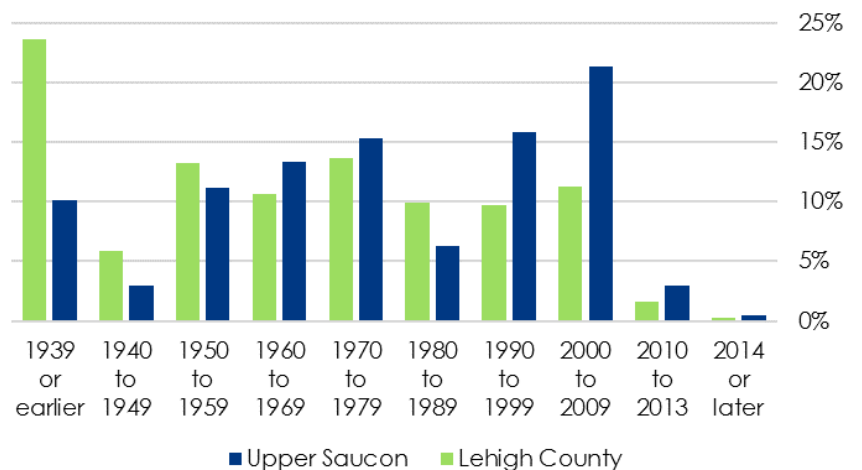
HOUSING TRENDS

Housing Development Trends

The housing market is influenced by the state of the economy, interest rates, real income, and changes in population. As well as these demand-side factors, house prices will be determined by available supply. With periods of rising demand and limited supply, both locally and regionally there will be rising house prices and rising rents. A detailed analysis of housing supply and demand is included in Appendix C – Housing Analysis.

Upper Saucon Township has experienced a faster rate of housing development compared to Lehigh County since the 1960's. Housing development in Upper Saucon Township generally increased from 1950 to 2009, before dramatically dropping in 2010 as a result of the bust of the national housing bubble.

CHART 10: YEAR STRUCTURE BUILT



Source: 2011-2015 American Community Survey 5-Year Estimate

Housing Occupancy and Tenure

According to 2012 - 2016 ACS 5-Year Estimates, there were 5,581 total housing units in Upper Saucon Township in 2016 with 5,349 (95.8%) occupied units and 232 (4.2%) vacant units. This vacancy rate is lower than Lehigh County's vacancy rate of 5.7%. Low vacancy rates are often associated with increased housing prices as demand passes supply indicating that Upper Saucon Township, like national housing supply trends, may be facing a housing shortage for certain household income levels.

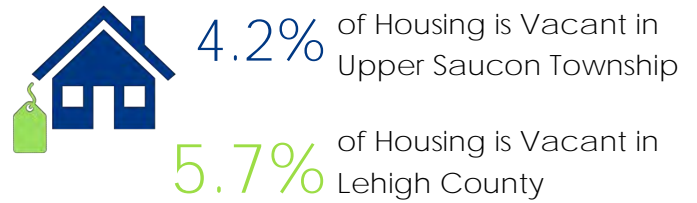
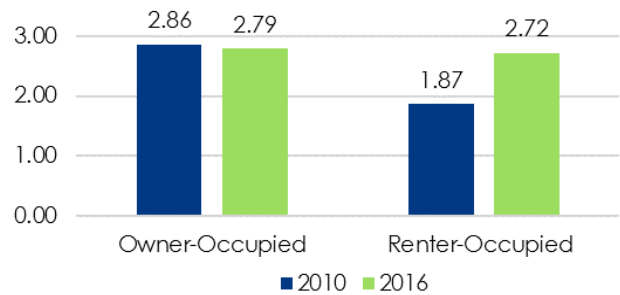


Chart 11 shows that the average household size of owner-occupied housing decreased by 2.4% from 2010 to 2016, with the average household size of renter-occupied housing increasing by 45.5% over six years.

CHART 11: AVERAGE HOUSEHOLD SIZE UPPER SAUCON TOWNSHIP (2010-2016)



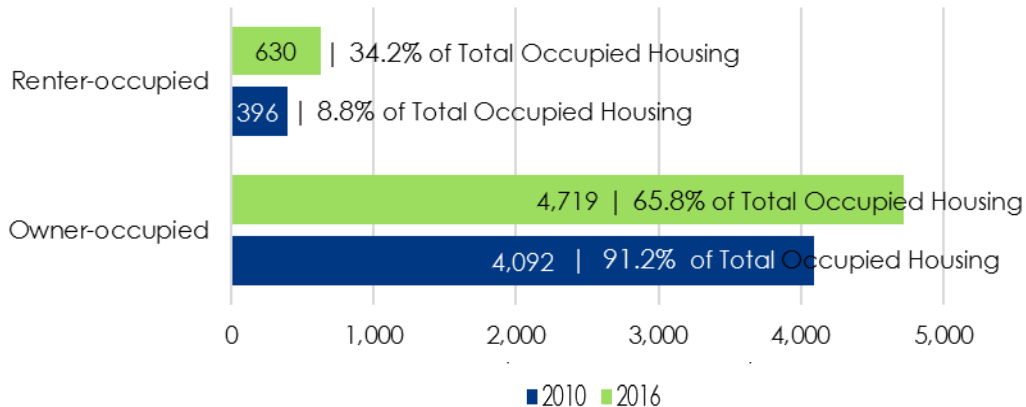
2012-2016 American Community Survey 5-Year Estimates

As shown in Chart 12, renter-occupied housing units increased by 59.1% and owner-occupied housing increased by 15.3% from 2010 to 2016. Since, the Township has not experienced growth in multifamily dwellings, this could attribute to an increase in rental of single-family homes (attached and detached).

Charts 11 and 12 both demonstrate that less people are buying homes compared to renting in Upper Saucon Township and average household size is increasing for rental units.

Detailed analysis of housing trends is addressed in Appendix C – Housing Analysis. Refer to the next page for details about the Census Bureau’s American Community Survey (ACS) definition of housing units.

CHART 12: OCCUPANCY TYPE UPPER SAUCON TOWNSHIP (2010-2016)



2012-2016 American Community Survey 5-Year Estimates
 Note: Total housing units = occupied and vacant units. Owner and renter occupied units are shown above.

Housing Type

Upper Saucon Township is comprised of a variety of housing types with an estimated 5,581 total housing units in 2016. Detached housing units (82.6% of total housing units) are the predominant structure type in the Township. Land use regulations provides for housing types such as detached, attached townhomes, and apartments in multi-unit structures.

Approximately 17.4% of the Township's housing units are types other than single-family detached homes. Upper Saucon Township is not aware of any residential structure types with 20 or more housing units. The total housing units for 2010 and 2016 noted below include occupied and vacant units.

TABLE 5: UNITS IN STRUCTURE UPPER SAUCON TOWNSHIP

| | 2010 | | 2016 | | Percent change 2010 - 2016 |
|---------------------|--------|---------|--------|---------|-------------------------------|
| | Number | Percent | Number | Percent | |
| Total housing units | 4,750 | 100% | 5,581 | 100.00% | 17% |
| 1-unit, detached | 4,149 | 87.35% | 4,609 | 82.6% | 11.1% |
| 1-unit, attached | 375 | 7.89% | 591 | 10.6% | 57.6% |
| 2 units | 36 | 0.76% | 111 | 2.0% | 208.3% |
| 3 or 4 units | 8 | 0.17% | 40 | 0.7% | 400.0% |
| 5 to 9 units | 14 | 0.29% | 0 | 0.0% | -100.0% |
| 10 to 19 units | 28 | 0.59% | 22 | 0.4% | -21.4% |
| 20 or more units | 23 | 0.48% | 69 | 1.2% | 200.0% |
| Mobile home | 117 | 2.46% | 139 | 2.5% | 18.8% |
| Boat, RV, van, etc. | 0 | 0.00% | 0 | 0.0% | 0.0% |

Source: Census Bureau

Note: According to Township records, there are no multifamily dwelling units in Upper Saucon.

Source: US Census Bureau – The US Census Bureau's American Community Survey (ACS) prepares unweighted housing unit sample counts providing one- and five-year estimates at the municipal level. The ACS is the readily available, recognized source for population, housing, employment, and other community statistics. Sampling procedures can be referenced at <https://usa.ipums.org/usa/voliii/ACSSamp.shtml>.

Note: The US Census Bureau, American Community Survey (ACS) defines housing unit as a house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters, or if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall. For vacant units, the criteria of separateness and direct access are applied to the intended occupants whenever possible.

The US Census Bureau, ACS defines a household including all the people who occupy a housing unit (such as a house or apartment) as their usual place of residence. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters. There are two major categories of households, "family" and "nonfamily."

Home Sale Trends

Home sales trends will be addressed in Appendix C – Housing Analysis.

Housing Value & Cost

According to the U.S. Department of Housing and Urban Development (HUD), cost-burdened families are those who pay more than 30 percent of their income for housing and may have difficulty affording necessities such as food, clothing, transportation, and medical care. Severely cost burdened is defined as paying more than 50 percent of one's income on rent.

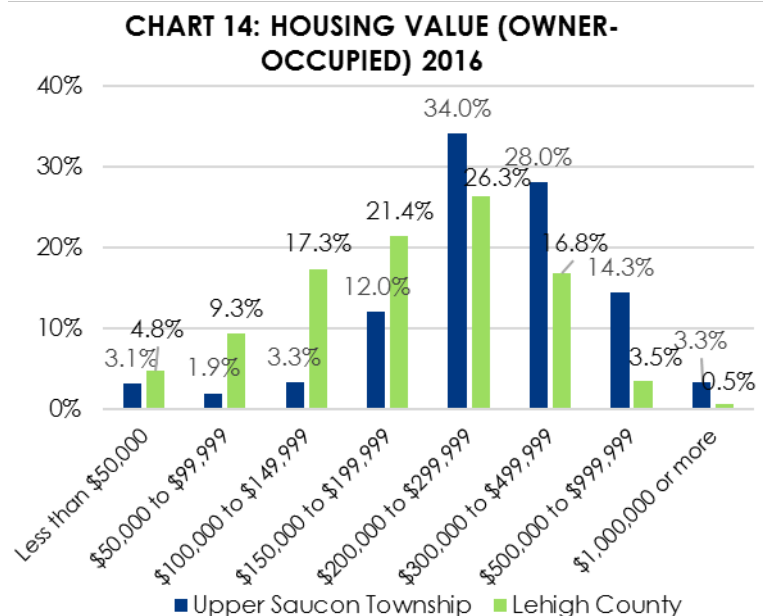
According to the Census Bureau, occupied rental units include all housing types such as single-family attached and detached units and multi-family dwellings. Note, there are no multi-family dwelling units in the Township.

The rows highlighted in green in Table 6 indicate homeowners and renters who are cost burdened or severely cost burdened. Approximately 1,125 (23.8%) homeowners, and 258 (41%) renters in Upper Saucon Township are considered cost burdened. Of the cost burdened renters, 135 (21.4%) are considered severely cost burdened.

| TABLE 6: MONTHLY HOUSING COST AS PERCENTAGE OF INCOME – COST-BURDENED HOUSEHOLDS | | | | |
|--|--------------|---------|---------------|---------|
| | Upper Saucon | | Lehigh County | |
| | Estimate | Percent | Estimate | Percent |
| Housing units with a mortgage: | 3,152 | 66.8% | 58,533 | 65.7% |
| Housing Costs less than 30.0 percent of income | 2027 | 43.0% | 41,019 | 46.1% |
| Housing Costs 30.0 to 49.9 percent of income | 755 | 16.0% | 11,079 | 12.4% |
| Housing Costs 50.0 percent or more of income | 370 | 7.8% | 6,313 | 7.1% |
| Not computed | 0 | 0.0% | 122 | 0.1% |
| Occupied Rental units paying rent: | 630 | 100.0% | 46,303 | 100.0% |
| Housing Costs less than 30.0 percent of income | 328 | 52.1% | 20,167 | 43.6% |
| Housing Costs 30.0 to 49.9 percent of income | 123 | 19.5% | 11,753 | 25.4% |
| Housing Costs 50.0 percent or more of income | 135 | 21.4% | 11,944 | 25.8% |
| Not computed | 44 | 7.0% | 2,439 | 5.3% |

Source: 2012-2016 American Community Survey 5-Year Estimate – Data to determine Cost Burdened Households

Chart 14 shows the number of owner-occupied housing units within each value range. More than three-quarters (79.7%) of the homes in Upper Saucon Township are valued above \$200,000. Upper Saucon Township has more housing within higher value brackets compared to Lehigh County which has a broader distribution of homes across all values.



Source: 2012-2016 American Community Survey 5-Year Estimates

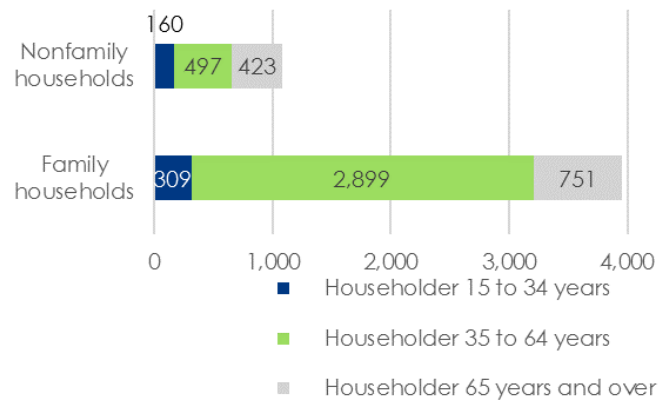
Householders

According to the 2010 Census, Upper Saucon Township has a total of 3,959 (78.6%) family households and 1,080 (21.4%) nonfamily households. As illustrated in Chart 15, most of householders are within the 35 to 64-year-old age range. Upper Saucon has more family households compared to Lehigh County which had 90,160 (67.3%) family households and 48,823 (32.7%) nonfamily households.

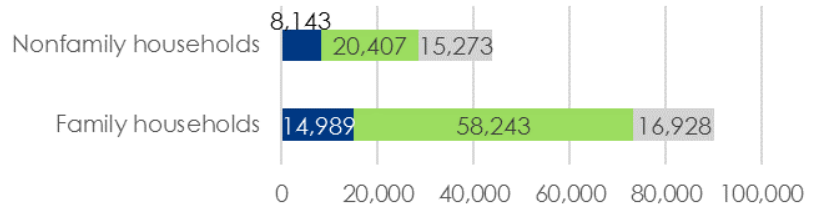
Table 7 provides characterization data based on household occupants. Within Upper Saucon Township, 4,218 (83.7%) of the households have two or more people; most of the households 3,465 (68.8%) with two or more people are married couples. 34.6% of householders have children that are less than 18 years old.

Note: The Census definition of householder, family, and non-family household can be found on the website at https://www.census.gov/glossary/#term_Householder.

**CHART 15: HOUSEHOLDER BY AGE
UPPER SAUCON TOWNSHIP**



**CHART 16: HOUSEHOLDER BY AGE
LEHIGH COUNTY**



Source: 2010 Census Summary File 2

TABLE 7: HOUSEHOLDER BY TYPE AND PRESENCE OF OWN CHILDREN (2010)

| Household | Upper Saucon Township | | Lehigh County | |
|--|-----------------------|--------------|---------------|--------------|
| | Number | Percent | Number | Percent |
| Total | 5,039 | 100.0% | 133,983 | 100.0% |
| HOUSEHOLD SIZE | | | | |
| 1-person household | 821 | 16.3% | 35,279 | 26.3% |
| 2-or-more-person household | 4,218 | 83.7% | 98,704 | 73.7% |
| Family households | 3,959 | 78.6% | 90,160 | 67.3% |
| Husband-wife family: | 3,465 | 68.8% | 66,509 | 49.6% |
| With own children under 18 years | 1,491 | 29.6% | 26,371 | 19.7% |
| No own children under 18 years | 1,974 | 39.2% | 40,138 | 30.0% |
| Other family: | 494 | 9.8% | 23,651 | 17.7% |
| Male householder, no wife present | 169 | 3.4% | 6,427 | 4.8% |
| With own children under 18 years | 85 | 1.7% | 3,329 | 2.5% |
| No own children under 18 years | 84 | 1.7% | 3,098 | 2.3% |
| Female householder, no husband present | 325 | 6.4% | 17,224 | 12.9% |
| With own children under 18 years | 168 | 3.3% | 10,318 | 7.7% |
| No own children under 18 years | 157 | 3.1% | 6,906 | 5.2% |
| Nonfamily households | 259 | 5.1% | 8,544 | 6.4% |
| Male householder | 144 | 2.9% | 4,778 | 3.6% |
| Female householder | 115 | 2.3% | 3,766 | 2.8% |

Source: 2010 Census Summary File 1



QUICK FACTS



- Township unemployment rate of 4.7% is lower than county and state rates
- Largest employment industries include education, health, and social services, manufacturing, and retail
- Largest employment sectors in the economy include management, business, science, and arts
- In 2012, predominant establishments in the Township include:
 - 76 Professional, Scientific & Technical Services
 - 60 Healthcare and social services
 - 51 Retail trade

ECONOMIC TRENDS

Basic economic trends are contained in this chapter. These trends are presented by industries and sectors. Industry describes a specific group of companies or business types while sector refers to a larger segment of the economy across a range of industries. Upper Saucon's economy is built around the following predominant employment sectors and industries.

- The management, business, science, and arts sectors accounted for the largest sector in Upper Saucon Township, followed by the sales and office sectors
- Educational, health, and social services were the largest employment industries in Upper Saucon Township.
- The manufacturing industry employs the second highest number of people but has shown a slight decrease from 2010 to 2016.

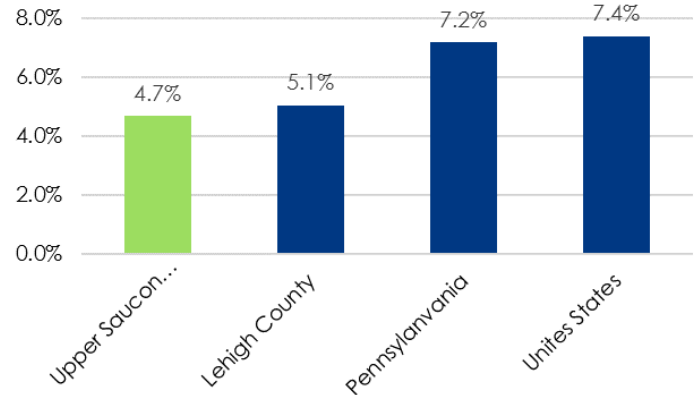
A more robust analysis of the economy discussing various market factors affecting supply and demand is contained in Appendix D – Economic Analysis.

Employment & Unemployment

The labor force consists of all people age 16 and over that are currently employed or seeking employment. The 4.7% unemployment rate for Upper Saucon is lower than Lehigh County, Pennsylvania, and U.S.

It is estimated that 69.5% of the population 16 years and over is in the labor force in Upper Saucon Township. Meaning that the remaining 30.5% of the population not in the labor force are possibly retired, disabled, choose not to work, or are pursuing higher education.

CHART 17: UNEMPLOYMENT STATUS (2016)



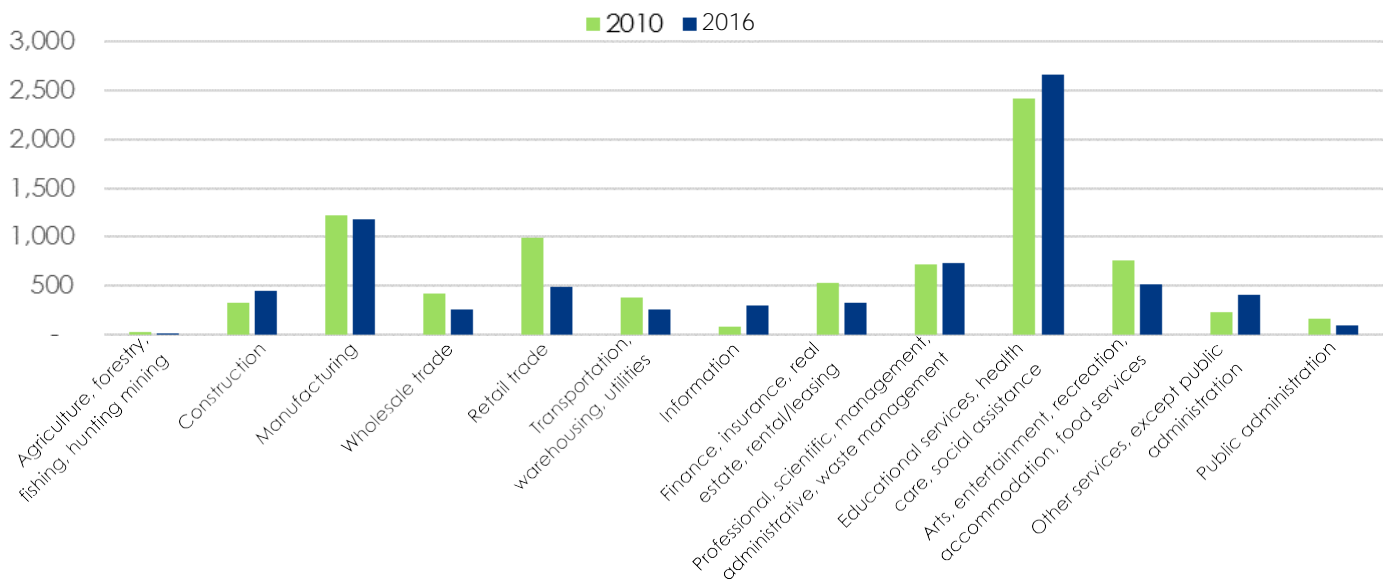
Source: 2012-2016 American Community Survey 5-Year Estimates

TABLE 8: EMPLOYMENT STATUS - POPULATION 16 YEARS & OVER (2012 - 2016 ACS ESTIMATES)

| Employment Status | Upper Saucon Township | | Lehigh County | |
|------------------------------|-----------------------|---------|---------------|---------|
| | Number | Percent | Number | Percent |
| Population 16 years and over | 12,720 | 100.0% | 286,498 | 100.0% |
| In labor force | 8,842 | 69.5% | 187,581 | 65.5% |
| Civilian labor force | 8,830 | 69.4% | 187,502 | 65.4% |
| Employed | 8,234 | 64.7% | 173,024 | 60.4% |
| Unemployed | 596 | 4.7% | 14,478 | 5.1% |
| Armed forces | 12 | 0.1% | 79 | 0.0% |
| Not in the labor force | 3,878 | 30.5% | 98,917 | 34.5% |

Source: 2012-2016 American Community Survey 5-Year Estimates

**CHART 18: EMPLOYMENT BY INDUSTRY (2010-2016 CHANGE)
UPPER SAUCON TOWNSHIP**



Source: 2010 Census & 2016 American Community Survey 5-Year Estimates

Employment by Industry

Overall, the industry employment within Upper Saucon Township and Lehigh County is a diverse mix of occupations with a balance of high skilled professional jobs and semi- to low-skilled jobs in the manufacturing, retail trade, and service industries.

The industries with the highest percentages of employment in both Upper Saucon Township and Lehigh County are:

- Educational, health and social services
- Manufacturing
- Retail Trade



Source: The Morning Call – 2018

TABLE 9: EMPLOYMENT BY INDUSTRY (2012 - 2016 ACS ESTIMATES)

| | Upper Saucon Township | | Lehigh County | |
|---|-----------------------|------------|---------------|------------|
| | Estimate | Percent | Estimate | Percent |
| TOTAL | 8,234 | 100% | 173,024 | 100% |
| Agriculture, forestry, fishing and hunting, and mining | 26 | 0% | 887 | 1% |
| Construction | 319 | 4% | 8,866 | 5% |
| Manufacturing | 1,226 | 15% | 26,025 | 15% |
| Wholesale trade | 420 | 5% | 6,316 | 4% |
| Retail trade | 989 | 12% | 20,396 | 12% |
| Transportation and warehousing, and utilities | 378 | 5% | 10,814 | 6% |
| Information | 73 | 1% | 2,802 | 2% |
| Finance, insurance, real estate, and rental and leasing | 527 | 6% | 9,436 | 5% |
| Professional, scientific, management, administrative, and waste management services | 720 | 9% | 17,899 | 10% |
| Educational, health and social services | 2,425 | 29% | 43,579 | 25% |
| Arts, entertainment, recreation, accommodation and food services | 756 | 9% | 14,787 | 9% |
| Other services (except public administration) | 222 | 3% | 6,770 | 4% |
| Public administration | 153 | 2% | 4,447 | 3% |

Source: 2012-2016 American Community Survey 5-Year Estimates

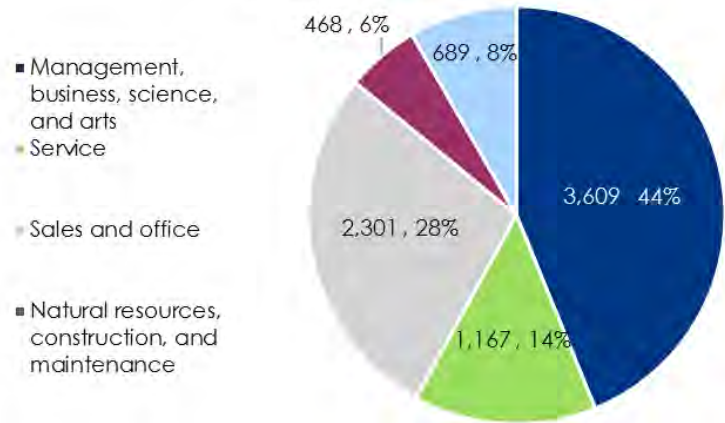
Employment Sectors

As Chart 19 shows, workers in Upper Saucon Township are employed in a range of occupational sectors across various employment industries. The largest sector for employees residing in the Township is management, business, science, and arts, which is 44% of the workforce, followed by sales and office at 28%. These occupational sectors are indicative of higher wage earners.

Industry Statistics

Table 10 on the following page illustrates the impact of various industries located within the Township. Based on number of employees, the manufacturing, wholesale trade, retail trade, and professional, scientific, and technical services industries all provide a boost in employment opportunities in Upper Saucon Township. These same industries likely contribute larger revenue through earned income taxes for resident employees to the Township as compared to other industries.

**CHART 19: EMPLOYMENT SECTORS
UPPER SAUCON - 2016**



Source: 2012-2016 American Community Survey 5-Year Estimates



Photography by April Showers, AICP

TABLE 10: INDUSTRY STATISTICS (2012 ECONOMIC CENSUS)

| Upper Saucon Township | | | | |
|--|--------------------------|---|----------------------------|---------------------|
| Industry description | Number of Establishments | Sales, shipments receipts, or revenue (Thousands) | Annual payroll (Thousands) | Number of Employees |
| Manufacturing | 5 | D | D | 1,000 to 2,499 |
| Wholesale trade* | 15 | D | D | 1,000 to 2,499 |
| Retail trade | 51 | 89,475 | 10,013 | 635 |
| Transportation and warehousing (104) | 8 | 29,055 | 19,758 | 428 |
| Information | 5 | N | 1,984 | 109 |
| Finance and insurance | 29 | N | 10,646 | 146 |
| Real estate & rental & leasing | 13 | 12,889 | 2,084 | 45 |
| Professional, scientific, & technical services | 76 | 1,168,26 | 51,496 | 876 |
| Administrative & support & waste managements & remediation service | 25 | D | D | 500 to 999 |
| Educational services | 6 | 4,242 | 1,552 | 144 |
| Health care & social assistance | 60 | D | D | 0 to 499 |
| Arts, entertainment, & recreation | 28 | D | D | 20 to 249 |
| Accommodation & food services | 29 | 36,979 | 10,712 | 789 |
| Other services (except public administration) | 32 | D | D | 0 to 249 |
| Lehigh County | | | | |
| Manufacturing | 24 | Q | D | 1,000-2,499 |
| Wholesale trade* | 408 | 8,062,377 | 577,176 | 9,182 |
| Retail trade | 1,239 | 5,550,392 | 467,472 | 20,261 |
| Information | 125 | N | 194,282 | 3,762 |
| Real estate & rental & leasing | 315 | 323,968 | 58,197 | 1,587 |
| Professional, scientific, & technical services | 754 | D | D | 5,000 to 9,999 |
| Administrative & support & waste managements & remediation service | 440 | 821,051 | 359,751 | 10,366 |
| Educational services | 81 | 45,408 | 15,711 | 773 |
| Health care & social assistance | 1,170 | 4,351,173 | 1,715,913 | 40,184 |
| Arts, entertainment, & recreation | 118 | 173,958 | 46,398 | 1,733 |
| Accommodation & food services | 735 | 633,017 | 175,919 | 12,283 |
| Other services (except public administration) | 719 | 428,286 | 127,030 | 4,730 |

Source: 2012 Economic Census of the United States

Notes:

D - Withheld to avoid disclosing data for individual companies; data are included in higher level totals

N - Not available or not comparable

* - Merchant wholesalers, except manufacturers' sales branches and offices



QUICK FACTS



- The trend of commuting to work alone for 20-30 minutes mirrors other suburban communities in the region
- While LANta provides service to the Promenade Shops, Township residents do not have access to public transit service locally
- Walking and bicycling to work in the Township is less than 2% of the traveling workforce
- An increase in diverse opportunities for local employment will reduce vehicle miles traveled, commute times, and ability to walk or bike to work

TRANSPORTATION TRENDS

Commuter Trends

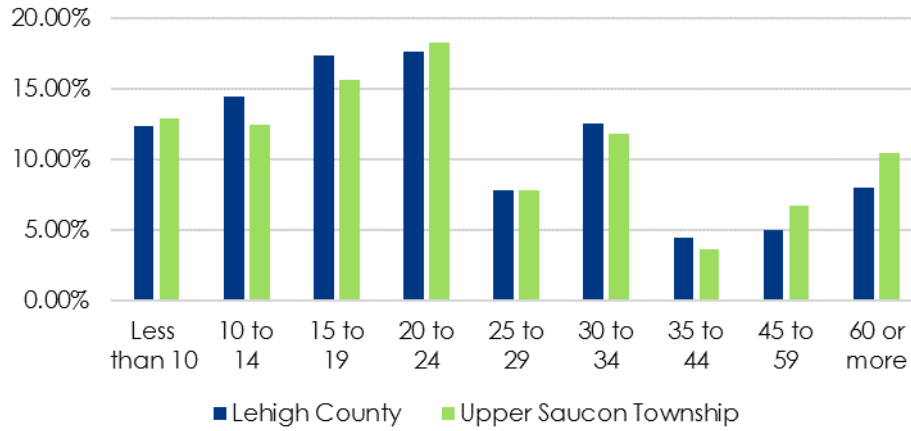
Most people in Upper Saucon Township (84.6%) commute to work in their personal vehicle driving alone. This is also the trend in Lehigh County where 80.4% of people commute by driving alone. Upper Saucon has a higher percentage (7.9%) of its population working from home when compared to the County (4.3%).

CHART 20: MEANS OF TRANSPORTATION TO WORK

| | Upper Saucon Township | Lehigh County |
|---|-----------------------|---------------|
| Car, truck, or van | 89.80% | 89.80% |
| Drove alone | 84.60% | 80.40% |
| Carpooled | 5.20% | 9.30% |
| Workers per car, truck, or van | 1.03 | 1.06 |
| Public transportation (excluding taxicab) | 0.10% | 2.30% |
| Walked | 1.30% | 2.60% |
| Bicycle | 0.00% | 0.20% |
| Taxicab, motorcycle, or other means | 0.90% | 0.80% |
| Worked at home | 7.90% | 4.30% |

Source: 2012-2016 American Community Survey 5-Year Estimates

CHART 21: TRAVEL TIME TO WORK (MINUTES)



Source: 2012-2016 American Community Survey 5-Year Estimates

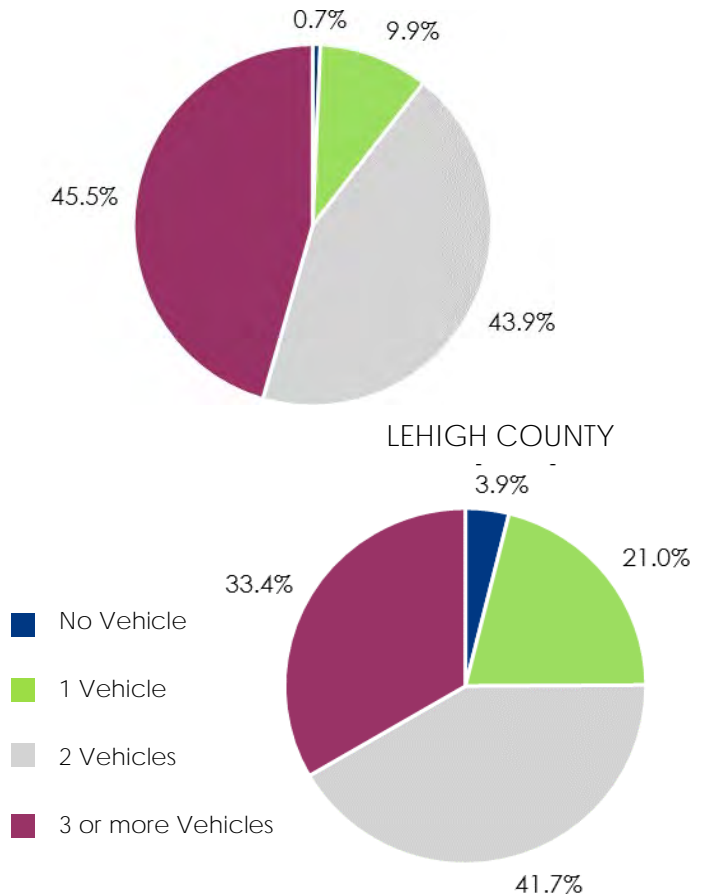
Travel Time to Work

As shown in Chart 22 the travel times for Upper Saucon Township and Lehigh County are similar, but also show that Lehigh County has slightly shorter commute times. Based on 2016 ACS Census Estimates, on average a worker spends 26.7 minutes commuting to work in Upper Saucon Township, this is more time than the County's average of 24.8 minutes.

Vehicles Per Household

Upper Saucon Township households have more vehicles available per household compared to Lehigh County. Likewise, there are fewer households in Upper Saucon that do not have access to a vehicle. More access to personal vehicles often translates to more access to jobs and consequently higher incomes as well. What these two pie charts show is that Upper Saucon's citizens are more likely to have access to a vehicle as well as access to jobs and incomes when compared to Lehigh County as a whole.

CHART 22: VEHICLES AVAILABLE PER HOUSEHOLD (2016) UPPER SAUCON TOWNSHIP



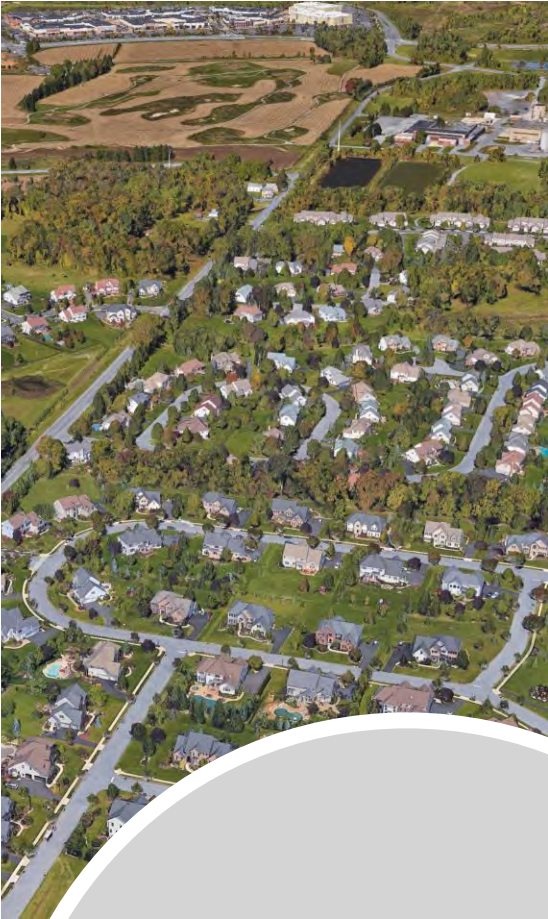
2012-2016 American Community Survey 5-Year Estimates



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Allentown, PA 18106



APPENDIX C HOUSING ANALYSIS



**UPPER SAUCON
TOWNSHIP**
LEHIGH COUNTY,
PENNSYLVANIA

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Prepared by Planning Consultant Team led by Johnson, Mirmiran & Thompson, Inc. This report is work completed by Real Estate Strategies, Inc.

Note: Photos/images used in this section are from the internet, Google Earth, and Upper Saucon Township website.

Cover image (on right) credit is given to Redfin.

Housing Market Analysis Integrity and Data Sources

While Upper Saucon Township recognizes LVPC population, employment, and household projections, the Township has reservations about the level of projected growth. Various data sources are referenced in the Plan, other Appendices, and this report – data will not tie exactly between ACS 2012-2016 (Appendix B-Trends) and 2013-2017 (Appendix C – Housing – this report). Additionally, in this report data provided by Esri include 2018 estimates and 2023 projections that provide the basis for the Housing Market Analysis.

The housing market analysis uses households as input not population and generally projects demand 5 years with an extension to 2030, but not to 2040. At the request of the Township, the market analysts created an alternative trend line based on the growth rate projected by demographic vendor Esri for use in projections through 2030 and out to 2040 to match the LVPC timeframe for projections and to support discussions elsewhere and in this report and the Plan.

This analysis identifies the potential household growth and housing demand that would be likely if land use could accommodate it. This does not mean that land use must change to accommodate growth – consideration of change should be contemplated by decision makers. The results of this study indicate that development pressure exists, and the Township may continue to feel pressure into the future to meet local and regional housing market demand.

An update to this Housing Analysis should be conducted routinely to support sustainable development decisions to assure housing goals, objectives, and strategies can be met.

HOUSING MARKET ANALYSIS

An understanding of housing market conditions provides important context for the Township's comprehensive planning process. The following analysis offers insights into how well the Township's current and proposed residential inventory matches demand and what segments of the market may be underserved. This analysis reviews existing housing market conditions in Upper Saucon and the surrounding competitive market area. The analysis then addresses historic and projected demand through 2030, considering demographic projections prepared by both public and private sources.

Primary Market Area (PMA) Definition

Upper Saucon Township is part of a larger residential Primary Market Area (PMA). The residential PMA is defined as the area from which many prospective renters or home purchasers in Upper Saucon Township are drawn and within which residential developments compete for buyers or tenants. To define the PMA, RES interviewed local real estate professionals, reviewed demographic patterns and investigated access and commuting patterns.

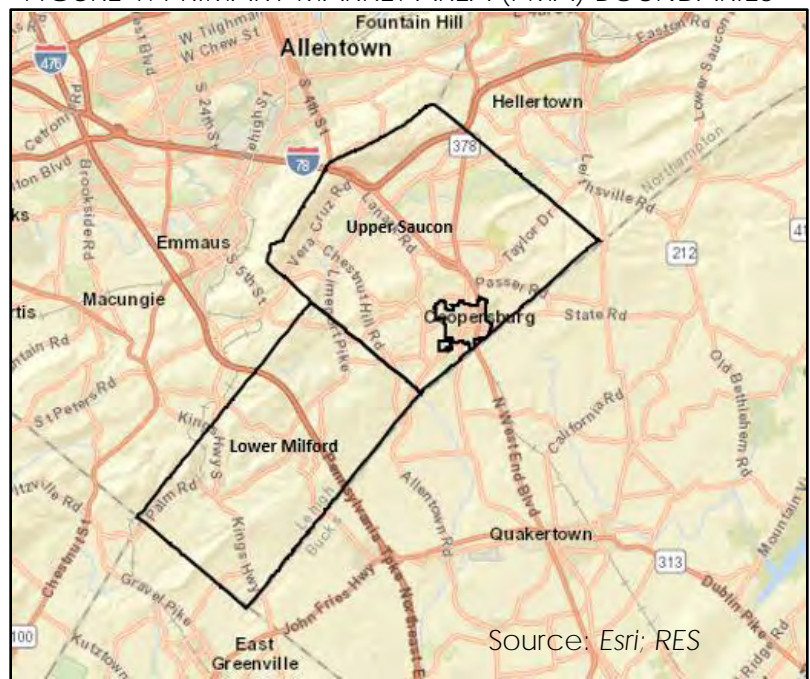
Local real estate agents and brokers report that most home purchases in Upper Saucon are made by existing Lehigh Valley residents. Those home buyers who are from outside of the Lehigh Valley include corporate transfers relocating to the area for employment as well as residents of New York City and northern New Jersey seeking lower-cost housing options within commuting distance of employment in the New York metropolitan area. Proximity to I-78 allows workers to maintain employment in New York while living in the PMA.

Renters and homebuyers with children are attracted to the strong reputation of the Southern Lehigh School District (SLSD). These family households tend to focus on school district boundaries, rather than the

component municipalities, when seeking housing. Because Realtors and brokers interviewed for this analysis emphasized the significance of high-quality public schools in the broader Lehigh Valley residential market, the Upper Saucon PMA has been defined to include the Southern Lehigh School District. The SLSD includes Upper Saucon Township, Lower Milford Township and Coopersburg Borough. The City of Allentown was excluded from the PMA because residential property in the city is unlikely to compete directly with the housing stock in Upper Saucon. A map of the PMA is shown in Figure 1.

Realtors also indicated that the presence of universities in and around Upper Saucon has created demand for student housing. Parents are purchasing single-family homes as investment properties. Their student can live in the home while attending school, and, the family can rent extra space to other college students.

FIGURE 1: PRIMARY MARKET AREA (PMA) BOUNDARIES



The PMA is located along the southern border of Lehigh County. I-476 (Pennsylvania Turnpike Northeast Extension) and Route 309 run northwest through the PMA. I-78 intersects Route 309 at the northern boundary of the PMA and runs east to west through Upper Saucon Township. The highway network offers PMA residents access to employment centers in both the Philadelphia and New York metropolitan areas. Local employment opportunities are located within Upper Saucon and the surrounding suburban townships as well as in the central cities of the Allentown-Bethlehem-Easton metropolitan area.

Economic and Demographic Characteristics

Table 1 presents population and household trends for Upper Saucon Township, the PMA and Lehigh Valley as a whole. The Lehigh Valley includes Lehigh and Northampton Counties. Household formation is a primary generator of housing demand, while household size, income and age characteristics impact the type of housing that has market support.

Population Trends

According to decennial Census statistics, Upper Saucon's population grew by 23.7% from 2000 to 2010. Population increased in the PMA and Lehigh Valley over this ten-year period by 15.4% and 11.8%, respectively. The estimated population growth rate decreased significantly in Upper Saucon, the PMA and Lehigh Valley between 2010 and 2018, a trailing impact of the national Great Recession.

Esri projects that the Upper Saucon population will grow by 5.5% between 2018 and 2023. Esri projections of population growth in the PMA and Lehigh Valley over this five-year period are lower, at 4.5% and 2.9%, respectively. The LVPC projects a relatively higher rate of population growth in all three geographies between 2010 and 2030, with the Upper Saucon population expected to average growth of 2.0% annually during this 20-year period.

Household Trends and Projections through 2030

Household growth is a primary driver of housing demand. According to decennial Census statistics, the number of households living in Upper Saucon grew by 26.5% from 2000 to 2010. The household growth rates in the PMA and Lehigh Valley over this ten-year period were 17.9% and 10.8%, respectively. The household growth rate decreased significantly in Upper Saucon, the PMA and Lehigh Valley between 2010 and 2018, and Esri data assume that this slower growth trend will continue through 2023.

The planning horizon of a comprehensive plan is typically longer than the five-year projection period of most demographic data vendors. The Lehigh Valley Planning Commission (LVPC) publishes projections of population and household counts by municipality including figures for 2020, 2030 and 2040. Compared to Esri projections, LVPC projections anticipate significantly faster household growth for the PMA, as illustrated by the trend lines in Figure 2. LVPC projects that by 2030, there will be 10,601 households in the PMA, 3,244 more households than reported by the Census 2010. The LVPC data project an average gain of 162 households per year in the PMA between 2010 and 2030, an average annual rate of growth of 1.8% over this 20-year period. The Esri projections, which only extend to 2023, are more conservative, projecting an average gain of 71 households per year over the 13-year period between 2010 and 2023, an average annual rate of growth of 1.0% over the 13-year period.

TABLE 1: POPULATION AND HOUSEHOLD TRENDS

| | Upper Saucon | Primary Market Area | Lehigh Valley |
|--|-----------------|------------------------|------------------|
| Total Population | | | |
| 2000 Census | 11,967 | 18,166 | 579,159 |
| 2010 Census | 14,808 | 20,969 | 647,232 |
| 2018 Estimate (Esri) | 16,585 | 22,907 | 677,280 |
| 2023 Projection (Esri) | 17,497 | 23,936 | 696,821 |
| LVPC 2030 Projections | 21,952 | 29,242 | 791,312 |
| Percent Change 2000 - 2010 | 23.7% | 15.4% | 11.8% |
| Percent Change 2010 - 2018* | 12.0% | 9.2% | 4.6% |
| Percent Change 2018 - 2023* | 5.5% | 4.5% | 2.9% |
| Percent Change 2010 - 2023* | 18.2% | 14.1% | 7.7% |
| Percent Change 2010 - 2030** | 48.2% | 39.5% | 22.3% |
| 2000 - 2010 Avg. Annual Rate of Growth | 2.2% | 1.4% | 1.1% |
| 2010 - 2018 Avg. Annual Rate of Growth* | 1.4% | 1.1% | 0.6% |
| 2018 - 2023 Avg. Annual Rate of Growth* | 1.1% | 0.9% | 0.6% |
| 2010 - 2023 Avg. Annual Rate of Growth* | 1.3% | 1.0% | 0.6% |
| 2010 - 2030 Avg. Annual Rate of Growth** | 2.0% | 1.7% | 1.0% |
| Total Households | | | |
| 2000 Census | 3,982 | 6,242 | 223,448 |
| 2010 Census | 5,039 | 7,357 | 247,548 |
| 2018 Estimate (Esri) | 5,650 | 8,010 | 256,164 |
| 2023 Projection (Esri) | 5,960 | 8,356 | 262,533 |
| LVPC 2030 Projections | 7,756 | 10,601 | 311,822 |
| Percent Change 2000 - 2010 | 26.5% | 17.9% | 10.8% |
| Percent Change 2010 - 2018* | 12.1% | 8.9% | 3.5% |
| Percent Change 2018 - 2023* | 5.5% | 4.3% | 2.5% |
| Percent Change 2010 - 2023* | 53.9% | 44.1% | 26.0% |
| Percent Change 2010 - 2030** | 53.9% | 44.1% | 26.0% |
| 2000 - 2010 Avg. Annual Rate of Growth | 2.4% | 1.7% | 1.0% |
| 2010 - 2018 Avg. Annual Rate of Growth* | 1.4% | 1.1% | 0.5% |
| 2018 - 2023 Avg. Annual Rate of Growth* | 1.1% | 0.8% | 0.5% |
| 2010 - 2023 Avg. Annual Rate of Growth* | 1.3% | 1.0% | 0.5% |
| 2010 - 2030 Avg. Annual Rate of Growth** | 2.2% | 1.8% | 1.2% |

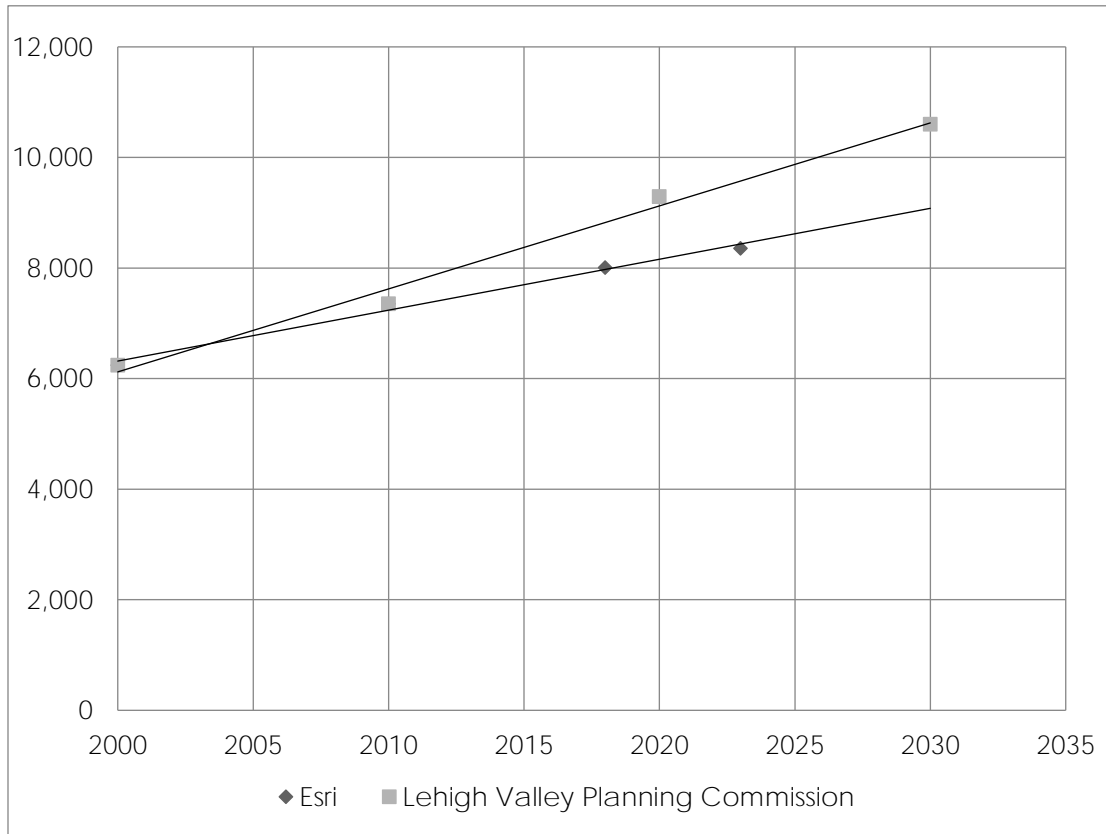
* Esri **Lehigh Valley Planning Commission

Note: Percentages may not add to 100% due to rounding.

LVPC 2030 projections have been adjusted from published levels based on discussions with LVPC analyst.

Sources: US Census Bureau, Esri, RES

FIGURE 2: PMA HOUSEHOLD GROWTH, ESRI and LVPC PROJECTED TREND LINES



Source: 2020 and 2030 projections from LVPC; 2018 estimates and 2023 projections from Esri; RES

Population Characteristics

Table 2, on the following page, compares population distribution by race and age in Upper Saucon, the PMA, and Lehigh Valley. The median age is relatively similar across the three geographies and exhibits an upward trend from 2010 to the 2018 estimate and from 2018 to the 2023 projection. Upper Saucon and the PMA have majority white populations at 90.8% and 91.9%, respectively. The Lehigh Valley has a predominantly white population at 77.6% with an African American population of 6.9%. Twenty percent of Lehigh Valley residents are Hispanic. In the PMA and Upper Saucon Township, the African American population is less than 2% and the Hispanic population is less than 6% of total residents. Lehigh Valley residents in the "some other race" category make up 8.6% of the population, compared to only 0.7% in the PMA and Upper Saucon.

TABLE 2: POPULATION CHARACTERISTICS

| | Upper Saucon Township | | Primary Market Area | | Lehigh Valley | |
|--|-----------------------|---------|---------------------|---------|---------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| 2018 Population by Age | | | | | | |
| 0 - 4 | 746 | 4.5% | 1,031 | 4.5% | 35,896 | 5.3% |
| 5 - 9 | 1,012 | 6.1% | 1,329 | 5.8% | 38,605 | 5.7% |
| 10 - 14 | 1,178 | 7.1% | 1,558 | 6.8% | 41,314 | 6.1% |
| 15 - 24 | 2,554 | 15.4% | 3,230 | 14.1% | 89,401 | 13.2% |
| 25 - 34 | 1,377 | 8.3% | 2,039 | 8.9% | 80,596 | 11.9% |
| 35 - 44 | 1,874 | 11.3% | 2,543 | 11.1% | 80,596 | 11.9% |
| 45 - 54 | 2,455 | 14.8% | 3,367 | 14.7% | 91,433 | 13.5% |
| 55 - 64 | 2,538 | 15.3% | 3,596 | 15.7% | 95,496 | 14.1% |
| 65 - 74 | 1,741 | 10.5% | 2,520 | 11.0% | 68,405 | 10.1% |
| 75 - 84 | 779 | 4.7% | 1,191 | 5.2% | 35,896 | 5.3% |
| 85+ | 332 | 2.0% | 527 | 2.3% | 19,641 | 2.9% |
| Median Age in Years | | | | | | |
| 2010 Census | 41 | | 42.3 | | 40.1 | |
| 2018 Estimate | 42.7 | | 44 | | 41.4 | |
| 2023 Estimate | 43.7 | | 44.7 | | 42.2 | |
| 2018 Population by Race/Ethnicity | | | | | | |
| White Alone | 15,059 | 90.8% | 21,052 | 91.9% | 525,569 | 77.6% |
| African-American Alone | 315 | 1.9% | 367 | 1.6% | 46,732 | 6.9% |
| American Indian Alone | 33 | 0.2% | 46 | 0.2% | 2,709 | 0.4% |
| Asian or Pacific Islander Alone | 746 | 4.5% | 848 | 3.6% | 23,028 | 3.4% |
| Some Other Race Alone | 116 | 0.7% | 160 | 0.7% | 58,246 | 8.6% |
| Two or More Races | 315 | 1.9% | 435 | 1.9% | 21,673 | 3.2% |
| 2018 Population of Hispanic Origin | 912 | 5.5% | 1,168 | 5.1% | 135,456 | 20.0% |
| Note: Numbers and percentages may not add to 100% due to rounding. | | | | | | |
| Sources: US Census Bureau; Esri; RES | | | | | | |

Median Age

The 2010 Census reported the median age of the Upper Saucon population as 41 years. Esri estimates that the 2018 median age was 42.7 years and projects an increase to 43.7 years by 2023. This aging trend is also seen in the PMA and the Lehigh Valley as a whole. The 2018 median age in the PMA was 44 years projected to increase to 44.7 years by 2023. The Lehigh Valley 2018 median age is relatively lower at 41.4 years but is projected to increase to 42.2 years by 2023.

Household Size

One-person and two-person households accounted for over 50% of all households in Upper Saucon, the PMA and Lehigh County, according to 2010 U.S. Census data. Larger households are more prevalent in Upper Saucon and the PMA compared to the Lehigh Valley as a whole. The percentage of households with four or more persons is 46.9% in Upper Saucon and 44.9% in the PMA compared to 40.3% in the Lehigh Valley overall. Esri estimates that average household size in Upper Saucon was approximately 2.8 persons in 2018, a slight increase from 2.7 in 2010. In 2018, both the PMA and the Lehigh Valley had lower average household sizes than Upper Saucon at 2.7 and 2.6 persons, respectively.

Household Age and Income

Esri 2018 estimates in Table 3 below highlight the affluence of both the PMA and Upper Saucon relative to the Lehigh Valley. Median household income is highest in Upper Saucon at \$102,653 followed by the PMA overall at \$91,226 and the Lehigh Valley at \$63,353. Esri reports that 15.8% of households in Upper Saucon have household incomes of \$200,000 or more. Tables 4 and 5 show Esri cross tabulations of PMA households by age cohort and income band, including 2018 estimates and 2023 projections. Household change by age cohort is particularly relevant in these tables. Because these data are presented in nominal (current year) rather than constant year dollars, the changes in household count by income band are less clear and can reflect the Esri model's assumptions about inflation during this time period, rather than real income growth in the market area.

TABLE 3: DISTRIBUTION OF HOUSEHOLDS BY INCOME, 2018 ESTIMATES, UPPER SAUCON, PMA, LEHIGH VALLEY

| | Upper Saucon Township | | PMA | | Lehigh Valley | |
|--|-----------------------|---------|-----------|---------|---------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Income Band | | | | | | |
| < \$15,000 | 153 | 2.7% | 280 | 3.5% | 21,774 | 8.5% |
| \$15,000 - \$24,999 | 220 | 3.9% | 409 | 5.1% | 21,774 | 8.5% |
| \$25,000 - \$34,999 | 311 | 5.5% | 473 | 5.9% | 22,286 | 8.7% |
| \$35,000 - \$49,999 | 356 | 6.3% | 609 | 7.6% | 32,021 | 12.5% |
| \$50,000 - \$74,999 | 932 | 16.5% | 1,434 | 17.9% | 48,159 | 18.8% |
| \$75,000 - \$99,999 | 740 | 13.1% | 1,121 | 14.0% | 34,838 | 13.6% |
| \$100,000 - \$149,999 | 1,362 | 24.1% | 1,810 | 22.6% | 43,548 | 17.0% |
| \$150,000 - \$199,999 | 684 | 12.1% | 849 | 10.6% | 17,419 | 6.8% |
| \$200,000 + | 893 | 15.8% | 1,017 | 12.7% | 14,345 | 5.6% |
| Median HH Income | | | | | | |
| 2018 Estimate | \$102,653 | | \$91,226 | | \$63,353 | |
| 2023 Estimate | \$106,831 | | \$99,663 | | \$71,392 | |
| Average HH Income | | | | | | |
| 2018 Estimate | \$129,265 | | \$117,210 | | \$84,757 | |
| 2023 Estimate | \$139,771 | | \$128,072 | | \$95,082 | |
| Note: Percentages may not add to 100% due to rounding. | | | | | | |
| Sources: Esri, RES | | | | | | |

TABLE 4: PMA HOUSEHOLDS BY AGE AND INCOME,
2018 ESTIMATES AND 2023 PROJECTIONS

| Income Band | Age Cohort | | | | | | | Total Households |
|------------------------|------------|-----------|------------|------------|------------|------------|-----------|------------------|
| | <25 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | |
| 2018 Households | | | | | | | | |
| < \$15,000 | 6 | 15 | 20 | 34 | 64 | 63 | 82 | 284 |
| \$15,000 - \$24,999 | 14 | 29 | 35 | 34 | 71 | 87 | 139 | 409 |
| \$25,000 - \$34,999 | 8 | 42 | 47 | 54 | 89 | 77 | 153 | 470 |
| \$35,000 - \$49,999 | 14 | 56 | 66 | 78 | 110 | 122 | 166 | 612 |
| \$50,000 - \$74,999 | 36 | 162 | 163 | 214 | 285 | 317 | 258 | 1,435 |
| \$75,000 - \$99,999 | 14 | 147 | 176 | 223 | 278 | 228 | 55 | 1,121 |
| \$100,000 - \$149,999 | 13 | 186 | 320 | 493 | 458 | 255 | 88 | 1,813 |
| \$150,000 - \$199,999 | 3 | 55 | 155 | 278 | 228 | 103 | 24 | 846 |
| \$200,000 + | <u>3</u> | <u>52</u> | <u>203</u> | <u>324</u> | <u>290</u> | <u>124</u> | <u>24</u> | <u>1,020</u> |
| Total Households | 111 | 744 | 1,185 | 1,732 | 1,873 | 1,376 | 989 | 8,010 |
| 2023 Households | | | | | | | | |
| < \$15,000 | 7 | 12 | 20 | 20 | 42 | 54 | 82 | 237 |
| \$15,000 - \$24,999 | 11 | 25 | 29 | 18 | 58 | 81 | 148 | 370 |
| \$25,000 - \$34,999 | 6 | 34 | 42 | 38 | 66 | 78 | 169 | 433 |
| \$35,000 - \$49,999 | 13 | 48 | 56 | 57 | 89 | 126 | 191 | 580 |
| \$50,000 - \$74,999 | 33 | 141 | 165 | 164 | 246 | 351 | 312 | 1,412 |
| \$75,000 - \$99,999 | 15 | 144 | 190 | 193 | 269 | 273 | 74 | 1,158 |
| \$100,000 - \$149,999 | 14 | 198 | 394 | 486 | 494 | 345 | 136 | 2,067 |
| \$150,000 - \$199,999 | 3 | 59 | 187 | 263 | 247 | 136 | 34 | 929 |
| \$200,000 + | <u>3</u> | <u>56</u> | <u>254</u> | <u>329</u> | <u>318</u> | <u>173</u> | <u>37</u> | <u>1,170</u> |
| Total Households | 105 | 717 | 1,337 | 1,568 | 1,829 | 1,617 | 1,183 | 8,356 |

Sources: Esri; RES

TABLE 5: PMA HOUSEHOLDS BY AGE AND INCOME, CHANGE 2018-2023

| Income Band | Age Cohort | | | | | | | Total Households |
|-----------------------|------------|----------|-----------|----------|-----------|-----------|-----------|------------------|
| | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | |
| < \$15,000 | 1 | (3) | 0 | (14) | (22) | (9) | 0 | (47) |
| \$15,000 - \$24,999 | (3) | (4) | (6) | (16) | (13) | (6) | 9 | (39) |
| \$25,000 - \$34,999 | (2) | (8) | (5) | (16) | (23) | 1 | 16 | (37) |
| \$35,000 - \$49,999 | (1) | (8) | (10) | (21) | (21) | 4 | 25 | (32) |
| \$50,000 - \$74,999 | (3) | (21) | 2 | (50) | (39) | 34 | 54 | (23) |
| \$75,000 - \$99,999 | 1 | (3) | 14 | (30) | (9) | 45 | 19 | 37 |
| \$100,000 - \$149,999 | 1 | 12 | 74 | (7) | 36 | 90 | 48 | 254 |
| \$150,000 - \$199,999 | 0 | 4 | 32 | (15) | 19 | 33 | 10 | 83 |
| \$200,000 + | <u>0</u> | <u>4</u> | <u>51</u> | <u>5</u> | <u>28</u> | <u>49</u> | <u>13</u> | <u>150</u> |
| Total Households | (6) | (27) | 152 | (164) | (44) | 241 | 194 | 346 |

Sources: Esri, RES

The data show significant growth in the number of PMA households headed by persons in the 65-74 and 75+ age cohorts over the next five years. This growth in the number of senior households is expected to continue through 2030. This growth trend reflects the aging of the Baby Boom generation and is occurring in many markets across the United States. The number of households in the 45-54 age cohort is projected to decrease by 164 over the next five years and this reduction may be seen in the 55-64 age cohort in the years approaching 2030. Esri also projects an increase in

households in the 35-44 age cohort between 2018 and 2023. The 35 to 44-year bracket is now the most common age cohort for first time homebuyers in the United States.

SLSD Enrollment Projections

SLSD's 2018 District-wide Facilities Feasibility Study report includes historic data on school enrollment, housing development, live birth counts and demographics for the District. These statistics are used to formulate low, moderate and high enrollment projections for each academic year from 2017-2018 to 2027-2028, as well as a fourth scenario that considers the development of as many as 1,200 units by Kay Builders. The four different projections are derived from low, moderate and high estimates for the rate of housing development in the school district. According to SLSD, the "most likely" projection is a 7% increase in school enrollment over the ten-year period. In the 2017-2018 academic year, there were 3,206 students in the district. SLSD anticipates a total enrollment of 3,434 students by 2027-2028 under the "most likely" scenario. This projection is based on the assumption that, in addition to the 39 (non-age-restricted) units under construction in Upper Saucon in 2018, 400 new detached single-family homes will be built and occupied in the school district through the 2027-2028 academic year. This projection assumes the same rate of housing production that has occurred over the past five years in the Township, a pace that is closer to the "low" trend line for household growth (see Figure 2).

Demand Analysis

Housing demand is a function of three factors: projected household growth; the need to replace obsolete or deteriorated housing units; and shifts in household age and income characteristics.

Household Growth

The estimate of housing demand generated by household growth requires an assumption about the projected rate of growth through 2030. Using Esri 2018 estimates and the LVPC projected average annual growth rate¹ indicates potential demand from household growth in the PMA of 1,912 housing units between 2018 and 2030. A more conservative projection—applying Esri's 1.0% annual average rate of household growth² to the period 2018 through 2030—suggests potential demand from household growth in the PMA of 1,016 units through 2030.

Replacement Demand

The Census Bureau's Component of Inventory Change (CINCH) report provides data on the percentage of housing stock lost from inventory for two-year periods. For the U.S., the most recent CINCH data (2011 to 2013) indicates that an average of 0.4% of the nation's suburban housing stock was lost each year. Applying this replacement factor to the 2018 estimate of 8,010 occupied PMA housing units results in estimated replacement demand of 384 housing units through 2030. Housing units are lost to the inventory for many reasons including conversion, demolition, damage from fire and weather, and deterioration. Replacement demand is met through both new construction and the substantial rehabilitation of deteriorating or functionally obsolete housing stock.

¹ 1.8% annually for the period 2010-2030.

² For the period 2010-2023

Gross Residential Demand

Adding demand from household growth--under both the Esri and adjusted LVPC scenarios—to the estimated replacement demand results in a potential PMA gross incremental residential demand of between 1,400 and 2,296 units in the 12-year period from 2018 through 2030.³ The proportion of this demand that can be captured in the Township depends on the competitiveness of Upper Saucon versus other municipalities in the PMA as well as the availability of land for residential development.

Housing Supply: Existing Conditions

Structure Type

Single-family detached homes are the most common housing unit type in both Upper Saucon and the overall PMA, representing 81.3% and 79.6% of housing units in the respective geographies. Approximately 11.4% of housing units in Upper Saucon are single-family attached homes (townhouses and twin units). In the PMA, 9.9% of housing units are single-family attached homes. Large (20 or more units) and mid-sized (10 to 19 units) multifamily buildings are not common in either Upper Saucon or the PMA. Mobile homes are present in Upper Saucon; but make up a slightly lower percentage of housing stock compared to the Lehigh Valley as a whole. Table 6 summarizes the distribution of housing units by structure type in the three analysis geographies.

TABLE 6: HOUSING UNITS BY STRUCTURE TYPE, ACS 2013-2017,
UPPER SAUCON, PMA, LEHIGH VALLEY⁴

| Housing Structure | Upper Saucon | | Primary Market Area | | Lehigh Valley | |
|---------------------|--------------|---------|---------------------|---------|---------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Total | 5,832 | 100.0% | 8,224 | 100.0% | 267,548 | 100.0% |
| 1, detached | 4,743 | 81.3% | 6,547 | 79.6% | 142,739 | 53.4% |
| 1, attached | 662 | 11.4% | 812 | 9.9% | 60,782 | 22.7% |
| 2 | 122 | 2.1% | 241 | 2.9% | 11,514 | 4.3% |
| 3 or 4 | 84 | 1.4% | 203 | 2.5% | 12,547 | 4.7% |
| 5 to 9 | 26 | 0.4% | 98 | 1.2% | 11,392 | 4.3% |
| 10 to 19 | 7 | 0.1% | 43 | 0.5% | 9,339 | 3.5% |
| 20 or more | 70 | 1.2% | 154 | 1.9% | 13,274 | 5.0% |
| Mobile home | 118 | 2.0% | 126 | 1.5% | 5,847 | 2.2% |
| Boat, RV, van, etc. | 0 | 0.0% | 0 | 0.0% | 104 | 0.0% |

Note: Percentages may not add to 100% due to rounding.
Sources: US Census Bureau; Esri; RES.

Tenure and Vacancy

Census counts and Esri estimates suggest that the number of housing units in the PMA increased by 611 between 2010 and 2018. Esri estimates show that the number of housing units in Upper Saucon

³ Typically, gross residential demand is calculated for five-year periods, however, consistent with long-term planning goals of Upper Saucon Township, RES calculated demand through 2030. Although most sections of this plan look forward through 2040, it is not realistic to project housing demand and market conditions over a 20+ year period. This housing market analysis addresses the planning time horizon through 2030.

⁴ The US Census Bureau's American Community Survey (ACS) prepares unweighted housing unit sample counts providing one- and five-year estimates at the municipal level. The ACS is the readily available, recognized source for population, housing, employment, and other community statistics. Upper Saucon Township is not aware of any residential structures with 20 or more housing units. However, the ACS definitions indicate that housing units may include assisted living facilities and living quarters located in non-residential structures. Sampling procedures can be referenced at <https://usa.ipums.org/usa/voliii/ACSsamp.shtml>.

increased by 581 during the same period, which indicates that 95% of residential growth in the PMA took place in Upper Saucon. This is not unexpected given the fact that Coopersburg is largely built out and Lower Milford is a largely rural community. Over the 18-year period between 2000 and 2018, 96% of PMA housing unit growth took place in Upper Saucon. The number of housing units in the Township increased by 1,712 during this period; the total increase in the PMA overall was 1,788 units.

TABLE 7: HOUSING UNITS BY OCCUPANCY STATUS AND ESTIMATED VALUE:
2000 AND 2010 CENSUS, 2018 ESTIMATES AND 2023 PROJECTIONS⁵

| | Upper Saucon Township | Primary Market Area | Lehigh Valley |
|--|--------------------------|------------------------|---------------|
| Total Units | | | |
| 2000 Census | 4,129 | 6,487 | 235,621 |
| 2010 Census | 5,262 | 7,664 | 262,976 |
| 2018 Estimate | 5,843 | 8,275 | 272,107 |
| 2023 Estimate | 6,148 | 8,617 | 279,283 |
| Occupancy Characteristics in 2018 | | | |
| Percent Owner-Occupied | 85.8% | 82.8% | 62.4% |
| Percent Renter-Occupied | 10.9% | 14.0% | 31.7% |
| Percent Vacant | 4.2% | 3.2% | 5.9% |
| Estimated Value, Owner Occupied Units in 2018 | | | |
| < \$50,000 | 1.2% | 1.2% | 2.2% |
| \$50,000 - \$99,999 | 1.5% | 1.4% | 5.2% |
| \$100,000 - \$149,999 | 2.4% | 3.1% | 12.8% |
| \$150,000 - \$199,999 | 5.7% | 7.1% | 19.6% |
| \$200,000 - \$249,000 | 15.5% | 16.9% | 16.6% |
| \$250,000 - \$299,999 | 16.6% | 16.8% | 13.6% |
| \$300,000 - \$399,999 | 18.5% | 19.6% | 16.9% |
| \$400,000 - \$499,000 | 16.6% | 15.0% | 6.6% |
| \$500,000 + | 21.9% | 19.0% | 6.5% |
| Median Value | \$339,471 | \$319,058 | \$230,972 |
| Note: Percentages may not add to 100% due to rounding. | | | |
| Sources: US Census Bureau; Esri; RES. | | | |

The housing tenure (owner versus renter) split in Upper Saucon is like that of the PMA. Esri estimates that the percentage of owner-occupied units in Upper Saucon and the PMA in 2018 was respectively 88.7% and 85.5% of all occupied units. Renter-occupied units were 11.3% of occupied units in Upper Saucon and 14.5% of occupied units in the PMA. It is likely that the percentage of renters in the PMA and in Upper Saucon will trend upward as overall in the United States, homeownership rates are dropping. The increased preference for renting is a result of several factors including the psychological and economic/credit impact of the housing crisis that began in 2007/8, increased interest in more urban live/work/play environments, and the growing student loan debt burden carried by younger households.

Esri estimates that Upper Saucon had a 2018 residential vacancy rate of 4.2% compared to 3.2% in the PMA as whole and 5.9% in the Lehigh Valley. The 2013-2017 American Community Survey reports fewer than 100 "other vacant" units in the Township. Vacant units that are not for rent, for sale, or

⁵ Please note that the percent owner-occupied and renter-occupied in this table are based on the entire housing stock (including vacant units). The tenure split percentages presented in the text are based on the total number of occupied units.

seasonal properties are classified as “other vacant” and are often severely deteriorated. Low overall vacancy and a low level of “other vacant” units suggest a strong housing market in Upper Saucon and virtually no slack available to absorb incremental demand. As a result, household growth and replacement demand must be satisfied through production of new homes or the substantial rehabilitation of functionally obsolete or deteriorated units.

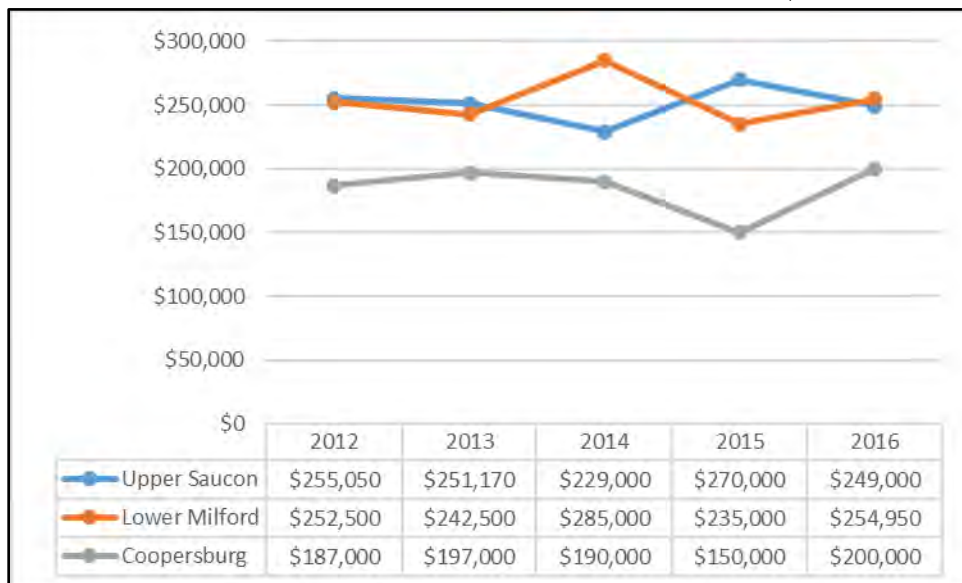
Home Values, Sales Volume and Price Trends

Home values in Upper Saucon and the PMA are generally higher than those in the Lehigh Valley overall, as shown in the Census and Esri data in Table 7. The estimated 2018 median value for owner-occupied homes in the Township was \$339,471; in the PMA it was \$319,058. The estimated 2018 median value in the Lehigh Valley was \$230,972. Homes valued below \$200,000 are far more prevalent in the Lehigh Valley than the PMA and Upper Saucon; an estimated 31.4% of homes in the Lehigh Valley overall are valued in the \$100,000-200,000 range compared to 8.1% in Upper Saucon and 10.2% in the PMA.

The Lehigh Valley Planning Commission (LVPC) tracks home sales volume and price trends for municipalities and school districts in Lehigh and Northampton Counties. The most recent LVPC data release covers the five-year period 2012 through 2016. Among school districts in Lehigh County, the Southern Lehigh School District had the highest 2016 median sales price at \$239,500, followed by Parkland School District, which had a median sales price of \$238,000. The median home sales price in Lower Milford was the highest among SLSLD municipalities in 2016 at \$254,950, followed by Upper Saucon at \$249,000. Most of the home sales in the school district were single-family-detached units (77% of all sales), followed by condominiums (12.5%) and single-family attached units (8.0%).

Figure 3 shows median sales price trends by municipality in the PMA between 2012 and 2016. Median sales prices in Upper Saucon varied over this period ranging between \$229,000 and \$270,000 and registered a 2.4% decline between 2012 and 2016. In Lower Milford, median sales prices also varied during the analysis period; the change between 2012 and 2016 was an increase of 1%. Coopersburg had significantly lower median home sales prices than the other two PMA municipalities. The median sales price in Coopersburg reached a high of \$200,000 in 2016.

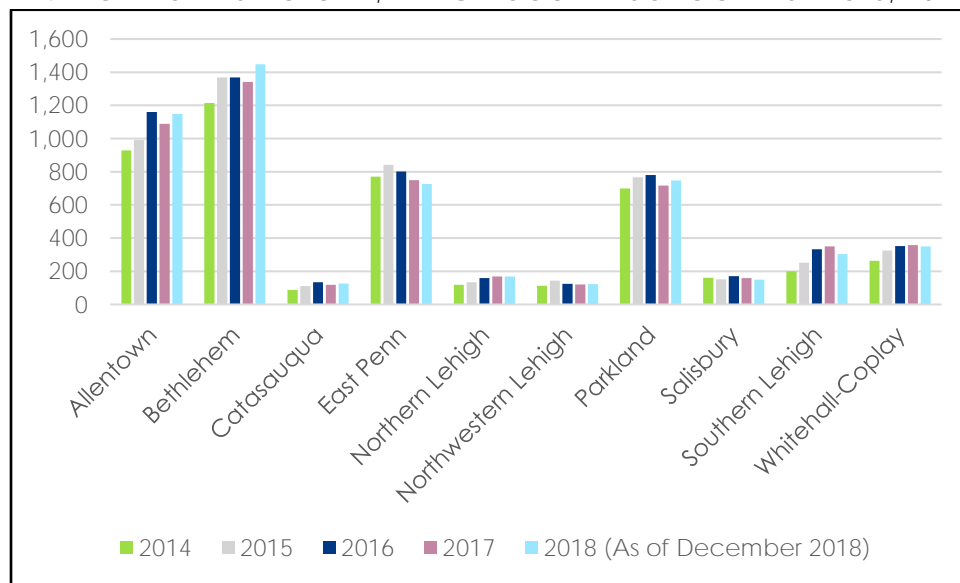
FIGURE 3: MEDIAN SALES PRICE BY PMA MUNICIPALITY, 2012-2016



Source: Lehigh Valley Planning Commission

The Greater Lehigh Valley Realtor also publish homes sales data at the school district level; these figures are more recent than the LVPC data. The Greater Lehigh Valley Realtor data for 2014 through 2018 show that the **number** or “volume” of residential sales in Lehigh County was the highest in the Allentown and Bethlehem School Districts (see Figure 4). Home sales volume trended upwards in both school districts over the five-year period. Of the suburban and rural school districts, East Penn and Parkland had the highest volume of home sales from 2014 to 2018. Both are relatively large school districts that are recognized regionally and nationally for education quality. The volume of sales in SLSD is notably lower compared to East Penn and Parkland, however, sales in SLSD increased every year from 2014 to 2017. In 2014 there were 199 home sales in the school district. In 2017, there were 350 residential sales, an increase of 76% over the 2014 level. The number of home sales in SLSD decreased slightly from 2017 to 2018, however available data for 2018 is preliminary.

FIGURE 4: HOME SALES VOLUME, LEHIGH COUNTY SCHOOL DISTRICTS, 2014-2018



Source: Greater Lehigh Valley Realtors

Although the LVPC data shown in Figure 3 only extend through 2016, the Greater Lehigh Valley Realtors' market update reports suggest that 2017 and 2018 saw continued price growth in the PMA. Year-to-date average sales prices in the SLSD increased from \$369,649 to \$395,763 from 2016 to 2017, a one-year increase of 7.1%. Average sales price increased from \$395,763 to \$418,349 from 2017 to 2018 (as of December 10, 2018) or an increase of 5.7%.⁶ Average home sales prices in SLSD are significantly higher than all other districts in the Lehigh Valley. In 2018, average sales exceeded \$300,000 in only one other Lehigh Valley school district, a reflection of the relative affluence of households in Upper Saucon and the PMA compared to the region.

Rental Housing Supply

According to ACS 2013-2017 data shown in Table 8, most of contract rents in Upper Saucon, the PMA and the Lehigh Valley are in the \$500 to \$999 per month range.⁷ Units with rents higher than \$1,000 per month are a larger proportion of the rental stock in Upper Saucon than in the PMA overall and Lehigh Valley. Esri reports that 28.6% of units in Upper Saucon have contract rents between \$1,500

⁶ The Realtors data presents home sale price averages rather than medians, so are not directly comparable to the LVPC data presented above.

⁷ Contract rents do not include tenant-paid utilities.

and \$1,999; and 7.2% have rents greater than \$2,000. By contrast, only 1.8% of rental units in the Lehigh Valley have contract rents over \$2,000. No units in Upper Saucon have rents below \$500. In the PMA, 8.2% of units have contract rents below \$500 per month; 13.2% of units in the Lehigh Valley are in this rent range.

TABLE 8: RENTER-OCCUPIED HOUSING UNITS BY MONTHLY CONTRACT RENT, ACS 2013-2017

| | Upper Saucon | | Primary Market Area | | Lehigh Valley | |
|--------------------|--------------|-------------|---------------------|-------------|---------------|-------------|
| | Number | Percent | Number | Percent | Number | Percent |
| Less than \$500 | 0 | 0.0% | 97 | 8.2% | 10,195 | 13.2% |
| \$500 to \$999 | 274 | 43.1% | 620 | 52.3% | 43,752 | 56.8% |
| \$1,000 to \$1,499 | 134 | 21.1% | 228 | 19.2% | 18,029 | 23.4% |
| \$1,500 to \$1,999 | 182 | 28.6% | 195 | 16.4% | 3,686 | 4.8% |
| \$2,000 or more | <u>46</u> | <u>7.2%</u> | <u>46</u> | <u>3.9%</u> | <u>1,364</u> | <u>1.8%</u> |
| Total | 636 | 100.0% | 1,186 | 100.0% | 77,026 | 100.0% |

Source: U.S. Census Bureau; RES

The ACS 2013-2017 vacancy rates for rental housing units in Upper Saucon and the PMA are 10.0% and 6.5%, respectively. These percentages represent a relatively small number of units: 68 vacant units being offered for rent in Upper Saucon and 81 vacant units in the PMA overall. These vacancy rates include units being marketed for rent, but **do not include "other vacant" units**. The limited number of vacant rental units combined with a lack of professionally managed multifamily rental housing, indicates potential demand for additional apartment units in the Upper Saucon PMA due to the growing propensity to rent regionally and nationwide.

Income-Restricted Housing

There is no income-restricted housing in Upper Saucon. ACS 2013-2017 data shows that over 21% of renter households in Upper Saucon are "severely rent-burdened", meaning these households spend at least 50% of their income on housing costs. These data suggest an affordability problem for some renters in the Township. It should be noted the presence of college student households living in the Township could be inflating this percentage. Student households typically pay higher rents than their incomes would suggest because of financial support from their families.

The only income-restricted housing in the broader PMA is Coopersburg School Apartments, a Low-Income Housing Tax Credit (LIHTC) development for senior households ages 55 and over located at 331 E State Street in Coopersburg Borough. The Lehigh County Housing Authority (LCHA) owns the property. This development includes 40 one-bedroom apartments for senior households with incomes below 60% of the Area Median Income (AMI). Table 9 shows the Pennsylvania Housing Finance Agency's 2018 LIHTC income and rent limits for Lehigh County. The units at Coopersburg School Apartments have affordable LIHTC rents, but do not have project-based rent subsidies (which set rents on a sliding scale based on income). The development does accept housing authority vouchers which would allow the voucher holding household to pay 30% of its income for rent and utilities rather than the regular LIHTC rent.

TABLE 9: LOW-INCOME HOUSING TAX CREDIT PROGRAM, LEHIGH COUNTY
50% AND 60% OF AREA MEDIAN INCOME LIMITS AND RENT MAXIMUMS

| MAXIMUM INCOMES | | |
|-----------------------|------------|------------|
| <u>Household Size</u> | <u>50%</u> | <u>60%</u> |
| One Person: | \$25,700 | \$30,840 |
| Two Persons: | \$29,400 | \$35,280 |
| Three Persons: | \$33,050 | \$39,660 |
| Four Persons: | \$36,700 | \$44,040 |
| Five Persons: | \$39,650 | \$47,580 |
| Six Persons: | \$42,600 | \$51,120 |
| MAXIMUM RENTS | | |
| <u>Unit Size</u> | <u>50%</u> | <u>60%</u> |
| Studio | \$643 | \$771 |
| One-bedroom: | \$689 | \$827 |
| Two-bedroom: | \$826 | \$992 |
| Three-bedroom: | \$954 | \$1,145 |
| Four-bedroom: | \$1,065 | \$1,278 |

Source: Pennsylvania Housing Finance Agency (PHFA)

There are no general occupancy income-restricted apartments in Upper Saucon or the broader PMA. Right now, the LIHTC program is the primary vehicle for financing the development of affordable housing in Pennsylvania. General occupancy (versus senior) LIHTC housing typically serves households working in lower wage occupations. A review of Pennsylvania Department of Labor 2018 Lehigh County wage data suggests the types of occupations with incomes that would allow individuals to qualify for LIHTC housing. Examples of these occupations include:

- Medical and Dental Assistants
- Pharmacy Techs
- Emergency Medical Technicians (EMTs)
- Retail Salespeople
- Beauticians
- Bank Tellers
- Child Care Workers
- Construction Labor
- School Bus Drivers

Individuals in these and similar job classifications may work in the Township but be unable to afford to live in Upper Saucon.

Age-Restricted Housing

Several age-restricted housing opportunities available in the PMA include:

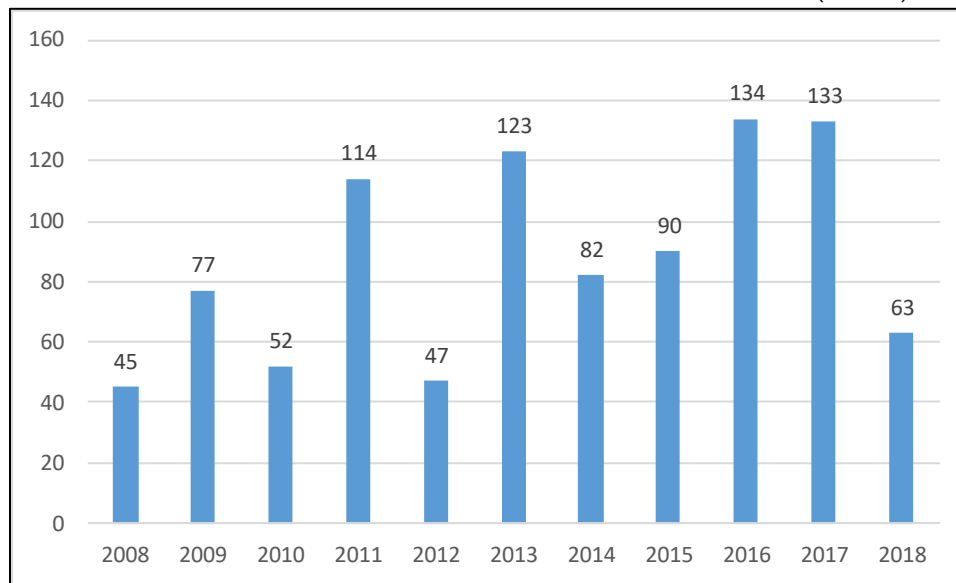
- Traditions of America at Saucon Valley is an age 55+ independent living homeownership community with 235 homesites located off Lanark Road at Victory Court. Homes are priced from the mid \$400,000s to the high \$600,000.
- Sacred Heart Senior Living is a senior living community located at 4851 Saucon Creek Road. Seventy-nine existing units are assisted living; recently built units and future proposed phases are independent living senior apartments.
- The 40-unit income-restricted Coopersburg School Apartments.

Housing Production Trends

Residential Building Permits

Upper Saucon issued residential building permits for an average of 87 units per year from 2008 to 2018, although the annual level varied substantially as shown in Figure 5. The number of units for which permits were issued during this timeframe reached a high of 134 in 2016. The 133 residential permits issued in 2017 almost matched the 2016 level. After this two-year spike in permit activity, building permits for only 63 residential units were issued in 2018. Nearly 99% of the units for which permits were issued during this 11-year period were in single-family structures.

FIGURE 5: UPPER SAUCON RESIDENTIAL BUILDING PERMITS ISSUED (UNITS), 2008-2018



Source: State of the Cities Data Systems (SOCDS) 2008-2013;
Upper Saucon Township 2014-2018

By comparison, an estimated 5,069 residential building permits were issued in Lehigh County between 2008 and 2018⁸, an annual average of 461 permitted units. In Lehigh County as a whole, over 84% of permits were issued for single-family units during this time period; multi-family units accounted for nearly 16% of residential permits issued.

Township data show that there are potentially 876 housing units in the development pipeline for Upper Saucon, as shown in Table 10 on the following page. Most of the developments will be single-family detached housing. The largest of these projects include Kay Landis Mill, Traditions of America Locust Valley and Old Saucon (both age-restricted communities), and Toscana. Brinley Court is a proposed 217-unit market-rate townhome development. The only multifamily project in the development pipeline is Sacred Heart Senior Living, a 167-unit senior independent living development that is currently under construction. Table 10 does not include a 104-unit dormitory development for DeSales University.

⁸ 2018 data were available through September 2018

TABLE 10: UPPER SAUCON RESIDENTIAL DEVELOPMENTS PLANNED OR UNDER CONSTRUCTION

| Development | Type | Units Planned | Status |
|-------------------------------------|------------------------------------|---------------|---------------------------------------|
| Kay Landis Mill | Single-family detached | 92 | Pending approval |
| Brinley Court | Townhouse | 217 | Pending recordation |
| Old Saucon AQC | Age-restricted, single-family | 80 | Phase 1 (33 units) under construction |
| Strawberry Hill | Single-family detached | 13 | Pending recordation |
| Toscana | Single-family detached | 43 | Pending recordation |
| Spring Valley Estates | Single-family detached | 7 | Pending approval |
| North 40 Estates | Single-family detached | 22 | Pending approval |
| Sacred Heart Senior Living | Age-restricted, independent living | 167 | Phase 1 (31 units) under construction |
| Estates at Saucon Valley | Single-family detached | 110 | Pending approval |
| Traditions of America Locust Valley | Age-restricted, single-family | 125 | Pending recordation |
| Total | | 876 | |

Sources: Upper Saucon Township; RES

Reconciling Demand and Supply through 2030

Table 11 presents two estimates of demand for additional residential units in Upper Saucon Township through 2030. One estimate is based on LVPC projected household growth figures for the PMA. The more conservative estimate is based on Esri's average annual rate of growth for the PMA. Gross PMA residential demand is estimated to total 1,400 units through 2030 in the Esri scenario and 2,296 units through 2030 using LVPC projections. A review of the proportion of new PMA housing production captured in Upper Saucon in various periods since the year 2000 suggests that 95% of this demand could be captured in Upper Saucon Township moving forward. Based on this capture rate, it is estimated that potential demand for a minimum of 1,330 new residential units will exist in the Township through 2030. The potential current pipeline of unbuilt residential units is 876, suggesting net demand would exist for between 454 and 1,306 additional residential units during this time period, depending on the household growth rate scenario. A full range of product types would be marketable—single-family detached units, twins, townhouses and rental apartments.

TABLE 11: UPPER SAUCON RESIDENTIAL DEMAND ESTIMATE THROUGH 2030

| | Residential Units | |
|---|-------------------|---------------|
| | Esri Scenario | LVPC Scenario |
| Household Growth | 1,016 | 1,912 |
| Replacement (occupied units)* | 384 | 384 |
| Gross PMA Demand | 1,400 | 2,296 |
| Upper Saucon Share (95%) | 1,330 | 2,182 |
| Less: Units in Pipeline | (876) | (876) |
| Upper Saucon Net Demand | 454 | 1,306 |
| Source: UST; RES; Esri; LVPC | | |
| * Based on Census CINCH factor: 0.4%/year | | |

Because of changing household age patterns—specifically the projected reduction in the number of households in the 45-64 age cohort---the move-up market (large single-family detached homes on large lots) may weaken over the planning period. The projected growth in the number of senior households (65-74 and 75+ age cohorts) suggests an ongoing market for low-maintenance, accessible units regardless if they are formally age-restricted. Growth in the number of households in the 35-44 age cohort will support the market for apartments and entry level homeownership options. More affordable housing options would help to diversify the Township's residential inventory.

Issues for Consideration in the Comprehensive Planning Process

The primary drivers of housing demand in the PMA—excellent highway access, a high quality of life and well-regarded public schools—are unlikely to change over the life of the Township's comprehensive plan update and residential development pressure will continue in Upper Saucon. Household growth and the need to replace or rehabilitate deteriorated or damaged units will create potential demand for between 1,400 and 2,296 residential units in the Township through 2030. The 876 units planned, proposed, or under construction in the Township will partially meet this demand. Currently the following issues should be considered in planning for future residential development in Upper Saucon:

- A diversity of residential products (in terms of density, structure type, sales price/rental rate levels, and tenure) offers opportunities for households to live in Upper Saucon at **all life stages and cushions the Township's** housing market from demographic shifts. The amount of appropriately zoned land available for additional residential development in Upper Saucon is limited, given the number of housing units in the development pipeline and land designated for farmland or open space preservation. The Township should consider maintaining and/or increasing product density and diversity by adopting zoning bonus densities and using tax incentives in order to maximize the value of the remaining developable land and its contribution to the tax base.
- Overall in the US and the Lehigh Valley, households at various income levels and life stages are increasingly likely to rent rather than buy their homes. Currently, there are no large, professionally managed apartment buildings in the Township to serve younger working households as well as aging households looking for lower maintenance residential options. Modern high-end rentals with extensive amenities should be marketable in Upper Saucon.
- The presence of universities in and near to the Township offers the potential for privately developed off-campus housing targeted to student households. Suburban student housing products are often three- to four-story multifamily buildings with a larger number of bedrooms and bathrooms in each unit than would typically be found in apartment buildings targeted to the general population. Units are furnished and lease terms are

Outcomes of Income & Housing Diversity

Improved quality of life equalizing educational opportunities across all income levels.

Increased transportation choice to support an economically diverse population – building demand for expansion of public transportation service.

Mixed-income neighborhoods (economic integration) creating opportunities for social integration.

Diversified local and regional workforce meeting employment demands, reducing travel to work time and traffic congestion, and improving the environment.

Figure 6: Lower Density Off-Campus Student Housing
(The Station, State College, PA)



typically more flexible to account for the structure of the academic year. Exterior amenities such as volleyball and basketball courts are typically provided. Lower density rental townhouse product is also seen in this sector.

- Quality public amenities including schools, parks and other recreational facilities, libraries and well-functioning road and highway infrastructure will help to support the housing market over time and should be prioritized in the comprehensive plan.
- There is no income-restricted affordable housing in Upper Saucon. ACS data shows that over 20% of renter households in the township are severely rent-burdened, indicating potential demand for affordable units. Provision of general occupancy affordable housing would open opportunities for low- and moderate-wage workers in Upper Saucon to shorten their commute and benefit from the high-quality public schools in the SLSD.
- Encouraging mixed-use developments that include residential units, community serving retail, services and dining and employment options (office uses, health care, etc.) would help reduce traffic volumes and appeal to the growing household preferences for walkable live/work/play environments. Existing commercial developments such as the Promenade Shops at Saucon Valley and the adjacent Stabler Corporate Center business park offer a mixed-use core that could be supplemented by residential development on adjacent undeveloped sites creating a dynamic town center environment. Highly amenitized luxury rental apartments are currently missing from the Township's housing inventory and would be a complementary addition to the corporate offices and lifestyle retail offered at the Promenade shops. More moderately priced rental housing adjacent to the Penn State campus could be another multifamily product with market support.
- Small lot single family or clustered homes with grounds maintenance handled through a homeowners' association could be appealing both to downsizing senior households and working professionals with limited time for yard work. This product would be appropriate for development on residential land that is not part of a town center mixed-use development.

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APPENDIX D ECONOMIC ANALYSIS



**UPPER SAUCON
TOWNSHIP**
LEHIGH COUNTY,
PENNSYLVANIA

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Prepared by Planning Consultant Team led by Johnson, Mirmiran & Thompson, Inc. This report is work completed by Real Estate Strategies, Inc. / RES Advisors.

Note: Photos/images used in this section are from the internet and Upper Saucon Township website.

ECONOMIC DEVELOPMENT CHAPTER

Economic development includes both regional and local government roles. The Lehigh Valley Economic Development Corporation (LVEDC) has identified the following industry groups for targeted business attraction and retention efforts in Lehigh and Northampton Counties: high performance manufacturing; high value business services; life science research and manufacturing; and food and beverage processing. LVEDC also focuses on proactively recruiting professional office, industrial users and manufacturers to downtowns and urban redevelopment areas within the Lehigh Valley, but is less active in promoting specific sites in suburban communities such as Upper Saucon.

The local government role in economic development includes:

- Identifying opportunity sites and ensuring that they are zoned to match the needs of desired business and industry types;
- Ensuring that permitting processes are simple and efficient;
- Maintaining a competitive tax structure; and,
- Investing in public improvements that strengthen the municipality both as a business location and a residential area of choice for employees.

The economic development goals included in the updated Upper Saucon Township Comprehensive Plan must be grounded in both the advantages and challenges of the municipality's location as well as workforce characteristics and trends present in the broader Lehigh Valley labor market area. This chapter summarizes these factors and suggests land use and development strategies to support appropriate business retention, attraction and job growth efforts in Upper Saucon.

Labor Force Trends

The table below shows employment and labor force statistics in the Lehigh Valley Workforce Development Area (WDA), which includes Lehigh and Northampton Counties, from 2008 to 2018.

TABLE 1: ANNUAL AVERAGE LABOR FORCE STATISTICS:
LEHIGH VALLEY WDA (NOT SEASONALLY ADJUSTED), 2008-2018

| Year | Civilian | | Unemployment | |
|----------|-------------|------------|--------------|------|
| | Labor Force | Employment | Unemployment | Rate |
| 2008 | 332,800 | 314,300 | 18,500 | 5.5% |
| 2009 | 332,100 | 303,800 | 28,400 | 8.5% |
| 2010 | 329,100 | 299,500 | 29,600 | 9.0% |
| 2011 | 332,100 | 304,000 | 28,100 | 8.5% |
| 2012 | 338,300 | 310,200 | 28,100 | 8.3% |
| 2013 | 339,100 | 313,200 | 25,900 | 7.6% |
| 2014 | 338,400 | 318,100 | 20,300 | 6.0% |
| 2015 | 342,400 | 324,200 | 18,200 | 5.3% |
| 2016 | 348,000 | 329,600 | 18,300 | 5.3% |
| 2017 | 347,500 | 330,200 | 17,300 | 5.0% |
| 2018 (p) | 349,100 | 334,900 | 14,200 | 4.1% |

Source: Pennsylvania Department of Labor and Industry
(p): Preliminary data current as of November 2018

Employment in the Lehigh Valley WDA declined from 2008 through 2010, reflecting the impact of the national recession. The recessionary job losses resulted in an unemployment rate of 9.0% and 29,600 unemployed during 2010, both highs for the ten-year period. After 2010, employment has steadily increased in the Lehigh Valley WDA, and the labor force has expanded as well. By late 2018, the

Lehigh Valley economy had gained more than 35,000 jobs over the 2010 low, and the labor force had expanded by 20,000 workers. The unemployment rate through November 2018 was 4.1%, the lowest level since 2008 and a level suggesting a balanced labor market approaching full employment. While full employment indicates a robust local economy, very low unemployment rates can discourage additional employers from locating in a community because of concerns about a shortage of available labor.

TABLE 2: ANNUAL AVERAGE UNEMPLOYMENT RATE:
LEHIGH VALLEY WDA, PENNSYLVANIA, AND UNITED STATES, 2008-2018

| Year | Lehigh Valley | Pennsylvania | United States |
|----------|---------------|--------------|---------------|
| 2008 | 5.5% | 5.3% | 5.8% |
| 2009 | 8.5% | 8.0% | 9.3% |
| 2010 | 9.0% | 8.5% | 9.6% |
| 2011 | 8.5% | 7.9% | 8.9% |
| 2012 | 8.3% | 7.8% | 8.1% |
| 2013 | 7.6% | 7.4% | 7.4% |
| 2014 | 6.0% | 5.9% | 6.2% |
| 2015 | 5.3% | 5.3% | 5.3% |
| 2016 | 5.3% | 5.4% | 4.9% |
| 2017 | 5.0% | 4.9% | 4.4% |
| 2018 (p) | 4.1% | 3.8% | 3.5% |

Source: Pennsylvania Department of Labor and Industry
(p): Preliminary data current as of November 2018

The table above compares unemployment rate trends for the Lehigh Valley, Pennsylvania and the United States. Based on the unemployment rates during the national recession, the Lehigh Valley and Pennsylvania were less impacted by economic decline than the United States as a whole. From 2008 to 2009, the unemployment rate increased by 3.0 and 3.3 percentage points in the Lehigh Valley and Pennsylvania, respectively. The nationwide unemployment rate increased by 4.5 percentage points over the same period. Unemployment peaked in 2010 across all three geographies at 9.0% in the Lehigh Valley, 8.5% in Pennsylvania and 9.6% for the United States. For 2018, the Lehigh Valley unemployment rate (4.1%) exceeded levels for Pennsylvania and the United States as a whole.

Employment by Industrial Sector

The following table shows employment by industry sector as of October 2018 and year-over-year changes for the Allentown MSA (which includes Lehigh and Northampton Counties as well as Carbon County) and the state of Pennsylvania. The share of jobs in trade, transportation and utilities is greater in the Allentown MSA (22.9% of all jobs) compared to Pennsylvania as a whole (18.6% of jobs). The percentage of statewide employment in finance, professional and business services, education and health services, and government is at least a percentage point higher than the MSA proportion. The distribution of MSA jobs within the remaining industry sectors generally reflects a similar pattern as in the state. From October of 2017, the change in employment across industry sectors was relatively low in the MSA and statewide, with the largest change being 0.7% for trade, transportation and utilities. Total non-farm employment increased 1.7% in the MSA from the previous year and 1.5% in Pennsylvania.

TABLE 3: OCTOBER 2018 NONFARM EMPLOYMENT BY INDUSTRIAL SECTOR (NOT SEASONALLY ADJUSTED): ALLENTOWN MSA, PENNSYLVANIA

| | Allentown-Easton-Bethlehem MSA | | | Pennsylvania | | |
|---|--------------------------------|------------------|-----------------|--------------|------------------|-----------------|
| | Employment | Percent of Total | 12-Month Change | Employment | Percent of Total | 12-Month Change |
| Total Nonfarm | 380,900 | 100.0% | 1.7% | 6,114,400 | 100.0% | 1.5% |
| Natural Resources, Mining, and Construction | 14,600 | 3.8% | 0.2% | 295,200 | 4.8% | 0.1% |
| Manufacturing | 37,200 | 9.8% | 0.2% | 568,400 | 9.3% | 0.1% |
| Trade, Transportation, and Utilities | 87,300 | 22.9% | 0.7% | 1,137,000 | 18.6% | 0.1% |
| Information | 5,400 | 1.4% | 0.0% | 79,800 | 1.3% | 0.0% |
| Finance | 14,100 | 3.7% | -0.1% | 327,900 | 5.4% | 0.1% |
| Professional and Business Services | 48,900 | 12.8% | -0.2% | 841,100 | 13.8% | 0.4% |
| Education and Health Services | 79,200 | 20.8% | 0.4% | 1,307,900 | 21.4% | 0.5% |
| Leisure and Hospitality | 39,000 | 10.2% | 0.4% | 580,700 | 9.5% | 0.2% |
| Other Services | 14,500 | 3.8% | 0.0% | 261,600 | 4.3% | 0.0% |
| Government | 40,700 | 10.7% | 0.0% | 714,800 | 11.7% | 0.0% |

Note: Percentages may not add to 100% due to rounding.
Source: U.S. Bureau of Labor Statistics

The education and health services sector ("eds and meds") has the second highest concentration of MSA employment after trade, transportation and utilities. One in five MSA jobs is in this sector. The Lehigh Valley offers quality educational options at both the K-12 and post-secondary levels. There are seventeen school districts in the Lehigh Valley, the majority of which have graduation rates above 90%, based on data from the Lehigh Valley Planning Commission (LVPC). As previously discussed, Upper Saucon is in the Southern Lehigh School District, which has an enrollment of 3,150 students for grades K-12. The graduation rate for the SLSD is 99%. Institutions of higher education in the Lehigh Valley include:

- Cedar Crest College
- DeSales University
- East Stroudsburg University Lehigh Valley Campus
- Lafayette College
- Lehigh Carbon Community College
- Lehigh Career & Technical Institute
- Lehigh University
- Muhlenberg College
- Moravian College
- Northampton Community College
- Penn State Lehigh Valley (PSLV)
- Triangle Technical Institute

DeSales University and Penn State Lehigh Valley are in Upper Saucon Township. These institutions are educational assets to the Township and the region, offering accredited programs in fields such as business, health administration, nursing and biosciences and the arts. Lehigh University, with strength in engineering and business, and Moravian College, a liberal arts institution, are in Bethlehem, two miles north of the Township border.

The Lehigh Valley Hospital and Health Network and the St. Luke's Hospital and Health Network are Lehigh County's largest private sector employers. St. Luke's Care Now- Center Valley facility in Upper Saucon, relocated in 2018 from Saucon Creek Road on Route-378 to a newly constructed building on Lanark Road along Route-309. Services provided includes lab services, radiology, senior care, neurology, pediatrics and OB/GYN.

The table below shows employment in the agriculture, forestry, fishing, and hunting and mining industry sector, which plays a significant role in Pennsylvania, given the prevalence of protected farmland throughout the state. Farmland preservation has been a major goal in the Lehigh Valley, particularly in townships such as Upper Saucon that has a significant amount of active farmland. Agricultural land is located throughout Upper Saucon but is heavily concentrated in the northwest section of the township from the Upper Milford border to route 309. There is farmland just northeast of Coopersburg, as well. Five-year Census Bureau American Community Survey (ACS) data shows that the level of employment in agricultural and extractive industries remained relatively stable in Upper Saucon and grew in the Lehigh Valley and the state overall between ACS 2008-2012 and ACS 2013-2017.

TABLE 4: EMPLOYMENT IN THE AGRICULTURE, FORESTRY, FISHING, AND HUNTING AND MINING INDUSTRY SECTOR

| | Upper Saucon | | Lehigh Valley | | Pennsylvania | |
|---------------|--------------|---------|---------------|---------|--------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| ACS 2008-2012 | 31 | 0.43% | 1,479 | 0.48% | 78,029 | 1.32% |
| ACS 2013-2017 | 29 | 0.33% | 2,045 | 0.63% | 85,983 | 1.41% |

Source: U.S. Census Bureau

Major Employers and Distribution of Businesses by Size

The table below lists the ten largest employers in Lehigh County. The County's largest private sector employers are in health services, warehouse/distribution and manufacturing. The largest employers with a presence in Upper Saucon include St. Luke's Hospital and Health Network and Lutron Electronics, which is headquartered in the Township.

TABLE 5: TOP 10 EMPLOYERS IN LEHIGH COUNTY, 2017

| Company | Number of Employees |
|---|---------------------|
| Lehigh Valley Hospital and Health Network | 17,000 |
| St. Luke's Hospital and Health Network* | 14,000 |
| Amazon | 3,000 |
| Lehigh County Government | 2,500 |
| Air Products and Chemicals | 2,300 |
| Allentown School District | 2,300 |
| B Braun Medical Inc. | 2,000 |
| Lehigh University | 2,000 |
| Mack Trucks Inc. | 1,800 |
| Lutron Electronics* | 1,500 |

Sources: Lehigh Valley Business; Pennsylvania Department of Labor Industry
* Located in Upper Saucon Township

Despite the presence of very large employers in the County, over 80% of business establishments in Lehigh County have fewer than 10 employees as shown in the table below. The distribution of employers by size remained stable from 2013 to 2017.

TABLE 6: DISTRIBUTION OF BUSINESSES IN LEHIGH VALLEY BY SIZE, 2013 AND 2017

| | 2013 | % of Total | 2017 | % of Total |
|-------------------|--------|------------|--------|------------|
| Total | 36,432 | 100.0% | 35,525 | 100.0% |
| Self-Employed | 5,507 | 15.1% | 5,538 | 15.6% |
| 2-9 Employees | 24,263 | 66.6% | 23,318 | 65.6% |
| 10-99 Employees | 6,171 | 16.9% | 6,195 | 17.4% |
| 100-499 Employees | 441 | 1.2% | 423 | 1.2% |
| 500+ Employees | 50 | 0.1% | 51 | 0.1% |

Source: Your-economy Time Series (YTS)

Employment by Industry: Upper Saucon Township

The 2012 Economic Census¹ shows that employment in Upper Saucon was highest in manufacturing and wholesale trade industry sectors with the total employment in each of these sectors in the range of 1,000 to 2,499. Other industry sectors with strong employment in Upper Saucon includes retail trade, administrative services, and accommodation and food services. All three sectors have at least 500 employees in the Township. Firms with significant employment in Upper Saucon include:

- Olympus America – medical and scientific devices, cameras and audio
- Aesculap Inc: part of B. Braun group of companies – medical devices
- Pitt-Ohio – logistics
- Dun & Bradstreet Corporation – credit reporting

TABLE 7: EMPLOYMENT BY INDUSTRY: UPPER SAUCON TOWNSHIP, 2012 ECONOMIC CENSUS

| Industry Description | Number of Establishments | Sector Employment |
|--|--------------------------|-------------------|
| Manufacturing | 5 | 1,000 to 2,499* |
| Wholesale trade | 15 | 1,000 to 2,499* |
| Retail trade | 51 | 635 |
| Transportation and warehousing | 8 | 428 |
| Information | 5 | 109 |
| Finance and insurance | 29 | 146 |
| Real Estate & rental & leasing | 13 | 45 |
| Professional, scientific & technical services | 38 | 438 |
| Administrative & support & waste management & remediation services | 25 | 500 to 999* |
| Educational services | 3 | 72 |
| Health care & social assistance | 30 | 337 |
| Arts, entertainment, & recreation | 14 | 212 |
| Accommodation & food services | 29 | 789 |
| Other Services | 32 | 100 to 249* |

*Range indicates total employment in industry sector
Source: 2012 Economic Census

¹ Data releases from the 2017 Economic Census will not begin until September 2019

Commuting Patterns

Upper Saucon is a suburban employment hub that offers Township residents opportunities to work close to home. The Census Bureau's OnTheMap application documents household home and work destinations from the Longitudinal Employer-Household Dynamics (LEHD) dataset, a collaborative effort of the Census Bureau and state departments of labor. In 2015, the latest year for which data is available, nearly 8,300 workers commuted into Upper Saucon Township, while more than 5,900 Township residents commuted to work in other municipalities. Approximately 720 jobs in Upper Saucon are held by Township residents. These jobs represent approximately 8.0% of all at-place employment in Upper Saucon. The residents holding those 720 jobs make up 10.8% of employed Upper Saucon residents.

Workers commuting into Upper Saucon live throughout Southeastern Pennsylvania. Nearly 45% of jobs located in Upper Saucon are held by Lehigh County residents. An additional 22.2% of jobs in the Township are held by Northampton County residents. A significant share of workers commuting into Upper Saucon come from the Philadelphia suburbs including 6.3% who live in Bucks County and 5.8% of workers who reside in Montgomery County.

The Township's accessibility also provides residents the opportunity to commute to employment throughout the region. Outside of Upper Saucon itself, Allentown is the municipality where the largest number of Township residents work. More than 600 Township residents (9.2% of all employed residents) commute to Allentown. Upper Macungie and Bethlehem are also key work destinations for Upper Saucon residents.

Educational Attainment

Upper Saucon is home to an educated labor force. An estimated 95% of adult residents (age 25+) are high school graduates, nearly 45% have at least a bachelor's degree, and more than 21% of adult residents hold a graduate or professional degree, a level almost double that of the Lehigh Valley or Pennsylvania as a whole. The proportion of Upper Saucon adult residents without a high school degree is 5%, versus more than 10% in the comparison geographies.

TABLE 8: EDUCATIONAL ATTAINMENT OF ADULTS AGE 25+, 2013-2017 ACS

| | Upper Saucon | | Lehigh Valley | | Pennsylvania | |
|---------------------------------|---------------|---------|----------------|---------|------------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Less Than High School | 538 | 5.0% | 48,716 | 10.7% | 898,982 | 10.1% |
| High School | 2,709 | 25.3% | 153,801 | 33.8% | 3,161,786 | 35.6% |
| Some College | 1,500 | 14.0% | 78,206 | 17.2% | 1,427,444 | 16.1% |
| Associate's Degree | 1,154 | 10.8% | 42,060 | 9.3% | 724,522 | 8.2% |
| Bachelor's Degree | 2,535 | 23.7% | 81,722 | 18.0% | 1,621,733 | 18.3% |
| Graduate or Professional Degree | 2,264 | 21.2% | 49,911 | 11.0% | 1,051,486 | 11.8% |
| Total | 10,700 | | 454,416 | | 8,885,953 | |

Source: U.S. Census Bureau

A highly educated local labor force is appealing to many types of enterprises including scientific and technology businesses.

Office Market

General Office Market Trends

The primary driver behind new office demand nationwide has been the desire for contemporary space marked by open layouts, amenities and environmentally friendly features. Companies are choosing to renovate existing space or relocate to offices that utilize space more efficiently. Open offices and an abundance of amenities either in or proximate to office buildings are necessary to remain competitive in the office market long-term.

Due to the impact of technology—which has allowed remote work and minimized the need for paper file storage—as well as trends towards open-layout shared work spaces, employers have significantly reduced the average square feet (SF) per employee and in many cases, reduced the overall amount of space leased. Two decades ago, the average office space usage was 250 SF/employee; today that average has dropped to 150-175 SF/employee. In areas with limited public transit options, this densification of office space has ramifications for the amount of parking required. Open offices and an abundance of amenities either in or proximate to office buildings are necessary features for space to remain competitive in the office market long-term. As a result, some older office stock, particularly in suburban locations, has struggled with increasing vacancy in the absence of significant upgrades.

Demand

Upper Saucon offers advantages for office uses including:

- Proximity to multiple interstate highways, which facilitates access to labor force throughout region
- Moderate real estate taxes
- A highly educated workforce
- Existing retail and restaurant amenities at the Promenade Shops
- Nearby educational institutions offering advanced training opportunities
- Developable land with good highway access

Despite these favorable conditions, there are several factors that are less favorable to growth in office using businesses within Upper Saucon:

- Lack of amenities within walking distance of offices in some parts of the Township
- Limited public transportation options
- Tight labor market

The establishment of the Allentown Neighborhood Improvement Zone (NIZ) incentive program has created an avenue for developers and employers locating within the NIZ to use tax revenues projected to be generated by their operations to finance construction of new facilities. While this may be appealing to some types of businesses, the extra costs to employees or parking and the higher earned income tax rate in Allentown (1.28% for non-residents) are a factor that could discourage existing suburban employers from relocating to the City.

Supply

The majority of Lehigh Valley office inventory is located in suburban office parks. Some recent construction activity has taken place in urban downtown areas. According to LVEDC data, the Lehigh Valley office submarket inventory totals 27 million SF. In 2018 through Q3, more than 280,000 SF of office space was delivered to this submarket. Almost all space delivered was in Class A office space **within the area's urban cores**—Allentown, Bethlehem and Easton. LVEDC reports that the overall office vacancy rate in the Lehigh Valley was 7.7% in Q3 2018 and that asking rents averaged \$14.88 per square foot (psf). Absorption declined year-over-year (y-o-y) by approximately 220,000 SF

and rents decreased by 3.2%. Over 300,000 SF of office space is under construction as of Q3 2018 which suggests that rent growth may be suppressed until this space is absorbed.

The Stabler Corporate Center is in Upper Saucon on Center Valley Parkway adjacent to Route 309 and I-78. This Class-A office park opened in 2007. Major office tenants include Olympus America Headquarters and Dun & Bradstreet. Olympus is a major supplier of medical devices. Dun & Bradstreet provides business credit reporting and information products. In addition to office users, a Springhill Suites by Marriott hotel is in the office park. Based on a search for listings of available space, it appears that existing Corporate Center buildings are well-occupied.

Other key commercial and institutional uses located along Center Valley Parkway include the Penn State Lehigh Valley branch campus and Promenade Shops at Saucon Valley. B. Braun Medical, one of the largest employers in the Lehigh Valley, holds three sites totaling 21.5 acres in the Stabler Corporate Center with plans to relocate its current headquarters from Bethlehem at some point. This plan, which was announced in 2013, has been placed on hold.

Office Market: Implications for the Comprehensive Planning Process

Upper Saucon Township offers office users available land, an educated workforce, highway access and quality retail amenities. However, the lack of public transit options is not ideal for companies with a large workforce.

Upper Saucon should create conditions that are attractive to contemporary office users to enhance the industry sectors most relevant to the non-residential tax base and increase the range of high-quality employment opportunities in the Township. The following strategies could help the Township to realize this objective:

- Encourage residential development in and adjacent to the Enterprise Overlay Zone to create a sustainable mixed-use town center for Upper Saucon Township.
- Encourage co-working spaces as a component of office development to provide options for resident sole practitioners and start-up businesses
- Support traffic improvements and congestion mitigation efforts to improve access to area businesses for workers and customers.
- Continue to improve quality of life amenities, such as active and passive recreational opportunities, to maintain the desirability of community as a live/work/play environment.
- Enhance multimodal transportation and infrastructure along Center Valley Parkway to enhance accessibility to amenities for the Stabler Corporate Center.
- Facilitate partnerships between local corporate employers and universities such as Penn State, Lehigh University and DeSales.

Retail Market

Over the past decade, the rapid growth of e-commerce has shaken the retail industry and decreased the number of traditional “GAFO” retail stores available as shopping centers. “GAFO” stands for “general merchandise, apparel and accessories, furniture and home furnishings and other retailers” and includes the lines of merchandise historically carried by department stores. The growth of warehouse and distribution facilities in the Lehigh Valley reflects the shift in function from retail stores to e-commerce warehouse/distribution/fulfillment facilities in providing goods to the nation's households and businesses.

The upheaval in the retail sector has led to new tenant types occupying traditional retail space. Personal services (hair and nail salons), fitness facilities, health care, professional services (accountants, real estate offices, etc.), restaurants, and entertainment tenants have become increasingly important to keeping retail storefronts leased. Owners of older retail assets are increasingly seeking opportunities to refashion these properties as mixed-use developments, often by adding residential units on unused portions of generously sized surface parking lots. Frequently these mixed-use redevelopments incorporate a health care system branded medical office component that benefits from the visibility of the retail real estate from both roadways and from visitors to remaining retail components of the complex.

Supply

Limited retail supply exists in and surrounding Upper Saucon, as the township is primarily a low-density residential community with significant farmland marked for preservation. The one exception is the destination Promenade Shops, a high-end open-air shopping center that opened in 2006. This shopping center is located on Center Valley Parkway and offers a wide range of major retailers including Banana Republic, Brooks Brothers, Old Navy, L.L. Bean, Barnes and Nobles and a Fresh Market. The shopping center also includes an AMC theatre and several dining options such as Bar Louie, Red Robin, Cosi and Starbucks. During fieldwork, RES observed pedestrian activity surrounding the Promenade Shops, particularly from the adjacent office park. The shopping center is well-occupied with an estimated vacancy rate of 9.0%.

Fairmont Village is the only other shopping center located in Upper Saucon. The anchor tenant, Weis Market closed in 2019. An existing Giant supermarket is in the Coopersburg Commons shopping center across 309 from Fairmont Village. Community-serving retail establishments including fast-food, financial institutions and auto-oriented businesses are located along Route 309 in Coopersburg. Allentown's South Mall is located within a five-mile radius of Upper Saucon. As shown in Table 9, both Fairmont Village and South Mall are struggling with high vacancy.

TABLE 9: SHOPPING CENTERS WITHIN A 5-MILE RADIUS AROUND UPPER SAUCON

| Name | Township | Anchors | Total SF | Vacancy |
|-----------------------------------|--------------|--|----------|---------|
| The Promenade Shops Saucon Valley | Upper Saucon | AMC Theatres, Banana Republic, Red Robin | 463,857 | 9.0% |
| Fairmont Village Shopping Ctr. * | Upper Saucon | Minuteman Press, AutoZone | 104,430 | 45.0% |
| South Mall | Allentown | Stein Mart, Ross Dress For Less, Petco | 405,290 | 32.5% |
| Coopersburg Commons | Coopersburg | Giant, Ecco Donami, Subway | 90,500 | 0.0% |

Sources: Esri; Loopnet; Lehigh County Assessment records; RES

* Weis Market closed in 2019. Vacancy rate estimated based on vacancy of the Weis space.

Retail Market: Implications for the Comprehensive Planning Process

Despite changes and uncertainty in the retail industry, certain location factors still are critical to developers considering projects with a retail component and impact the locations which will be successful for commercial uses. These factors include:

- Population density
- Daytime population
- Population/household growth
- Employment growth
- Income growth
- Site visibility
- High traffic counts

These conditions are most present on the major thoroughfares in the Township, including Routes 309 and 378 and Center Valley Parkway. When new retail space is developed in a community, developers typically look for national chains-- "credit tenants" --that allow them to obtain financing for new construction or substantial renovation of existing commercial space. Typically, these businesses require high visibility sites on roadways with high traffic counts. It is often difficult for smaller independent tenants to afford the rents charged for newly constructed space.

As part of the comprehensive planning process Upper Saucon has identified opportunity sites for redevelopment and solicited input from residents about preferred uses for each location. One concept that was discussed was re-creating a village center in the area around the intersection of Route 378/Main Street and Route 309. This could create a setting that is more conducive for occupancy by local and independent businesses. One of the advantages of the fitness, restaurant, health care and personal service uses that are increasingly occupying "retail" space are that they are flexible in scale. Many of these uses can fit into the smaller existing spaces found in village commercial corridors. Creating a revitalized village center in this location would require relocation of northbound SR 309 with southbound SR 309 (removing the one-way pair) with former northbound SR 309 converted to a two-way "Main Street" with slower speeds and improvements to enhance walking and biking in this commercial area.

Although not a classic retail use, private sports complexes catering to youth and adult athletic leagues are a commercial use that seeks locations in communities with a concentration of relatively affluent families with school-age children, like the demographic make-up of Upper Saucon Township. These can be single-sport or multi-sport in focus and offer outdoor or indoor facilities (or both). Facilities can be developed as an adaptive use of existing warehouse space or purpose-built. These facilities are a hybrid of two major trends impacting the retail sector—fitness and entertainment.

Industrial Market

Nationwide, the industrial market has been fueled by the growth of e-commerce and the resulting demand for warehouse, fulfillment and distribution space. Advances in manufacturing technology are also supporting new industrial production facilities in the United States that take advantage of a more highly skilled and productive workforce. Industrial uses play a pivotal role in the Lehigh Valley economy. The region is competitive in both warehouse/distribution and manufacturing.

Upper Saucon is well-positioned for industrial development, given accessibility to major highways including Route 309 and Interstate-78. In the fourth quarter of 2018, the Pennsylvania I-78/I-81 corridor had a net absorption of over 4 million SF of industrial space, according to CBRE market research reports. In the Lehigh Valley, over 7 million SF of industrial space is under construction, including close to 3 million SF in Lehigh County.

High demand for warehouse and distribution has led to very low vacancy rates among existing stock and above average asking rents. However, industrial development is not consistent with the existing land use of the township nor the desired uses of local residents. Existing industrial development in the township is limited and mostly consists of space for manufacturing. Expansion of the industrial market

in the Lehigh Valley has been concentrated in Bethlehem, Upper Macungie and Lower Macungie. High demand for industrial space may cause market pressure for warehouse development in Upper Saucon given strong access to the highway network and the prevalence of farmland, open space and undeveloped sites. Upper Saucon should continue to prioritize the preservation of farmland to maintain the preferred land use in the community.

CONCLUSION

Because of its excellent highway access, educated workforce, and growing, affluent population, Upper Saucon has been and will continue to be an attractive location for a range of employer types. Office, retail and residential development have all been important land uses in the Township, coexisting with the agricultural landscape, traditional villages and new residential neighborhoods. Historically each non-residential use—office and retail—has been concentrated on single-use parcels. Major changes in the economics of each of these sectors as well as evolving tenant and consumer preferences suggest a need for more mixed-use environments and campus style development to allow the Township to remain competitive in the years ahead.

The Weis supermarket at the Fairmont Village Shopping Center recently closed, creating a redevelopment opportunity that could encompass some of these trends. The center is visible and accessible from Route 309. This property, along with other opportunity sites along Route 309, offer the opportunity to create a mixed-use, walkable office/commercial environment that serves as a gateway to the township from nearby Coopersburg. In the grade separated section of Route 309, a village center that promotes small and or local businesses would complement high-end retail and corporate office development in the Stabler Corporate Center and the Promenade Shops at Saucon Valley. New development on opportunity sites in Upper Saucon should be envisioned as a mix of uses where appropriate. For retail and office users, visibility and highway access will be key factors in site selection.

Upper Saucon should capitalize on local educational assets such as the Southern Lehigh School District, Penn State Lehigh Valley and, DeSales University as well as proximity to other colleges and universities located in the surrounding area. The land owned by Lehigh University offers the potential for research facilities developed in partnership with private employers. The local student population presents opportunity for partnerships with corporate businesses at the Stabler Corporate Center through mentorship programs, research and internships. Young adults could also contribute to the labor pool for service-related jobs at the Promenade Shops at Saucon Valley and other retail that supports employment at the office park.

In Penn State Lehigh Valley's Strategic Plan 2014-2019, the university focuses on continued academic excellence and expanding the campus' role in the global economy and the local community. Key objectives include creating partnerships with the local high schools and community colleges, offering a wider range of degree programs and enhancing partnerships with companies in key industries in the Lehigh Valley. The campus' prime location on Center Valley Parkway could help to foster stronger relationships with the business community in Upper Saucon.

For additional commercial and mixed-use development to be successful in Upper Saucon, infrastructure improvements and a focus on sustainable transportation solutions should be a priority. Improvements to Route 309 in Center Valley around Route 378 will enhance walkability for the residential population. Landscaping and walkability features along Center Valley Parkway will make the Township a more attractive location for larger corporations seeking sites with access to amenities to serve their workforce.

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APPENDIX E BUILD-OUT ANALYSIS



UPPER SAUCON
TOWNSHIP
LEHIGH COUNTY,
PENNSYLVANIA

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Report prepared by Johnson, Mirmiran & Thompson, Inc.

Note: Photos/images used in this section are from the internet, Google Earth, and Upper Saucon Township website.

Build-Out Analysis is a planning tool used to estimate and describe the amount and the location of future development that may be allowed to occur within a specified area or a given community under current development regulations.

Through a series of maps and charts, the build-out analysis provides an estimate of the total number of houses, commercial/industrial square footage, and population that could result if all the unprotected, buildable land within a community is developed. This analysis is based upon two key assumptions – that no more land is permanently protected, and that local zoning and subdivision regulations remain unchanged.

This information is instrumental for estimating future demands on public infrastructure and the environment. It is also beneficial in allowing a community to test its development regulations and to get a glimpse of its potential future when all the remaining buildable land is developed to the extent allowed under existing regulations.

It is recommended that a build-out analysis be conducted primarily for those communities experiencing rapid growth and a dwindling supply of vacant land.

Detailed methods, steps, and assumptions are outlined in this report.

Upper Saucon Township Build-Out Analysis

INTRODUCTION

Generally, communities pay a high price for unplanned growth. Scattered development typically causes an increase in traffic congestion and safety issues, increase in air and water pollution, decrease in open space, and increase in the demand for costly public services resulting in a lower quality of life for residents. Build-out analysis methods are used to determine the location of potential development illustrating the potential path that development can take in the future when land use policies and regulations do not change. This method of analysis can also be used to demonstrate growth under other scenarios. By providing a picture of the potential future, a Build-Out Analysis helps identify the implications of existing development regulations and helps communities to discuss what steps should be taken to manage growth.

For this analysis, potential developable land are undeveloped areas of land that has the potential for residential or non-residential development in accordance with current land use regulations. Figure 1: Lands Available for Potential Development identifies land within the Township with potential for development (refer to page 13 of this report). These lands do not include underdeveloped land or land with potential for redevelopment.

The analysis outlined in this report determines number of additional dwelling units and non-residential square feet that could be built on potential developable land under existing zoning regulations.

Steps to Build-Out and Impacts

Step 1: Create a base map identifying net developable land. Figure 1, Lands Available for Development, on page 13, identifies net developable land calculated by eliminating the following from Map 1, Existing Land Use map with a parcel overlay using other map coverages: 1) existing publicly and privately developed lands; 2) existing lands publicly owned and utility easements; 3) privately and publicly owned lands permanently preserved and conserved (e.g. agricultural easements, conservation easements, and agricultural lands targeted for permanent preservation); and 4) portions of undeveloped privately and publicly owned lands with environmental constraints such as areas with wetlands, steep

slopes, and floodplains. Other notes include: 1) Lands in Agriculture Security Areas that are not part of a permanent agricultural easement are considered lands with potential development, and 2) Lands identified by the Township that are planned or approved for pending residential development are identified and included in this analysis based upon proposed or remaining residential units.

Approximately 20.3% or 3,212 acres of the Township are potential net developable land remaining for future residential and non-residential development.

Step 2: Overlay existing zoning. Existing zoning is used to calculate acres and percentage of land by zoning district and the net developable land in acres by zoning district (refer to Tables 1 and 2). The potential for development is identified by generally applying density standards by zone to determine build-out. This analysis applies Conservation Design standards for residential development as outlined in Section 427 of the Zoning Ordinance along with a dedication of 20% for streets, stormwater management, and other infrastructure for R1, R2, and R3 zones. And, the greatest square footage permitted in C, I, and E zones for non-residential development is applied to potential net developable land along with a deduction of 30% for streets, stormwater management, and other infrastructure.

Table 1: Acreage and Percentage of Land by Zoning District

| Zoning District | Acres | Percentage of Total Acreage |
|-----------------------------------|--------|-----------------------------|
| Agricultural Preservation (A) | 1,409 | 8.9% |
| Rural Residential (R1) | 3,622 | 23.0% |
| Suburban Residential (R2) | 5,912 | 37.5% |
| Multi-Family Residential (R3) | 552 | 3.5% |
| Open Space Residential (OSR) | 933 | 5.9% |
| Commercial (C) | 196 | 1.2% |
| Industrial (I) | 451 | 2.9% |
| South Mountain Conservation (SMC) | 1,853 | 11.7% |
| Enterprise (E) | 855 | 5.4% |
| Total | 15,783 | 100% |

Source: UST Zoning Map

Table 2: Summary of Potential Net Developable Land by Zoning District

| Zoning District | Acres of Potential Net Developable Land | Percentage of Acres Remaining for Potential Development |
|-----------------------------------|---|---|
| Agricultural Preservation (A) | 345.85 | 10.77% |
| Rural Residential (R1) | 1,114.44 | 34.70% |
| Suburban Residential (R2) | 678.85 | 21.14% |
| Multi-Family Residential (R3) | 38.47 | 1.20% |
| Open Space Residential (OSR) | 127.32 | 3.96% |
| Commercial (C) | 61.06 | 1.90% |
| Industrial (I) | 178.67 | 5.56% |
| South Mountain Conservation (SMC) | 291.92 | 9.09% |
| Enterprise (E) | 375.28 | 11.68% |
| Total | 3,211.86 | 100% |

Note: Total Net Developable Land – Land available for development minus environmentally constrained lands. Lands available for development with an area under 0.5 acres were considered too small for development and were removed from consideration.

Step 3: Identify Impacts. The build-out analysis is quantified to determine impacts such as potential population and housing unit projections as well as projections for increases in jobs, traffic, acres of lost farmland, water usage, and other community impacts.

Build-Out Analysis Results

On the following page, Table 2A: Potential Net Developable Land by Zoning District reflects the potential net developable land by zoning district with a breakdown of lands inside and outside of the Act 537 Service Area and a breakdown of agricultural and non-agricultural lands. Growth within the Act 537 Service Area, lands served by public sewer, should be developed at densities and intensities that are supported by public sewer and water and a roadway network with access to interstates and arterials that allow for the free flow of commuter traffic, goods movement, and daily travel. The ability to provide adequate public facilities for various types and densities of use is an important factor influencing the timing of development on potential net developable lands in the Township.

Analysis results generally reveal the following:

- Approximately 2,082 acres of land currently used for agricultural production are considered potential net developable land based upon zoning regulations. As the Township builds-out, if not preserved or regulated by strong agricultural zoning, these lands have the potential to be permanently lost to residential and non-residential development.
- Over 57% of the total 3,212 acres of potential net developable lands are zoned R1-Rural Residential (1,114 acres), R-2 Suburban Residential (679 acres), and R-3 Multi-Family Residential (39 acres). Multi-family residential development is one of the types of housing needed to meet housing choice and affordability goals (refer to Appendix C – Housing Analysis).
- Of the 3,212 acres of potential net developable land, 1,252 acres (39%) are located inside the Act 537 Service Area (an area zoned for a variety of uses at higher density and intensity) and 1,960 acres (61%) are located outside of the Act 537 Service Area (an area reserved for agricultural activity, conservation of forested land, and rural development at a very low density).
- Most of the potential net developable land located outside of the Act 537 Service Area (1,625 acres or 51%) are zoned for residential development.
- Approximately 615 acres of potential net developable land are zoned for non-residential uses that could be future places of employment for residents of the Township and the region.

Table 2A: Potential Net Developable Land by Zoning District

| Zoning District | Total Acres Zoned | Acres of Potential Net Developable Land ¹ | Acres of Potential Net Developable Land Inside 537 Service Area | Acres of Potential Net Developable Land Outside 537 Service Area |
|--|-------------------|--|---|--|
| Agricultural Zoning Districts | | | | |
| Agricultural Preservation (A) – Non-Ag Lands | 1,408.98 | 5.44 | 5.44 | 0.00 |
| Agricultural Preservation (A) – Ag Lands | | 340.41 | 45.77 | 294.64 |
| Total Agricultural Lands | 1,408.98 | 345.85 | 51.21 | 294.64 |
| Residential Zoning Districts | | | | |
| Rural Residential (R1) – Non-Ag Lands | 3,622.36 | 236.15 | 68.68 | 167.47 |
| Rural Residential (R1) – Ag Lands | | 878.29 | 32.27 | 846.02 |
| Suburban Residential (R2) – Non-Ag Lands | 5,911.87 | 274.19 | 172.15 | 102.04 |
| Suburban Residential (R2) – Ag Lands | | 404.66 | 265.33 | 139.33 |
| Multi-Family Residential (R3) – Non-Ag Lands | 552.44 | 8.15 | 6.20 | 1.95 |
| Multi-Family Residential (R3) – Ag Lands | | 30.32 | 30.32 | 0.00 |
| Open Space Residential (OSR) – Non-Ag Lands | 933.44 | 21.70 | 0.44 | 21.26 |
| Open Space Residential (OSR) – Ag Lands | | 105.62 | 0.00 | 105.62 |
| South Mountain Conservation (SMC) – Non-Ag | 1,853.07 | 291.92 | 50.55 | 241.37 |
| Total Residential Lands | 12,873.13 | 2,251.00 | 625.94 | 1,625.06 |
| Commercial Zoning Districts | | | | |
| Commercial (C) – Non-Ag Lands | 195.65 | 9.75 | 9.75 | 0.00 |
| Commercial (C) – Ag Lands | | 51.31 | 51.31 | 0.00 |
| Industrial Zoning Districts | | | | |
| Industrial (I) – Non-Ag Lands | 450.88 | 22.39 | 1.70 | 20.69 |
| Industrial (I) – Ag Lands | | 156.28 | 136.28 | 20.00 |
| Enterprise Zoning District | | | | |
| Enterprise (E) – Non-Ag Lands | 855.19 | 259.88 | 259.88 | 0.00 |
| Enterprise (E) – Ag Lands | | 115.40 | 115.40 | 0.00 |
| Total Non-Residential Lands | 1,501.72 | 615.01 | 574.32 | 40.69 |
| Sub-Total Non-Ag Lands | | 1,129.57 | 574.79 | 554.78 |
| Sub-Total Ag Lands | | 2,082.29 | 676.68 | 1,405.61 |
| Totals | 15,783.88 | 3,211.86 | 1,251.47 | 1,960.39 |
| Overlay Zoning Districts² | | | | |
| Enterprise Overlay Zone (EOZ) – Non-Ag Lands | 193.18 | 135.25 | 135.25 | 0.00 |
| Village Commercial Overlay (VC) ³ | 21.93 | 0.00 | 0.00 | 0.00 |
| Sub-Totals | 215.11 | 135.25 | 135.25 | 0.00 |

Source: Build-Out Analysis (revised 8/14/2020) – Total acres within Zoning District includes roadways, rights-of-way, and public utilities.

¹Total Net Developable Land – Land available for development minus environmentally constrained lands. Lands available for development with an area under 0.5 acres were considered too small for development and were removed from consideration.

²Calculations for Overlay Zoning Districts covers acreages already accounted for in the top portion of the table.

³The AQC Overlay Zone has been repealed but remains identified on the Zoning Map.

Note: The existing land use was used to determine non-agricultural and agricultural land use acreages by zoning district and planned and approved residential development tracked by the Township is not included in the acreages above. Agricultural and non-agricultural lands include forested land where present – refer to Maps 1, 4, and 6 in the Map Book to view forested areas.

Build-Out Implications

As previously identified, the Township has 20.3% or 3,212 acres of potential net developable land. The tables on pages 11 and 12 demonstrate Step 3 in the build-out analysis identifying impacts for planned and approved residential and non-residential development (Table 5) and the potential for additional development on remaining net developable land (Table 6).

For example, the analysis suggests the potential for development of nearly 2,597 acres of net developable lands zoned for residential development (agriculture and residential zoning districts combined) when generally applying a conservation design development scenario in accordance with current zoning (Table 6). This analysis also considers the impacts of 615 acres of potential net developable lands for additional non-residential development when generally applying development standards in accordance with current zoning.

The cumulative impacts of a build-out scenario under current zoning for planned, approved, and potential new development is identified in Table 7 (e.g. increases in population, traffic, jobs, and water consumption and the loss of agricultural land among other impacts). Moving forward, the regulation of new development and redevelopment should be carefully considered to minimize these community impacts as well as other impacts not quantified in this analysis.

Summary of Implications Under Current Zoning

Table 7 on page 12 summarizes the potential build-out impacts as further discussed below:

- The potential build-out population is estimated at 23,421 (2018 population of 16,585 plus a projected 6,836 increase in population potentially through or beyond 2040). This population projection does not account for mixed use development in the Enterprise and Enterprise Overlay zones that would permit residential uses (e.g. upper floor living, live work units, etc.) with a range of commercial uses nor does it account for a mixed-use redevelopment concept (Traditional Neighborhood Development – TND) for sites like the Fairmont Shopping Center. The comparison of population projections from various sources are identified in Table 3 and the comparison of households and housing unit projections are identified in Table 4.

Table 3: Comparison of Population Projections

| Source of Population Projections for Upper Saucon Township | 2018 Population | 2023 Projection | 2030 Projection | 2040 Projection |
|--|-----------------|-----------------|-----------------|-----------------|
| LVPC Population Projections | 16,585 | | 21,952 | 25,238 |
| Appendix B Trends | 16,585 | 17,497 | 19,153 | 21,793 |
| Appendix C Housing Analysis | 16,585 | 17,497 | | |
| Appendix E Build-Out Analysis | 16,585 | | | 23,421 |

Table 3A: Comparison of Households and Housing Unit Trends

| Housing Projections | 2018 Estimate | 2023 Estimate | 2030 Estimate | 2040 Estimate |
|---|---------------|--------------------|---------------|--------------------|
| Upper Saucon Township Households ¹ | 5,650 | 5,960 | 6,457 | 7,167 |
| Upper Saucon Township Housing Units | 5,843 | 6,148 ² | | 8,882 ³ |

¹Source: Appendix B Trends. Conservative household estimates are based upon ESRI linear projection established in Appendix C applying a 1.3% growth rate per year and a 1.0% or 71 household increase per year for 2030 and 2040 estimates.

²Source: Appendix C Housing Analysis estimated housing units (US Census and Esri projections).

³Source: Build-Out projected an additional 2,734 housing units based upon lands available for development under current zoning.

Note: Appendix C Housing Analysis projects household growth of 1,016 from 2018 thru 2030 based upon potential demand with a potential yield an estimated number of households reaching 6,666 as the high end of estimated households through 2030.

- The residential development capacity (potential net developable residential lands under current zoning) could yield an additional estimated 2,734 housing units including single family detached and attached units and townhouses, and possibly some multi-family dwellings/apartments. This potential development could result in an estimated total of 8,882 housing units in the Township by 2040 or beyond.
- Aside from the planned and approved development reported by the Township shown in Table 5, the projected build-out development is estimated to impact 2,082 acres of farmland (a significant potential loss of farmland). If developed, nearly 50 acres of those lands would be preserved for park and recreation land and another 1,172 acres preserved as open space applying the zoning ordinance conservation design standards.
- The projected build-out of non-residential uses (commercial, institutional, and industrial) could potentially result in an additional 14.9 million square feet of new development. This is a conservative estimate generally applying zoning bulk standards with some modifications to yield a less intense development pattern. This projected non-residential development is estimated to potentially result in 29,878 new employment opportunities for residents living within the Township and the region. Depending upon various markets analyzed in Appendix D and market drive commercial development characteristics, projected employment build-out may be achieved beyond 2040 or realized at a lower level.
- All projected development (residential and non-residential including planned/approved residential development) is estimated to increase average daily traffic (AADT) by 98,990 new trips and to increase water usage in gallons per day (GPD) is anticipated to increase by 2.51 million GPD.

Consideration of Opportunity Sites for Future Land Use

As part of the scope of study, the Township staff identified several sites where potential development under a specific scenario would be an opportunity to enhance the social, environmental, and economic aspects of the community with potential positive impacts on long-term community sustainability. These sites are referred to as Opportunity Sites.

Opportunity Sites identified in Figure 2 at the end of this report and as described on the following pages in Table 4 were discussed with the Township staff, the Steering Committee, and the public to gain input. This input was evaluated in the context of the various technical analysis outlined in the Appendix B – Trends Report, Appendix C – Housing Analysis Report, and Appendix D – Economic Analysis Report to support recommendations for the future development or redevelopment of these sites. The results of the build-out analysis and recommendations for Opportunity Sites were used to prepare a preferred future Land Use Map contained in Chapter 10 of the Comprehensive Plan document.

Table 4: Opportunity Sites with Significant Development Potential

| Opportunity Site* | Potential Use Steering Committee and Public Input | Recommended Potential Use |
|---|--|---|
| Route 309 Opportunity Sites | | |
| 1a Reed Property (24 acres) | Commercial Development | Proposed development plan for mixed use (residential and non-residential uses). |
| 1b Kay/Lehigh Tract (Developer Proposal Withdrawn) | Mixed Use – Apartments, retail, townhomes, singles, and condos. The site is conducive to a town center development pattern. | Bundle this site with the redevelopment of the golf course with renegotiation of the protective covenants and addressing SWM. Redevelopment of golf course as open space, playing fields, and senior transitional housing development with commercial office space fronting along Center Valley Parkway (see 2b). A mix of light industrial, high-tech, and research park development along Route 309. |
| 1c Along Route 309 – the area between Lanark Road and Center Valley Parkway | Pockets of residential along the corridor could transition to commercial. | Redevelopment of residential sites to commercial with buffers and screening for adjacent existing residential uses. Access management improvements and guidance on how to avoid commercial strip development should be strongly considered. |
| 1d Southeast Corner of 309 and Lanark and Camp Meeting Roads | 2 Residential properties transition to commercial. | Gateway improvements, landscaping, and signage to government complex and school. |
| Enterprise Zone Opportunities | | |
| 2a Undeveloped Land North and East of Promenade Shops | Commercial development. | Land north of Shops – Upscale apartments with amenities including walking paths. Land east of Shops – Research/development and mixed-use development in a campus-style development pattern integrating walking paths, open space, plazas, and other amenities. Campus-style development is defined in Chapter 9 Community Character and Design. |
| 2b Business Park and abandoned Golf Course | High tech companies and corporate headquarters. Golf Course green space/open space and playing fields. Corporate Parkway West should extend through the redevelopment of the golf course as well as multi-use paths. | Business Park with new development consisting of high-tech companies, corporate headquarters, and commercial office development. Golf course improved with playing fields and open space and renegotiate protective covenants to allow senior transitional housing development – this development should be planned with the development of the Kay/Lehigh Site 1b above. Corporate Parkway West should extend through the redevelopment of the golf course as well as multi-use paths. |

*Opportunity Site number corresponds with a numbered location on Figure 2: Planned/Approved Residential Development and Potential Opportunity Sites.

Table 4: Opportunity Sites with Significant Development Potential (continued)

| Opportunity Site* | Potential Use Steering Committee and Public Input | Recommended Potential Use |
|--|--|--|
| Preservation of Historic Sites | | |
| 3 President Pump Site / Ueberroth Zinc Mine | Combine historic preservation with recreation. | Partnership between Lehigh University and Township to preserve, use for educational/research purposes, and public recreation. |
| Village and Mixed-Use Cluster | | |
| 4 Northwest and Southwest corners of Center Valley Parkway and Route 378 | Institutional use. | Rezone as Village Center for mixed-use development. Site 4 and 5 are considered together. |
| 5 Eastern Terminus of Center Valley Parkway | Possibly a Village Center. | New Village Center development with residential. Site 4 and 5 are considered together. |
| Potential Commercial Development | | |
| 6 Northeast Corner of 309 and Passer Road | Not sure of the potential for this site. | Parcel may be too small for meaningful redevelopment. |
| Gateways/Transportation | | |
| 7a Route 309 & Center Valley Parkway | Gateway and interchange improvements. | Gateway and interchange improvements. |
| 7b Route 378 at Municipal Boundary with Lower Saucon Township | Gateway and improvements to support Village Center. | Gateway and improvements to support Village Center. |
| 7C Route 309 North of Coopersburg Borough | Gateway improvements | Gateway improvements |
| Residential Development Sites | | |
| 8 Eisenhart Property | No suggestion | Proposed estate lots |
| Traffic Improvements | | |
| 9a also 7a Route 309 & Center Valley Parkway | Interchange improvements | Interchange improvements |
| 9b Original Center Valley Village near intersection of 309 and 378 (traffic and redevelopment opportunities) | Revitalize the village through transition of key sites from residential to commercial or commercial with upper floor living. Improvements to make the center walkable. | Identify the area as a village center and part of an elongated village center along Route 309. Infrastructure improvements to create a two-way streetscape with walkable community amenities and promote mixed-use redevelopment and infill development to create a dense village character. |

*Opportunity Site number corresponds with a numbered location on Figure 2: Planned/Approved Residential Development and Potential Opportunity Sites.

Table 4: Opportunity Sites with Significant Development Potential

| Opportunity Site* | Potential Use Steering Committee and Public Input | Recommended Potential Use |
|------------------------------|---|---|
| Research and Learning | | |
| 10 Dinosaur Track Site | Preservation for research and learning. Use Saucon Rail Trail for access. | Preservation for research and learning and interpretive signage with access from Saucon Rail Trail. |
| Park, Recreation, and Trails | | |
| 11 Liberty Bell Trolley Line | Some challenges to getting right-of-way for trail. | Study possibility of obtaining right-of-way for trail. |
| 12 Park Land | Park improvements near Hopewell School | Development proposal for park improvements |
| Agricultural Preservation | | |
| 13 Agricultural Preservation | Expand the Agriculture Preservation Zoning | Expand the Agriculture Preservation Zoning and preserve property. |

*Opportunity Site number corresponds with a numbered location on Figure 2: Planned/Approved Residential Development and Potential Opportunity Sites.

Considerations to Address Planning Implications of Build-Out and Opportunity Site Development / Redevelopment

To achieve sustainability goals while meeting the market demand for housing and economic development, the following considerations associated with planning implications (outlined to the right) should be addressed in the comprehensive plan considering the following:

- Guard against rezoning lands currently zoned for commercial, industrial, and mixed-use development for residential development exclusively. Consider development of opportunity sites as identified previously in Table 4.
 - Commercial, industrial, and enterprise zoning accounts for approximately 9.52% of the total lands within the Township. The Existing Land Use Map (Map 1) identifies 486 acres (3.1%) improved with commercial and industrial land uses. Approximately 240 acres of potential net developable land remain for new commercial and industrial development.
 - Another 855 acres (5.4%) is zoned for employment-based development (Enterprise/Enterprise Overlay zoning) with approximately 375 acres of net developable land remaining for new development.
- Expand Village Center development opportunities in appropriate locations to provide for both redevelopment and new development for a mix of residential, commercial, institutional, and other small-scale uses.
- Recognize that age qualified community development or senior transitional housing is predominantly a residential land use. This type of use should be permitted in select residential districts inside the Act 537 Service Area.
- Reserve lands zoned Enterprise or Enterprise Zone Overlay for mixed use, campus style development including high-end rental units, corporate office development, and research facilities independent of or associated with existing higher education campuses. Refer to Chapter 9 Community Character and Design for definition and explanation of campus style development.
- Consider lands available for development zoned Suburban Residential (R2) in proximity to higher education campuses and future village centers for rezoning to allow off-campus managed student housing and higher density affordable housing (e.g. apartments and age qualified developments). Higher density housing development results in less travel trips and miles traveled per housing unit as opposed to single-family detached and attached dwellings. This development pattern will provide opportunity to preserve more open space and agricultural and environmentally sensitive lands while meeting housing demand.

Planning Implications

- Single-family detached housing results in sprawl, increased vehicle trips, and impacts on the environment.
- Generally, a large percentage of land base devoted to residential development will require continued increases in local and school taxes to provide adequate public facilities and services.
- A balanced tax base providing for adequate non-residential development will provide for short-term and long-term economic, social, and environmental sustainability.
- Preservation of agricultural, forested, and environmentally sensitive lands results in sustainability.
- Village center and mixed-used development patterns provide opportunity to achieve walkability, bikeability, and sustainability.

Build-Out Implication Tables

Table 5: Residential Planned or Approved Development

| Zoning | Anticipated Development/Development Name | Land Use/Unit Type | Status of Development ¹ | Development Plan on File at Township | Development Potential (Housing Units) ¹ | Additional Population Projected ² | Projected ADT ³ | Projected GPD Water Usage ³ | Acres of Farmland Lost | Acres of Park Land Required ⁴ | Preserved Open Space ⁵ | |
|--------|--|---|------------------------------------|--------------------------------------|--|--|----------------------------|--|------------------------|--|-----------------------------------|--------|
| R2 | Kay Landis Mill | Suburban Residential (Single Family Detached) | Pending Approval | | 92 | 244 | 673 | 24,380 | 0.00 | 2.46 | 40.00 | |
| R3 | Brinley Court | Multi-family Residential (Townhouses) | Pending Recordation | | 217 | 575 | 1,588 | 57,505 | 0.00 | 5.81 | 10.00 | |
| R2/AQC | Old Saucon AQC | Suburban Residential (Age-Restricted Single Family) | Phase 1 Under Development (33) | | 80 | 160 | 342 | 16,000 | 0.00 | 1.62 | 21.00 | |
| R2 | Strawberry Hill | Suburban Residential (Single Family Detached) | Pending Recordation | | 13 | 34 | 95 | 3,445 | 0.00 | 0.35 | 0.00 | |
| R1 | Toscana | Rural Residential (Single Family Detached) | Pending Recordation | | 43 | 114 | 406 | 11,395 | 0.00 | 1.15 | 45.00 | |
| R1 | Spring Valley Estates | Rural Residential (Single Family Detached) | Pending Approval | | 7 | 19 | 66 | 1,855 | 0.00 | 0.19 | 0.00 | |
| R1 | North 40 Estates | Rural Residential (Single Family Detached) | Pending Approval | | 22 | 58 | 208 | 5,830 | 0.00 | 0.59 | 0.00 | |
| R3 | Sacred Heart Senior Living | Multi-family Residential (Independent Living) | Phase 1 Under Development (31) | | 167 | 167 | 618 | 16,700 | 0.00 | 1.69 | 0.00 | |
| R2/AQC | Traditions of America Locust Valley | Suburban Residential (Single Family Detached) | Pending Recordation | | 125 | 250 | 915 | 25,000 | 0.00 | 2.53 | 50.00 | |
| R2 | Estates at Saucon Valley | Suburban Residential (Single Family Detached) | Pending Approval | | 110 | 292 | 805 | 29,150 | 113.95 | 2.94 | 0.00 | |
| | | | TOTAL | N/A | N/A | 876 | 1,913 | 5,716 | 191,260 | 113.95 | 19.32 | 166.00 |

¹Development Status and Development Potential (Housing Units) provided by the Township.

²Used a average family size of 2.65 - US Census 2014-2018.

³ITE AADT for Residential Uses 9.44/unit very low , low and low to medium design and 7.32/unit for medium and medium to high density. ITE ADT for Independent Living 3.7/unit and Age-Restricted SFD 4.27/unit.

⁴Applied national standard of 80-100 gallons a day per person-used 100 gallons/day. Non-Residential Uses assumes 122 gallons/1,000 SF.

⁵Applied National Park & Recreation Association park metrics - 10.1 acres per 1,000 population.

Table 6: Potential Lands Available for Development

| Zoning | Anticipated Development/Development Name | LU Classification(s) | Acres Potential Net Developable Land (NDL) | Acres Potential NDL Minus Open Space, Roads, SWM & Utility Deductions | Development Potential (Housing Units or SF) ¹ | Potential Population Projected ² or Employees Projected | Potential Projected ADT ³ | Potential Projected GPD Water Usage ⁴ | Potential Acres of Farmland Lost | Potential Acres of Park Land Required ⁵ | Potential Preserved Open Space ⁶ |
|--------|--|--|--|---|--|--|--------------------------------------|--|----------------------------------|--|---|
| A | Agricultural Preservation | Residential - Very Low Density Residential | 345.85 | 172.93 | 173 | 458 | 1,632 | 45,825 | 340.41 | 4.63 | 172.93 |
| R1 | Rural Residential | Residential - Very Low Density Residential | 1,114.44 | 445.78 | 669 | 1,772 | 6,312 | 177,196 | 878.29 | 17.90 | 557.22 |
| R2 | Suburban Residential | Residential - Low to Medium Density Residential | 678.85 | 271.54 | 815 | 2,159 | 5,963 | 215,874 | 404.66 | 21.80 | 339.43 |
| R3 | Multi-Family Residential | Residential - Medium to High Density Residential | 38.47 | 15.39 | 92 | 245 | 676 | 24,467 | 30.32 | 2.47 | 19.24 |
| OSR | Open Space Residential | Residential - Very Low Density Residential | 127.32 | 66.21 | 51 | 135 | 481 | 13,509 | 105.62 | 1.36 | 82.76 |
| SMC | South Mountain Conservation | Residential - Very Low Density Residential | 291.92 | 291.92 | 58 | 155 | 551 | 15,472 | 0.00 | 1.56 | 0.00 |
| C | Commercial | Commercial | 61.06 | 42.74 | 744,737 | 1,489 | 7,254 | 90,858 | 51.31 | 0.00 | 0.00 |
| I | Industrial | Industrial | 178.67 | 125.07 | 2,179,202 | 4,358 | 10,809 | 265,863 | 156.28 | 0.00 | 0.00 |
| E | Enterprise | Mixed Use | 375.28 | 262.70 | 12,015,190 | 24,030 | 59,595 | 1,465,853 | 115.40 | 0.00 | 0.00 |
| | | TOTAL | 3,211.86 | 1,694.26 | 1,858 | 4,923 | 93,274 | 2,314,917 | 2,082.29 | 49.73 | 1,171.56 |

¹Applied Conservation Design Standards to Net Developable Lands zoned R1, R2, R3 and OSR - USI Zoning Ordinance, Section 427. For Residential Zones, 20% was used to address Open Space, Roads, SWM, and Utility Deductions and 30% was used for Commercial, Industrial, and Enterprise zones.

²Used a average family size of 2.65 - US Census 2014-2018.

³ITE AADT for Residential Uses 9.44/unit very low , low and low to medium design and 7.32/unit for medium and medium to high density. ITE ADT for Commercial Uses 9.74/1,000 SF and Industrial Uses 4.96/1,000 SF.

⁴Applied national standard of 80-100 gallons a day per person-used 100 gallons/day. Non-Residential Uses assumes 122 gallons/1,000 SF.

⁵Applied National Park & Recreation Association park metrics - 10.1 acres per 1,000 population.

⁶Applied open space requirements for Conservation Design Standards. For Agricultural Lands assumed 50% permanently preserved through Agricultural Easements.

| Table 7: Potential Build-Out Impacts | | | | | | | |
|--|--|--|-------------------------------------|---|----------------------------------|---------------------------------------|---|
| Potential Residential Net Developable Land (acres) | Potential Total Projected Increase in Housing Units | Potential Total Projected Increase in Population | Potential Projected Increase in ADT | Potential Projected Increase in GPD Water Usage | Potential Acres of Farmland Lost | Potential Acres of Park Land Required | Potential Preserved Open Space ¹ |
| 2,596.85 | 2,734 | 6,836 | 98,990 | 2,506,177 | 2,196.24 | 69.04 | 1,337.56 |
| Potential Non-Residential Net Developable Land (acres) | Potential Total Projected Increase in Non-Residential SF | Potential Total Projected Increase in Employees | | | | | |
| 615.01 | 14,939,129 | 29,878 | | | | | |

¹Includes potential for lands zoned agriculture to buildout with an assumption that 50% of potential net developable lands will be future agricultural easem

Note: All totals include projected amounts including planned or approved development from Tables 5 and 6.

Figure 1: Land Available for Potential Development

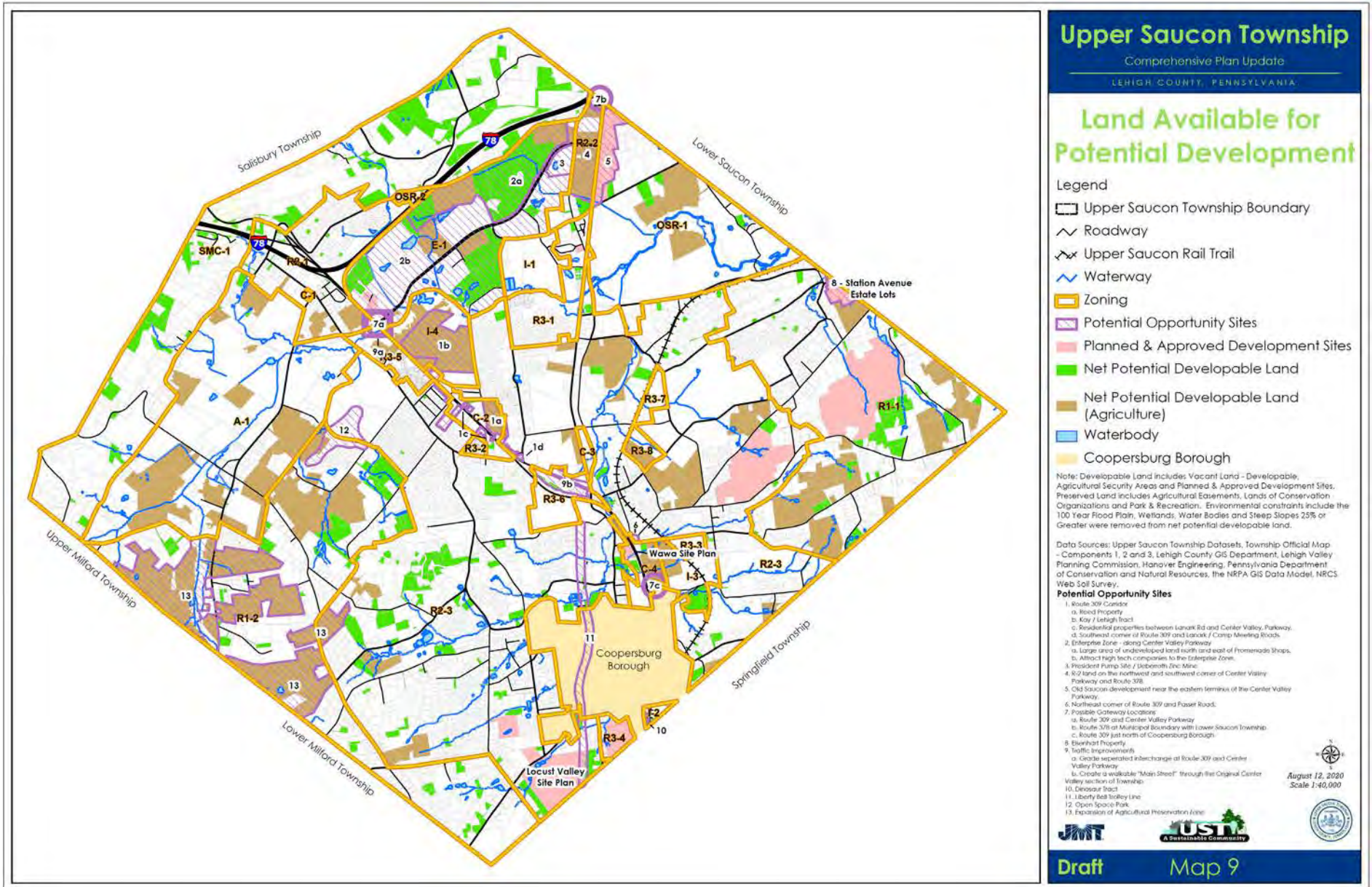
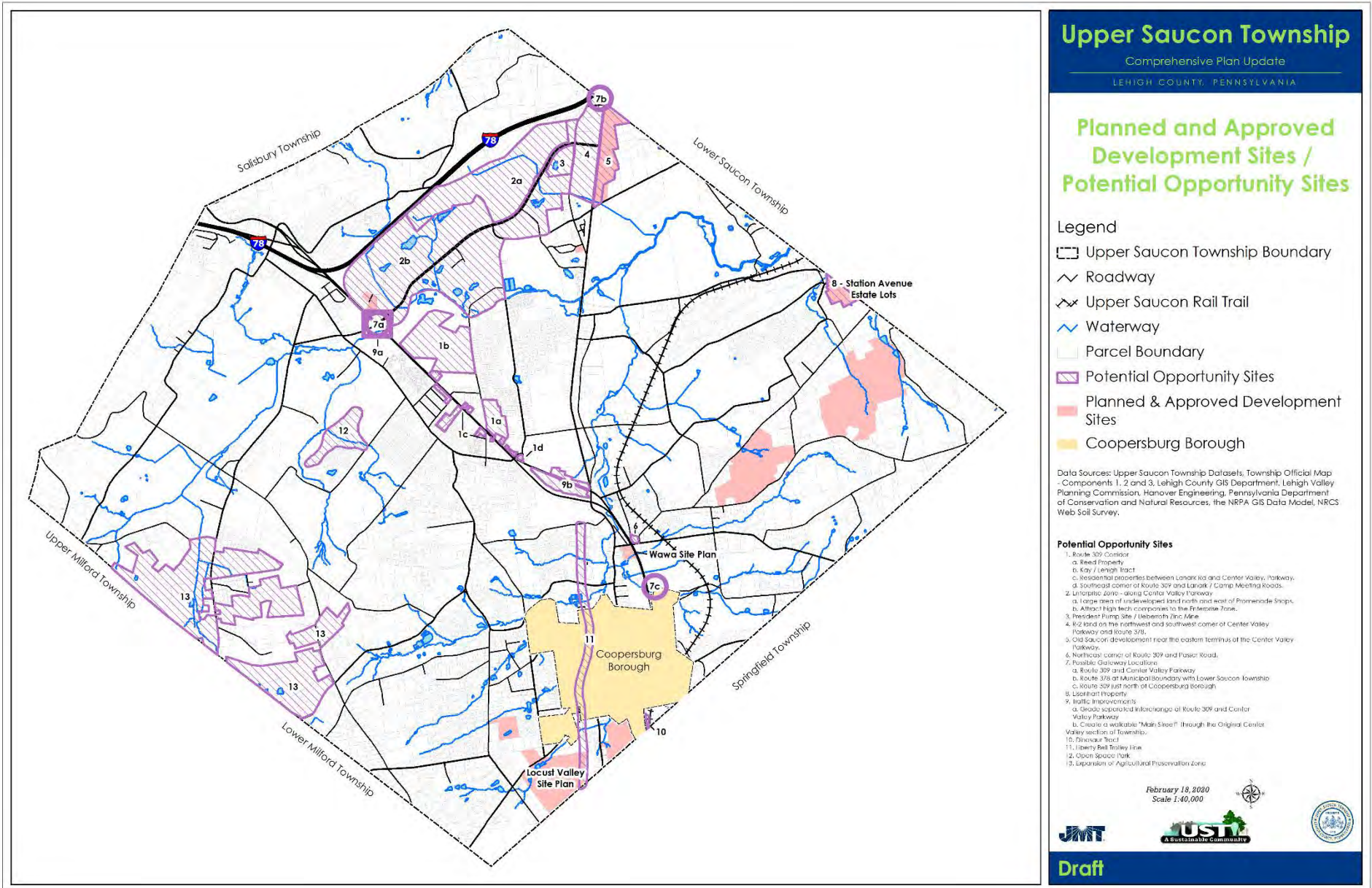


Figure 2: Planned/Approved Residential Development and Potential Opportunity Sites



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