

UNIFIED IN PLANNING, PURPOSE AND VISION

Borough of Bath • Bushkill Township • Borough of Chapman • Hanover Township

Lower Nazareth Township • Moore Township • Borough of Nazareth • Borough of Stockertown

Borough of Tatamy • Upper Nazareth Township

MULTI-MUNICIPAL COMPREHENSIVE PLAN



PLAN ADOPTION DATES

Chapman Borough

8/1/2022

Stockertown Borough

8/1/2022

Tatamy Borough

8/1/2022

Moore Township

8/2/2022

Upper Nazareth Township

8/3/2022

Bushkill Township

8/4/2022

Lower Nazareth Township

8/10/2022

Nazareth Borough

9/1/2022

Bath Borough

9/6/2022

Hanover Township

9/13/2022













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The Monocacy Creek Park in Bath Borough is an example of natural and historic assets that add character to the region valued by residents.



Preserved historic buildings create a unique cultural landscape for Nazareth Area communities.

Introduction

The Nazareth Area has a rich history dating back more than 280 years, and its communities are connected by far more than geography. Since before the American Revolution, the Nazareth Area has evolved from a primarily farmland economy that cultivated agricultural roots, to the emergence of textile manufacturing and mining as core industries the communities were built upon, to having a growing role in our evolving global economy. Through it all, a deep sense of community pride has thrived.

The region's breathtaking landscapes, varying topography and diverse array of natural features have helped shape a community identity that's made it attractive to new residents and businesses.

Today, the Nazareth Area is faced with challenges that would have been unimaginable to residents of the 1700s and 1800s. The region's character and unique geographic position continues to attract new growth and development, bringing with it new opportunities, and pressures, on the very natural and open spaces that help define its character.

While making up the Nazareth Area identity as a collective, the 10 Nazareth Area communities each possess an individual identity as well as a sense of community pride. Bath Borough has evolved from its textile manufacturing heritage to a young, albeit transient population that values diversity. Nazareth Borough, from a similar history in textile manufacturing, continues its tradition in the cement industry to this day and takes pride in its quaint, charming character. Chapman Borough, established in support of the Chapman Slate Company, has stayed close to its roots, remaining a rural bedroom borough that more recently is facing many of the same development pressures as its neighbors. Neighboring Stockertown and Tatamy boroughs share a sense of pride in their small-town feeling and stable resident base located along the Bushkill Creek and borough trails, though Tatamy Borough is evolving with the arrival of the Route 33 interchange and the development it has attracted.

Bushkill, Lower Nazareth and Moore townships share common threads that include their agricultural heritage, value of open space and recreational features such as parks and trails that enable residents to enjoy the townships' beautiful character. Hanover and Upper Nazareth townships have seen greater development into stable suburban communities, while maintaining an identity based on natural features, such as the Bushkill, Monocacy and Catasauqua creeks, as well as parks and recreational opportunities.

The Nazareth Area Multi-Municipal Comprehensive Plan is designed to protect and preserve the quality of life the community has come to expect, while leveraging the opportunities that come with growth, such as creating more mixed-use, walkable, bikeable, transit-friendly communities and taking advantage of adaptive reuse of existing or prior development areas. Working together, the 10 communities can overcome the emerging challenges that growth brings, to maintain the Nazareth Area as a great place to live, work and play into 2045 and beyond.

Plan Process

Nazareth Area communities have a long tradition of municipal cooperation, whether it be funding the Memorial Library, sharing road-paving equipment and workers or setting the region's land use priorities. Through their many partnerships, including the Nazareth Area Council of Governments, community leaders realized there is great strength—and efficiency—in numbers. In fact, nine of the 10 municipalities that now make up the Nazareth Area Multi-Municipal Comprehensive Plan worked together to develop the region's first multi-municipal plan, adopted in 2007. It's helped them determine collectively where new homes should – and shouldn't — be built, where sewer and water utilities should be extended and what farmland and open space should be preserved. When community leaders led by the Council of Governments in 2017 decided that issues such as development pressure, traffic congestion and a changing economic landscape called for renewing the plan, the boroughs of Bath, Chapman, Nazareth, Stockertown and Tatamy, and the township's Bushkill, Lower Nazareth, Moore and Upper Nazareth re-instituted the steering committee to begin the process of updating an agreement that had served them well for a decade. A new member, Hanover Township, Northampton County, decided to join what would be known as NazPlan.

Comprehensive planning is a process that determines community goals and visions, setting public policy for natural resources, transportation, utilities, land use, recreation, agriculture, education, housing and other local priorities.

Just as they did in 2006, NazPlan communities turned to the Lehigh Valley Planning Commission as the professional consultant to help develop a plan designed to simultaneously honor the Nazareth Area's rich heritage, adapt to the challenges of an evolving community and prepare for a future they would choose together.

Each of the 10 municipalities appointed one member to sit on a Steering Committee that guided the path forward, primarily during monthly meetings, to set the priorities and develop a full understanding of the challenges and opportunities ahead.



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NAZARETH AREA MULTI-MUNICIPAL PLAN

Steering Committee

NazPlan's 10-member Steering Committee began monthly meetings in October, 2018 at the Upper Nazareth Municipal Building, and continued through March 2020 before taking a Covid-19 Pandemic-induced break, and resuming virtual meetings in October of 2020.

Among the Committee's early decisions was a plan branding that included a color scheme, style and webpage that exemplifies the region's heritage and optimism, and encourages community engagement.

The Steering Committee meetings served as part webinar, part debate and part fact-seeking vehicle as committee members covered subjects that ranged from reviewing previous comprehensive and multi-municipal plans from across the region to farmland and open space preservation to a Nazareth Area air quality analysis to the area's economic drivers.

The committee took deeper dives into the subjects that included the land use and zoning each municipality has and how it should evolve, the importance of each community to establish an official map, the region's industrial market with particular focus on cement mining, warehouse and distribution, and a close evaluation of the status of Municipal Separate Storm Sewer System (MS4) conditions in each municipality, including the steps each would have to take to meet new federal regulations. Overall, seven of the 10 Nazareth area communities have permits under the National Pollution Discharge Elimination System MS4 program: Bath Borough, Nazareth Borough and the townships of Bushkill, Hanover, Lower Nazareth, Moore and Upper Nazareth. All of those are required to prepare and implement a Pollutant Reduction Plan.

In addition, each committee member engaged in a detailed interview to discuss the identity and aspirations for each of the 10 communities.

The Steering Committee's primary focus was collecting data and discussing options that helped create the Goals, Policies and Actions that would serve as the backbone of the Nazareth Area Multi-Municipal Comprehensive Plan.

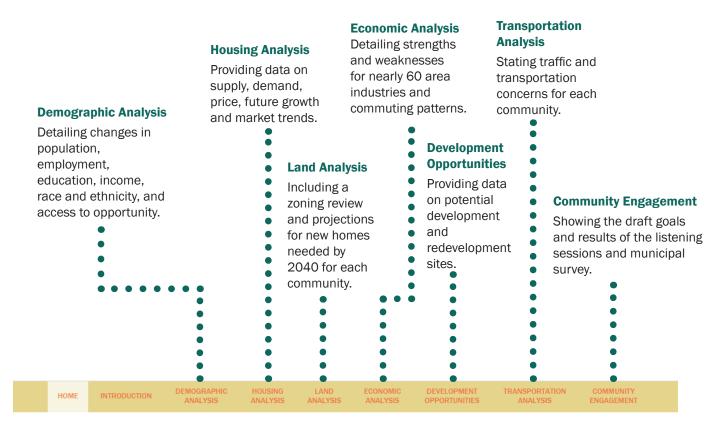
A large part of the data collection came from the Issues & Opportunities Report.



NazPlan Steering Committee reviews data maps at the Nazareth Borough Park Log Cabin.

Issues and Opportunities

A key component of developing the region's priorities for the future was analyzing current data that was summarized in the 50-page report that covered:





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The development of the Nazareth Area has origins dating back more than 280 years.

Community Engagement

Community engagement is a key component of the plan. Residents, business owners and community leaders all hold a stake in the area, and the community engagement efforts were directed at obtaining a mix of input from every corner of every community.

Meetings of local stakeholders were held to begin a conversation on what matters most to the community. The priorities identified during these meetings were circulated to all stakeholders to gain additional input before creating the Draft Goals.

Listening Sessions

The Nazareth Area Steering Committee developed a diverse list of community experts who were invited to attend a series of three listening sessions, or charrettes. Community experts, or stakeholders, invited to the charrettes included residents, business owners, farmers, emergency service personnel, municipal officials, state legislators, municipal and county representatives, among others. Thirty-seven stakeholders attended the charrettes held:

- January 14, 2019, 6 pm at Lower Nazareth Elementary School
- January 15, 2019, 7:30 am at Hecktown Fire Company
- January 15, 2019, 12 pm at Hecktown Fire Company

Each session began with a brief presentation about the multi-municipal planning process and included data for current land development, demographics and transportation for the Nazareth Area.

Following the presentation, the Lehigh Valley Planning Commission facilitated an hour-long discussion in which groups of stakeholders were asked a series of questions designed to spur suggestions, concerns and hopes for the future. At the end of the hour, each group was asked to select its top five priorities based on the discussion and present them to the larger group. Each attendee was provided three votes to select their priorities from the combined list. The result was a list of 14 priorities that were further refined by community stakeholders.

Stakeholder Prioritization of Goals

The list of priorities derived from the charrettes provided the basis for a process to have stakeholders narrow the list and identify any additional priorities that were not previously considered. Respondents were asked to rank each of the 14 issues in order of priority. Additional priorities could be added and ranked as well. The top six priorities were listed in order of rank. They served as the basis for what would become seven plan goals.

Public Engagement

LVPC staff first unveiled the Nazareth Area Multi-Municipal Comprehensive Plan draft goals during the Northampton County Festival at Louise Moore Park on October 16, 2021. The LVPC used its Public Engagement Cube to promote the NazPlan to hundreds of people who attended the festival.



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2007 Adoption of the first Multi-Municipal Comprehensive Plan, Nazareth Area **Milestones** ...2030. 2017 Hanover Township, Northampton 2017 County decides to join original Nazareth Area communities members the boroughs of Bath, decide to update the region's Chapman, Nazareth, Stockertown multi-municipal plan. and Tatamy, and the townships of Bushkill, Lower Nazareth, Moore October 2018 and Upper Nazareth, to make up the 10-community effort. NazPlan Steering Committee has its first meeting. December 2018 Webpage dedicated to the NazPlan January 2019 effort goes live. A series of three charrettes are held with key stakeholders to begin understanding the concerns, hopes and priorities of the Nazareth Area. March 2019 Municipal Priorities Survey. August 2019 First draft of goals delivered. November 2019 Issues and Opportunities Report is delivered. September/October 2020 Identity and aspirations interviews with Steering Committee. January 2021 Steering Committee determines criteria for Land Uses of Regional Significance and shown zoning diagnosis tool demonstration. **April 2021** Draft Goals, Policies and Actions delivered to the Steering Committee. August 2021 Draft Maps review for Natural Resources, Farmland Preservation and Parks, September 2021 Recreation and Open Space Draft plan delivered to the Steering Committee.

The chimney of the former Chapman Slate Company mill building still towers above the borough.

Steering Committee Focused Discussions

Fire, police and Act 537 sewage ambulance **Transportation** Nazareth area return facilities planning services center on environment assessment priorities natural systems services and air quality benefits Municipal Preserved natural separate storm resources and sewer system agricultural lands (MS4) analysis Air quality for Nazareth Area and climate action aspirations and **Issues** and **Opportunities Report** Land uses review/discussion on of regional **Health Network** demographics, equity, significance **Hecktown Oaks** housing, land use, development, economy, transportation and community engagement. Charettes Web-based zoning mapping tool with stakeholder concerns, hopes ordinance search and priority goal function revitalization ideas and adaptive reuse Cement Draft goals, mining in policies and the Nazareth Area

Planning 101

A comprehensive plan is a policy document that provides a living blueprint for the aspirations of an area. The comprehensive plan serves as a guidebook, setting a clear vision for the future and providing implementation ideas that serve as a path to achieve a community's vision. It is the basis for land use regulations and bridging the gap between that future vision and the regulation of private property interests.

That future vision is subject to change, so this comprehensive plan is a living and breathing document that is intended to be revisited and reviewed at least every 10 years, as required by the Pennsylvania Municipalities Planning Code (MPC). Communities in the Nazareth Area can utilize a variety of means to implement it proactively, rather than reacting to change and future development pressures. A comprehensive plan is also a legal document that empowers municipalities to guide growth and development within a jurisdiction. The MPC does not define the comprehensive plan - rather, a comprehensive plan is defined by its contents.



This Lehigh Valley Health Network Hecktown Oaks Campus builds on the region's strong economic healthcare base, adding diversity in employment, as well as enhanced community wellness.

A multi-municipal plan addresses the judicial mandates of the MPC to provide for all reasonable land uses on a regional basis. These plans cooperatively provide and extend services and facilities in an efficient manner and allow communities to better protect natural resources, prime farmland, scenic areas and community character. The MPC also allows communities to keep autonomy in a multi-municipal plan by allowing communities to individually enact zoning ordinances while remaining generally consistent with the overall regional plan.

The communities of the Nazareth Area are committed to preserving the defining natural resources of the region while adapting to the inevitable future growth and development that the greater Lehigh Valley is experiencing. This commitment is rooted in realizing the full potential of the region's natural and agricultural assets. Yet, while the MPC does not mandate municipalities to follow this Plan's recommended implementation ideas, it does require each municipality to shepherd the Plan's shared mission of the future and enact thoughtful legislation that stewards the Plan's vision on behalf of the residents it serves.



Where are we now ...

55,818

2020 Nazareth Area Population Estimate

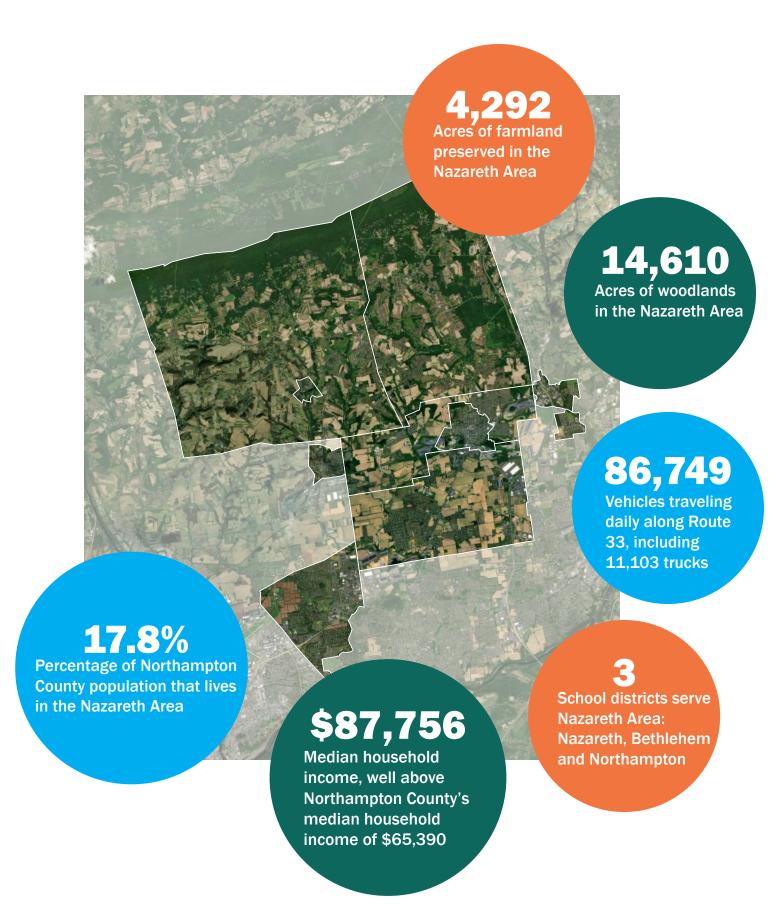




This landscape in Lower Nazareth Township is an example of the farmland, cultural, historic and scenic assets valued in the Nazareth Area.

Where are we going?





The Nazareth Area is home to approximately 17% of Northampton County's population—a small percentage considering its land size makes up 25% of the total area of Northampton County. That population is projected to increase by 23% before the year 2045, indicating a faster pace of growth than other areas of the County.

The Nazareth Area has a balanced population of diverse ages, with children, adults 25-44 and seniors 65 and older each comprising approximately one-fifth of the population. Adults 45-64 make up a larger percentage of the population, close to one-third, while young adults 18-24 account for about 7%. As the region's aging population grows, so too will the demands of an older consumer base, including housing, healthcare and lifestyle opportunities.

The Nazareth Area has a generous amount of natural resources and farmland that give the region its distinct character and quality of life. However, projected population growth and employment growth puts development pressure on these areas.

Transportation infrastructure is aging in the Nazareth Area communities. At the same time, the area is experiencing increased impacts from heavy truck traffic associated with development both within and outside of the region. The Route 33 corridor in particular is experiencing accelerated traffic growth.

Sidewalk infrastructure is concentrated in the boroughs and exists in lesser amounts in the townships. Multi-use trails serve recreational and possibly some commuter needs within the region, but there is a municipal desire to expand the network and connect more areas of the Nazareth Area communities. Public transit exists to a limited extent in the southern and eastern municipalities.

The Nazareth Area contains a diversity of businesses and jobs that are indicative of a strong economy. Economic sector trends project growth in wholesale trade, transportation and warehousing, healthcare and arts, entertainment and recreation industries. The anticipated growth of the

Nazareth Area Incomes and Housing Costs out of 19,350 house holds... earn less than earn between earn between \$35,000 and \$50.000 and \$35.000 per vear more per year \$49,999 per year \$74,999 per year 75% are 47% are 27% are 8% are cost-burdened cost-burdened cost-burdened cost-burdened 'Cost-burdened' refers to households paying more than 30% of annual income on housing costs, which is

not recommended to maintain financial stability.

transportation and warehousing industry reflects the impact of increased e-commerce.

As the population of the Nazareth Area grows, this new population will require significant amounts of new housing. The Nazareth Area is estimated by the Lehigh Valley Planning Commission to need to accommodate 5,528 additional households by 2045. To meet that need, the area would have to add about 222 new homes per year for the next 25 years—nearly three times the current rate of housing development.

The Nazareth Area overall median household income of \$87,756 is well above the \$65,390 median household income of Northampton County. However, median incomes vary significantly between municipalities, ranging from \$42,045 in Bath Borough to \$102,545 in Lower Nazareth Township. Overall, incomes are not keeping pace with housing costs as almost a third of households spend too much of their income to housing, per the federal guidelines.

The Nazareth Area Multi-municipal Comprehensive Plan serves as a guide and foundation for the 10 communities to accommodate naturally occurring patterns of growth and development, while meeting their individual aspirations. Bath and Nazareth boroughs strive for economic development and revitalization that increases attainable housing options while fostering community spirit and identity. Chapman, Stockertown and Tatamy boroughs would like development on a more limited scale, with a focus on retaining existing community character, while capitalizing on trails and natural resources. The townships of Bushkill, Moore, Lower Nazareth and Upper Nazareth aspire to retain open space and agricultural areas, while directing growth to historic villages as appropriate, and Hanover Township wants to preserve quality of living and property values. All 10 communities share a common aspiration of mitigating traffic conditions, and together can balance the aspirations of individual communities to the benefit of the entire Nazareth Area.

Goals, Policies and Actions Introduction

The Goals, Policies and Actions serve as the foundation for the plan, guiding the Nazareth Area's direction into the future and how it will get there. The Plan Maps provide the visual representation and Core Principles help describe the intent of the Goals, Policies and Actions.

Policies and actions are organized under the seven goals defined by the municipalities and stakeholders through the public participation process. Each goal includes an introduction that details the scope of the goal and offers key data describing existing conditions and future needs. Under each goal is a series of policies defining the objectives, and actions detailing how the goal can be reached. Very often, the actions apply to every municipality in the Nazareth Area. Also listed are specific actions for individual municipalities based the assessment of needs as described in the introductions.



Plan Map Descriptions

Embedded within the Goals, Policies and Actions are the five plan maps: Natural Resources Plan; Farmland Preservation Plan; Future Land Use Plan; Centers and Corridors; and Parks, Recreation and Open Space Plan. The intent, description and interrelationships associated with the five plan maps are provided below:

Natural Resources Plan

The High Conservation Priority Natural Resource areas shown on the plan take precedence over other land use recommendations presented in NazPlan, including the Future Land Use Plan. This represents a conservation first perspective. The High and Medium Conservation Priority areas are used by the municipalities in review of subdivision and land development proposals, to identify potential preservation areas within a development, development of plans and ordinances, and grant applications, among other uses specified in the policies and actions. The High and Medium Conservation Priority areas should also be used by conservation organizations and other government agencies to prioritize conservation efforts.



Farmland Preservation Plan

The High and Medium Priority Farmland Preservation areas on the plan represent the most significant clusters of existing farmland, based on the overall size of the cluster combined with agricultural soils quality. The municipalities will use this plan as an important component of development proposal review. High Priority areas are the largest clusters and represent the best opportunity for infill with farmland-supportive businesses and services. This plan should be used by other government agencies and conservation organizations to prioritize areas for preservation of farming operations, typically through the acquisition of easements to permanently preserve the land as farming. Low Preservation Priority Farmland, defined as such due to small size, lower soils quality or lack of proximity to other farmlands, should also be considered for preservation as the opportunity arises. High, Medium, and Low Priority areas are shown on the Future Land Use Plan for Farmland Preservation or certain Preservation Buffer areas. In the Preservation Buffer area, Farmland Preservation is preferred.



Future Land Use Plan

This plan shows areas recommended for Development, Farmland Preservation, Preservation Buffer and Exurban uses and should guide development and preservation efforts by private and non-profit organizations, government agencies and individuals. High Priority Areas from the Natural Resources Plan are recommended to be conserved regardless of the Future Land Use Plan recommendation. High, Medium, and Low Priority areas from the Farmland Preservation Plan are included on the Future Land Use Plan as recommended for Farmland Preservation or certain Preservation Buffer areas.In the Preservation Buffer area, Farmland Preservation is preferred. Centers and Corridors located within Development areas are recommended for denser, mixed-use, mixed-transportation development. Centers and Corridors located in Preservation Buffer areas or Exurban areas are only recommended for denser, mixed-use, mixed-transportation development if they meet the development criteria. Centers and Corridors located within Farmland Preservation areas are not generally recommended for denser development. Proposed improvements shown on the Parks, Outdoor Recreation and Open Space Plan are compatible with any land use depicted on the Future Land Use Plan.

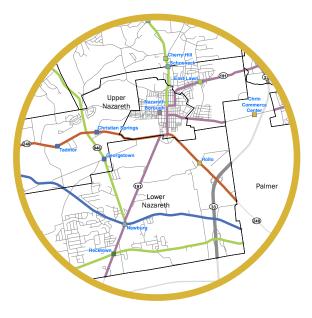


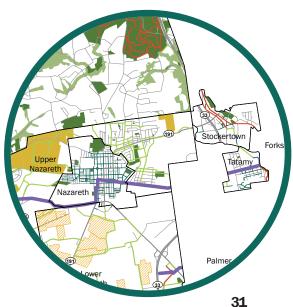
This plan shows major transportation infrastructure and opportunities for creating denser, mixed-use, mixed-transportation development and should be used by private and non-profit organizations and government agencies to guide efforts to improve the transportation network. The municipalities use this plan as an important component of development review and highly encourage projects that expand, improve or connect the mixed-transportation network.

Parks, Recreation and Open Space Plan

This plan shows major existing and planned park, outdoor recreation and open space facilities and should be used to guide efforts by public/private organizations and government agencies to expand, improve and connect regional assets. The municipalities use this plan in concert with their individual open space plans, as applicable, and with the Northampton County Livable Landscapes Plan and other plans to establish priorities for funding and work efforts for these facilities. Recommended improvements shown on this plan are compatible with any land use depicted on the Future Land Use Plan.







Core Principles

A dozen core principles are woven throughout the NazPlan Goals, Policies and Actions. These core principles describe the basic implementation intent of the many policies and actions when taken as a whole. Most core principles can be found in multiple goals. The purpose of describing the core principles is to quickly communicate the 'how and why' NazPlan will change the future of the 10 communities to achieve their desired outcomes and preserve their individual identity. The core principles are used in the document to identify key images of both excellent examples of the ideas and, conversely, places that need work to achieve the desired results:

Create higher density in existing developed areas

1

Higher densities are important to help accommodate the projected increases in population and employment for the Nazareth Area, while increasing opportunities to preserve natural resources, open space and agriculture. This 'compact urban form' is a basic staple of climate resiliency by minimizing the land area needed for development and preserving natural green infrastructure to mitigate climate change. Higher densities in defined Centers and Corridors within Development areas are also essential to making transit services more efficient and for providing enhanced walking, rolling and biking opportunities.

2

Incorporate mixed land uses in existing and new development areas

Mixed uses are important to enable shorter trips for daily needs and commuting. Mixes uses also support transit use, as well as transportation alternatives to personal automobiles such as walking, rolling and biking.

3

Enhance walking, rolling, biking and transit use for daily trips, including commuting to work

Improving the safety and convenience of walking, rolling, biking and transit use has benefits of reduced traffic congestion, reduced vehicle emissions, and improved health for residents, especially when combined with higher densities and mixed uses.

Preserve natural resources

4

Natural resources provide aesthetics that improve residents' quality of life. Natural resources also provide critical services to residents to help purify drinking water, mitigate flooding, purify the air and provide mitigation of heat impacts in developed areas. Natural resource protection in stream headwater areas also provide benefits to downstream areas. These benefits are not only environmental but economic, as the dollar value of natural system services accrue to all Nazareth Area residents through enhanced property values, improved health and recreational tourism. Natural resources also provide habitat and migration benefits for wildlife. Natural resources are a critical component of enhancing resiliency and mitigating climate change.

Preserve farmland and cultural, historic and scenic resources

5

Preserving farmland and farming are critical aspects of maintaining open space and the Nazareth Area economy, as well as preserving the region's agricultural heritage, especially given the development pressure being experienced. Northampton County and the municipalities have been at the forefront of preservation through the agricultural easement program. Cultural, historic and scenic resources, along with farmland, natural resources and recreational resources, define the quality of life within the Nazareth Area for residents, employees and employers, and bolster the area's ability to compete in the world economy.

Enhance recreational opportunities for all persons

6

Outdoor recreation is important for physical and mental health. The health benefits of physical activity are well-understood and the ability to get that activity in an outdoor setting enhances the overall benefits. It is important to make these resources accessible to all persons through additional facilities and interconnections and appropriate design. Added benefits include the recreational tourism that the Nazareth Area is known for, especially when combined with the region's cultural and historic tourism opportunities.

7

Reduce transportation-related emissions and congestion

Health and quality of life benefits and mitigating the impacts of climate change, make reducing transportation-related emissions a priority. These impacts are directly tied to traffic congestion, the increase in truck trips and increased emissions caused by the growth in freight and logistics businesses. Proper decisions regarding location of industrial land uses is a related priority.

8

Appropriately locate future land uses

The Future Land Use Plan is a critical component of the Nazareth Area plan as it optimizes the location of land uses in a way that allows each municipality to comply with the Pennsylvania Municipalities Planning Code, yet preserves its identity and meets its aspirations.

9

Create high-quality jobs and a skilled workforce

The evolving economy will include transitions from jobs needed today to increasing technology-based jobs of tomorrow. Job growth should be focused on economic sectors that build on the Nazareth Area strengths. School curricula and workforce training and retraining need to focus on building capabilities to thrive in the changing economy, with wages consistent with housing costs.

10

Create diversity in housing choice for all income levels

Continued diversification from single-family detached homes to a variety of housing types and pricing is necessary to allow Nazareth Area residents and workers to live in the region without overpaying for housing. Appropriately priced and designed housing for the local job base allows for shorter work trips and enhanced opportunities for transportation alternatives to personal vehicles.

11

Create and enhance partnerships

Coordination and collaboration provide opportunities to be more efficient and save money for significant investments. The evolving economy will provide opportunities for cross-collaboration leveraging data, technology and shared services. Partnership-building among municipalities and others will enable innovation to solve problems and maximize cross-benefits.

12

Enhance funding opportunities for needed improvements

Planning and implementing together opens doors to enhanced funding possibilities. A clear implementation strategy with specific projects and responsibilities adopted by all communities is the blueprint to securing necessary funding.

GOAL 1: Reduce Development Stress on Existing Utility Infrastructure



Introduction

Effective and efficient water, sewer and stormwater infrastructure are vital to protecting public health and promoting a thriving community. These integrated systems need to be sustainable, resilient and cost-effective now and in the future. The water and sewer infrastructure in most communities is aging, inefficient and in need of significant investment, while stormwater infrastructure for most municipalities is relatively newer, growing rapidly and subject to new regulations and increasing costs. To reduce the stress on these systems, decision makers and policymakers need to rethink infrastructure investment strategies and set a clear plan for where new development should locate, how intense it can be and what impact it will have on existing sewer, water and stormwater infrastructure.

The protection of water resources is a major priority

of the Nazareth Area Plan.
Overall, water of adequate
quality and quantity is available
to meet current demands in
the Nazareth Area. However,
the ability to provide a safe,
reliable water supply could be
adversely impacted without
careful planning. Water suppliers

need to have emergency plans, establish emergency interconnections with other systems and implement water source protection programs. The Pennsylvania Municipalities Planning Code requires comprehensive plans to include a plan for the reliable supply of water and to be generally consistent with the State Water Plan and any applicable water resources plan adopted by a river basin commission. Comprehensive plans must also recognize that 1) lawful activities such as extraction of minerals impact water supply sources and such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities, and 2) commercial agriculture production impacts water supply sources.

In the Nazareth Area, water supply is provided by a

combination of community water systems, central water systems and individual on-lot wells. The four community water systems listed below provide water service in the area. Further, there are nine central water systems serving specific developments in Moore and Upper Nazareth townships. Of the nine central systems, Lehigh County Authority previously acquired one system and Aqua PA acquired two systems, all in Moore Township. Remaining portions of the area are served by individual on-lot wells.

- The Bath Borough Authority serves the Borough and several adjacent developments in Upper Nazareth Township and obtains its supply from three wells. There are no emergency interconnections with other water systems.
- Pennsylvania American Water Blue Mountain

The protection of water

priority of the Nazareth

resources is a major

Area Plan.

Division serves portions of Bushkill and Upper Nazareth townships and the boroughs of Nazareth, Stockertown and Tatamy and obtains its water supply from a combination of surface and groundwater sources. A small portion of Lower Nazareth Township just south of Nazareth Borough is

also provided water service by Pennsylvania American Water. The Blue Mountain Division has emergency interconnections with the Pennsylvania American Water - Bangor District and Easton Suburban Water Authority.

- Easton Suburban Water Authority provides water service to portions of Lower Nazareth Township and obtains its water supply from the Delaware River.
- The City of Bethlehem provides water service to the majority of Hanover Township and obtains its water supply from surface water sources in Carbon and Monroe counties.

Municipalities are responsible for assuring that safe and reliable sewage disposal is provided within their



The utility infrastructure of traditional development areas, such as Bath Borough, serve as a resource for newer development in the neighboring communities, requiring collaborative planning to ensure adequate capacity.

boundaries. To accomplish this, municipalities are required to prepare sewage facilities plans under the Pennsylvania Sewage Facilities Act, commonly called Act 537. These plans must identify the current and future sewage needs of the municipality and evaluate alternatives to meet those needs. The requirements apply to all systems, including public sewer systems, central or package treatment systems, as well as on-lot systems. For public and central sewer systems, Act 537 plans need to assure adequate sewage collection, conveyance and treatment capacity. For on-lot systems, the plans need to assure proper site testing, construction, operation and maintenance, referred to as a sewage management program. Each municipality in the Nazareth Area has an official sewage facilities plan, with adoption dates ranging from 1973 to 2018.

In the Nazareth Area, sewer service is provided by a combination of public sewer systems, central sewer systems and individual on-lot sewage disposal systems. Five public sewer systems provide sewer service in the area. Further, there are four central sewer systems serving specific developments in Moore and Lower Nazareth townships. Remaining portions of the area are served by individual on-lot sewage disposal systems.

Bath Borough is served by the Borough Authority

public sewer system and wastewater treatment plant. The Borough Authority also provides sewer service to several adjacent developments in Upper Nazareth Township. The wastewater treatment plant has a design capacity of 0.51 million gallons per day (mgd) and the 2018 average flow was 0.47 mgd. Construction of a new treatment system is underway; however, the plant capacity will remain the same.

- The Nazareth Borough Municipal Authority wastewater treatment plant serves the Borough and portions of Upper Nazareth, Lower Nazareth and Bushkill townships. The design capacity of the plant is 1.6 mgd and the 2018 average flow was 1.44 mgd.
- The Wind Gap Municipality Authority wastewater treatment plant serves a small portion of Bushkill Township located adjacent to Wind Gap. The wastewater treatment plant has a design capacity of 1.0 mgd and the 2018 average flow was 0.75 mgd.
- The City of Easton wastewater treatment plant provides sewer service to Tatamy Borough and the eastern portion of Lower Nazareth Township. Stockertown Borough abandoned its wastewater treatment plant and connected to the Easton sewer system in late 2021. The design capacity

- of the plant is 10.0 mgd and the 2018 average flow was 5.6 mgd.
- The City of Bethlehem wastewater treatment plant provides service to the majority of Hanover Township and a small portion of Lower Nazareth Township. The design capacity of the plant is 20.0 mgd and the 2018 average flow was 12.53 mgd.
- The Catasauqua wastewater treatment plant provides service to the northwestern corner of Hanover Township. The wastewater treatment plant has a design capacity of 2.25 mgd and the 2018 average flow was 1.26 mgd.

Within the Nazareth Area, stormwater management for new development is accomplished partially through implementation of ordinances created at the county level and enforced by local municipalities. The Lehigh Valley Planning Commission (LVPC) also provides an advisory review role to the municipalities. The ordinances are created under the Pennsylvania Stormwater Management Act, commonly referred to as Act 167. Northampton County and the LVPC created the Act 167 plans for the Bushkill, Hokendauqua, Monocacy and Catasauqua creek watersheds. The plans and ordinances provide water quantity and water quality controls. Stormwater management during construction is managed by the Northampton County Conservation District. For many development sites, a Post Construction Stormwater Management permit is required and implemented through the Northampton County Conservation District and the PA Department of Environmental Protection. The Monocacy Creek Act 167 Plan is the most recently adopted (2018) and contains provisions requiring green infrastructure in designs and promoting appropriate groundwater recharge.

To comply with permit requirements of the National Pollutant Discharge Elimination System (NPDES) regulations from the Environmental Protection Agency (EPA), municipalities in the Nazareth Area, except Chapman, Stockertown and Tatamy boroughs, must adopt and implement an ordinance that requires the use of stormwater best management practices to reduce or prevent the discharge of pollutants into receiving waters. The four watershed plans listed above provide a model municipal ordinance that meets this criteria and each municipality has adopted their respective watershed ordinance(s). The EPA permit program is the Municipal Separate Storm Sewer System (MS4) program. The ordinances also meet the EPA requirements for illicit discharge elimination and stormwater management during construction.

The most recent MS4 permit requirements that impact municipalities are those mandating reduction of pollutants being discharged from the municipal systems into surface waters. Municipalities are required to prepare Pollutant Reduction Plans to accomplish this. Communities must implement best management practices of their own to meet defined pollutant reduction targets. Implementation of these plans will place significant cost burdens on the municipalities. Moving forward, municipalities should consider collaboration where appropriate to minimize costs and need to consider all methods available to fund needed improvements, including specific stormwater fees.

The Nazareth Area municipalities provide a variety of community facilities and services to meet the health, safety, welfare and educational needs of the region's residents. These facilities and services, including education, libraries, parks and recreation, and emergency services, are reflective of the character and quality of life of a region. The Nazareth Area is served by three school districts—Northampton Area, Nazareth Area and Bethlehem Area. With growth and development on the rise, the municipalities will need to coordinate with the school districts to ensure the availability of sufficient educational facilities to meet the needs of future students. The region offers many park and outdoor recreation sites, including small municipal parks, Jacobsburg State Park and numerous trails, providing opportunities for a healthier lifestyle and improved well-being of its residents. Municipalities will need to ensure access to all residents for the enjoyment of these facilities.

The majority of the municipalities have their own police department, with Hanover and Lower Nazareth townships served by the Colonial Regional Police. Chapman Borough has a contract with Moore Township for police service. Bath Borough is served by the PA State Police. Ambulance and fire services are also primarily provided by the municipalities, with Chapman Borough and Moore Township sharing the same services. Retention and recruitment of volunteer firefighters is a growing issue across the US. The longer work commutes of many of the region's residents can add to the lack of emergency management volunteers, presenting a major challenge to communities. Ongoing training requirements for firefighters and ambulance personnel can also be a detriment to retention of volunteers. The transition from volunteer to paid fire and ambulance services, as necessary, would place additional strain on municipal budgets.

Policy 1.1: Match development intensity with sustainable utility infrastructure capacity.

- Minimize impacts of Land Uses of Regional Significance.
- Direct intense development to areas where the public sewer and community water supply systems can accept additional growth, or through limited expansion or upgrading, as consistent with this comprehensive plan.
- Discourage intense development in areas where it can only be served by on-lot sewage disposal or new or expanded privately-owned central sewage facilities.
- Educate elected officials and the public on the importance of sustainable sewer, water and stormwater infrastructure.
- Designate maximum development densities consistent with the long-term use of on-lot sewage disposal systems and wells.
- Maintain adequate Official Sewage Facilities
 Plans for each municipality, consistent with the
 requirements of the PA Sewage Facilities Act of
 1966 (Act 537).
 - Lower Nazareth and Upper Nazareth townships will update their Act 537 Plans to

- be consistent with the Future Land Use Plan, as necessary.
- Direct Exurban development to areas consistent with this comprehensive plan to be served by onlot sewage disposal and water supply.
- Coordinate official sewage planning and water resource planning with comprehensive planning and zoning.
- Prepare or update public sewage facility and community water supply agreements, where appropriate, with adjacent municipalities or authorities to provide service consistent with the Development recommendations of this plan.
 - Lower Nazareth Township will update Act 537 sewage flow projections to the Nazareth Borough, Bethlehem and Easton sewage treatment plants.
- Implement the provisions of approved stormwater management plans through adoption of ordinances and enforcement of runoff control criteria, managing the rate, volume and quality of storm runoff.

Policy 1.2: Strengthen the utility infrastructure of the region.

- Provide adequate service to areas experiencing problems with existing on-lot or central sewer or water supply systems, implementing the most cost-effective solution to the problem after an evaluation of appropriate alternatives is completed.
- Coordinate with community water suppliers to ensure adequate water supply, consistent with the Safe Drinking Water Act, during emergency and non-emergency operations for existing and future needs, considering:
 - varied sources of supply
 - interconnections between systems
 - emergency water transfer agreements
 - metering of sources and individual customer use
 - water conservation provisions
- Coordinate with PennDOT to integrate stormwater best management practices in the form of blue green infrastructure into the design of new or improved rights-of-way.
- Identify and remove excess infiltration and inflow in a cost-effective manner to maximize available sewage facilities capacity.
- Prepare capital improvement programs that identify and prioritize utility infrastructure needs, including those that solve existing drainage problems in accordance with Act 167 stormwater management plans.
 - Hanover Township will study the need for updates to stormwater infrastructure.
- Ensure the proper construction of storm drainage facilities in accord with approved subdivision and land development plans.
- Ensure continued operation and maintenance of storm drainage facilities through regular inspections and enforcement of maintenance plans.
- Adopt ordinance provisions to regulate standing water on construction sites for vector control and routinely inspect construction sites for standing water.

- Collaborate where appropriate regarding MS4 implementation, especially best management practices for pollutant control.
- Identify opportunities for green infrastructure techniques where infrastructure design opportunities arise. Green infrastructure uses vegetation and soils to restore natural process to manage water.
- Implement green infrastructure and groundwater recharge standards in stormwater design across all watersheds.
- Evaluate the necessity of a sewage management program for all on-lot sewage systems, to ensure long-term viability of systems.
- Evaluate the viability of central water systems and consider acquisition, interconnection or independent upgrade of systems.
 - Moore and Upper Nazareth townships will evaluate the central water systems within their borders. If these systems remain private, municipalities should require assurances for proper long-term operation and maintenance.
- Require tested primary and replacement on-lot sewage disposal absorption areas for each lot proposed for on-lot sewage disposal.
 - Upper Nazareth Township will adopt replacement absorption area requirements.
- Monitor the performance of all sewage disposal facilities and take corrective measures as needed.
 - Hanover Township will evaluate any septic system needs.
 - Lower Nazareth Township will evaluate the Georgetown area septic systems.
- Promote proper on-lot sewage disposal system operation and maintenance.

Policy 1.3: Provide high-quality community facilities and services for all residents.

- Ensure that public facilities are located where there is good access.
- Support high-quality local public library services and educational resources.
- Coordinate with public libraries to assess current and future program needs and funding opportunities.
- Meet with the Nazareth Area, Northampton Area and Bethlehem Area school districts periodically to discuss development trends that could impact the timing and need for school facility expansion.
- Provide reliable, responsive and efficient community emergency services.

- Municipalities will evaluate cooperative, longterm fire and emergency medical services, including regional arrangements, especially with regards to volunteer versus paid personnel and equipment needs.
- Protect and enhance access routes to community facilities, with special focus on parks, recreation and school facilities, to recognize their significance as cultural and economic assets.
- Encourage the private sector to provide highspeed internet service throughout the area.
- Encourage retention and recruitment of firefighter and emergency management volunteers.

Summary

Community facilities and services are a key indicator of a region's quality of life. As development pressure continues, Nazareth Area municipalities will face an increased strain on these facilities and services. Meeting the sewer and water needs of existing and future residents will require sewer and water planning coordinated with comprehensive planning and zoning, with a commitment to providing safe and reliable service. The implementation of U.S. Environmental Protection agency mandated stormwater management regulations places significant cost burdens on

municipalities, who will need to examine costeffective ways to comply with regulations. Ensuring that all residents have access to a good education, recreational areas and reliable emergency services will be critical for the region to remain a desirable place to live, work and play. Working together, the Nazareth Area municipalities can minimize the challenges the region faces and provide the highest quality facilities and services possible.

GOAL 2: Balance Preservation and Development



Introduction

The Nazareth Area is well known for its varied topography, beautiful landscape, historic boroughs, and rich history of mining for slate, rifle-making, limestone quarrying and cement manufacturing. These features—natural areas, parks and trails, farmland, historic sites and scenic views—contribute significantly to the area's identity and quality of life. Many of these areas are under pressure from growth and development and will face increased pressure based on population growth forecasts. The Nazareth Area Multi-Municipal Comprehensive Plan will need to balance growth and development with preservation of the character-defining features that make the region so attractive to residents and businesses.

Preserving open space and historic resources provides many benefits to the region, such as environmental, community, health and wellness,

and economic. The Lehigh Valley Return on Environment study documented that open space resources add significant value to the regional economy, with benefits accruing to businesses, governments and households by providing natural system services, like flood mitigation and improved

water quality, improving air quality, providing outdoor recreation opportunities and increasing property values. Historic preservation also provides economic, community character and environmental benefits, such as creating jobs, enhancing property values, encouraging investment in underserved communities, initiating community revitalization, attracting employers and heritage tourism, strengthening a community's unique sense of place, and providing greener and more sustainable community development.

Located all across the region, from the boroughs to the countryside to the Kittatinny Ridge in the north, these open space and historic resources provide opportunities for a wide variety of activities and attractions for the enjoyment of both residents and visitors. They add beauty and attractiveness to the region, increase understanding and appreciation of the Nazareth Area heritage, and improve quality of life. Natural features include surface waters, woodlands, wetlands and hydric soils, natural heritage areas (core habitats and supporting landscapes) and local natural areas, including the Kittatinny Ridge, the largest natural area in the region. Conservation priorities (high and medium) have been developed to focus preservation efforts in the most critical locations. One strategy, currently being used by Bushkill, Lower Nazareth and Upper Nazareth townships, is to allocate a portion of municipal earned income taxes to preserving or acquiring open space through Pennsylvania's Open Space Law.

Parks and outdoor recreation sites range from small municipal parks (Chapman Borough Park,

1.4 acres) to Jacobsburg State Park (1,147 acres) to state game lands (3,097 acres). Farmland complements natural areas and outdoor recreation sites by adding to the pastoral scenery that residents treasure. Historical features are plentiful throughout the region, most prominently in Nazareth and

Bath boroughs plus the Boulton site in Bushkill Township, and include sites listed on the National Register of Historic Places (two historic districts and four historic structures) and several sites eligible for inclusion on the Register. The region's outstanding scenic quality is created from the interrelationship between the natural features, rural areas, farmland and the villages and boroughs for residents and visitors to enjoy. Important cultural attractions include the C. F. Martin Guitar Company, which was established in 1833 and produces some of the finest guitars in the world, offers a museum and provides factory tours where visitors can see how the products are made and learn the background and history of the company. Nazareth Borough is also the

hometown of the world-famous Andretti racing family.

An important tool for municipalities to be proactive in



Jacobsburg Environmental Education Center in Bushkill Township provides historic, scenic, natural and recreational benefits to the Nazareth Area.

shaping future development is by preparing an Official Map as provided by the Pennsylvania Municipalities Planning Code. Adopted by ordinance, the Official Map serves as a visionary document that specifies properties the municipality wants to acquire for public improvements, such as the layout of future roads and public areas, and preserve rights-of-way. When consistent with a municipal subdivision and land development ordinance, zoning ordinance

and comprehensive plan, the official map can give strength and validity to a municipality's vision and needs for future growth. Further, it is an excellent supporting document for grant applications involving land or easements intended for open space or park facilities. The five townships in the Nazareth Area have an official map showing future plans for agricultural preservation, natural resources preservation, future roads and future parks.

Policy 2.1: Protect natural resource areas.

- Preserve high and medium overall conservation priority natural resource areas through acquisition or conservation easements.
- Adopt and enforce zoning and subdivision regulations to protect medium overall conservation priority natural resource areas.
- Protect natural resource areas other than high and medium overall conservation priority, if the opportunity arises including through the subdivision and land development process.
- Require developers to connect new development natural resource areas to adjacent property natural resource areas, if possible.
- Adopt zoning and subdivision and land development ordinances generally consistent with the LVPC Conservation Subdivisions Guide
 + Model Regulation to set aside unfragmented, permanently protected open space within residential developments.
- Revise or clarify open space definitions in ordinances so development plans do not count stormwater management facilities toward open space or recreation acreage dedication unless designed for those purposes.

- Educate the public on the benefits of conservation and preservation.
- Encourage natural resource areas protection on farmland properties, including agricultural easements, through management recommendations in the conservation plan.
- Seek natural resource areas acquisition funding through federal, state, county and private grant programs.
- Establish a municipal program to purchase or accept donations of high or medium overall conservation priority natural resource areas.
- Adopt or amend an official map to protect and acquire properties with high and medium overall conservation priority natural resource areas.
- Evaluate the public financial benefits versus expenditures in open space preservation decisions.
- Coordinate protection efforts with local land trusts, conservancies, school districts and the private sector.
- Use natural resource areas as buffers between incompatible land uses, where feasible.



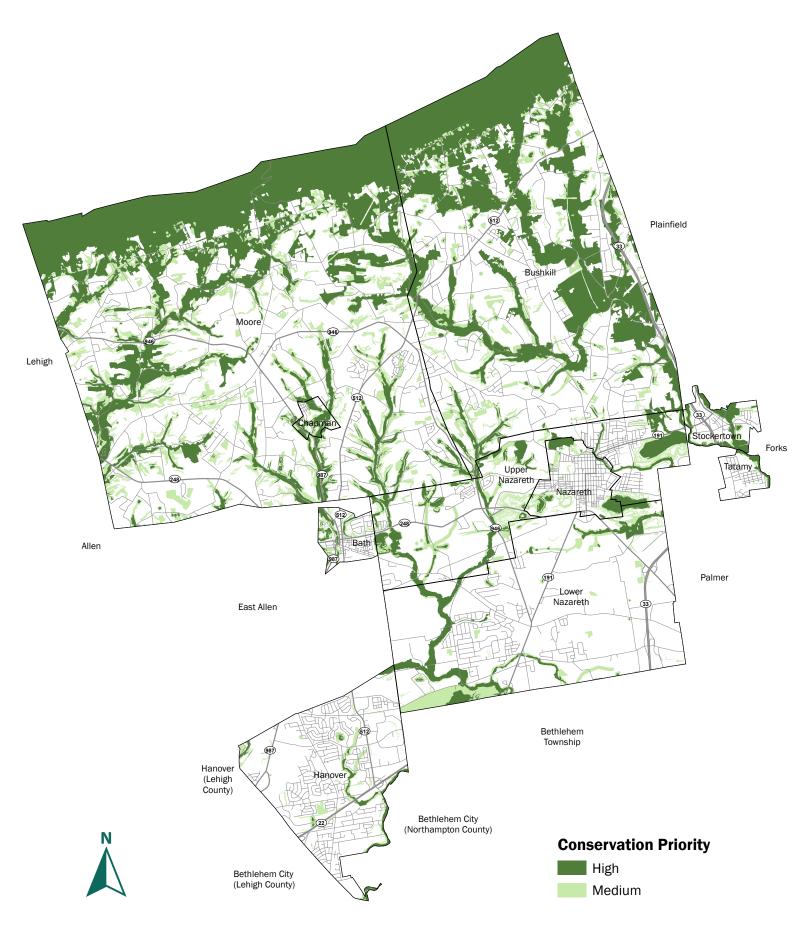
Blue Mountain and the Appalachian Trail along its ridge serve as important landmarks that define the region.



Natural Resources Plan

The High Conservation Priority Natural Resource areas shown on the plan take precedence over other land use recommendations presented in NazPlan, including the Future Land Use Plan. This represents a conservation first perspective. The High and Medium Conservation Priority areas are used by the municipalities in review of subdivision and land development proposals, to identify potential preservation areas within a development, development of plans and ordinances, and grant applications, among other uses specified in the policies and actions. The High and Medium Conservation Priority areas should also be used by conservation organizations and other government agencies to prioritize conservation efforts.

Natural Resources Plan	Elements
Element	Priority
Natural Heritage Inventory -	
Core Habitat	
Global Significance	High
Regional Significance	High
State Significance	Medium
Local Significance	Medium
Natural Heritage Inventory -	
Supporting Landscapes	
Global Significance	Medium
Regional Significance	Medium
State Significance	Low
Local Significance	Low
Blue Mountain/Kittatinny Ridge Natural Area	l li erla
Local Natural Areas	High Medium
Woodlands	Medium
Greater than 500 acres	Medium
100 to 500 acres	Medium
25 to 99 acres	Medium
5 to 24 acres	Medium
Interior Woodlands	Medium
Steep Slopes	
Greater than 25%	Medium
15 to 25%	Medium
Hydrography	High
Riparian Buffers	Medium
Floodplains	High
Wetlands	High
Hydric Soils	
Predominantly	Medium
Partially	Low



Policy 2.2: Preserve farmland and farming.

- Support purchase of agricultural easements in cooperation with the Northampton County Farmland Preservation Program.
 - Bushkill, Lower Nazareth and Upper Nazareth townships will enroll in the County's Farmland Preservation Township Partnership Program.
- Support effective agricultural preservation for priority farmlands, including farmsteads with historic value.
- Review and update, as needed, agricultural security areas, which protect agricultural uses in areas recommended for farming from residential development and non-farm activities that interfere with normal farming practices.
- Pursue funding from grant programs and support initiatives that protect farmland and farming.
- Discourage the extension of water and sewer services and new roads into areas where farming is the recommended land use.

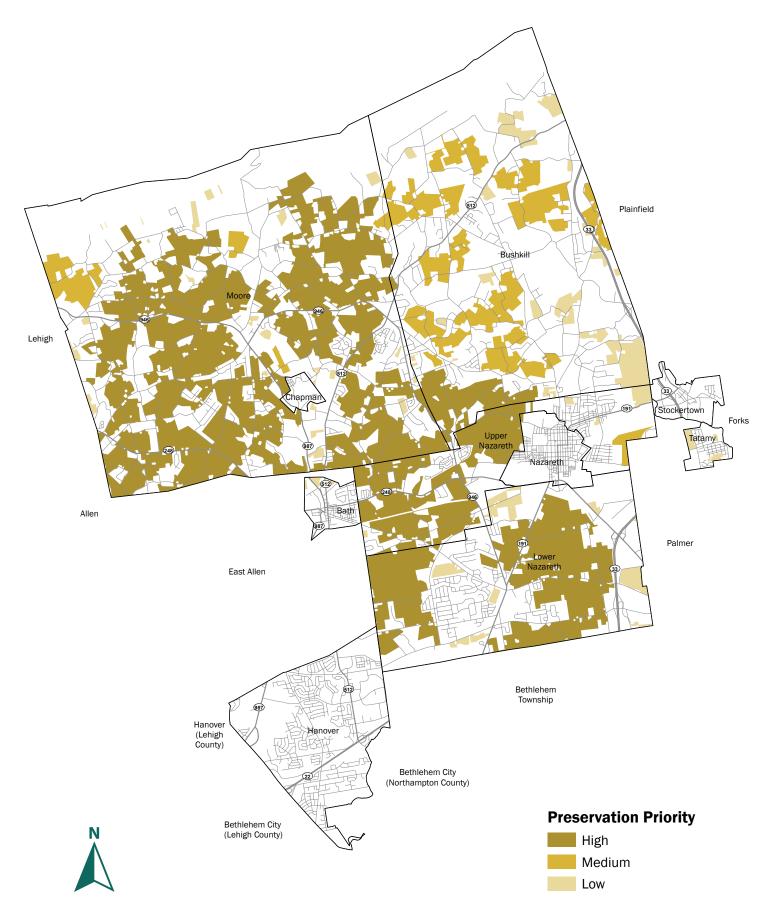
- Encourage developers to provide innovative plans so a sizeable portion of the land in the proposed Aircraft Flightpath Highway Business District (within the 65 A-weighted decibels noise contour) be conserved as Open Space or acceptable land uses.
- Use blighted or vacant lots in Development areas for community gardens and educating children about farming as the opportunity arises.
- Encourage the creation of agricultural committees in townships to foster improved communication on agricultural issues.
- Preserve the agricultural and natural resource areas on a farm separately through appropriate conservation easement programs.



Farmland in Moore Township continues the agricultural heritage of the region.

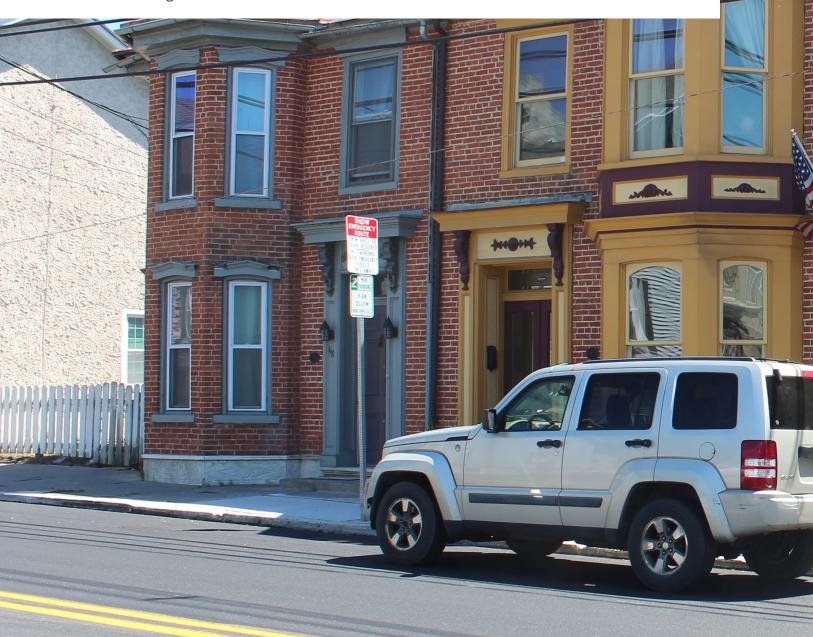
Farmland Preservation Plan

The High and Medium Priority Farmland Preservation areas on the plan represent the most significant clusters of existing farmland, based on the overall size of the cluster combined with agricultural soils quality. The municipalities will use this plan as an important component of development proposal review. High Priority areas are the largest clusters and represent the best opportunity for infill with farmland-supportive businesses and services. This plan should be used by other government agencies and conservation organizations to prioritize areas for preservation of farming operations, typically through the acquisition of easements to permanently preserve the land as farming. Low Preservation Priority Farmland, defined as such due to small size, lower soils quality or lack of proximity to other farmlands, should also be considered for preservation as the opportunity arises. High, Medium, and Low Priority areas are shown on the Future Land Use Plan for Farmland Preservation or certain Preservation Buffer areas. In the Preservation Buffer area, Farmland Preservation is preferred.

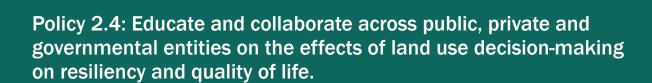


Policy 2.3: Promote compact development and higher densities in designated growth areas.

- Encourage reuse and redevelopment within Development areas, especially for properties considered underutilized.
- Establish a network of mixed-use Centers and mixed-transportation Corridors.
- · Encourage commercial and industrial clusters.
- Increase the density of residential and mixed-use development in Centers located in Development areas.
- Coordinate infrastructure investments that support Centers and Corridors.



These refurbished buildings on East Main Street in Bath Borough exemplify a strong commitment to neighborhood revitalization.



- Coordinate the actions of government, the private sector and non-profit organizations to achieve land preservation goals.
- Build and maintain partnerships with public and private entities.



Place Types

Organizing the development character of a place and the infrastructure that connects it.

Place Type	T1 Natural Zone	T2 Agricultural Zone	T3 Rural Zone	T4 Crossroads Village	T5 Rural Center
Place Type Description	Undeveloped natural area: • Protects environmentally sensitive areas like forested areas and natural areas. • Parks and Recreational uses. • Limited residential.	Applies to areas of the region where there is a predominance of agricultural resources and uses. The non-farming activities should be restricted to the least productive areas of the farm parcel. Clustering of these uses would be encouraged: • Agricultural lands and businesses/agri-tourism. • Rural-scale residential. • Agriculture-based commercial.	Lower density, primarily agricultural and residential: • Agricultural lands and businesses • Exurban-scale residential • The provision of public facilities and services to these areas is not anticipated. • Development is provided for at densities between 1 dwelling per 1-2 acres. • Public community services.	Small group of houses organized around the intersection of rural roads; potentially commercial structures, but limited development capacity overall: • Generally, it is a gathering of 5 to 10 residential dwellings with a distinct identity in an exurban area. • Includes areas of existing development to which new development is directly related to the exurban economy and the exurban way-of-life. Uses include: • Rural-scale residential. • Local commercial uses.	Provide for limited development in a scale that mirrors the existing character of a village. Traditionally ag/mining economy, now an active business presence with a mix of uses: Small-scale commercial. Residential. Community-based services. Local exurban-based businesses (landscaping operations, car dealership, church, local restaurant).
Transportation Options	Should offer trail connections as active transportation to other local and regional areas.	Should offer trail connections as active transportation to other local and regional areas.	Should offer trail connections as active transportation to other local and regional areas.	Bicycle and pedestrian facilities, should be incorporated where possible.	Should offer commuting opportunities via multiple modes of transportation, including transit, bicycle, walking, and automobile.
Road Type Connections	Community Corridors, Local Connectors, Local Roads	Community Corridors, Local Connectors, Local Roads	Critical Local Corridors, Local Connectors, Local Roads	Commercial Corridors, Community Corridors, Critical Local Corridors, Local Connectors, Local Roads	Critical Regional Corridors, Community Corridors, Critical Local Corridors, Local Roads

A Center has character, road segments have a character.

Character should support the goals and policies of the plan and any updates to local ordinances.

	updates to local ordinances.				
T6 Commercial Center	T7 General Urban Center	T8 Urban Center	T9 Critical Regional Center	T10 Regional Center	T11 Industrial Center
Accommodates a wide range of retail and service uses which serve the community in areas with or without public services. Accessible primarily by vehicle; little or no residential. Includes small scale establishments: • Convenience stores. • Hardware stores. • Personal services.	This zone can serve as a gateway into an urban center in an urbanized area or could serve as the main urban center for an exurban region. Landscape would include a mix of uses at a high density, but some may incorporate automobile-based businesses. Land uses include: Office. Commercial. Residential.	Intended to be a compact, densely developed and well-defined area having a strong pedestrian orientation and urban character that provides both office and residential space within multistory buildings while being compatible with nearby residential neighborhoods: • Provides for the day-to-day and specialty shopping and service needs of the community. • Provides a mix of uses that include: • Office. • Commercial. • Residential.	Intended for mainly office, light industry, research and development, and data processing, and other job-focused uses; may also include limited opportunities for support uses (e.g., banks, child care), shopping, and other compatible uses at a suburban scale: Big box retailers. Office. Low scale commercial. Residential - suburban.	Provide for limited development in a scale that mirrors the existing character of a village. Traditionally ag/mining economy, now an active business presence with a mix of uses: Small-scale commercial. Residential. Community-based services. Local exurban-based businesses (landscaping operations, car dealership, church, local restaurant).	Highway-dependent uses that generate heavy truck traffic and impacts that are difficult to remediate on-site (e.g. noise and air impacts): Light or heavy manufacturing. Warehouse. Production. Logistics and distribution.
Should offer commuting opportunities via multiple modes of transportation, including transit, bicycle, walking, and automobile.	Should offer commuting opportunities via multiple modes of transportation, including transit, bicycle, walking, and automobile.	Should offer commuting opportunities via multiple modes of transportation, including transit, bicycle, walking, and automobile.	Should offer commuting opportunities via multiple modes of transportation, including transit, bicycle, walking, and automobile.	Should offer commuting opportunities via multiple modes of transportation, including transit, bicycle, walking, and automobile.	Should serve as a major transit route. A dedicated bicycle and pedestrian facility, or facilities, should be incorporated along the roadway.
Regional Corridors, Commercial Corridors, Critical Local Corridors, Local Roads	Limited Access, Regional Corridors, Commercial Corridors, Critical Local Corridors, Local Roads	Regional Corridors, Critical Regional Corridors, Commercial Corridors, Critical Local Corridors, Local Roads	Regional Corridors, Critical Regional Corridors, Commercial Corridors, Local Roads	Regional Corridors, Critical Regional Corridors, Commercial Corridors, Critical Local Corridors, Local Roads	Limited Access, Regional Corridors, Critical Regional Corridors, Critical Local Corridors, Local Roads

Future Land Use Plan Definitions

Several key definitions are required to fully interpret the map descriptions, policies and actions that use this terminology:

Development

These areas have most or all of the factors needed to support growth, such as sewer and transportation infrastructure capacity and contiguity to existing development, and are capable of accommodating a substantial amount of additional development. These areas are appropriate for a variety of uses, including major commercial, residential and industrial development.

Exurban

These areas have few or none of the factors necessary for development and should remain in rural uses, including agriculture and related businesses, and parks and open space. Housing in or adjacent to rural crossroads villages or at low densities is also compatible.

Preservation Buffer

These are areas where factors may be present and capable of accommodating additional development. Conversely, these are areas where farming may be the existing land use, and it may be appropriate to preserve these areas for agriculture or to maintain rural uses. The most appropriate future land use for these areas should be based on a planning analysis of the development criteria. Natural resources conservation and farmland preservation are strongly preferred in these areas.

Farmland Preservation

These areas are predominantly agriculture and are recommended to remain agriculture. The types of uses recommended include agriculture and related housing and businesses, parks and open space, and housing not related to agriculture on a very limited scale.

Centers

Centers are a wide range of place types that include crossroads villages, neighborhoods, urban or highway centers, among others, each with a unique character and combination of appropriate land uses, infrastructure and connecting transportation Corridors. The character of the varied Center types is supported by the plan's goals, policies and actions and should be incorporated in municipal ordinances.

Corridors

Corridors are a wide range of road types, from local to commercial and limited access, among others, each with a unique character and each supporting a unique combination of purpose, traffic volume, mobility, access potential for mixed-transportation options.

Character-Defining Area

These areas represent the natural and scenic character of the region as a simplified version of the Natural Resources Plan, with highest elevation areas representing scenic resources.

Development Criteria

Development Criteria Areas shown on the Future Land Use Plan as Preservation Buffer areas or Exurban areas may be considered appropriate for development if the following criteria are met:

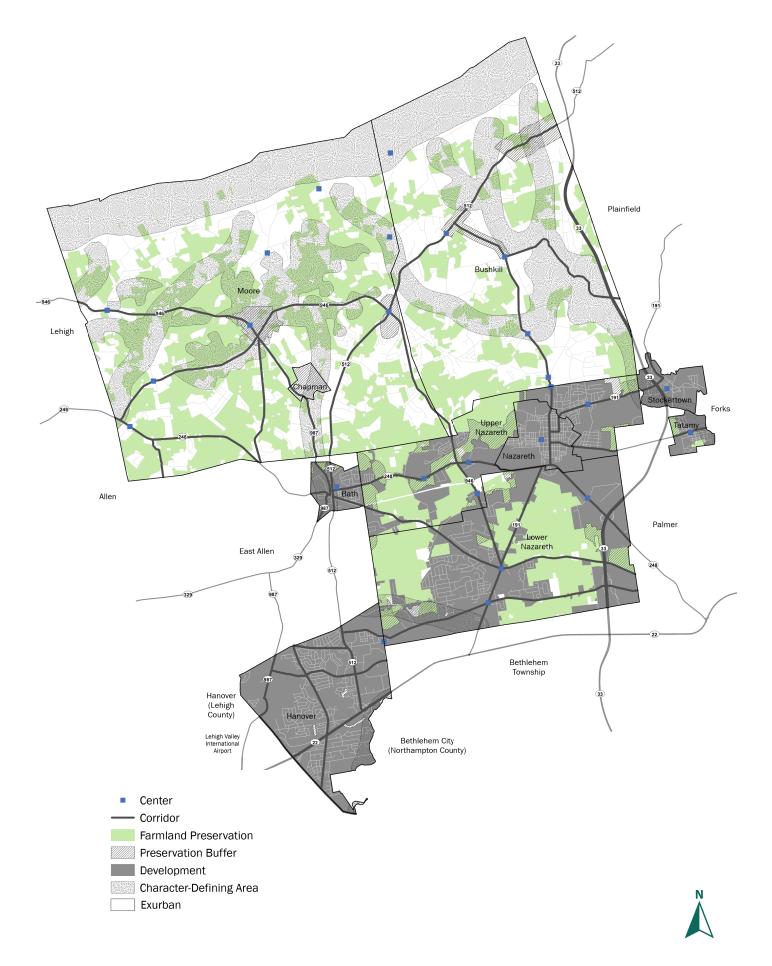
- The proposal is consistent with the conservation of high priority natural resources
- The site is contiguous to existing development
- Adequate sewage conveyance capacity, allocation and treatment capacity are available for public sewage disposal, if appropriate or adequate on-lot sewage disposal is provided
- The site is identified in the municipal comprehensive plan, zoning ordinance and Act 537 sewage facilities plan for the development type, and sewage facilities, as proposed
- The site will be served by public water with adequate supply and delivery capacity, if appropriate on-lot water supply is not available
- Adverse impacts to the transportation system due to development will be mitigated with respect to roads, bridges, transit facilities and bicycle/pedestrian facilities, including traffic safety or congestion, based on accepted transportation planning and engineering professional standards



Tatamy Farms is an example of residential development the region will need to handle increases in population. Sidewalks are vital to neighborhood walkability.

Future Land Use Plan

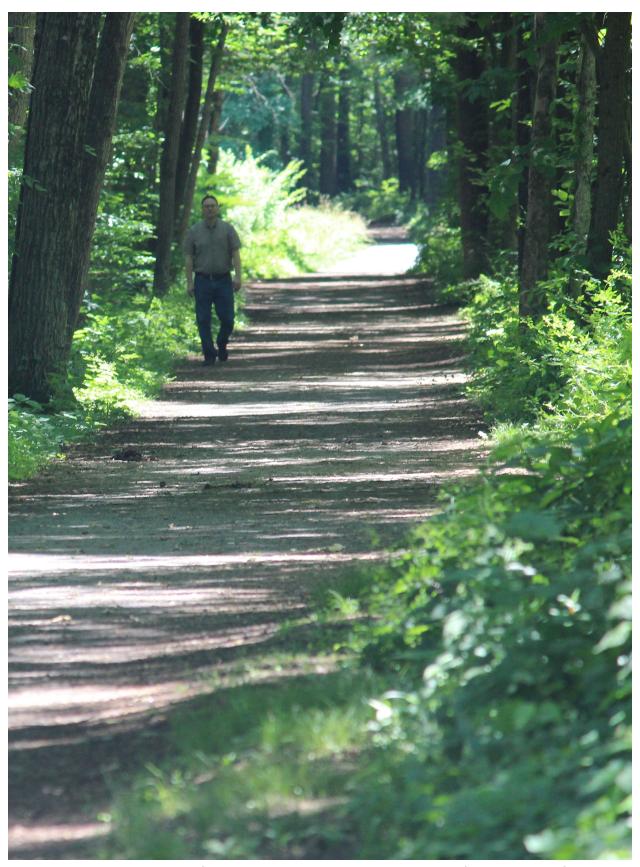
This plan shows areas recommended for Development, Farmland Preservation, Preservation Buffer and Exurban uses and should guide development and preservation efforts by private and non-profit organizations, government agencies and individuals. High Priority Areas from the Natural Resources Plan are recommended to be conserved regardless of the Future Land Use Plan recommendation. High, Medium, and Low Priority areas from the Farmland Preservation Plan are included on the Future Land Use Plan as recommended for Farmland Preservation or certain Preservation Buffer areas. In the Preservation Buffer area, Farmland Preservation is preferred. Centers and Corridors located within Development areas are recommended for denser, mixed-use, mixed-transportation development. Centers and Corridors located in Preservation Buffer areas or Exurban areas are only recommended for denser, mixed-use, mixed-transportation development if they meet the development criteria. Centers and Corridors located within Farmland Preservation areas are not generally recommended for denser development. Proposed improvements shown on the Parks, Outdoor Recreation and Open Space Plan are compatible with any land use depicted on the Future Land Use Plan. Character-Defining Areas on the map represent the natural and scenic character of the region as a simplified version of the Natural Resources Plan, with highest elevation areas representing scenic resources.



Policy 2.5: Preserve historic, cultural and scenic resources and landscapes.

- Promote adaptive reuse of historic buildings.
- Promote development that complements the unique history, environment, culture and needs of the Nazareth Area.
- Identify incentives and tools to encourage historic preservation, such as best practices, municipal and multimunicipal programs.
- Continue to support ongoing education programs of public sector and local historical societies.
- Update zoning and subdivision and land development ordinances to meet historic preservation goals and reduce impacts on the historic structures and character of neighborhoods.
- Continue to interpret historic resources to the community through markers, events and publications including neighborhood master plans.
- Prepare detailed inventories of historic buildings, neighborhoods and areas, including industrial.
- Support downtown revitalization initiatives, local historical societies and their partners to coordinate communication among local, regional and state preservation organizations.
- Provide information regarding federal and state rehabilitation tax incentives to property owners and developers.
- Support property owners in pursuit of National Register of Historic Places designation for significant individual properties and historic and cultural landscape districts.
- Establish or update local historic districts.
- Coordinate with local historical societies, Main Street programs and neighborhood groups to develop interest and participation in documentation of buildings and history through architectural and historic surveys.
- Support the creation and maintenance of a list of significant individual properties located outside historic districts or a revision to existing historic district boundaries along with individual historic properties.
- Identify/develop financial incentives and funding opportunities, such as establishing voluntary

- Neighborhood Improvement Districts.
- Promote historic preservation and heritage tourism at annual municipal events.
- Create historic and cultural preservation plans and historic district ordinances, and review them regularly.
- Ensure high-quality development in the Nazareth Area's community gateways and transportation corridors compatible with existing historic, architectural and cultural resources.
- Participate in evaluating transportation decisions on state roads or those that pass through multiple municipalities, particularly for their effects on historic districts, individually protected properties and cultural resources.
- Educate public works officials regarding maintenance and construction that would affect historic and cultural features.
- Adopt a policy of applying the Secretary of the Interior Standards for Historic Rehabilitation for all publicly owned properties more than 50 years old and apply appropriate preservation technologies in all additions and alterations, while also pursuing sustainable and energy conservation goals.
- Assign high preservation priority to historic buildings that have educational importance, value as visitor attractions or that can be used by the private sector for restoration programs.
- Develop and connect trails for historic interpretation and education.
- Retain the Native American heritage of the region through education and promotion.
- Restrict structures to be located on or extend above hills or ridges to preserve scenic vistas especially related to the Kittatinny Ridge.
- Acquire or purchase conservation easements to preserve scenic vistas.
- Identify, protect and enhance a network of designated scenic transportation corridors.
- Evaluate participation in the state historic preservation office Certified Local Government program.



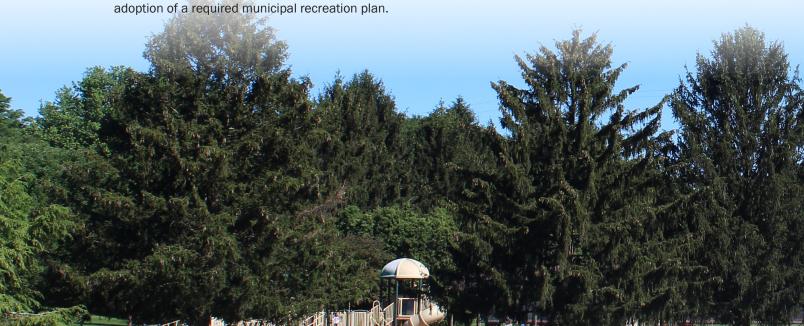
Bushkill Township Trail along the Sobers Run provides recreational connectivity from Jacobsburg State Park northward, contributing to the region's strong outdoor recreation economy.

Policy 2.6: Permit mineral extraction in areas where it is compatible with surounding land uses.

- Mineral extraction should not be conducted in high overall conservation priority natural resource areas.
- Mineral extraction should be located in industrial zones.
- Advocate land restoration plans prior to permitting mineral extraction operations.
- Advocate the operation of mineral extraction facilities in an environmentally responsible
- fashion that minimizes noise, air pollution, vibration and adverse impacts to surface water or groundwater, especially in Karst topography areas, including the use of appropriate buffering.
- Promote proactive engagement with extractive industries to preserve the industry as a local strategic resource.

Policy 2.7: Provide ample park and recreational opportunities for Nazareth Area residents.

- Update and implement a park and recreation plan.
 - Bushkill, Hanover, and Moore townships and Bath, Chapman, Nazareth and Stockertown boroughs will update their plans.
- Adopt or amend the official map, as needed, to proactively plan for future parks, trails, and bicycle and pedestrian pathways.
- Require developers to dedicate open space or recreation land (or fee in lieu) as part of all new development proposals, subsequent to the adoption of a required municipal recreation plan.
- Encourage the contribution of land in lieu of a monetary contribution in situations that would enlarge an existing recreation or open space area.
- Use preserved open space along the Monocacy Creek for passive recreation activities.
- Develop/enhance interpretive exhibits at parks and along trails and create themed itineraries between communities that share storylines.



Hanover Township Municipal Complex serves as an important town center.

Summary

Balancing preservation and development can be accomplished at the regional, municipal and site scales. Throughout the Nazareth Area, development should be mindful of natural resources, valuable farmland and the historic heritage prevalent throughout the area, ranging from the cement industry in Bath Borough and Lower Nazareth and Upper Nazareth townships; the slate industry in Chapman; historic villages throughout the municipalities; the Pennsylvania Longrifle Museum in Bushkill Township; and the Moravian settlement of Nazareth Borough. A well-established park and recreation system also is a component of balancing preservation and development, throughout the more rural areas, as well as the suburban areas and boroughs, and in some instances can incorporate historic heritage and recreation.

At the site scale, using conservation subdivision principles will provide the opportunity to preserve the natural resources of the site and allow

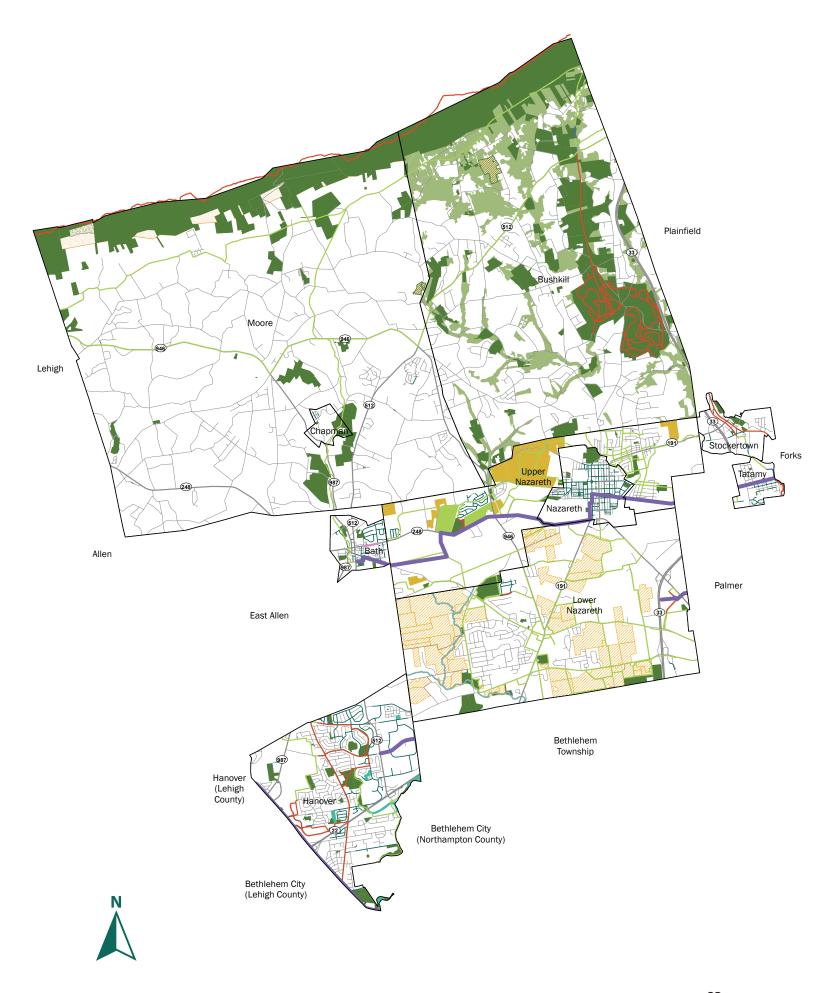
development in appropriate areas. Preserving natural areas across municipal and site boundaries, especially with riparian buffers along streams, such as the Monocacy, Bushkill, Hokendauqua and Catasauqua creeks, provides connectivity of natural resources areas that are critical for wildlife habitat and movement. Connections along streams may also provide opportunities for trail connections. Development and redevelopment directed to existing Centers, like borough downtowns and crossroads villages, and along Corridors appropriate for growth will help preserve the strong farming heritage of the area and support farmers markets in Bath and Nazareth boroughs. These Centers and Corridors can be developed and redeveloped to provide higher density, mixed-use development served by mixedtransportation resources, promoting walkable, rollable, bikeable and transit-oriented opportunities to relieve development pressure on potential preservation areas.



Parks, Recreation and Open Space Plan

This plan shows major existing and planned park, outdoor recreation and open space facilities and should be used to guide efforts by public/private organizations and government agencies to expand, improve and connect regional assets. The municipalities use this plan in concert with their individual open space plans, as applicable, and with the Northampton County Livable Landscapes Plan and other plans to establish priorities for funding and work efforts for these facilities. Recommended improvements shown on this plan are compatible with any land use depicted on the Future Land Use Plan.





GOAL 3: Improve Air and Water Quality



Introduction

The quality of air and water plays a critical role in having a clean and vibrant environment, as indicated by the percentage of Lehigh Valley residents that chose "Very Important" in their responses to the public survey for *FutureLV: The Regional Plan*. Air and water quality affect the health of residents and their quality of life.

As the population increases and open space is lost to development, air quality would be expected to decline, due to more vehicles and possibly longer commutes, along with less natural vegetation to clean the air. Air pollutants, such as ozone,

particulate matter, nitrogen dioxide and carbon monoxide, are emitted from various sources, including electricity generation, vehicles, residential, commercial and industrial development and natural disasters. The Nazareth Area is located within a county that, according to the American Lung Association's national 2019

State of the Air report, earns an 'F' for High Ozone Days and a 'C' for Particle Pollution (24-hour). The air quality problem in the region is partially due to natural circumstances. Valleys tend to accumulate air pollutants, and the region's climate contributes to elevated levels of natural allergens.

Efforts to improve air quality exist through federal and state programs and are supported by local planning. Transportation programs, such as the Congestion Mitigation and Air Quality Improvement Program, provide funds to states for transportation projects designed to reduce traffic congestion and improve air quality, particularly in areas of the country that do not attain national air quality standards for ozone, carbon monoxide, and particulate matter. A goal of the Lehigh Valley's Walk/RollLV: Active Transportation Plan is to improve air quality and mitigate the impact of the transportation system on climate change. Implementation of this plan will provide enhanced

walking, rolling, biking and public transit options for residents to move around the Lehigh Valley. Additionally, protecting important natural assets within the region, such as open space, wetlands, farms and forests, is essential as they enhance long-term resilience to climate change impacts and serve as "carbon sinks" to sequester carbon from the atmosphere. The Nazareth Area has approximately 14,600 acres of woodlands greater than five acres in size. These woodlands, along with other existing tree canopy, provides estimated economic benefits through pollutant removal (\$8.64 million/year), carbon sequestration (\$0.67 million/year) and

carbon storage (\$20.69 million).

Creating, restoring and maintaining riparian buffers can improve air and water quality.

Creating, restoring and maintaining riparian buffers can improve both air and water quality by sequestering carbon, removing pollutants from the air, maintaining hydrology and minimizing nutrient enrichment to water bodies. A riparian

buffer is an area of natural vegetation adjacent to a watercourse or wetland to protect water quality and stabilize channels and banks. The riparian vegetation affects the stream channel shape and structure, as well as the stream's canopy cover, shading, nutrient inputs and amount of woody debris entering the stream. Shading is especially important for trout habitat streams to maintain cooler temperatures. The buffer serves to reduce the amount of pollutants entering the stream from storm runoff by trapping sediment and reducing soil erosion.

Water quality standards within the Commonwealth are based on water uses that are to be protected—aquatic life, water supply and recreation. In addition, streams can be afforded special protection if they are classified as Exceptional Value or High Quality. Within the Nazareth Area, Sober's Run in Bushkill Township is classified as Exceptional Value, and the Monocacy Creek and portions of Bushkill Creek

are High Quality. Water bodies that do not meet the water quality standards necessary to protect them for their designated use are classified as "impaired." Impairment can be attributed to a variety of factors, including pathogens, siltation, nutrients, urban/stormwater runoff and agricultural runoff.

A wide variety of approaches exist to improve and protect water quality, from regional and statewide plans to municipal ordinances related to stormwater, development techniques, sewage facilities, climate change mitigation actions and best management practices. The Pennsylvania Stormwater Management Act (Act 167) requires counties to prepare stormwater management plans on a watershed-by-watershed basis. The plans must be developed in consultation with the affected municipalities. Standards for control of runoff from new development are a required component of each plan and are based on a detailed hydrologic assessment. A key objective of each plan is to coordinate the stormwater management decisions of the watershed municipalities. Seven municipalities in the Nazareth Area, all except Chapman, Stockertown and Tatamy boroughs, must manage the quality of discharges of stormwater from their municipal separate storm sewer systems (MS4).

These systems are a collection of structures, including retention basins, ditches, roadside inlets and underground pipes, designed to gather stormwater from built-up areas and discharge it into local streams and rivers. Development designs, such as low-impact development, aim to maintain the hydrologic cycle and protect water quality throughout

the development process, achieving stormwater control that mimics the natural hydrologic regime.

quality.

A properly functioning sewage disposal system is critical to protecting water quality. Malfunctioning systems, regardless of type, pose a serious threat to public health and the environment. They can pollute public and private drinking water sources, often by discharging directly to groundwater, and they can expose humans and animals to various bacteria, viruses and parasites. Repairs to these systems often lead to financial hardships for affected municipalities or homeowners. Act 537, the Pennsylvania Sewage Facilities Act, addresses existing sewage disposal problems and prevents future problems. The Act makes municipalities responsible for the proper operation of all sewage facilities within their borders and requires proper planning of all types of sewage

facilities, including individual and community on-lot disposal systems.

The State Water Plan provides the planning tools and guidance to meet existing and future water resource demands and needs within the Commonwealth, and coordinates related plans and policies with local, state and federal agencies. Through integrated land use and water resource planning, impacts to water resources are minimized while managing water use to support growth. Without a balanced and integrated approach, unintended consequences can occur to water resources or growth management. Impaired surface and ground waters, frequent flooding, stream warming, increased water supply and wastewater treatment costs, rapid growth pressure on community water and wastewater systems, eroded riparian properties, overstressed aguifers, reduced waterbased tourism and damaged aquatic ecosystems are just a few of the problems that can result. On a more local level, the Lehigh Valley Planning Commission has prepared various studies evaluating the adequacy and protection of local water supplies to meet the future needs of residents and businesses.

Agricultural land uses may also impact water quality

if best management practices are not employed. Techniques exist to protect water resources by reducing nutrient and sediment pollution to local waters. Several types of practices exist, including agricultural compliance, soil health, expanded nutrient management, manure storage facilities, dairy precision feeding, and forest and grass riparian

buffers. Agricultural compliance ensures that farmers are implementing their state required erosion and sediment control plan, manure management/nutrient management plan, and implementing barnyard runoff controls where needed. Soil health practices are crop and soil management practices that improve longterm soil health and stability, such as conservation tillage, high residue low disturbance tillage, keeping a percentage of croplands as non-harvested cover crops and prescribed grazing on a percentage of pastures. Expanded nutrient management has four principles-Right Source, Right Rate, Right Time and Right Place—for increased nitrogen and phosphorus reductions. Manure storage facilities should be installed that meet state or federal standards. Dairy precision feeding reduces nitrogen and phosphorus in manure. Finally, planting forest and grass riparian buffers along streams protects the waterways.

A properly functioning sewage disposal system is critical to protecting water

Carbonate bedrock located throughout the southern half of the Nazareth Area has the potential for sinkhole formation, which is quite common, and groundwater pollution. When sinkholes occur in developed areas, they can cause severe property damage, injury and loss of life, disruption of utilities, and damage to roadways and bridges. Solution channels in carbonate bedrock eroded over geologic time can provide quick access of land surface pollutants to groundwater and allow movement of sediment with water passage. Water and sediment movement often leads to sinkhole formation. Surface runoff discharging to sinkholes can create groundwater pollution as can malfunctioning septic systems, leaking underground storage facilities and many other sources. Pollution in carbonate bedrock areas can travel significant distances through the solution channels.

Improving air and water quality can be attained through various strategies, from state or local regulations to individual efforts, in the community, at work or at home. Strategies include:

- Protecting woodlands along streams and wetlands, the latter of which provides higher natural system service benefits (flood mitigation, water quality, etc.) on a per acre basis than any other land cover.
- Reducing pollution from vehicles and buildings.
- Preventing erosion of steep slopes, which can deliver heavy sediment loads on streams and wetlands, degrading water quality and disturbing aquatic habitat.
- · Ensuring proper operation of sewage facilities.
- Implementing stormwater ordinances created at the county level and enforced by local municipalities.



The Sobers Run Creek in Bushkill Township is the type of natural resource that must be preserved.

Policy 3.1: Protect, conserve and enhance woodland resources, especially near rivers, streams and wetlands.

- Improve woodlands sustainability with technical assistance on forest stewardship planning and best management practice selection as provided by the PA Department of Conservation and Natural Resources, Bureau of Forestry, County Service Forester.
- Adopt and enforce zoning and subdivision regulations to control tree removal and maximize tree preservation during subdivision and land development activities.
- Advocate for use of native, climate-adaptive and carbon-sequestering landscaping.
- Collaborate with conservation partners to establish a greenways network in the Nazareth Area.
- Adopt or amend an official map for protection of greenways.



Policy 3.2: Reduce transportation-related emissions.

- Promote a diverse array of energy-efficient transportation options that maximize access of the Lehigh Valley's population to key goods, services and centers of commerce.
- Utilize technological advancements in transportation.
- Collaborate with the counties and regional economic development partners to develop incentives for businesses to sponsor programs for public transportation, carpooling, ridesharing and alternative means of transportation.
- Connect regional trails to Centers and Corridors identified on the Future Land Use Plan, as appropriate.
- Encourage the Lehigh and Northampton
 Transportation Authority (LANTA) to consider expansion/enhancement of the transit network for the region.
- Encourage the upgrading of government, commercial and industrial fleet vehicles through the use of clean technologies.
- Support the development of the necessary infrastructure for alternative fuel vehicles (AFVs) along regional transportation Corridors.
- Promote telecommuting options to reduce travel demand needs.
- Encourage the use of diesel auto-idlers and other efficient technology to reduce emissions and the waste of fuel.
- Consider partnerships with bicycle-oriented businesses and organizations to develop educational programs/materials for bicyclists and motorists.
- Link trails and sidewalks to create a network connecting residential areas, schools, parks, town centers, employment areas and transportation facilities.
- Implement the Walk/RollLV: Active

- Transportation Plan recommendations for the Nazareth Area including proposed trails, visionary bicycle connections and pedestrian improvements.
- Encourage dialogue with rail and utility companies on the use and/or acquisition of existing or abandoned rights-of-way for trail development.
- Support regional efforts to work with PennDOT and local road departments to include bicycle and pedestrian-friendly facilities when new roads or road improvements are planned, especially bridges.
- Work to close trail gaps in the Nazareth Area as identified in the Livable Landscapes An Open Space Plan for Northampton County.
 - Continue development of the Stockertown Recreation Trail southward and the Tatamy Rail Trail northward to close the gap.
 - Bushkill Township will work toward connecting the Two Rivers Trailway to Jacobsburg State Park.
 - Bath Borough will work with Northampton County to connect to the Nor-Bath Trail.
- Adopt bicycle/pedestrian design and performance standards and embed them in municipal public works regulations.
- Promote funding opportunities for mixedtransportation and recreation facilities.
- Support enhanced transit service through denser mixed-use development in Centers and along Corridors in Development areas.
- Explore opportunities for amenities along trails that could be provided by using adjacent, vacant parcels.
- Pursue public and private grants to fund bicycle and pedestrian facility improvements.

Policy 3.3: Reduce greenhouse gas emissions from residences, government operations and businesses.

- Support business practices that mitigate the effects of climate change.
- Support efficient, renewable low emissions energy sources and production techniques.
- Advocate increased energy conservation and efficiency awareness.
- Promote forms of transportation, land use patterns and site designs that stress energy conservation.

- Educate the public on climate change impacts, adaptation and mitigation.
- Develop and implement an environmental action plan that mitigates the impact of climate change.
- Incorporate green building and development requirements in subdivision and zoning regulations.

Policy 3.4: Protect the quality and quantity of surface water and groundwater.

- Prioritize park and open space proposals that involve the protection of land along streams.
- Encourage the establishment and restoration
 of riparian buffers adjacent to surface waters
 on privately or municipally owned land, by using
 a variety of native, climate-adaptive trees and
 plants and providing educational signage as
 appropriate. Specific guidance is provided in
 the LVPC Riparian and Wetlands Buffers Guide/
 Model Regulations.
- Promote the use of best management practices in forestry, stewardship and lawn care activities, especially adjacent to surface waters.
- Cooperate with watershed and conservation organizations concerned about stream protection.
- Promote educational programs on riparian buffer restoration and stream protection.
- Pursue public and private grants to create, protect and enhance riparian buffers.
- Adopt and enforce ordinances to prohibit development on slopes greater than 25%, prepare a wetlands assessment as needed, identify and mitigate risks in carbonate bedrock areas, establish riparian buffers, prohibit development in a floodplain, and implement stormwater quality control measures.

- Monitor groundwater withdrawals.
- Ensure the proper operation of water supply and sewage disposal systems.
- Mitigate or adapt to climate change impacts to water resources, including surface and ground waters.
- Encourage and/or provide maintenance and restoration of streams and rivers and associated floodplains for flood mitigation.
- Define groundwater protection zones for all public water supply wells and implement groundwater source protection programs.
 - Bushkill Township, Moore Township, Upper Nazareth Township and Bath Borough will implement water source protection programs. Mapping of protection areas is available from the Lehigh and Northampton counties Watershed Implementation Program report.
- Municipalities will consider enacting construction standards for individual residence water supply wells.
- Encourage adoption of road winter maintenance programs, as economical and effective options are identified, that mitigate the impacts of salt accumulation in soils and groundwater and the introduction of sand and cinder into waterways.



Riparian buffer along Bushkill Creek through Jacobsburg State Park improves water quality and protects the stream corridor from flooding and erosion.



GOAL 4: Increase the Attainability of Housing



Introduction

The Nazareth Area has been growing in population in recent years, as development continues to spread outward from Easton and Bethlehem northward along the Route 33 corridor. Population projections by the LVPC indicate that this growth will continue to increase by 23.4% through 2045 putting pressure on the Nazareth Area to provide sufficient housing options.

The Nazareth Area, which is home to people of diverse ages, backgrounds and incomes, can better adapt to shifting preferences and a range of household demands by providing greater variety in housing offerings. New housing construction has

favored single-family detached units, making up over two-thirds of approved residential units in the last ten years. Oversupply of any one housing type can result in a repetitious appearance, and a housing stock with a limited range of price points generally cannot adapt to population needs.

growth and preservation goals.

The Nazareth Area housing market is particularly constrained for the 31% of households earning incomes less than \$50,000 per year. For those households, an attainable home purchase price is up to \$140,550, or a rental unit up to \$1,249 per month. Of course, some of those households are retirees with residences. About 65% of households earning \$50,000 or less are cost-burdened in the Nazareth Area, meaning that they are paying more for housing costs than experts advise to maintain financial stability. Increased market demand and high-end price points for newly constructed housing units are contributing factors that cause sales and rental prices to rise at a rate that surpasses area incomes. Incorporating strategic policies that are inclusive of a greater variety of housing types will stabilize attainable housing opportunities while also balancing the region's

The region must also anticipate what the future demand for housing types will be. Just under one-fifth (19.2%) of the Nazareth Area population is age 65 or older, and as medical advancements allow people to live longer, the proportion of elderly will become an increasingly significant demographic. As increasing the type and price points of housing units will broaden their attainability, the design of those units will also determine their inclusivity for aging populations looking for housing. Universal design principles set a standard of accessibility for all people in new construction, regardless of age or disability. This enables growing population

segments, such as independent seniors, to age in place within an integrated community without having to seek out facilities with amenities specifically designed for their needs.

There are opportunities to improve the condition of existing housing units in the Nazareth Area's boroughs, which

have higher rates of poverty, lower household incomes and greater populations of renters. Developed areas of the townships can also benefit from housing rehabilitation. All communities can leverage existing resources that benefit residents' quality of life. The Northampton County Blight Reversal and Remediation Plan provides municipalities with tools and model ordinances to improve living conditions for residents, increase the number of habitable units and direct new investment and revitalization to stabilize housing in

The policies and actions of this section outline how Nazareth Area Communities can prepare for population growth, while providing a more diverse range of housing options for people of all incomes and preferences.

these historic areas.

Policy 4.1: Improve and maintain the conditions of existing housing units for suitable living environments.

- Encourage the maintenance and reuse of existing housing stock through incentive-based regulatory opportunities, such as local historic districts and historic tax credits, to maintain municipal tax bases and support the viability of existing communities.
- Review/adopt new or updated property
 maintenance codes to ensure that the existing
 housing stock and associated lands meet
 minimum public health and welfare standards.
- Utilize the Northampton County Blight Reversal and Remediation Plan as guidance to assess housing conditions and develop a strategic housing rehabilitation program to provide home repair and maintenance assistance, resources or referrals to property owners throughout the Nazareth Area.

- Utilize county and federal grant programs to accomplish housing rehabilitation and facilitate maintenance for low-to-moderate income and elderly households.
- Review zoning ordinances to identify possible inadequacies for protecting neighborhoods and housing areas from adverse impacts such as noise, air pollution, visual blight, offensive odors, glare and vibrations.
- Identify and maintain information on rental housing units through registration, licensing and/or inspection programs to enable tenant assistance services and landlord/tenant education opportunities.

Policy 4.2: Ensure new housing developments meet the needs of all current and future Nazareth Area residents.

- Review and amend municipal zoning ordinances to ensure all types of dwelling units are provided including congregate living conditions for people with special needs.
- Review municipal zoning ordinances to eliminate regulatory barriers that favor large-lot singlefamily detached housing, such as permitted densities, parking requirements, setbacks and minimum lot sizes, except where consistent with the Future Land Use Plan.
- Municipal zoning ordinances should encourage the use of residential development techniques like planned residential development and traditional neighborhood development to provide high quality attractive residential living environments, where consistent with the Future Land Use Plan.
- Review and amend municipal zoning ordinances as necessary to allow accessory dwelling units, such as granny flats and cottage houses, that provide lower-cost housing opportunities in suburban areas.

- Increase opportunities for residents to age in place by evaluating zoning ordinances and building codes to encourage and permit universal design features.
- Balance rental and homeownership opportunities in the boroughs to provide multi-generational and multi-income neighborhoods and stabilize highpercentage rental neighborhoods with property maintenance.
- Review municipal zoning ordinances in boroughs and areas with high poverty rates for opportunities to incentivize attainable housing developments, such as density bonuses and flexible lot requirements.
- Inventory housing units and develop a housing preservation strategy for lower-income households, including tax relief for retirees.
- Engage and educate the public, and nonprofit and for-profit sectors, on attainable housing needs and available programs to meet these needs.

Policy 4.3: Prioritize housing initiatives in areas with access to jobs, social opportunities and multimodal transportation.

- Review and amend municipal zoning to align with Nazareth Area Future Land Use Plan densities, especially in Centers and Corridors.
- Increase access to housing by allowing residential types other than single-family detached as by-right uses along Centers and Corridors in strategic locations with access to a mix of transportation modes.
- Incorporate zoning provisions to encourage diverse housing types in proximity to job concentrations.
- Support convenient and reliable fixed-route transit service between high-density residential

- areas, major employment concentrations, important shopping areas, key government facilities, medical facilities and other activity areas.
- Consider allowing mixed housing types, including mobile homes and modular homes in the same districts and with the same requirements as other single-family detached dwellings.
- Locate new workforce housing in stable neighborhoods where social and economic integration is possible.

Summary

Communities of the Nazareth Area can accomplish their goal to increase housing attainability by leveraging their legal tools, zoning ordinances and subdivision and land development ordinances, that shape the growth patterns throughout the region. While recent housing construction has favored single-family detached dwelling types, amending zoning to be more inclusive of higher densities in strategic areas will improve housing stability throughout the Nazareth Area in the long-term. Zoning and Subdivision and Land Development Ordinance amendments should be based on the Nazareth Area Future Land Use Plan.

While increasing the availability of types and prices of housing will make them more attainable to all populations, the Nazareth Area communities can further ensure residents have the ability to age-in-place by establishing standards for universal design.

Municipalities within the Nazareth Area have different housing needs. For example, Bath and Nazareth boroughs have greater renter populations and multi-family housing units, while the townships have greater homeownership and single-family detached units. However, all communities have opportunities to improve the diversity, condition, accessibility and attainability of housing options to meet the needs and incomes of existing and future residents.

GOAL 5: Mitigate the Impacts of Increasing Traffic on Roads and Infrastructure

Incorporating mixed

development areas

reduces congestion

and promotes transit.

land uses in



Introduction

The Nazareth Area has experienced increased passenger vehicle traffic, truck traffic and quality of life impacts from development, both within and outside the area. The area has three state routes on the National Highway System: Route 22, Route 33 and Route 248. Route 33 along the eastern edge of the region and Route 22 just to the south of most of the region but also through Hanover Township are experiencing accelerated traffic growth. Route 248 from Lower Nazareth Township through Nazareth and

Bath boroughs is experiencing growth in freight movements and heavy truck traffic associated with a robust commercial retail corridor at the Northampton Crossing shopping area near Route 33. The same type of traffic growth is occurring along other major arteries such as: Route 191 from Lower Nazareth Township through Nazareth

Borough, Upper Nazareth Township and Stockertown Borough; Route 512 through Hanover Township, Bath Borough, Moore and Bushkill townships; Route 987 from Hanover Township through Bath Borough, Moore Township and Chapman Borough; and Main Street (Route 1002) through Tatamy Borough east of the interchange with Route 33. The impacts are felt across all Nazareth Area municipalities, but perhaps most significantly in the boroughs and Historic Centers of Bath, Nazareth, Stockertown and Tatamy, where constrained rights-of-way create congestion and complicate truck turning movements. Recent development in Lower Nazareth Township, including the Northampton Crossings area, are stressing the transportation network. Development outside the Nazareth Area communities in Allen, East Allen, Forks and Palmer townships, among others, is likewise adding traffic to the Nazareth Area Road network. Freight traffic and its related impacts emerged as the number one transportation priority in survey results and generated the most discussion during

the planning process. Participants specifically cited the need to reduce freight traffic on local roads. Warehousing facilities exist throughout the region, typically bringing with them significant truck traffic, creating the need for signage designating truck length or weight restrictions designed to prevent safety and parking issues. Current land development activity suggests trucks trips will increase, becoming a bigger portion of the overall traffic. Improvements to the Nazareth Area's transportation network must be

> increase of online shopping and overnight delivery.

Most of the critical higher classification roads in the community are owned by the Pennsylvania Department of Transportation (PennDOT) and are not under local control.

Maintaining close working partnerships with PennDOT and the LVPC is critical to developing projects that can mitigate the impact of increased freight and truck traffic.

Transportation areas identified as NazPlan priorities by the Steering Committee for ongoing monitoring and possible future transportation projects include:

- Nazareth Pike (Route 191) & Newburg Road Intersection: Improvements to this intersection are proposed in the 2023-2026 draft Transportation Improvement Program (TIP) through the Lehigh Valley Transportation Study
- Route 33 & Nazareth Road (Route 248) Interchange
- Nazareth Pike (Route 191)/Bath Pike (Route 248)/Easton Road (Route 248) Corridor through Nazareth Borough
- Beth-Bath Pike (Route 512) & Nor-Bath

Boulevard (Route 329) and Route 248 Corridors/intersections in Bath Borough

- Route 22 Corridor
- Yost Road/Bauer Road/Route 512 Intersection
- Route 191 Corridor between Bethlehem Township and Nazareth Borough
- Route 191 through Stockertown Borough
- State Route 248 Corridor northwest of the Route 33 interchange
- Tatamy Main Street Corridor

These areas have been identified based on perceptions of traffic volume, safety, truck volume and other conditions. Traffic data for these locations are

included in the NAZPLAN Issues and Opportunities Report. Continuing monitoring of these areas should be accomplished. Potential projects would need to be coordinated with the PA Department of Transportation, Northampton County, Lehigh Valley Transportation Study and others, as applicable.

The policies and actions within this goal should provide a foundation for planning and integration of the changing needs of the Nazareth Area transportation network. Transportation connectivity should be seamless as one traverses on their daily trips, including commutes. These policies and actions will help the process of making mobility across the region safe and efficient for everyone.

Policy 5.1: Minimize impacts of freight movement on transportation infrastructure.

- Adopt or update an official map that identifies the existing and envisioned roadway networks to employment districts and freight generators and identifies preferred connections to arterial roads and highways that provide for safe and efficient freight movements.
- Require land development proposals that have freight impacts to establish and address transportation infrastructure needs.
- Monitor industrial and commercial locations and uses, including the number of employees and freight traffic generation characteristics to ensure that conditions of approval or anticipated trips generated remain consistent over time, especially with any change of owner/tenant.
- Coordinate regional roadway planning among all Nazareth Area municipalities and PennDOT to provide orderly movement of traffic and account for changes.
- Identify and champion projects that reduce rates of crashes, fatalities and injuries in the transportation system.
- Identify the most cost-effective measures to improve safety, mobility and network capacity for freight, including technology and operations.

- Encourage enhancement and increased use of rail and air freight networks to reduce truck trips.
- Develop a program for road improvements that accommodate safe and efficient truck routing in partnership with PennDOT.
- Improve the overall pavement and bridge conditions through a coordinated maintenance program.
- Promote traffic safety and preserve traffic capacity along arterial roads by using access management techniques.
- Advocate for sustainable, long-term transportation funding with elected officials at the state and federal levels.
- Ensure that ordinances and land development submissions address the need for on-site truck waiting areas, parking and driver amenities to minimize idling, mitigate parking on public roads and negate the impact on adjoining properties.
- Consider the creation of a Nazareth Area Freight Task Force as a forum to communicate and coordinate priorities and to share issues and concerns across the private and public sectors.
- Encourage legislators to enact truck safety and improved wayfinding legislation.

Policy 5.2: Implement comprehensive traffic-calming techniques for local roads.

- Create a transportation network traffic-calming plan that safely and efficiently accommodates traffic while preserving community character.
- Actively pursue traffic-calming and asset management funding and technical assist opportunities to implement projects and programs, including coordination with PennDOT's Local Technical Assistance Program.
- Encourage modern daily commuter and tourism trip planning technology applications and local destination signage for all modes of travel to limit confusion and inform drivers of best routes.
 - Bath and Nazareth boroughs should implement parking and destination wayfinding signage.



Route 248 in Lower Nazareth Township is a corridor characterized by a concentration of retail and commercial uses.

Corridor Descriptions

Road Type	Local Road	Local Connector	Critical Local Corridor	Community Corridor
Transportation Service Type	Mixed Transportation	Mixed Transportation corridors	Mixed Transportation corridors	Mixed Transportation corridors
Purpose	Principal function is the provision of residential property access and connection to higher order roads.	These local roads experience major through- traffic from connected major corridors and connect residential areas to exurban and natural zones. The surrounding landscape is mainly agriculture residential development with accommodating local commercial. These could include State routes that serve as rural corridors.	Characterized by the rural landscape, the natural landform and vegetation dominate the visual field. Structures such as farmsteads, barns, or small subdivisions of single family homes are viewed as individual objects within the landscape as opposed to objects that compose the landscape. These local road corridors experience some through-traffic from connected regional and community corridors.	These corridors are thoroughfares that lead to exurban centers, crossroad villages and exurban zones. These corridors are characterized by the local businesses and surrounding rural landscape.
Volume of Transportation	Automobile traffic volumes tend to be lower and traffic less concentrated with high levels of bike and pedestrian traffic.	Automobile traffic volumes tend to be lower and less concentrated.	Carries a high amount of car, bicycle and pedestrian traffic.	Traffic volumes tend to be moderate amount of cars and concentrated.
Mobility and Access	Low mobility and high access.	Low mobility and high access.	Low mobility and access.	Moderate mobility and high access.
Future Potential for Mixed- Transportation	Freight delivery routes. Offer commuting opportunities via multi-modal transportation, including transit, bicycle, walking, and automobile.	Freight delivery routes. Offer commuting opportunities via multi-modal transportation, including transit, bicycle, walking, and automobile.	Freight delivery routes and agricultural truck traffic. Offer commuting opportunities via multimodal transportation, including transit, bicycle, walking, and automobile.	Freight delivery routes and agricultural truck traffic. Offer commuting opportunities via multimodal transportation, including transit, bicycle, walking, and automobile.
Funding and Investment	Moderate level of funding for maintenance and repair.	Moderate level of funding for maintenance and repair.	Moderate level of funding for maintenance and repair.	Moderate level of funding for maintenance and repair.
Examples Nazareth Region	Blossom Hill Road	Belfast Road	Route 946 south of Moorestown	Newburg Road
PlaceTypes Served	All Place Types	Natural Zone, Agricultural Zone, Exurban Zone, Crossroads Village	Exurban Zone, Crossroads Village, Exurban Center, Neighborhood Center, General Urban Center, Urban Center, Critical Regional Center, Highway Center	Natural Zone, Agricultural Zone, Crossroads Village, Exurban Center

Commercial Corridor	Regional Corridor	Critical Local Corridor	Community Corridor
Mixed Transportation corridors	Mixed Transportation corridors	Mixed Transportation corridors	Auto-oriented limited access corridors
Characterized by a concentration and distribution of retail and commercial uses. These corridors are thoroughfares that, in most cases, include exurban centers, neighborhood centers and/ or lead to urban centers.	Largely for local and sub- regional mobility; connect day-to-day services and institutional and residential areas to regional & local road networks.	Connect intensely utilized locations or destinations, serve as commercial corridors and high-frequency local routes for commuting and day-to-day needs. Connect regional & local traffic to limited access highways.	Moving both people and goods long distance at relatively high speed.
Carries a high amount of truck, car, and bus traffic. Carries a moderate amount of bicycle and pedestrian traffic.	Carries a high amount of truck, car, and bus traffic. Carries a low to moderate amount of bicycle and pedestrian traffic.	Carries high amount of traffic.	Carries highest amount of traffic.
Moderate mobility and high access.	Moderate mobility and high access.	High mobility and access.	High Mobility and limited access.
Lower order freight corridor providing first mile-last mile access. Offer commuting opportunities via multimodal transportation, including transit, bicycle, walking, and automobile.	Freight corridors that serve as the connection for limited access highway corridors and lower-level road corridors. Offer commuting opportunities via multimodal transportation, including transit, automobiles, and dedicated bicycle ways & walking paths.	Freight corridor provides connections to limited access corridors and commercial corridors. Offer commuting opportunities via multi-modal transportation, including transit, automobiles, and dedicated bicycle ways & walking paths.	Main freight corridor for inter- and intraregional access. Not appropriate for bicycle or pedestrian transportation.
Moderate level of funding for design, construction, maintenance and repair.	Moderate level of funding for design, construction, maintenance and repair.	High level of funding for design, construction, maintenance and repair.	High level of funding for maintenance and repair.
Route 987 - South of Bath	Route 191	Route 512	Route 22, Route 33
Crossroads Village, Neighborhood Center, General Urban Center, Urban Center, Regional Center, Critical Regional Center	Neighborhood Center, General Urban Center, Urban Center, Regional Center, Critical Regional Center, Highway Center	Exurban Center, Urban Center, Regional Center, Critical Regional Center, Highway Center	General Urban Center, Highway Center

Centers and Corridors

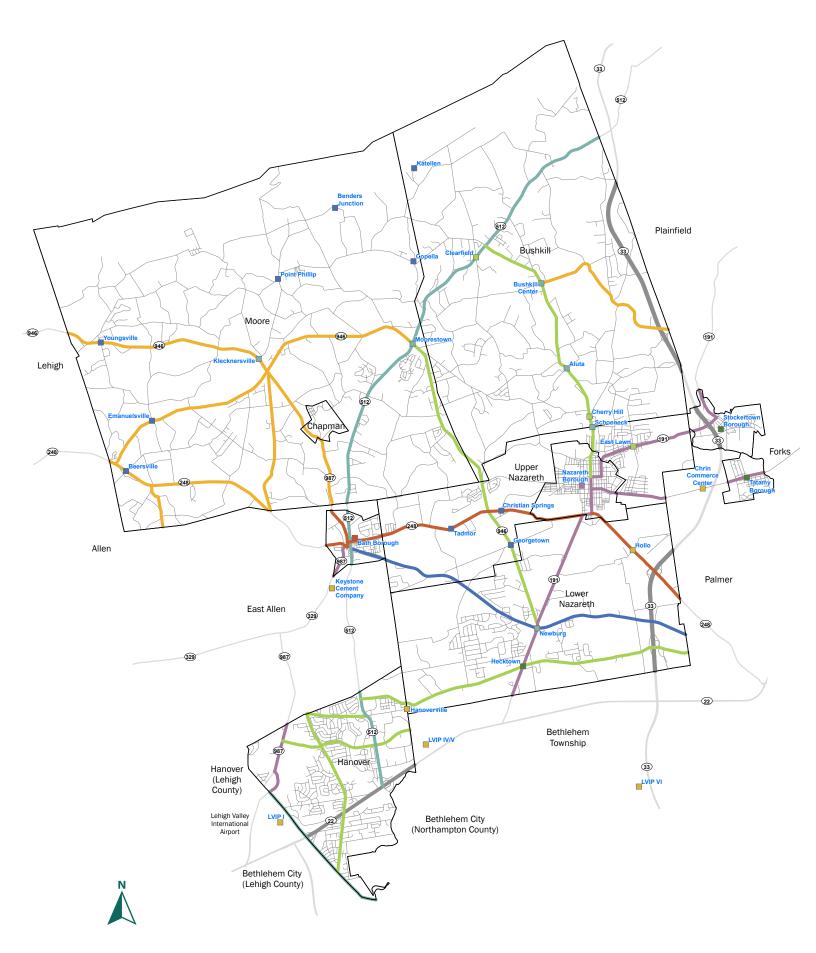
This plan shows major transportation infrastructure and opportunities for creating denser, mixed-use, mixed-transportation development and should be used by private and non-profit organizations and government agencies to guide efforts to improve the transportation network. The municipalities use this plan as an important component of development review and highly encourage projects that expand, improve or connect the mixed-transportation network.

Centers

- Highway Center
- Critical Regional Center
- Urban Center
- General Urban Center
- Neighborhood Center
- Exurban Center
- Crossroads Village

Corridors

- Limited Access
- Critical Regional Corridor
- ---- Regional Corridor
- Commercial Corridor
- Community Corridor
- Critical Local Corridor
- Local Connector



Policy 5.3: Right-size transportation infrastructure projects.

- Promote Community Gateway and Transportation Corridors and coordinate these with historic resources, land use, design and multimodal infrastructure.
- Develop a municipal or regional transportation funding mechanism or source (e.g. Transportation Impact Fee) that assists PennDOT
- with design, right-of-way acquisition, utility work and/or environmental work to advance regionally significant projects.
- Coordinate with adjoining municipalities regarding improvements or transportation system maintenance.

Policy 5.4: Encourage and provide for active transportation.

- Develop a mixed-transportation network to support a more compact development pattern, optimize roadway capacity and encourage alternative travel options.
- Provide for and require sidewalks with American Disabilities Act (ADA) compliant infrastructure in development plans as well as multimodal amenities to encourage alternative modes of transportation, including bicycle racks, bike lanes, and modern bus stops (if applicable along a transit route).
- Coordinate upgrades to existing traffic management systems or traffic lights to implement smart streets with adaptive traffic signals and other evolving technologies.
- Identify projects and apply to PennDOT's funding programs for bicycle and pedestrian facility improvements during open application periods.
- Plan for future funding and inclusion of projects into the Long-Range Transportation Plan through the Lehigh Valley Transportation Study.



This accessible trail through Stockertown Borough is an example of recreational opportunities for all persons.

Summary

Transportation is essential to the health, safety and welfare of our society. Keeping the transportation network in a state of good repair and functioning as designed requires continuously evolving and adapting to ensure the network matches the approved land uses it connects. As the Nazareth Area population is projected to increase by 23.4% over the next 25 years, it is critical for communities to be proactive about addressing and planning for infrastructure improvements. The future transportation network of the Nazareth Area should be focused on moving people, not just cars or trucks, giving equal importance to pedestrians, bicyclists, rollers and drivers. Providing more diverse transportation options has far-reaching benefits to health, air quality, congestion mitigation and community character. With transportation technologies advancing quickly, these actions must be constantly re-evaluated and modified as new strategies and practices become available.

Creating and maintaining an efficient and safe multimodal transportation network will require collaboration by the five boroughs and five townships in the Nazareth Area. The area can benefit from the identified actions to help chart the future and prepare for sustainable industrial and transportation-centric employment centers. The area was built on a foundation of mineral extraction in the area from cement manufacturing to mining of limestone and slate. The legacy of C.F. Martin Guitar is a sustained example of a manufacturing industry that can be a bridge from the pride of manufacturing heritage to the future.

The emerging logistics developments along Route 33 not only help provide a key connector for freight throughout the Northeast but have a growing importance to the area's employment profile. The intent of these policies and actions is to manage the growth of freight through the region, while preserving its historic, rural and suburban character. Creating appropriate infrastructure for the safe and efficient movement of freight traffic and all needed modes of travel represents both a significant challenge and unprecedented opportunity for the Nazareth Area.



The iconic C.F. Martin & Co., Inc. factory in Upper Nazareth Township exemplifies the type of high quality jobs with a skilled workforce that the Nazareth Area is striving to create.

GOAL 6: Identify the Appropriate Site Locations for Warehouses and Industrial Development



Introduction

Industrial development is among the most intensive of land uses with the highest likelihood of environmental impacts or potential nuisances such as glare, odor, vibration and noise. In addition, industrial development in many cases will generate higher traffic volumes, potentially consisting of higher volumes of trucks or tractor-trailers. However, industrial development also brings positive benefits to the community in the form of sustainable jobs and tax revenues for the municipalities and school districts, as well as opportunities for locally sourced raw materials and products. Industrial development can also be complementary to supporting businesses including, but not limited to, local restaurants and facility maintenance providers. These development types should be directed to specific locations

containing the appropriate transportation and utility infrastructure, with adequate buffering from residential, natural and agricultural uses.

Industrial development is best accommodated in areas designated for development in the Nazareth Area Future Land Use Plan with adequate sewer, water and road infrastructure in place and with easy access to Route 33 or Route 22. Adequate utility infrastructure including gas, electric, cable, broadband, sufficient emergency services and rail access may also be considerations in many cases. These developments are not recommended in exurban areas unless the purpose is primarily to serve the surrounding exurban residents or existing local businesses. This would prevent the addition of new on-lot sewer and water systems and avoid



The BMW of North America warehouse in Lower Nazareth Township features some of the design elements, energy-efficient lighting and locally sourced materials recommended for warehouse development in the Nazareth Area.

putting strain on existing infrastructure such as low-traffic roads not designed for intense use. The location of industrial development should address traffic route planning or preferred routes and parking of the subsequent freight traffic to minimize the effects of tractor-trailer traffic on residential streets.

One of the most significant benefits of the Nazareth Area communities working together on a multi-

Reducing

health.

transportation-related

air quality and benefits

emissions improves

municipal comprehensive plan is that it allows participating municipalities to work collectively to strategically meet the Pennsylvania Municipalities Planning Code statutory requirement to plan for all uses. If one participating municipality accommodates a particular land use through its zoning, this would exempt

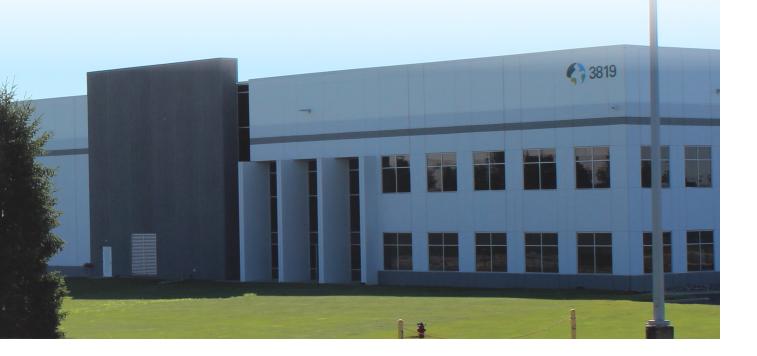
other participating municipalities from being required to zone for that land use as well. Through effective coordination, participating municipalities can develop a land use strategy that takes into consideration the broader multi-municipal context and allocates uses in a manner that is the most effective, appropriate and desirable. Therefore, the 10 Nazareth Area communities working together have the benefit of finding the most appropriate locations for warehousing and industrial development. Appropriate warehouse and industrial development locations

within the Nazareth Area need to be considered in the broader context of major freight movement corridors within and outside the region, including Routes 22 and 33, as well as Interstates 78 and 80.

The Nazareth Area transportation network was largely built to serve the needs of the past. The region's place as one of the fastest-growing freight corridors in the nation is taxing a road and infrastructure network

not built for such intense uses. Changes have already begun to address these impacts. The addition of the Tatamy interchange along Route 33, and the Route 248 improvements surrounding the Northampton Crossings retail and commercial complex are examples of adapting to the Nazareth Area's evolving place in the world economy. Getting

freight through the area safely and efficiently, while protecting the Nazareth Area's rural, historic and community character, will require picking the right location and mix of infrastructure improvements to handle new industrial development. The following policies and actions are designed to take advantage of the economic benefits of warehouse and industrial development, while mitigating their negative impacts on the region and protecting the character of the Nazareth Area communities.



Policy 6.1: Coordinate warehouse and industrial land development with available road capacity, transit service and utility infrastructure.

- Locate warehouses or other industrial facilities within Development area as defined in the Nazareth Area Future Land Use Plan and as consistent with related policies and actions.
- Document future planned collector and arterial alignments or new streets with existing and anticipated transit connections by periodically reviewing and updating an official map.
- Enact local standards for Land Uses of Regional Significance within the municipality, which enables a higher level of scrutiny required for development proposals that exert the greatest impacts on the transportation network.
- Locate development near available or appropriately planned transportation capacity, such as structurally safe roads and bridges and intersections designed for freight movement.
- Locate development where public sewer and community water systems can accept additional growth within the defined Development area or within ¹/₄ mile from existing sewer and water infrastructure.
- Locate warehouse and industrial facilities where multimodal options exist, including walking, rolling and biking infrastructure.
- Locate in areas that can be supported by Lehigh and Northampton Transportation Authority (LANTA) fixed-route service if possible.
- Locate along appropriately designed roads with direct access to higher classification roads, such as Regional Corridors that have existing or planned capacity and are in proximity to Route 22 and Route 33 interchanges.
- Improve efficiency of existing multimodal infrastructure and plan for integration of more

- connectivity for all modes of transportation.
- Require developments or redevelopments that increase congestion to mitigate the impacts through transportation network improvements.
- Implement access management programs and upgrade existing access points along major corridors to maintain functionality and improve safety.
- Support safe and equitable access to transit locations with modern amenities.
- In areas of transit service or nearby service, coordinate with LANTA to enhance public transit service.
 - Bath and Nazareth boroughs should advocate for and promote improved transit service.
- Provide on-site sidewalks, side paths or trails and connect to these facilities on adjacent properties, if applicable.
- Require truck parking options, including electrification of truck parking areas for hookup to vehicles and refrigeration units for trailers.
- Require driver lounges and amenities for freightcentric facilities.
- Locate facilities in areas accessible to job population.
- Coordinate with sewer and water providers to ensure adequate sewer conveyance, treatment and allocation, and adequate water supply and delivery capacity.
- Coordinate with electric utility providers to upgrade utility infrastructure as needed.
- Coordinate with internet providers to increase access to high-quality, high-speed and broadband internet, including 5G capability.

Policy 6.2: Promote context-sensitive design for industrial and warehousing facilities.

- Encourage industrial development and industrial uses that will provide a well-designed setting and amenities for the benefit of their employees and customers, including transportation logistics providers.
- Categorize Industrial and Warehousing as well as large-scale developments as Land Uses of Regional Significance to ensure proper access management design for all modes of transportation, impacts to neighboring residential or open space areas and viewshed considerations through the planning processes.
- Update zoning ordinances and maps to site the best locations for industrial, manufacturing, and warehousing development roads that accommodate the scale of transportation impacts.
- Assess the impact of freight-based businesses on the entire regional transportation system.
 Communicate and work with neighboring communities to mitigate impacts.
- Document a complete inventory of assets related to movement of all cargo types, including any weight-restricted bridges or deficient roadways.
- Evaluate the impact large-scale industrial and warehouse projects will have on emergency services to ensure the health, safety and welfare of the community.
- Plan for a future with autonomous vehicles and electric vehicle technologies linked with freight planning. Alternative fuel infrastructure should be integrated along Centers and Corridors or onsite at facilities to provide options outside of fossil fuels.

- Update Subdivision and Land Development
 Ordinances to reflect new emerging trends
 for warehousing construction, including taller
 buildings with advanced automation with
 the potential to cause greater impacts than
 traditional warehouses with the same footprint.
- Locate in areas where emergency response capabilities exist, especially related to building height and chemical release potential.
- Adopt regulations related to sustainable design, site design and established community design practices.
- Encourage energy efficient and green building design practices.
- Encourage the use of locally sourced materials and labor forces for development and operations.
- Coordinate proposed projects with adjacent municipalities if site is located across municipal boundaries.
- Avoid locations near or adjacent to noncompatible uses, such as residences.
- Provide incentives to reuse underutilized or blighted properties for development.
- Require building designs that complement the surrounding community.
- Locate development in areas that do not interfere with Lehigh Valley International Airport Hazard Zones.
- Locate near rail facilities and support air freight operations where consistent with the Future Land Use Plan.

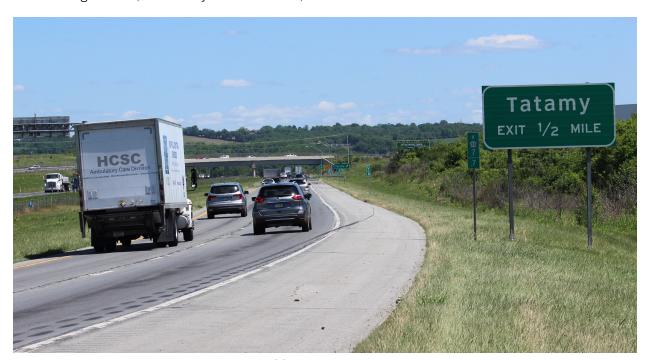
Policy 6.3: Protect environmental and community assets.

- Avoid developing any industrial use near high overall priority natural resource lands.
- Protect medium conservation priority natural resource lands through land development techniques such as conservation design.
- Avoid developing any additional industrial use near agricultural lands recommended for farmland preservation.
- Avoid developing in locations that will not preserve the viewshed of the community.
- Memorialize surrounding elevations of residential areas potentially impacted by industrial uses.
- Avoid sites adjacent to schools, parks and neighborhoods.
- If located adjacent to a school or park, provide a natural resource area buffer.

Summary

Warehousing and other industrial developments have intense impacts on the community and therefore require in-depth analysis to choose locations that are compatible with neighboring communities. These facilities must be located in areas with connectivity to a robust transportation network and capacity for future planned improvements. With growth in online shopping and overnight delivery, warehousing and industrial uses have become critical to this region's way of life and economy. The Nazareth Area's network of major state roads, such as Routes 22, 33 and 248, provides an opportunity to benefit from economic growth. Industrial development, and even the traffic it generates, can mean jobs for residents,

more potential customers for businesses and an increased tax base for municipalities. The key for Nazareth Area communities in the coming years will be ensuring that the disadvantages do not outweigh the benefits. That can be done by matching a well-planned and well-connected transportation system with the right industrial users in the right locations. Doing it right will require a collective goal of making sure one community's gain is not another's loss. Thoughtful planning can accommodate the needs of industrial and warehouse development while continuing to protect the character and vision of the Nazareth Area communities in the future.



The Tatamy interchange was added on Route 33 to accommodate growing logistics development.



The Prologis Parkway in Lower Nazareth Township, with close access to Route 33, is among a growing number of industrial developments that play an important role in the Nazareth Area economy.

GOAL 7: Direct Investments and Resources to Maximize the Nazareth Area's Economic Strengths and Diversity



Introduction

The Nazareth Area contains a diverse array of industry types, as well as natural, historic and recreational assets that have yet to reach their full economic potential. Broader Lehigh Valley trends, such as the increase of online retail, warehousing and the decline of the professional services and food services industries, could have a significant impact on the economy, development pattern and quality of life of the Nazareth Area. Commuting patterns in the Nazareth Area show that less than 25% of the region's workers stay in the Nazareth Area for employment, and about 20% of the workers leave the Lehigh Valley to work, traveling as far as Washington D.C., Connecticut, Philadelphia, Manhattan and Central Pennsylvania. Some of these commuters may work from home or travel to work several times per

week, but all of them choose to work well outside the Nazareth Area. The high quality of life offered by the region is likely a major factor for these commuters to remain residents of the Nazareth Area. A more diverse job market could entice commuters to choose a local job if more options were available.

Creating and enhancing partnerships can improve efficiency and economic strength.

Revitalization is one method of enhancing and promoting the downtown economy. The boroughs of the Nazareth Area are logical locations to target revitalization due to presence of existing infrastructure, a mixture of land uses and greater population densities. However, through time and community transitions, many ground-floor retail and commercial spaces have been converted to residential units. The Nazareth Area Multi-municipal Comprehensive Plan envisions the boroughs as pedestrian-friendly economic centers amidst the more rural areas of the region, that can also drive tourism opportunities and cultivate unique community settings. Building upon the existing assets of the boroughs is critical to balance growth opportunities in a way that aligns with community visions. Vacant buildings can be adapted to meet the needs of current and future residents.

The Nazareth Area possesses strong natural assets in the form of open space, parks, trails, greenways and blueways (greenways with waterways). The protection and promotion of these assets can offer real economic benefits for a community, as described in the Lehigh Valley Planning Commission's Lehigh Valley Return on Environment report. The Nazareth Area can leverage an already strong outdoor culture through the attraction of recreation-centric businesses and promotion of tourism activities that complement the region's natural assets, heritage and culture. The support of this sector is critical to promoting a balanced, diversified economic climate. It capitalizes on a true strength of the area to accompany the advancement of more intense land uses in more urban areas.

Expanding crossroads villages is a good way to preserve rural character, farmland and open space, while accommodating growth and preventing sprawl. Many of these villages already have medium and large lots that can support new businesses and homes. Adding farm and outdoor recreation businesses to these communities will

support the economy and identity of the surrounding area, while mixed-use development expands housing options and maintains historic development patterns.

To better understand local economic conditions, an economic analysis was performed for the Nazareth Area to identify the strengths and weaknesses in economic sectors as well as job growth of industries over a ten-year period. The Nazareth Area outperforms Northampton County, the Lehigh Valley and the nation with higher concentrations of employment in industries such as museums and historic sites, textile mills, accommodation, community and professional organizations, and certain types of manufacturing, including nonmetallic mineral products, and computer and electronic products. These industries appear to be local specialties within the region.

The Nazareth Area also has high concentrations of employment in mining, agriculture, healthcare, real estate and professional services. Agriculture plays an important role in the Nazareth Area economy. Moore Township takes great pride in its exceptionally strong agricultural business community.

Looking at the job growth trends in the region, several industries have grown at far greater rates locally than nationally, such as wholesale trade; real estate and leasing; healthcare; arts, entertainment and recreation, and transportation and warehousing. While the analysis indicates that the mining industry declined significantly over the ten-year period, the industry remains strong in the Nazareth Area. There are three cement mining companies currently operating: Keystone Cement Company, Lehigh Hanson, Inc. and Buzzi Unicem USA. While Keystone Cement is the youngest operation of the three, with decades left of minerals to extract, the other two companies are expected to remain in operation over this multi-municipal planning period and beyond, especially with a high level of construction in the Lehigh Valley.

The arts, entertainment and recreation industry has grown at a significant rate, indicating the potential for further economic growth in this industry. A decline in the accommodation and food services industry indicates that investment may be needed to stimulate the market for increased tourism and local restaurants. White collar jobs such as healthcare, educational services and real estate have also shown an increase in presence in the region. The Nazareth Area has a strong healthcare base, with a high concentration of hospital employment. Other healthcare jobs have a significantly lower concentration of employment in the area but may become an area of potential growth by building on the strengths of the area's hospitals, particularly with the new Lehigh Valley Health Network Hecktown Oaks Hospital Campus located in Lower Nazareth Township. The range of positions at this facility have the potential to increase jobs available to the Nazareth Area's residents of varying backgrounds and interests. The hospital campus will provide a wide range of medical services. Occupations in the Health Care and Social Assistance industry vary in degrees of educational and training requirements, providing a wide range of income levels.

While the growth of the transportation and warehousing industry within the Nazareth Area has resulted in stress on the transportation infrastructure and loss of open space, the region's communities can leverage their unique position into greater economic

gains. Warehousing increases job opportunities, especially for 41% of the region's population (over the age of 25) with an educational attainment up to a high school diploma or equivalent. Providing mixed-transportation opportunities to industrial locations and connecting them to residential areas is critical in enabling the population to access those jobs.

Globally, the job market is changing and the economy continues to diversify. New efficiencies and technologies are helping to overcome challenges and will be significant economic drivers in the global, national and regional economy in the 21st century. The development of a local workforce that is globally competitive and responsive to the changing needs of the workplace lies with providing access to education and training for people of all ages and socioeconomic groups. Ensuring access to technology, such as highspeed internet and 5G, will be imperative to providing and strengthening educational opportunities for the digital skills necessary to compete in today and tomorrow's economy, especially in underserved communities. Approximately 17% of the population in the Nazareth Area does not have access to the internet. Individuals and businesses without access in a connected economy could be left behind without support. This could exacerbate poverty and increase social and economic isolation. The effects of the shared and on-demand economy will grow exponentially and have wide-reaching impacts on nearly every sector of the economy, especially consumer-facing industries like retail and restaurants. While maximizing the Nazareth Area's assets in a global economy is key to its economic future, so too is preparing for the factors that could damage those assets.

Across the US, natural and non-natural disasters have led to increasing loss of life, injuries, property damage and interruption of business and government services. The time, money and effort needed to recover from these disasters exhausts resources, diverting attention from important public and private programs. Since 1955, there have been 23 presidential disaster declarations and emergency declarations in Pennsylvania that have affected the Lehigh Valley. Planning for these disasters helps municipal leaders better manage land use, environmental resources and population to mitigate the impacts of natural and non-natural hazards. The 2018 Lehigh Valley Hazard Mitigation Plan was prepared in partnership with all 62 Lehigh Valley municipalities. All 62 communities adopted the plan in a regionwide commitment to create more sustainable, disaster-resistant and resilient communities.



Lehigh Hanson Cement exemplifies the region's industrial heritage, continuing its economic strength in mining and manufacturing.



Policy 7.1: Enhance the character and economic viability of natural, mineral, cultural and historic assets, including traditional downtowns, crossroads villages and historic farmsteads.

- Develop partnerships with local institutions to encourage investment in their surrounding communities.
- Work with local businesses on strategies to promote local goods and services.
- Prioritize restoration programs to historic structures and sites with educational importance or value as tourist attractions and to structures that are restored or used by the private sector.
- Encourage regional leaders to collaborate on protecting and supporting the economies of the traditional downtowns and crossroads villages.
- Coordinate economic and community development efforts to revitalize the economy of urban places through visible improvement to the built environment.
 - Bath Borough will continue utilizing analysis and recommended strategies in the Bath Multimodal Safety and Parking Analysis for revitalization.
- Provide a suitable level of parking, which meets the needs of the public, facilitates their access to their core commercial areas, and supports local economic development goals.
 - Nazareth Borough will evaluate parking needs and potential actions.
- Identify and target investment toward areas of the community that show the greatest evidence of disinvestment or blight.

- Harness citizen engagement on proposed redevelopment/revitalization sites to ensure widespread participation in managing potentially sensitive investment decisions.
- Promote local businesses, historical and cultural events, and community activities through municipal newsletters, websites, and public meetings.
- Utilize tools identified in the Northampton County Blight Reversal and Remediation Plan to address building conditions on main streets.
- Establish revitalization associations aimed at improving facades, promoting and retaining local businesses, incorporating street trees, and developing marketing and community identity for Main Streets.
- Leverage county and federal funding and grant opportunities to address revitalization throughout the Nazareth Area.
- Prioritize downtown cores and commercial areas as destinations for visitors to shop, dine and lodge.
- Promote the importance of Main Street programs to business development, retention, promotion and design.
- Coordinate Main Street programs between municipalities.

Planning together enhances funding opportunities for needed improvements.



South Broad Street in Nazareth Borough is an example of a mix of residential, retail and commercial uses that add character and economic vitality to traditional downtowns.

Policy 7.2: Support economic development strategies to target industry sectors that match the unique competitive advantages of the region.

- Encourage residents and local food stores and restaurants to buy local farm-produced products.
- Identify and support the region's natural resource assets to maximize potential for recreation and ecotourism.
- Prioritize development that provides living wages and career path opportunities, including healthcare and manufacturing.
- Strengthen local markets for regional agricultural products, including agricultural processing and distribution facilities.
- Encourage farm-related businesses in areas where Farmland Preservation is recommended in this multi-municipal comprehensive plan.
- Support the continuation of existing mineral extraction operations within the region.

- Promote economic development through heritage tourism in Nazareth Borough, the Jacobsburg Historic District (Boulton) and Bath Borough.
- Promote businesses that serve an outdoor economy.
- Promote the economic benefits of natural lands and outdoor recreation activities documented in the Lehigh Valley Return on Environment study.
- Encourage agri-tourism businesses, such as small barn venues, corn mazes, wineries, bakeries, petting zoos and farmers' markets, to enhance agricultural viability conducted in a manner consistent with the rural character of the area.

Policy 7.3: Connect growing job and population centers.

- Coordinate with LANTA on enhancing transit connections to improve mobility and job access.
- Improve mixed-transportation access, including bike and pedestrian, to areas with high or growing employment opportunities.
- Encourage location of commercial businesses, industrial development and industrial uses to areas that have close and convenient access to major roads.
 - Hanover Township will promote industrial park vitality.

Policy 7.4: Build a pipeline of highly skilled workers that is aligned with the current and future needs of regional employers by creating stronger linkages between employers, education and workforce training.

- Cooperate with economic development entities in promoting the retention, recruitment and expansion of employers providing above-average wages and local-first hiring practices.
- Encourage strategies at all levels that are geared toward preparing students for the workforce of tomorrow.
- Support job training programs in industries with an identified workforce need.
- Encourage the private sector to provide high speed internet service to areas without service.

Policy 7.5: Reduce the impacts of natural and non-natural hazards.

- Continue to participate in updates to the Lehigh Valley Hazard Mitigation Plan.
- Coordinate with local, state and federal emergency management agencies to identify funding sources for mitigation actions.
- Prioritize and implement mitigation actions as funding becomes available.
- Participate in the federal Community Rating System program in conjunction with the hazard mitigation process.
- Provide education/outreach on the potential impacts of hazards and actions to reduce those impacts.

- Integrate hazard mitigation planning into municipal plans, programs and ordinances.
 - Strengthen regulations to reduce hazard impacts.
 - Preserve and enhance effectiveness of natural resources to provide resiliency benefits.
 - Incorporate mitigation actions into capital improvement plans.
- Strengthen existing infrastructure to be more disaster-resilient.

Summary

Diverse industries, bountiful natural resources and storied historic character provide clear opportunities to grow the Nazareth Area's economy by capitalizing on its unique assets. As one of the fastest-growing subregions of the Lehigh Valley, in both population and development, the Nazareth Area has a unique opportunity to collectively build upon these economic strengths and shape a future region that the community envisions.

Creating a prepared workforce will be critical to attracting and retaining new businesses. Providing equitable and expanded access to training and educational opportunities is necessary to prepare students to meet the existing and future needs of employers. Ensuring high-speed internet capability for all and improving access to jobs by providing multimodal transportation options will help increase educational and job opportunities for residents.

Disaster occurrences can have detrimental impacts on the Nazareth Area residents and economy.

Continued participation in regional hazard mitigation planning efforts can lessen these impacts through a variety of means, including implementing hazard mitigation actions, providing education and outreach on the potential impacts of hazards and incorporating hazard mitigation planning into municipal plans and ordinances.

Implementing the identified policies and actions will encourage revitalization within the borough downtowns, leverage industrial development to meet the employment needs of residents, promote access to jobs and educational opportunities and capitalize on the history and natural character of the Nazareth Area, while strengthening the region against hazard impacts. Taken together, these actions will create a more prosperous Nazareth Area, resulting in a higher quality of life for residents and enhancing the area as a desirable place to live, work and play.



Buzzi Unicem's Stockertown Borough plant is among specialized manufacturing operations that require a skilled workforce.

Plan Compatibility

Section 301 (a)(5) of the Pennsylvania Municipalities Planning Code requires that multi-municipal comprehensive plans include "A statement indicating that the existing and proposed development of the municipality is compatible with the existing and proposed development and plans in contiguous portions of neighboring municipalities, or a statement indicating measures which have been taken to provide buffers or other transitional devices between disparate uses, and a statement indicating that the existing and proposed development of the municipality is generally consistent with the objectives and plans of the county comprehensive plan." This section of the Plan is divided into three components. The Internal Consistency component is an evaluation of how the multi-municipal plan relates to municipal boundaries within the multi-municipal area. The External Consistency component reviews compatibility between the Plan and the adopted comprehensive plans of neighboring municipalities. The Consistency With the County Comprehensive Plan component review is the compatibility of the multi-municipal plan with FutureLV: The Regional Plan.

Internal Consistency

Internally, the Nazareth Area Multi-Municipal plan is generally consistent. This consistency applies both to the various components of the Plan and its components regarding abutting municipalities.

The land use plan was constructed by utilizing other elements of the multi-municipal plan. The Future Land Use Plan reflects the natural areas identified in the Natural Resources Plan and the Farmland Preservation Plan. Areas identified for preservation in the Farmland Preservation Plan are similarly treated in the Future Land Use Plan. The Future Land Use Plan has been designed to provide ample opportunities for meeting the area's housing and community utilities needs. Areas recommended for higher density development coincide with areas where public sanitary sewer and community water service are available or are planned. Conversely, areas recommended for low density development or preservation are not planned for public sanitary sewer and community water service. The Future Land Use Plan considered accessibility and transportation capacity as a factor in identifying appropriate areas for development. The Natural Resources Plan and the Parks, Recreation and Open Space Plan are interrelated. Some of the areas identified in the Natural Resources Plan as significant natural areas are preserved through the recommendations in the Parks, Recreation and Open Space Plan.

Because the Plan considered the multi-municipal area's needs as a whole and because the policies in the Plan apply throughout the area, the elements operate seamlessly from one municipality to the next. As the Future Land Use Plan reflects Development areas and not specific land uses, the municipalities will need to ensure land use compatibility through the zoning process as an implementation action under the Nazareth Area Plan.

External Consistency

The Nazareth Area municipalities have 13 municipalities in four counties contiguous to their borders. Based on a comparison between the Future Land Use Plan of the Nazareth Area multi-municipal plan and the comprehensive plans and/or zoning ordinances of adjacent municipalities, there is general consistency with the existing and proposed uses in surrounding municipalities. Seven minor potential land use conflicts and their locations were identified and are listed below.

- East Allen Township area as Route 248 enters Bath Borough. A Development area in the Borough abuts Conservation and residential in the Township.
- East Allen Township area in the southeast corner adjacent to Hanover Township. A Development area in Hanover Township abuts an Agricultural/Rural Residential area in East Allen township.
- Palmer Township area adjacent to Tatamy Borough, north of Main Street. A Farmland Preservation/ Preservation Buffer area in Tatamy Borough abuts a Business area in Palmer Township.
- Palmer Township area that lies between the southwest corner of Stockertown and the eastern border
 of Upper Nazareth Township. A Rural Agricultural area in Palmer Township abuts a Development area in
 Stockertown and Upper Nazareth.

- Plainfield Township area along the northeastern border with Stockertown Borough. Agricultural Preservation and Conservation areas in Plainfield Township abut a Development area in Stockertown.
- Plainfield Township area adjacent to Bushkill Township, as Route 33 enters into Plainfield Township. A Commercial area in Plainfield Township abuts an exurban area in Bushkill Township.
- Plainfield Township area adjacent to Bushkill Township, north of Route 512. An Industrial/Business area in Plainfield Township abuts a Farmland Preservation area in Bushkill Township.
- These minor potential conflicts should be resolved as the Nazareth Area municipalities determine actual land uses for the Development category of the Future Land Use Plan. Otherwise, potential land use incompatibility instances can be resolved with appropriate buffering.

Consistency With the County Comprehensive Plan

The Nazareth Area Multi-Municipal Comprehensive Plan is generally consistent with the objectives and plans of the county comprehensive plan. FutureLV: The Regional Plan was adopted by the Lehigh Valley Planning Commission on October 31, 2019, and by Northampton County on November 21, 2019.

Minimal differences exist between the county and the multi-municipal comprehensive plan land use plans. The methods used to develop the Future Land Use Plan for each were very similar, with the multi-municipal plan providing more refined scale evaluations for farmland preservation and land use. A more refined place type analysis was used for the multi-municipal plan that led to certain more rural areas being identified for preservation buffer areas plus a more refined Centers and Corridors mapping tied to place types and corridor types. The two plans are generally consistent in goals and policies as they relate to other plan sections.

Plan Implementation

The process of implementation starts with the adoption of the Nazareth Area Multi-Municipal Comprehensive Plan. Some actions can be accomplished individually, but others require continued cooperative planning among the municipalities. Immediate actions are those that should be accomplished within the first six months. Short-term actions are anticipated within two years of plan adoption and medium-term actions are those that are anticipated after the first two years. Many actions are ongoing activities, such as coordination with implementation partners.

Plan Adoption

The Nazareth Area Multi-Municipal Comprehensive Plan was created for the municipalities of Bath, Chapman, Nazareth, Stockertown and Tatamy boroughs and Bushkill, Hanover, Lower Nazareth, Moore and Upper Nazareth townships. Adoption by all the municipalities is critical for establishing the distribution of land uses to satisfy the Pennsylvania Municipalities Planning Code requirements. Adoption of the NazPlan document serves as the conclusion of the planning process and the beginning of implementation.

Partners Partners	Timeframe
All ten municipalities need to adopt the plan.	Immediate

Intergovernmental Cooperative Implementation Agreement

The adoption of an Intergovernmental Cooperative Implementation Agreement (agreement) is the highest priority for plan implementation. The Pennsylvania Municipalities Planning Code (MPC) created this measure specifically as a means of implementing multi-municipal comprehensive plans.

Timeframe

i di dicio	Timorramo
All 10 municipalities need to adopt the implementation agreement.	Immediate
The agreement should have the following components, among others:	Established roles of the municipalities in implementing the Comprehensive Plan.
 A process to achieve consistency between the Comprehensive Plan and relevant ordinances, such as zoning ordinances that consider all possible land uses. 	 A process for amending the Comprehensive Plan. The Nazareth Area municipalities adopted an implementation agreement following adoption of
A mechanism for resolving disputes.	the 2006 Nazareth Area 2030 Multimunicipal
 A process for review and approval of land uses of regional significance. 	Comprehensive Plan that can be used as a beginning point for a new agreement. However, the world, region and communities have changed since the 2006 plan and therefore, the new agreement should be targeted achieving the anticipated outcomes of the new plan.
 Criteria for land uses of regional significance Inter-municipal coordination for review of proposals 	

Partners

The adoption of an agreement brings about several benefits:

- Municipalities are no longer required to provide for each potential land use, as long as the Comprehensive Plan and compatible zoning reasonably provide for the use somewhere within the Nazareth Area.
- State agencies are required to consider and give priority to applications for financial or technical assistance for projects in an area covered by an agreement.
- State agencies shall consider and may rely on the Comprehensive Plan and the zoning ordinances when reviewing applications for funding or permitting infrastructure or facilities.

Zoning Ordinances

The revision of municipal zoning ordinances, including the creation and adoption of a zoning ordinance in Chapman, is a short-term activity. The purpose of the revisions is to achieve or create general consistency with the Comprehensive Plan where consistency is currently lacking. Consistency of zoning across all ten municipalities is critical to implementation of the plan and one the primary reasons not all outcomes in the 2006 plan were achieved. Coordination of definitions, uses, at minimum, should be achieved and begin immediately upon adoption by all local governments of the new multi-municipal comprehensive plan. It is anticipated that most if not all communities retain local control of zoning. The creation of a multi-municipal zoning ordinance should be considered. Such an ordinance would allow for the coordinated implementation of the plan. At this time, Chapman has not enacted a zoning ordinance. To implement this plan, Chapman should adopt a zoning ordinance. This may be accomplished as an ordinance only pertaining to Chapman or as a multi-municipal zoning ordinance. Other communities should consider multi-municipal zoning ordinances, as well to implement the plan but, also to support coordination of infrastructure, location and densities of uses and to reduce administrative burden and costs. If individual zoning ordinances are used, the ordinances should be revised as necessary to be consistent with the Future Land Use Plan. An effort should also be undertaken to make the definitions and other provisions consistent. This is paramount to implementation of the goals, policies and actions in the plan.

Partners Timeframe

All ten municipalities will update zoning ordinances consistent with the Comprehensive Plan and the Inter-governmental Cooperative Implementation Agreement.

Short-Term (2 years)

Zoning Ordinance Recommendations

Specific zoning ordinance revision considerations based on a review of existing municipal provisions include:

- Revising zoning districts to align with the goals, policies and actions of entire plan, and plan maps
- Revising and reduce permitted uses in zoning districts to align with the intent of the zoning district (See policy 1.1)
- Removing warehouse uses as permitted by-right outside of areas meeting criteria appropriate for warehouse development (See policy 6.1)
- Revising location and definitions to add specificity for the growing variety of industrial land uses commensurate with available infrastructure, emergency services, compatibility with adjacent land uses and goals, policies and actions of the plan (See policy 6.1)
- Revising zoning regulations in rural villages to increase flexibility and context-appropriate develop-

ment options (See policy 4.3)

- Revising zoning regulations to incentivize green building, such as offering density bonuses (See policy 3.3)
- Limiting the number of times land can be subdivided for residential dwellings in support of agricultural preservation (See policy 2.2)
- Considering revising zoning regulations to allow one accessory dwelling to an existing single-family home in suburban areas to ensure older and younger generations of residents have attainable housing opportunities and can remain in their communities (See policy 4.2)
- Review Zoning Ordinance to ensure design standards compatible with intended community character.
- Revising zoning ordinances as needed to implement actions related to polices 1.1, 2.1, 2.2, 2.3, 2.5, 2.6, 3.1, 3.3, 4.1, 4.2, 4.3, 6.1, 6.2 and 7.3

Plan Implementation

Development/Redevelopment Sites

The NazPlan Steering Committee identified the following locations as possibilities for new development or redevelopment. Development or redevelopment should consider the availability of adequate infrastructure, including roadway capacity and condition and sewer and water service. The transition between existing land uses is critical to ensure new land uses are compatible and do not pose adverse impacts to existing residences or businesses. Municipial zoning ordinances should be refined to support the specific types and densities of land uses that are suitable on these sites:

Bath Borough

Along Walnut Street (Route 512) from Barrall Avenue to Chrisphalt Drive, and Main Street from Bridge Street to Township Line Road, various vacant properties that were formerly retail stores have the opportunity to be redeveloped according to their current or future zoning district designations, consistent with the community's implementation of the Future Land Use Plan. The Borough is mostly an Urban Center Place Type and further mixed-use urban infill and redevelopment should be encouraged to provide consistency with the Borough's existing characteristics.

Bushkill Township

A property at 450 East Moorestown Road (parcel number F7 17 10D) has the opportunity to be developed. Under its General Commercial/Industrial zoning district designation, the site contains many options for development, including various types of industrial uses and warehousing, and commercial uses such as restaurants, banks and services. The property is near a Route 33 interchange in a Highway Center Place Type. Industrial or commercial development is suitable for this location, however zoning should be refined to ensure that warehouse development proposals are required to meet necessary criteria to mitigate development impacts, such as providing sufficient truck parking and driver amenities and buffering from the nearby Colonial Academy school property on Jacobsburg Road.

Hanover Township

- A property at 3399 Bath Pike (parcel number M6 19 1) has been proposed for a residential development.
 The area is a General Urban Center Place Type, but only a small portion of the property is suitable for
 development because most of it is in a floodplain. Any residential development should include substantial
 buffering and a noise barrier to mitigate noise impacts generated by Route 22 along the northern property
 boundary, as per the Township Subdivision and Land Development Ordinance.
- A property at 3940 Airport Road (parcel number M5 7 14) is owned by the Lehigh Valley International Airport and is in a Critical Regional Center Place Type. Under the current Airport Flight Path Business District zoning designation, the site could be developed into offices, service uses such as as repair shops, and various types of light industrial uses.
- Industrial park properties with outdated facilities, such as located at 39-47 South Commerce Way (parcel number M6 15 35), in a Regional Center Place Type have the opportunity to be redeveloped with modern industrial and business uses, under the current Planned Industrial/Business Park zoning designation.
- A property at Schoenersville Road and West Macada Road (parcel number N5 2 1A), owned by the Lehigh Valley Health Network, is in a General Urban Center Place Type and has the opportunity to be developed into an office or institutional use under the current Office and Institutional zoning district designation.

Lower Nazareth Township

A property at 805 Nazareth Pike (parcel number K7 17 6), formerly the Nazareth Speedway, is in a General Urban Center Place Type and has the opportunity to be redeveloped into a variety of commercial business uses and services under the current General Commercial zoning designation. The site is in a key location along Route 248 and Route 191adjacent to existing development and has the potential to be revitalized into a use beneficial to the community.

Moore Township

- A property at 488 Moorestown Drive (parcel number H6 20 19) is in a Crossroads Village Place Type and has
 the opportunity to be developed into a residential neighborhood under the current Rural Residential zoning
 designation. Allowing and promoting Conservation Design Subdivisions would support retaining a large
 amount of open space, while creating a modern and comfortable neighborhood character.
- A property at 2791 Mountain View Drive (parcel number H5 22 4) is in an Exurban Zone Place Type and has
 the opportunity to be developed into housing under the current Rural Residential zoning designation. Housing
 development at a limited scale is appropriate in this location due to the lack of utility infrastructure in a
 rural area.
- A property at 571 Nazareth Drive (parcel number H6 20 1) and other adjacent lots have the opportunity to be
 redeveloped in the Village Center District. Limited-scale residential development and businesses that serve
 local residents and agricultural operations are appropriate in this Exurban Center Place Type location where
 no public utilities are available.
- Properties near 613 Monocacy Drive (parcel number H5SE4 1 3) have the opportunity to be developed
 or 'filled in' and accommodate additional housing and businesses in the Village Center District. New
 development should be consistent with the character of existing development in this Exurban Center
 Place Type.

Tatamy Borough

Properties bounded by Main Street, 8th Street and Commerce Lane (parcel numbers J8 27A1, J8 27A1J and J8 27A1A) are being developed into industrial and commercial uses appropriate for this location adjacent to a Route 33 interchange. The area is in a transitional location between Highway Center and General Urban Center place types. Borough ordinances should require multimodal infrastructure be included with development proposals, such as sidewalks, bicycle racks, bus stops and amenities, to ensure that automobile dependency is minimized and that developments are accessible via a variety of transportation types.

Upper Nazareth Township

A property at 3368-3483 Gun Club Road (parcel numbers K7 14 1 and K6 21 1) is in an Exurban Center Place Type and is proposed to be developed into warehouse uses. The site is currently in the General Industry zoning district and warehousing is a permitted use, however the site is adjacent to residential zoning districts. Warehousing poses adverse impacts to residents including noise and traffic, and the road infrastructure was not built to withstand freight traffic. The zoning ordinance should be amended to remove warehousing as permitted by right, and ensure provisions are in place that mitigate the impacts of industrial developments.

Plan Implementation

Subdivision and Land Development Ordinances

Subdivision and land development ordinances (SALDOs) regulate the creation of lots and the layout of non-residential uses and multiunit residential developments. These ordinances are primarily concerned with infrastructure issues, assuring that adequate roads, utilities, stormwater management systems and recreation facilities are provided. SALDOs also assure that the improvements are properly constructed and are provided in a timely manner. Each of the Nazareth Area municipalities has an adopted subdivision and land development ordinance, excepting Chapman which is covered by the Northampton County ordinance. Municipalities and the Lehigh Valley Planning Commission (LVPC) with Northampton County, on behalf of Chapman, should review their ordinances for consistency with this Comprehensive Plan as a short term implementation measure. Revisions should be prepared and adopted when inconsistencies are discovered.

Partners	Timeframe

Municipalities and the LVPC in partnership with the County, can amend their individual subdivision and land development ordinances to be consistent with the Comprehensive Plan.

Short-term (2 years)

- Specific subdivision and land development ordinance revision considerations include:
- Adopting ordinance provisions that establish thoughtful requirements, criteria and design standards for warehouse developments (See policy 6.2)
- Establishing a guide for universal design standards that can be used during the development review process to request specific design criteria from developers (See policy 4.2)
- Adopting or updating transportation impact fee

- ordinance provisions that provide for and enhance the transportation system as new developments are planned (See policies 5.1 and 6.1)
- Adopting or updating plan submission requirements to understand and better plan for or mitigate the noise, air quality, light, visual, infrastructure, environmental, and emergency services impacts of development (See policies 3.2, 3.3, 6.2)
- Revising ordinances as needed to implement actions related to polices 1.1, 1.2, 2.1, 2.5, 2.7, 3.1, 3.3, 3.4, 4.2, 5.1, 5.4, 6.1 and 6.2

Official Sewage Facilities Plans

The Pennsylvania Sewage Facilities Act (Act 537) was enacted by the state in 1966. The act requires every municipality to develop and maintain an up-to-date sewage facilities plan. An Act 537 plan is a tool for municipalities to address the existing and future sewage needs of a municipality. A sewage facilities plan must evaluate the operation and maintenance of public, central and on-lot sewage systems. The plan must determine the adequacy of collection, conveyance and treatment facilities and allocation of plant capacity to meet existing and future needs. The coordination of municipal plans is imperative so that municipalities can direct new development to areas where adequate sewage facilities are available or will be available to prevent future sewage disposal problems. The municipalities should update their Act 537 plans to be consistent with the Future Land Use Plan, as needed.

Partners Partners	Timeframe
Municipal Act 537 plans need to be coordinated with all adjacent municipalities that share collection, conveyance and/or treatment of sewage with appropraite agreements in place.	Short-Term (2 years)

Specific sewage facilities planning considerations include:

 Lower Nazareth Township updating its Act 537 sewage flow projections to the Nazareth Borough and the Cities of Bethlehem and Easton sewage treatments plants (See policy 1.1)

- Hanover Township evaluating any septic system needs (See policy 1.2)
- Update official sewage facilities plans consistent with policies 1.1, 1.2, 3.4 and 6.1

Official Maps

Official maps are a powerful regulatory mechanism authorized by the Pennsylvania Municipalities Planning Code in Article 4. Official maps are a method for reserving sites for roads, schools, schools, parks and other public facilities. Official maps are also a means for establishing a layout for community development. Lastly, official maps can be used to protect sensitive natural areas, open spaces and even farmland. Five municipalities in the Nazareth Area have adopted official maps: Bushkill, Hanover, Lower Nazareth, Moore and Upper Nazareth townships. As a short-term implementation measure, these five townships should review their official maps for consistency with the multi-municipal Comprehensive Plan. Changes should be adopted to achieve consistency as needed. The remaining municipalities should prepare and adopt official maps consistent with the Comprehensive Plan.

Partners Par	Timeframe
Municipalities can individually adopt or amend an official map to be consistent with the Comprehensive Plan. Coordination with adjacent municipalities may be needed for projects with impacts across municipal boundaries.	Medium (3-5 years)

Example: Adopt or update an official map that identifies the existing and envisioned roadway networks and locates preferred connections to arterial roads and highways that provide for safe and efficient freight movements. Adopt or amend municipal official maps consistent with policies 2.1, 2.7, 5.1 and 6.1

Plan Implementation

Capital Improvements Programming / Budgeting

Budgeting for major expenditures is a means for carrying out the recommendations of this Comprehensive Plan. Capital improvements are improvements or expansions to a sizable public facility to extend the value and life span. Bridges improvements, school construction or additions, sanitary sewer plant upgrades and park land acquisitions are examples of capital projects. Such capital projects are separately budgeted from routine annual expenditures and operating funds to enable the costs to be spread over several years.

Capital Improvements Programs are a systematic means for identifying needs, establishing priorities and undertaking projects. The use of the Capital Improvements Program process allows for predictable budgeting and avoids drastic budget and tax increases to cover large mid-and long-term expenditures. In addition, this type of programming helps communities secure grants and, as needed justify borrowing and build trust with lenders. Capital Improvements Programming should be used to budget for facilities and improvements recommended by this Comprehensive Plan, such as those relating to roads, parks and recreation facilities, community utilities, fire, emergency management services and police.

Partners	Timeframe
Municipal governments in collaboration with school districts, municipal authorities, land conservancies, Northampton County, state agencies, private entities, financial institutions, non-profit organizations, among others.	Ongoing

Examples:

- Hanover Township will study the need for updates to stormwater infrastructure.
- Bath Borough will investigate connecting Borough parks with trails, a band shell in the

Borough park, a Monocacy Creek trail, traffic control solutions and digital traffic speed awareness projects.

• Prepare capital improvements plans consistent with policies 2.3, 5.3, 5.4, 7.1 and 7.5

Grants / Funding

Some of the facilities and improvements recommended in this plan represent significant expenditures and are beyond the financial capabilities of the Nazareth Area municipalities. Fortunately, grants are available from county, state and federal sources to help finance many needed projects while easing the financial burden on local taxpayers. Nazareth Area municipalities should be alert for grant programs and opportunities and utilize them when they are available in connection with programs advocated by this Comprehensive Plan. Having capital improvements programs, parks, recreation and open space plans, and transportation plans through impact fee ordinances and official maps aids in prioritizing and being prepared when grants become available. Working with Northampton County and regional agencies, like the LVPC or Workforce Board Lehigh Valley, local governments can leverage larger efforts in unique partnership to bring in grant funding to achieve the goals, policies and actions of the plan.

Partners	Timeframe
Municipalities should prepare and monitor potential funding sources and potential collaborative projects including multimunicipal, county, regional, state and federal governments and foundation grants	Ongoing

Example: Leverage county and federal funding and grant opportunities to address revitalization throughout the Nazareth Area (see policy 7.1)

See also: Policies 2.2, 2.5, 3.2, 4.1, 5.1, 5.2, 5.3, 5.4 and 7.1

Coordination / Collaboration

A key component of implementing the Comprehensive Plan actions is collaboration. Challenges like traffic congestion, attainable housing, compatible development, increasing broadband, building electric vehicle charging networks and carbon emissions do not stop at municipal boundaries. Therefore, it is important for NazPlan municipal leaders to work with other partners to tackle issues from a regional view point. That will require collaborating with the municipal partners, non-profit organizations, local businesses and government agencies, among others – in some cases all at once – that can help to implement the actions that best address the challenges faced by NazPlan municipalities, businesses and residents.

Partners	Timeframe
Municipal partners, non-profit organizations, local businesses and government agencies, among others.	Ongoing

Example: Coordinate natural resource protection efforts with local land trusts, conservancies, school districts and the private sector (See policy 2.1)

Coordinate/collaborate with partners consistent with policies 1.1, 1.2, 1.3, 2.1, 2.3, 2.5, 3.1, 3.2, 3.4, 4.2, 5.1, 6.1, 6.2, 7.1, 7.3, 7.4 and 7.5

Conclusion

The Nazareth Area is a 10-community region like no other in the Lehigh Valley, with a long history of understanding that its best possible future only comes by working collectively. This comprehensive plan represents a shared vision that will enable the region to confront its challenges and maximize its opportunities.

The Lehigh Valley is experiencing the pressures that come with growth and success. Increased population, rapid industrial development, housing shortages and shrinking state and federal funding create the need for municipalities to develop long-term, sustainable

solutions to preserve the quality of life residents expect, while developing resiliency against external forces of change.

Nazareth Area's character and unique mix of rural, suburban and urban communities have developed over generations to create a place where residents are proud to honor the region's rich history, even as they adapt to global and regional change. This Plan is meant to build on the community's high ideals and quality of life through its goals, policies and actions.



The Blue Mountain serves as the scenic backdrop for a Nazareth Area whose future depends on balancing the preservation of its rural character with accommodating future growth.

The success of this Plan will require a willingness to develop, adopt and implement intermunicipal agreements. These cooperative agreements reinforce the individual identities of each municipality and create the framework each municipality will use to achieve consistency with the multi-municipal comprehensive plan. These agreements are meant to solidify partnership and coordination by providing an amicable approach to settling disputes that may arise regarding each municipality's own zoning, subdivision, land development and capital improvement strategies. Additionally, the agreements recognize that development impacts do not stop at

municipal borders, and create a structure that allows neighboring communities to minimize economic and environmental disruptions, preserve historical community patterns, coordinate development with infrastructure, mitigate traffic congestion and encourage innovation that enhances public services for all Nazareth Area residents.

Achieving all that comes only through the collective belief of 10 municipalities that there is strength – and efficiency – in numbers and that our future is brightest when planned together.



Acknowledgments

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And finally, a special thanks to the Steering Committee members who met for three years, including powering through a global Pandemic, showing an unmatched commitment to creating a roadmap to the best possible future for the 10 communities that make up the Nazareth Area Region.

Thank You



