

***SOUTHEAST ADAMS COUNTY
JOINT COMPREHENSIVE PLAN***

**Germany Township
Littlestown Borough
Union Township**

January, 2008

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CHAPTER 1

**INTRODUCTION
AND
SETTING FOR THE PLAN**

Why a Comprehensive Plan?

The purpose of the Comprehensive Plan is to work proactively to assure that the future of the Germany/Littlestown/Union Region will be shaped by the municipalities' own vision, rather than by reactions to forces acting upon the Townships and the Borough. This Plan manages, rather than just reacts, to growth in the region.

Littlestown Borough and Union Township have prepared individual comprehensive plans in the past. This Comprehensive Plan is the first joint comprehensive land use planning effort by the municipalities, and was initiated because of the recognized need to examine overall planning for the Region in light of development trends and pressures in the region; to determine common goals and objectives for land use, transportation, community facilities and services, housing, economic development, natural, scenic, historic and cultural resources; coordinate land use and infrastructure planning on a regional basis; and build upon regional planning efforts of the Adams County Comprehensive Plan, the Adams County Vision for Parks, Recreation, and Open Space, the Southeast Adams County Transportation Study, the Adams County Water Supply/Wellhead Protection Plan, and the Monocacy River Watershed Storm Water Management Plan.

The following objectives were identified at the outset of this planning process.

- Identify desired community vision for the Region and develop an effective plan scenario to attain that vision.
- Provide a means of perpetuating for future generations those environmental, historic, scenic, cultural, agricultural and economic resources which make the Region special to those who live and work in the community.
- Provide for open space preservation and recreation opportunities consistent with municipal goals and community needs.
- Prepare a scenario which will enable the municipalities to accommodate appropriate levels of new development, but not overburden municipal resources, utilities and roads, nor degrade environmental resources.
- Properly control, manage, allocate, balance and locate future development in the community consistent with the community vision through establishment of designated growth areas, future growth areas, rural resource areas, and public infrastructure areas.
- Integrate land use, open space, economic development, resources, recreation, utility and transportation planning into one cohesive document.

- Maintain and enhance the quality of life in the area.
- Prepare recommendations which are reasonable, achievable, and tied to implementation means so the plan will be a living document used by the municipalities throughout the following years.
- Comply with Pennsylvania Municipalities Planning Code (PMPC) requirements.
- Prepare a Comprehensive Plan which is generally consistent with the Adams County Comprehensive Plan.
- Prepare a Plan which provides consistent land use proposals along the common municipal boundaries and promotes common goals for the logical development of the area as a whole.
- Take advantage of opportunities and benefits established in the PMPC for municipalities which prepare joint plans and identify possible future opportunities for intermunicipal cooperation in the region.
- Identify the unique characteristics of the area and provide means of protecting these characteristics while providing for responsible, well-planned and managed development.
- Provide specific recommendations for an appropriate mixture and amounts of land use in the rural settings in Germany Township.
- Coordinate planning for the Region with School District Planning.
- Provide a Comprehensive Plan which provides a unified approach to managing future growth and development in the Region.
- Determine future infrastructure needs within the Region, including capacity and allocation.

What does a Comprehensive Plan Accomplish?

The Comprehensive Plan contains a vision of what the Townships and the Borough want to be and includes goals, policies and strategies for realizing that vision.

The Comprehensive Plan is an educational document, providing discussion of conditions, issues, and opportunities, and identifying resources that are worthy of protection and preservation.

The Comprehensive Plan contains policies for land use, circulation and community facilities which will serve as a guide for public and private decision-making to accomplish the goals and objectives, and thus the vision, for the Townships and the Borough.

The Comprehensive Plan provides a basis for implementation techniques, such as land use ordinances, official maps and capital improvements programs, which will implement the policies contained in this plan. It is critical that the Action Plan be implemented.

Planning jointly allows allocation of land uses, housing types, densities, and development patterns over the entire region, rather than trying to fit all types of uses and densities into each municipality. It also allows for coordinated land use planning along municipal boundaries; coordinated planning for trails, recreation and open space, and transportation throughout the Region; and coordinated planning along the common road corridors in the Region. Coordinated input can be provided to County and State agencies and an overall approach to economic development can be presented, addressing retention of major components of the economy and allowing for appropriate commercial and industrial development, which complements rather than detracts from existing commercial areas. Benefits of multi-municipal planning are summarized below.

Benefits of Multi-Municipal Planning

- Provides a regional planning approach and allocation of land uses
 - Where
 - How to accommodate population projections
 - Patterns of development
- Establishes growth areas and future growth areas regionally
 - Coordination with infrastructure
 - Opportunities for infill
- Provides coordinated planning along the common boundaries of the municipalities
- Supports existing centers rather than weaken them
- Coordinates road corridor planning, standards, and management
- Provides for linkages between municipalities

- The Plan and implementing ordinances are considered by state agencies in permitting decisions
- Addresses review of “developments of regional impact”
- Identifies opportunities for future joint efforts
- Promotes common land use designations and definitions
- Establish goals for economic character over the entire Region
- Provides support for municipalities in zoning challenges
- Enables Transportation Impact Fees across municipal boundaries
- Enables Transfer of Development Rights across municipal boundaries
- Enables priority consideration in state funding programs
- Provides opportunity to learn from neighbors’ shared experiences
- Enhances the Region’s attractiveness to quality development
- Enables developing a “specific plan” for an area designated for non-residential development, preparing regulations for that area, and streamlining the approval process
- Enables establishment of housing goals and a housing plan on a regional basis to address the current and future needs of all households, including younger workforce, and older households.

The Germany Township, Littlestown Borough, Union Township Comprehensive Plan demonstrates one of the key benefits to planning on a multi-municipal, rather than single municipality level: the ability to manage growth on a regional basis. Land use categories can be allocated on a regional basis and it is not necessary to try to fit every type of land use into each municipality. Growth areas can be established around a core of existing development, where community facilities and infrastructure are available to serve future development and permit logical, efficient growth. Agricultural lands, stream corridors, and rural lands outside the core can be conserved.

Multi-municipal planning also enables coordinated transportation planning, including planning for road corridors such as the PA Route 97 and PA Route 194 corridors. The merits of proposed new road segments, such as the Lakeview Drive Extension and

Littlestown Bypass projects proposed in the Southeast Adams County Transportation Study, can be jointly considered by all the municipalities potentially affected.

Planning together helps to integrate, on a multi-municipal basis, the various elements of planning, such as land use planning, sewer and water planning, community facilities planning, economic development planning, natural resources planning, and transportation planning. A key to effective establishment of the growth area boundaries is coordinating land use planning with the availability of public sewer and water facilities, and not extending public sewer and water facilities to areas intended for preservation of agricultural lands, protection of other natural resources, and retention of rural character.

It is important to plan for economic development on a regional basis, so an existing center, such as Littlestown, can remain viable and revitalization efforts can be supported. Complementary economic development could be accommodated in Germany and Union Townships at locations where it is determined to be appropriate. Appropriate building re-use, gateway treatments, and design elements can be addressed.

As growth occurs, additional demands are made on water supplies, sewer systems, recreation facilities, schools, and other municipal services. The most effective and efficient way to address these impacts is on a regional basis. Directing growth near existing facilities and services can lessen the pressure for additional, dispersed facilities.

Growth management in the Germany Township, Littlestown Borough and Union Township region is crucial because the planning area has experienced considerable residential development, and residential growth pressure will continue, especially from Maryland. This residential growth can tax the infrastructure and natural environment of the Region and adversely affect the quality of life.

As additional residential development occurs, people commute to jobs in Maryland and York County, and shopping, tourism, and employment destinations in the Gettysburg area are increased or are enhanced; there will be additional traffic volumes in the region. PA Route 97 and PA Route 194 will be primarily affected. This Plan will take a regional approach to planning for these corridors.

If growth in the Germany Township, Littlestown Borough, Union Township area is not effectively managed, the resulting development could adversely affect agricultural preservation efforts in the Townships; result in loss of rural character in those portions of the Townships where rural character is desired; result in potential pollution from on-site sewage disposal systems if development occurs outside public sewer service areas, make efficient, cost effective planning for public sewer and water systems and other municipal service more difficult, and result in increased vehicle trips on the roads within the Region because of the loss of pedestrian scale.

This plan will coordinate the establishment of designated growth areas in the Region with planning for public sewer and water systems in the Littlestown area. If the growth area is focused on Littlestown, where pedestrian scale, community facilities, and public sewer and water are available, efforts to retain agricultural and rural areas, and the rural beauty, within the Townships will be supported. The horse farms area in Union Township is a unique agricultural and visual asset to the Region. This area also provides open space and groundwater recharge area along the South Branch of the Conewago Creek, which is important for the Littlestown water system. The attractive rural landscape of Germany Township and aquifers could be compromised by suburban-type development. Proper growth management can reduce the introduction of conflicting land uses within the Townships.

There is a need in the Region for affordable housing options, particularly for seniors, young families with children, single parents, single person households, and workers employed in Adams County. Providing a variety of housing options, in addition to meeting the needs of all the Region's households and allowing for a multi-generational population, can help attract and retain business by providing appropriate housing for a diverse workforce in line with the local work force and wage structure.

Planning to address Regional influences is done in the context of County and regional planning which has already been done, including the Adams County Comprehensive Plan, the Adams County Vision for Parks, Recreation, and Open Space, the Southeast Adams County Transportation Study, the Adams County Water Supply/Wellhead Protection Plan, and the Monocacy River Watershed Stormwater Management Plan.

The Adams County Water Supply/Water Protection Plan identifies the need to protect water sources, and specifically addresses wells supplying the Littlestown Municipal Authority system. The Plan includes a scientifically developed Wellhead Protection Area for the Municipal Authority's wells located in the Meadowview development. Planning for land use on a regional basis can help protect the aquifers and wellhead protection zones within the Region, which are not confined to the Borough. The Littlestown water system is important in serving the needs of the region's residents and managing growth in the future, and it is important to identify and protect sufficient, safe yields.

The Adams County Vision for Parks, Recreation, Open Space makes recommendations for community parks and identifies a potential greenway system along creeks within the County. This information will be further refined through the development of the forthcoming Adams County Greenways Plan. Planning on a regional basis enables review of the parks recommendations of the Vision and greenway planning on a regional basis. The South Branch of the Conewago Creek and the Alloway Creek are significant watercourses to be protected.

The Southeast Adams County Transportation Study contains a series of recommendations for new road construction, road improvements, and intersection improvements within the Region. It also recommends review of the conversion policy in Littlestown and examination of downtown parking alternatives.

This Joint Plan is also an opportunity to attain general consistency with the Adams County Comprehensive Plan, which recommends Littlestown as a growth area in the Region, and the retention of agricultural/rural areas throughout much of the Townships. The Monocacy River Watershed Stormwater Management Plan establishes requirements for storm water management on a regional basis.

This Comprehensive Plan is a Living Document

This Comprehensive Plan is just a start. It is the foundation for the attainment of the goals and objectives established within the plan, which can be accomplished only with the support of the municipal governments, municipal commissions, boards and committees, area businesses, area residents, and surrounding municipalities and regional planning groups.

The objective has been to prepare a plan, which will not sit on a shelf and gather dust, but a plan that will be implemented and used by municipal governing bodies, planning commissions and other groups within the municipalities to guide their actions in attaining the goals of this Plan.

This Plan presents a strategy to guide municipal officials and other agencies in making decisions that will assure that the Germany/Littlestown/Union Region will continue to be an attractive place in which to live, work, and visit. This Comprehensive Plan is not an ordinance or regulation, but is a basis for establishing regulations and undertaking specific functional plans designed to implement the policies set forth within the plan. Each municipality retains the right to control zoning within its municipality, whether through individual zoning ordinances or a joint zoning ordinance.

Need for Continuing Planning

Planning is an ongoing process and this Comprehensive Plan must be continually reviewed in light of development trends, the state of the economy, unforeseen influences, changes in community goals, and the appropriateness of the Plan's objectives, policies, and implementation program.

Regional Setting

The Adams County Office of Planning and Development prepared the following narrative of the setting for this planning effort:

Germany and Union Townships, and Littlestown Borough, are located in the southeast corner of Adams County. Over the past decade, significant residential development has occurred in the area, primarily in Littlestown Borough and Union Township and to a lesser degree in Germany Township. Population within the planning area has increased significantly from 1980 to 2000, particularly from 1990 to 2000. The 3-municipality area experienced 9.2% population growth from 1980 to 1990 and 29.6% growth from 1990 to 2000, as compared to 14.6% and 16.6% for Adams County as a whole for the same time periods. Some concurrent commercial development has occurred in the area, but many residents, particularly newer residents, commute outside the planning area for employment. Continued strong demand for residential development, and moderate demand for commercial and employment development, is expected to continue. While Littlestown Borough and Union Township have zoning ordinances that can be modified to address community planning and future conditions, Germany Township has no municipal zoning ordinance.

The three municipalities contain several transportation corridors that are increasing in importance regionally, thus resulting in increasing overall traffic volumes. Growing numbers of commuters reside in the planning area. These individuals generally work in Maryland to the south and southeast, or York County to the northeast, and contribute to increased traffic volumes. In addition, development of new or enhanced shopping, heritage tourism and general employment opportunities to the west in the Gettysburg area will likely, over time, result in additional increases of traffic volumes along PA Route 97 and PA Route 194. A new outlet shopping facility and a new Visitor Center at the National Parks at Gettysburg have the potential of attracting large numbers of visitors from the Baltimore area to Gettysburg, who will pass through the planning area while traveling to these destinations.

In addition to factors internal to Adams County, as mentioned above, factors external to the County will also play a significant role in the future of Littlestown Borough and Union and Germany Townships. The planning area is within the commuter-shed of Baltimore and Washington DC, as well as the Owings Mills and Frederick, Maryland areas. Improvements to transportation systems, such as the extension of Maryland's MARC Commuter Rail system to Frederick, will continue to expand commuter opportunities. Maryland's "smart growth" policy, and active land preservation efforts in the northern part of the state, may have already "forced" some demand for new housing, particularly single family detached housing, north of the Mason-Dixon Line. Some developments in the planning area have been marketed almost exclusively to Maryland residents, who find the lower land and housing costs to be an equitable trade for the longer commutes to Maryland employment opportunities. Given the constraints being placed on residential development in some Maryland communities, it is likely that migration from Maryland to Adams County, and particularly the Germany/Littlestown/Union planning area will continue.

Considering that Littlestown Borough is surrounded on all sides by Germany and Union Townships, the three municipalities are intrinsically related regarding a variety of issues. These include, at a minimum, the following:

1. **Land Use and Growth Management:** Moderate density suburban development has occurred in Union Township immediately adjacent to Littlestown Borough with connection to the public sewer and water system. Additional residential projects have been proposed at a conceptual level in Union Township. Several residential projects fully within the Borough, but near the municipal boundary, are being developed currently. At least one conventional, suburban-style residential project has been approved in Germany Township, but without connection to public sewer or water systems. Unique geology in this area can sometimes support on-lot systems, although there is significant concern regarding the long-range implications of the proliferation of such systems. Conversely, substantial effort has been made to retain agricultural uses in Union Township, through the purchase of agricultural easements by the County and the application of effective agricultural zoning by the Township.

The new residential development in the planning area has occurred primarily within or adjacent to Littlestown Borough. Therefore, the area, for the most part, has been able to maintain a distinct "edge" between the Borough and associated development and the agricultural and rural areas surrounding the Borough. This development pattern is not only highly consistent with recommendations of the Adams County Comprehensive Plan, but principles of "smart growth" as well.

Given internal and external growth factors, however, the risk that sprawling residential and non-residential development could occur in the planning area is significant. This is particularly true considering the extent to which public water and sewer systems in the Littlestown area are operating at or near capacity. Without additional public system capacity, developers may pursue development beyond designated "growth areas" using privately developed systems. If this happens, the percentage of people within the planning area that live outside comfortable bicycling and walking distance to the "core" will be reduced, which could have negative impacts on community livability, increases dependency on the automobile, and places "pressures" on agricultural landowners to abandon farming practices. Further, development beyond growth areas would likely be less efficient and more land consumptive.

Therefore, a major focus is to determine future infrastructure needs within the planning area. When and if new development occurs, properly integrating new development in a predominantly rural setting, focused on the Littlestown "growth area," particularly given that Germany Township does not currently have a Zoning

Ordinance, will play a critical role the future appearance and viability of the southeast corner of Adams County. The plan must fully integrate land use, infrastructure, and transportation recommendations to properly address the future growth issues.

2. **Borough Core Area - Littlestown:** Founded in 1765, Littlestown Borough has traditionally been a center of commerce and industry in southeastern Adams County. While some industrial functions have been retained, and some new commercial uses have been developed around the periphery of the Borough, the traditional core commercial area of the Borough has experienced relatively little change in functionality or appearance. Many buildings within the “Downtown” have changed use or are experiencing disrepair. At the same time, some efforts have moved forward with the intent of improving and revitalizing downtown Littlestown. The Joint Comprehensive Plan will build on this previous work, and provide a strategy to revitalize the borough core. This should allow the Borough to continue functioning as the main "central place" within the planning area, and to capitalize upon its central location and its pedestrian scale.
3. **Rural Areas:** The planning area includes a unique agricultural area devoted to standard breed horse farms. The horse farms area extends into adjacent Union Township, and smaller portions of other adjacent townships as well. The horse farm area is one of several unique visual and agricultural areas located within Adams County, and requires specific attention in the context of the Joint Comprehensive Plan project. The horse farm area provides a large visual and open space buffer between the moderately dense residential areas surrounding Littlestown Borough and the Hanover/McSherrystown area to the northeast. The area also provides significant groundwater recharge opportunities along the South Branch of the Conewago Creek, an important area for both the Littlestown and Hanover water systems. The planning area also includes, at a minimum, two significant water features – South Branch of the Conewago Creek and Alloway Creek. The Joint Comprehensive Plan must provide recommendations regarding the conservation of these important natural features.

Germany Township is characterized by a predominantly rural landscape. Given that the Township does not have a zoning ordinance, however, some parts of the Township have experienced "spotty" development with a mixture of land use types scattered about the countryside. At least one new suburban residential development has been built along Route 97. Without the development of a carefully crafted zoning ordinance, the Township is potentially exposed to the emergence of incompatible land uses, the mixture of which may have negative impacts on property values, rural aesthetic qualities, water supply and quality, and overall quality of life. This concern is heightened by the relatively high capability of some Germany Township soils in terms of accommodating on-lot septic

systems. The Joint Comprehensive Plan must include specific recommendations for Germany Township with regard to an appropriate amount a mixture of land uses that may be appropriate for the variety of rural settings found within Germany Township.

4. Land Use Surrounding Landfill: A significant portion of southern Union Township has been affected by the Keystone Landfill Site. This site is an identified Superfund Site, and has been the focus of remediation efforts over the past several years. Given the remediation activities at the site, as well as documented and potential impacts on groundwater, particular attention must be given to this area from a land use and future development perspective.

Need for Regional Comprehensive Planning in the Germany/Littlestown/Union Region

As development continues in the Region, the quality of life is threatened. The major concern of this Comprehensive Plan is to maintain and enhance the quality of life for the Region's residents. While threats to the Region present challenges, they also present opportunities for coordinated action to address the challenges:

Threats

Scattered low density subdivisions, and loss of open space.

Loss of farmland and historic farmsteads to development.

Increased traffic.

Opportunities

Manage growth on a regional basis; use efficient development techniques which allow alternative densities and housing types; require open space to be incorporated within subdivisions: continue open space acquisition and preservation programs; coordinate infrastructure and land use policies to provide public sewer and water to designated growth areas around the regional core.

Implement farmland preservation techniques; support remaining farm operations; discourage inconsistent land uses in farm areas.

Institute access management techniques; implement corridor management plans for major road corridors; provide alternative routes and modes of travel.

Threats

Loss of natural, historic and cultural resources as development occurs.

Strip commercial development.

Development along watercourses and resultant loss of open space, loss of accessibility, and threats to water quality.

Borough experiences development which threatens unique character and charm.

Rising land values and housing affordability concerns for seniors, younger families entering the housing market and those working in the County.

Roadside development detracts from scenic beauty of the Region.

Opportunities

Adopt resource preservation provisions in ordinances; appoint historic commission(s) and environmental advisory council(s) to be stewards of the Region's resources.

Adopt ordinance provisions fostering well-planned, mixed use development; coordinate access among development.

Adopt riparian buffer standards for water courses; proceed with greenway planning and land acquisition and/or protection along the creeks.

Continue revitalization efforts in the Borough; continue to prepare streetscape plans; establish incentives and/or requirements for design guidelines consistent with Borough character; require impact analysis; adopt resource preservation provisions; discourage inconsistent uses.

Identify programs and housing alternatives to support home ownership and retention; provide infrastructure to allow a variety of housing densities and types.

Adopt coordinated signage and lighting standards; adopt coordinated standards for landscaping, parking, and buffering.

The intent of the Comprehensive Plan is not to stop development, but to see that it gets done smartly, with respect of the Region's resources, and in designated growth areas rather than areas which are critical to maintaining the Region's character and quality of life.

The Pennsylvania Municipalities Planning Code (MPC) and Multimunicipal Planning

Objectives:

Intergovernmental cooperation is encouraged in order to accomplish the following objectives:

- To provide for development that is compatible with surrounding land uses and that will complement existing land development with a balance of commercial, industrial and residential uses.
- To protect and maintain the separate identity of Pennsylvania's communities and to prevent the unnecessary conversion of valuable and limited agricultural land.
- To encourage cooperation and coordinated planning among adjoining municipalities so that each municipality accommodates its share of the multimunicipal growth burden and does not induce unnecessary or premature development of rural lands.
- To minimize disruption of the economy and environment of existing communities.
- To complement the economic and transportation needs of the region and this Commonwealth.
- To provide for the continuation of historic community patterns.
- To provide for coordinated highways, public services and development.
- To ensure that new public water and wastewater treatment systems are constructed in areas that will result in the efficient utilization of existing systems, prior to the development and construction of new systems.
- To ensure that new or major extension of existing public water and wastewater treatment systems are constructed only in those areas within which anticipated growth and development can adequately be sustained within the financial and environmental resources of the area.
- To identify those areas where growth and development will occur so that a full range of public infrastructure services including sewer, water, highways, police and fire protection, public schools, parks, open space and other services can be adequately planned and provided as needed to accommodate the growth that occurs.

- To encourage innovations in residential, commercial and industrial development to meet growing population demands by an increased variety in type, design and layout of structures and by the conservation and more efficient use of open space ancillary to such structures.
- To facilitate the development of affordable and other types of housing in numbers consistent with the need for such housing as shown by existing and projected population and employment data for the region.

Governing bodies of municipalities are authorized to enter into intergovernmental cooperative agreements for the purpose of developing, adopting and implementing a comprehensive plan. Such agreements may also be entered into between and among counties and municipalities for areas that include municipalities in more than one county, and between and among counties, municipalities, authorities and special districts providing water and sewer facilities, transportation planning or other services within the area of a plan and with the opportunity for the active participation of State agencies and school districts.

Contents: The multimunicipal plan is to include all required elements for comprehensive plans specified in the MPC. The plan may:

1. Designate growth areas where:
 - a. Orderly and efficient development to accommodate the projected growth of the area within the next 20 years is planned for residential and mixed use densities of one unit or more per acre.
 - b. Commercial, industrial and institutional uses to provide for the economic and employment needs of the area and to insure that the area has an adequate tax base are planned for.
 - c. Services to serve such development are provided or planned for.
2. Designate potential future growth areas where future development is planned for densities to accompany the orderly extension and provision of services.
3. Designate rural resource areas, if applicable, where:
 - a. Rural resource uses are planned for.
 - b. Development at densities that is compatible with rural resource uses are or may be permitted.

- c. Infrastructure extensions or improvements are not intended to be publicly financed by municipalities except in villages, unless the participating or affected municipalities agree that such service should be provided to an area for health or safety reasons or to accomplish one or more of the purposes set forth above.
4. Plan for the accommodation of all categories of uses within the area of the plan, provided, however, that all uses need not be provided in every municipality, but shall be planned and provided for within a reasonable geographic area of the plan.
5. Plan for developments of area wide significance and impact.
6. Plan for the conservation and enhancement of the natural, scenic, historic and aesthetic resources within the area of the plan.

Implementation Agreements:

In order to implement multimunicipal comprehensive plans, counties and municipalities shall have authority to enter into intergovernmental cooperative agreements.

Cooperative implementation agreements between a county and one or more municipalities shall:

- (1) Establish the process that the participating municipalities will use to achieve general consistency between the county or multimunicipal comprehensive plan and zoning ordinances, subdivision and land development and capital improvement plans within participating municipalities, including adoption of conforming ordinances by participating municipalities within two years and a mechanism for resolving disputes over the interpretation of the multimunicipal comprehensive plan and the consistency of implementing plans and ordinances.
- (2) Establish a process for review and approval of developments of regional significance and impact that are proposed within any participating municipality. Subdivision and land development approval powers under this act shall only be exercised by the municipality in which the property where the approval is sought. Under no circumstances shall a subdivision or land development applicant be required to undergo more than one approval process.
- (3) Establish the role and responsibilities of participating municipalities with respect to implementation of the plan, including the provision of public infrastructure services within participating municipalities, the provision of affordable housing, and purchase of real property, including rights-of-way and easements.

- (4) Require a yearly report by participating municipalities to the county planning agency and by the county planning agency to the participating municipalities concerning activities carried out pursuant to the agreement during the previous year. Such reports shall include summaries of public infrastructure needs in growth areas and progress toward meeting those needs through capital improvement plans and implementing actions, and reports on development applications and dispositions for residential, commercial, and industrial development in each participating municipality for the purpose of evaluating the extent of provision for all categories of use and housing for all income levels within the region of the plan.
- (5) Describe any other duties and responsibilities as may be agreed upon by the parties.

Cooperative implementation agreements may designate growth areas, future growth areas and rural resource areas within the plan. The agreement shall also provide a process for amending the multimunicipal comprehensive plan and redefining the designated growth area, future growth area and rural resource area within the plan.

Legal Effect:

Where municipalities have adopted a county plan or a multimunicipal plan is adopted under this article and the participating municipalities have conformed their local plans and ordinances to the county or multimunicipal plan by implementing cooperative agreements and adopting appropriate resolutions and ordinances, the following shall apply:

1. Where municipalities have adopted a multimunicipal comprehensive plan pursuant to Article XI but have not adopted a joint municipal ordinance pursuant to Article VIII-A and all municipalities participating in the multimunicipal comprehensive plan have adopted and are administering zoning ordinances generally consistent with the provisions of the multimunicipal comprehensive plan, and a challenge is brought to the validity of a zoning ordinance of a participating municipality involving a proposed use, then the zoning hearing board or governing body, as the case may be, shall consider the availability of uses under zoning ordinances within the municipalities participating in the multimunicipal comprehensive plan within a reasonable geographic area and shall not limit its consideration to the application of the zoning ordinance on the municipality whose zoning ordinance is being challenged.
2. Where municipalities have adopted a joint municipal comprehensive plan and enacted a zoning ordinance or ordinances consistent with the joint municipal

comprehensive plan within a region pursuant to Articles VIII-A and XI, the court, when determining the validity of a challenge to such a municipality's zoning ordinance, shall consider the zoning ordinance or ordinances as they apply to the entire region and shall not limit its consideration to the application of the zoning ordinance within the boundaries of the respective municipalities.

3. Where municipalities have adopted a multimunicipal comprehensive plan pursuant to Article XI but have not adopted a joint municipal ordinance pursuant to Article VIII-A and all municipalities participating in the multimunicipal comprehensive plan have adopted and are administering zoning ordinances generally consistent with the provisions of the multimunicipal comprehensive plan, and a challenge is brought to the validity of a zoning ordinance of a participating municipality involving a proposed use, then the court shall consider the availability of uses under zoning ordinances within the municipalities participating in the multimunicipal comprehensive plan within a reasonable geographic area and shall not limit its consideration to the application of the zoning ordinance on the municipality whose zoning ordinance is being challenged.
4. State agencies shall consider and may rely upon comprehensive plans and zoning ordinances when reviewing applications for the funding or permitting of infrastructure or facilities.
5. State agencies shall consider and may give priority consideration to applications for financial or technical assistance for projects consistent with the county or multimunicipal plan.

Participating municipalities that have entered into implementation agreements to carry out a county or multimunicipal plan as described in this article shall have the following additional powers:

1. To provide by cooperative agreement for the sharing of tax revenues and fees by municipalities within the region of the plan.
2. To adopt a transfer of development rights program by adoption of an ordinance applicable to the region of the plan so as to enable development rights to be transferred from rural resource areas in any municipality within the plan to designated growth areas in any municipality within the plan.

Specific Plans:

Participating municipalities shall have authority to adopt a specific plan for the systematic implementation of a county or multimunicipal comprehensive plan for any nonresidential part of the area covered by the plan. Such specific plan shall include a text

and a diagram or diagrams and implementing ordinances which specify all of the following in detail:

1. The distribution, location, extent of area and standards for land uses and facilities, including design of sewage, water, drainage and other essential facilities needed to support the land uses.
2. The location, classification and design of all transportation facilities, including, but not limited to, streets and roads needed to serve the land uses described in the specific plan.
3. Standards for population density, land coverage, building intensity and supporting services, including utilities.
4. Standards for the preservation, conservation, development and use of natural resources, including the protection of significant open spaces, resource lands and agricultural lands within or adjacent to the area covered by the specific plan.
5. A program of implementation including regulations, financing of the capital improvements and provisions for repealing or amending the specific plan. Regulations may include zoning, storm water, subdivision and land development, highway access and any other provisions for which municipalities are authorized by law to enact. The regulations may be amended into the county or municipal ordinances or adopted as separate ordinances. If enacted as separate ordinances for the area covered by the specific plan, the ordinances shall repeal and replace any county or municipal ordinances in effect within the area covered by the specific plan and ordinances shall conform to the provisions of the specific plan.

CHAPTER 2
VOICES FROM THE COMMUNITY

SECTION 1 - GERMANY, LITTLESTOWN, UNION COMPREHENSIVE PLANNING QUESTIONNAIRE

In the course of developing this Comprehensive Plan, planning questionnaires were mailed to 1,053 households in the Region. The households to receive questionnaires in each municipality were randomly selected. 304 returned surveys were received, for a return rate of approximately 29%. The results of the questionnaire are contained in Appendix I. Totals are given for the entire Region, and each municipality. The following discussion is of the returns for the entire Region.

The majority of the respondents were 25 years old or older. The period of time that the respondents lived in their respective municipalities was almost equally split with 35% of respondents who lived in their municipality for more than twenty (20) years, 35% who lived in their municipality for six to twenty (6-20) years, and 30% who lived in their municipalities for five (5) years or less. The highlights of the Union and Germany Townships and Littlestown Borough questionnaire results are given below.

Questionnaire Results Highlights

1. When asked what they liked most about living in their Township or Borough, the most given responses were the small town atmosphere and the rural atmosphere/open space throughout the region. People also indicated in their responses they liked the schools, farmland and public safety in the Region.
2. When asked what they liked least about living in their Township or Borough, the most given responses were they did not like the taxes, the traffic and the rate of development. Other dislikes included the loss of farmland, job opportunities, the roads and the residential development.
3. The respondents felt the most important planning issues needing to be addressed within the next 10 years were: managing growth, drinking water supply (quantity), and addressing tax base issues. Other important planning issues identified were: the preservation of farmland; water quality protection; encouraging balanced development and the preservation of open space.
4. The majority of the respondents to Question 6 would support having their Township or Borough taxes increased for all initiatives listed in Question 6 except for enhancing walkability in the region. The issue which received the most Yes's was to increase taxes for road improvements, followed by the public sewer and water improvements and for the protection of environmental resources.

5. The majority of the respondents believe that additional public parks and recreation facilities should be provided in the Germany-Littlestown-Union region, however; 79 respondents were not sure. Of those who answered Yes, the most indicated park and recreation facilities needed were: playgrounds for children, trails for hiking, biking, horseback riding, and parks with facilities or areas for fishing, hunting, camping, boating and other outdoor recreational activities.
6. A clear majority of respondents thought the increase in residential development in this region over the last ten years was too high.
7. A large majority of the respondents think it is important to regulate more strictly signage along road corridors in the region.
8. A majority of respondents feel future non-residential redevelopment in the Region should be required to place more emphasis on amenities such as landscaping, attractive signage, decorative lighting and benches.
9. An overwhelming majority agreed it is important to preserve the remaining farmland in the Region. When asked why they felt it was important to preserve farmland in the Region, the top three reasons were: they want farmland available for future generations to farm, they want to limit development in the community, and they like to view farmland in the Region.
10. A clear majority thought that it is important to improve roadside appearance in the Region. Of the options of roadsides given in Question 12, the majority identified entering the region from the south along Baltimore Pike as the most important roadside to improve.
11. Of the options of commercial and industrial opportunities given in Question 13, the top three to promote in the Region were: agriculture, health services, and restaurants. Other economic development opportunities identified were: light manufacturing, offices to support local businesses, personal services, and technology-based firms.
12. The following were the top three transportation problems in the Region: Queen Street – King Street Intersection in Littlestown, inadequate parking in Littlestown, and inadequate public transportation. Other significant issues identified were: lack of bikeways, traveling Rote 97 (Baltimore Pike), and Whitehall Road – Littlestown Road intersection.
13. When asked what types of housing are needed in the Region, the majority of the respondents identified housing for senior citizens and housing for families with school children as the top choices.

14. The preferred type of residential development is Conservation Development (Growing Greener concept) where special natural features of a tract are preserved as open space; houses are located to maximize views of open space, and road systems and lot lines are established to conform to open space and house locations.
15. When asked whether certain issues or ideas that have been mentioned in the Region were important and worth supporting on a regional scale, the following were identified as important issues/ideas that the respondents supported: Preserving the “horse farm” area, coordinating residential and commercial growth with availability of public sewer and water, preserving more open space within residential developments, and maintaining rural character in Union Township.

Results by municipality are provided in Appendix 1.

**OVERALL TOTALS
GERMANY, LITTLESTOWN, UNION
COMPREHENSIVE PLAN QUESTIONNAIRE**

1. In what Township or Borough in this region do you live or own property?

Germany Township	72
Littlestown Borough	137
Union Township	95
	304

2. How long have you lived in your municipality:

5 years or less	91
6-10 years	60
11-20 years	45
more than 20 years	105

3. What do you like most about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like most.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Schools	4	20	21	23	Public Safety	5	12	18	23
Recreational Opportunities	2	2	3	2	Job Opportunities	0	0	3	1
Taxes	1	6	7	12	Cultural Facilities	0	0	0	0
Rural Atmosphere/Open Space	13	84	48	30	Roads	1	0	0	1
Housing Availability & Choice	0	0	3	8	Access to Work	1	9	15	11
Farmland	2	20	27	24	Access to Shopping	3	4	11	13
Emergency Services	4	7	42	15	Small Town Atmosphere	15	84	47	41
Walkability	4	9	25	19	Residential Areas	4	5	8	10
Visual Appearance	7	3	11	20					

4. What do you like least about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like least.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Traffic	5	39	27	19	Loss of Farmland	6	18	27	46
Taxes	2	76	23	17	Cultural Facilities	1	2	5	11
Residential Developments	6	15	21	24	Recreational Opportunities	1	3	8	7
Public Safety	0	5	3	4	Schools	0	5	2	1
Roads	4	15	30	15	Pollution	0	1	3	3
Job Opportunities	2	16	10	14	Sewage Facilities	0	5	2	6
Rate of Development	6	29	31	23	Water Supply	2	2	9	9
Loss of Open Space	5	13	31	29	Access to Work	0	1	4	1
Emergency Services	1	1	5	7	Access to Shopping	2	4	3	5
Housing Availability & Choice	0	3	2	7	Availability of Public Transportation	4	3	7	10
Visual Appearance	1	8	7	2					

5. What do you think are the most important planning issues needing to be addressed within the next 10 years? (Please rank three 1, 2 and 3, 1 being the issue you think is most important.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Managing growth	4	111	38	23
Preserving environmentally sensitive areas such as woodlands, wetlands, and steep slopes	1	9	25	14
Transportation system upgrades	1	7	9	12
Preservation of Farmland	5	21	30	32
Sewage disposal	1	4	3	4
Drinking Water Supply (quantity)	1	30	26	22
Zoning	1	9	9	4
Encouraging balanced development	3	10	16	24
Preservation of open space	3	10	21	22
Preserving historically significant buildings and structures	1	0	2	4
Water quality protection	2	11	16	10
Tax base	0	28	20	25
Police/Crime Watch	1	3	14	12
Promoting vitality of Littlestown Borough downtown	1	7	22	21
Providing recreational facilities	1	2	2	18
Stormwater management	0	0	3	0
Watershed management	0	2	1	4
Emergency services	1	3	11	13
Providing quality school system			1	
Waste management and recycling				1

6.	Do you support the use of tax dollars toward the following?		
	Protection of environmental resources?	Yes 224	No 50
	Farmland preservation/development rights purchase?	Yes 207	No 74
	Preservation and upkeep of more open space?	Yes 204	No 78
	Preservation of historic resources?	Yes 154	No 130
	Road Improvements?	Yes 278	No 20
	Public sewer and water improvements?	Yes 229	No 58
	Promoting economic development?	Yes 145	No 132
	Enhancing walkability in the region?	Yes 127	No 146
	Parks and recreation	Yes 196	No 82
	Biking, hiking, and walking opportunities	Yes 164	No 123

7. a. Do you believe that additional public parks and recreation facilities should be provided in the Germany-Littlestown-Union region?

Yes	129
No	96
Not sure	79

b. If you answered yes, please indicate the most needed park and recreation facilities. (Please check three and rank them 1 to 3, 1 being the most important.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Parks with facilities or areas for fishing, hunting, camping, boating, etc.	4	22	11	16
Trails for hiking, biking, horseback riding	2	27	17	16

Nature reserves	2	8	18	13
Preserving historic sites	1	3	9	4
Playgrounds for children	2	30	17	13
Areas for field sports such as softball, baseball, football, soccer, etc.	1	17	13	8
Community recreation centers	2	12	18	21
Swimming pools	2	6	3	7
Golf courses	0	0	3	1
Basketball Courts	0	1	4	2
Tennis Courts	0	1	3	3
Outdoor ice skating rinks	1	5	4	5
Picnic areas	4	2	12	17
Other _____				

8. Was the increase in residential development in this region over the last ten years....

Acceptable	98
Too high	198
Too low	2

9. Do you think it is important to regulate more strictly signage along road corridors in the region?

Yes	177
No	55
Not Sure	68

10. Do you think it is important to require future non-residential redevelopment in the region to place more emphasis on amenities such as landscaping, attractive signage, decorative lighting and benches?

Yes	173
No	69
Not Sure	57

11. a. Is it important to preserve remaining farmland in the region?

Yes	277
No	10
Not Sure	15

b. If you answered yes, why do you feel it is important to preserve farmland?

12	I live on a farm.
104	I like to purchase local produce.
213	I want farmland available for future generations to farm.
141	I like to view farmland.
179	I want to limit development which occurs in the community.

3 Other (See following list of comments)

12.	Do you think it is important to improve roadside appearance....				
			<u>Yes</u>	<u>No</u>	
	Entering the region from the south along Frederick Pike?		149	126	
	Entering the region from the south along Baltimore Pike?		155	121	
	Entering the region from the west along Baltimore Pike?		138	134	
	Entering the region from the east along Hanover Pike?		117	152	

13. Should the following be promoted in the region?

Research and development firms	Yes	111	No	148
Light Manufacturing	Yes	168	No	101
Tourism and cultural attractions	Yes	130	No	135
Health services	Yes	231	No	47
Legal and Financial services	Yes	118	No	141
Personal services	Yes	158	No	102
Agriculture	Yes	236	No	33
Restaurants	Yes	175	No	98
Warehousing and distribution facilities	Yes	79	No	181
Big Box Retail	Yes	31	No	216
Department Stores	Yes	88	No	180
Specialty Retail	Yes	117	No	144
Outlet Stores	Yes	74	No	195
Wholesale trade	Yes	83	No	164
Technology based firms	Yes	145	No	122
Cultural facilities	Yes	121	No	132
Medium to Heavy Manufacturing	Yes	84	No	180
Offices to support local businesses	Yes	160	No	109
Corporate offices	Yes	97	No	159
Professional service firms	Yes	130	No	127
Information processing firms	Yes	105	No	150

14. Check any of the following which you think are transportation problems in the region.

Inadequate parking in Littlestown	<u>120</u>
Inadequate public transportation	<u>102</u>
Lack of bikeways	<u>98</u>
Lack of sidewalks or walking paths	<u>51</u>
Traveling Route 97 (Baltimore Pike)	<u>85</u>
Traveling Route 194 (Frederick Pike)	<u>49</u>
Traveling Route 194 (Hanover Pike)	<u>54</u>
Traveling Route 116 (Hanover Road)	<u>45</u>
Traveling Whitehall Road	<u>57</u>
Traveling Littlestown Road	<u>21</u>
Traveling Bollinger Road	<u>22</u>
Traveling Mehring Road	<u>18</u>
Queen Street – King Street Intersection in Littlestown	<u>173</u>
Bollinger Road – Baltimore Pike Intersection	<u>33</u>
Mehring Road – Hanover Pike Intersection	<u>16</u>
Pine Grove Road – Hanover Pike Intersection	<u>51</u>

Littlestown Road – Hanover Road Intersection	<u>28</u>
Whitehall Road – Littlestown Road Intersection	<u>68</u>
Whitehall Road – Baltimore Pike Intersection	<u>95</u>
Parkway Drive travel speeds	<u>33</u>
Bashoar School Road – Hanover Pike Intersection	<u>53</u>
Sight distance alignment on Route 116 at Bender Road	<u>52</u>
Harney Road – Teeter Road Intersection	<u>56</u>
Other _____	<u>3</u>

(See following list of comments)

15. What types of housing do you feel are needed in the Germany-Littlestown-Union Region?

	<u>Yes</u>	<u>No</u>
Housing for senior citizens	194	59
Housing for young couples	92	107
Housing for families with school children	114	94
Housing for singles	62	127
Housing for empty nesters	80	118
Owner-occupied units	97	108
Rental units	54	144
Other _____		

(See following list of comments)

16. In some areas of the country, planners are designing developments using alternative concepts to standard single family subdivisions. Listed below are some of these concepts. Should these concepts be applied to the Germany-Littlestown-Union region?

	<u>Yes</u>	<u>No</u>
Cluster design. (Reducing lot sizes for houses and grouping the amount of lot size reduction into common open space.)	56	201
Traditional neighborhood development. (Making new development patterns look like they did in towns decades ago)	163	88
Mixed use. (This means creating development that includes a mix of residential and commercial uses or a mix of commercial and industrial uses)	69	178
Borough Extension. (Extending Borough development patterns into adjoining areas of the Townships)	75	170
Conservation Development (Special natural and historic features of a tract are preserved as open space; houses are located to maximize views of open space, and road systems and lot lines are established to conform to open space and house locations)	222	46

17. Every municipality has its “treasures” – places that are unique because of their beauty, appeal, historic character, or because of what they offer the citizens of the municipality. These are special places that citizens often want to preserve for future generations. Please identify up to five such places in the Germany-Littlestown-Union region. You may want to name a village, a

historic building, an agricultural area, a public building, a business, a stream valley, an area of countryside which is especially beautiful, or other location you consider a “treasure”.

(See following list)

1. _____
2. _____
3. _____
4. _____
5. _____

18. Certain initiatives or ideas have been mentioned in the region. Please let us know whether you think these initiatives and ideas are important to you and whether you support them.

<u>Initiative or Idea</u>	<u>Is it Important to You?</u>			<u>Do you Support it?</u>		
	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
a. Preserving open space corridors along the Alloway Creek and the South Branch of the Conewago Creek	147	26	94	152	13	82
b. Maintaining rural character in Germany Township	198	16	49	185	13	44
c. Maintaining rural character in Union Township	205	20	36	190	16	36
d. Revitalizing downtown Littlestown	193	45	35	190	26	43
e. Preserving the “horse farm” area	229	29	23	198	21	33
f. Constructing a Littlestown By-Pass	131	113	53	118	84	52
g. Coordinating residential and commercial growth with availability of public sewer and water	209	40	25	194	32	26
h. Preserving more open space within residential developments	209	35	29	199	22	30
i. Improving building facades in the Region	153	58	58	142	40	53
j. Using Transfer of Development Rights (a property owner in an area targeted for preservation sells his rights to develop his/her property to a property owner in an area designated for growth)	67	90	97	38	109	90
k. Lakeview Drive Extension	58	88	110	46	70	113
l. Preserving groundwater recharge areas	191	10	61	175	7	60

Initiative or Idea	Is it Important to You?			Do you Support it?		
	Yes	No	Not Sure	Yes	No	Not Sure
m. Providing additional pedestrian and/or bicycle trails	135	83	50	132	64	49

19. What is your age?

18-24	7
25-44	96
45-64	118
65 and older	66

20. Please list any additional comments you have or any other issues in the region that are important to address.

Question #11b.

Most farmers are decent citizens and have area concerns	1
Farmland helps keep taxes low and is good for environment and water supply	1
Topography of area	1
Part of balanced development	1
Stop big (large) subdivisions – larger lots 2 acres or greater	1
Relatives farm	2
To provide food and milk for area	1

Question #14

Bollinger Road & Hanover Pike intersection – unsafe to pull out due to vehicle speeds	6
Bollinger Road has become a bypass for Littlestown	1
Too much parking in Littlestown	1
Roads too narrow for heavy trucks	1
Gettysburg Road – Route 97 intersection	1
Appler Road towards Gettysburg	1
South Queen/Charles St.	1
Boyer Road & Route 97 intersection	1
Road improvements – surface	3
Safe crosswalks throughout town	1
North Queen St. & Myrtle St. in borough (cars park too close to corners on Queen St.)	2
Truck traffic on Lake View Drive	1
Traffic light needed at W. King St. & Columbus Ave.	1
The square in Littlestown	1
Columbus Avenue	1
Clauser Road	1
Parkway Drive & Hickory Lane – no street sign	1
Whitehall Road & Route 97	1
Lovers Drive	1
East King Street	1
Speeding on side streets	1
Speeding on W. Myrtle St.	1
Travel speeds not enforced outside town limits	1
W. King St. & Ocher St.	1
The uncontrollable increase in Hanover Borough traffic with no widening of any roads	1
Lover’s Lane & Route 194	1

Question #15

High quality dense housing to reduce sprawl	1
Modular or trailer home & parks	1

Question #17. Treasures

Fire Hall – Borough building	2
Parks/YMCA area	75
Our house and land	1
Kindig/Bollinger/Mehring Road areas	3
All horse farms	14
Pool	22
Family-run businesses	3
Farmland	35
Mud College	16
Towne Theatre	1
Scottie’s Skating Rink	1
Bowling Alley	1

Hanover Shoe Farm	26
Alloway Creek Watershed	10
Bashoar Farm 1	
St. John Woods 3	
South branch of Conewago Creek	5
Old houses in Littlestown	7
Georgetown Road	1
Mathias Road	1
Bollinger Road & Clauser Road areas	1
Littlestown Borough	5
Woodlands	9
Long Arm Dam 5	
St. Aloysius	2
Small town atmosphere	9
Painted horse farm along Route 194	1
3 buildings in Littlestown Square	11
Train Station	6
Library	4
Harney Road Farmland	3
All open spaces currently	10
Hillcrest Restaurant	1
Littlestown Community Center	1
School area	6
Wogan's Variety & Hardware Store	2
2 homes on corner of W. King St. & Ritz Marie St.	1
Area between W. Myrtle St. & Route 97	1
Open spaces along Columbus Avenue	1
The Old Mill	1
Methodist Church	1
Public baseball/softball fields	3
Littlestown's historic buildings	6
Original Maple Ave. building	1
Lover's Lane	1
Round barn between Littlestown & Gettysburg	2
Watersheds/reservoirs	1
Old churches	7
Barts Church	3
Trailways Speedway	1
Pond in Tanglewood Heights development	3
Both bank buildings – old PNC bank & Adams County	1
Eagle Park	1
Brownstone Farm	1
Arentz Farm	1
Christ Church	4
Hanover Road thoroughfare	1
Edge of town – barn & businesses	1
Old Barns	4
Civil War era buildings & sites	2
Memorial Field	1
Old Silk Mill/Pajama Factory	1
Properties for 1 mile on Queen & King Streets to the crossroads	1

Lefever property owned by Willis Myers	1
Emory Snyder Mansion	1
McSherry property	3
Small businesses	1
Littlestown Fish & Game	2
Playgrounds	1
Borders to Littlestown of Route 97	1
Old movie theater	1
Piney Creek	1
Golf courses	2
Family restaurants	1
Kennie's Supermarket	1
Kingsdale	1
Ocker Street	1
School building @ borough office	1
Old schoolhouses	1
Utz home in Hanover	1
Murphy Farm behind Old Westminster Rd.	1
Lake Codorus area	2
Barlow – two taverns @ Route 97	1

SECTION 2 - PHONE INTERVIEW RESULTS

Ten residents of each municipality were identified for telephone interview by the Steering Committee members of that municipality. Results of the telephone interviews are summarized in the following summary, which indicates the questions asked and the responses which were received.

When asked what they liked most about the Region and what are the Region's most important assets, respondents mentioned the rural-agricultural nature of the Region and its beautiful countryside, small town atmosphere, safety, local school district, and access to metropolitan areas.

The most important problems and issues facing the Region focused on population and housing growth, high taxes, sewer and water concerns, traffic congestion, need for family-sustaining jobs, and lack of zoning in Germany Township.

Opportunities to be seized included working on a regional basis to manage growth, address sewer and water needs, preserve agriculture, create job opportunities, require recreation facilities from developers, and address the needs of seniors.

Most people thought it was important to preserve farmland, to provide for food, keep open space, or retain rural beauty.

With regard to recommendations for additional housing in the Region, a variety of responses were received, ranging from no more housing was needed, to housing for young families, to housing for seniors, to upscale housing. For those wanting to see more housing built, generally a mix of affordable housing types was considered appropriate.

In general, respondents wanted the Region in the future to be similar to how it is today, a rural-agricultural community with a high quality of life. There were hopes that growth would be managed, there would be a balance of land uses and necessary infrastructure would be provided.

GERMANY-UNION-LITTLESTOWN

COMPREHENSIVE PLAN PHONE INTERVIEW QUESTIONNAIRE

1. **What do you like most about the G-U-L Region?**

- Rural environment/atmosphere (beautiful countryside)
- Safe
- Good schools
- Small town type of community
- Easy access to Harrisburg, Baltimore, and Washington D.C.
- Low Crime

2. **What assets of the G-U-L Region are most important to preserve?**

- Farmland/Agriculture
- Greenspace/Open spaces
- Individual school districts verses county-wide school districts

3. **What are the most important problems facing the G-U-L Region today?**

- Traffic congestion/ traffic flow
- Surge of Population/density of people (moratorium in adjacent county in Maryland that will push people North to Region)
- Too much development, houses “smacked up next to each other” with no limits
- High Taxes – elderly population struggling to pay
- Need more business/industrial to improve tax base
- Need more business infrastructure
- Selling farms to put up more houses
- Germany Township has no Zoning Ordinance
- Hard to get participation and volunteers from community members in Region
- Water Quality and Quantity
- Uncontrolled growth (need growth management) – sprawl development is loosing rural character of area
- Sewer/septic problems
- Police Protection for the people
- Low paying jobs (turning into a bedroom community)
- Developers are digging wells to provide Littlestown Borough water to get a number of building permits/per amount of gallons they can provide to the Borough. They are effecting individual wells in Germany Township.

4. **What are the most important issues the G-U-L Region will face in the next ten years?**

- Growth management
- Over population

- Germany Township needs Zoning with lot size requirements
- Population influx
- Moratorium in Maryland will put development pressure,
- Real-estate will go up, taxes will increase
- Number of farmers and other fixed income people struggling to survive in area
- Sewer/septic problems and well/water quantity and quality issues = need public water and sewer where development already exists
- Quality of housing
- Traffic around Littlestown
- Too many houses

5. **What current or future opportunities should be seized by the municipalities in the G-U-L Region?**

- Sewer and water issues – region needs to decide to provide public water and/or sewer or let operations be handled by independent sources.
- Growth should be managed – growth pressures from Maryland
- Create more industrial and business parks
- Leaders who are sympathetic to older population and provide opportunities for residents to retain their communities and houses.
- Need Zoning Ordinance to control growth
- Purchase development rights
- Need more recreational facilities – large facilities built by developers
- Preserve farmland in large lots to be profitable
- Improve the local government system, work as a region on land use decisions
- Attract more business and industry to area by increasing services for existing community

6. **Is it important to you to preserve the remaining farmland in the Region, and if so, why?**

- Yes – there is only so much land that God has given us.
- Yes – but if development is done right, not opposed to nice development.
- No - Land is more valuable in other uses.
- Yes- important to preserve but there has to be incentives for landowners
- Yes- need to go corporate with farming b/c small family farms are not family sustaining anymore.
- Yes – if not, where are we going to get the food to eat?
- Yes – keep open spaces, makes a nicer looking place, with lack of public sewer cluster development are difficult
- Yes- likes to see open space, nice farmland and not houses on top of each other
- Yes- development is happening too quickly
- Yes- it is a rural area turning into a suburban area, and we need to preserve the rural character and open space of the area.
- Yes –losing too much to development from Maryland developers and population influx.
- Adds to the beauty of the area.

7. **If you think additional housing is needed in the G-U-L Region, what kind of housing should be recommended?**

- More upscale condominium for high-income lifestyle.
- A good mix to attract young (first time homebuyers) to stay, settle, and establish businesses locally which will increase the amount of job opportunities and increase the tax base so to profit the school district.
- Affordable housing
- Retirement communities (with no children)
- More apartments to house the masses (higher density)
- Townhouses
- A Mix/variety of homes with building codes enforced.
- No, preserve rural and farmlands
- Single family detached
- No more \$250,000 - \$300,000 homes
- No more needed
- If any goes in it should be concentrated in the existing centers
- Ground doesn't perk well.

8. **What kind of community do you want the G-U-L Region to be in the future?**

- As it is now, community has a lot of good qualities now
- More golf courses
- Good mix of residential, business, industrial so it doesn't turn into a bedroom community
- Managed and directed growth so to invest in the community and attract young people to stay and live in the area.
- It is growing too much residentially that has put a strain on the school system.
- Taxes will be increased if too much residential development is allowed in the future.
- More business and industry attraction throughout the area for more local jobs and less commuting time.
- No more sprawl!
- Rural, slow pace of things
- Needs more public infrastructure including sewer, water and gas lines.
- Community that is well liked, and where people get along
- High quality of life
- Safe community
- Pleasant agricultural community - non-commercial
- More residential
- Clean, in order community with zoning and distinct land uses.
- Like to see the region share a regional police force

SECTION 3 – STEERING COMMITTEE QUESTIONNAIRE RESULTS

Members of the Comprehensive Plan Steering Committee were given a questionnaire to complete. The following summary indicates the questions asked and the responses which were provided.

The characteristics of the Region which were liked most by committee members were rural atmosphere, the school system, open space, small town atmosphere, and emergency services. The assets considered most important to preserve were farmland, small community atmosphere, drinking water supply, open space, horse farm areas, and low density development.

The most important problems facing the Region were traffic and the road system, balancing and controlling the rate of growth with available infrastructure, open space preservation, farmland preservation, and water supply and safety. Most important issues were uncontrolled growth, water supply and sewer service, a more efficient road system, and farmland and open space preservation.

Opportunities to be seized included retaining open space, park and recreation areas, saving farmland, preparing a zoning ordinance for Germany Township, region cooperation in providing services and addressing economic development.

Committee members indicated they would like the Region to continue to have rural environments and small town atmosphere, have managed growth, and a variety of services and opportunities for residents, and be a prosperous and vibrant community working together to address its challenges.

**GERMANY-LITTLESTOWN-UNION STEERING COMMITTEE
QUESTIONNAIRE**

1. What do you like most about the Germany-Littlestown-Union Region?

- Small town atmosphere (4)
- Rural atmosphere (6)
- Family-oriented
- Safety (2)
- School system (5)
- Churches
- Traffic congestion not too bad
- Industry
- Clean air
- Open space (4)
- Accessibility to stores, services, job place (2)
- Residents working together to solve problems and improve community, not relying on government entities
- Many housing types
- Recreational opportunities (2)
- Employment opportunities
- Farmland (2)
- Emergency services (3)
- Walkability

2. What assets of the Germany-Littlestown-Union Region are most important to preserve?

- Farmland (5)
- Fish and Game Road
- Preserve stream corridors
- Small community atmosphere (3)
- Low-density (rural) developments (2)
- Low crime rate
- Quantity/Quality of drinking water supply (3)
- Friendly people
- High quality of life
- Feed Mill, Silk Mill, Crystal Spring Dairy
- Railroad station
- Patterson apartments
- Patterson's Meat Market
- Christ Church
- Horse farm areas (2)
- Open space (3)
- Industrial Base
- Maintaining adequate recreational facilities
- Emergency/Health Services

- Police protection
- Remaining historic structures
- Community organizations
- Retail establishments
- Managing residential growth
- Roads

3. What are the most important problems facing the Germany-Littlestown-Union Region today?

- Balanced/Controlled rate of growth and development in coordination with available infrastructure (5)
- Inadequate public transportation
- Traffic and road systems (6)
- Water supply and sewer service (2)
- No Zoning in Germany Township
- Parks
- Migration of people from Maryland
- Occupational tax
- Different land use regulations in municipalities
- Lack of job opportunities
- Better tax base
- Maintaining rural atmosphere
- Farmland preservation (2)
- Open space preservation (3)
- Lack of commercial development
- Lack of housing for the elderly
- Deterioration of community volunteer organizations
- Potential for conflicts between old and new residents of the area
- Safety (2)
- Water Supply (2)

4. What are the most important issues the Germany-Littlestown-Union Region will face in the future?

- Rapid, unbalanced, uncontrolled growth (8)
- Traffic and more efficient road systems, including improved signage (6)
- Water supply and sewer service (7)
- Future Road Improvements (3)
- Emergency Services (2)
- Strain on school districts
- Higher taxes
- Maintaining rural atmosphere
- Farmland preservation (3)
- Open space preservation (3)
- Economic (industrial and commercial) development
- Abating the potential to become a bedroom community

- Housing for the elderly
- Revitalization of volunteer organizations
- Zoning

5. What current or future opportunities should be seized by the municipalities in the Germany-Littlestown-Union Region?

- Expedite adoption of comprehensive plan
- Prepare and adopt zoning ordinance in Germany Township (2)
- Take advantage of existing agricultural preservation programs
- Retain current open space, parks and recreation areas (3)
- Joint police service
- Joint water and sewer service
- Better methods of on-site sewerage management
- More balanced growth
- Comprehensive and Unified Zoning between the three municipalities (2)
- Comprehensive traffic study to consider improved traffic patterns and improvement to intersections throughout the municipalities (2)
- Funding opportunities to promote housing development for the elderly
- Promote business development through Chambers of Commerce
- Encourage entrepreneurial opportunities
- Promote light manufacturing and wholesale trade in the region
- Better health services
- Promote legal and financial services within the region
- Increase personal services within the region
- Construction of the Littlestown By-Pass
- Save farmland (2)
- Keep development close together
- Cooperate on land use to preserve green areas

6. What kind of community do you want the Germany-Littlestown-Union Region to be in the future?

- Maintain rural environments (3)
- Upgrade infrastructure
- Low Crime
- Quiet
- Preserved open space
- Few or no billboards
- Orderly and managed growth patterns (2)
- Small-town atmosphere (3)
- Prosperous community
- Community which works together to meet goals and challenges
- Committed, involved individuals who give of their time and talents for community volunteer organizations
- Shopping opportunities
- Employment opportunities

- Variety of housing types in well-planned developments
- Vibrant, active community
- Keep developments away from main roads

SECTION 4 – STEERING COMMITTEE SWOT LIST

Members of the Steering Committee were asked to list the strengths, weaknesses, opportunities, and threats of the Region. The following responses were provided. Regional cooperation was seen as necessary to provide leadership to manage growth, address the Region's needs, and wisely manage the use of land.

GERMANY-LITTLESTOWN-UNION STEERING COMMITTEE SWOT LIST

STRENGTHS

- Residents who would like to stay here and make it their permanent home
- Regional efforts to work together for the benefit of the people

WEAKNESSES

- Ignorance about zoning and land use
- Lack of leadership
- Weak county Government influence
- No zoning in Germany Township
- Streetscape in Kingsdale area
- Farmland falling to development
- If do not work together on a regional basis, with separate agendas

OPPORTUNITIES

- Regional effort (between the three municipalities) to educate at grade school level the value of proper land use and management.
- Increase of industry and business in the area to support families

THREATS

- Migration to the area because of restrictions in Maryland
- Rising housing cost
- Potential crime moving in
- Not enough infrastructure

SECTION 5 – CONSISTENCIES IN REGIONAL RESPONSES

There is general consistency among the responses to the planning questionnaire, phone interviews, and Steering Committee input. The most valued assets are rural atmosphere, open space and farmland, small town atmosphere, and the school system. Greatest concerns are growth and its consequences, traffic, and taxes. Major issues to face are managing growth, addressing tax base issues, providing adequate infrastructure, and open space and farmland preservation.

SECTION 6 – 2003 COUNTYWIDE RANDOM SAMPLE CITIZENS SURVEY

In 2003, the Adams County Office of Planning and Development conducted a Random Sample Citizens Survey. 846 citizens responded, a 13.1% rate of return. Some of the survey results are summarized below:

- Overall, major center of concerns were:
 - growth and development
 - landscape conservation
 - employment and jobs
 - transportation
 - quality of life issues

- Citizens:
 - would like to see less growth

 - are generally not satisfied with employment opportunities. The County should help retain and expand existing businesses and restrict new business

 - generally did not provide a lot of support for alternatives to the automobile

 - had major transportation concerns of eliminating safety hazards and upgrading existing roadways to accommodate additional traffic

 - had the following most important concerns
 - Controlling future growth
 - Preserving farmland
 - Having adequate future water supply
 - Preserving important landscapes
 - Having a quiet lifestyle

 - identified the jobs most needed in Adams County as
 - Technology Business
 - Manufacturing – High Skill
 - Manufacturing – Low Skill

 - identified Transportation Improvements were:
 - Build bypasses (278)
 - Route 30 (183)
 - McSherrystown (44)
 - Littlestown (18)

- Improve Public Transportation (173)
 - Improve Primary Roads (168)
 - Route 30 (106)
 - Route 16 (21)
 - Improve Roads (general maintenance) 111
 - Improve Secondary Roads (88)
 - Improve Dangerous Intersections (29)
 - (#1 was King/Queen Streets in Littlestown – 7; next most listed had 2 mentions)
- identified treasures in the County were:
- Historic Borough and Town Centers (167) Littlestown was mentioned twice)
 - Gettysburg National Military Park/Eisenhower Farm
 - Natural areas, streams, wetlands
 - Adams County Fruitbelt
 - Farmland/Agricultural land
 - Historic Bridges
 - Historic Structures
- (Hanover Shoe Farms had 27 mentions)
- Greatest Problems Confronting Adams County from 2000-2020 were identified as follows:
 - Growth and Development 355
The most often citizen recommended solutions to the problem of growth and development were:
 - Limit in-migration and development 60
 - Provide for “planned” development of growth areas 29
 - Stronger growth/development controls 17
 - Traffic and Congestion 97
 - Infrastructure improvements 88
 - Employment/Economic Development Issues 69

CHAPTER 3

POPULATION AND HOUSING CHARACTERISTICS

Introduction

The allocation of land uses and amount of services to be provided are based on the anticipated population to be served. This chapter will review the population and housing characteristics of the Germany, Littlestown, Union Region, including past and present trends as well as projections for the future. This chapter includes discussion about expected housing increases and the anticipated demand for land zoned for residential use over the next ten and twenty years.

It is useful to begin by considering the pattern of residential development that has occurred so far. The growth pattern of the Region has been strongly affected by several transportation corridors, which allow the Region relatively easy access to surrounding metropolitan areas, including York and Harrisburg. The Region is also within commuting distance of Frederick, Baltimore and Washington D.C. and is beginning to experience growth pressures associated with this accessibility. Future population growth will be contingent on the provision of a variety of community and public services to the communities such as highway and the MARC commuter rail system improvements, public water and sewer services, and economic development initiatives.

This chapter includes tables that show past and present conditions as well as projections of future growth. This information is intended to assist local officials in the decision-making process, as well as point out opportunities for intermunicipal cooperation. Information is presented from a municipal, regional, and county-wide perspective so each municipality can better understand how it fits into the Region and what kind of growth is occurring in other neighboring municipalities.

Demographics

SUMMARY OF BASIC DEMOGRAPHIC INFORMATION

The U.S. Bureau of the Census presents the information from the decennial national census under a wide variety of parameters. The most basic information is provided on Figure 3.1. Appendix 3 includes tables that provide a more detailed breakdown. This information is analyzed in the text that follows. The Census Bureau defines "household" as "all the people who occupy a housing unit as their usual place of residence." This includes individuals who live alone as well as any combination of people who may reside together. In contrast, "family" is a *type* of household, and is defined as "two or more people who reside together and who are related by birth, marriage, or adoption."

FIGURE 3.1: BASIC DEMOGRAPHIC CHARACTERISTICS

All figures from 2000 Census. See preceding text for explanation of difference between “household” and “family.”

2000	GERMANY TOWNSHIP	LITTLESTOWN BOROUGH	UNION TOWNSHIP
Total Population	2,269	3,947	2,989
Total Households	773	1,586	1,074
Total Family Households	660	1,113	891
<i>Racial Composition</i>			
White	98.8%	97.3%	98.3%
African-American	0.2%	0.6%	0.1%
Hispanic (of any race)*	0.5%	1.3%	0.8%
Other, including mixed racial composition*	1.0%	2.2%	1.6%
<i>Household Characteristics</i>			
Average number of persons	2.93	2.49	2.78
Married-couple households	560 72.4%	846 53.3%	792 73.7%
Total households with children under 18	333 43.1%	569 35.9%	432 40.2%
Female-headed households	62 8%	201 12.7%	71 6.6%
Single person households	92 11.9%	393 24.8%	183 17%
Householders over 65 living alone	47 6.1%	167 10.5%	55 5.1%
<i>Age Characteristics</i>			
Median age	37.3	34.2	39.0
Percentage of persons under 19	31.3%	29.8%	29.5%
Percentage of persons aged 19-34	14.5%	21.7%	13%
Percentage of persons aged 35-44	18.4%	15.9%	19.2%
Percentage of persons aged 45-64	24%	18.6%	25.5%
Percentage of persons aged 65 and over	11.8%	14%	12.8%
<i>Income Characteristics</i>			
Median household income	\$46,806	\$36,678	\$47,619
Median family income	\$50,484	\$42,261	\$51,845
Per capita income	\$17,636	\$17,310	\$19,506
Persons below poverty line	147 6.5%	402 10%	87 2.9%
Families below poverty line	28 4.2%	79 6.9%	18 2.0%

SOURCE: U.S. Bureau of the Census- Profile of General Demographic Characteristics, 2000.

*When reporting Hispanic or mixed race, the total percentages may add to greater than 100% because individuals report more than one race.

The following table indicates for Germany and Union Townships, Littlestown Borough, Adams County, Pennsylvania, and the United States percentage age distributions for 1990 and 2000 and the changes from 1990 to 2000.

AGE GROUP COMPARISONS 1990-2000

Geographic Area	Percent of Total Population 1990						Med. Age	Percent of Total Population 2000						Med. Age	Change in Population % 1990-2000					Change in Med. Age-yrs.
	Under 18 yrs.	18 to 24 yrs.	25 to 44 yrs.	45 to 64 yrs.	65 yrs+	Under 18 yrs.		18 to 24 yrs.	25 to 44 yrs.	45 to 64 yrs.	65 yrs+	Under 18 yrs.	18 to 24 yrs.		25 to 44 yrs.	45 to 64 yrs.	65 yrs+			
United States	25.6	10.8	32.5	18.5	12.6	32.9	25.7	9.7	30.2	22.0	12.4	35.3	0.1	-1.1	-2.3	3.5	-0.2	2.4		
Pennsylvania	23.5	10.3	30.8	20.0	15.4	34.9	23.8	8.9	28.6	23.1	15.6	38.0	0.3	-1.4	-2.2	3.1	0.2	3.1		
Adams County	24.9	11.3	31.1	19.1	13.6	33.5	24.9	9.2	28.9	23	13.9	37.0	-	-2.1	-2.2	3.9	0.3	3.5		
Germany Township	27.9	8.2	32.8	20.9	10.2	33.4	28.3	6.7	29.2	24	11.9	37.3	0.4	-1.5	-3.6	3.1	1.7	3.9		
Littlestown Borough	24.1	9.3	30	17.9	18.7	34.6	27.7	7.6	32.1	18.5	14.1	34.2	3.6	-1.7	2.1	0.6	-4.6	-0.4		
Union Township	26.1	9.4	32.8	22.5	9.2	33.8	27.2	5.2	29.3	25.5	12.8	39	1.1	-4.2	-3.5	3	3.6	5.2		

The data reveal several trends:

- Union Township had the greatest change in the Region in median age from 1990 to 2000, 5.2 years from 33.8 to 39. This change exceeded that for Adams County, Pennsylvania, and the United States.
- Germany had an increase in median age of 3.9 years, from 33.4 to 37.3, also exceeding the change for Adams County, Pennsylvania, and the U.S. The median age for both Townships exceeds those of Adams County and the U.S. Union Township's median age exceeds that of Pennsylvania, Germany Township's does not.
- In contrast, the median age for Littlestown decreased 0.4 years to 34.2 years from 34.6 years. This reflected an increase in the Borough in the Under 18 years, 25 to 44 years, and 45 to 64 years (slight increase) categories from 1990 to 2000, and decreases in the 18 to 24 years, and 65 years plus categories. It is likely younger families with children were attracted to the relatively more affordable housing in the Borough.
- Both Germany and Union Townships experienced small increases in the Under 18 years category, larger increases in the 45 to 64 and 65 years plus categories, and decreases in the 18 to 24 years and 25 to 44 years categories. Pennsylvania and Adams County experienced similar trends, except for no change in the Under 18 years group for Adams County as a whole.

Pennsylvania and Adams County had small percentage increases in the 65 years plus category, 0.2% and 0.3%, respectively. Union Township had the largest increase in that group in the County, 3.6%

The age group comparisons indicate that there will be a need for a variety of housing options within the Region in the future. Housing choices are needed for young families starting out in the housing market, older families, and retirees and pre-retirees.

Services will also be necessary for the full spectrum of age groups, including recreation and transportation. Transit services will become more of an issue as the population ages, complicated because of the distribution of seniors in urban and rural environments.

Population Trends

Historical population trends are useful when planning for future growth in a community, and are a main component in the Joint Comprehensive Plan. The historical growth pattern of the Region will provide insight as to the intensity of population growth that may be expected throughout the entire Region in the future.

Figure 3.2 shows the Germany, Littlestown, and Union population trends from 1980-2000, and indicates the rate of change for each ten year period. Littlestown Borough and Union Township are notable in that their growth rates from 1980 to 1990 were relatively modest at 3.6% and 10.1%, however the growth rates for 1990 to 2000 were vastly higher. Littlestown Borough

went from 3.6% to 32.7% and Union Township increased from 10.1% to 37.2%. Germany Township's growth rate remained fairly consistent, increasing from 13.6% to 16.4%.

Figure 3.3 shows the population trends for Adams County, York County, and Carroll County, Maryland from 1980 to 2000. A comparison of County to Region growth shows that the Germany. Littlestown, Union Region, at 29.6%, has outpaced the growth of all three counties. Between 1990 and 2000, York and Adams County have grown 16.6% and 12.4% respectively, while Carroll County, Maryland has grown at a 22.3% rate.

FIGURE 3.2 POPULATION TRENDS: Germany, Littlestown, Union Region 1980-2000

Municipality	1980	1990	2000
Germany Township	1,716	1,949 (+13.6%)	2,269 (+16.4%)
Littlestown Borough	2,870	2,974 (+3.6%)	3,947 (+32.7%)
Union Township	1,978	2,178 (+10.1%)	2,989 (+37.2%)
Total Region	6,564	7,101 (+8.2%)	9,205 (+29.6%)

Source: U.S. Bureau of the Census

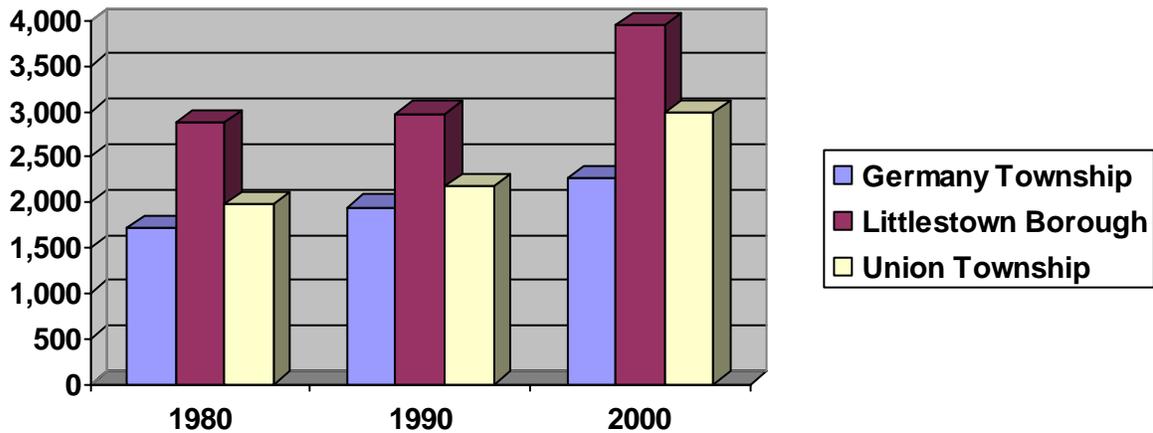


FIGURE 3.3 POPULATION TRENDS: Adams, York and Carroll Counties 1980-2000

County	1980	1990	2000
Adams County	68,292	78,274 (+14.7%)	91,292 (+16.6%)
York County	312,963	339,574 (+8.6%)	381,751 (+12.4%)
Carroll County (MD)	96,353	123,372 (+28.4%)	150,897 (+22.3%)

Figure 3.4 shows 1990 and 2000 total population, land area, and density information in persons per square mile for the municipalities that comprise the Region. The lower population densities for Germany and Union Townships are fairly typical for rural areas.

FIGURE 3.4: POPULATION, LAND AREA, AND DENSITY

Municipality	Area (sq.mi.)	1990 Population	1990 Density	2000 Population	2000 Density
Germany Township	10.9	1,949	178.8	2,269	208.2
Littlestown Borough	1.6	2,974	1,858.8	3,947	2,466.9
Union Township	17.5	2,178	124.5	2,989	170.8
Region	30.0	7,101	236.7	9,205	306.8

SOURCES: U.S. Bureau of the Census, 2004 Density is represented in persons per square mile.

According to the Census figures, the Borough gained a substantial percentage of population from 1990 through 2000. This is against the national trend of populations relocating outside of urbanized and local centers into surrounding suburban and rural areas. The Townships also experienced rapid growth as well, with Union Township experiencing the highest growth rate in the Region at 37.2%.

Figure 3.5 provides population projections for each municipality, the Region, and Adams County by number and percent change. The projections are based upon Adams County Planning Commission projections, as well as analysis of average building permit data. The 2020 projection for Littlestown Borough and Germany Township are based upon a build out analysis, using the assumption that the Borough would be built-out by 2020, and the overflow population would be absorbed by Germany Township.

FIGURE 3.5: POPULATION PROJECTIONS THROUGH 2020

Municipality	2000 Census	2010 Projection (% increase from 2000)	2020 Projection (% increase from 2000)
Germany Township	2,269	2,700 (+19%)	3,360 (+48.1%)
Littlestown Borough	3,947	4,800 (+21.6%)	5,173 (+31.1%)
Union Township	2,989	3,700 (+23.8%)	4,328 (+44.8%)
Region Total	9,205	11,200 (+21.7%)	12,861 (+39.7%)
Adams County	91,292	117,195 (+28.4%)	N/A

In total, the Region is anticipating a total population increase of 1,995 persons between the 2000 Census and 2010, and 3,656 persons between the 2000 census and 2020. The latter is the more critical figure for our purposes, as it suggests the number of additional housing units that will need to be provided over the life of this plan. Housing issues are discussed below in greater detail. Adams County population is projected to grow at a faster rate than the Region from 2000 to 2010, at 28.4%, which is surprising given that Littlestown Borough and Union Township experienced 1990-2000 growth rates more than double that of Adams County, while Germany Township was consistent with the County in its growth rate.

Housing Trends

Figure 3.6 shows the housing unit and occupancy data for all three municipalities as well as the Region as a whole.

FIGURE 3.6: BASIC HOUSING & OCCUPANCY CHARACTERISTICS

	GERMANY TOWNSHIP		LITTLESTOWN BOROUGH		UNION TOWNSHIP		REGION TOTAL	
	1990	2000 +17.8%	1990	2000 +44.7%	1990	2000 +48.2%	1990	2000 +39.4%
Owner-occupied housing units	573	675 +17.8%	736	1,065 +44.7%	627	929 +48.2%	1,936	2,669 +39.4%
Renter-occupied housing units	85	98 +15.3%	474	521 +9.9%	127	145 +14.2%	686	764 +11.4%
Total Occupied Housing Units	658	773 +17.5%	1,210	1,586 +31.1%	754	1,074 +42.4%	2,622	3,433 +30.1%
Vacant housing units	23	15 -34.8%	55	106 +92.7%	26	38 +46.2%	104	159 +52.9%
Total All Housing Units	681	788 +15.7%	1,265	1,692 +33.8%	780	1,112 +42.6%	2,726	3,592 +31.8%

SOURCE: U.S. Bureau of the Census, 2000. "Region" indicates all three municipalities combined.

Union Township has experienced a nearly 43% increase in total housing units from 1990 to 2000 and Littlestown Borough's housing units have increased by nearly 34% over the same period. Germany Township saw the smallest percentage increase of new housing units at 15.7%, which is still a relatively robust rate of growth. The Region's overall housing units have grown at a 31.8% rate, which is consistent with the population growth rate. The number of vacant units has more than doubled as well, however the overall vacancy rate remains low at only 4.4%.

Given the high percentage rate increases for new housing units from 1990 to 2000, it is necessary to examine the Region's building permits data from the last five years. Analysis of the issuance of new building permits can provide some insight into how the housing picture has changed since 2000. These are summarized below in Figure 3.7.

FIGURE 3.7: ISSUANCE OF RESIDENTIAL BUILDING PERMITS, 2000-2004

Municipality	2000	2001	2002	2003	2004	5-YEAR TOTAL
Germany Township	15	43	32	23	34	147
Littlestown Borough	76	50	31	6	12	175
Union Township	20	8	23	36	22	109
Total Permits issued in Region	111	101	86	65	68	431

Source: Adams County Planning Commission Annual Reports, March 2005.

Given the total number of proposed units in the community from 2000 to 2004, this represents significant activity. The increase in the total number of units during this five-year period is above the pace for residential building permits issued between 1990 and 1999.

Future Housing and Acreage Needs Projections – 2010 and 2020

Figure 3.8 includes two tables that depict future housing needs and the approximate acreage needed to accommodate that housing for the population as projected through 2010 and 2020 respectively. These figures are based upon the population projections presented in Figure 3.5. It is important to note that the second table *includes* the 2010 projections.

This analysis is also based on the Census Bureau's 2000 housing information and on information obtained from the Adams County Planning Commission, including building permit data.

FIGURE 3.8 PROJECTED HOUSEHOLD AND ACREAGE REQUIREMENTS-2010

Municipality	Projected Population Increase (2000-2010)	Average Household Size*	Projected Household Increase	Acreage Requirements Assuming 8,000 Sq.Ft. Lots (approx 0.23 acres)	Acreage Requirements Assuming 14,000 Sq.Ft. Lots (approx 0.4 acres)	Acreage Requirements Assuming 1 Acre Lots	Acreage Requirements Assuming 2 Acre Lots
Germany Township	431	2.93	147	33	59	184	368
Littlestown Borough	853	2.49	343	78	137	N/A	N/A
Union Township	711	2.78	256	58	102	320	640
Region	1,995	N/A	746	169	298	504	1,008

PROJECTED HOUSEHOLD AND ACREAGE REQUIREMENTS- 2020

Municipality	Projected Population Increase (2000-2020)	Average Household Size*	Projected Household Increase	Acreage Requirements Assuming 8,000 Sq.Ft. Lots (approx 0.23 acres)	Acreage Requirements Assuming 14,000 Sq.Ft. Lots (approx 0.4 acres)	Acreage Requirements Assuming 1 Acre Lots	Acreage Requirements Assuming 2 Acre Lots
Germany Township	1,091	2.93	372	85	149	465	930
Littlestown Borough	1,226	2.49	492	112	197	N/A	N/A
Union Township	1,339	2.78	482	109	193	603	1,205
Region	3,656	N/A	1,346	306	539	1,068	2,135

* From 2000 Census, average persons per households

--Assume 20% of tract will be devoted to uses other than lot area -

--Assume net densities of approximately 4.4, 2.5, 0.8, and 0.4 dwelling units per acre, respectively, based on region's zoning ordinance requirements

Methodology for Figure 3.8- Take projected population increase and divide average household size (from the 2000 census assuming it will not change) = Projected household increase. Take Projected household increase and divide it by the assumed net densities of dwelling units per acre (respectively) = acreage requirements

As illustrated in the Figure 3.7, the Region is well on its way to meeting the projected 2010 demand as of the end of 2004, particularly in Germany Township. This rate of growth suggests that the 1,346 new households in the Region by 2020, as projected in Figure 3.8, may in fact be on the low side, assuming the Region continues to grow at the same rate. Availability of public sanitary sewer and water capacity will be influential.

Once an approximate number of housing units is established, calculations must be completed to estimate how much land they will require. This is largely a function of the type of unit: apartment units are much more space-efficient than single-family detached homes. Figure 3.8 provides a range of land needs based upon a variety of densities. Currently, the highest residential zoned land available density permitted in the Region, which is accommodated in the Borough's R-2 Medium Density Residential District, is 8,000 square feet per unit. It is extremely unlikely that all new housing would be accommodated at such a high density, but it is *possible*, so we have included it in our analysis as the minimum acreage necessary to accommodate the projected housing need. Also calculated is the acreage necessary if the average lot size is just under a quarter-acre (approximately 14,000 square feet), which is reasonable in the context of the municipalities, as well as for one-acre and two-acre average lots. There are few places in the Borough that could accommodate a significant number of lots this size, so the Borough was not included in the analysis for lower density lots.

These numbers projected in Figure 3.8 assume that all additional units will be provided by new construction. While this is not an unreasonable assumption, there are alternatives to this approach, particularly in the Borough and the more developed portions of the Townships. Both projections are based upon increases from 2000, so the 2020 land requirement calculation *includes* the 2010 requirements; it is not in addition to them.

Planning Considerations

The data presented in this chapter validates the need to plan for residential development. Much of the growth is driven by the ease of access to employment centers, the availability of sanitary sewerage and water supply, the rural atmosphere, and a high quality of life. The future growth trends projected for the Region indicate a continued high rate of residential development which will make it even more critical to preserve agricultural land and open space while they are still available.

The Region's location provides relatively easy access to major transportation corridors, including US Routes 15 and 30, and the Pennsylvania Turnpike, which allow access to Frederick, Baltimore, York, Harrisburg, and Gettysburg, as well as other larger urban centers. Commuters who work in these larger urban areas continue to find the Germany, Littlestown, Union area, with its small-town atmosphere, an attractive and convenient place to live.

CHAPTER 4
EXISTING LAND USE

The Existing Land Use Map provides a general pattern of land use within the Region. The acres in each land use category and the percentage of the total acres within the region comprised by that land use are provided in the following table.

Existing Land Use – Acreage by Category

Existing Land Use	Acres	Percent
Agriculture	10,936	57.0
Commercial	297	1.5
Industrial	66	0.3
Mixed Use	298	1.6
Multi-Family	27	0.1
Public/Semi-Public	447	2.3
Rail	12	0.1
Recreation Commercial	555	2.9
Road	617	3.2
Single-Family – Greater than 3 Acres	1,047	5.5
Single-Family – Less than 3 Acres	1,717	9.0
Two Family	40	0.2
Vacant	3,116	16.3
Total	19,175	

Existing land use is presented visually on the Aerial Photography Map of the Region which follows the Existing Land Use Map.

Agriculture is the predominant land use in the region, 10,936 acres comprise 57 percent of the land area in the Region. The next largest land use category is Vacant, 3,116 acres and 16.3 percent of the Region’s land area. Agriculture is a major element in defining the character of the Region, the most important element in the economy of the Region, and the defining element of the attractive agricultural landscapes throughout Union and Germany Townships. Within Union Township, distinctive horse farms are found in the vicinity of Hanover Pike and in other areas within the northern half of the Township.

Agricultural preservation contributes to preserving the local agricultural industry, the Region’s primary industry. This reinforces the importance of agricultural preservation efforts within Union Township. Such preservation efforts retain an important land use and also contribute to the character of the Township.

Given the total of 14,052 agricultural and vacant acres, there is significant capacity for future development within the Region. The population could easily double, or even triple if public sewer and water capacity were available. Such a population increase would over-burden the existing community facilities and transportation system.

The third and fourth largest existing land use categories are Single Family-Less than 3 Acres and Single Family – Greater than 3 Acres. These two categories total 2,764 acres, or 14.5 percent of the Region's land area. The greatest concentration of Single Family uses are found in the Borough and Meadow View north of the Borough in Union Township. Single Family uses are also found along Baltimore Pike in Germany Township, Bollinger Road in Union Township, and at scattered locations within the Townships. Many units have been stripped along the road systems within the Townships. This pattern of stripping can diminish mobility along the roads, as well as contribute to the loss of rural character of an area, even if land behind the homes remains in agriculture.

Recreation Commercial and Public/Semi-Public are the next largest land use categories. There are 555 acres, or 2.9 percent, Recreation-Commercial. This includes the golf course in the western portion of Germany Township, a golf course in the western portion of Union Township, and the race track in northcentral Union Township.

The largest concentration of Public/Semi-Public land uses is found in the Borough and nearby the Borough. The largest uses are the Littlestown Area School District complexes in the northern portion of the Borough, the Littlestown Community Park in the southeastern portion of the Borough, Eagles Park along Mengus Mill Road, and Littlestown Fish and Game along Fish and Game Road. Public/Semi-Public uses are further detailed in the Community Facilities chapter.

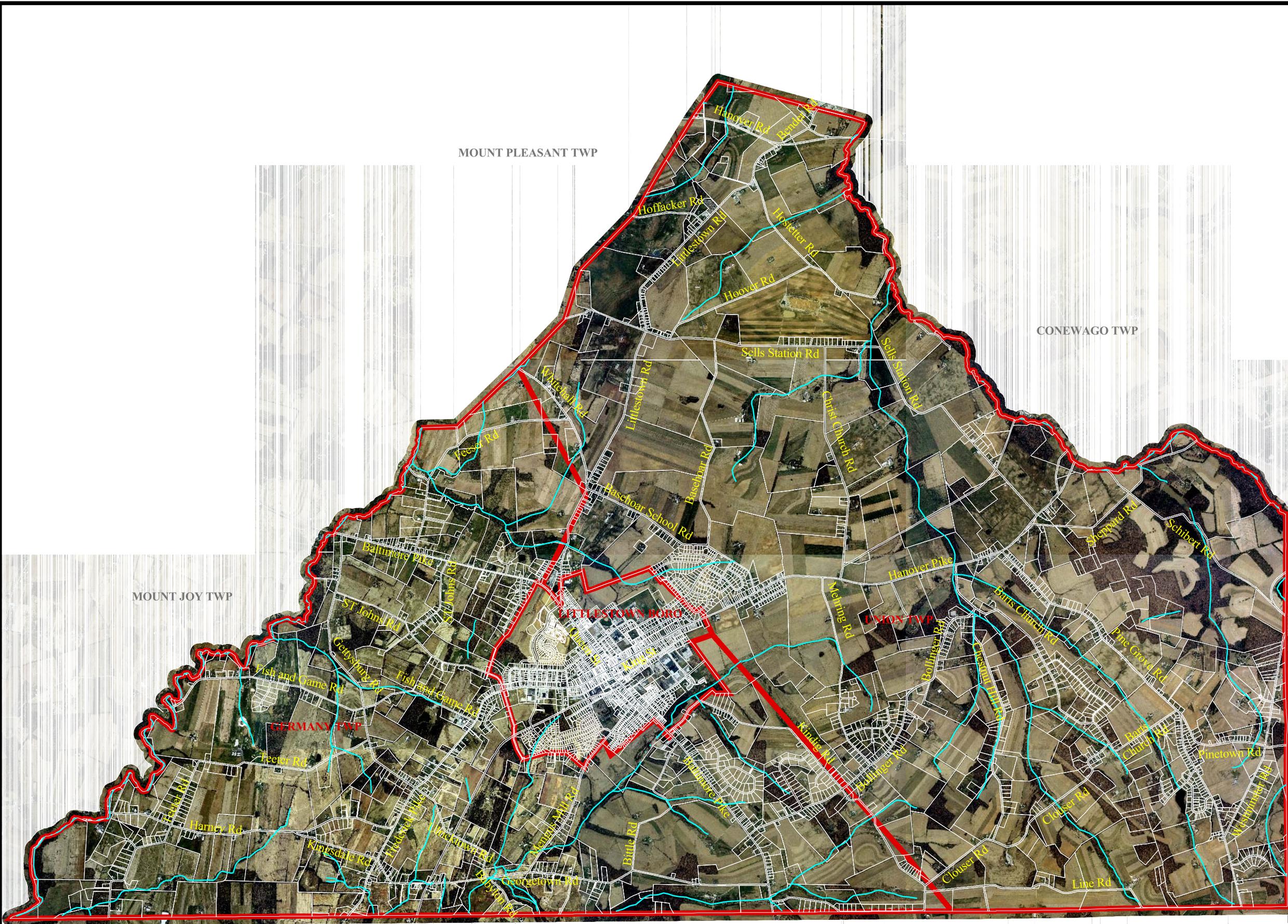
Mixed Uses comprised 298 acres or 1.5 percent of the Region's land area. Mixed Uses are a combination of Residential and Commercial uses. Mixed Uses are generally scattered within Germany and Union Townships.

Commercial Uses occupy 297 acres, or 1.5 percent of the land area. The greatest number of Commercial Uses are found in Littlestown Borough, particularly along King and Queen Streets. A new shopping center has been proposed for a vacant parcel along the western portion of King Street. The largest individual Commercial parcels tend to be scattered in Germany Township. The largest Commercial Uses within Union Township are the agricultural processing business along Hanover Road and the Keystone Landfill site between Clouser and Line Roads.

Commercial Uses are interspersed among Residential Uses along Baltimore, Frederick, and Hanover Pikes. These areas of a mixture of Residential and Commercial uses, and form the basis of the Limited Mixed Use Corridor areas in the Future Land Use Plan.

There are only 66 Industrial acres within the Region, 0.2 percent of the total land area. Most Industrial land is found in the Borough, between South Queen Street and the western Borough line. The Masterbrand Cabinets is one of the ten largest employers in Adams County. Germany and Union Township each have an industrial use.

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Aerial Photography*



-  Streams
-  Parcels
-  Study Area



Sources: Adams County GIS



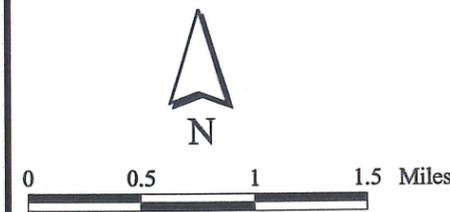
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**Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Existing Land Use**

-  Streams
-  Study Area
- Existing Land Use
 -  Agriculture
 -  Single-Family - Greater Than 3 Acres
 -  Single-Family - Less Than 3 Acres
 -  Two Family
 -  Multi-Family
 -  Commercial
 -  Recreation Commercial
 -  Industrial
 -  Mixed Use
 -  Public/Semi-Public
 -  Vacant

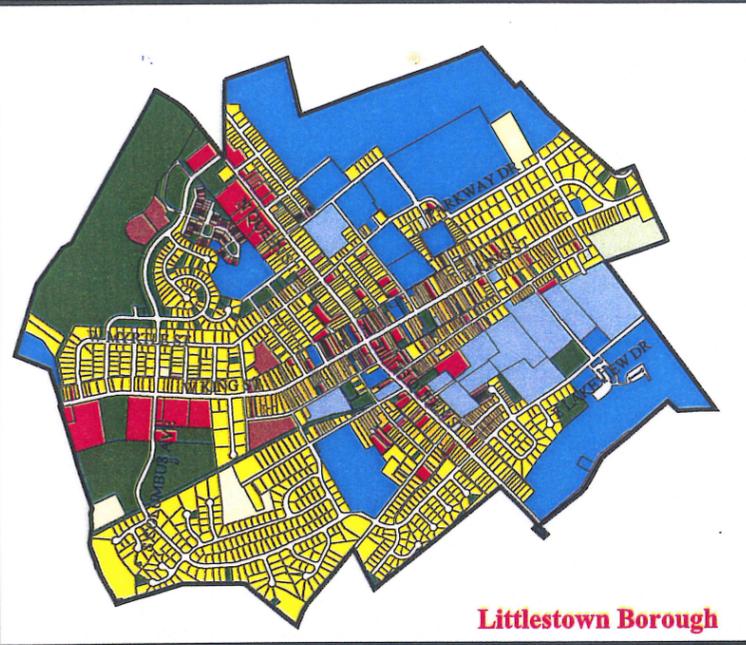
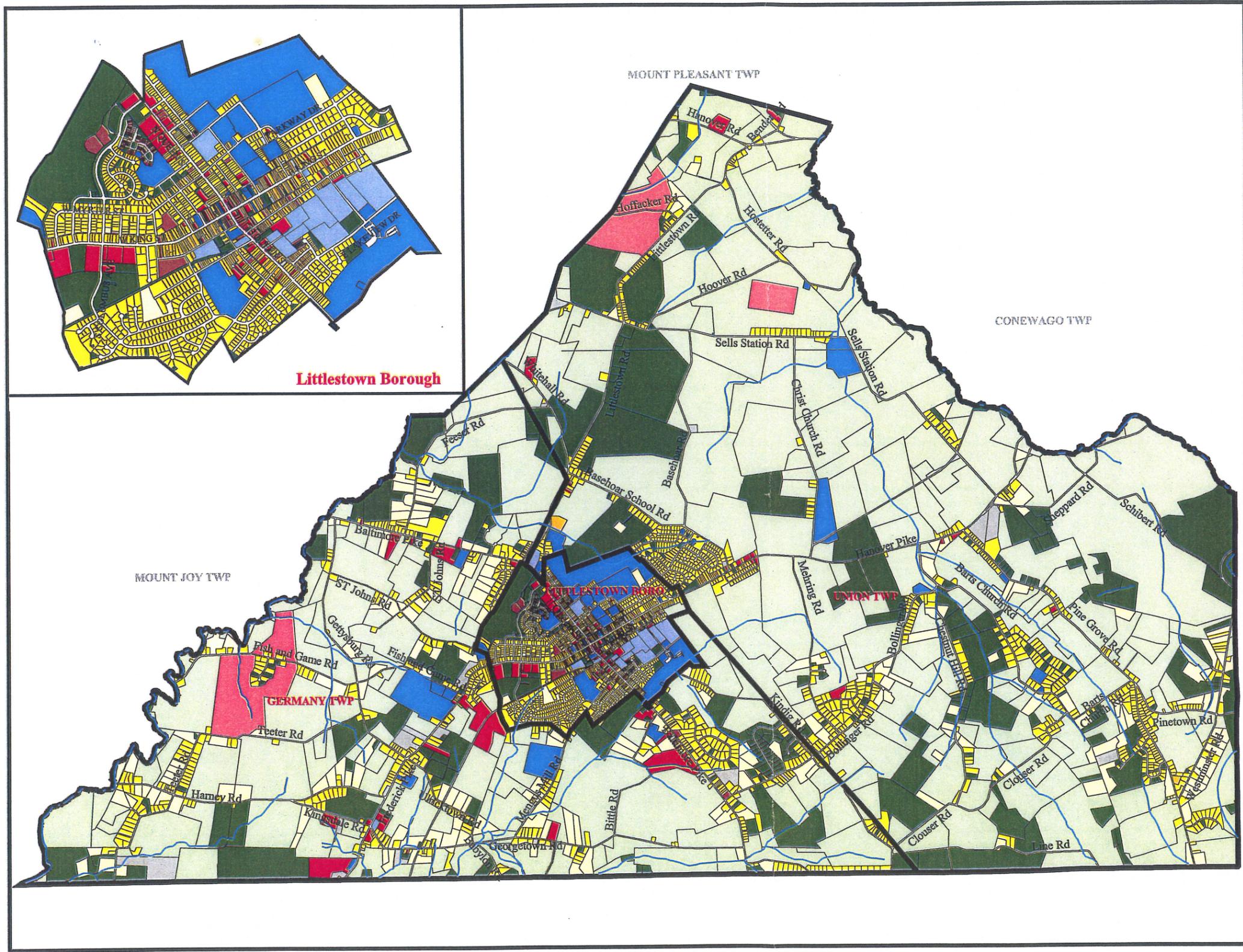


Sources: Adams County GIS; SSM



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Littlestown Borough

There are limited Two Family and Multi-Family areas within the Region. Forty (40) acres are devoted to Two-Family uses, or 0.2 percent of the Region's land area. There are 27 acres devoted to Multi-Family uses, or 0.1 percent. Most Two-Family and Multi-Family uses are located within the Borough, particularly in the vicinity of the Borough core, along King and Queen Streets. Multi-family units have also been constructed within Apler in the western portion of the Borough. Single family homes have been converted to multiple family units in the Borough.

There are 617 acres of Road and 12 acres devoted to Rail within the Region. These uses total 3.3 percent of the Region's land area.

Proposed Major Developments

Two major developments have been proposed in Union Township, one along Basehoar School Road and one along Littlestown Road. The units total 453. The proposals are dependent upon public sewage capacity, which is currently not available to these tracts.

The last remaining, large vacant, residentially zoned tract of ground in the Borough, the remaining portion of Appler west of Columbus Avenue, has been proposed to be developed for approximately 180 dwelling units. Units would be Single Family Semi-Detached.

Two developments which total approximately 22 units, but encompass rather large areas of land, are found along Harney Road and St. John's Road in Germany Township. A single family development with nearly 250 units has been proposed on a farm are bordered by Bittle Road, Baltimore Pike and Georgetown Road.

Overall Pattern of Land Use

The Region has been fortunate in the past to have public sewer and water capacity available in the Borough. This has enabled a generally compact pattern of growth with much of the development occurring within and near the Borough core at a relatively high density. Some development has scattered throughout the Townships, but the Townships still contain a rural-agricultural character highly valued by the Region's residents. The horse farm areas of Union Township are one of Adams County's unique agricultural areas.

Smart Growth

The Region has experienced a pattern of compact community development, in fact a "smart growth" model.

The Smart Growth Network, U.S. Environmental Protection Agency (EPA), and International City/County Management Association (ICMA) have described smart growth as “development that serves the economy, community, and the environment. It provides a framework for communities to make informed decisions about how and where they grow. Smart growth makes it possible for communities to grow in ways that support economic development and jobs; create strong neighborhoods with a range of housing, commercial, and transportation options; and achieve healthy communities that provide families with a clean environment.”

The following Smart Growth Principles have been established:

1. Mixed land uses.
2. Take advantage of compact building design.
3. Create a range of housing opportunities and choices.
4. Create walkable neighborhoods.
5. Foster distinctive, attractive communities with a strong sense of place.
6. Preserve open space, farmland, natural beauty, and critical environmental areas.
7. Strengthen and direct development towards existing communities.
8. Provide a variety of transportation choices.
9. Make development decisions predictable, fair and cost effective.
10. Encourage community and stakeholder collaboration in development decisions.

Smart growth techniques are designed to accommodate growth in a way that protects the environment, protects rural land, enhances the economy, and enhances the quality of life. Elements of smart growth in this Region include compact development in and near the Borough, the permanent protection of open space and planning for a system of greenways to connect natural areas and provide hiking and biking trails, the provision of roads, public water supply and distribution, wastewater collection and treatment, and stormwater infrastructure to concentrate development and support existing businesses, the use of traditional village settings containing smaller lots and mixed residential, retail, office, and green space uses, surrounded by working farmland, and the continued revitalization of Littlestown.

Fiscal Implications of Land Uses

The Region faces increasing tax burdens, particularly school taxes. Land use policies can affect the taxes of residents because these policies influence land use patterns, the number of people moving into the Region, the number of school children, and thus, school taxes.

In the study *Fiscal Impacts of Different Land Uses*, prepared by the Penn State College of Agricultural Sciences and the Cooperative Extension, it was found that residential development in general does not pay for itself. Residential development increases costs more than it increases tax revenue, and other land uses must help subsidize school expenses. Current residents may end up paying higher taxes to cover the costs associated with new residents moving into the Region. Farmland and open land and commercial

and industrial land provide more in tax revenue than they require back in expenditures, and can help keep residents' taxes lower, even if the Clean and Green program reduces the real estate tax paid by farmers.

Another report, which looked at the relationship of land use and cost to residents is *The Cost of Sprawl in Pennsylvania* prepared for 10,000 Friends of Pennsylvania. Sprawl is the pattern of low density, scattered development requiring travel by motor vehicle, typically consuming agricultural land and segregating residential uses from other types of land use.

The costs which were found to result from sprawl are increases in costs of roads, schools, utilities, and transportation, increases in air pollution and water pollution, and consumption of agricultural lands, natural areas and open space. Sprawl affects the quality of life in rural areas and results in direct costs such as higher school taxes.

CHAPTER 5
AGRICULTURAL RESOURCES

SECTION 1 - AGRICULTURAL PROTECTION STATUS

Agricultural protection status is shown on the following map.

Preserved Farms

Farms with agricultural easements are displayed on the map in red stripes (hatching pattern). These easements are purchased through State and County funding sources. The Adams County Agricultural Land Preservation Board matches state payments to purchase easements that prevent the development of farmland under the Agricultural Conservation Easement program. This program has very specific guidelines, which apply to parcels under consideration. One stipulation is that the parcels have to be located within an established Agricultural Security Area. Once the County accepts an application for purchase of development rights, and a purchase price of the development rights is agreed upon, the development rights are sold by the farmer. The lands can remain farmed and can be sold for agricultural purposes, and it is guaranteed that the land will not be developed. Both Townships have land that cannot be developed because the development rights have been sold through this program. There are five preserved farms in the southern half of Germany Township. There are six preserved farms in Union Township.

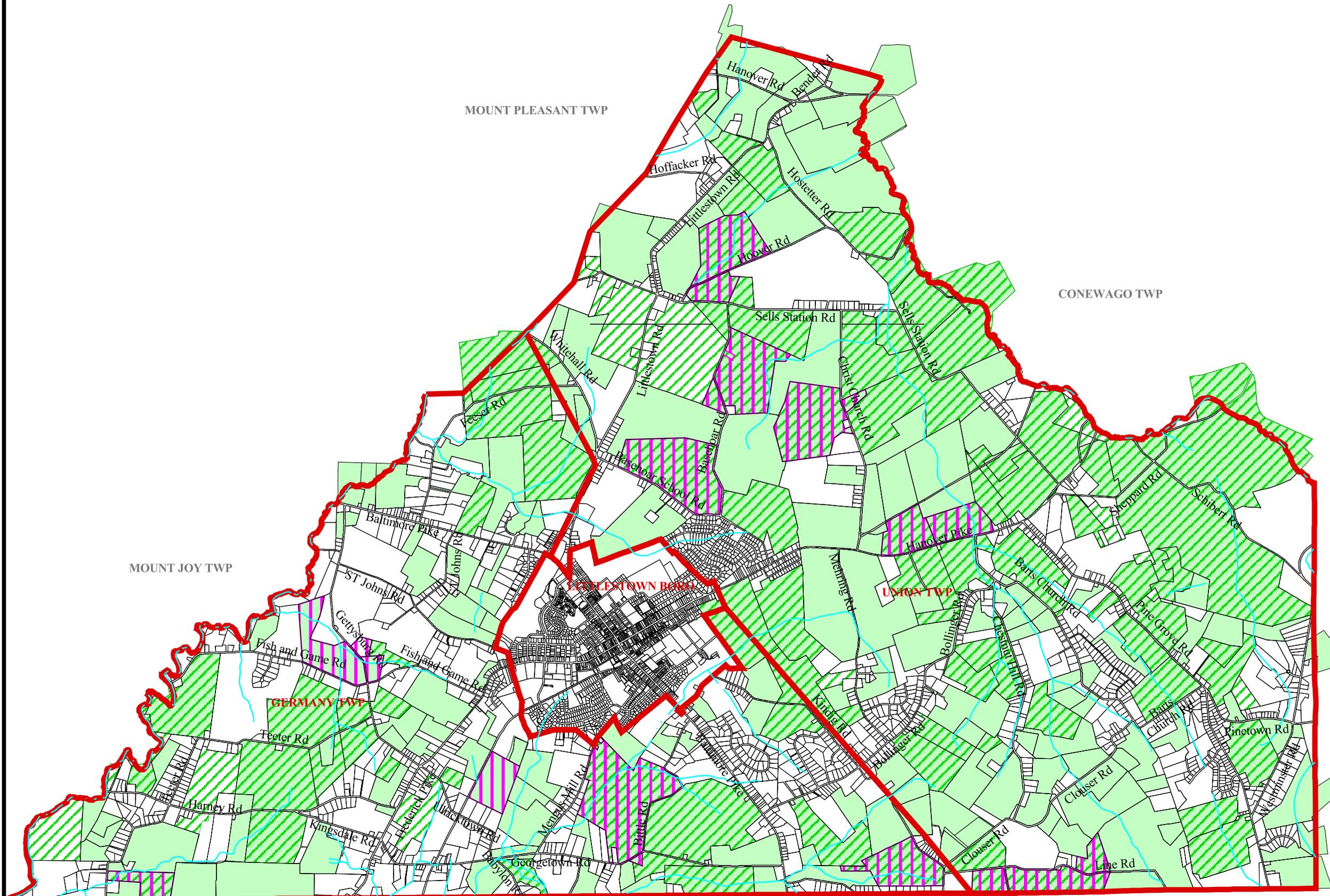
Agricultural Security Areas

Properties within the Region which are included within Agricultural Security Areas are shown as green hatching on the map. Enrollment is the first step to getting lands preserved through the conservation easement program administered by Adams County. Agricultural Security Areas contain properties which owners voluntarily enroll in an agricultural security program created by a municipality. The enrollment in an Agricultural Security Area does not prevent development of the property. Property owners may leave the program and develop their land. Some protection is afforded to properties in Agricultural Security Areas. The Agricultural Area Security Act prohibits local government units from enacting nuisance regulations and addresses the use of eminent domain by government units. Agricultural Security Areas are located in the northern tip and southern portion of Germany Township and throughout Union Township.

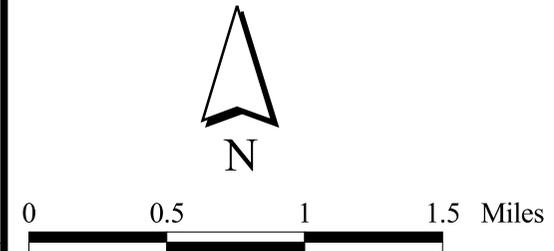
Clean and Green Properties

Clean and Green Lands are shown in solid green. The Clean and Green program provides a tax break to owners who enroll in this program by taxing land at its current use value rather than market value. Once an owner enrolls, there is a certain amount of acceptable (per program regulations) land development or subdivision activity that can occur on the property. The program allows minor subdivisions over a period of time; however, if any activity over that allowed by the program occurs, back taxes have to be paid for all the years enrolled in the program. This may encourage farmers to keep farming by providing a tax incentive to continue to do so, but does not prevent sale to developers for land developments or subdivisions. This is a voluntary program, and 10 acres is the minimum amount of contiguous acres necessary to receive the benefits of the program. Clean and Green areas are found in both northern and southern Germany Township and throughout most of Union Township.

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Agricultural Protection Status*



-  Streams
-  Study Area
-  Parcels
-  Preserved Farm
-  Agricultural Security Area
-  Clean & Green Properties



Sources: Adams County GIS



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SECTION 2 – BENEFITS OF FARMING WITHIN THE REGION

Importance of Agricultural Resources in the Area

As additional residential development occurs, the loss of farmland diminishes the major component of the economy of the Region. When agricultural operations are continued, they help maintain local agricultural supplies, make it easier for remaining farmers to continue to farm, maintain a cultural heritage and lifestyle of the Region, and help maintain rural character and the beauty of the landscape.

The Union Township Comprehensive Plan of 1993 notes:

“The Adams County Office of Planning and Development (ACOPD) identified the northcentral and northeastern portions of Union Township as having important and unique qualities worthy of protection. These image builders, when examined individually, do not protect the complete image of Union Township. However, when combined into a composite of images they do shape the character and visual quality, the sense of place that is Union Township.” The ACOPD identified the Standardbred Horse Farms as a unique agricultural area in Adams County, with the following characteristics:

- Unique, manicured landscapes
- Historic structures
- Unique agricultural operations
- Tourism potential
- Scenic vistas
- Open space buffer between rapidly developing McSherrystown and Littlestown

In an appearance before the Pennsylvania House Tourism and Recreational Development Committee in May 2003, Mr. Jim Simpson, the President of Hanover Shoe Farms noted that Hanover Shoe Farms is the largest winning standardbred horse-breeding farm in the world. Hanover Shoe Farms has been breeding standardbred horses since 1926, and people from all over the globe seek out their horses to compete in world-class harness horse racing.

Standardbred horses are a dominant agribusiness in Pennsylvania, and Pennsylvania was once the standardbred capital of the world. Mr. Simpson believes it can be again, and that Pennsylvania can be the Keystone to live harness horse racing in the entire northeastern United States if the legislature is willing to invest in Pennsylvania breeders.

Hanover Shoe Farms contains over 3,000 acres of prime green space that has been conserved for more than three-quarters of a century because of the owners' love for horses, land, employees and the communities served. Mr. Simpson noted standardbred breeders across the state maintain hundreds of thousands of acres, tens of thousands of jobs, and hundreds of millions of dollars invested in our state agribusinesses.

The annual sale event of standardbred horses at Pennsylvania's Farm Show Complex in November has become the largest in the world, attracts thousands of people and contributes more than 12 million tourism dollars into the local economy. The main Hanover Shoe Farm accommodates busloads of thousands of tourists visiting and touring the farm each year. Many tourists include a stop to the farm as part of their historic Gettysburg vacation itinerary.

Hanover Shoe Farms invests about \$8 million a year into the community. The tourists are attracted to the rolling acres of farmland that have remained relatively unchanged since the turn of the last century. Mr. Simpson testified that in 2002 several prominent breeders sold their farms in central PA to make way for more shopping malls and housing complexes. The loss of green space and sprawl concerns environmental, agricultural and tourism interests in Pennsylvania.

He believes the standardbred breeding farms across Pennsylvania, and the rural way of life they support, are worth preserving. Breeders were hoping that the legislature would agree with them that they should find a way to keep farms from eroding and provide an incentive for commercial investment expansion. Pennsylvania's standardbred horse breeders' investments and competitive skills directly impact the 35,000 jobs that racing in Pennsylvania supports.

The Adams County Comprehensive Plan identifies the "Littlestown/McSherrystown Valley", located in southeast corner of Adams County, as having a distinctive character of rolling terrain, horse farms, sloping pastures and well maintained wooden fences. Moreover, the Adams County Agricultural Land Preservation Program, designed to protect important farmland and forests from development, also identifies this area as having unique and valuable resources.

Union Township's Comprehensive Plan states, "The agricultural classification of land is the foundation of Union Township's heritage. There is an abundance of prime agricultural land which has remained in large tracts of land and has not been developed. Because the Township contains large areas of prime agricultural land, farmland preservation is a top priority of Union Township and Adams County. Preservation of agricultural lands should be a top priority when land use decisions are made. Agricultural lands comprise the largest land use in Union Township...

Much of this land has been registered under Agricultural Security Areas and the Clean and Green Program. The land area designated for agricultural uses was done so by examining areas of prime agricultural land, areas enrolled in Agricultural Security Areas, areas of Prime and State Important Farm Land contained in large tracts of land, usually 10+ acres in size.”

Union Township has adopted Effective Agricultural Zoning pursuant to its comprehensive plan. Such zoning is found in the central and southern portions of the Township. Residential development is restricted, and based on a sliding scale.

Effective Agricultural zoning can keep large areas relatively free of non-farm development, lessening conflicts with farming operations, which result from increased traffic, litter, complaints and damage to crops. It can also assure a supply of agricultural land for rental by farmers and protects the investment that is made in purchase of agricultural easements. Agricultural preservation protects natural systems, helps replenish groundwater and maintain stream flow, and conserves prime agricultural soils that are a resource that once lost, cannot be recovered.

Alternatives to “Traditional Agriculture”

Often agriculture has been equated with “traditional” methods such as dairy farming, animal husbandry, and cultivating crops such as corn, hay, wheat, alfalfa, soy beans, barley, and oats. In this Region, horse farms are a major component of agriculture. There are a number of alternatives which can be practiced to supplement farm income or utilize smaller parcels of land, including:

- Nursery/Greenhouse
- Orchard
- Winery
- Christmas Tree Farm
- Pick-Your-Own Operation
- Contracting Organic Farm
- Herb Farm
- Wildflower/Flower Farm
- “Gentleman’s” Farm

- “Agritainment” (using crafts, corn mazes, petting zoos, entertainers, hay tunnels, and hayrides to generate income and attract purchase of produce).
- Deer Farm
- Meat Goats
- Hydroponics
- Ornamental Crops

SECTION 3. COMPREHENSIVE PLAN QUESTIONNAIRE RESULTS

The Rural Atmosphere/Open Space within the Region is what respondents liked most about the Region. Loss of farmland was one of the two most disliked aspects of the Region. After managing growth, preservation of farmland was indicated as the next most important planning issue needing to be addressed in the Region. Use of tax dollars toward farmland preservation/development rights purchase was strongly supported. Most respondents thought it was important to preserve remaining farmland in the Region.

CHAPTER 6
NATURAL AND HISTORIC RESOURCES

SECTION 1 – GEOLOGIC FORMATIONS/GROUNDWATER RESOURCES

Geologic formations within the Region and median groundwater yields in gallons per minute (gpm) for wells are shown on the Geologic Formation Map. The following is a brief description of the formations:

- Harpers Formation: Graywacke siltstone and greywacke having a prominent interval of medium to thick bedded quartzite. The groundwater is hard. Found in central Union Township and southeastern Germany Township.
- Kinzers Formation: Thin-bedded, dark gray limestone with light gray banding and graphitic shale partings. Groundwater is very hard. Found in northwestern Union Township.
- New Oxford: Red shale, sandstone, and mudstone having many interspersed beds of light colored micaceous sandstone, arkose and conglomerate. Water is generally hard. Found in northwestern Union Township, the western two-thirds of Germany Township, and western portions of Littlestown.
- Marsburg Schist: Chiefly bluish-gray to silvery-green, fine grained schist; beds of quartzite and conglomerate for the upper part of the formation. Groundwater is generally very soft. Found in southeastern Germany and Union Townships.
- Conestoga Formation: Chiefly thin-bedded, very impure, dark-gray limestone with some light-gray banding and graphitic shale partings. Groundwater is very hard. A narrow band is located in northern Union Township. Found in central Union Township, much of Littlestown Borough, and small portions of Germany Township.
- Ledger Formation: Coarse-grained gray dolomite and pure, white and light-gray marble. Groundwater is very hard. A narrow band is located in northern Union Township.
- Antietam Formation: Light-gray, buff-weathering quartzite and quartz schist; some ferruginous quartzite; fine-grained. Found in southcentral Littlestown and a small area in central Germany Township.

Median yields of wells are as follows:

Bedrock Formations	Median Groundwater Yields (GPM)
Harpers	24
Kinzers	30
Conestoga	25
New Oxford	14
Marburg Schist	9
Antietam	20
Ledger	30 with potential for substantially higher yields

Except for New Oxford and Marburg Schist, yields are generally suitable for single family detached dwellings. None of the formations have large median yields generally suitable for municipal supplies.

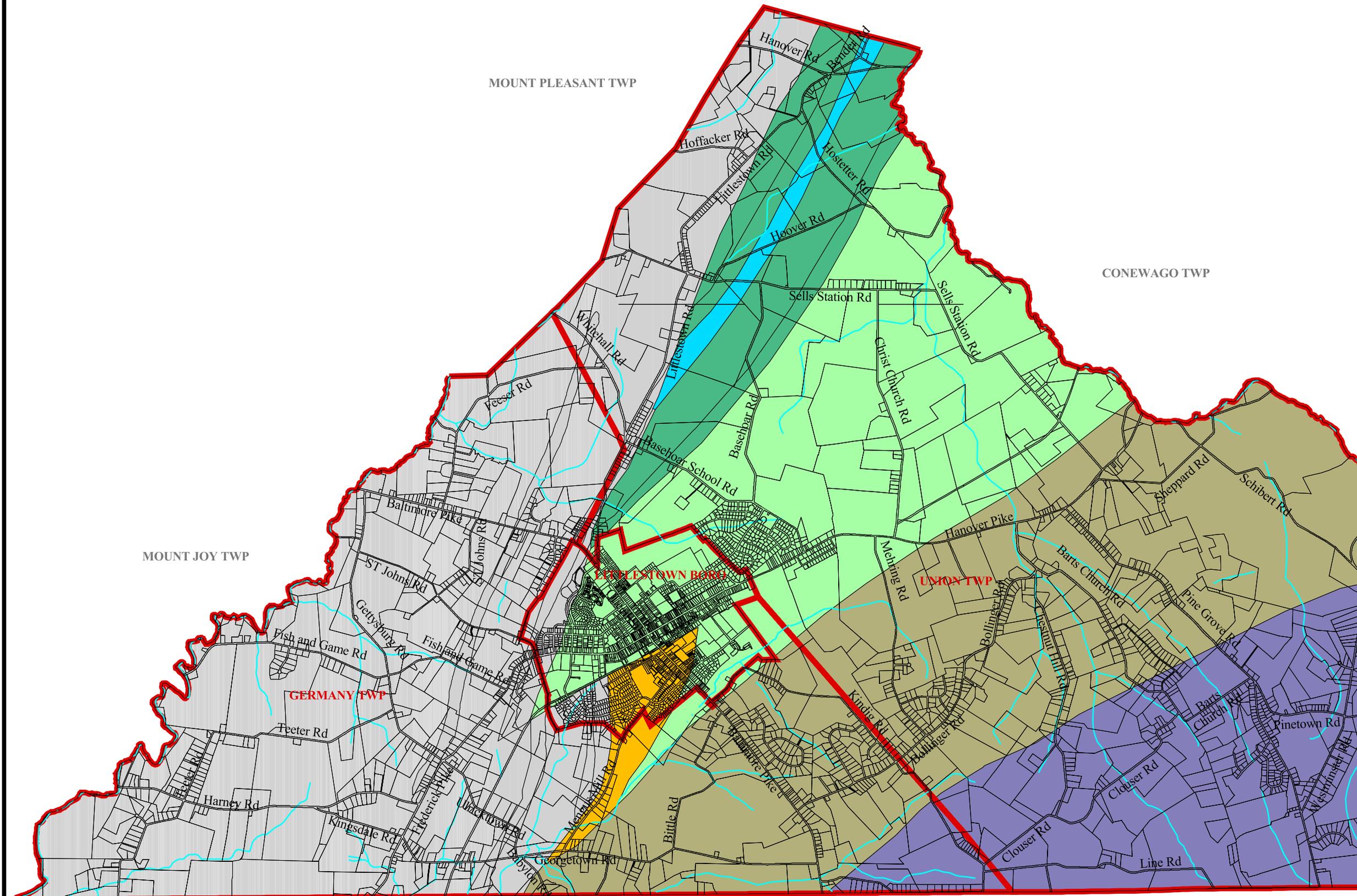
Nitrate pollution of groundwater has been significant in Union Township. This has resulted in the Union Township Act 537 Plan identifying minimum lot sizes for on-site sewage disposal ranging from 2.9 to 20.3 acres, depending on the subbasin in the Township and groundwater recharge values, background nitrate concentrations, and DEP limits. While some areas in the Townships are considered capable of supporting on-lot disposal systems, the suitability of each site will depend upon the existence of bedrock close to the surface, groundwater recharge rates, extensive limestone outcrops, and sinkholes. As noted above, existing nitrate concentrations in groundwater can influence the feasibility for on-lot sewage disposal.

The Kinzers, Conestoga, and Ledger Formations are limestone or dolomite. Natural subsidence is a geologic hazard which may result from excessive pumping of groundwater. Natural subsidence is the downward movement of surface material with little to no horizontal movement and occurs mainly where the bedrock is composed of limestone or dolomite. Both limestone and dolomite are considered carbonates.

Natural subsidence is expressed at the surface by the occupancy of sinkholes; a depression in the surface of ground which results from the collapse of the roof of a cave in carbonate rocks or from subsidence of surface or subsurface material. Buildings and structures, roads, utilities, water supplies and septic systems, as well as other engineered structures are subject to damage.

In limestone areas, groundwater travels for long distances in caverns and with little filtering ability. Groundwater in limestone is frequently polluted. Contaminants can

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Geological Formations and Median
Groundwater Yield in Gallons Per Minute*



- Parcels
- Streams
- Study Area
- Geological Formations**
- Antietam Formation - 20 gpm
- Conestoga Formation - 25 gpm
- Harpers Formation - 24 gpm
- Kinzers Formation - 30 gpm
- Ledger Formation - 30 gpm
- Marburg Schist - 9 gpm
- New Oxford Formation - 14 gpm



Sources: Adams County GIS



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travel many miles through solution channels and fractures from the initial sources, and can adversely affect the quality of well water for many years. This has particular consequences when on-lot sewage disposal is used in Carbonate areas.

The limestone and dolomite formations, Kinzers, Conestoga, and Ledger, which are particularly vulnerable to sinkholes and groundwater pollution, also have the highest median groundwater yields. These formations are found primarily in Littlestown Borough and northcentral Union Township.

SECTION 2 – SURFACE WATER

The Water Related Features Map shows watershed areas of the Alloway, Piney, Longarm, and South Branch Conewago Creeks; wetlands; floodplains; and hydric soils, which are potential wetlands. There are no high quality or exceptional value watersheds within the Region.

Susquehanna River Basin Tributaries

The eastern and northern section of Union Township is tributary to the Conewago Creek. The South Branch of the Conewago Creek defines the northeastern boundary of the Township. Numerous small unnamed tributaries drain this section of the Township. The protected uses of the South Branch of the Conewago and all of its unnamed tributaries are for the maintenance and propagation of warm water fishes. There are no exceptions to specific criteria. An Act 167 Stormwater Management Plan is likely to be prepared for the Conewago Creek Watershed. The Pennsylvania Environmental Council has received funding from the Pennsylvania Department of Conservation and Natural Resources to complete a Watershed Conservation Plan for the Conewago Watershed. The plan is expected to be completed in December, 2006.

Potomac River Basin Tributaries

The western section of Union Township, Germany Township, and Littlestown Borough are drained by Piney and Alloway Creeks. Small tributaries form the headwaters of the Alloway Creek. The Alloway and Piney Creeks flow west to the Monocacy River in Maryland. The protected uses of these tributaries are also for the maintenance and propagation of warm water fishes. There are no exceptions to specific criteria. A Stormwater Management Plan has been prepared for the Monocacy River Watershed.

Reservoirs

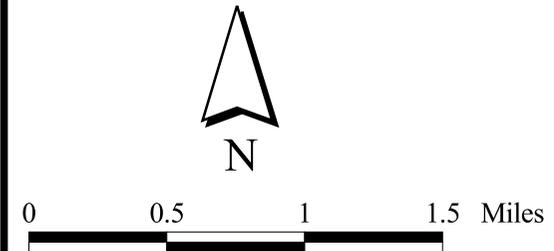
A very small portion of the Long Arm Creek Reservoir is located in the western section of Union Township, south of the Conewago Creek.

Floodplains, Wetlands and Hydric Soils

Floodplains are indicated along the Conewago, Alloway, and Piney Creeks and some of their tributaries. Floodplains along the three creeks are generally narrow bands. Wetlands and hydric soils are typically found along or near watercourses. Wetland areas are not extensive, generally in narrow bands. The largest extent of hydric soils outside watercourses is found in western Germany Township. Hydric soils are also found in the northern tip of Union Township and southern Germany and Union Townships.

**Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Water Related Features**

-  Parcels
-  Study Area
-  Streams
-  Wetland
-  Floodplain
-  Hydric Soil
- Watersheds
-  ALLOWAY CREEK
-  LONG ARM CREEK
-  PINEY CREEK
-  SOUTH BRANCH CONEWAGO CREEK



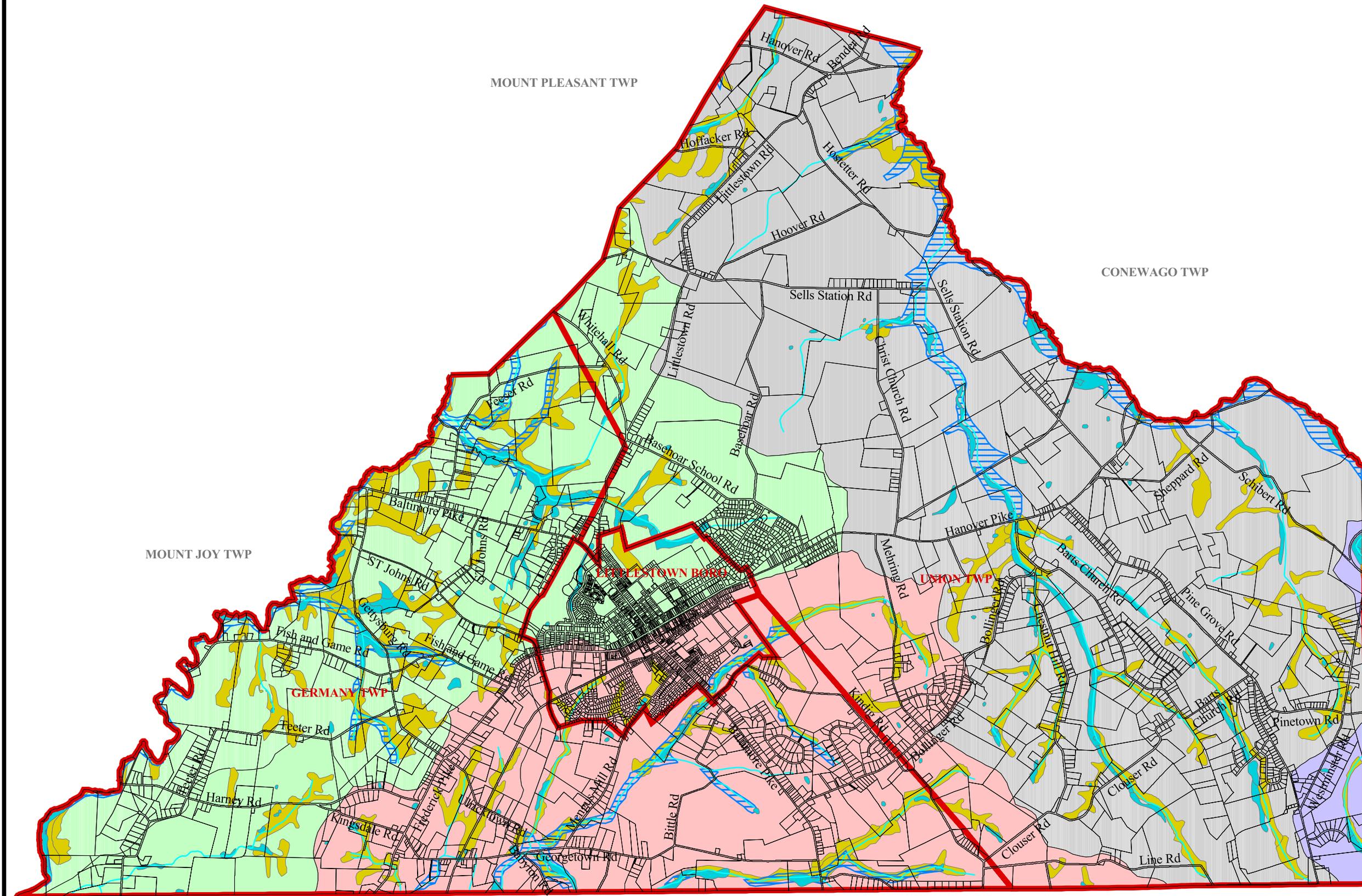
Sources: Adams County GIS



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SECTION 3 – WOODLANDS AND CONSERVATION EASEMENTS

Woodlands and Conservation Easements are shown on the following map. Woodlands are predominantly scattered through the southern half of the region. The greatest concentrations occur in eastern Union Township.

Three conservation easements are shown in the southern portion of Germany Township.

SECTION 4 – SIGNIFICANCE OF NATURAL AREAS

The importance of protecting natural resources is summarized below:

Steep Slopes

- Steep slopes of 15 to 25% have 15 to 25 feet of vertical change in elevation over 100 feet of horizontal distance. Very steep slopes of greater than 25% have a vertical change greater than 25 feet over 100 feet of horizontal distance.

Steep Slopes Importance

- Erodable if vegetative cover is removed.
- Stormwater runoff problems can result if vegetative cover is removed.
- Severe limitations for on-site sewage disposal.
- Driving hazards can result from development of roads and driveways.
- Difficulty in road maintenance and plowing.
- Higher building costs.

Areas of steep slope within the Region are limited, and generally found within stream corridors of the Piney Creek and its tributaries and tributaries to the Conewago and Alloway Creeks. Given their limited extent, the steep slopes can generally be left undisturbed and should be left undisturbed to protect these stream corridors from adverse effects from erosion and sedimentation and avoid the impacts noted above.

Woodland

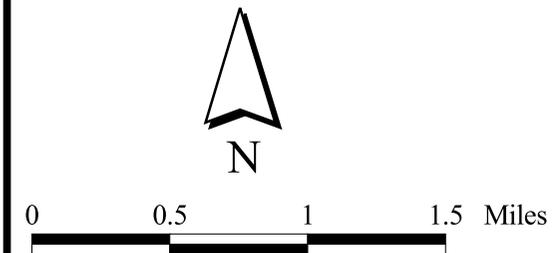
Woodland Importance

- Wildlife habitats.
- Stabilize soil against erosion.
- Scenic resources.
- Provide visual relief.
- Birding and hunting areas.
- Buffer development.
- Absorb stormwater runoff.
- Cleanse air.
- Moderate water temperatures along streams

Woodlands are scattered through Germany and southwestern Union Township, and are more concentrated in southeastern Union Township. For the reasons noted above, as development occurs, efforts should be made by developers to minimize clearance of wooded areas. The contiguous wooded area in southeastern Union Township is particularly valuable in providing wildlife habitat, visual relief, and microclimate mitigation in the vicinity of the Conewago Creek and its tributaries.

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Woodlands and Conservation
Easements*

-  Parcels
-  Study Area
-  Streams
-  Conservation Easement
-  Woodland



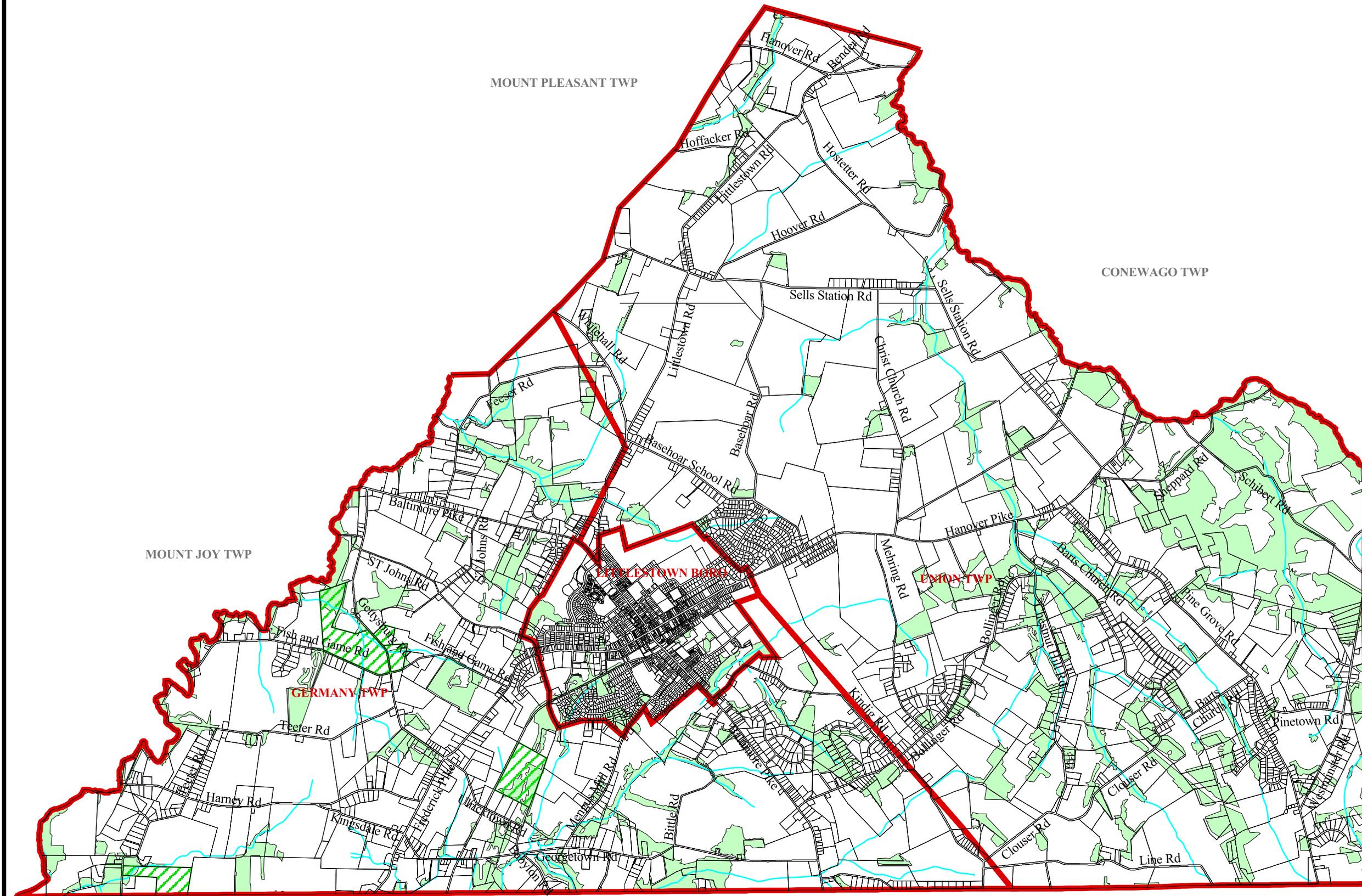
Sources: Adams County GIS



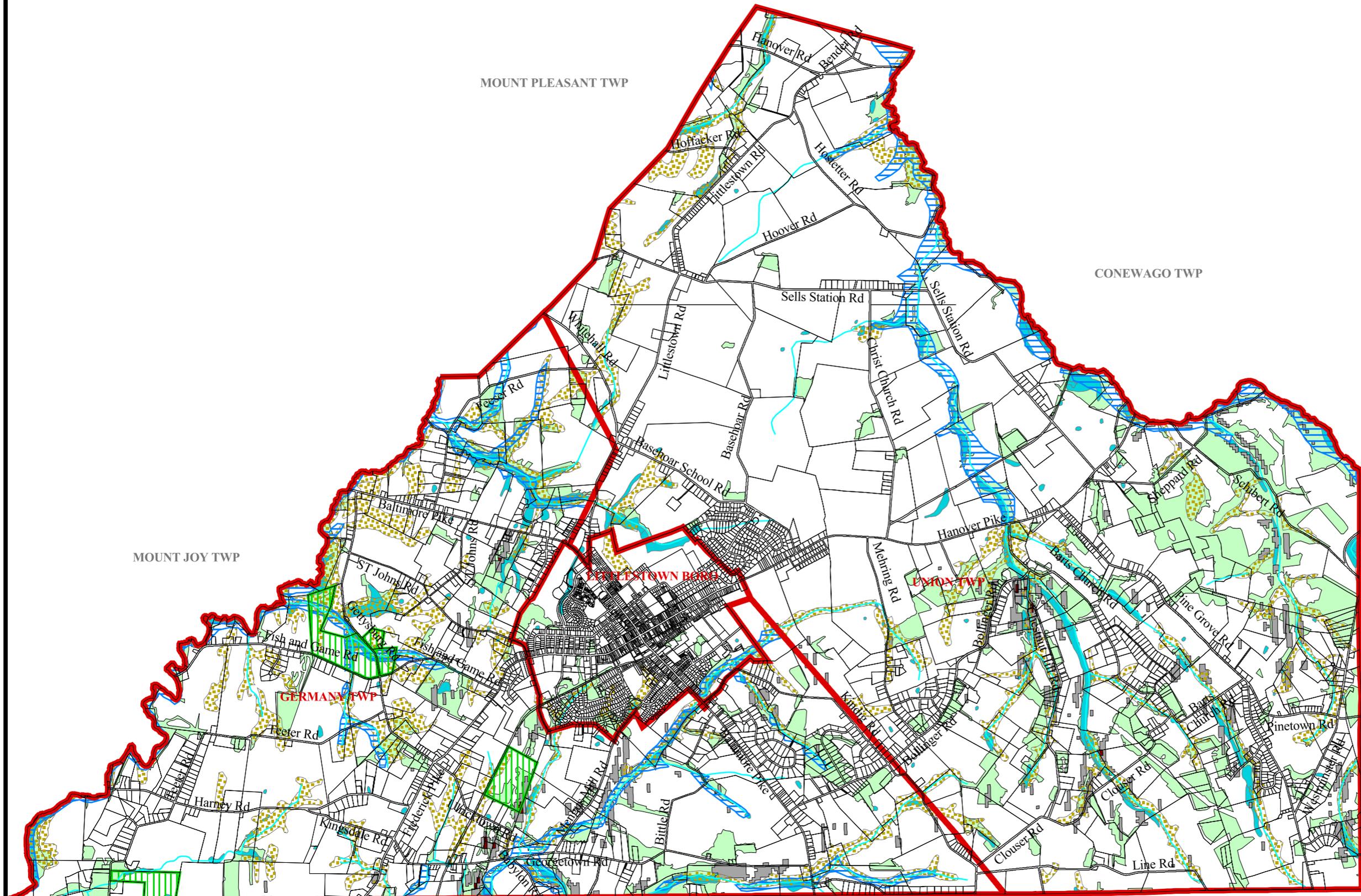
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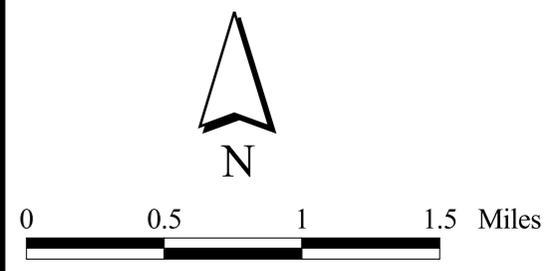
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*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Natural Resource Preservation Plan*



- Parcels
- Study Area
- Streams
- Preservation Easement
- Floodplain
- Hydric Soil
- Steep Slopes
 - 15 - 25%
 - > 25%
- Wetland
- Woodland



Sources: Adams County GIS,
USGS Digital Elevation Model (DEM)



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Floodplains

Areas adjacent to watercourse which are covered by flood water. 100-year floodplains mapped by the Federal Emergency Management Agency (FEMA) on average have a 1 in 100 chance of being flooded in a given year. If detailed studies along watercourse have not been done by FEMA, they are necessary from developers.

Floodplains Importance

- Development poses danger to people and property.
- Can constrict floodwater flow, increasing flood velocities downstream and increasing flood damage.
- Outdoor storage can be washed downstream.
- Wildlife habitats.
- Development can increase sedimentation and stormwater runoff in streams, thus erosion of stream banks and channels, filling of streambeds, meandering of streams, and choking of aquatic life.
- Development can detract from esthetic value.
- Development can detract from recreational value.
- Absorb surface runoff, thus replenish ground and surface water and reduce flood peaks. Increased surface flow can reduce concentration of pollutants and maintain stream flow in dry weather.
- On-site sewage disposal can contaminate ground and surface water

Floodplains along the Conewago, Piney, and Alloway Creeks should be incorporated in riparian buffers as noted below.

Wetlands

From National Wetlands Inventory, does not include wetlands which cannot be identified from high altitude aerial photography. Detailed analysis of sites proposed for development is necessary. Wetlands are areas that are inundated or saturated by surface or groundwater at a

Wetlands Importance

- Store water which can replenish groundwater and surface water supplies (recharge areas).
- Plant and animal habitats.
- Breeding places and sources of food for organisms.
- Natural filters of pollutants from

frequency and duration sufficient to support, and that under normal circumstances do support, prevalence of vegetation typically adapted for life in saturated soil conditions.

- waters via actions of plants.
- Reduce flooding by detaining stormwater.
- Unsuitable for development and on-site sewage disposal.

Wetlands along the Conewago, Piney and Alloway Creeks and their tributaries should be incorporated into riparian buffers.

Hydric Soils

Have shallow depth to seasonally high water table. Potential wetlands, with need for further analysis.

Hydric Soils Importance

- Unsuitable for development and on-lot sewage disposal.
- Flooded basements and poor foundation stability if built upon.
- Natural recharge areas which can reduce flooding and manage stormwater runoff.
- Filter surface water.

Areas of hydric soils need to be analyzed when development is proposed near them to determine the presence of wetlands. Generally, areas of hydric soils should be avoided, and areas along the Conewago, Alloway, and Pine Creeks and their tributaries should be incorporated into riparian buffers.

Watercourses

Watersheds can be planning and management areas for stream conservation and protection, stormwater management planning, water supply budgeting planning, watershed based zoning, and integrated resource planning.

Watercourses Importance

- Recreational resources.
- Scenic resources.
- Aquatic habitats.

Groundwater Supplies

Groundwater enters through the soil and creeks.

Groundwater Importance

- Public water systems and private wells are usually dependent upon groundwater supplies.
- Groundwater supplies are affected by development which reduces recharge and pollutes groundwater.

- High water withdrawals can affect other water supplies.

Riparian Buffers

Riparian buffers are particularly important to protect water resources because of the number of resources along watercourses, including floodplains, wetlands, hydric soils, woodlands, and steep slopes. A riparian buffer is an area of vegetation that is maintained along the shore of a water body to protect stream water quality and stabilize stream channels and banks. Riparian buffers should be maintained along the Conewago, Piney, and Alloway Creeks and their tributaries. Requirements for such buffers should be incorporated into zoning and subdivision and land development ordinances.

Buffers provide the following benefits:

- filter runoff – Rain that runs off the land can be slowed and infiltrated in the buffer, settling out sediment, nutrients and pesticides (nonpoint source pollution) before they reach streams.
- take up nutrients – Fertilizers and other pollutants that originate on the upslope land are taken up by tree roots. Nutrients are stored in leaves, limbs and roots instead of reaching the stream. Through a process called “denitrification,” bacteria in the forest floor convert nitrate to nitrogen gas, which is released into the air.
- provide shade – The leaf canopy’s shade keeps the water cool, allowing it to retain more dissolved oxygen, and encouraging growth of plants and aquatic insects that provide food for fish.
- contribute leaf food – Leaves that fall into the stream are trapped on fallen trees and rocks where they provide food and habitat for organisms critical to the aquatic food chain.
- provide habitat – Streams that travel through woodlands provide more habitat for fish and wildlife. Woody debris provides cover for fish while stabilizing stream bottoms.
 - provides migration corridors for wildlife.
 - safeguard water supplies by protecting groundwater recharge areas.
 - provide flood control.

- provide stormwater management potential – natural vegetation provides a basis for innovative stormwater management systems. Stormwater flows from retention basins can be directed to, and allowed to flow through, buffers to reduce nutrient and sediment loads.
- improve water and air quality.
- stimulate economic opportunities such as by providing valuable open space which may increase land values and, therefore, the tax base.
- provide some federal tax incentives to landowners (depending on a landowner's financial situation) willing and able to place some of their lands under conservation easement.
- reduce grounds maintenance.
- provide recreational opportunities, and associated economic benefits for recreation-related businesses.
- provide educational and research opportunities for local schools and colleges.
- provide windbreak, shade and visual buffer.

SECTION 5 – WATER PLANNING EFFORTS IN THE REGION

Water Resources Planning: Recent water resources planning efforts have resulted in policies and programs affecting water resources in the planning area. These include the following:

Monocacy River Watershed Stormwater Management Plan

In 2002, Adams County completed the Monocacy River Watershed Stormwater Management Plan. This effort involved the portion of Adams County within the Monocacy River watershed, an area that includes all or part of 17 Adams County municipalities. Littlestown Borough and Germany Township fall completely within this area, and approximately 25% of Union Township is included. The Monocacy Plan establishes three technical standards involving peak runoff control, runoff capture, and water quality. Pennsylvania's Act 167, the Pennsylvania Stormwater Management Act, requires that local municipalities adopt standards to implement Stormwater Management Plans prepared by the County. Littlestown Borough has adopted the appropriate standards, although Germany and Union Townships have not.

The basic standard for stormwater management as established by Act 167 requires those involved in activities which can generate additional stormwater runoff, increase its velocity, or change the direction of its flow to be responsible for controlling and managing the runoff so that these changes will not cause harm to other persons or property throughout the watershed. In addition, recent guidance provided by the Pennsylvania Department of Environmental Protection requires that stormwater management plan incorporate concepts addressing water quality, groundwater recharge, and stream channel protection. Proper implementation of the plan may necessitate the use of one or more of the Best Management Practices (BMPs) presented in the plan.

The stormwater management standards presented in the plan are the minimum standards that have been determined to be appropriate and effective in the Monocacy River Watershed. If a municipality determines that local conditions warrant more stringent controls, it may adopt such controls provided that, prior to adoption, the municipality demonstrates to DEP that its proposed standards: 1) meet the minimum standards established by the plan, and 2) that the implementation of the proposed standards will not adversely affect downstream public property, health and welfare.

The following three sets of quantitative control standards have been established by the Plan:

Runoff Capture Volume/Groundwater Recharge Standard

The runoff capture/groundwater recharge standard recognizes that land development activities typically create impervious surfaces and/or reduce the perviousness of the ground surface. These conditions reduce the amount of rainfall that percolates into the soil. This, in turn, decreases the amount of groundwater recharge that occurs as the result of precipitation events. A reduction in groundwater recharge can lead to a depletion of groundwater aquifers and can reduce base flows in streams. Less groundwater recharge creates a potential for the reduced availability of groundwater for water supply and a reduction in base stream flows that can impair low flow water quality.

The post development runoff capture volume for the site shall equal or exceed the predevelopment runoff capture volume for the site.

The runoff capture standard reflects the goal of maintaining groundwater recharge from precipitation at predevelopment levels. The runoff capture volume is calculated on a case-by-case basis to reflect the predevelopment conditions for each development site.

Water Quality Volume Standard

The water quality volume standard recognizes the impacts of stormwater runoff on receiving water quality. The water quality standard recommended for use in the Monocacy River Watershed is as follows.

The water quality volume standard for the Monocacy River Watershed is that all runoff produced by 2.3 inches of rainfall over 24-hours shall be captured and treated using acceptable best management practices water quality enhancement techniques.

The water quality volume standard reflects the goal that approximately 90 percent of the runoff produced at development sites will receive water quality enhancement prior to leaving the site. The 2.3-inch rainfall volume was determined to meet this requirement based upon an analysis of local rainfall records.

Peak Rate of Discharge Standard

The runoff peak flow attenuation standard seeks to avoid increases in the peak rates of stormwater discharges from developing areas. By limiting the damaging peak discharges, the potential for increased downstream flooding and channel erosion can be reduced.

The runoff peak flow attenuation standard for the Monocacy River Watershed is that post-development peak discharge rates shall not exceed the predevelopment discharge rates for the 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hour design storms. The rainfall volumes for the 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hours design storms are 2.8, 3.6, 4.5, 5.5, 6.8, and 7.8 inches, respectively. The rainfall shall be distributed over the 24-hour duration in accordance with the NRCS Type II Design Storm Distribution.

Correction of the existing storm drainage problem areas in the watershed is not specifically part of the Act 167 planning process. However, the development of the watershed plan has provided a framework for their correction for the following reasons: (1) existing storm drainage problems have been identified; (2) implementation of the runoff control criteria specified in the Plan will prevent the existing drainage problems from becoming worse (and prevent the creation of new drainage problem areas); and (3) the hydrologic model developed to formulate the runoff control criteria could be used as an analytical tool for identifying engineering solutions to existing drainage problems.

With the above in mind, it was recommended municipalities within the Monocacy River watershed should include the following steps in their efforts to implement solutions to existing storm drainage problem areas:

1. Prioritize storm drainage problems within the municipality based upon frequency of occurrence, potential for injury to persons or property, damage history, public perception of the problems and other appropriate criteria.
2. For the top priority drainage problems in the municipality, conduct detailed engineering evaluations to determine the exact nature of the problems, determine alternative solutions, provide cost estimates for the alternative solutions, and recommend a course of municipal action. The number of drainage problems to be evaluated by a municipality as a first cut from the priority list should be based on a schedule commensurate with completing engineering studies on all problem areas. The engineering studies should include consideration of the downstream effects of eliminating specific drainage problems so as to avoid transfer of problems progressively downstream.

3. On the priority and cost basis, incorporate implementation of recommended solutions to the drainage problems in the annual municipal capital or maintenance budgets as funds are available.

The principal flood problem in the Region as reported in FEMA flood insurance studies and listed in the Plan is localized inundation of structures along Piney Creek and other small streams in Germany Township.

Reported stormwater problem areas mapped within the Plan include Sells Station Road at a tributary to the Conewago Creek, along Mehring Road at Piney Creek, along Basehoar School Road east of Littlestown Road, and several points along the Alloway Creek.

Comprehensive Plan Steering Committee members identified drainage problem areas at Route 194 near the Maryland Line, Feeser Road, Whitehall Road, and Georgetown and Updyke Roads.

Adams County Water Supply/Wellhead Protection Plan

In 1998, Adams County completed a Water Supply/Wellhead Protection Plan for the county as a whole. A component of the Plan involved the delineation of wellhead protection areas for community water supply wells in various hydrogeologic locations. The wellfield including Littlestown's Meadowview "A" and "B" wells was evaluated, and a scientifically determined wellhead protection area was determined. Recommendations regarding the protection of this wellfield from contamination were provided. (See Appendix 5).

The plan noted that the Littlestown Municipal Authority system with 10 source wells serve Littlestown Borough and Germany and Union Townships. Safe yield was 353,596 gallons per day (gpd), water use was an average of 346,103 gpd, peak daily use was 420,320 gpd, and finished storage was 900,000 gpd. Population served was 4,179, with 1,563 residential and 77 other connections.

Growth assumptions for the service area were as follows:

"The Littlestown area continues to be one of the fastest growing residential areas of Adams County. The service projections assume that this trend will continue over the next decade. The service projections account for the build-out of projects currently under development within the Borough, which will generate significant new demand for water. The projections assume that at least one significant project will be proposed in Union Township that will require water service. In addition, some properties in Germany Township may require Borough water service."

“The projections assume that a moderate rate of non-residential development will occur in this service area, with the majority of the new connections remaining in Littlestown Borough, likely along West King Street. The development of additional commercial or business facilities in this area will likely be due to the area’s continuing residential population growth.”

The system water source was not considered adequate and a safe yield deficit of 297,881 gpd was projected for 2010. Recommended structural improvements for the system included water source and treatment. Land area and aquifer recharge available to support projected groundwater demand in 2010 were considered adequate.

SECTION 6 – ENVIRONMENTALLY IMPACTED AREA

Keystone Sanitary Landfill is located approximately 2.5 miles southeast from the center of the Borough of Littlestown, PA and 1/4 mile north of the Carroll Co., Maryland state line, between Clouser and Line Roads. The landfill was a disposal site for municipal and industrial wastes. The total area of the landfill is approximately 60 acres. There are approximately 18 acres along the south-facing side of the landfill which were not permitted.

In 1984, residents discovered by means of private testing laboratories that their drinking water was contaminated with volatile organic compounds. In August, 1984, at PADEP's request, a spray irrigation system was constructed at Keystone's monitoring well No. 1 to prevent the migration of contaminants and to remove VOC's from the groundwater.

In 1985, Keystone signed a Consent Adjudication with PADEP that required Keystone to address certain aspects of groundwater monitoring and treatment necessitated by the detection of contamination in several on-site monitoring wells.

In 1990, the EPA concluded the remedial investigation and feasibility study for the Keystone landfill site. The results revealed that groundwater, soil, and surface water contaminants were migrating off-site. A baseline risk assessment was conducted during the RI at the Keystone Site. According to EPA's calculations, the Lifetime Excess Cancer Risk (LECR) posed by the site is 4 persons out of 10,000 for adults and 5 of 1,000 children. This risk is primarily due to the ingestion of groundwater contaminated with vinyl chloride. Vinyl chloride was only detected in two on-site wells. This risk exceeds the acceptable range and requires remedial action to be performed.

The "Keystone Landfill - Record of Decision" was promulgated by the EPA. The Record of Decision allowed for a "work plan" which outlined a remediation alternative and schedule. The alternative that was decided upon was a landfill cap, and the pump and treatment of contaminated groundwater. However, citizens voiced concerns that off-site contamination had not been properly characterized. The Record of Decision OU- 1 then called for a special operable unit to further address off-site contamination (outside the boundaries of the landfill).

SECTION 7 – HISTORIC RESOURCES

There are no National Register Listed Districts, no National Register Listed Properties, and no National Historic Landmark Properties in the Region. There are two state Historical Markers. The marker at Christ Reformed Church along Christ Church Road in Union Township reads:

“Known as “Mother of Reformed Churches” of this region. Congregation organized, May 1747, marking settlement of German pioneers in southern part of Conewago Valley. Section of present building erected, 1798. Many notable persons lie buried in the old churchyard.”

The other marker, at St. Aloysius Church in Littlestown, references a civil war campaign.

There are, however, other historic resources within the Region. The following map, Potential Historic Sites, comes from the Southeast Adams County Transportation Study, which used the Historic Resources Map from the Adams County Comprehensive Plan. The identified resources are from the Adams County Historic Sites Survey of 1980. These resources should be further studied to determine their significance and potential for inclusion on the National Register. Additional resources not yet mapped or identified may be determined to be of historical significance. The Union Township Comprehensive Plan specifically mentions Millers Bottom, an area along the South Branch of the Conewago Creek which contains prominent tree stands and an ancient oak tree; Bollinger’s Grist Mill between Barts Church and Chestnut Hill Roads; Armen H. Hostetter Farm House and Hostetter Homestead Farms; Mummert Property; Christ United Church of Christ; and Mennonite Meeting House.

The planning area is characterized by a number of regionally significant historic resources, including the following:

Monocacy Road – Today’s Route 194 follows the path of the one of the earliest roads – the Monocacy Road – in what became Adams County. Laid out in 1740, the Monocacy Road became an important travel route between Philadelphia and settlements in Maryland and points south. This route became a primary settlement route for immigrants of German and Protestant heritage, who were blocked from direct settlement in what became Maryland by settlers of Scotch-Irish and Catholic heritage. This settlement pattern set the stage for much of the social and religious character of many of southeast Adams County’s communities.

Mason Dixon Line – The establishment of the Mason Dixon Line is rooted, at least in part, in conflicts between settlers in southeast Adams County. Settlement associated with the holdings of William Penn (also known as Diggs Choice) resulted in conflict with settlement associated with the Maryland Calvert family. The 1757 skirmishes that resulted between the settlers resulted, at least in part and in conjunction with other disputes along the boundary, with the surveying by 1768 of a boundary to delineate and separate the two holdings. The surveyors who performed this survey were named Charles Mason and Jeremiah Dixon.

Civil War Troop Movement – The roadway today known as Route 97 was one of the primarily roadways used in 1863 by Union troops preceding the Battle of Gettysburg. Between June 30 and July 2, 1863, a sizeable percentage of the Union forces ultimately engaged at Gettysburg traveled through Littlestown and Germany Township. Another sizeable component of the Union forces traveled through northern Union Township along what is now Route 116. These forces, some of whom had been involved in the minor skirmish in Hanover, Pennsylvania, also were engaged at Gettysburg.

CHAPTER 7
TRANSPORTATION
BACKGROUND

INTRODUCTION

The transportation network of a community is a major element in its residential and economic development. It is part of the overall foundation for community growth and helps attract businesses and residents. A carefully planned roadway network, designed to properly fit the structure of the community and suit its needs, will facilitate mobility and enhance the quality of life. If the transportation network is poorly planned or maintained, this can deter desired development and overshadow a community's positive attributes.

The safe and functional movement of people and goods is a key factor in the orderly growth and development of the region. The lack of an integrated multi-modal transportation system coordinated with land uses and the environment can negatively impact the community. A trend evident in this area is the dependence on automobile travel with generally long travel distances, including work commutes ranging to the Gettysburg and Hanover areas, to Harrisburg and York, as well as Frederick, Westminster and Baltimore, Maryland.

COUNTY OVERVIEW

The Adams County Office of Planning and Development prepared the following overview when initiating the Adams County Comprehensive Plan Phase I Transportation Element Update.

“New challenges facing the County include significant new development pressure emanating primarily from Maryland and Virginia and to a lesser extent the Harrisburg and York metropolitan areas and the I-81 Corridor through Franklin and Cumberland Counties. The exaction of high impact fees and strict building codes in Maryland, along with that state's stringent "Smart Growth" planning initiative and more onerous taxation policies have resulted in a shift in the scale and location of major development proposals within Adams County.

During the 1990's Adams County was fortunate to have most new development contained in and around existing Borough Cores and in the vicinity of a few interchanges on Route 15. Since 2000, however, several large development projects have been proposed for more remote locations. Land values and the price of new housing are on the rise. Many of the county's new residents relate to jobs, services, entertainment, and restaurants over a wide geographic area, and they rely heavily on the private automobile for all trips. Other residents, however, live and work locally in relatively low wage service businesses and have limited access to private automobiles. For these individuals, most economic, social, and recreational needs must be met within the County. In addition, Adams County is continuing to attract large numbers of retirees and "pre-retirees" who will experience changing transportation needs as they get older. Thus, the existing and projected future

transportation needs of Adams County's increasingly diverse population must be addressed.

The Brookings Institute report, *Back To Prosperity, A Competitive Agenda for Renewing Pennsylvania* discusses the need to revive and sustain existing boroughs and villages and the need for pedestrian, bicycle, and transit connections within borough and village settings which could become denser and more compact in the future. In order to encourage boroughs and villages to enhance "livability", the following transportation issues will have to be addressed.

1. Potential conflict between sustainability of existing communities located on roadway corridors and goods movement/long distance travel patterns.
2. Aging populations which will increase demand for transit, including rural transit.
3. Emphasis on community health, quality of life, and reduction of energy costs is likely to create new pressures on segments of the transportation network that connect residents with recreational opportunities.
4. For some residents the cost of home to work trips is becoming prohibitive. Ways to reduce costs for low to moderate income and disabled persons must be identified.

A small but growing percentage of Adams County's children and its workforce walks or bicycles to work on a daily basis. They, along with the County's growing elderly population, also have limited mobility options for social and recreational purposes. With respect to children, many are using bicycles to arrive at schools. A lack of sidewalks and/or bike paths is forcing these children into public rights-of-way. Finally, rapidly increasing numbers of tourists are interested in healthy activities including walking and bicycling. Adams County has not developed policies regarding transit services or bicycle/pedestrian facilities.”

Countywide Transportation Planning: In recent years, local capacity in transportation planning has increased with the formation of the Adams County Transportation Planning Organization (ACTPO). ACTPO serves as a Rural Planning Organization (RPO), and functions in a manner similar to larger Metropolitan Planning Organizations (MPOs) in larger jurisdictions. ACTPO’s primary purpose is to develop the Adams County Transportation Improvement Program (TIP), a program and process by which transportation projects are identified, scheduled within a twelve-year time frame, and funded. Current projects in the planning area on the TIP are listed in Table T-3 of this chapter. Regional projects outside the planning area of this study, but which will have an

affect on the region, include the Route 94 improvement project north of Hanover and the proposed McSherrystown bypass.

Understanding ACTPO's role and importance is critical in terms of developing transportation recommendations within this planning area. Many of the transportation recommendations of this plan, particularly those involving the construction of new facilities or the updating of existing facilities must involve ACTPO in the project scheduling and funding process.

BACKGROUND INFORMATION

Questionnaire Results

A Joint Comprehensive Plan Questionnaire was distributed to the residents of Germany Township, Littlestown Borough, and Union Township. This was done to find the concerns and/or problems that the community would like to have addressed. Respondents were concerned about the traffic problems and the condition of the roads within the study area. There was some unease regarding the lack of availability of public transportation. Most respondents did not object to the use of tax money towards road improvements. More than 50% of the respondents replied that tax dollars should not be used toward enhancing the walkability within the region; however, a slight majority indicated that they would support the use of tax dollars for better hiking, biking, and walking opportunities.

Respondents most often identified the following as specific transportation problems in the region:

- The intersection of King Street and Queen Street (signalized, but capacity issues and delays)
- Intersection of Baltimore Pike and Whitehall Road/Columbus Avenue (excessive delays)
- Traveling Baltimore Pike (general congestion)
- Insufficient parking in Littlestown
- Insufficient public transportation

EXISTING ROADWAY NETWORK

The existing roadway network in Union and Germany Townships and Littlestown Borough is diverse including everything from winding, rural country roads, residential subdivision streets, service alleys and inter-county arterial highways.

The most heavily traveled roads in the study area are the arterial highways, which include the PA Routes 97 and 194. PA 194 travels in a northeast-southwest direction, connecting Hanover and Taneytown, Maryland. PA 97 facilitates travel in a southeast-northwest direction through the study area connecting Gettysburg and Westminster, Maryland, and intersecting with U.S. Route 15 northwest of the study area. PA 97 by way of U.S. 15 serves to connect businesses and residents of the study area to nearby cities such as Harrisburg and Frederick. PA Routes 97 and 194 also serve significant amounts of through traffic and are designated truck routes.

FUNCTIONAL CLASSIFICATION AND TRAFFIC VOLUMES

As mentioned above, the study area contains a wide variety of roads. Roadway functional classifications are a way to put these streets and highways into categories according to the service they are intended to provide and to define the role that streets or highways play in serving vehicles' trips through the transportation network. The roadway classifications in the study area are described as follows:

Minor Arterial

Arterials serve to link cities and towns and provide for interstate and intercounty travel. These roadways are usually spaced so that developed areas and collector roadways are within a reasonable distance and are intended to carry larger volumes of traffic for longer distances. Access on to arterials should generally be limited to controlled intersections with lower classification roadways.

Rural Major and Minor Collectors

These roads serve primarily intercounty and intermunicipal travel and link traffic between local roads and arterial streets. Collectors carry moderate volumes of traffic for shorter distances than arterials. Access on to collectors should be by way of local streets, but also may include direct access to commercial and industrial areas, residential developments.

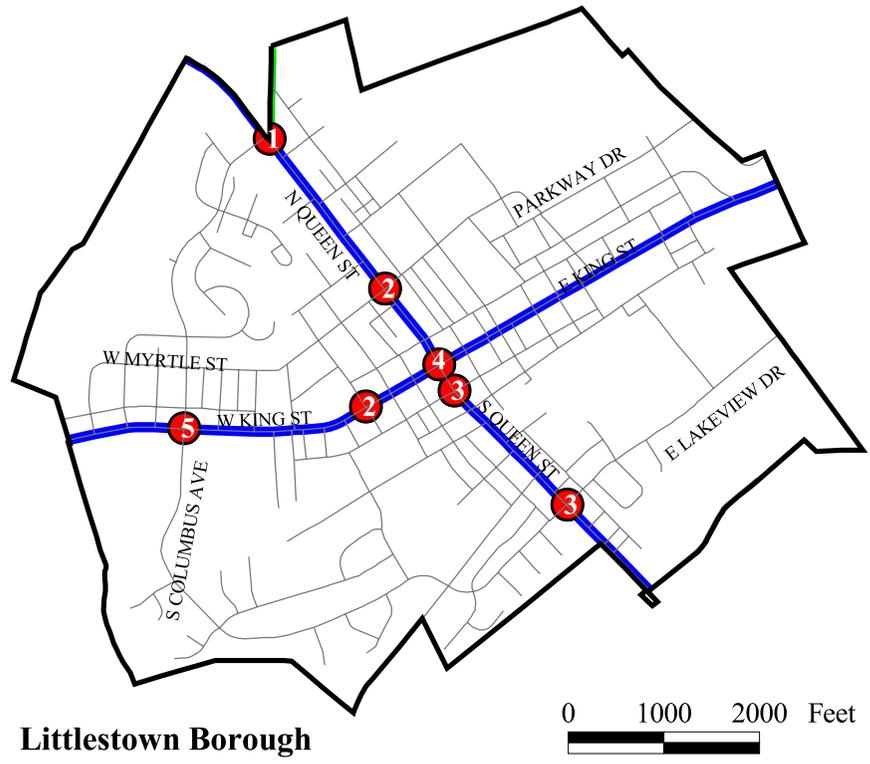
Local

Local roads can provide direct access to single lots and serve farms, residences, businesses, neighborhoods, and abutting properties. Access on to local roads is controlled to ensure proper design and adequate sight requirements.

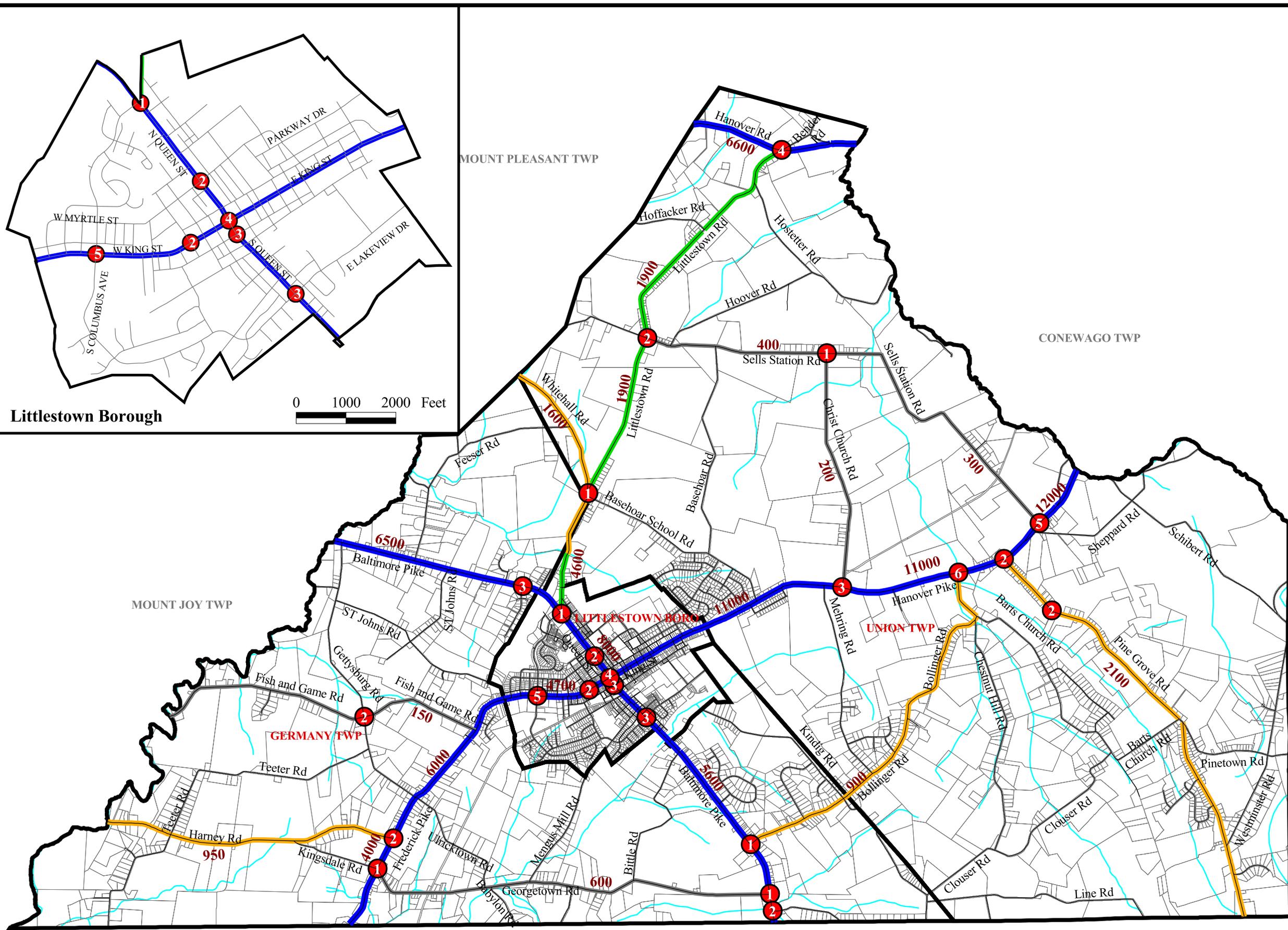
Table 7-1 shows a listing of the existing functional classification of key study area roadways based on the PENNDOT Functional Classification Map for Adams County,

2001. This table lists all of the state owned roadways. All of the municipal roadways are classified by PENNDOT as Local Roads.

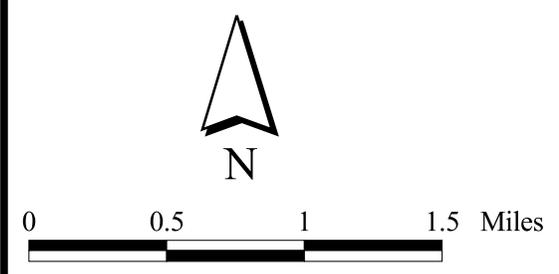
*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Functional Classification and
Two-way Average Daily Traffic (ADT)*



Littlestown Borough



- Accident Clusters (Accidents at Intersections from 1997 to 2001)
- Functional Classifications**
- Minor Arterial
- Major Collector
- Minor Collector
- Local
- 950 Two-way Average Daily Traffic (ADT)**
- Streams
- Parcels
- Study Area



Sources: Adams County GIS;
Herbert, Rowland & Grubic, Inc.; SSM



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**TABLE 7-1
Existing Functional Classification and ADT**

Functional Classification	S.R. #	Name	ADT (Vpd) (% Trucks)
Minor Arterial	SR 0097	Baltimore Pike	5,100 SE of Borough (7%) 8,100 SR 0194 to SR 2002 (7%) 6,700 NW of Borough (8%)
Minor Arterial	SR 0116	Hanover Road	6,800 (6%)
Minor Arterial	SR 0194	Hanover Pike	4,200 to 6,100 SW of Borough (8%) 11,000 to 13,000 NE of Borough (7%)
Major Collector	SR 2002	Whitehall Road (SR 0097 to SR 2019)	4,700 (7%)
Major Collector	SR 2019	Littlestown Road	1,900 (9%)
Minor Collector	SR 2002	Whitehall Road (SR 2019 to Twp. Line)	1,600 (11%)
Minor Collector	SR 2014	Harney Road (SR 0194 to Twp. Line)	950 (9%)
Minor Collector	SR 2027	Bollinger Road	950 (8%)
Minor Collector	SR 2025	Pine Grove Road	1,900 (3%)
Local	SR 2012	Fish and Game Road	500
Local	SR 2014	Georgetown Road	700
Local (C)	SR 2016	Sells Station Road	300
Local (C)	SR 2023	Christ Church Road	250

(C): Designated as Collector by current Municipal Comprehensive Plan.

Vpd: Vehicles per day. ADT from Adams County Traffic Volume Map, 2002.

The 2002 Average Daily Traffic and truck percentage data was obtained from PENNDOT and previous traffic counts completed by HRG and is summarized in Table 7-1.

ROADWAY CONDITIONS

Roadways in the study area have had an ongoing program of roadway rehabilitation and upgrades. Over the last ten years, reconstruction and/or widening have been completed on all or portions of the following roadways: Lakeview Drive, Keystone Street, M Street, Myrtle Street, Cemetery Street, Walnut Street, Kindig Road, Basehoar School Road, Feeser Road, Mathias Road, Menges Mill Road, St. Johns Road, Kingsdale Road,

Babylon Road, Bittle Road, Ulricktown Road, Kensington Drive, Sutton Court, and Windsor Court, Valley View Drive, Juniper Lane, Woodcrest Circle, Mehring Road, Flatbush Road, Hoffacker Road, Hoover Road, Line Road, and Clouser Road.

Littlestown recently completed the extension of Lakeview Drive from Keystone Street to the Union Township Line, and has also facilitated the construction of Columbus Avenue, a circumferential street on the southwest side of PA 97.

In general, the study area roadways are in fair to good condition. As shown in Table 7-2, most of the primary roadways previously listed herein have an adequate cartway width and many have effective shoulder widths. As these roadways are improved, it is recommended that minimum cartway and shoulder widths consistent with PENNDOT 3R Design Criteria be implemented.

**TABLE 7-2:
Existing Roadway Widths, Speed Limits and Conditions**

Road Name	Route No.	Existing Lane Width (PENNDOT 3R Design Criteria Width)	Existing Shoulder Width (PENNDOT 3R Design Criteria Width)	Pavement Markings	Posted Speed Limit (mph)	Pavement Condition	Adequate Shoulder for Bicycling ¹
Baltimore Pike	SR 0097	11' (11')	2' - 3' (5')	DY/SW	25 - 45	Good/Poor	No
Hanover Road	SR 0116	11' (11')	8' (5')	DY/SW	45	Good	Yes
Hanover Pike	SR 0194	11' (11')	5' (5')	DY/SW	25 - 35	Fair	No
Whitehall Road	SR 2002	10' (11')	2' (2' north of SR 2019; 4' south of SR 2019)	DY/SW	40	Good	No
Littlestown Road	SR 2019	11' (11')	1' - 2' (2')	DY/SW	40	Good	No
Harney Road	SR 2014	11' (10')	1' (2')	DY/SW	40	Good	No
Bollinger Road	SR 2025	11' (10')	1' (2')	DY/SW	40	Good	No
Pine Grove Road	SR 2027	11' (11')	0' (3')	DY	40	Good	No
Fish and Game Road	SR 2012	10' (9')	0' - 2' (2')	DY/SW	40	Good	No
Georgetown Road	SR 2014	11' (10')	1' (2')	DY/SW	40	Good	No
Sells Station Road	SR 2016	11' (9')	0' (2')	DY	40	Poor	No
Christ Church Road	SR 2023	10' (9')	0' (2')	DY	40	Good	No
Columbus Avenue	Local	12'	8'	DY	25	Good	Yes
Gettysburg Road	Local	10'	0'	SY	30	Fair	No
Mengus Mill Road/Boyer Street	Local	10'	0'	SY (in portions)	25 - 30	Good	No
Mehring Road	Local	11'	0'	DY/SW	35	Good	No
Kindig Road/Mathias Road	Local	10'	0'	SY	25	Fair	No

DY = Double Yellow Centerline; SY = Single Yellow Centerline; SW = Solid White Edgeline

¹Based on standard for rural section, basic and child cyclists, found in PADOT Statewide Bicycle and Pedestrian Master Plan; width typically 6 to 8 feet, depending on road characteristics.

Particularly in undeveloped areas, parallel roadway drainage improvements should be considered as much of the study area is prone to flooding. Particular drainage problems were noted along Sells Station Road, Gettysburg Road in the area of Fish and Game Road, and Georgetown Road near Babylon Road. The primary study area roadways are marked with double yellow centerlines and many have white edge lines. There are many areas within the study area, particularly within Littlestown Borough, where the existing pavement markings have faded significantly. Truck and/or weight restrictions are present within the study area along some roads and bridges.

There are also several challenging conditions within the study area that may be in need of improvements to facilitate increased safety and accommodate the growing needs of the community. The offset intersections at PA 194/Gettysburg Road/Urlicktown Road and Georgetown Road/Urlicktown Road/Babylon Road could present safety problems as traffic volumes increase. In addition, there are several potential sight distance problems throughout the study area, most notably at the following areas:

- Southbound Kindig Road/Northbound Mathias Road at Bollinger Road (looking northeast along Bollinger Road)
- Northbound and Southbound Gettysburg Road at Fish and Game Road (looking east along Fish and Game Road)
- Eastbound Updyke Road at Gettysburg Road (looking north along Gettysburg Road)
- Sight distance/alignment issues at the intersection of Route 116 and Bender Road
- Sight distance problems are created by on-street parking while pulling out onto PA 194 and PA 97 within Littlestown Borough
- Intersection of Roberts and Updyke Roads in Germany Township

Long delays were noticed as vehicles attempted to pull out from Whitehall Road onto Queen Street and from Talbot Street onto King Street (which should be monitored for signal warrants). The Queen Street/Whitehall Road intersection is programmed for signalization as part of a land development project. In addition, Whitehall Road intersects Queen Street at an angle much less than ninety degrees. This should be addressed to increase safety and improve the alignment with Columbus Avenue.

Particularly on Teeter Road and Urlicktown Road, but also on other study area roadways where substandard geometric conditions exist, warning signing should be consistently utilized to advise motorists of such conditions. A traffic safety evaluation of primary study area roads, including warning signing and other roadside features located within roadside clear zones, is suggested as a risk management tool.

There is one traffic signal installation in the study area. Littlestown Borough is the owner and responsible party for the operation and maintenance of the traffic signal installations at the PA 97 and PA 194 intersection, known as the Borough Square.

PUBLIC TRANSIT SERVICES

Public transportation has numerous community benefits. It can reduce congestion; offer transportation to those without automobiles; relieve stress on roadways, bridges, and intersections, thereby reducing the demand for expensive infrastructure upgrades; improve air quality; and reduce health risks.

Currently, there are no fixed bus routes that operate within Adams County. The nearest bus routes can be found in Harrisburg, PA; York, PA; Chambersburg, PA; Frederick, MD; Baltimore, MD; all of which are located between forty-five minutes and an hour from the study area.

The Adams County Transit Authority provides demand responsive ParaTransit services for people with special needs. ParaTransit provides door-to-door rides for senior citizens, people with disabilities, and other individuals in Adams County. For people aged 60 – 64, the Office of the Aging provides funding for 100% of the cost for essential trips, such as grocery shopping, banking, and medical-related trips. For people 65 and older, the Pennsylvania Lottery provides funding for 85% of the ParaTransit cost for any trips, while the Office of the Aging will provide the remaining 15% for essential trips. For non-essential trips, the rider must pay the remaining 15% as co-pay. Grants have also been provided to assist low-income passengers. The ParaTransit service will take passengers within the study area to Hanover or any destination within Adams County. There are weekly trips (every Wednesday) to both York and Harrisburg. The ParaTransit service is 100% handicapped-accessible.

RAIL TRANSPORTATION – PASSENGER AND FREIGHT

Currently, there are no passenger or freight rail stations within Adams County. The rail service that was available to the Township via the Maryland and Pennsylvania Railroad has been discontinued. The rail line has been abandoned and rights-of-way turned back to the original owners. The nearest stations are located in Harrisburg, PA; Hagerstown, MD; and Baltimore, MD; all of which are located approximately one hour from the study area.

AVIATION FACILITIES AND SERVICES

Air service is available at several small airports in Gettysburg and Hanover, with more complete services available in either Harrisburg or Baltimore.

PEDESTRIAN AND BICYCLE SYSTEMS

A number of public rail-trail, greenway, and hiking trail facilities are nearby and are available to study area residents. These facilities include the:

- **Gettysburg National Military Park** (hiking trails, horseback riding trail, and bikes are permitted along the 26 miles of paved road within the park);
- **Appalachian Trail** (hiking trail from Maine to Georgia, travels nearby the Cumberland/Adams County Line and the Franklin/Adams County Line);
- **Chesapeake & Ohio Canal National Historic Park** (multiuse trail from Washington, D.C. to Cumberland, MD);
- **Mason-Dixon Trail** (hiking trail from Maryland and Delaware to junction with Appalachian Trail near Mount Holly Springs, Cumberland County);
- **Tuscarora Trail** (hiking trail from Virginia and Maryland to near Wertzville in Perry County);
- **Western Maryland Rail Trail** (multiuse trail near Hagerstown, MD that runs from Big Pool through Hancock to Polly Pond); and,
- **York County Heritage Rail Trail (PA)/Northern Central Railroad Trail (MD)** (a multiuse rail-trail that connects York, PA to Ashland, MD; it changes names as it crosses the state border)

None of these trail facilities are located in the planning area. However, planning has begun on at least two initiatives that would, if implemented, provide enhanced connectivity between the planning area and these regional resources. These include the following:

York-Hanover Trolley Line – The York County Rail Trail Authority completed a feasibility study in 2003 that addresses the potential of developing a non-motorized trail along the former York-Hanover Trolley Line right-of-way. The trolley line operated between 1908 and 1939. Two sections of the right-of-way have been identified for immediate development, while other sections have been identified for further study. If this link is completed, further interest in extending non-motorized trail facilities into Adams County in general, and to and through Littlestown specifically, could result.

Grand History Trail – Funding has been secured from organizations in various states to evaluate the potential development of the “Grand History Trail.” Within the Adams County area, this facility, if developed, could result in a further extension of the York-Hanover Trolley Line trail to Gettysburg, with further links extending to Frederick, Maryland and the Potomac River Trail. Again, if this trail is developed, enhanced

opportunities of connecting other Adams County communities, including the Littlestown area, into this multi-state trail network could result.

The study area's geographic location and features, with collaboration from other municipalities within the County, provide great opportunity to increase the connectivity of these regional facilities and to increase study area residents' accessibility to them.

In terms of cycling and walking as utilitarian modes of transportation, the bicycle and pedestrian systems are located primarily in the Borough of Littlestown. Outside of the Borough, sidewalks are only located within the Meadowview Development, located in Union Township, just northeast of the Borough. Where they are present, sidewalks are generally in good condition. Currently, there are no striped bicycle lanes in the study area and many of the roadways have little or no shoulder area.

PROGRAMMED TRANSPORTATION IMPROVEMENTS

PENNDOT

Table 7-3 shows projects that are currently listed on the 2005 Twelve Year Transportation Improvement Program, that are located within the study area. At this time, these are the only major projects that are envisioned for the state routes within the study area in upcoming years. Additional future projects are likely to focus on maintenance needs rather than new roadways or major alignment shifts.

**TABLE 7-3
2005 Twelve Year Transportation Improvement Program (TIP)**

Route	Project Description	12 YR Plan Period	Costs (in thousands of dollars)					
			PE	FD	UTL	ROW	CON	Total
HIGHWAY								
SR 0097	Baltimore Pike and King Street Highway Restoration	1 st					2725	2725
SR 0097	Littlestown Streetscape Transportation Enhancement	1 st					209	209
BRIDGE								
SR 0097	Two Taverns Bridge	1 st		216	15	25	678	934

MUNICIPAL IMPROVEMENTS

The Borough of Littlestown has a major transportation project planned in conjunction with PENNDOT's Baltimore Pike III project. The Borough is planning to reconstruct the curbing and sidewalk and to complete streetscape enhancements on SR 0097 from Locust Street to Charles Street and on SR 0194 from M Street to Maple Avenue.

The Borough is also pursuing grant funds for the reconstruction and extension of Monarch Street to serve as truck access to eliminate trucks from Lumber Street.

Union Township plans to construct a new road to provide a direct connection between Whitehall Road and Littlestown Road. In addition, they plan to widen and reconstruct Bender Road and Basehoar School Road.

Germany Township is planning to widen and reconstruct Gettysburg Road from Route 194 to Fish and Game Road. They also plan to rebuild St. Johns Road West, consisting

of widening and drainage and alignment improvements. In addition, they are currently seeking funding for improvements at the intersection of Teeter Road and Harney Road.

The study area municipalities also receive revenue annually from the Commonwealth's Liquid Fuels Tax Program. This program allocates a portion of the tax collected from the sale of liquid fuels (i.e., gasoline and oil) to municipalities in order to supplement funding for local roadway improvements and emergency services' fuel expenses. The amount received by each municipality is based upon the number of local roadway miles. These funds are used to conduct activities such as street resurfacing and reconstruction, street sweeping, snow plowing, crack sealing, storm drain repairs, and other maintenance activities for these roadways.

SOUTHEAST ADAMS COUNTY TRANSPORTATION STUDY

In January, 1997, the Adams County Office of Planning and Development completed the Southeast Adams County Transportation Study. This study documented the intersection operating conditions as of 1995 and projected conditions for 2010 for several key intersections in the study area of this comprehensive plan. Table 7-4 provides a comparison of the 1995 and projected 2010 operating conditions, as was presented in the county study. Level of Service A through F are used by the Transportation Research Board's Highway Capacity Manual to represent from excellent to poor operating conditions, giving consideration to estimated delays as a measure of congestion. Level of Service D is generally considered to be the lowest acceptable level of service.

**TABLE 7-4
Future Traffic Volumes and Level of Service Analysis - Intersections**

Location	Signal or No Signal	1995		2010		
		Total PM Peak Hour (all approaches) vph	Level of Service #	Total PM Peak Hour (all approaches) vph	Level of Service #	Meets Peak Hour Signal Warrant?
PA 194 and Harney Road	N	417	B	620	B	no
PA 194 and PA 97 (King and Queen Streets in Littlestown)	S	1,469	E	1,960	>F	yes
PA 97 and Whitehall Road	N	938	C/C	1,590	F/E	yes
PA 194 and Pine Grove Road	N	1,037	B	1,530	D	no
PA 97 and Bollinger Road	N	557	B	820	B	no
Whitehall Road and Littlestown Road	N	387	B	560	B	no
Whitehall Road and Basehoar School Road	N	402	A	590	B	no
PA 116 and Littlestown Road	N	850	C/C	1,210	F/F	yes
PA 194 and Basehoar School Road	N	959	C	1,410	F	no
PA 194 and Bollinger Road	N	1,021	B	1,500	D	no
PA 194 and Sell Station Road	N	525	C	1,530	C	no

Level of Service for existing intersection control and geometry

Source: January, 1997, the Adams County Office of Planning and Development completed the Southeast Adams County Transportation Study

This analysis showed that several of the study area intersections are projected to operate at unacceptable conditions and with traffic signals being recommended to improve those conditions. Of particular concern were the King and Queen Streets intersection, Route 97 and Whitehall Road intersection, Route 116 and Littlestown Road intersection, and Route 194 and Basehoar School Road intersection, all projected to have failing levels of service. The King and Queen Streets intersection is signalized and is further discussed after Table 7-5. The Route 97 and Whitehall Road intersection will be signalized. The Route 116 Corridor is under study. The Route 194 and Basehoar School Road intersection should continue to be monitored as to whether it meets peak hour signal warrants and a signal programmed when it does.

Recommendation for numerous roadway and intersection improvements were presented. A summary of the improvement recommendations from the county study is shown in the Table 7-5.

**Table 7-5
Priorities and Costs of Transportation Improvements**

Improvement	Municipality	Responsible Parties	Priority	Construction Cost (000's)	Right-of-Way Required
Extension of Lakeview Drive	Littlestown, Union, Germany	M, D	Medium	\$850	yes
SR 194 Bypass of Littlestown*	Germany, Union	PA, C, M, D	Medium to Long	\$8,000	yes
Reconstruct SR 116 from US 15 to Littlestown Road	Mt. Pleasant, Bonn., Union	PA	Short	\$3,500	yes
Reconstruct SR 194 from MD Line to Littlestown	Germany	PA	Medium	\$1,100	possibly
Reconstruct SR 97 from MD Line to Littlestown	Germany	PA	Medium	\$640	no
SR 97 from Littlestown to US 15 improvements	Mt. Joy, Germany	PA	Medium	\$2,400	no
Bollinger Road and Mehring Road improvements	Germany, Union	C,M,D	Medium	\$1,100	yes
Littlestown Road – widen with shoulders, some reconstruction	Union	PA	Medium	\$1,300	yes
Whitehall Road – Littlestown Road to SR 97	Union, Littlestown	PA	Medium	\$600	yes
SR 116 and Littlestown Road	Union	PA,M,D	Medium	\$75-100	minor
SR 194 (King Street) and SR 97 (Queen St.)	Littlestown	PA	Short	\$75-100	no
SR 97 (Queen Street) and Whitehall Road – Columbus Avenue	Littlestown	PA,M,D	Short	\$75-100	no
Littlestown Road and Whitehall Road	Germany, Union	PA,M,D	Medium	\$100	yes
SR 194 and Mehring Road	Union	PA,M,D	Medium	\$50	no
SR 97 and Bollinger Road	Germany	PA,M,D	Medium	\$50	no
SR 194 and Pine Grove Road	Union	PA,M,D	Medium	\$50	yes

*While this project will be needed in the longer range beyond 2010, planning should begin immediately so that right-of-way preservation and acquisition efforts can begin sooner.

Key: PA – Pennsylvania M - Municipality
 C - Adams County D - Developer

Source: January, 1997, the Adams County Office of Planning and Development completed the Southeast Adams County Transportation Study

The following identifies the recommendations in the Transportation Study relative to Germany Township, Union Township and Littlestown Borough and project status update.

1. Lakeview Drive Extension - The extension of Lakeview Drive eastward to connect to Route 194 was recommended to provide truck access from Route 194 to the industrial areas in the Borough. This connection would also help to provide an alternate route for traffic around the Borough Square. Proposed alignments for this route are shown in the county study as well as in the current Union Township Comprehensive Plan. The portion of this roadway extension in the Borough has already been completed.
2. Route 194 Bypass of Littlestown – The 2010 projections of traffic volumes showed that the existing roadway network, with some improvements, would be able to accommodate the projected traffic volumes without the need for a bypass of Littlestown. However, the study recommended the preservation of rights-of-way and for the incorporation of the potential bypass into the municipal comprehensive plans for Germany and Union Townships. This Regional Comprehensive Plan recommends upgrading existing roadways, with limited new construction, to facilitate travel south of the Borough.
3. Route 116; Route 194 and Route 97 Reconstruction – The study recommended the widening and upgrade of these roadways to provide for twelve foot wide lanes and widened shoulders for safety and capacity purposes. The Route 97 improvements are in the design process or have been completed and the Route 116 improvements are in the programming process.
4. Bollinger/Mehring Roads – These roadways were recommended for upgrading to accommodate increasing volumes of traffic that use these roads to bypass Littlestown.
5. Whitehall Road/Littlestown Road – These roadways were recommended to be widened with some minor geometric realignment.
6. Route 116 and Littlestown Road – The study recommended signalization of this intersection. Route 116 is being studied on a regional basis.
7. Route 97 and Route 194 – The recommendation was for a replacement traffic signal, with emphasis on the need to develop alternate routes for truck traffic to avoid the use of this tightly constricted intersection. Improvements must be coordinated with PENNDOT, which has not allowed construction of turning lanes at the intersection. Construction of turning lanes would result in loss of parking spaces, which is of concern to businesses in the area.
8. Route 97 and Columbus Avenue/Whitehall Road – This intersection was proposed for signalization and geometric improvements to address the irregularly aligned intersection. It will be signalized in conjunction with development.

9. Route 194 and Mehring Road; Route 194 and Pine Grove Road; and Route 97 and Bollinger Road – These intersections were recommended to have left turn lanes constructed on the mainline.
10. Whitehall Road/Littlestown Road/Basehoar School Road - This intersection was recommended for realignment to improve safety, potentially with the creation of two offset ‘T’ intersections. Realignment will occur in conjunction with development of a subdivision.
11. Bicycle/Pedestrian – The study also recommended that efforts be made to improve bicycle and pedestrian interconnectivity with existing services in the Borough, utilizing abandoned rail rights-of-way and by providing for shoulders on rural roadways.

TRENDS AND ISSUES

- Residents within the study area are concerned about the increasing traffic problems and the condition of the roadways, though these are not the primary concerns.
- The most heavily traveled roadways within the study area are minor arterials, including Route 97 and Route 194.
- The roadways within the study area are reconstructed, and often widened, on a regular basis. Consequently, the pavement within the study area is generally in good condition. The Commonwealth’s Liquid Fuels Tax Program helps to supplement funding to assist municipalities with the costs incurred on these maintenance projects.
- Lane widths within the study area are generally consistent with the widths required by PENNDOT’s 3R Design Criteria. Shoulder widths are often less than the widths required by PENNDOT’s 3R Design Criteria. Future reconstruction projects should be designed so that they are consistent with the 3R criteria.
- Several of the roadways within the study area exhibit flooding.
- Sight distance deficiencies and alignment problems exist within the study area.
- Though there are no bus or train routes within the study area, ParaTransit is available for area residents.
- Though there are no pedestrian/bicycle trails within the study area, there are several located nearby. Some residents have expressed a desire for increased accessibility to trails for hiking, biking, horseback riding, etc.
- Transportation improvements are currently listed on the 2005 Twelve Year Transportation Program.
- In addition to maintaining the roadways within the study area, the individual municipalities are pursuing projects to improve the roadway infrastructure.

- Recommendations for regional transportation improvement have been presented in the Southeast Adams County Transportation Study.

CHAPTER 8

SANITARY SEWER AND WATER FACILITIES

PUBLIC SEWAGE AND DISPOSAL FACILITIES

The planning region is currently served by the Littlestown Wastewater Treatment Plant, which is owned by the Littlestown Borough Authority, who leases it back to the Borough Council. The plant is a secondary activated sludge wastewater treatment facility, which discharges into the Alloway creek, and contains a permitted capacity of 1.0 million gallons per day. Originally constructed in the 1940's, the plant has undergone several upgrades: 1988, 2000, and most recently in 2003. The collection system consists of over 15 miles of gravity sewer lines and force main interceptors. The service area has experienced considerable growth throughout the last decade, and this growth has put increasing demands on the treatment plant.

At the writing of this plan, the Plant is serving over 2,150 edu's (equivalent dwelling units), and has allocated capacity for about 2,600 edu's to be served by 2007. The average dwelling unit adds a flow of 350 gallons per day, and once the new units are online, the plant will be at full capacity, meaning it cannot accept any additional edu's unless a costly expansion is completed. The cost is not the only issue determining the feasibility of a plant expansion. The capacity of the Alloway Creek to receive discharge from the plant is nearing capacity, and stringent PADEP requirements regarding nutrient (nitrogen) loading are additional factors which will determine the ultimate expansion limits of the plant. Other watershed-level issues, including the potential for pollution of the Chesapeake Bay as well as NPDES permitting, will make expanding the plant an even more difficult endeavor.

The aforementioned issues create a dilemma for the Region. With growth pressures continuing to mount, a solution for sewage treatment and disposal will need to be found. The short-term solution would include a modest expansion of the plant, that would allow for an additional approximately 450 units to be served. The approximate cost of this expansion is \$2.6 million, or roughly \$5,700 per additional unit. A more pragmatic approach to the problem would be a regional solution requiring cooperation between all municipalities who use the treatment plant.

Availability of public sanitary sewer and water capacity is important to managing growth, limiting sprawl, and providing for a variety of housing types and densities to accommodate the needs of the Region's residents. The Future Land Use Plan establishes Designated Growth Areas and Potential Future Growth Areas around the Borough of Littlestown. The intent is that most growth within the Region will occur within the Designated Growth Area. Upon development of that area, growth would then be accommodated in the Potential Future Growth Area. Public sewer and water capacity will allow for logical growth from the developed core into the growth areas at efficient densities which will concentrate growth and minimize consumption of land within the Region.

To meet the recommended objectives of this plan, as well as consistency requirements of the Adams County Comprehensive Plan, a regional Sewage Facilities Study (Act 537) Plan in cooperation with all three municipalities in the planning region, as well as the PADEP, will need to be completed.

It is not possible to determine, within the scope of this Comprehensive Planning process, how sanitary sewer service will ultimately be provided. As previously noted, PADEP requirements and their implications for treatment plant improvements/capacity are crucial. Policies of the Townships regarding willingness to bear costs for increasing capacity are also important. Current Union Township policy is that the cost of providing capacity must be met by the developer.

The Act 537 Plan will determine service areas and what approach should be taken to increase sewer capacity, whether it be modifications of the approach to treatment at the current plant, other modifications to the existing plant, construction of a new plant, and/or alternatives such as land application or water reutilization.

PUBLIC WATER SUPPLY SYSTEMS

The Littlestown Borough Authority owns the water system, and as with the sewage treatment plant, it is leased back to the Borough. The sources of public water for the system consists of eleven wells and one surface withdrawal from the quarry. The wells range in capacity from 25 gallons per minute (gpm) to 250 gpm for the quarry. The quarry serves as the primary source of capacity, with the wells being rotated in and out of service.

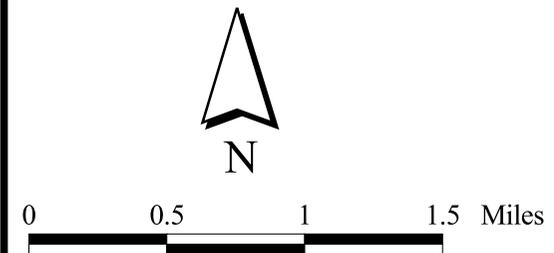
The current level of capacity for the system is 950,000 gallons, and the distribution system consists of over 99,000 lineal feet of pipe. To build new residential development to be served by the Borough's water system, a developer must supply 525 gallons per day per unit. This has been difficult to accomplish given groundwater conditions in the vicinity of the Borough.

Proposed future water service areas in Union Township could amount to serving 453 edu's as well as two commercial lots, which requires an additional 237,825 gallons per day to be furnished by the Authority. Demand will also arise from Germany Township.

A Water System Capacity Analysis Report and Wastewater Treatment Plant Capacity Analysis Report prepared by the consulting engineer for the Littlestown Borough Authority are included in Appendix 4. The end result is that no additional capacity is available in the sewage treatment plant outside that already allocated. Based on already allocated limits, there will be no hydraulic capacity at the treatment plant in normal weather conditions once already allocated units are online by 2007. Based on already

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Water Service Area*

-  Streams
-  Parcels
-  Study Area
-  Water Service Area



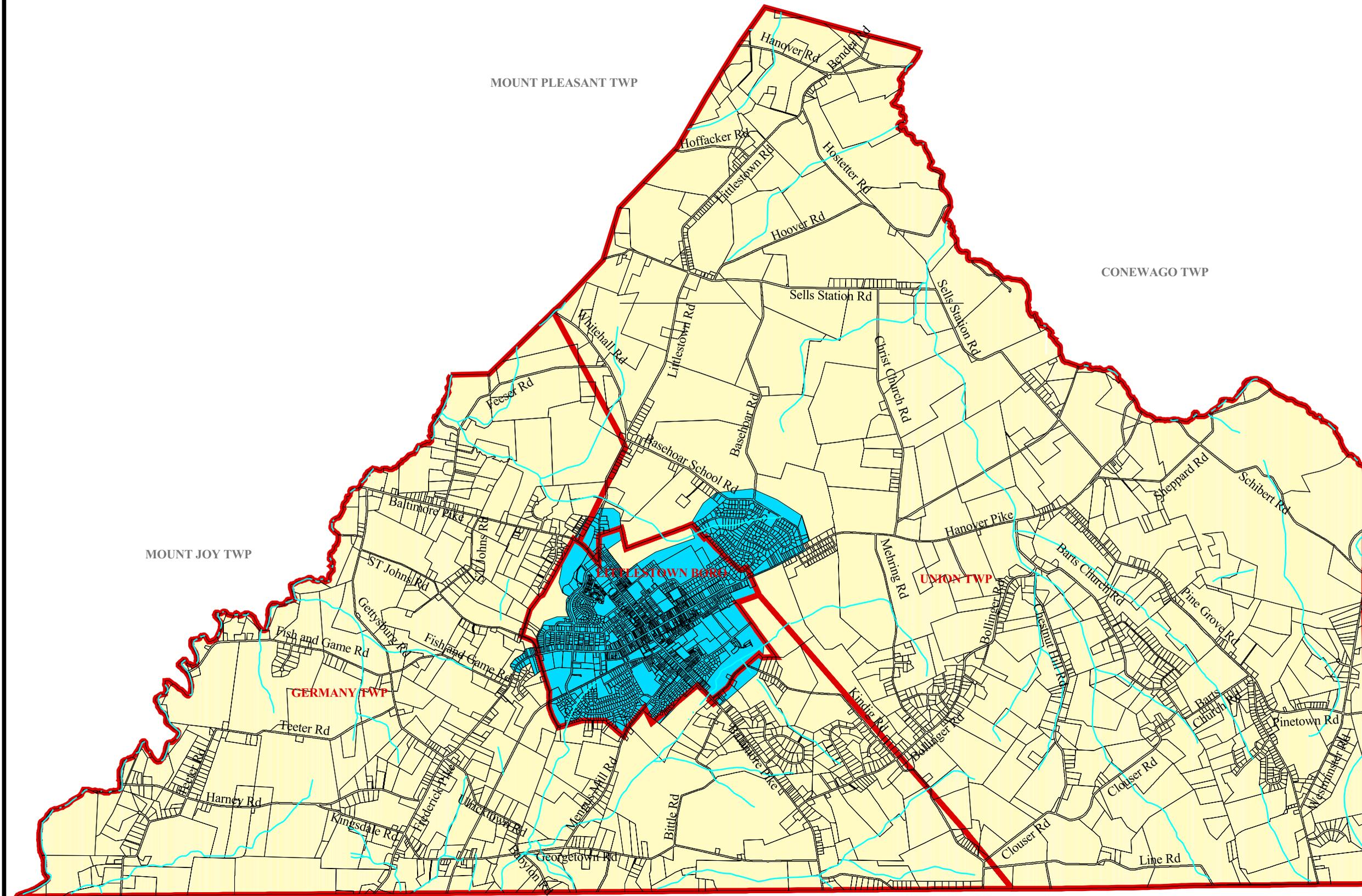
Sources: Adams County GIS



Spotts, Stevens and McCoy, Inc.
1047 North Park Road
Reading, PA 19610-0307
Tel: 610-621-2000 Fax: 610-621-2001

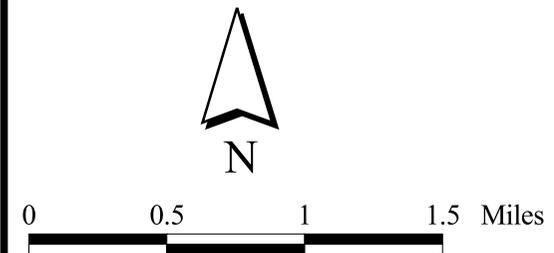
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*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Sanitary Sewer System*

-  Streams
-  Littlestown Sewer Lines
-  Parcels
-  Study Area



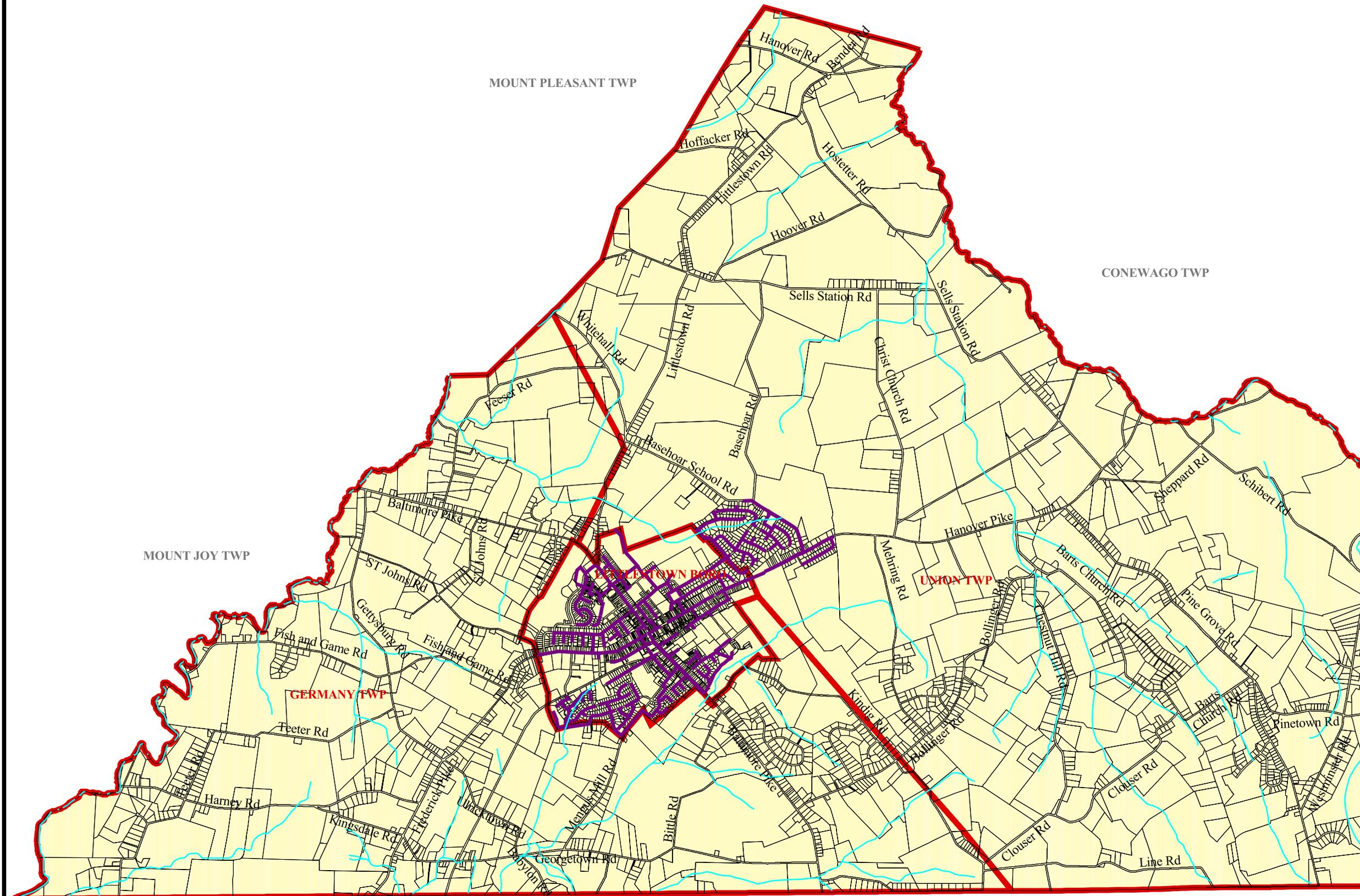
Sources: Adams County GIS



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allocated units, there will be no organic loading capacity once those units are online by 2007. Water system expansions depend upon developers providing required water supply via well(s) and distribution lines within the development.

POLICIES

The Borough of Littlestown has indicated a willingness to extend sanitary sewer and water service to the Townships, if it can be done at no additional costs to existing customers and the administration and operation of the sewer and water systems continue to be under the control of the Borough Council and Borough Authority.

Small community systems in the Region are generally not considered desirable, and the preferred method of providing sewer and water service is through extensions of the existing Borough systems.

A regional Act 537 Sewage Facilities Plan should be prepared for the Borough and the Townships. The Plan will address how the Designated Growth Areas and Potential Future Growth Areas could and should be served by public sanitary sewer.

CHAPTER 9
COMMUNITY FACILITIES BACKGROUND

INTRODUCTION

Community facilities are those buildings, structures and lands that house programs and activities essential to municipal government operations and provide necessary services to residents of the Region. Public services include activities ranging from police and fire protection to libraries and recreation programs. Facilities and public services can be provided in any number of ways depending upon the needs of the population, the philosophy of municipal officials, financial resources available, and extent of regional cooperation. Financing for such facilities and services can be provided through available funding or through contracts with private or quasi-public entities, thereby tailoring activities and expenditures for specific needs. A joint approach to providing such facilities and services allows for several municipalities to share in the cost of these facilities and services.

COMMUNITY FACILITIES MAP

Existing community facilities are shown on the attached map. The list of facilities on the map indicates the facility identified by each number. For the Borough of Littlestown, a blow-up has been provided to facilitate identifying community facilities.

EDUCATIONAL FACILITIES

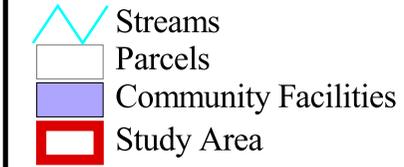
The three municipalities are part of the Littlestown Area School District. The Townships and the Borough are served by four schools on the campus in the northern portion of the Borough. The most recently constructed school is the Alloway Creek Intermediate School. Other schools at the campus include the Littlestown High School, the Maple Avenue Middle School, and the Rolling Acres Elementary School.

Currently, the schools are not overcrowded. If substantial population growth occurs in the Region in the future, additional capacity would eventually be needed. Likely alternatives would be to construct another school on the campus or expand the existing facilities.

FIRE PROTECTION

Two volunteer fire companies are located within the Region, the Alpha Fire Company within Littlestown Borough and the Kingsdale Fire Company along Frederick Pike in Germany Township. The Alpha Fire Company, located next to the current Borough Hall, has initiated a fundraising capital campaign to fund a new facility. SAVES (Southeastern Adams Volunteer Emergency Services) serves a portion of Union Township.

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Community Facilities*



Community Facilities List

- 1 Alloway Creek Intermediate School
- 2 American Legion
- 3 Ballfields
- 4 Barts Church
- 5 Bethel Assembly of God
- 6 Borough Hall, Alpha Fire Company, and Library
- 7 Centenary Church
- 8 Christ UCC
- 9 Crouse Park
- 10 Eagles Park, F.O.E.
- 11 First Baptist Church
- 12 Flatbush Golf Course
- 13 Hanover Soccer Club Fields
- 14 Keystone Landfill
- 15 Kingsdale Fire Co.
- 16 Littlestown Senior Center
- 17 Littlestown Area YMCA
- 18 Littlestown Chapel
- 19 Littlestown Community Park
- 20 Littlestown Fish and Game Association
- 21 Littlestown High School
- 22 LBA Quarry
- 23 Maple Ave. Middle School
- 24 Memorial Field
- 25 Mennonite Meeting House
- 26 Mt. Carmel Cemetery
- 27 Playground
- 28 Post Office
- 29 Quail Valley Golf Course
- 30 Redeemers United Church
- 31 Rolling Acres Elementary School
- 32 St. Aloysius Cemetery
- 33 St. Aloysius RCC
- 34 St. Johns Church
- 35 St. Paul's Church
- 36 Township Recreation Area
- 37 Transportation and Maintenance Facility
- 38 Union Township Building
- 39 VFW
- 40 WWTP

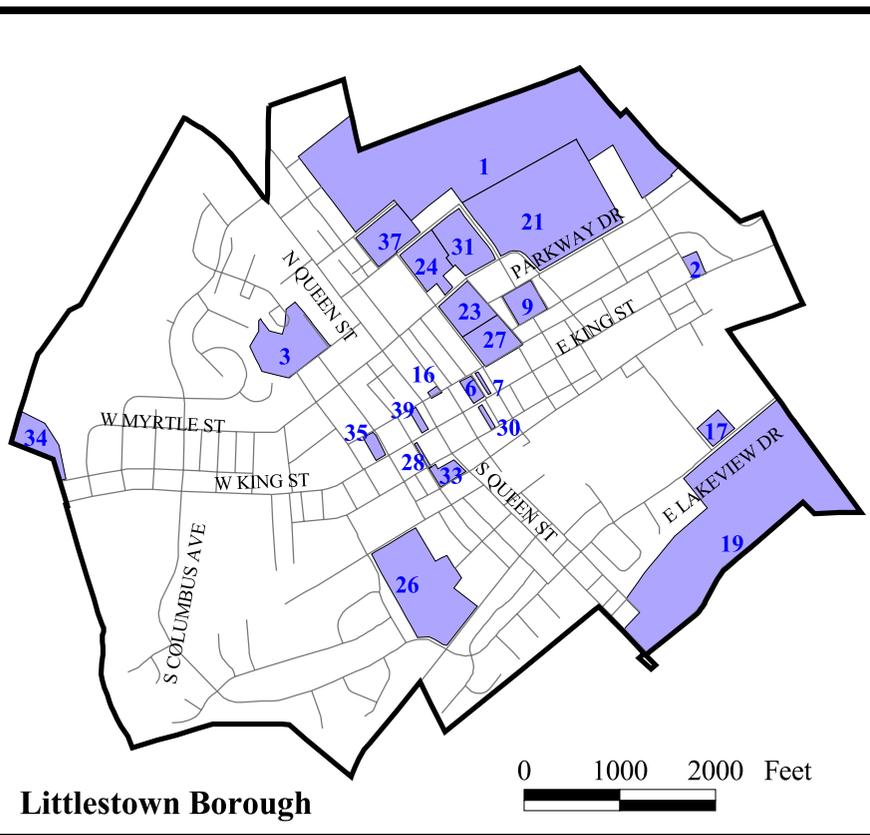
Sources: Adams County GIS; SSM



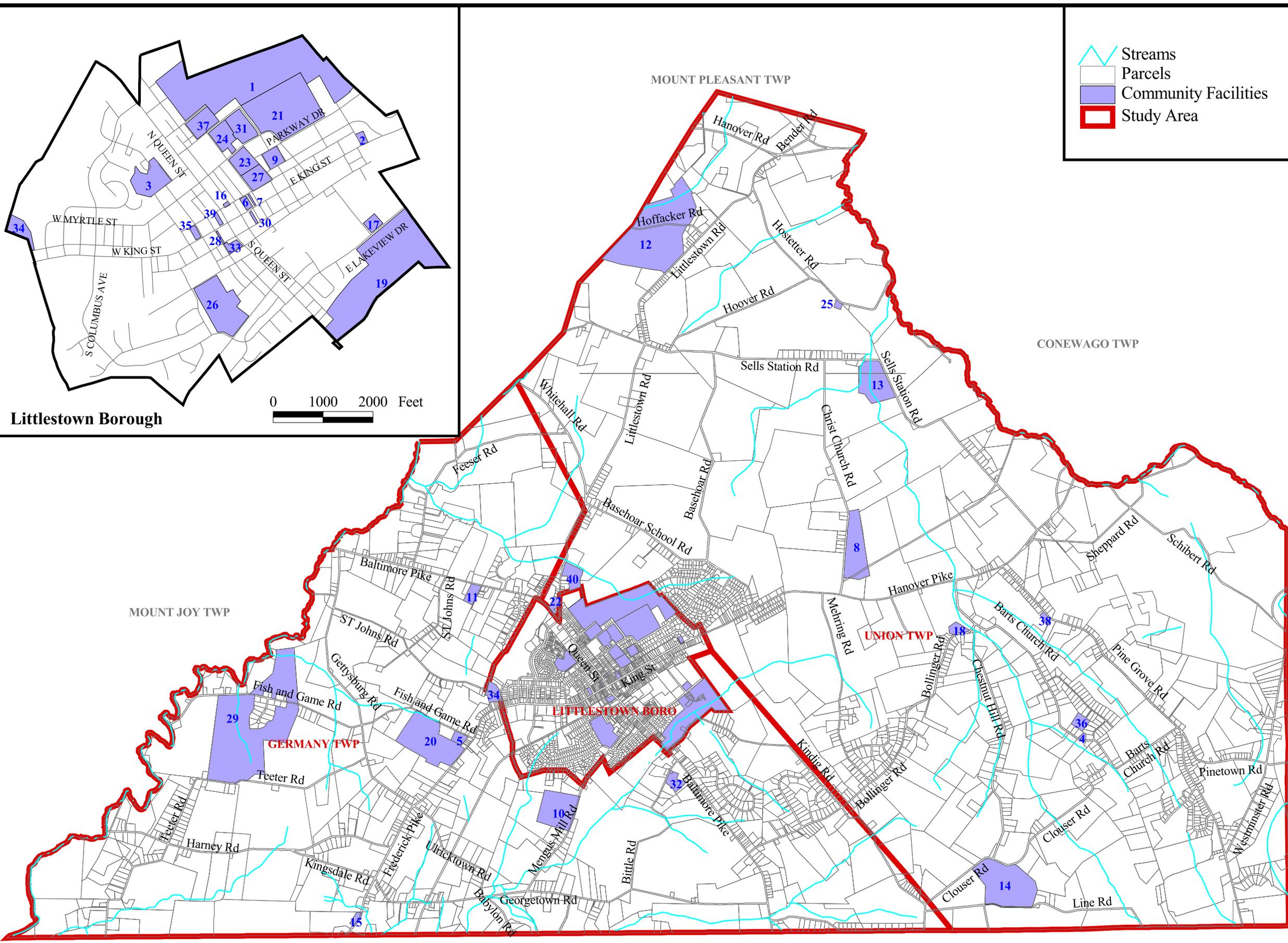
Spotts, Stevens and McCoy, Inc.
1047 North Park Road
Reading, PA 19610-0307
Tel: 610-621-2000 Fax: 610-621-2001

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Littlestown Borough



0 0.5 1 1.5 Miles

The Adams County Department of Emergency Services is responsible for direction and control of all emergency situations that occur in Adams County. The agency is also responsible for the overall operation of the Adams County Communication Center and the County's emergency dispatch center, which processes the dispatch of all police, fire and ambulance calls for the County.

POLICE PROTECTION

Littlestown has its own police force. German and Union Townships do not have their police forces, and protection is provided by the Pennsylvania State Police stationed at the Gettysburg barracks.

AMBULANCE SERVICE

Basic Life Support is provided by the Alpha Fire Company and SAVES. Advanced Life Support service is provided out of the hospitals in Gettysburg and Hanover.

MEDICAL SERVICES

There are no hospitals within the Region. Hospitals are located in Gettysburg, Hanover, and Carroll County, MD. Local out care services include doctors offices. A dialysis center and medical center are located in Littlestown.

MUNICIPAL BUILDINGS

The Littlestown Borough Hall is located along East King Street. The Union Township building is located along Pine Grove Road. Germany Township does not currently have a municipal building, but it is considering whether it should construct a municipal building.

LIBRARIES

A branch of the Adams County Library is located in the Littlestown Borough Hall. One room is available, and expanded library facilities within the Region would be desirable. The main branch of the Adams County Library is located in Gettysburg. The Hanover Public Library is located within Hanover, York County.

SOLID WASTE MANAGEMENT

In all three municipalities, solid waste collection is handled privately. Solid waste which is collected goes to designated disposal sites identified in the Adams County Municipal Solid Waste Management Plan. No designated sites are located within the Region. The

Keystone Landfill, located between Clouser and Line Roads in Union Township, is a closed landfill, and remediation is in process.

Recycling is voluntary within the Region. A depository is located at the Dollar General parking lot on West King Street in the Borough.

SENIOR FACILITIES

The Adams County Office of Aging operates a senior center in Littlestown, which offers a room for activities for seniors. An expanded facility would be desirable. Another senior center is located in McSherrystown.

UTILITIES

Telecommunications service, cable TV service, natural gas service, and electric service in the Region are generally considered acceptable, though concern has been expressed about electric service reliability in the area of Basehoar Road. Broadband service is available from cable TV service providers.

RECREATION FACILITIES

Recreation facilities within the Region include Littlestown Community Park, Crouse Park, Borough ball fields, Memorial Field, the playground, Littlestown YMCA, and school facilities in the Borough. In Union Township, the Township owns an approximately six acre recreation site and Hanover Soccer Club fields are located along Sells Station Road. No public recreation facilities are located within Germany Township.

Additional private recreational facilities include the Eagles Park, Littlestown Fish and Game Association, and Quail Valley Golf Course in Germany Township and Flatbush Golf Course in Union Township.

Major recreational facilities outside the Region include Michaux State Forest and Caladonia State Park on South Mountain in Franklin County, Pine Grove Furnace State Park in Cumberland County, and Codorus State Park and Gifford Pinchot State Park in York County.

Adams County Vision for Parks, Recreation, and Open Space

The Adams County Vision for Parks, Recreation, and Open Space was adopted in December 1997. The following points are made in the plan:

- The County’s current and anticipated growth clearly underscore the value of planning ahead for parks, recreation programs, and the preservation of open space as residential development continues to push into Adams from the South (Baltimore), East (York), and North (Harrisburg).
- Emerging demographic trends, such as a growing number of senior citizens and families with young children illustrate the increasing demand for recreation facilities and programs to meet specialized needs.
- Misplaced and/or poorly designed development can easily destroy landscape characteristics that contribute to a high quality of life.
- Municipal governments (boroughs and townships) and school districts should recognize the importance and benefits of providing recreation opportunities close to the homes of residents. Municipalities, in particular, should use subdivision and land development regulations and zoning ordinances to establish community development standards that preserve open space, create recreation areas, and establish linkages that interconnect open space resources. Neighboring jurisdictions should cooperate in the development of local parks, recreation, and open space plans; local greenway systems; community and neighborhood parks; and recreation programs which will benefit residents throughout each multi-municipal area within the county. Within ten years, every municipal government in Adams County should have an adopted parks, recreation and open space plan. Municipalities subject to significant growth pressure should also consider adopting appropriate ordinances which require developers to provide land for parks or a fee in lieu of land to help meet the recreation needs of new residents.
- Landowners should cooperate with local governments and conservancies to preserve appropriate segments of land holdings in order to create a countywide greenway system. Farmers should adopt stringent land conservation measures, such as Best Management Practices, to help preserve county land and waterways, and they should give serious consideration to taking even more significant steps to permanently conserve their land and to support the establishment of agricultural reserve areas that are zoned for agricultural, not development, purposes. Also, very importantly, both residential and commercial developers should recognize the importance of including recreation facilities and open space within the confines of each new development, and they should become leaders in an effort to establish integrated open space conservation and recreation systems that link together new and existing communities.
- As “baby boomers” in Adams County begin to retire and as the county attracts retirees from elsewhere, recreation demand will increasingly shift from active play

and organized sporting facilities to more passive facilities and activities geared toward individual participation, such as trails for walking and biking, golf, gathering for friends and families, and nature study. Emphasis on health and exercise is likely to intensify and, as a result, there will be growing demands for recreational opportunities for mature adults.

- Natural features (floodplains, wetlands, woodlands, steep slopes, prime and unique farmlands) and selected man-made features (electric transmission lines, major pipelines, abandoned rail rights-of-way, and roads) have a significant effect on the character of Adams County and also offer significant opportunities to create trails and walkways.
- Community and neighborhood parkland needs should be met by local municipalities and school districts.
- Programs remain the responsibility of local government and the private sector.
- A strong cooperative effort should be made to preserve many elements of the County's open space system, including floodplains, wetlands, steep slopes, woodlands, unique farmland (such as orchards), selected man-made corridors (such as utility easements), scenic vistas and roadway corridors.
- Local municipalities and school districts should combine resources to offer recreation facilities and programs which individual boroughs and townships cannot afford.
- Watershed areas, groundwater recharge zones, and other valuable land resources will be preserved in the Adams County greenway system and a focused County effort to conserve land.
- Agriculture will be recognized and preserved as a critical element of Adams County's cultural landscape in the face of increasing development pressure. A fruit belt, horse farms and other agricultural centers would be recognized as unique ecotourism attractions.
- Developments can be designed using "open space subdivision" guidelines.
- Abandoned rail segments offer opportunities for linear land preservation, including an abandoned right-of-way formerly used by the now defunct Penn Central Railroad through the southeastern corner of the County, connecting Hanover, Littlestown, and Taneytown (MD).

- The Adams County Vision for Parks, Recreation and Open Space recognizes the critical value of agricultural lands and open space in maintaining the County's rural character – a key goal of the County's comprehensive plan. An open space system is vital in efforts to preserve natural features, to conserve land, and retain rural landscapes.
- Recommended Adams County Guidelines are: Baseball field, 1 per 3,000 people; softball/LL field, 1 per 1,500 people; soccer/football field, 1 per 2,000 people; basketball court, 1 per 3,000 people; volleyball court, 1 per 5,000 people; pool, 1 per 20,000 people; tennis court, 1 per 2,000 people.
- Littlestown Borough had the only public swimming pool in the County. The Borough's summer recreation program is also one of the few recreation programs within the County.

The Adams County Vision established parkland guidelines by adjusting recommendations of the National Recreation and Park Association (NRPA) to reflect the specific needs in Adams County according to information gathered during the planning process. The Vision established a guideline for community parks of nine acres per 1,000 population, and a guideline for neighborhood parks of one acre per 1,000 population, for a total of ten acres per 1,000 population. Community and neighborhood parks were described as follows.

Community Parks provide primarily active recreation opportunities within and sometimes beyond a municipality. Community parks serve an area within approximately one mile of the site, are usually 25-50 acres in size, and often include a variety of athletic fields, courts and open space areas. Outdoor facilities at high schools and middle/junior high schools are usually classified as community parks.

Neighborhood parks serve adjoining residential neighborhood(s), usually within approximately ¼-mile of the park. Typically 1-15 acres in size, neighborhood parks often contain facilities such as basketball courts, ball fields, children's play equipment, and picnic tables as well as preserved open space. Outdoor facilities at elementary schools are usually classified as neighborhood parks.

The Adams County Vision did a detailed analysis of recreation facilities and needs by delineated recreation planning areas, however, the Littlestown area recreation planning area was not limited to Littlestown, Germany and Union, and included portions of Mt. Pleasant Township, Mount Joy Township and Bonneauville Borough.

Greenways in this region are discussed in the Transportation chapter. The Adams County Vision has a very detailed discussion of the benefits of greenways, greenway planning

principles and greenway design principles. The Adams County Vision encourages municipalities to adopt and landowners to use greenway planning and design principles where possible to enhance the preservation and enjoyment of Adams County's natural assets. The Vision also notes that while many greenways should remain in a natural state, other greenways will become "recreation corridors" for hiking, walking, and bicycling. Some residents will use selected greenways to travel to and from work, shopping centers and places of worship.

The Adams County Vision recommended establishing stream corridor protection areas to include all land within 100 ft. within a waterway bank and within environmentally sensitive areas beyond the 100 ft. boundary, within which development is prohibited or carefully controlled. The Conewago Creek, South Branch, was indicated as a water course which should receive high priority for study. It was noted that the southern branch flows through the rapidly developing southeastern portion of the County and that eventually part of the south branch floodplain might serve as an open space barrier between adjoining growth areas.

The Adams County Vision also recommends developing a scenic and historic roads plan. Scenic roads include roads which provide continuous views of rolling fields, creeks, or other unique and pleasant land features; vistas over farmlands or orchards; and provide links between historic villages or sites. A scenic roads plan could identify the characteristics which define scenic roads, establish priorities for preserving viewsheds along road segments, and suggest design guidelines for property improvements along identified roads. The plan could lead to adoption of a scenic roads ordinance which establishes procedure for road and property improvements along identified segments.

Acreage Needs

The Adams County Vision indicated that Littlestown Park contains 51.77 acres, Historic Crouse Park contains 2.5 acres, the Littlestown ball fields contain 4.14 acres, and the Littlestown schools have 15.0 acres of recreation fields. This is a total of 73.41 acres. The addition of the Union Township recreation area provides another 6 acres, for a total of 79.41 acres. The Hanover Soccer Club fields are a significant resource, but they are not public, so are not included in the total. Likewise, the Littlestown Area YMCA facility is not included in the total.

Using the Adams County Vision figure of 10 acres of local parkland per 1,000 residents, the recommended local recreation acreages for the Germany/Littlestown/Union Region would be as follows for the years 2000, 2010, and 2020, based upon 2000 census data and population projections for 2010 and 2020.

Year	Regional Population	Recommended Local Recreation Acreage	Existing Local Recreation Acreage	Acreage Deficit with No Additional Acreage Provided
2000	9,205	92	79	13
2010	11,200	112	N.A.	33
2020	12,861	129	N.A.	50

Based upon the 2000 regional population of 9,205, there would be a 13 acre deficit in recreation acreage, given the recommendation of 92 acres and 79 existing acres. If no additional acreage were provided, the regional deficit would rise to 33 acres in 2010 and to 50 acres in 2020.

The deficit has been calculated based upon the region as a whole. If the municipalities were treated individually, because most of the recreation acreage is located within Littlestown Borough the Borough would have a surplus of acres, Germany Township would have a deficit of 22 acres, and Union Township would have a deficit of 24 acres.

Planning Questionnaire

Providing recreational facilities was not considered one of the most important planning issues facing the Region by respondents to the Planning questionnaire, though 196 respondents supported the use of tax dollars toward parks and recreation and 82 respondents did not. 129 respondents indicated additional public parks and recreational facilities should be provided in the Region. 96 respondents said no, and 79 said they were not sure.

When asked what are the most needed facilities, those who said more park and recreation facilities should be provided responded most often for playgrounds for children; trails for hiking, biking, and horseback riding; parks with facilities or areas for fishing, hunting, camping, boating, etc.; areas for field sports such as softball, baseball, football, soccer, etc.; and community recreation centers.

CHAPTER 10

**ECONOMIC DEVELOPMENT AND EMPLOYMENT
BACKGROUND**

The Adams County Growth and Development Plan projects current development trends to continue throughout the County. With the increasing population, comes the increased need for economic development and job creation. If the economic development follows the pattern of the past twenty years throughout the State, area residents can expect a continuing transition from a manufacturing-based economy to a service-based economy. Most new jobs will come from services, finance and insurance, transportation and public utilities, education, and retail trade.

Changes in the economic base of the County can have a direct impact on the lives of the Germany/Littlestown/Union area residents. As the local economy becomes less dependent upon manufacturing and moves towards the service industry, as is happening nationally, cyclical fluctuations related to manufacturing may become less severe. This may mean even lower levels of local unemployment relative to the national as well as the regional economy. On the other hand, less dependence upon manufacturing may also mean lower paying jobs.

As business needs change, companies move from one facility to another. Vacant or under-utilized facilities can result if new businesses and tenants are not found. This can occur in the central business district and industrial areas of the Borough and the commercial areas of the Townships. The reuse of vacant buildings and sites is sometimes complicated by the need for on-site improvements, the difficulties of converting buildings designed for one use, or liabilities for environmental cleanup. The reuse of these sites may require additional investment and targeted marketing. It is a problem that may grow in the future as some manufacturing and older commercial businesses close.

Employment by Occupation and Industry

A useful indicator when analyzing an employment base is a breakdown of the occupations of the Region's residents. As discussed above, there is a national and local trend away from traditional occupations in the manufacturing sector to service and sales occupations, and the Germany, Littlestown, Union Region reflects this trend. In 2000, most people in the Region were employed in either the "sales industry" or the "management, professional, and related occupations", which includes business management and business and financial operations occupations. The next most prevalent occupations were in "service", "production, transportation and material moving", and "construction, extraction, and maintenance". Top industries in the Region, however, still include manufacturing, retail trade, educational, health and social services, and construction.

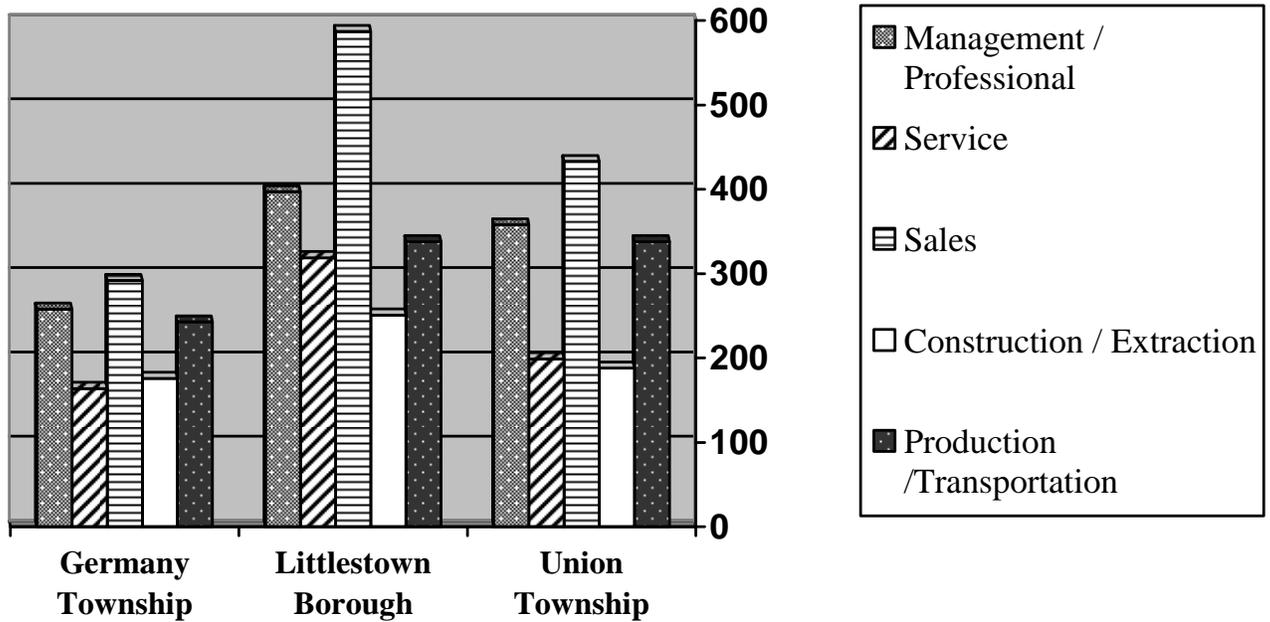
Figures 10-1 and 10-2 summarize Employment by Industry and Occupation data and depict the employment data from the 2000 Census for persons 16 and over.

Figure 10-1
Employment By Industry/Occupation
2000

INDUSTRY	Littlestown Borough		Germany Township		Union Township	
	Number	%	Number	%	Number	%
Agriculture, forestry, fisheries, hunting, and mining	23	1.2	25	2.1	45	2.9
Construction	201	10.6	154	13.0	163	10.6
Manufacturing	393	20.7	226	19.0	298	19.3
Wholesale trade	73	3.8	42	3.5	71	4.6
Retail trade	297	15.6	142	11.9	294	19.0
Transportation, warehousing and utilities	64	3.4	49	4.1	62	4.0
Information	60	3.2	34	2.9	24	1.6
Finance, insurance, real estate, rental and leasing	79	4.2	53	4.5	60	3.9
Professional, scientific, management, administrative and waste management services	108	5.7	86	7.2	101	6.5
Educational, health and social services	276	14.5	190	16.0	228	14.8
Arts, entertainment, recreation, accommodation and food services	180	9.5	82	6.9	98	6.3
Other services (except public administration)	50	2.6	52	4.4	32	2.1
Public administration	97	5.1	54	4.5	69	4.5
OCCUPATION						
Management, professional and related occupations	398	20.9	305	25.7	359	23.2
Service occupations	320	16.8	164	13.8	199	12.9
Sales and office occupations	588	30.9	292	24.6	433	28.0
Farming, fishing and forestry occupations	7.0	0.4	9.0	0.8	28	1.8
Construction, extraction, and maintenance occupations	250	13.2	176	14.8	188	12.2
Production, transportation and material moving occupation	338	17.8	243	20.4	338	21.9
Total employed persons 16 years and over	1,901		1,168		1,540	

Source: U.S. Census Bureau; Profile of General Demographic Characteristics: 2000.

Figure 10-2 - Employment by Occupation



Unemployment Rates in the Region

Unemployment rates are often a good reflection on the economy of a community. They are not, however, the definitive indicator of economic health, due to the variety of factors that may affect the rate. Seasonal jobs, size of workforce, national economic trends, and actions of large companies all can affect local unemployment rates.

The Census Bureau publishes a municipal profile for each municipality within Pennsylvania that contains specific employment data for the Borough and Townships. Figure 10-3 identifies the percent unemployment for each municipality in 2000.

Compared to the Adams County unemployment rate of 4.2%, the three municipalities in the planning region had extremely low unemployment rates. Union Township had the lowest, at only 1%; Germany Township was next lowest at 2.4%; and Littlestown Borough had the highest rate, albeit still very low, in the Region, at 3%. The average for the State was 6.1%.

Along with the very low unemployment rates, the Region compares favorably with the State in terms of median family income levels. The State median income was \$40,106 in 2000, compared to a \$43,700 average for the Region. Figure 10-4 describes the Income, Poverty, and Educational levels for the Germany, Littlestown, Union Region.

Figure 10-3 Unemployment Rates

2000 Employment Status	Germany Township	Littlestown Borough	Union Township	Adams County
Number Persons Unemployed	29	59	15	2,042
Number Persons Employed	1,189	1,901	1,560	48,230
Percent Unemployed	2.4%	3.0 %	1.0%	4.2%

**Figure 10-4
Income, Poverty and Education Characteristics
2000**

<u>Income and Education Categories</u>	<u>Littlestown Borough</u>		<u>Germany Township</u>		<u>Union Township</u>	
Median Household Income	\$36,678		\$46,806		\$47,619	
Percent Persons Below Poverty Level-Individuals	10.0%		6.5%		2.9%	
<u>Income Type</u>						
Number of Households – Total	<u>1,586</u>		<u>773</u>		<u>1,074</u>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
With wage and salary income	1,286	80.3%	673	86.4%	900	83.5%
Mean earnings (dollars)	\$42,095	x	\$50,495	x	\$54,486	x
With social security	434	27.1%	210	27.0%	291	27.0%
Mean Social Security income (dollars)	\$11,593	x	\$10,939	x	\$11,936	x
With Supplemental Security Income	45	2.8%	29	3.7%	31	2.9%
With Supplemental Security Income (dollars)	\$5,696	x	\$6,083	x	\$5,874	x
With public assistance income	78	4.9%	23	3.0%	-	-
Mean public assistance income (dollars)	\$2,248	x	\$2,935	x	-	-

With retirement income	270	16.9%	116	14.9%	186	17.3%
Mean retirement income (dollars)	\$18,468	x	\$11,509	x	\$17,056	x
Educational Information						
High School Graduates (includes equivalency)	1,221 (46.9%)		698 (47.3%)		923 (46.0%)	
College Graduates (Bachelor's Degree)	284 (10.9%)		108 (7.3%)		205 (10.2%)	
Graduate or Professional Degree	66 (2.9%)		64 (4.3%)		98 (4.9%)	

Source: U.S. Census Bureau; Profile of General Demographic Characteristics: 2000.

Major Employers within the Region and County

The food and fruit industry in Adams County, including numerous producers from the County's famous 'fruit belt', makes up a large portion of the County's top fifty employers. Knouse Foods, an apple producer, ranks #1 as the single largest employer in Adams County. The remainder of the top five employers includes Gettysburg College, Tyco Electronics, the Gettysburg Hospital, and the Brethren Home. Two of the top 15 employers, Master Brand Cabinets and Littlestown Area School District, are located in the Region.

The top 50 employers in Adams County are listed below.

1. Knouse Foods Cooperative, Inc.
2. Gettysburg College
3. Tyco Electronics Corporation
4. The Gettysburg Hospital
5. The Brethren Home
6. United States Government
7. MasterBrand Cabinets
8. Gettysburg Area School District
9. Quebecor Printing Fairfield, Inc.
10. Adams County
11. Pella Corporation
12. Pilgrims Pride Corporation
13. Conewago Valley School District
14. Motts, Inc.
15. Littlestown Area School District
16. Dal Tile Corporation
17. The Boyds Collection
18. Conewago Enterprises, Inc.
19. United National Foods
20. JDCS Enterprise
21. Tim-Bar Corporation
22. Genlyte Thomas Group
23. Bermudian Springs School District
24. C & J Clark America, Inc.
25. Wal-Mart Associates, Inc.
26. Lincoln Intermediate Unit
27. Inland Paperboard and Packaging
28. Adams County National Bank
29. Hoffman Homes, Inc.
30. Diocese of Harrisburg
31. Herff Jones, Inc.
32. Pennsylvania State Government
33. Byron Waggoner
34. Green Acres- Adams County Home
35. Fairfield Area School District
36. John B. Peters, Inc.
37. Giant Food Stores
38. Kennie's Markets, Inc.
39. Upper Adams School District

40. Times and News Publishing
Company
41. The Village of Laurel Run
42. Morton Buildings, Inc.
43. Dobbin House 1776 Restaurant
44. Knouse Fruitlands, Inc.
45. Schindler Elevator Corporation
46. Winter Gardens Quality
47. Rice Fruit Company
48. Sandusky Lee Corporation
49. Beverly Health and Rehab
Services
50. Harrisburg Area Community
College

Some of the other industries in the Germany, Littlestown, Union Region include Littlestown Foundry, Keystone Machine, Inc., Temple Inland Sheet Plant, Bar-Ray, Littlestown Pattern Works, and Feeser Trucking.

Revitalization Efforts

The central business district of the Borough has traditionally been a focal point for economic, government, and social interaction and activities. The migration of retail trade outside the core is related to the growth and expansion of commercial areas within the Townships and the periphery of the Borough. The popularity of suburban shopping centers increases as the perception or reality of downtown shopping areas becomes one of congested, overcrowded, and inaccessible stores

In 2005, the Borough of Littlestown will begin a comprehensive revitalization and rehabilitation project that includes the replacement and relocation of utilities, curb and sidewalk improvements, street lighting, and beautification plan for the downtown central business district. PennDOT is also planning a major road project on Queen Street (from Whitehall Road to Charles Street) and King Street (from the Post Office east to the Borough limits). In order to better coordinate the project, the Borough is entering into a reimbursement agreement with PennDOT, who will take over the whole project. In addition, the Borough has recently received \$920,000 in State and Federal grant funds toward the downtown project. Combined with prior grants, the Borough has received more than two million dollars in funding. This grant money has come from the Transportation Enhancement Program, Hometown Streets Program, Community Development Block Grants, Elm Street Program, Historic Preservation Fund, Street Tree Program, and the Historic Marker Fund.

Revitalization efforts should also be considered further south along South Queen Street and within the Monarch Street industrial area, to prevent further decline and to provide an incentive for additional private investment.

Adams County Economic Development Resources

Economic planning for the future of the Germany, Littlestown, Union Region, providing the residents a high quality of life, and attracting new industries and commercial opportunities is a complicated and multi-faceted process requiring collaboration and coordination by organizations and agencies at many levels. Below is a list of organizations that may be contacted to obtain information on available properties and the different tax incentives, economic development opportunities, business support, and workforce assistance which are available in the Region.

Organization**Primary Functions**

Littlestown Area Chamber of Commerce	Economic Development/Business Support
Gettysburg/Adams Chamber of Commerce	Economic Development/Business Support
Hanover Area Chamber of Commerce	Economic Development/Business Support
Adams County Economic Development Corporation (ACDEC)	Economic Development
Adams County Assistance Office	Workforce Assistance
Littlestown Area Industrial Development Authority	Economic Development/Business Support

Commuting Patterns

The following table provides information on means of transportation to work, mean travel time to work, and number of people working at home. Over 80 percent of workers in all three municipalities drove alone to work. A much lesser percentage carpooled, and an even smaller percentage walked. Few people worked at home.

PLACE AND MEANS OF TRANSPORTATION TO WORK

LITTLESTOWN BOROUGH, GERMANY TOWNSHIP, AND UNION TOWNSHIP ADAMS COUNTY

2000

Means of Transportation to Work	Littlestown Borough	Germany Borough	Union Township
Total employed civilian population 16 years and over	1,901	1,189	1,545
Car, Truck or Van, Drove Alone	1,568	953	1,298
Car, Truck or Van, Carpooled	140	136	180
Using Public Transportation	-	-	-
Using Other Means	5	9	8
Walked	93	15	1
Worked at Home	57	55	53
Mean travel time to work (minutes)	30.9	32.1	33.3

Source: U.S. Census Bureau; Profile of General Demographic Characteristics: 2000.

Mean travel time to work ranged from 30.9 to 33.3 minutes, but a substantial portion of the workforce has a long commute. The following table indicates the percentage of commuters having a commute of the times listed.

Percent of Commuters

Travel Time in Minutes - 2000

Municipality	Under 15	15-29	30-44	45-59	60-89	90 or more
Germany Township	19.7	36.1	19.6	8.2	11.3	5.1
Littlestown Borough	24.4	32.7	12.7	11.4	15.7	3.2
Union Township	24.0	34.6	12.6	10.2	13.1	5.5
Adams County	32.0	35.3	15.8	8.0	6.0	2.9

Source: U.S. Census Bureau

The municipalities in the Region have higher percentages in the 45-59, 60-89, and 90 or more minute commutes than Adams County as a whole.

Comprehensive Plan Questionnaire

In the Comprehensive Plan Questionnaire (See Appendix 1), respondents were asked whether a variety of types of businesses should be supported in the Region. Receiving the most support were agriculture and health services. Positive responses were given to restaurants, personal services, offices to support local businesses, light manufacturing, and specialty retail. Tourism and cultural attractions had a neutral reaction. The most negative responses were given to big box retail, outlet stores, department stores, medium to heavy manufacturing, wholesale trade, warehousing and distribution facilities, and corporate offices. Negative reactions were also given to information processing firms, cultural facilities, research and development firms, legal and financial services, and professional service firms.

CHAPTER 11
REGIONAL VISION

SECTION 1 – GERMANY/LITTLESTOWN/UNION REGIONAL VISION

The Regional Vision is a statement of what we want the Region to be like in the future. It is arrived at through review of the results of the questionnaire sent out to residents of the Region, input from public meetings and interviews of residents, discussions of the Regional Comprehensive Planning Committee, and review by municipal governing bodies and planning commissions. The Vision is attained by setting goals; establishing objectives to achieve those goals; setting forth policies to meet the objectives; and identifying actions to implement the policies.

The Germany, Littlestown, Union Region will remain an attractive community in which to live and work, with a high quality of life. There will be a variety of landscapes: Littlestown will be a vital regional center comprised of attractive residential neighborhoods; outstanding community facilities and services, such as parks and schools, to serve all segments of the Region's residents; and retail, office and light industrial facilities, of appropriate scale, to serve and employ area residents. Revitalization efforts will continue, and enhance the small town atmosphere appreciated by the Region's residents. Germany and Union Townships will have areas of suburban character near the Borough where regional public sewer and water facilities may be made available, but retain extensive rural areas and open space. Rural character in the Townships will be maintained through preserving farmland, rural landscapes containing woodlands and slopes, stream corridors, and the Region's water supplies.

Growth in the Region will be managed, balanced, moderate, and coordinated with the availability and adequacy of infrastructure. This will allow for retention of small town atmosphere, retention of rural character, protection of natural resources, and maintenance of a reasonable tax structure. Development which occurs will be attractive, respect traditional development patterns in the vicinity of the Borough, incorporate significant open spaces in the Townships, be in character of the Region, and environmentally responsible. Developers will analyze and mitigate impacts of development, provide appropriate landscaping and buffering, and address recreation and road improvement needs. Housing will be available in the Region for people in all stages of life.

Road corridors in the Region will be enhanced through programs to improve visual appearance, manage and coordinate access, address road intersections in need of improvement, and address parking needs. Development will be concentrated and well planned, rather than stripped along the Region's roads. Connectivity will be provided between new development and existing developed areas. Alternative modes of transportation, including pedestrian and bicycle systems connecting residents to activity centers, will be supported.

Germany, Littlestown, and Union will continue to work together to implement the regional Comprehensive Plan in order to protect the character of existing settled areas, coordinate and enhance community facilities and services, facilitate mobility throughout the Region, and protect natural, historic, and cultural resources.

SECTION 2 – GERMANY/LITTLESTOWN/UNION REGION GOALS AND OBJECTIVES

Goals are relatively general aspirations for the Region, indicating desired direction and providing criteria for measuring the success of this Plan. Objectives are more specific guidelines for the Region to follow in order to realize the goals. Goals and objectives should be reviewed periodically for their continued relevancy and success in achieving them through implementation of the Action Plan.

STATEMENT OF REGIONAL GOALS

Natural and Scenic Resources

Goal: Protect and preserve the natural and scenic resources and beauty of the region.

Historic, Architectural and Cultural Resources

Goal: Protect, preserve, and enhance the remaining historic, architectural, and cultural resources and their surroundings.

Agricultural Resources

Goal: Preserve existing productive farmland and horse farm areas for agricultural use and support the continuation of agricultural and agricultural support operations in the Region.

Open Space and Recreation

Goal: Provide for open space within the Region through the preservation of natural resources and the development and retention of recreation areas and parks.

Land Use

Goal: Manage, control, and guide development to preserve natural resources, agricultural uses, and existing communities in order to retain a mix of small town atmosphere, suburban environment, and rural character within the Region.

Circulation

Goal: Achieve a safe, efficient, multi-modal, and cost effective regional circulation system which will enhance pedestrian and bicycle movement, ease vehicular travel within the municipalities, minimize adverse impacts on residential neighborhoods, enhance the safety, mobility and livability of road corridors within the region, and relieve congestion.

Economic Development

Goal: Sustain and enhance the vitality of Littlestown while identifying appropriate locations for environmentally responsible industrial, office, retail and service use which are appropriate in scale and character to the Region.

Housing

Goal: Provide for a diversity of housing opportunities for the economic and demographic groups within the Region, in harmony with existing development and the historical and natural environments and in a manner that allows existing and potential residents of the region to live in the region throughout the life cycle.

Community Facilities, Services, and Development

Goal: Provide necessary community facilities and services to the Region's residents in an efficient, cost-effective and quality manner within the financial resources of the municipalities, consistent with concerns to protect natural resources and accomplish managed, concentrated, and well-planned development.

Planning

Goal: Identify and implement a variety of approaches, mechanisms, and tools appropriate for dealing with the challenges posed by growth within the Region.

STATEMENT OF REGIONAL OBJECTIVES

Natural and Scenic Resources

Objectives:

- Encourage retention of important landscape features of the Region, such as the horse farm and other agricultural areas.
- Encourage new planting of trees within developments.
- Encourage the preservation of scenic road corridors and viewsheds along them through retention of the character of rural-agricultural areas.
- Establish standards and processes for developers to respect and develop in accordance with land suitability and carrying capacity, preserve and protect environmental resources and quality, preserve unique natural features, and analyze and mitigate impacts of development.
- Encourage improvement of degraded views along road corridors in the Region.
- Require development to be sensitive to natural drainage ways.
- Protect groundwater aquifers and recharge areas from pollution through standards in municipal ordinances.
- Protect watersheds and wellhead areas for municipal water supplies pursuant to Borough and County wellhead protection plans.
- Protect steep slopes within stream corridors.

- Monitor the protection of “protected” lands to encourage their continued protection.
- Protect stream corridors and their watersheds in the Region.
- Protect the night sky from excessive light pollution through lighting standards in ordinances.
- Protect wildlife habitats within stream corridors and woodlands.
- Maintain and initiate partnerships with conservancies to protect the Region’s natural resources such as wooded areas and stream corridors.

Historic, Architectural and Cultural Resources

Objectives:

- Discourage inappropriate development in historic areas of the Region, require impact studies for development near historic resources, and require mitigation of any potential adverse impacts on historic resources.
- Maintain and initiate partnerships with conservancies and other organizations to protect the Region’s built treasures.
- Respect the history of the Region and identify techniques to preserve historic and architectural resources.
- Provide for adaptive re-use of historic structures where appropriate.
- Protect and enhance the character of the Region’s communities through appropriate land use planning.
- Encourage the identification, marking, and interpretation of historic resources in the Region, and foster increased public awareness of the history of the Region.
- Determine the role which the municipalities should play in historic preservation through land use ordinance incentives and regulations and efforts to create historic overlay zoning.

- Require new development to consider the history, architecture and development patterns of the municipalities in order to preserve the important historic and architectural resources of the Region.
- Discourage demolition by neglect and deterioration of historic resources.
- Identify existing contemporary sites which could be considered part of the historical or cultural heritage of future generations and work to preserve these sites for future generations.
- Support cultural events which celebrate the historic and cultural heritage of the Region.
- Consider historic overlay zoning which provides special protection for historic sites including crematories, farm houses, barns, mills, and churches.
- Conduct a regional survey of historic resources.

Agricultural Resources

Objectives:

- Avoid scattered urbanization which causes conflicts with farming, such as additional vehicular traffic and land use incompatibilities, by designating growth and potential future growth areas.
- Discourage the conversion of productive farmland to non-farm uses.
- Protect farming operations in Agricultural Security Areas (ASAs) from incompatible, non-farming-related uses.
- Identify areas that are appropriate for ASA designation, but which are not currently designated as such.
- Encourage participation in the “Clean and Green” Act (preferential tax assessment), the Adams County Agricultural Land Preservation Program (purchase of development rights), and private land preservation programs.
- Continue and consider opportunities for expansion of effective agricultural zoning in productive agricultural areas and horse farm areas.

- Minimize costs to farmers caused by excessively restrictive regulations that could interfere with normal farming practices.
- Support a tax climate favorable to production agriculture.
- Enhance the potential profitability of farming by facilitating appropriate accessory activities on farms.
- Encourage the maintenance and enhancement of local sources of supply for food processing businesses.
- Provide opportunities for agriculturally-related businesses to locate and expand.
- Ensure that roadways continue to accommodate agriculturally-related traffic.
- Establish policies regarding public sewer and water and other infrastructure improvements that do not encourage development pressure on designated agricultural areas.
- Encourage the designation of Agricultural Security Areas within areas designated for farmland preservation, but not within designated growth areas.

Open Space and Recreation

Objectives:

- Identify methods for open space preservation, such as participation in County programs and cooperation with conservation-oriented agencies.
- Establish a greenway system within the Region pursuant to the conceptual Pedestrian Concepts Plan, municipal recreation plans, and the County-wide plan.
- Preserve a network of woodlands, stream corridors, and agricultural lands in the Townships.

- Require residential development to emphasize open space conservation through permissible development options and ordinance requirements.
- Establish developer responsibilities for provision of park and recreation facilities within subdivision and land development ordinances.
- Identify designated growth areas near existing developed areas to reduce pressure on existing open spaces and agricultural areas.
- Encourage infill development in the Borough and between existing developed areas and maintenance and restoration of existing housing resources to reduce development of open space and agricultural areas.
- Plan infrastructure improvements so they do not encourage development in areas desired as open space or retention of rural-agricultural character.
- Where appropriate, require developers to provide open space and recreation areas for active and passive recreation and to coordinate open space systems among adjoining developments. Otherwise, require fees in lieu to implement recreation, park and open space plans.
- Encourage developers to provide both visual and physical access to the open space system.

Land Use

Objectives:

- Ensure that development occurs in ways that minimize degradation of natural and cultural environments through establishment of standards in zoning and subdivision and land development ordinances.
- Ensure that development occurs in an efficient and logical manner, and in ways that minimize short- and long-term costs to the public and private sectors, by designating designated growth areas and potential future growth areas.
- Direct residential, commercial, industrial, and institutional development, appropriate in scale and character to the community, to designated growth areas, where public sewer and water and transportation improvements are most likely and could be phased in concert with new development. Tie the

type and intensity of development to the adequate provision of transportation, water, sewerage, drainage, parks and recreation, and community facilities by developers.

- Designate areas for future growth and development where such future development would be consistent with the protection of community character.
- Allocate sufficient land to accommodate projected population within designated growth areas.
- Minimize encroachment of development into areas recommended for retention of rural character and agricultural resource protection, and/or which lack supporting infrastructure and services.
- Minimize the conflict between non-residential and residential uses through proper allocation of land use on the Future Land Use Plan and utilization of performance and design standards and buffer yards in zoning ordinances.
- Accommodate retail and service development sufficient to meet the day-to-day retail and service needs of the region's residents at appropriate locations shown on the Future Land Use Plan.
- Maintain consistent and compatible land use along municipal boundaries pursuant to the Future Land Use Plan.
- Establish developer responsibilities for provision of community facilities and infrastructure improvements within zoning and subdivision and land development ordinances.
- Continue to allocate land use on a regional rather than municipality by municipality basis, as is done on the Future Land Use Plan.
- Continue to provide a balance between residential and non-residential development as is done on the Future Land Use Plan.
- Manage growth through the establishment of efficient, compact patterns of land use and discourage haphazard, uncoordinated, leap-frog development. This is accomplished through encouraging growth to designated growth areas per the Future Land Use Plan.

- Promote infill and revitalization within the Borough, in conformity with the general character of the Borough.
- Require well-designed developments, including public and semi-public development, in scale and character of the setting, with appropriate architecture and landscaping. Establish standards to accomplish this in zoning ordinances.
- Require maintenance of and establishment of connections to natural features and corridors such as wooded areas in Union Township and the Conewago, Piney and Alloway Creek Corridors.
- Improve the visual image of the Region at entranceways to the Borough and Township and along road corridors, such as the Route 97, 116, and 194 corridors.
- Allow diversity within business development areas, to include a mix of retail, industrial, service and office development consistent with resident needs.
- Permit appropriate development techniques for use within the Region, such as Conservation Development and Traditional Neighborhood Development.
- Require analysis of each tract proposed for development to determine what resources must be protected, and the capacity of the land to accommodate development given the site's natural features and available infrastructure. Require identified natural features such as stream corridors to be respected, preserved, and unbroken, with their visibility maintained.
- Establish appropriate policies for residential conversions within the Borough which will be consistent with retention of the character, stability, and upkeep of residential neighborhoods and provision of adequate parking facilities.

Circulation

Objectives:

- Encourage regionally-oriented traffic to utilize regional arterial highways and discourage this traffic from using locally-oriented collector roads. Support the concepts of the inner and outer loop systems.

- Eliminate deficiencies in the Region's roadway network pursuant to the Transportation Plan concepts of this plan.
- Identify and generally set priorities for projects which are appropriate for inclusion on Adams County's Twelve-Year Transportation Improvements Program.
- Continue to identify projects which can be implemented to improve safety and relieve congestion along the Region's roads.
- Reduce truck traffic through the center of Littlestown.
- Continue to monitor opportunities for reducing reliance on the automobile through enhancements to pedestrian, bicycle, and transit systems.
- Monitor opportunities for transit service in the Region with the Adams County Transit Authority.
- Consider low-cost physical improvements to new roads and roads undergoing upgradings to accommodate bicyclists pursuant to municipal recreation plans and review of development plans.
- Improve the appearance of the Route 97 and 194 corridors through adoption of design and performance standards.
- Establish roadway maintenance programs for each municipality to prevent deterioration and ensure safety of the existing road system.
- Manage access along roads pursuant to the Transportation Plan Concepts and adopted ordinance provisions.
- Work to enhance mobility for the elderly, the physically impaired, and those who do not own or lease an automobile.
- Address parking needs with Littlestown.
- Establish consistent signage policies along roads within the Region.
- Monitor impacts on roadway capacity from new development and require developers to address projected increased traffic volumes in the road system by improving the existing system.

- Encourage the development of a bicycle and pedestrian network, perhaps involving abandoned railroad lines and other corridors, that enhances connections between neighborhoods and activity centers, that can serve as a regional recreation amenity, and that can contribute to maintaining community health.

Economic Development

Objectives:

- Encourage investment in Littlestown business districts, compatible with the character of the community.
- Discourage random or scattered industrial development patterns, which can produce environmental traffic, aesthetic, and other problems. Direct industrial development to designated areas on the Future Land Use Plan.
- Establish developer responsibilities in providing infrastructure improvements when they develop within Subdivision and Land Development Ordinances.
- Reserve designated business development sites on the Future Land Use Plan to preclude potentially incompatible uses from foreclosing an eventual use for business.
- Discourage strip development of business uses along major roadways such as Routes 97, 116, and 194.
- Identify appropriate future uses for vacant commercial and industrial buildings and promote such uses through such efforts as revitalization programs in the Borough.
- Enhance the quality of life in the Region by implementing the Action Plan.
- Encourage a pattern of concentrated, planned development with safe, efficient, and managed access in designated growth areas identified on the Future Land Use Plan.
- Establish standards to improve the design and appearance of new development and commercial areas. Require appropriate landscaping and

buffering. Accomplish this through necessary ordinance updates and a zoning ordinance for Germany Township.

- Require new development to be designed and constructed to meet environmental performance standards listed in municipal zoning ordinances.
- Work to retain existing desirable area businesses and industries and identify strategies to attract desired businesses. Work with the local and county business associations and economic development agencies.
- Encourage improved access to data networks of economic development agencies.

Housing

Objectives:

- Maintain the integrity of existing residential neighborhoods in and around the Borough.
- Identify appropriate infill housing opportunities within the Borough and between housing developments in the Townships.
- Identify policies that can facilitate provision for the housing needs of elderly and physically impaired residents.
- Encourage use of the existing housing stock. Promote rehabilitation and renovation of existing housing in such need, through participation in appropriate federal, state, and county housing programs.
- Establish standards for residential development within the Germany Township zoning ordinance to accomplish the provision of well-planned, safe, sound and attractive living environments.
- Explore opportunities for regional administration of the Uniform Construction Code.
- Ensure that opportunities exist to promote the development of affordable housing that, in particular, meets the needs of the region's current and likely future work force.

- Ensure that opportunities exist to promote the development of housing necessary to meet the region's likely demographic make-up, with particular emphasis in retirees and younger households.

Community Facilities, Services, and Development

Objectives:

- Support efforts of water supply and wastewater treatment authorities to plan ahead for expansion of capacities and extensions of the areas of service in accordance with growth projections and the establishment of growth areas and future growth areas. Work to achieve consistency of Act 537 plans and infrastructure planning with this Plan and its land use element. Initially, this will involve Township coordination with the Borough in addressing regional approaches to provide sewer and water infrastructure.
- Provide an adequate supply and mix of parks, playgrounds, and other recreation facilities, both active and passive, to serve the existing and projected population of the Region, pursuant to the Future Land Use Plan and municipal recreation plans.
- Identify opportunities for regional cooperation and sharing of equipment, facilities and services.
- Require developers to adequately manage stormwater runoff and erosion and sedimentation in manners consistent with the protection of water resources in the area, the Monocacy River Watershed Stormwater Management Plan, and municipal ordinances. Encourage recharge of the water table as development occurs.
- Work toward safe, reliable water supply for all residents pursuant to the Adams County Water Supply and Wellhead Protection Plan and Littlestown wellhead protection efforts.
- Encourage utilization of public sewer and water facilities when development occurs in designated growth areas around Littlestown, but coordinate land use and sewer and water planning so the extension of public sewer and water facilities is consistent with the land use and other goals and objectives of this Comprehensive Plan, such as protection of agricultural resources in the Townships. Do not plan for extension of sewer and water facilities into areas zoned Agricultural Preservation.

- Continue to monitor the need for additional community, cultural and social facilities and services in the Region, such as expended senior center facilities.
- Identify techniques and adopt zoning ordinance provisions to encourage attractive signage consistent with the character of the Region, particularly in the Route 97, 116, and 194 corridors.
- Urge the Littlestown School District to work with municipalities when planning school facilities and bus routes so such planning can occur within the context of the goals and objectives of this Plan.
- Encourage the School District, churches, clubs, and other organizations in the community to allow use of facilities for community activities.
- Identify opportunities for cooperation among municipalities and the school district in providing facilities and programs to area residents.
- Identify activities which can bring people together and create community cohesion and create gathering places for community activities.
- Ensure that required infrastructure is constructed by developers.

Planning

Objectives:

- Coordinate planning and development efforts with adjacent municipalities, the Littlestown School District, the Adams County Office of Planning and Development and current and future County-wide planning efforts, and other County, State and Federal agencies.
- Create appropriate cooperative mechanisms to implement this Comprehensive Plan, including an on-going regional planning committee.
- Identify opportunities for continued intermunicipal cooperation and planning, such as regional sewage facilities planning and coordination of recreation planning.

- Support efforts for interregional and regional/county cooperation in addressing transportation, economic development, and community development issues. Actively participate in planning efforts for the County and other planning regions.
- Establish the basis for land use regulations which will implement this Plan, including the initial zoning ordinance for Germany Township.
- Identify and pursue adequate funding of implementation actions listed in the Action Plan, with consideration of listed grant programs.
- Promote public-private cooperation in implementation of this Plan, such as involving businesses in revitalization efforts in the Borough.
- Establish a framework for education regarding planning issues in the region through the regional planning committee.
- Implement municipal functional plans such as recreation plans, and regional functional plans, such as a Regional Act 537 plan.

SECTION 3 – BASIC PRINCIPLES REGARDING FUTURE DEVELOPMENT IN THE GERMANY/LITTLESTOWN/UNION REGION

- Growth will be managed and directed initially to Designated Growth Areas and eventually to Potential Future Growth Areas.
- Littlestown Borough will be enhanced and infilled as the regional center.
- Development will be attractive, well-planned, with architecture and landscaping appropriate in the surrounding neighborhood
- Road corridors will be managed to mitigate or avoid congestion and alternative routes to through traffic in the Borough will be enhanced. Connectivity between neighborhoods and community activity centers will be enhanced using a variety of transportation modes.
- Alternatives to automobile traffic will be enhanced and walkability in the Region will be improved and incorporated into development
- Use of public sewer and water and systems with resulting compact development patterns within designated growth areas will be encouraged and planned on a regional basis.
- Natural resources will be protected and integrated into open space systems and greenways.
- Developers will address the transportation and recreation impacts of their developments through the making of necessary improvements and/or payment of fees pursuant to this plan and supporting functional plans.
- Housing options involving a variety of dwelling unit types, including affordable housing options, will be available to all social and economic groups in the region.

CHAPTER 12
FUTURE LAND USE PLAN

FUTURE LAND USE PLAN FOR THE REGION

Overview

The Future Land Use Plan establishes policies for guiding future land use within the Region and serves as a guide on which to base regulatory controls, such as municipal zoning maps and zoning ordinances. The zoning ordinances and maps adopted by the Townships and the Borough establish zoning district boundaries, permitted land uses and the permitted density of development. In the land use categories established below, the types of land uses recommended in each category will be indicated, as well as the proposed density range.

A critical element of the Future Land Use Plan is to promote the retention of agricultural activities and maintain rural character in Rural Conservation-Agriculture areas. These areas are not served by public sewer and water facilities and are not identified for intensive residential development. The plan minimizes strip residential and commercial development along roads and the access management concerns which accompany such development; maintains the character of the Borough's neighborhoods; and provides for a mix of small town atmosphere in the Borough, suburban neighborhoods around the Borough, and rural character within surrounding agricultural/rural landscapes.

Growth in the future will be directed to Designated Growth Areas and Potential Future Growth Areas. If this is accomplished, growth will be managed and sprawl minimized. It is important that policies on public sewer and water facilities are consistent with the land use plan: service areas should be those designated for growth or future growth on the Future Land Use Plan. In Low Density Residential and Rural Low Density areas, provision is made for additional low density single family development where such development has already occurred.

Moderate provision is made for additional economic development in Business Development, Community Commercial, Light Industrial, Limited Mixed Use Corridor, and Rural Village Center areas. Given the location of the Region within the County and the limitations of the Region's transportation system, no new major business areas are identified.

As development occurs, natural resources should be protected and/or integrated into developments pursuant to the Natural and Historic Resource Preservation Plan presented in Chapter 14. Development should be landscaped, attractive, and well-planned to provide attractive environments. Walkability should be improved and incorporated into development, road access managed, and traffic impacts mitigated.

Visual and physical connections to natural features and corridors and scenic landscapes should be maintained. Agricultural and open space conservation should be emphasized and greenways and trails promoted.

As development occurs, existing living environments must be respected and protected. Development should be in scale and character of the setting in which it occurs and compatible with existing uses. Conflicts between residential and non-residential uses should be mitigated.

The goals established for land use and related plan elements and corresponding objectives are found in Chapter 11.

Respondents to the Comprehensive Plan Questionnaire were particularly concerned with managing growth, retaining rural atmosphere/open space, farmland, and small town atmosphere. The Future Land Use Plan is consistent with those concerns.

FUTURE LAND USE CATEGORIES

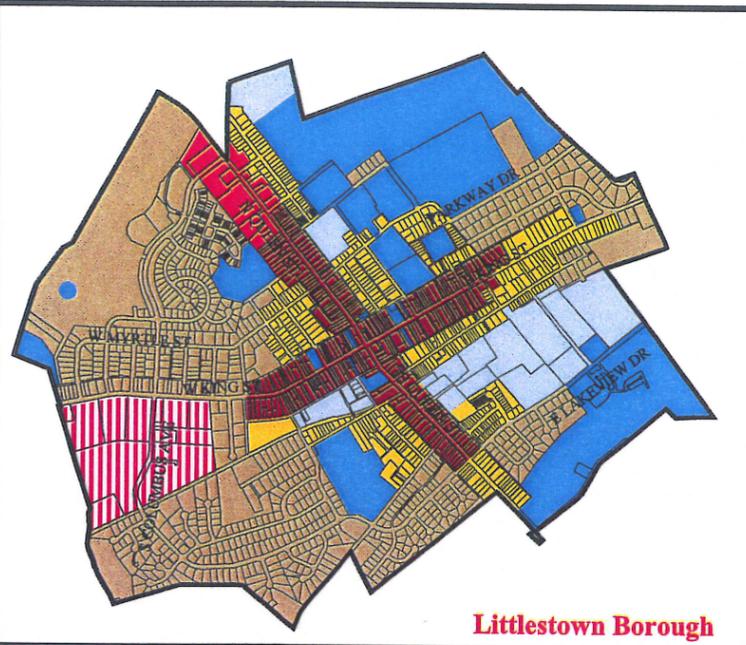
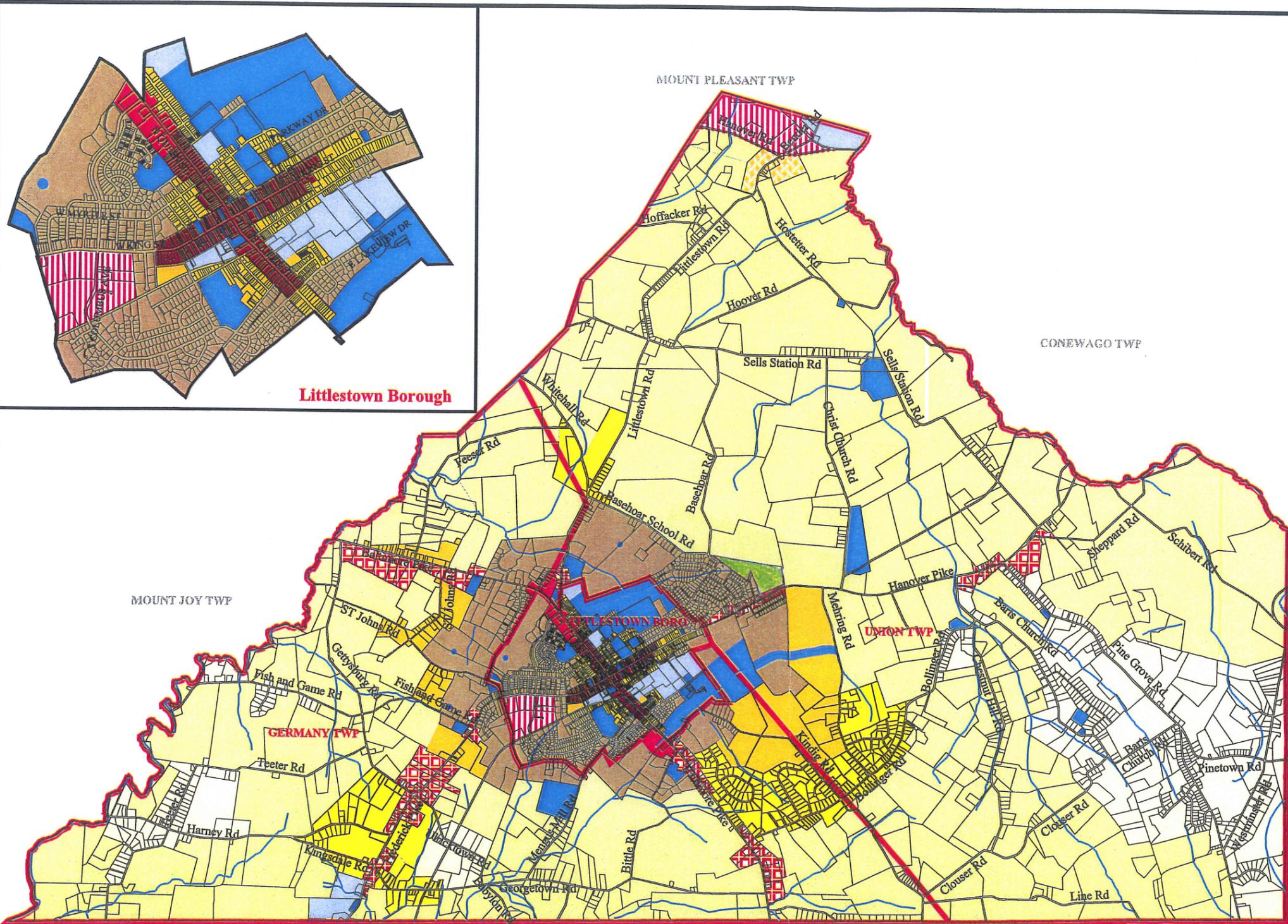
The Future Land Use Plan is included. The following is a description of the categories on the plan:

Rural Conservation-Agriculture - The Rural Conservation-Agriculture area is located outside designated and potential future growth areas and is intended for the continuation of agricultural activities and retention of rural character. Intensive growth is not proposed for these areas.

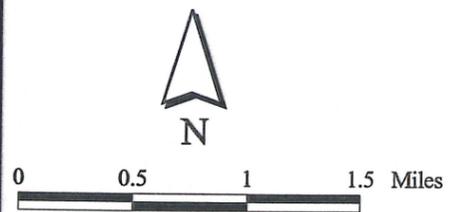
It is expected that much of the Rural Conservation-Agriculture area will remain in agricultural use. Municipalities may utilize effective agricultural zoning in some areas to preserve agriculture. When effective agricultural zones are utilized, limited single-family detached dwellings could be permitted, based on a sliding scale (the number of single family units permitted depends upon the size of the parent tract). Immediately adjacent to designated and potential future growth areas, restrictions may be placed on agri-businesses activities to minimize conflicts with residential areas or such uses may not be permitted. Continued purchase of agricultural conservation easements will be promoted to permanently protect existing farms.

Effective agricultural zoning is expected to continue where now in effect in Union Township. Additional areas in Union Township and agricultural areas in Germany Township will be analyzed based upon such factors as their importance as agricultural areas in the Region, opportunities for preservation of the farms, limiting conflicts with residential areas, and providing contiguous preserved agricultural areas.

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Future Land Use Plan*



- Parcels
- Streams
- Study Area
- Future Land Use Plan Categories**
- Rural Conservation - Agriculture (RC-A)
- Business Development (BD)
- Community Commercial (CC)
- Light Industrial (LI)
- Limited Mixed Use Corridor (LMUC)
- Rural Village Center (RVC)
- Town Center Mixed Use (TCMU)
- Town Center Residential Densities (TCRD)
- Designated Growth Area (DGA)
- Potential Future Growth Area (PFGA)
- Low Density Residential (LDR)
- Rural Low Density (RLD)
- Public or Semi-Public (P)



Sources: Adams County GIS; SSM



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Portions of the Rural Conservation-Agriculture area will allow and encourage the continuation of agriculture, though not agri-business. They will allow very low density single-family residential development. When development occurs, it is to be of high quality, utilize processes of development that actually contribute to long-term conservation of land, and not diminish or conflict with agricultural lands or degrade areas of environmental sensitivity. Conservation Development can be used to limit residential development to only a small portion of a tract, preserving most of the acreage for agriculture or resource conservation in perpetuity. Transfer of development rights can also be utilized, where a property owner would sell the rights to develop his/her property to another property owner, more appropriately located for development and specifically designated for development on the Future Land Use Plan. Using transfer of development rights, the owner of a property in the Rural Conservation-Agriculture area (sending area) could sell development rights to someone wishing to develop land in the Designated Growth Area or Potential Future Growth Area (receiving area).

The density of permitted residential development outside effective agricultural zones will likely be 5 acres per dwelling unit. The density of development would vary based upon the capacity of land to support on-lot sewage disposal and water supply systems and the zoning district of the municipality.

Efforts to provide public sewer and water will be focused first in the designated growth areas and next in the potential future growth areas in the vicinity of Littlestown, and expansions of those systems are not anticipated into the Rural Conservation-Agriculture area. Innovative on-lot approaches to sewage treatment should be considered for those parcels on which some development occurs. Community sewage disposal systems are not encouraged.

Rural Low Density – The intent of the Rural Low Density areas is to provide for single family residential uses at a low density utilizing on-lot water and sewage disposal systems. Development would occur in a rural setting and agricultural operations could continue, though intensive agricultural activities would not be permitted. Minimum lot size would be one acre, but actual lot size would depend upon site characteristics and suitability for on-site sewage disposal. These are areas where development has occurred outside and separated from growth areas, where retention of rural character is not considered viable, and additional development adjacent to developments would be permitted.

Low Density Residential – The intent of the Low Density Residential areas is to provide for single family detached development as infill in areas which have already experienced single family residential development, which adjoin the growth areas within the Region and are not rural settings. On-lot sewer and water facilities are most likely to be utilized.

Minimum lot size would typically be one acre, but would depend upon site characteristics and suitability for on-site sewage disposal.

Rural Village Center - The intent of the Rural Village Center areas is to provide for a compatible mix of residential, commercial, and community facilities in a rural village setting to foster a small-town rural neighborhood atmosphere. Provision of open spaces, pedestrian orientation, and a human scale of development are expected. Non-residential uses would be those intended to primarily serve the needs of the local residents and would be limited by size and intensity to prevent the establishment of intensive commercial uses which exceed the community orientation of these areas. The density or intensity of development and permissible uses would be dependent upon availability of public sewage treatment and water supply facilities and the protection of community character. Single family detached dwellings would be permitted on lots of a minimum size of one acre, with on-site sewage disposal and water supply. If public sewer and water facilities were available, single family development on smaller lots and two family and multiple family dwellings could be permitted, of a density ranging from two to six dwelling units per acre.

Designated Growth Area – The Designated Growth Areas are intended to accommodate residential growth in the Region over the next 10-20 years. This would include development of remaining available residential land in the Borough and development of surrounding land in the Townships, providing for logical extension of growth from the Borough core. These areas are intended to be served by public sewer and water facilities provided capacity is available. Types of dwelling units would include single family, two family, and multiple family dwellings, with mobile home parks in some areas. Uses will vary within zoning districts and municipalities. Some areas will be exclusively for single family development. Land development within the Borough will be required to be served by public sewer and water facilities. While it is anticipated that public sewer and water facilities would serve surrounding areas in the Township, if such facilities were not available, development would occur at a density no greater than one dwelling unit per acre. Actual density would depend upon suitability for on-site sewage disposal. With public sewer and water facilities available, densities would range from two to seven dwelling units per acre. Planned residential developments would be permitted in portions of the Borough. As noted above, the types of dwelling units permitted and density of development would vary with the municipality and zoning district established by the municipality.

Portions of the Designated Growth Areas adjoin Limited Mixed Use Corridor Areas. It is recognized that some areas within Designated Growth Areas which do adjoin the Limited Mixed Use Corridor Areas may be determined by the Townships to be appropriate for limited mixed uses in the future, depending on the nature of existing and future land

uses. Such areas could be zoned Limited Mixed Use if deemed appropriate by the respective Township.

Potential Future Growth Area – The Potential Future Growth Areas are intended to accommodate residential development in the Region after initial development of the Designated Growth Areas. This would provide for logical growth within the Region from the Borough core, to Designated Growth Areas in the Townships, and then to the Potential Future Growth Areas after the Designated Growth Areas are developed. While development could occur in the Potential Future Growth Areas in the period 2010-2020, it is intended that the Future Growth Areas primarily accommodate development occurring beyond 2020. The Potential Future Growth Areas could be served by public sewer and water facilities, if capacity were available, as logical extensions of those facilities from the Designated Growth Areas. It is likely that development would take place as single family detached dwellings, with minimum lot size depending upon municipality and availability of public sewer and water facilities. With on-lot sewer and water facilities, minimum lot size would likely be one acre. Actual lot sizes would depend upon suitability for on-site sewage disposal. With public sewer and water facilities, minimum lot size would likely range from 10,000 SF to 14,000 SF.

Portions of the Future Growth Areas adjoin Limited Mixed Use Corridor Areas. It is recognized that some areas within Future Growth Areas which do adjoin the Limited Mixed Use Corridor Areas may be determined by the Townships to be appropriate for limited mixed uses in the future, depending on the nature of existing and future land uses. Such areas could be zoned Limited Mixed Use if deemed appropriate by the respective Township.

Town Center Residential Densities – The Town Center Residential Densities areas accomplish two primary purposes. In some areas, it will be the intent to encourage high density residential development in areas near commercial areas and/or centers of employment. Single family, two family and multiple family dwelling units at densities ranging from 5 to 12 dwelling units per acre, community facilities, and limited professional offices would be accommodated. Portions of the Littlestown Historic Core Area will be designated for the formation and continuance of quiet, compatible, non-congested neighborhoods where a variety of residential dwelling types intermingle harmoniously. Encroachment of commercial establishments or other uses which might affect the residential character of these areas would be discouraged. These areas will provide for uses that will create transitional areas between areas of the Borough which have developed as contemporary residential neighborhoods and the more intensely developed mixed-use areas of Littlestown's historic core. To protect the essential architectural and historic elements of Littlestown's older residential neighborhoods, "infill" development or building additions or expansions would be required to be consistent with the general architectural style, setbacks, height, bulk, and placement of

structures located on adjoining properties and within the blockface in which the “infill” development or building addition or expansion were proposed. The predominant row house, twin, and single family residential building unit patterns found in these areas would be recognized and standards provided to maintain those patterns. Single family dwellings, two family dwellings, and townhouses would be permitted at a density of approximately 12 dwelling units per acre.

Town Center Mixed Use – The Town Center Mixed Use area is intended to encourage an appropriate mix of residential, commercial, office, and public uses similar to those that currently exist and which will maintain the historic character of Littlestown’s historic, mixed use core. This area is also intended to encourage full economic use of structures along King and Queen Streets within the core of the Borough. Commercial and industrial uses that would be more appropriately located in commercial or industrial districts are discouraged because their architectural style is typically dissimilar to those found in Littlestown’s historic mixed use core, and they may generate high volumes of traffic. Appropriate mixtures of uses could be permitted within individual buildings. Infill development should be consistent with the general architectural style, setbacks, height, bulk and placement of structures. In order to maintain the existing character of the area, drive-through or drive-in type businesses would not be permitted; parking would not be permitted in front of existing buildings or new infill buildings; the predominant pattern of 3-story buildings will be recognized; and uses that generate high volumes of traffic and attract customers seeking “convenience” goods, which typically require excessive paved areas and numerous vehicular access points, will be discouraged. Preservation of landscape space will be encouraged.

Community Commercial – The intent of the Community Commercial areas is to provide for more intensive locally-based commercial uses that will not be appropriately mixed with residential uses. The uses in the Community Commercial areas would be those supported by the local population, but could also accommodate some commercial activities which are based on automobile use and traffic.

Limited Mixed Use Corridor – The intent of the Limited Mixed Use Corridor areas is to recognize and continue to permit a mixture of residential and limited commercial uses along the major road corridors within the Region, found outside the Borough boundaries. These areas contain a mix of residential and commercial uses and additional commercial uses would be permitted, such as offices and small retail operations, provided appropriate standards are created to limit adverse impacts on nearby residences and standards are established for access management to minimize adverse effects on traffic on the major roads.

Business Development – It is the intent of the Business Development areas to provide for design and marketing flexibility by encouraging the development of a mixture of

commercial and limited manufacturing uses which are compatible with residential development in adjoining areas. The Business Development areas will provide for anticipated future needs of commercial and limited manufacturing activities at appropriate areas. To ensure that land for commercial and limited manufacturing development would be available, residential uses would be prohibited. Nearby residences would be protected by requiring appropriate buffers, setbacks and design standards. Attention will be provided to impervious and building coverage requirements and providing appropriately designed parking areas. Well planned and designed commercial and limited manufacturing businesses which are free from offensive noise, vibration, smoke, odors, glare, fire hazards, and other objectionable elements will be encouraged. Business Development areas could also provide for uses and activities which provide services to employees of the commercial and limited manufacturing uses within the areas.

Light Industrial – The intent of the Light Industrial areas is to provide for industrial uses, in designated locations, that are free from offensive noise, vibration, smoke, odors, glare, hazards of fire and other objectionable elements. Support activities for industries and their employees could be permitted. These areas would typically not accommodate residential development in order to reserve areas for industrial employment opportunities. Because residences are located near these uses, appropriate design standards, landscaping and screening requirements, parking and loading standards, and limitations on the bulk of buildings would be applied.

Public or Semi-Public – These areas include existing and proposed public and semi-public uses such as municipal buildings, schools, parks, and churches.

The following table gives the acres contained within each land use category.

Future Land Use Plan – Acreage by Category

Future Land Use Plan	Acres
Business Development (BD)	192
Community Commercial (CC)	59
Designated Growth Area (DGA)	1,505
Light Industrial (LI)	169
Limited Mixed Use Corridor (LMUC)	335
Low Density Residential (LDR)	914
Potential Future Growth Area (PFGA)	579
Public or Semi-Public (P)	534
Rural Conservation – Agriculture (RC-A)	12,568
Rural Low Density (RLD)	2,059

Rural Village Center (RVC)	52
Town Center Mixed Use (TCMU)	84
Town Center Residential Densities (TCRD)	124

Implementation of Future Land Use Plan

The Future Land Use Plan is implemented through several key strategies.

- Adopt municipal zoning maps and corresponding zoning district provisions consistent with the Plan.
- Assure Act 537 Plans are compatible with the Future Land Use Plan.
- Assure government and school district policies for major land uses are consistent with the Plan.
- Increase density and intensity of development only when public sewer and water and other necessary infrastructure of sufficient capacity can be made available.

Environmental Considerations for Future Development

As development occurs in the Region, particularly in the Rural-Conservation-Agriculture areas, care must be taken to preserve and protect the resources identified within each tract of land. The following approaches should be taken, in a consistent manner within the Region.

- An ongoing awareness of and sensitivity toward the natural resources of the area should be encouraged.
- Development should be concerned with geologic stability, soils suitability, groundwater supplies and stream flows.
- Groundwater resources should be protected against depletion and contamination.
- Methods of encouraging replenishment of the groundwater supply should be encouraged.
- Streams should be protected against pollution from point sources and runoff.
- Floodplains, hydric soils, and wetlands should be protected from encroachment.

- The loss of topsoil should be minimized.
- The retention and establishment of trees and other vegetation should be encouraged to control erosion, shade surface waters, control stormwater flow, create wind breaks, provide animal habitats and provide visual amenities.
- The preservation of scenic road corridors should be encouraged.
- Steep slopes should generally be avoided.
- Innovative land development techniques should be used to minimize land consumption, preserve ecosystems, preserve agricultural lands and preserve natural resources and open space.
- The provision of open space and recreation areas for active and passive recreation should be encouraged. Visual and physical access to the open space system should be provided.
- The coordination of open space and circulation systems among adjoining developments should be encouraged.
- A system of bicycle paths and sidewalks should be encouraged.
- Incorporation of resources into development plans should be encouraged.
- Flexible approaches to site design to recognize resources should be encouraged.

Recommended Development Concepts

The Action Plan contains recommendations for land development techniques and processes designed to protect existing resources, provide open spaces, encourage appropriate development which is consistent with existing development patterns, and enhance streetscapes. Because of the rural character of much of the Region and the presence of the existing Borough center, techniques which are recommended include Traditional Neighborhood Development (TND) and Conservation Development. TND is particularly appropriate as infill in the Borough and in growth areas abutting the Borough. Conservation Development could be used to help preserve open space and agricultural resources when development occurs in more rural areas of the Townships.

Concept of Smart Growth

The Smart Growth Network, U.S. Environmental Protection Agency (EPA), and International City/County Management Association (ICMA) have described smart growth as “development that serves the economy, community, and the environment. It provides a framework for communities to make informed decisions about how and where they grow. Smart growth makes it possible for communities to grow in ways that support economic development and jobs; create strong neighborhoods with a range of housing, commercial, and transportation options; and achieve healthy communities that provide families with a clean environment.”

Smart Growth Principles

The following Smart Growth Principles have been established:

1. Mixed land uses. Mixed land uses are supported in Town Center Mixed Use, Rural Village Center, and Limited Mixed Use corridor areas.
2. Take advantage of compact building design. Such design is supported within the Borough and growth areas in the Township if public sewer and water are available.
3. Create a range of housing opportunities and choices. The choices in housing are discussed in the following Chapter.
4. Create walkable neighborhoods. Higher densities are supported in the Borough and growth areas. Walkability is promoted in the Transportation Plan.
5. Foster distinctive, attractive communities with a strong sense of place. The Action Plan discusses use of performance and design standards within the Region.
6. Preserve open space, farmland, natural beauty, and critical environmental areas. This is particularly promoted in the Rural Conservation-Agriculture areas.
7. Strengthen and direct development towards existing communities. The vitality of the Borough core is supported and revitalization promoted in this Plan.
8. Provide a variety of transportation choices. The Transportation Plan supports facilitating automobile travel, bicycling, walking, and improved transit service.
9. Make development decisions predictable, fair and cost effective. See the following discussion regarding improving the quality of development.

10. Encourage community and stakeholder collaboration in development decisions. This should be an objective to accomplish in the future.

Improving the Quality of Development through Ordinances

To promote smart growth principles and improve the quality of development within the Region, several initiatives can be promoted within Ordinances in the Region.

- Within Subdivision and Land Development Ordinances, establish interactive processes with developers to convey expectations for their developments, including:
 - Pre-design meetings with developers
 - Joint site visits of municipality and developers
- Establish data and analysis requirements within subdivision and land development ordinances.
 - Include submission requirements to assure site resources are adequately identified and analyzed.
 - Include impact studies requirements to determine impacts of developments on the municipality and Region.
- Adopt design and performance standards within zoning ordinances and subdivision and land development ordinances.
- Promote flexibility for municipalities to work with developers to secure better design.
 - Conditional uses allowed in zoning ordinances.
 - Built in negotiation processes established in subdivision and land development and zoning ordinances.
- Use incentives for good design in zoning ordinances.
- Use buffering requirements in zoning ordinances.
- Establish adequate improvements requirement and standards for developers within subdivision and land development ordinances.

CHAPTER 13
TRANSPORTATION PLAN

GOALS AND OBJECTIVES

The goals and objectives for transportation are found in Chapter 11.

CONCEPTS OF OUTER AND INNER LOOPS WITHIN THE REGION

The Transportation Plan-Loop System map shows conceptual outer and inner loops within the Region. The intent of the outer loop is to designate roadways which could serve to move through traffic through the Region, bypassing the Borough of Littlestown. The inner loop system would provide for local circulation within the vicinity of the Borough.

Outer Loop

The outer loop consists of Baltimore Pike, Littlestown Road, and Hanover Road to the west and north of the Borough. West, south, and east of the Borough, the outer loop consists of Gettysburg Road, Frederick Pike, Georgetown Road, a new road segment between Georgetown Road and Baltimore Pike, Bollinger Road, Mehring Road, and Hanover Pike. These roads generally avoid densely settled residential areas and the congested intersection of King and Queen Streets in the center of Littlestown. To increase the attractiveness of the outer loop roads, the transportation improvement concepts shown on the following map, many of which are further detailed in the Southeast Adams County Transportation Study, should be implemented.

Inner Loop

The inner loop consists of Columbus Avenue, Whitehall Road, Basehoar School Road, Hanover Pike, Lakeview Drive, Lakeview Drive Extended, and a connection between Lakeview Drive Extended and Hanover Pike. The intent of the inner loop is to facilitate travel within the vicinity of the Borough, among residential neighborhoods, to community facilities, and to roads leading away from the Borough core. Truck traffic will be discouraged through solely residential areas.

To facilitate the inner loop, improvements to Whitehall Road and Basehoar Road would be necessary, as well as extension of the existing Lakeview Drive and connection of Lakeview Drive Extended to Hanover Pike. Some of those improvements are further detailed in the Southeast Adams County Transportation Study. Improvements are shown on the Transportation Plan Concepts Map.

TRANSPORTATION IMPROVEMENTS CONCEPTS

Potential New Road Segments

The following new road segments are shown:

1. The connection between Georgetown Road to Bollinger Road to facilitate the southern portion of the Outer Loop around Littlestown Borough.
2. Extension of Lakeview Drive from its terminus in the Borough to Mehring Road.
3. Connection from Lakeview Drive Extended to Hanover Pike just east of the Borough.
4. Realignment of Christ Church Road at its intersection with Hanover Pike to remove the offset between Christ Church Road and Mehring Road as they intersect Hanover Pike.
5. Connection between stub of Preserve Drive and Basehoar School Road through undeveloped land in Union Township to connect Meadowview Estates with future development, and provide an alternate route to get to Basehoar Road and then Littlestown and Whitehall Roads.

A connection is also indicated from this new road segment to Carrol Street in Littlestown Borough, to facilitate access to the Borough from this portion of the Township.

6. Extension of Teeter Road to Fish and Game Road, should that portion of Germany Township be developed, to provide a more direct connection between Teeter and Fish and Game Roads.
7. Interconnection between Summit Drive and Kindig Road, to provide an alternate route to Baltimore Pike from residential developments and facilitate connection between existing development and possible future development.

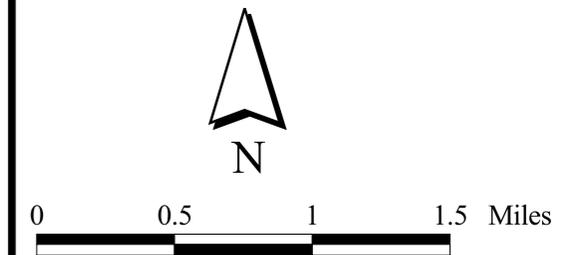
Interconnection of existing developments and future developments is a general concern in the Region, and will be encouraged.

Corridor Management and Improvement

The three major arterial roads in the Region, Route 97 (Baltimore Pike-Queen Street-Baltimore Pike), Route 194 (Frederick Pike-King Street-Hanover Pike), and Route 116

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Transportation Plan - Concepts*

-  Streams
-  Parcels
- Transportation Plan
 -  Corridor Management and Improvement
 -  Corridor Maintenance and Improvement
 -  Core Revitalization Improvement
 -  Potential New Road Segment
-  Intersection Improvement
-  Study Area



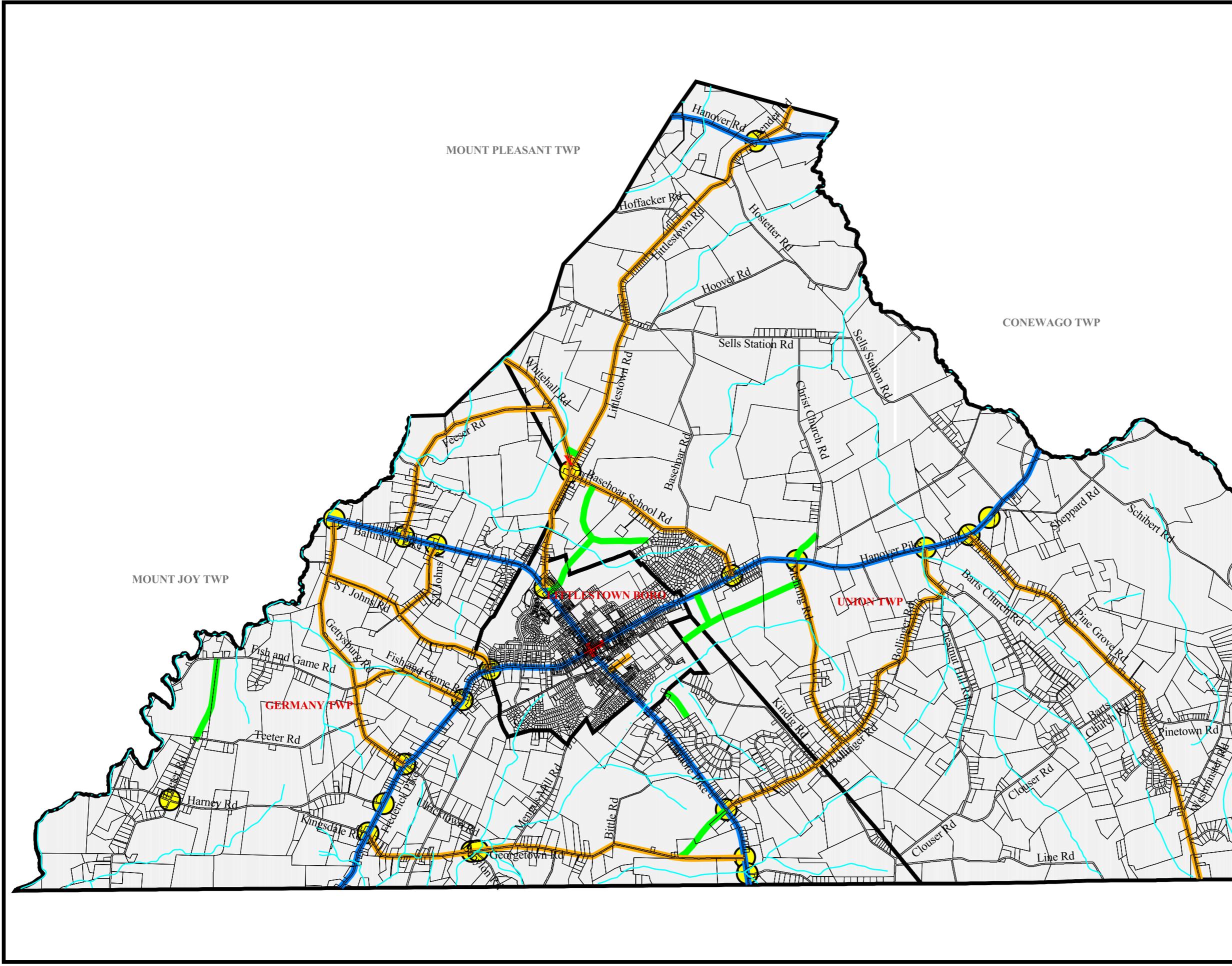
Sources: Adams County GIS; SSM



Spotts, Stevens and McCoy, Inc.
1047 N. Park Rd.
Reading, PA 19610-0307
Tel: 610-621-2000 Fax: 610-621-2001

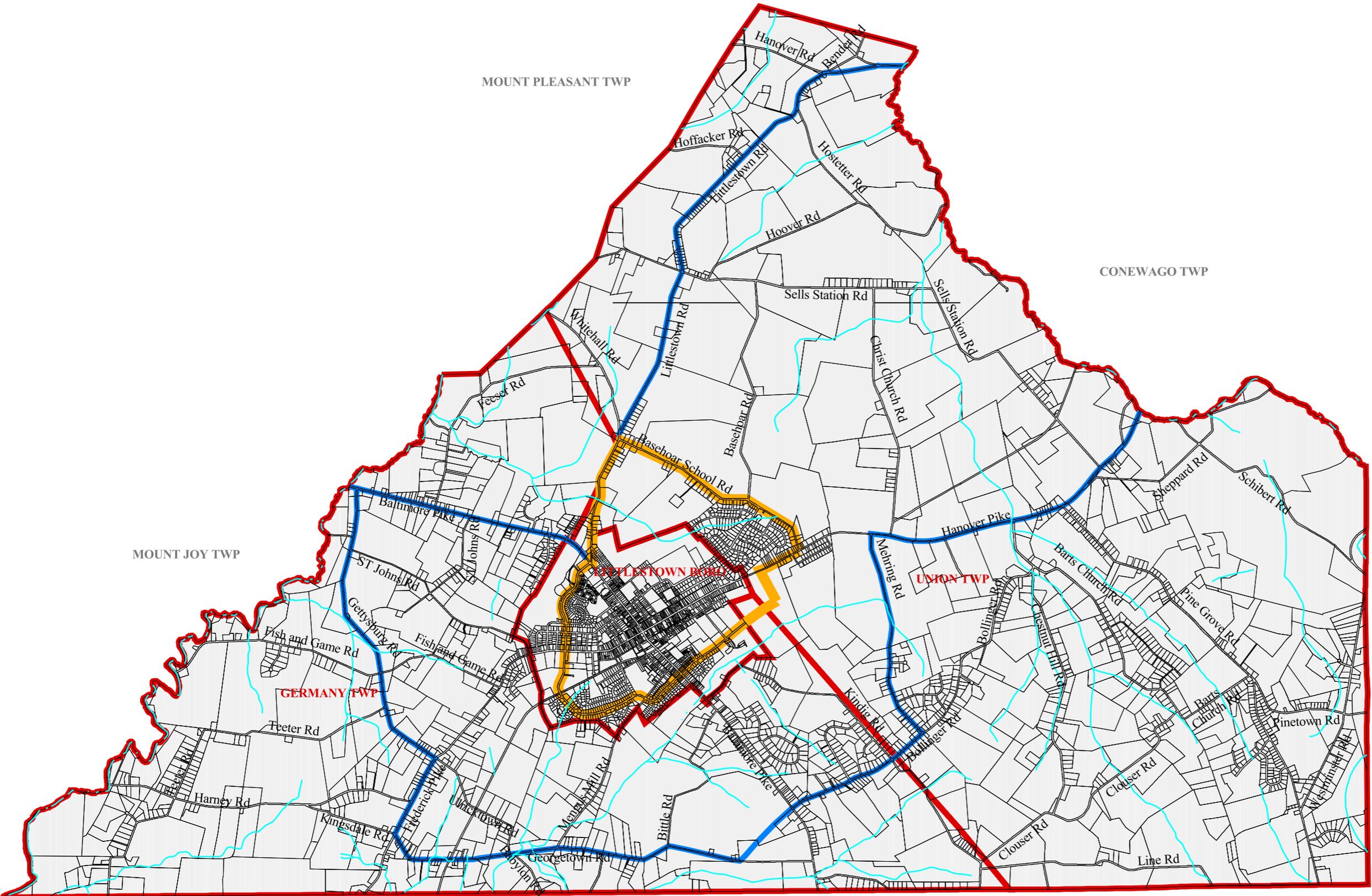
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*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Transportation Plan - Loop System*

-  Streams
-  Parcels
- Loop System**
-  Outer Loop
-  Inner Loop
-  Study Area



Sources: Adams County GIS; SSM



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(Hanover Road) are designated Corridor Management and Improvement. Improvements should be made in accordance with the recommendations of the Southeast Adams County Transportation Study. In addition, because these roads are critical in moving traffic through the Region, corridor management, particularly access management, is important to increasing safety and mobility in the corridors. Corridor and access management will be discussed below.

Corridor Maintenance and Improvement

Corridor Maintenance and Improvement is designated on the roads listed below. These roads are important to facilitate circulation within the Region and provide connections to the arterial road system. The listed roads should be given priority in road maintenance planning. As development occurs along them, developers should be required to improve cartways and shoulders along their frontages. Intersection improvements should be programmed, and developer contributions negotiated if their development affects the intersections.

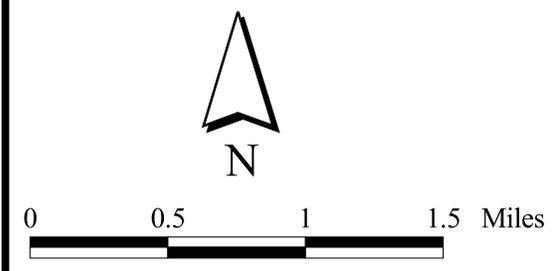
Gettysburg Road
Georgetown Road
Bollinger Road
Mehring Road
Pine Grove Road
Basehoar School Road
Littlestown Road
Whitehall Road
Feeser Road
St. John's Road
Fish and Game Road
Monarch Street
Bender Road

Gettysburg Road, Georgetown Road, Bollinger Road, and Mehring Road are important to maintain in good condition and improve because they form the southern portion of the Outer Loop. Whitehall and Littlestown Roads form portions of the northern portion of the Outer Loop. Basehoar School Road and Whitehall Road form a portion of the Inner Loop.

The northern portion of Bollinger Road and Pine Grove Road carry increasing volumes of traffic, from residential subdivisions and traffic bypassing the Borough. Fish and Game Road and St. John's Road provide connections between Frederick Pike and Gettysburg Road. Feeser Road provides a connection from Baltimore Pike to Whitehall Road. Monarch Street will provide access to industries within the Borough.

*Littlestown Borough and
Germany and Union Townships,
Adams County
Joint Comprehensive Plan
Transportation Plan -
Conceptual Pedestrian Concepts*

-  Streams
-  Parcels
- Pedestrian Ways/Trails**
-  Greenways and Pathways
-  Major Greenway
-  Major Trail
-  Sidewalk Extension
-  Study Area



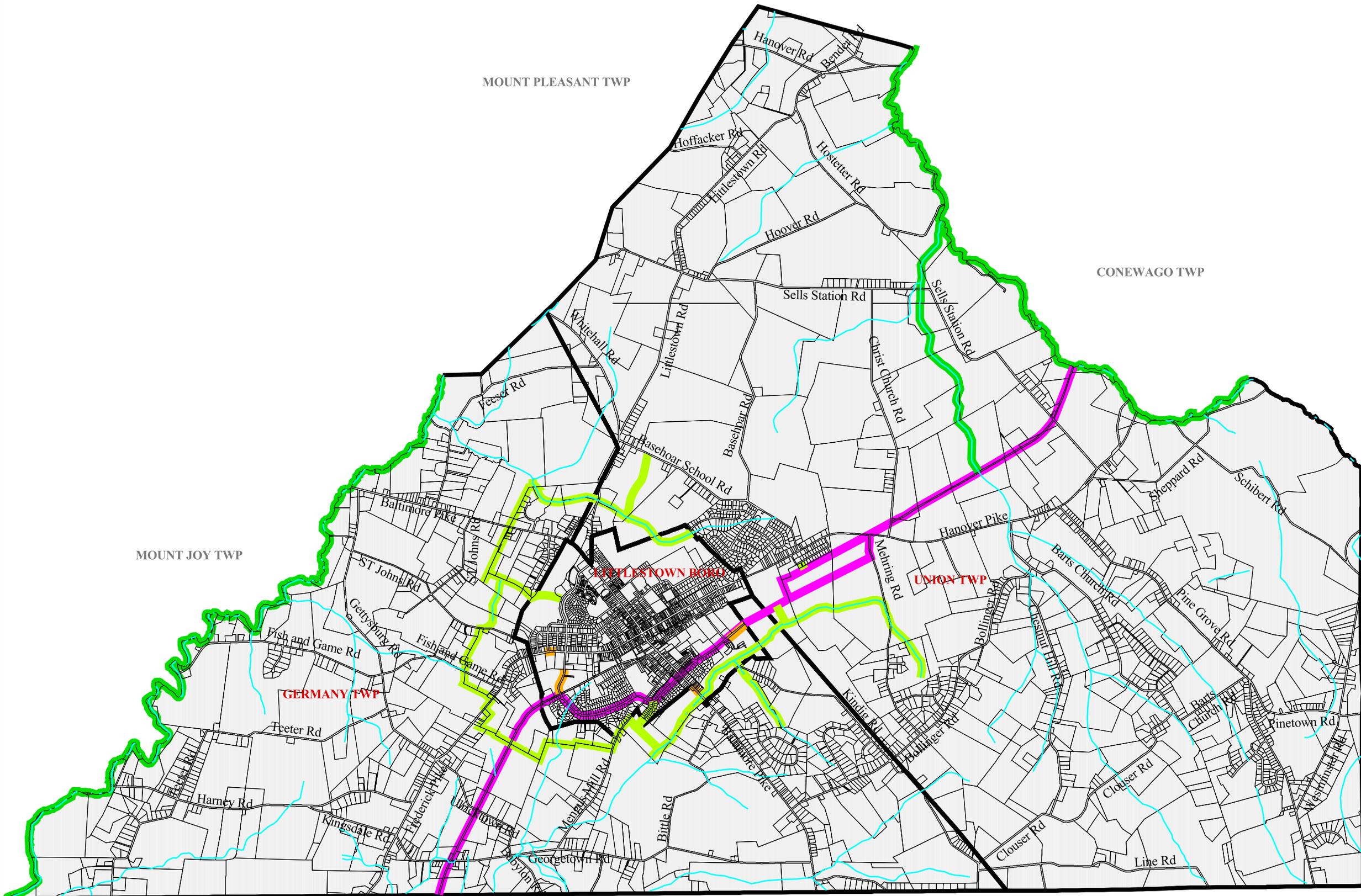
Sources: Adams County GIS; SSM



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Bender Road also provides access to industrial development.

Core Revitalization Improvement

The revitalization program the Borough has planned for the vicinity of the intersection of King and Queen Streets is indicated. Detailed plans have been prepared for the improvement of this major intersection in the Borough.

Intersection Improvements

The following intersection improvements have been identified on the Concept Plan:

Route 116 and Littlestown Road/Bender Road - Signalization; sight distance and alignment.

Route 97 and Columbus Avenue/Whitehall Road – Signalization and geometric improvements.

Route 194 and Pine Grove Road – Left turn lane on Route 194.

Route 194 and Mehring Road – Left turn lane on Route 194.

Route 194 and Bollinger Road – Left turn lane on Route 194.

Whitehall Road/Littlestown Road/Basehoar School Road – Realignment.

Georgetown Road/Ulricktown Road – Realignment.

Georgetown Road/Babylon Road – Realignment.

Route 194 and Sheppard Road – Realignment of Sheppard Road.

Route 194 and Christ Church Road/Kindig Road – Realignment.

Route 194/Gettysburg Road/Ulricktown Road – Realignment.

Teeter Road and Harney Road – Sight distance improvements through embankment removal and/or reconstruction/realignment.

All identified intersections with Routes 194 and 97 – facilitate movement around vehicles waiting to turn or making turning movements off Routes 194 and 97 via

increased shoulder areas or turning lanes. Consideration should also be given to left turn lanes on side streets at intersections with Route 97, 116, and 194, to facilitate right turn and straight movements.

CONCEPTUAL PEDESTRIAN CONCEPTS

Major Greenways

Three major greenways are indicated, along the Conewago Creek, along the Alloway Creek, and along the stream from the Conewago Creek to the inactive rail line north of Hanover Pike. At a minimum, the greenways would provide open areas to preserve quality of the streams, as further described in Chapter 14. The greenways could also serve as areas in which trails could be developed. A trail along the tributary to the Conewago Creek would connect with the major trail system shown along the inactive rail line.

Major Trails

The major trail shown northeast to southwest direction through the Region would connect to the Conewago Creek greenway and follow the inactive rail line to the Littlestown area, where it would then follow the Lakeview Drive Extension and Lakeview Drive into the Borough, follow Columbus Avenue, and then reconnect to the inactive rail line in the western portion of the Borough.

Greenways and Pathways

Greenways and pathways are shown forming a loop along the perimeter of the Borough. The intent of establishing a system of greenways and pathways it is to provide for pedestrian circulation through growth areas and future growth areas as development occurs. Connections would be made from the greenway and pathway system to the major trail system and the sidewalk system within the Borough. The greenways and pathways would also provide for access to recreation areas and community facilities within the Littlestown area.

Sidewalk Extensions

Several sidewalk extensions are shown within the Borough. The sidewalk extensions eliminate gaps in the sidewalk system within the Borough.

Regional Coordination

This Region should participate in regional efforts to develop regional greenways and trails pursuant to the County Plan currently in process and other planning efforts. The municipalities should review PADCNR and PADOT programs which fund trail projects.

Issues to Address in Detailed Planning for a Trail System

It must be emphasized that the plan shown is a conceptual plan, and it will be necessary to refine the plan with any Joint Trail Commission or committee created by the municipalities. Issues to be addressed follow. The greenways and pathways shown on the concept plan are just that, concepts.

The first item to address is establishing destinations for the trail system. The conceptual trail plan has generally done this, but the destinations to be reached would have to be finalized and prioritized.

It also has to be determined what routes would be used to reach the destinations. The trail system could follow roads, creeks, railbeds, pipeline rights-of-way, sanitary sewer easements, electric company rights-of-way, and drainage easements.

It will also be necessary to determine the users to be accommodated, whether it be hikers, walkers, bikers, or horseback riders, or a combination.

Trail design studies would be necessary to actually design the trails. These studies would determine the actual locations, the extent to which existing pathways and sidewalks would be incorporated into the system, materials of the trails, and the width of trails.

It will be necessary to determine costs, including construction costs, land costs, and maintenance. It will also be necessary to determine what method would be used to control the area necessary for the trail, including usage of existing or dedicated road rights-of-way, donations, easements, lease or purchase.

Sources of funding for trail construction would have to be identified, such as Keystone Grants, TEA, and Land and Water Conservation Fund.

If roadside lanes will be utilized, standards for road design should be established referencing the *Pennsylvania Statewide Bicycle and Pedestrian Master Plan*.

The planning agency will have to determine what are the primary trail routes and secondary routes. Once the trails are prioritized, if it is determined that some trails will be within PennDOT rights-of-way, PennDOT should be approached for assistance in

providing the trails. Bicycle lane width and shoulder width will vary with the average motor vehicle operating speed for a road, the average annual daily traffic volume, and the adequacy or inadequacy of sight distance along the road. PennDOT could be requested to pave wider shoulders where the rights-of-way permit. Developers should be required to build sections of the trails within their developments. Appropriate shoulder improvements should be required along the frontage of tracts and open areas should be retained along stream corridors.

COORDINATION WITH LAND USE PLANNING TOOLS

Land Use Planning Approach

As residential and commercial development continues to occur and traffic volumes increase, if minimal improvements are made to the transportation system which has served the Region for decades, congestion will increase and the road system will become less safe. This will decrease the quality of life for residents. We have discussed proposed circulation system improvements above.

The general approach to managing growth and to limiting traffic increases throughout the rural road system has been to:

- Direct growth to Designated Growth Areas and Potential Future Growth Areas
- Enhance and infill the Borough and land surrounding the Borough.
- Manage major road corridors to mitigate or avoid congestion.
- Allow mixed use at appropriate locations.
- Encourage use of public sewer and water and systems in growth areas with resulting compact development patterns.

If the existing regional core is enhanced and infilled and mixed use is used, vehicular trip reduction can be realized. These two policies, plus directing growth to designated growth areas, and encouraging compact development patterns, may enhance the feasibility of transit systems in the future.

Limiting designated growth areas to areas which are or could most readily be served by public sewer can concentrate development, make alternative transportation modes more feasible by supporting pedestrian and bicycle scale, and result in reduced trips in areas with roads not suited for higher traffic volumes and without alternative travel modes.

Maintaining a low density of development outside growth areas can reduce trips in areas with roads not suited for higher traffic volumes and without alternative travel modes. Development outside growth areas isolates uses and increases reliance on automobile travel between low density, single use areas.

Density bonuses for utilization of public sewer and water in designated growth areas, to concentrate development, should be considered within municipal zoning ordinances.

Developer Responsibilities

Developers should be required to pay their way by requiring on-site improvements and frontage improvements per municipal subdivision and land development ordinances; considering traffic impact fee studies and ordinances on an individual and/or multi-municipal basis (see Appendix 2 for an outline of the process); and considering the charging of traffic impact fees, or in lieu of fees, negotiating off-site improvements.

Developers should be required to address the transportation impacts of their developments. They should analyze the impacts of their developments and address the impacts of these developments through road improvements and/or financial contributions; incorporate alternative modes of travel into their developments; and incorporate access management techniques into their developments, based upon municipal ordinances and requirements. Support from PENNDOT will be necessary along State roads.

Corridor Management Techniques in Route 97, Route 116, and Route 194 Corridors

- a. Access management has been recommended for the major road corridors in the Region

Access management programs address provision of access to adjacent land while simultaneously preserving the flow of traffic on the road system in terms of safety, capacity, and speed. Intent is to increase capacity of transportation infrastructure, create shorter travel times, and prolong functional life of the infrastructure.

Typical access management strategies include the following. Appropriate techniques will depend upon each individual case.

- (1) Utilizing shared driveways for adjacent parcels, and cross access among adjoining businesses as alternatives to individual curb cuts.

- (2) Requiring developers to provide a connected and sufficient local road system to minimize using the main arterial that is designed to accommodate through traffic.
- (3) Reducing/limiting the number of curb cuts by considering the location, design, and spacing of driveways.
- (4) Requiring shared access points and connectivity between parcels.
- (5) Permitting shared parking arrangements among individual businesses.
- (6) Aligning driveways and creating regular offsets.
- (7) Relating driveway design to travel speeds and traffic volumes.
- (8) Prohibiting direct parking access from parking spaces.
- (9) Providing pedestrian friendly design.
- (10) Providing adequate driveway length to allow stacking.
- (11) Requiring connections between parking lots and building entrances.
- (12) Providing incentives for smaller and fewer signs by allowing a reduced setback from roads.
- (13) Encouraging attractive, interesting building design.

Access management techniques can be achieved through requirements in subdivision and land development ordinances, site plan review and approval, or during new development or redevelopment efforts. The municipalities should retain the option of requiring the techniques listed above.

- b. Traffic impact studies should be required for new developments, and master planning required for large tracts of land in subdivision and land development ordinances.
 - (1) Ensure adequate parking lot/internal circulation design in developments.
 - (2) Redesign existing strip development areas.
 - (3) Utilize left and right turn lanes where appropriate.

- (4) Utilize acceleration and deceleration lanes where appropriate.
 - (5) Signalize high volume driveways.
 - (6) Prohibit inappropriate turning movements.
 - (7) Require common service roads for commercial development.
- c. Corridor Overlay zoning can be used along the major roads, incorporating:
- (1) Access management standards
 - (2) Enhanced design/landscaping/signage requirements
 - Lots that do not require direct access to the arterial.
 - Siting commercial buildings nearer to roads and provide for parking to the rear of lots with access to secondary roads and/or interconnected parking areas (requiring cross-easements over properties for common use of areas).
- d. The need for Transportation Development Districts for Route 97, Route 116, and Route 194¹ should be monitored.
- e. Appropriate parking management techniques in Littlestown Borough to increase parking opportunities should be employed as needed. Some of the approaches which can be used follow. See also the Action Plan.
- (1) Shared parking (multiple users sharing a parking facility)
 - (2) Consolidation of private parking areas
 - (3) Monitoring needs for additional public facilities
 - (4) Minimize driveway design which eliminates on-street spaces

¹ The Transportation Partnership Act (Act 47 of 1985, as amended) allows municipalities to create Transportation Development Districts to assist in the financing of transportation facilities and services. Roads, railroads, and public transit are eligible. If municipalities propose a district, property owners who represent more than a 50 percent of the assessed valuation within a proposed district must be in favor of the district. The creation of the Transportation Development District allows municipalities to impose assessments upon benefited properties within that District to construct transportation improvements.

- (5) Provision for bicycle parking
- (6) Parking facility design standards
- (7) Off-site parking options to required parking (rather than require parking on site, allow parking to be provided at an accessible location off site)
- (8) Fee-in-lieu of parking spaces as option (rather than require off-street parking, permit a contribution to a fund to be used to provide public parking facilities within the Borough)
- (9) Landscaping requirements
- (10) Coordinated design of adjoining parking
- (11) Public/private cooperation
- (12) Prime space policies to increase availability to patrons
- (13) Signage for identification of and directions to facilities

- f. Official Map/Right-of-way Acquisition can be used to facilitate improvements by placing improvements on official maps and beginning to acquire necessary rights-of-way. Adequate building setback standards should be used to facilitate future construction. Developer dedications can be used to acquire additional right-of-way.

Corridor preservation techniques to allow for future capacity improvements. Corridor preservation techniques minimize or prevent development in areas likely to be needed to meet future transportation needs, such as capacity expansion of roadways, parallel service roads, and bicycle, pedestrian, and eventual transit improvements.

- g. Ordinances can be used to provide for clear sight triangles and minimum sight distance requirements for all new driveways and streets. As part of road inspections, the municipality should review clear sight triangles at existing intersections to ensure that these areas are kept free from obstructions such as trees, shrubs, and signage.

Traffic Calming

As development in the Region continues to occur and traffic volumes increase, there will be increased traffic flow on residential streets. It is hoped that some of the road system improvements detailed earlier in this Plan will encourage through traffic to use roads outside residential neighborhoods. Other identified methods of accomplishing this include internalized trips within the Region through mixed use providing increased opportunities for pedestrian and bicycle traffic, and access management. If those steps are not successful, traffic calming techniques can be considered.

The purpose of traffic calming is to manage movement through an area in a way that is compatible with the land usage in the vicinity of the road. Two fundamental principles of traffic calming are (1) that streets are not just for cars, and (2) that residents have rights. Streets should be made safe for pedestrians and local drivers; and, traffic should not adversely affect the quality of life along the streets.

The general methods of traffic calming include:

- Active speed reduction (construct barriers to traffic movements)
- Passive speed reduction (installation of signage)
- Streetside design (landscaping changes the appearance of the area and driver attitudes)
- Regional planning efforts (external traffic directed to other routes)
- Opportunities for use of alternative modes (mass transportation, pedestrian, bicycle)

The methods which could be used in the Region in the vicinity of Littlestown include active speed reduction, passive speed reduction, and streetside design.

1. Active Speed Reduction (Construct barriers)
 - a. Speed tables are raised areas in the street surface, which extend across the width of the street. Speed tables, which are really raised pedestrian crosswalks, would be most appropriate in areas with substantial pedestrian traffic.

- b. Changes in roadway surface - This could include rumble strips, milling, and special roadway surfaces. These techniques can increase noise in areas and, probably, raise objections by area residents.
- c. Intersection Diverters - This could involve a barrier placed across an intersection, typically to alter travel plans, such as permitting right turns only, to make travel through a neighborhood more indirect.
- d. Channelization - This could involve provision of pedestrian refuge areas, providing protected parking bays through landscaped islands, altering motor vehicle traffic movements, and restricting movements at intersections by narrowing the space available for vehicular movement.

The active controls require changes in driver behavior. While the active methods send the message that the street is not just for through traffic, the methods are costly, and likely to be viewed negatively by some of the local users of the streets.

2. Passive Methods of Control

- a. Traffic signs such as Do Not Enter, Stop, Not a Through Street, Local Access Only, No Trucks, or signs establishing speed limits, indicating one-way nature of street, or prohibiting turns.
- b. Traffic signals
- c. Pavement markings, including crosswalks, edgelines, and use of different materials for pedestrian crosswalks
- d. Permitting on-street parking
- e. Speed watch

These methods have lower costs and can be applied to certain times of the day, if appropriate. However, signs are often ignored in usage, and enforcement is necessary.

3. Changing Driver Attitudes Within Neighborhoods

Building design, street trees, landscaping, street furniture, lighting, paving, and land use can change the driver's perception of a road as not just an area to drive, but as a shared space with pedestrians and other occupants of that area. The intent is to have the driver recognize the street as not just a wide-open roadway designed

for benefit of a car, but as a place where residents of a neighborhood will also be using the street. Any designs for streets should be compatible with the character of the neighborhood. Landscaping should be easy to maintain and not affect clear sight triangles.

Prior to implementation of any traffic calming program, it is necessary to clearly identify the specific problems which are to be addressed, identify and evaluate the alternative techniques and their drawbacks, benefits, and cost; identify alternative traffic patterns that could result from implementation of the techniques and the effects of those patterns on other streets and neighborhoods; and, involve citizens of the community in the evaluation and selection of techniques. Techniques should not detract from the character or attractiveness of a neighborhood.

Need for traffic calming techniques should be monitored on all roads within and abutting Designated Growth Areas and Potential Future Growth Areas. Most likely candidates for consideration of techniques would be Columbus Avenue, Lakeview Drive, Lakeview Drive Extended, Basehoar School Road, and any future connection between Queen Street and Basehoar School Road. These road segments would be used to circulate traffic within the vicinity of the Regional core, but also serve abutting development. Conflicts between through and destination travel could result. The most likely techniques to use would be signage and streetside design, as these would be less objectionable to area residents.

For new road segments, the municipalities can consider whether revised street design standards should be used to slow traffic down. This could include techniques such as reduced street widths, center planting strips, and design speeds to encourage reduction in travel speeds.

MONITORING TRANSPORTATION NEEDS OF ALL REGIONAL RESIDENTS

It will be necessary to monitor how well the transportation system serves the needs of all age and income groups within the Region. Of particular concern, just as with housing, will be younger families in the Region, seniors, and low and moderate income families with workers employed in the Region. The transportation system should facilitate access to facilities such as senior centers, recreation, medical offices, and employment opportunities. Improvements to the transportation system will help. Fostering alternative modes of travel, particularly transit, will also help.

Alternative modes of transportation, such as bicycling and walking, in addition to facilitating mobility, also can have a relationship to public health issues, by providing exercise opportunities for all residents of the Region.

CHAPTER 14

NATURAL AND HISTORIC RESOURCE PRESERVATION

SECTION 1 – NATURAL RESOURCE PRESERVATION PLAN

Natural resources for protection include streams, floodplains, hydric soils, wetlands, woodland, slopes of 15 to 25%, and slopes greater than 25%. The resources are shown on the following Natural Resource Preservation Plan. Resources are further detailed and described in Chapter 6. The most critical resources for protection in the Region are agricultural resources, but protection of those resources is discussed separately in Chapter 5 and the Future Land Use Plan, Chapter 12.

To protect identified resources in the Region in the past, primary reliance has been on ordinance provisions and this will continue in the future. Most resources are found in the Townships, and Union Township has incorporated restrictive floodplain overlay zoning, forestry use standards, and Natural Resource and Environmental Features standards. The latter limit clearance of forested areas in environmentally sensitive areas and to a lesser extent in non-environmentally sensitive areas, give guidelines for open space, and limit grading of steep slopes (the steeper the slope, the less grading is permitted).

Union Township should as a minimum retain the provisions it has adopted, and consider whether to adopt additional provisions. Germany Township should incorporate natural resource protection standards in its forthcoming zoning ordinance, addressing the concepts listed below and further detailed in the Action Plan.

Zoning and Subdivision and Land Development Ordinance Techniques for Use in Protecting Natural Resources

- >25 Slopes – severely restrict development through slope controls and net-out provisions
- 15-25 Slopes – require larger lots, limit clearance and impervious cover through slope controls and net-out provisions
- Floodplains – restrict development through floodplain overlay zoning and net-out provisions
- Wetlands – restrict development through net-out provisions
- Hydric Soils – restrict development, pending wetlands study results for hydric soils areas
- Wetlands Margins – restrict development through net-out provisions
- Woodland – limit clearing through woodland controls and net-out provisions

- Establish Riparian Buffers requirements along watercourses
- Require resource analyses for subdivision and land development plans to identify the above resources
- Encourage use of conservation development through zoning, which will result in significant open space preservation that can protect natural resources
- Require open space and greenways to be provided along the Conewago, Alloway, and Piney Creeks and their tributaries by developers
- Adopt Net out Provisions – In the zoning ordinances, require developers to identify resources on a site and protect from development a specified percentage of that resource
- Consider lot averaging, which will allow a developer to average lot size over a site, to give flexibility in lotting in order to avoid and protect resources
- Consider Transfer of Development Rights, which will allow transfer of development rights from natural areas such as woodlands in Rural Conservation-Agriculture areas to Designated and Potential Future Growth Areas
- Require Environmental Impact Studies of developer to explain impacts on resources and means of mitigating those impacts
- Encourage Best Management Practices for agriculture and storm water management to protect resources in the vicinity of those activities
- Require protection of natural drainage channels through review of subdivision and land development plans
- Adopt Forestry Regulations – regulate forestry operations in order to prevent adverse impacts

Administrative Means for Protecting Natural Resources

On the Natural Resource Preservation Plan, two Preservation Easements are shown in Germany Township. One is located between Gettysburg and Fish and Game Roads and one is located north of Ulricktown Road. Areas of the easements will be protected from development in perpetuity. The establishment of such easements is an “administrative means” because it is not accomplished through ordinance but by independent actions of

various parties. Municipalities may or may not be involved. Sometimes municipalities may encourage actions or help bring parties together. In this Region, it is most likely that the municipalities will encourage developers to establish greenways along watercourses and protect nearby sensitive environmental areas and watersheds by granting conservation easements to organizations such as the Land Conservancy of Adams County.

Municipal Parks, open space and recreation plans should further discuss greenway planning in the Region and identify any target areas for open space preservation and/or acquisition by conservancies or the Townships through donation, purchase with recreation fees, or purchase using grants, bonds, and/or tax revenue. The Townships should determine whether they want to establish a joint or individual Environmental Advisory Councils to oversee resource protection of natural resources and establishment of greenways and open space acquisition in the Region.

The Watershed Alliance of Adams County and Adams County Conservation District can be partners of the municipalities and/or Environmental Advisory Council(s) in encouraging stream corridor management along the Conewago Creek, Alloway Creek, and Piney Creek and their tributaries. These agencies can work with landowners and developers in utilization of best management practices, stream corridor improvement projects and establishing riparian buffers. The agencies can also be partners in increasing watershed awareness for the Conewago, Alloway, and Piney watersheds, Conewago Watershed planning projects, and implementation of regional planning efforts including the Monocacy River Watershed Stormwater Management Plan and Adams County Water Supply and Wellhead Protection Plan.

Recommended techniques are further discussed in the Action Plan.

SECTION 2 – GREENWAYS

The Pennsylvania Greenway Partnership Commission defines a greenway as follows:

“A greenway is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of green that run through urban, suburban, and rural areas to wide corridors that incorporate diverse natural, cultural, and scenic features. Greenways can be land- or water-based, running along stream corridors, shorelines, lakes, waterfalls, or wetlands. Some follow old railways, canals, ridgetops, or other features. They can incorporate both public and private property. Some greenways are primarily recreational corridors, while others function almost exclusively for environmental protection and are not designed for human passage. Greenways differ in their location and function, but overall, a greenway network will protect natural, cultural, and scenic resources, provide recreational benefits, enhance the natural beauty and the quality of life in neighborhoods and communities, and stimulate economic development opportunities.”

Greenways improve the quality of life and livability of communities. Greenways are generally linear corridors of public and private lands or water-based open space used primarily for recreation purposes or open space preservation. They can be trails, rail trails, streams and other waterways, scenic byways, parks and linked tracts of open space. Greenways provide open space for human access and recreational use, but also function as corridors for wildlife habitat and movement, environmental protection and intermodal transportation.

A system of Greenways can conserve stream corridors and develop the Region’s green infrastructure, which can connect with that outside the Region. The system should connect communities, parks and public lands, and should provide a system of trails where appropriate in order to provide access, recreation and encourage alternative forms of transportation. To summarize the benefits of greenways, they:

- Provide safe links between parks, schools, community areas, and neighborhoods.
- Protect open space along creeks.
- Preserve natural resources and wildlife habitats and corridors.
- Foster public recreation.
- Provide educational opportunities as an outdoor classroom.
- Increase property values.
- Attract and retain businesses.
- Provide alternative forms of transportation.
- Enhance the quality of life.
- Allow access to natural resources.

- Link communities together.

On the Conceptual Pedestrian Concepts Plan discussed in the Transportation Plan Chapter, three major greenways are indicated, along the Conewago Creek, along the Alloway Creek, and along the stream from the Conewago Creek to the inactive rail line north of Hanover Pike. At a minimum, these greenways would provide open areas to preserve quality of the streams. The greenways could also serve as areas in which trails could be developed. A trail along the tributary to the Conewago Creek would connect with the major trail system shown along the inactive rail line.

For stream protection purposes, greenways should be established along the Alloway, Conewago, and Piney Creeks and their tributaries. Further greenway planning will be addressed in the County Greenways Plan and municipal recreation plans.

SECTION 3 – PROTECTION OF HISTORIC RESOURCES

Historic resources in the Region have been identified in a very general manner (see Chapter 6). If the municipalities wish to pursue protection of historic resources, the following outline of steps should be followed. Protective actions are further detailed in the Action Plan.

Actions to Protect Historic Resources

The following actions can be taken to protect historic resources within the Region:

1. Encourage active involvement of Historical Commission(s) to:
 - Identify, evaluate, mark and foster awareness of historic resources
 - Investigate participation in Certified Local Government Program
 - Investigate creation of historic districts
 - Inform and involve public
 - Encourage retention, restoration, enhancement and appropriate adaptive re-use of historic resources and discourage removal of historic structures
 - Conceive programs, events and interpretive signage and exhibits which emphasize the history of the region
 - Identify contemporary sites for future preservation
2. Utilize Historic Resource Overlay Zoning.
3. Utilize demolition by neglect provisions in zoning ordinances.
4. Adopt Town Center and Rural Village design standards.
5. Require historic resource impact studies in subdivision and land development ordinances.

State Grants Available to Help Fund the Preservation of Historic Resources

Guidelines pertaining to the PHMC's three primary grant programs are found in this section. The programs and eligibility criteria are described in detail. Prospective

applicants may determine how the Commission's multiple funding opportunities can best meet their needs and the needs of their constituents and can best serve the people of Pennsylvania. Guidelines can be obtained for each grant type on the PHMC's website. The following are the PHMC's available grants to preserve historical resources:

1. **Certified Local Government Grant Program** – Funding under this program is limited to federally designated Certified Local Governments. There is only one type of grant.

- Competitive
- Matching
- Maximum Award \$25,000
- Funding in the Categories of Cultural Resource Surveys, National Register Nominations, Technical and Planning Assistance, Educational and Interpretive Programs, Staffing and Training, and Pooling CLG Grants and Third Party Administration.

2. **Keystone Historic Preservation Grant Program** - Funding under this program is available to nonprofit organizations and local governments for capital improvements on historic resources listed in or eligible for listing in the National Register of Historic Places. (Private property owners are not eligible for funding under this program and may wish to refer directly to PHMC Programs of Interest for information on investment tax credits and historic homesites program.) There is one type of grant.

- Competitive
- Matching
- Maximum Award \$100,000
- Funding in the Categories of Preservation, Restoration, and Rehabilitation.

3. **Pennsylvania History and Museum Grant Program** - Funding under this program is designated to support a wide variety of museum, history, archives and historic preservation projects, as well as nonprofit organizations and local governments. There are 10 types of grants listed below with descriptions of each following:

- Archives and Records Management Grants
- General Operating Support Grants for Museums
- General Operating Support Grants for Official County Historical Societies

- Historic Preservation Grants
- Historical Marker Grants
- Local History Grants
- Museum Project Grants
- Statewide Conference Grants
- Statewide Organization Grants
- Technical Assistance Grants

4. **Archives and Records Management Grants** - PHMC grants help communities share Pennsylvania's rich and diverse history.

- Organizations and local governments can bring historical documents and records to life for their communities with grants for archival care and accessibility.
- Organizations and local governments can contribute to a community's understanding of its heritage through oral and written histories, public programs of all types, historical research, and educational programs for students of all ages.

5. **General Operating Support for Museums Grants** - Museums are eligible to apply for grant funding to support their general operations.

- Noncompetitive
- Matching
- Maximum Award \$10,000
- No Special Categories

6. **General Operating Support Grants for Official County Historical Societies Grants** - Official county historical societies receive general operating support grants as a way to recognize the outstanding work these societies do for their communities. These grants are:

- Noncompetitive
- Matching
- Maximum Award \$10,000
- No Special Categories

7. **Archives and Records Management Grants are:**

- Competitive
- No Match Required to \$5,000

- Matching to \$20,000
- Maximum Award \$20,000
- Funding in the Categories of Access and Preservation Programs, and County Records Improvement Programs

8. Historic Preservation Grants -: Applicants may apply for grants that cover every aspect of historic preservation, including:

- restoration and rehabilitation of historic properties
- cultural resource surveys
- historic preservation studies and plans
- educational and interpretive programs
- nomination to the National Register of Historic Places
- archaeological research

Historic Preservation Grants are:

- Competitive
- No Match Required to \$5,000
- Matching to \$15,000
- Maximum Award \$15,000
- Funding in the Categories of Cultural Resource Surveys, National Register Nominations, Planning and Development Assistance, Educational and Interpretive Programs, and Archaeology

Historical Markers Grants are:

- Selective
- Matching
- Maximum Award \$650
- No Special Categories

Local History Grants are:

- Competitive
- No Match Required to \$5,000
- Matching to \$15,000
- Maximum Award \$15,000
- Funding in the Categories of Public Programs, Research and Writing, and Educational Programs

Museum Project Grants are:

- Competitive
- No Match Required to \$5,000
- Matching to \$15,000
- Maximum Award \$15,000
- Funding in the Categories of Institutional Development, Collections Management, and Educational and Interpretive Program

9. **Statewide Conferences Grants** - Organizations planning to sponsor conferences with a statewide, regional or national audience may apply for “seed” money to assist with conference preparation.

- Selective
- No Match Required
- Maximum Award Generally Does Not Exceed \$5,000
- No Special Categories

10. **Statewide Organizational Grants are:**

- Selective
- No Match Required
- Maximum Award Generally Does Not Exceed \$100,000
- No Special Categories

11. **Technical Assistance Grants** - Offer options to a wide range of applicants for solving institutional problems, developing staff skills, and increasing overall professionalism. The grants bring experts in the field to the organizations’ sites or provide staff training. These grants are:

- Competitive
- No Match Required
- Maximum Award \$1,500
- No Special Categories

SECTION 4 - PROVIDING FOR A RELIABLE SUPPLY OF WATER

The Littlestown Borough Authority (LBA) system is discussed in greater detail in Chapter 8 and Appendix 4. As noted in Chapter 6, groundwater yields within the Region are not typically large and groundwater pollution has occurred in the Region, so water supply within the Region is a concern. The LBA has taken the position that developers connecting to the system are to provide for an adequate supply of water for their development, which generally involves establishing a new well which will be dedicated to the Authority. This will be the primary strategy for providing public water supply in the Region.

In the Action Plan, recommendations are made for protecting water resources, including among others, adopting zoning provisions to implement wellhead protection; groundwater protection; wetland, wetland buffer, and hydric soil protection; floodplain protection; and stream corridor protection. The following table provides a summary of methods of protecting surface and ground water supplies.

PROTECTING WATER SUPPLIES

Stream Corridor Protection	Aquifer Protection	Groundwater Resource Protection Provisions	Hydrogeologic Impact Analyses Requirements of Major Users
<ul style="list-style-type: none"> • Restrict development and impervious surfaces 	<ul style="list-style-type: none"> • Review development plans to prevent groundwater pollution 	<ul style="list-style-type: none"> • Wellhead Protection 	<ul style="list-style-type: none"> • Proposed supply locations
<ul style="list-style-type: none"> • Require riparian vegetative buffers 	<ul style="list-style-type: none"> • Limit impervious surfaces 	<ul style="list-style-type: none"> • Increase watershed awareness 	<ul style="list-style-type: none"> • Geologic conditions, recharge rate, degree of renovation
<ul style="list-style-type: none"> • Encourage use of best management practices 	<ul style="list-style-type: none"> • Establish performance standards for commercial and industrial uses 	<ul style="list-style-type: none"> • Regulation/restriction of potential contaminating uses 	<ul style="list-style-type: none"> • Aquifer characteristics; groundwater movement, use, yield, quality, quantity, well interference
<ul style="list-style-type: none"> • Encourage stream habitat improvement 	<ul style="list-style-type: none"> • Protect aquifers through controlling uses and potential polluting activities 	<ul style="list-style-type: none"> • Performance standards 	<ul style="list-style-type: none"> • Test well results and impacts
<ul style="list-style-type: none"> • Encourage conservation easements/donations/dedications 	<ul style="list-style-type: none"> • Utilize appropriate sewage disposal and water supply techniques, with appropriate standards and management 	<ul style="list-style-type: none"> • Design standards 	<ul style="list-style-type: none"> • Plan to protect groundwater system underlying and adjacent to the site: prevention, remediation, emergency management
<ul style="list-style-type: none"> • Protect wetlands and wetland margins 	<ul style="list-style-type: none"> • Protect headwaters and groundwater recharge areas 	<ul style="list-style-type: none"> • Operating requirements 	<ul style="list-style-type: none"> • Monitoring of groundwater quality and quantity
<ul style="list-style-type: none"> • Require floodplain and wetland studies where not identified 	<ul style="list-style-type: none"> • Best Management Practices 	<ul style="list-style-type: none"> • Review process 	
<ul style="list-style-type: none"> • Restore stream banks and crossings 	<ul style="list-style-type: none"> • Implement stormwater management plans 	<ul style="list-style-type: none"> • Conservation subdivisions 	
<ul style="list-style-type: none"> • Greenway development 	<ul style="list-style-type: none"> • Implement erosion and sedimentation control plans 	<ul style="list-style-type: none"> • Net-out zoning provisions 	
<ul style="list-style-type: none"> • Steep slope protection 		<ul style="list-style-type: none"> • Lot averaging 	

- Woodland protection

Zoning Ordinance Provisions

Zoning Ordinances should contain provisions to protect sources of water supply through the following techniques. Such provisions should be considered in the new Germany Township ordinance and as appropriate to supplement existing provisions in the Union Township and Littlestown Borough ordinances.

1. Natural Resource Protection standards (Net out Provisions) protecting floodplains, wetlands, wetland margins, steep slopes, watercourses, water bodies, and lake and pond shores.
2. Conservation zoning in the Townships to protect natural resources and aquifers through open space preservation.
3. Lot averaging provisions in the Townships to allow flexibility in lot layout so that houses can be sited away from natural resources.
4. Steep slope protection provisions near streams to minimize erosion and sedimentation resulting from impervious surfaces and tree clearance.
5. Woodland protection provisions to maintain tree cover.
6. Wetlands, wetland margin, and hydric soil protection provisions to protect groundwater and surface water supplies from contamination and allow infiltration.
7. Floodplain protection provisions to protect surface water quality and quantity.
8. Aquifer protection standards to protect groundwater supplies from contamination through use and impervious restrictions and design standards, particularly for non-residential uses.
9. Wellhead protection provisions to protect central water supplies by restricting and regulating potential contaminating substances and uses.
10. Stream Corridor Overlay Zoning/Riparian Buffer Requirements to protect surface water from adverse impacts from development and other nearby disturbance.

Other Strategies

Zoning strategies should be coordinated with efforts of the Adams County Conservation District, Penn State Cooperative Extension, Watershed Alliance of Adams County, Watershed Associations, County Planning Office, and other agencies to restore, protect, and stabilize stream banks and use other Best Management Practices (BMPs) to protect stream quality. Development of impervious surfaces should be limited, riparian buffers established, and stream habitats improved. An organization in the Region, such as an Environmental Advisory Council, should be given responsibility for such coordination.

Subdivision and land development ordinances should be updated to address water resource protection. When subdivision and development plans are reviewed, developers should be required to adequately manage storm water runoff and erosion and sedimentation in manners consistent with the protection of water resources in the area. Storm water management should be considered as part of the hydrologic cycle with consideration of infiltration, reducing pollution, and reducing thermal impacts through BMPs. Recommendations and ordinances pursuant to adopted Act 167 Stormwater Management Plans (currently Monocacy River) should be implemented.

Water supply and distribution planning and review of development should involve the Alpha and Kingsdale Companies to ensure that there will be adequate fire hydrants and volume and pressure of water to provide adequate fire protection.

Developers should also be required to identify the resources within their tracts, analyze the impacts of development, and mitigate those impacts. Natural resources should be incorporated into the open space system. Stream corridors should be incorporated into greenways.

Where residential developments, businesses, or other uses propose to utilize ground water or surface water supplies in substantial amounts, hydrologic studies should be required; and, the party causing the extraction should be required to demonstrate that there will be no adverse effects on the water supplies of other entities in the Region. Hydrologic impact analyses noted in the preceding table should be incorporated into land development regulations.

Where greenways or watershed areas are used for public recreation purposes, any public access and usage should be consistent with the need to protect water supplies.

It should be noted that lawful activities such as extraction of minerals impact water supply sources and that such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such

activities. Commercial agricultural production impacts water supply sources; and, Best Management Practices should be applied to mitigate the impact on water supply sources.

The formation of watershed associations for the Conewago, Piney, and Alloway Creeks and a regional or municipal environmental advisory council(s) to coordinate with those associations should be supported. Public education programs of the watershed associations should encourage the community to be aware of potential sources of water supply in their watersheds and to exercise good “housekeeping” and stewardship practices to help protect them.

Watershed associations can encourage landscape management programs formulated to encourage residents to reduce nutrients and pesticides reaching streams and ground water. A program of household hazardous waste collection and public education programs could be considered.

The municipalities, watershed associations, and the LBA should work together to develop a program to protect watersheds of water supplies of the LBA. Prior wellhead protection planning of the LBA system should be reviewed for needed updating and expansion.

Drought contingency plans of the LBA should be kept current to establish how water supplies will be continued during times of drought. Elements to address include alternative sources of supply, interconnections between systems, emergency water transfer agreements, and water conservation provisions. Even outside times of drought, water conservation programs should be promoted for individual users.

Monitoring groundwater quality relative to contaminants in the area of the Keystone Landfill is an ongoing process. If the Regional Act 537 Plan is prepared, additional testing of groundwater will occur.

Adams County Water Supply and Wellhead Protection Plan of 2001

The recommendation of the Plan for the Littlestown Sub-Region is as follows:

“The Littlestown Municipal Authority is a “fair” system with surplus storage but a safe yield deficit. The 1999 drought of record called into question the adequate availability of water to this system. The system is in the process of adding a filter plant to put the quarry back on line as a source. While anticipated future development within Germany Township will most likely need public water, the lack of zoning within the Township makes it extremely difficult to predict where development will occur. If the Township were to adopt zoning that directed future growth and development in close proximity to Littlestown Borough, the ability of this municipal system to serve the area would be enhanced, making the creation of

a new community water system unnecessary. It is recommended that the Township adopt such zoning and that the Littlestown Municipal Authority extend its service to accommodate projected nearby needs.”

The Plan presents recommendations for protecting groundwater quality and yields as noted below. Responsibility should be assigned within the Region to assure that these recommendations continue to be reviewed and implemented as appropriate and necessary. The three municipalities should work with the LBA to establish a regional approach to and policies for water supply and serving development in Designated Growth and Potential Future Growth Areas.

The County Plan further notes that municipalities can protect their groundwater quality and yields by taking the following actions related to on-lot water wells:

- Adopt well siting, construction, water quality testing, and abandonment standards as part of the subdivision and permitting process to protect groundwater quality; such requirements should involve siting wells at safe distances from potential contaminant threats, grouting, and the placement of a sanitary seal on all at- or below-grade well openings.
- Adopt on-lot septic system ordinances to assure adequate siting, maintenance, pumping, and replacement of systems so as to minimize potential adverse impacts on groundwater. On-lot septic systems should be pumped every three years. Alternatively, a municipality might create a local sewer district in which it charges each household a small annual fee, and in return takes responsibility for the maintenance and replacement of septic systems.
- Adopt aquifer testing requirements for proposed new subdivisions and land developments to assure adequate water supply and to assure no adverse impacts on adjacent existing development.
- Require that any new development within one-half mile of an existing municipal community water system be connected to the municipal water system.
- Discourage the proliferation of on-lot water systems by revising comprehensive plans and zoning ordinances to:
 1. direct future development into planned growth areas with densities conducive to the provision of community water and sewer systems (three to

four units per acre),

2. rezone large areas of productive agricultural and forest lands using a fixed area or sliding scale district that results in a maximum density of one unit per 25 acres,
3. rezone suburbanizing areas at the edge of municipal water systems for cluster development that can be served by the municipal system

Groundwater quality in the County can only be protected through a coordinated effort among residents, municipalities and the County. Intensive community planning programs and the application of appropriate zoning standards are absolutely essential. Residents must also be educated as to the necessity of regularly pumping septic systems and proper septic system usage. At a minimum, municipalities should monitor the incidence of septage system pumping. If indicated, municipalities should require such pumping through the adoption of on-lot disposal system ordinances.

The Plan goes on to recommend some additional techniques.

“Several types of regulatory and nonregulatory protection techniques exist that could help protect the County's groundwater sources for future consumptive use. For instance, the delineation of Wellhead Protection Areas (WHPAs) and the adoption of regulatory measures to protect community water system supply wells would safeguard not only existing wells, but potential future wells.”

The municipalities should work with the LBA to assure that existing and future wells are protected through wellhead protection zoning.

Other methods of groundwater protection, in areas where community water systems do not currently exist, include zoning and subdivision and land development (SALDO) regulations, which can be used to protect potential source water locations from contamination; these measures can also be used to protect vital areas of groundwater recharge. Some specific zoning and SLDO techniques include:

- Land purchase or easement acquisition,
- Creation of regional watershed associations,
- Very low-density zoning, including cluster and rural conservation zoning that requires large areas to be retained in a natural state,

- On-lot septic maintenance, cleaning and replacement regulations,
- On-lot water system well construction and abandonment requirements, and demonstration of adequate supply,
- The promotion of Integrated Pest Management Practices on farms and in gardens,
- Annual hazardous materials collection days,
- Identification and careful monitoring of hazardous materials production, use, storage, transport, and disposal (see County's GIS database),
- Up-to-date municipal Emergency Operations Plans,
- Zoning protection for floodplains, wetlands, riparian corridors, steep slopes, and woodland areas, low maximum impervious surface standards and the promotion of pervious surfaces for development,
- Best management practices for storm water management, including the promotion of non-structural solutions, and other techniques as described both in Chapter VI and Chapter IV and
- Non-regulatory approaches supporting the protection of groundwater include education, conservation, land acquisition, easement acquisition and transfer of development rights, to name a few.

The implementation of these techniques will require the cooperation and coordination of the efforts of municipalities, CWSs, the County Conservation District, Cooperative Extension, Adams County, and other participants. Most of these techniques have been discussed elsewhere in the Comprehensive Plan. The important first step in implementing them within the Region is to establish a mechanism to take an overview of water resource protection activities in the Region and bring the municipalities, LBA and other groups together to map out an action plan for the future.

The Plan also notes the following:

“Adams County is partly located within the Susquehanna River basin (Conewago Creek Watershed), which is under the authority of the Susquehanna River Basin Commission (SRBC). The SRBC conducts a public review of proposed surface and groundwater uses, taking into consideration local concerns in evaluating requests for groundwater and surface water withdrawal permits. Parts of Adams County are also located within the Potomac River basin (Piney and Alloway Creek

Watersheds). There is an Interstate Commission on the Potomac River Basin that provides information on the use and conservation of water and land resources of the Potomac River basin through regional and interstate cooperation. Municipalities and community groups in Adams County with concerns about water quantity and quality should contact these Commissions for additional information.”

The Plan contains the following list of what individual citizens and businesses can do to protect water quality:

HOW YOU CAN PROTECT WATER QUALITY

Home and Business

- reduce use of hazardous household products
- read and follow product labels
- use more environmentally-friendly household products
- use pump sprays rather than aerosols
- avoid chemical air fresheners
- reuse paint thinner
- use latex and water-based paints
- do not dispose of hazardous household products down the sink, toilet, storm drain or onto the ground
- bring toxic household products to the annual hazardous waste pick-up day
- do not use septic system cleaners or additives
- use a plunger or hand-snake for unclogging toilets and drains
- check underground home heating oil tank for leaks
- recycle batteries
- use least toxic alternatives in cottage industries and rural occupations

Outdoors

- have septic system pumped every three years
- recycle used motor oil
- repair leaky crankcase or transmission
- keep storm drains cleared
- de-ice with sand instead of salt and chemicals
- clean up pet waste
- fence animals away from wells, streams and other water bodies

- test quality of well water
- check unused wells for property capping and sealing

Yard and Garden

- minimize use of lawn and garden chemicals
- use alternatives to pesticides
- avoid "weed `n feed" applications
- encourage insect-eating birds and insects
- do not apply pesticides near streams, wells or water bodies
- do not dispose of hazardous garden products down the sink, toilet, storm drain or onto the ground
- bring hazardous garden products to an annual hazardous waste pick-up day
- landscape with trees and shrubs
- avoid landscaping plastic
- provide vegetation along streams

CHAPTER 15
COMMUNITY FACILITIES PLAN

GOAL AND OBJECTIVES

The goal and objectives for community facilities are found in Chapter 11, the Regional Vision.

MONITORING OF NEEDS WITHIN THE REGION

The overall goal for community facilities and services is to provide the necessary community facilities and services to the Region's residents in an efficient, cost-effective and quality manner within the financial resources of the municipalities. The municipalities will continue to monitor the need and opportunities for additional, expanded, or improved community services and facilities as available financial resources permit. Community facilities may be provided on an individual basis or on cooperative efforts. It is necessary to monitor the needs for specific groups, such as seniors, youth, and families. While some services and facilities can be provided within the Region by municipalities or cooperative efforts of municipalities, in some cases it may be necessary to coordinate provision of services to and facilities for regional residents with community or government agencies serving larger geographic areas, such as Adams County as a whole.

On an ongoing basis, the demographic trends within the Region should be monitored to assure that the needs of all residents in the Region are met through provision of facilities in the Region or assisting in using facilities elsewhere in the vicinity of the municipalities.

Efficient, effective, and professional management of public facilities and services will be promoted. Resources of the Pennsylvania Department of Community and Economic Development should be reviewed and used as appropriate to improve municipal government.

REGIONAL COOPERATION

The municipalities should continue to review opportunities and/or needs for regional cooperation in the provisions of services, equipment, programs and facilities as demands for services and costs increase and availability of volunteers continues to be a concern. This would involve continued and expanded cooperation and dialog between the Townships and the Borough and agencies such as fire companies. Comprehensive planning, recreation planning; utility planning; transportation planning; implementation of this Plan; code enforcement; and emergency services planning should be considered on a regional basis, and in some cases have already been cooperatively accomplished.

It is particularly important to monitor regional needs in emergency services provision, and determine whether such services, such as police service, should be provided on a municipal basis, with cooperation of the three municipalities, in a broader regionalization of services, or with reliance on other providers.

To implement this regional Comprehensive Plan, an inter-governmental cooperative agreement will be completed and a Regional Planning Committee established. That committee, and municipal planning commissions and governing bodies, should continue to meet to discuss trends in the Region, progress in meeting the goals set forth in this Plan, the effectiveness of this Plan, and the implementation of this Plan. This Comprehensive Plan should be given a thorough review by the Regional Planning Committee in five years, with consideration of trends at that time and development and events over the next five years. Continuing regional planning efforts will also involve inter-regional cooperation and regional/county cooperation in addressing transportation, economic development, and community development issues. The Region should continuously monitor the availability of grants for planning, recreation, and economic development, and cooperatively pursue such grants.

As noted in the Sanitary Sewer and Water Facilities chapter (Chapter 8), a key recommendation of this Plan is preparation of a regional Act 537 Sewage Facilities Plan within two years to determine how public sewage facilities can be provided in order to direct growth to Designated and Potential Future Growth Areas.

Regional cooperation will also continue to involve the Region's residents and business community in committees to address major issues of concern within the Region. For example, just as a steering committee was appointed for this Plan, steering committees are likely to be appointed for recreation and sewer facility planning.

There should also be regional coordination in water supply planning and protection of water resources. As noted in Chapter 14, the three municipalities and Littlestown Borough Authority should work together to establish a regional approach and policies for water supply and serving development in growth areas. An agency within the Region, such as a regional Environmental Advisory Council, should also be tasked with monitoring implementation of recommendations to protect water resources. Water-related aspects of community facilities are discussed in Chapter 14.

COOPERATION WITH SCHOOL DISTRICT

An objective of this Plan is to encourage increased cooperation of the municipalities and the School District in planning activities and utilization of school facilities. It is also necessary to maintain a dialogue with the School District regarding development activities, school facilities needs, location of school facilities, and school bus routes.

For example, location of school facilities can affect decisions regarding residential subdivision, and maintaining the Future Land Use Plan. Location of school facilities also affects school bus routes. School bus route planning should be coordinated with transportation improvements and the availability of roads which are adequate for school bus traffic. Land acquisition policies of the School District can result in properties being removed from tax roles, and revenue loss to municipalities from this needs to be addressed with the School District. School locations, bus routes, and bus stops can contribute to traffic congestion if not well planned. Consideration should be given to locating any additional school facilities within the existing campus in Littlestown, where walking to school is an option for some students.

Consideration should also be given to how children will be picked up and dropped off within residential developments. School District planners, developers, and reviewing municipal agencies should make sure adequate, well-lit stops are provided. School District personnel should be involved in the review of subdivision and land development plans where appropriate.

IDENTIFIED NEEDS

Several specific needs for action or monitoring were identified with the Steering Committee. These include:

- Monitor the need to attract fire personnel where less volunteers are available and investigate opportunities to cooperate regionally to provide adequate fire service throughout the Region. Monitor the need for paid personnel in the future.
- Continue to analyze the need for a Germany Township municipal building.
- Determine the appropriate future use of building space currently occupied by Borough offices.
- Promote and support efforts of community organizations to provide recreational facilities and programs for area residents and services and programs for seniors, families and youth. Work to establish additional community centers in the Region. Work with the Adams County Office on Aging to meet needs of seniors.
- Encourage volunteerism for non-profit organizations such as emergency medical services. Monitor the need for paid personnel.
- Expand library capacity in the Region.

- Support efforts of the Green Ribbon Commission to advance parks, recreation, and greenway conservation efforts and open space conservation efforts in the County,
- Through subdivision and land development ordinances, require new developments to contain water supplies for fire protection, such as ponds, cisterns, and dry hydrants.

RECREATION

The most important initiative for recreation is for each municipality to prepare a Parks, Recreation, and Open Space plan. In addition to establishing municipal policies, this will enable each municipality to require dedication of recreation land or charge a recreation fee in lieu of dedication through provisions in subdivision and land development ordinances. Each subdivision or land development would then have to be reviewed to determine whether the dedication of land or the fee in lieu of land would be more appropriate, based upon the size and location of the development and open space and recreation planning.

The focus of additional recreation land in the Region should be the expansion of the Littlestown Community Park into the Townships. Expansion can occur via dedication by landowners or purchase, including purchase using recreation fees. Neighborhood parks could be required by the municipalities within large subdivisions which are proposed in Designated Growth Areas. (Chapter 9 discusses existing and projected recreational acreage deficits.)

On the Future Land Use Plan discussed in Chapter 12, a substantial expansion of the Littlestown Community Park into Germany and Union Townships is shown. The expansion would be almost a doubling of the park, approximately 45 acres. Expansion of the park by 45 acres would eliminate the regional recreation acreage deficit for 2010, and result in a regional recreation acreage deficit of only 5 acres for 2020.

The Future Land use Plan also anticipates that as additional development occurs within the Designated Growth Areas, it is likely additional neighborhood parks would be provided in large developments. That additional acreage would likely eliminate any recreational acreage deficit in the Region by 2020.

There should be continued cooperation with the School District to assure availability of School District facilities to the Region's residents.

When Parks, Recreation and Open Space (P, R, and OS) plans are prepared, questionnaires should be distributed to the Region's residents to determine what facilities are now used by, desired by, are most likely to be used by them.

When recipients of the Comprehensive Plan questionnaire were asked what are the most needed recreation facilities, those who said more park and recreation facilities should be provided responded most often for playgrounds for children; trails for hiking, biking, and horseback riding; parks with facilities or areas for fishing, hunting, camping, boating, etc.; areas for field sports such as softball, baseball, football, soccer, etc.; and community recreation centers.

In expansion of park facilities and development of new facilities pursuant to the P, R, and OS Plans, the needs of people in the difficult stages of their life cycle, from young households with small children to the elderly, should be considered and addressed. Facilities needed to serve groups expected to reside in the Region will vary from tot lots to playfields, to more passive facilities such as walking trails, to senior centers.

P, R, and OS Plans will establish standards for recreation facilities with consideration of those of the National Park and Recreation Association (NPRA) and the Adams County Vision for Parks, Recreation, and Open Space.

The P, R, and OS Plans will also further detail greenway and trail planning in the Region and make recommendations for implementation of such systems, such as working with PENNDOT to widen and improve road shoulders and requiring developers to provide greenways within and improve shoulders along their properties in order to accommodate pedestrian and bicycle facilities.

Adams County Vision for Parks, Recreation, and Open Space

The Adams County Vision established a goal to provide a system of parks which offer different types of recreation opportunities for all age groups at convenient locations throughout the County. The plan encourages municipalities, school districts and other recreation providers to develop the community and neighborhood parks needed to accommodate current and future population. The plan noted that efforts should be made to encourage the maximum use of existing recreation resources, such as the Littlestown YMCA. The plan also encourages municipalities to evaluate the need for parks and recreation at the local level and develop and implement municipal or multi-municipal parks, recreation and open space plans. It was noted that municipalities must have an adopted parks, recreation and open space plan to take advantage of state law that enables them to require mandatory land dedication or to collect an impact fee in lieu of land for recreation.

The Adams County Vision suggested that the highest priority for developing local parks, recreation, and open space plans should go to those areas that have large growth areas as

identified in the Adams County Comprehensive Plan, including Littlestown Borough, Union Township, and Germany Township.

It was recommended that municipalities modify their land development ordinances to require mandatory dedications for recreation and mandate that all residential and non-residential developments include usable, active parkland/recreation facilities, and greenway/natural resource; a fee in lieu of land and facilities to meet the recreation needs of residents; or a combination of both land and fee.

The Adams County Vision recommended the design and development of walking and biking paths not only for recreation but also to connect schools, parks, and other activity centers to each other and to surrounding neighborhoods. It also recommended that existing parks and facilities be reviewed for compliance with the requirements of Americans with Disabilities Act and Consumer Product Safety Commission regulations.

The Plan also recommended that the school districts facilitate the use of schools as community activity centers and permit the greatest community use of schools.

The Plan identified two roads within the Region as State roads, portions of which could serve as pathway connections – Route 116 (McSherrystown West to Carroll Valley) and Route 194 (East Berlin South to State Line).

As a summary, the Adams County Vision listed the following recommendations as being appropriate for all local governments and school districts. These recommendations should be considered in the preparation of municipal P, OS, and R Plans within the Region.

- Modify local ordinances to strengthen land preservation.
- Use local land use regulations to support open space conservation.
- Develop land use regulations and design guidelines which recognize and help protect scenic vistas.
- Encourage the use of greenway planning principles and greenway design principles whenever possible.
- Acquire and develop “close-to-home” greenways which can be incorporated into the countywide greenway system.
- Establish Stream Corridor Protection Areas within which development should be carefully controlled.

- Encourage and support stream clean-up programs.
- Encourage the use of Best Management Practices to protect stream corridors.
- Continue and expand recreation program offerings.
- Evaluate abandoned school buildings and facilities for community recreation potential before selling the assets for private reuse.
- Develop municipal or multimunicipal parks, recreation, and open space plans.
- Modify land development ordinances to require mandatory dedication for recreation.
- Review existing parks and facilities for compliance with ADA requirements and consumer safety regulations.
- Encourage volunteer involvement.
- Encourage to county to develop a Municipal Parks Initiative Program as part of the proposed county bond issue.
- Adopt appropriate maintenance standard for local parks and facilities to maximize safety and reduce the need for future capital replacement projects.
- Work with school districts and other municipalities to jointly purchase expensive, labor saving equipment which is only used on a seasonal basis.

CHAPTER 16
ACCOMMODATION OF HOUSING
IN THE REGION

SECTION 1 – GENERAL POLICIES IN THE REGION

The goal of this Plan is to meet the Pennsylvania Municipalities Planning Code (MPC) requirement to provide a plan to meet the housing needs of both existing and future residents of the Region. Opportunities will be provided for accommodating new housing in different dwelling types and at appropriate densities for households of all income levels. This will include providing for single family, two family, multi-family, and mobile home park housing, depending on zoning district and available infrastructure. Densities of development will also vary with the zoning district and available infrastructure.

While accommodating new housing, it is also intended to retain the existing character of the Region and of existing residential neighborhoods. Neighborhoods should be protected from adverse impacts of potentially incompatible uses. Increased owner occupancy of housing units in the Borough is supported.

The housing available in the Region should be suitable, safe, and sound for residents. One approach is to encourage necessary maintenance, rehabilitation and renovation of the existing housing stock in need. This can be accomplished through enforcement of construction, housing, and property maintenance codes.

New housing developments should be well-planned, attractive living environments. A variety of development options can be made available, such as conservation development, traditional and village patterns, in addition to more typical single family development.

A particular concern in the Region is to support housing alternatives for the elderly, where consistent with the other goals and objectives of this Plan. This could include such projects as smaller-scale elderly housing units and retirement villages. Programs which help the elderly maintain and remain in their homes can be identified to those in need. Efforts of the Adams County Office on Aging can be supported when such efforts are consistent with the other policies of this plan.

Another concern is providing for housing for people trying to enter the housing market and housing for those families living and working in Adams County. Allowing for a variety of housing types, including multiple family, and higher densities of development when public sewer and water is available, is important to addressing this need.

While housing affordability issues typically reflect market conditions, municipalities can maintain construction and housing codes which are reasonably based on protecting public health, safety and general welfare, and which do not contain provisions solely to increase

the luxury of dwelling units. This is facilitated by use of the Uniform Construction Code. Excessive standards in municipal regulations can unnecessarily raise housing costs.

SECTION 2 – INCLUSION OF HOUSING TYPES

Adequate opportunity for diverse types and densities of housing will exist in the Region through zoning ordinances adopted pursuant to this Plan.

Policies for each land use category can not be definitively established at this time. The following list gives an idea of where different housing types could be accommodated. Specific policies will be established in municipal zoning ordinances, and may differ from this list.

<u>Type of Dwelling</u>	<u>Land Use Categories Where May Be Permitted</u>
Single family detached dwellings	Rural Conservation-Agriculture; Rural Low Density; Low Density Residential; Designated Growth Area; Potential Future Growth Area; Limited Mixed Use Corridor; Rural Village Center; Town Center Mixed Use; Town Center Residential Densities.
Two Family Dwellings	Portions of Rural Village Center, Designated Growth Area; Town Center Residential Densities; Town Center Mixed Use.
Multiple Family Units	Portions of Rural Village Center; Designated Growth Area; Town Center Residential; Apartment conversions in Town Center Mixed Use.
Mobile Home Parks	Portions of Designated Growth Areas – depending on zoning district.

In the Townships, it is likely density ranges outside of Agricultural Preservation Areas will be from one dwelling unit per five net acres to six dwelling units per net acre. The lowest densities would occur where on-site sewage disposal and water supply are utilized. The highest densities would occur where public sewer and water are utilized. Densities will vary by Township and zoning district.

In the Borough, existing minimum lot sizes for single family dwellings range from 3,500 square feet to 10,000 square feet. For two family dwellings, minimum lot sizes range from 3,500 square feet to 6,000 square feet. The lot area per dwelling unit requirement for multiple family dwellings ranges from 3,500 square feet to 6,000 square feet.

SECTION 3 – ACREAGE AVAILABLE FOR RESIDENTIAL DEVELOPMENT

In Chapter 3, Population and Housing Characteristics, Projected Household and Acreage Requirements are presented for 2010 and 2020. Based on projected population increases, projected household increases were calculated. The household increases were converted into acreage requirements, which vary with assumption as to lot size for development. For 2010, projected acreage requirements ranged from 169 if all development occurred on 8,000 square feet lots to 1,008 if all development occurred on 2 acre lots. For 2020, acreage requirements ranged from 306 with 8,000 square feet lots to 2,135 with two acre lots.

The following table gives potentially developable acres by future land use category. Vacant land and agricultural land have been considered potentially developable.

Potentially Developable Acres by Future Land Use Plan Category

Future Land Use Plan Category	Existing Land Use Category	
	Vacant Acres	Agricultural Acres
Business Development	35	113
Community Commercial	19	--
Designated Growth Area	296	444
Light Industrial	9	51
Limited Mixed Use Corridor	24	69
Low Density Residential	212	181
Potential Future Growth Area	35	393
Public or Semi Public	3	91
Rural Conservation-Agriculture	2,258	8,601
Rural Low Density	218	950
Rural Village Center	--	44
Town Center Mixed Use	3	--
Town Center Residential Densities	4	--

The next table indicates potentially developable acres in the future land use plan categories which are primarily intended for residential development: Designated Growth Area, Low Density Residential, Potential Future Growth Area, Rural Low Density, and Township Center Residential. While some residential development could occur in the Rural Conservation-Agriculture area, such development is not encouraged. 2,258 vacant acres and 8,601 agricultural acres designated Rural Conservation-Agriculture are not included below.

Future Land Use Category	Vacant Acres	Agricultural Acres
Designated Growth Area	296	444
Low Density Residential	212	181
Potential Future Growth Area	35	393
Rural Low Density	218	950
Town Center Residential	4	--
	765	1,968
	Total = 2,733	

Projected Residential Acreage Requirements to 2010 range from 169 to 1,008, using a range of 8,000 sq. ft. lots to 2 acre lots.

Projected Residential Acreage Requirements to 2020 range from 306 to 2,135, using a range of 8,000 sq. ft. lots to 2 acre lots.

While not all the vacant and agricultural land will be available for development, either because of natural, legal, conservation and/or landowner reasons, it appears there is sufficient land set aside to accommodate projected growth in the Region.

SECTION 4. INCLUSIONARY POLICY

As noted in Section 1, the municipalities in the Region are concerned with the provision of housing for people at the different stages in their life cycle: when entering the job and housing market, when working and raising a family in the Region, through retirement and housing needs for the elderly. While a variety in types of housing is necessary, a variety in cost of housing is also necessary so there will be housing affordable to those of low to moderate income in the Region. Two objectives of note in the Regional Vision are:

Ensure that opportunities exist to promote the development of affordable housing that, in particular, meets the needs of the Region's current and likely future work force.

Ensure that opportunities exist to promote the development of housing necessary to meet the region's likely demographic make-up, with particular emphasis in retirees and younger households.

In addition to making provision for all housing types, including elderly housing, within the Region, a more proactive approach should be considered to encouraging affordable housing. One approach is to enact a requirement to require a percentage of dwelling units in larger new developments to be designed and provided for work force housing. Another approach is to give density bonuses to developers for inclusion of work force housing or housing units intended for the elderly.

Because the three municipalities have prepared a joint comprehensive plan, they can allocate dwelling uses and densities over the entire Region. The municipalities should work together to formulate consistent coordinated policies on inclusion of housing within the Region.

CHAPTER 17
ECONOMIC DEVELOPMENT PLAN

Goal and Objectives

The goal which has been established for economic development is to sustain and enhance the vitality of Littlestown while identifying appropriate locations for environmentally responsible industrial, office, retail and service use which are appropriate in scale and character to the Region.

The objectives for economic development are to:

- Encourage investment in Littlestown business districts, compatible with the character of the community.
- Discourage random or scattered industrial development patterns, which can produce environmental, traffic, aesthetic, and other problems.
- Coordinate the provision of necessary new or improved transportation facilities with the location of economic development. Establish developer responsibilities in providing infrastructure improvements when they develop.
- Reserve appropriately-located business development sites to preclude potentially incompatible uses from foreclosing an eventual use for business. Determine the types of economic development which are most appropriate for the Region.
- Discourage strip development of business uses along major roadways.
- Identify appropriate future uses for vacant commercial and industrial buildings and promote such uses.
- Enhance the quality of life in the Region.
- Encourage a pattern of concentrated, planned development with safe, efficient, and managed access.
- Establish standards to improve the design and appearance of new development and commercial areas. Require appropriate landscaping and buffering.
- Require new development to be designed and constructed to meet environmental performance standards.

- Work to retain existing desirable area businesses and industries. Identify strategies to attract desired businesses.

Policies

Potentially developable acres in the economic development categories on the Future Land Use Plan are given in the following table:

**Potentially Developable Acres by Economic Development
Future Land Use Plan Category**

Future Land Use Plan Category	Existing Land Use Category	
	Vacant Acres	Agriculture Acres
Business Development	35	113
Community Commercial	19	--
Light Industrial	9	51
Limited Mixed Use Corridor	24	69
Rural Village Center	--	44
Town Center Mixed Use	3	--
	90	277
	Total - 367	

Approximately 367 acres are available. While this is not a large percentage of the total land area in the Region, it does allow for doubling of the current 363 acres used for commercial and industrial land uses. Currently, an additional 298 acres are classified as mixed use on the Existing Land Use Map.

Agriculture is a major component of the economy of the Region, and continuation of agricultural uses will be encouraged in the Rural Conservation-Agriculture areas in the Townships.

Major new areas are not proposed for economic development because of concern for protecting rural character, limitations of transportation and utility infrastructure, and the desire to concentrate development in areas more easily serviced by public services. The following discussion is contained in the 1993 Union Township Comprehensive Plan, and is still relevant:

“Industrial development is viewed as a secondary use in Union Township and is not likely to make up a large area of the land use pattern in the future. Because industrial development is usually driven by locational factors, such as the availability of public

services and ease of access to major transportation corridors, the only areas of the Township suitable for such development would be adjacent to Littlestown Borough and the area located in the northeast section of the Township along PA Route 116...

The mixed use center and commercial land uses are proposed in areas of the Township where a higher density of development exists and is projected to occur. The reasons for designation of mixed use center areas is twofold, the first being the preservation of the agricultural and environmental resources by centralizing more intense development activity, and second, by the logical infill and extension of “pocket” communities. For example, the area adjacent to Meadowview Subdivision area, along PA Route 194 (near Littlestown Borough) exhibit the types of setbacks, uses and residential patterns that are logical of a mixed use area. This area should develop more as a mixed use center. These mixed use centers, if concentrated, could be more easily serviced by public services, thereby reducing growth pressure on the outlying areas where the public provision of services may become essentially cost prohibitive.”

A variety of opportunities are provided in the Future Land Use Plan. A continued mix of residential, commercial, office and public uses appropriate to the historic, mixed use core will be permitted in the Town Center Mixed Use area along King and Queen Streets in the Borough. More intensive locally-based commercial uses would be accommodated in Community Commercial areas located along Baltimore and Hanover Pikes within the fringe areas of the Borough and the Townships. A mixture of residences and limited commercial uses will be allowed to continue along the major road corridors in the Region in the Limited Mixed Use Corridor areas. Mixed use would also be permitted in the Rural Village Center area found in the vicinity of the intersection of Hanover and Littlestown Roads.

Most new development is likely to occur in the Business Development areas, one along King Street in the Borough and one along Hanover Road in Union Township. These areas are intended for a mixture of commercial and limited manufacturing uses compatible with nearby residences. Light Industrial areas in the Borough, along Hanover Road, and along Frederick Pike will allow limited additional industrial development, expansion, or revitalization in areas where industrial development has already occurred.

Actions to promote economic development are listed in the Action Plan. There are a number of approaches to take: One approach is to designate land for office, commercial and industrial uses on the Future Land Use Plan, and zone land accordingly.

Another approach is to encourage revitalization of commercial and industrial areas to make them more attractive to businesses and additional private investment. Revitalization efforts for the central core at King and Queen Streets have begun.

In addition to the infrastructure and streetscape improvements proposed, building maintenance and façade improvements should be encouraged. Implementation of a revitalization plan for South Queen Street in the general area of Lumber Street to Boyer Street and Monarch Street to M Street should be considered. The Monarch Street industrial area should be enhanced to prevent decline of that area and encourage continued operation of existing businesses and appropriate expansion where feasible.

General enhancement of the quality of life within the Region can also spur economic activity. Maintaining residential neighborhoods and the quality of the school system, establishing training and learning opportunities for residents, continuing to provide attractive community facilities, and enhancing transportation systems can accomplish this.

Maintaining buildings and properties is also important. There are no widespread blighted areas in the Region, though there are instances of individual properties and outbuildings which are not kept up well and should be addressed to prevent adverse impacts on surrounding properties. Some of the industrial and commercial properties in the Region are not well kept, and detract from neighborhoods. There are a number of instances where these properties abut residential neighborhoods. Clean-up, landscaping, and screening should be encouraged. On the other hand, some residential properties in mixed-use areas have been allowed to decline. These are typically found in older corridors, such as the Routes 97 and 194 corridors.

Responsibility for fostering economic development should be assigned. The governing bodies should determine whether consideration should be given to appointing a regional economic development committee. Such a committee could be charged with aiding the governing bodies in further defining economic development goals and objectives for the Region, flushing out steps to achieve those goals and objectives, targeting the government programs to be used for implementation, and forging the partnerships necessary to participate in those programs.

Opportunities for establishing Keystone Opportunity Zones in industrial areas of the Borough should be monitored. Adaptive reuse of vacant and underutilized commercial and industrial buildings should be encouraged. The Adams County Economic Development Corporation should be made aware of land and buildings zoned and available for development.

The programs contained in the Pennsylvania Economic Stimulus Package should be reviewed to determine whether grants and loans should be pursued.

Opportunities should also be realized for people who wish to work in their homes and not commute from the Region. This could involve fostering computer system access and

telecommuting and establishing zoning policies for home employment and home occupations.

Standards can be imposed by municipalities to improve the design and appearance of new development and redevelopment. Appropriate attention should be paid to landscaping, lighting, building design, buffering, signage, setbacks, screening, and pedestrian amenities. Development should be designed and constructed to meet environmental performance standards, eliminate adverse impacts on adjacent land uses, and minimize highway access safety hazards.

General Approach to Strengthening Centers and Corridors

As revitalization efforts continue in the Borough, the Borough will have to determine whether it wishes to pursue an official Main Street Program along King and Queen Streets. Elements of the Main Street program could be expanded to maintain the vitality of the mixed use areas radiating from the Borough core.

The key elements of programs to strengthen centers, such as Main Street Programs, are outlined below.

- **Improving the image by enhancing physical appearance, as appropriate**

This includes enhancing the appearance of buildings, street lights, window displays, parking areas, signs, sidewalks, benches, landscaping, trash receptacles, utility poles and lines, and graphics. Design in the area should recognize existing desirable physical elements, be compatible with the area's character, and be unified. The revitalization project in the Borough has started this.

- **Securing consensus and cooperation among the groups that are involved in economic development**

Parties which should be involved include Borough and Township officials, business people, bankers, real estate agents, customers, the media, residents of downtown, and civic groups.

- **Promoting the Centers**

The unique characteristics should be promoted to customers, investors, existing businesses, and potential new businesses. A positive image can be fostered through appropriate special events, and other programs. A brochure promoting the businesses downtown can be prepared. Should a specific theme or niche be promoted for the area?

- **Strengthening the Economy of the Centers**

If the economy is strong, it is possible to maintain and upgrade the buildings in the existing communities. Existing businesses should be helped to expand; new businesses should be recruited; and increased use of any underutilized buildings should be promoted.

- **Affecting Attitudes Towards the Centers**

Consumers and investors have more positive attitudes toward downtown as they see changes taking place such as building improvement projects and new street furniture. Owners of buildings will be more likely to make improvements to their buildings.

Specific tasks to help maintain economic vitality can include:

- Helping businesses identify new sales opportunities
- Promoting the center as a cohesive shopping area to market groups
- Listing potential new businesses
- Keeping track of prospective businesses
- Improving the quality of businesses by helping them be more customer responsive and competitive
- Having coordinated business hours that meet consumer needs. Encourage businesses to work together
- Enhance gateways to the center
- Encouraging attractive window and interior merchandise displays
- Maintaining information on the center
- Marketing and promoting businesses
- Conduct an advertising campaign

- Helping to maintain existing businesses and encouraging patronage of those businesses
- Working with financial institutions to establish loan pools
- Maintaining a good working relationship between public and private sectors
- Finding new uses for any underutilized or vacant buildings
- Recruiting appropriate businesses to complement the retail and service mix
- Identifying sources of grants for physical improvements or providing matching grants for such improvements, including façade improvements
- Assuring promotional activities create a consistent, positive image for the downtown, consistent with community characteristics and history
- Scheduling events to bring people into the community on a regular basis
- Understanding the Region's history
- Managing parking spaces and address parking needs
- Managing growth within the entire Region
- Working with developers to assure attractive, well-planned development
- Enhancing alternatives to auto traffic, including enhanced transit service
- Landscaping standards
- Enhancing the pedestrian system and coordinating with open space and recreation and greenway planning
- Managing road corridors
- Maintain appropriate signage control
- Encouraging appropriate mixed use
- Providing people-oriented spaces

- Recognizing the assets and defining characteristics of the Borough and enhancing and building upon those features. Examples are building stock, variety of available services, walkability, and traditional development patterns.

Gateway and Streetscape Enhancements

Gateway enhancements should be considered at the entrances to the Borough of Littlestown. A gateway is an entrance corridor that defines the arrival point as a destination. Gateway planning concerns arranging the landscape and visual experiences to help create a sense of arrival at the destination and provide a positive image of the destination. The municipalities can work with property owners to enhance the appearance of entrances to the Borough.

Along the length of King and Queen Streets in the Borough, the Borough should continue to work with property owners to enhance commercial areas through coordinated landscaping, signage, lighting, street furniture, paving materials, design of site improvements, building facades, and window displays. Streetscape plans beyond the central intersection area should be prepared once the initial plan is completed.

When infill, redevelopment, or new development occurs, developers could be required to comply with performance and design standards, which would require them to address these elements. When new parking facilities are constructed, they should be landscaped, buffered, and placed to the side or, preferably, the rear of buildings.

Signage should be minimal, and appropriate to the character of the Borough.

Property owners should be encouraged to maintain and improve properties, particularly those that may have negative impacts on surrounding properties. Where the rear of commercial properties face or abut residential properties, attention should be paid to the appearance of the commercial property and its impact on the residences.

Voluntary design guidelines addressing the following elements could also be suggested within the Borough, unless the Borough would consider mandatory design guidelines. Such guidelines could:

- Discouraging the use of drive-thru facilities
- Encouraging new development to be compatible with, and integrated into, existing streetscapes by addressing:

- Maintaining appropriate siting patterns, such as setbacks of buildings on lots
- Respecting the massing (volume created by sections of the building) within the neighborhood
- Using materials of similar appearance and texture to those on existing attractive buildings
- Using similar architectural details as other buildings in the neighborhood
- Maintaining the scale and proportion of buildings near the building. Scale deals with the relationship of each building to other buildings in the area; and, proportion deals with the relationship of the height to the width of a building and with the relationship of each part to the whole.
- Using similar roof shapes
- Maintaining similar footprints of buildings and rooflines (matching facade masses with existing buildings)
- Using similar building heights
- Having store fronts of commercial buildings compatible with existing buildings

The use of coverage, density, intensity, and yard bonuses for architectural treatments, building design, amenities, street furniture, open spaces, and desired parking designs could be considered in the Borough. The intent of bonuses is to provide incentives to developers, not just regulation, to allow economic use of property.

CHAPTER 18
ENERGY CONSERVATION

There is an inter-relationship between land use, circulation, and energy conservation. Low density, single use, dispersed development can result in more vehicle trips, longer trips, and increased consumption of energy. Traffic congestion on roads can result in delays, which can in turn result in wasting of fuel.

Municipalities can also make information about energy serving measures available to residents and make a commitment to energy conservation programs at the municipal level.

Policies which can promote energy conservation and minimize energy waste include:

- Making provision for mixed use development, which can result in fewer trips and shorter trips.
- Utilizing a compact development pattern may also result in fewer and shorter trips. Designating growth areas in portions of the Region which are or could be served by public sewer and central water facilities can encourage a compact development pattern.
- Where appropriate infrastructure is available, such as public sewer and water, and adequate roads, allowing higher densities of development than would occur without adequate infrastructure.
- Encouraging expansion of transit facilities, bicycle and pedestrian trails, and park and ride facilities to help reduce automobile trips.
- Implementing the transportation plan to mitigate congestion in the Region, and resulting delays, can save fuel.
- Encouraging development and building design which is sited and designed to maximize energy efficiency can be beneficial in energy conservation.
- Informing the public about cost effective ways of cutting energy waste and costs can be accomplished through newsletters and literature.
- Allowing the use of cost-effective, safe and environmentally sound renewable energy resources can be considered.
- At the local government level, implementing energy use reduction programs can reduce consumption and increase energy efficiency.
- Encouraging and fostering telecommuting can reduce vehicle trips.

- Using appropriate traffic control measures to each situation, such as stop signs and traffic signals.

Given energy cost concerns, energy conservation also plays a role in provision and retention of housing for those of low to moderate income, particularly young families and seniors. Housing should be designed to be as energy efficient as possible to reduce monthly housing costs. Information on governmental programs to help those in need pay heating costs should be maintained in the community.

CHAPTER 19
ACTION PLAN

The Action Plan is critical to the success of this Comprehensive Plan because it lists the actions to be taken to implement policies, accomplish goals and objectives, and realize the Vision for the Region. The changes to the Pennsylvania Municipalities Planning Code (MPC) enable municipalities to plan together to undertake this challenge. The first step to implementing a multi-municipal comprehensive plan is for the municipalities to adopt an intergovernmental cooperative agreement that will establish future actions, such as revision of ordinances to achieve consistency with the Plan.

Article XI of the MPC allows municipalities to cooperate in the regional allocation of land uses through multi-municipal planning. The Article also stresses general consistency between the multi-municipal plan and the County Comprehensive Plan, as well as local zoning and subdivision ordinances.

The Action Plan recommends the adoption of implementation agreements as well as the establishment of a permanent Regional Planning Committee to review consistency issues, and establish the roles for each municipality with respect to implementation of the Plan as well as amending the Plan.

The Action plan contains an ambitious schedule of recommended tasks. The completion of these tasks will help the municipalities achieve their community Vision that was presented earlier in this Plan.

Cooperation between the Governing Bodies, as well as between Planning Commissions and other local groups interested in the community is vital to the success of this Plan. The citizens of the Region must also stay involved in the planning process. The Objectives of this Plan should be monitored, and updated when necessary. The Comprehensive Plan is a living document, and should remain a valuable tool for future decision making.

SECTION 1 – PRIORITY ACTIONS

Upon adoption of this Comprehensive Plan, the highest priority is to execute an Intergovernmental Cooperative Agreement to implement the Plan. A Regional Planning Committee is established by that agreement.

The three municipalities have two years from the adoption of the Plan to make sure that their zoning ordinances, subdivision and land development ordinances, Act 537 plans, capital improvement plans, and official maps are generally consistent with this Comprehensive Plan. The municipalities may act individually, or they could cooperate to draft consistent zoning and subdivision and land development ordinance language.

Achieving this general consistency with the plan is the next priority after executing the Agreement.

Given the increasing growth pressures in Germany Township, it is very important that the Township prepare and adopt a zoning ordinance and map for the Township consistent with this Comprehensive Plan.

During the course of preparing the Comprehensive Plan, there was extensive discussion regarding the ability to sewer additional development. A key element in managing growth within the Region is preparing a regional Act 537 Sewage Facilities Plan to determine how sewer capacity can be made available to serve the designated growth areas.

The Townships and the Borough should also begin discussions regarding the merits of and feasibility of conducting Transportation Impact Fee studies to enable the charging of transportation impact fees.

The next priority for follow-up planning efforts in the region is the adoption of Open Space and Recreation Plans so municipalities will be able to charge recreation fees.

SECTION 2 – RECOMMENDED ACTIONS

NATURAL, SCENIC, HISTORIC AND CULTURAL RESOURCES

Natural Resources Actions:

- A. Update zoning ordinances as necessary to reflect the resource protection Goal and Objectives of this Plan. The resource protection provisions of municipal zoning ordinances vary and the approach taken by each municipality will vary. Options include:
1. Adopt Natural Resource Protection Standards and/or Net-Out Provisions for the following resources. Using this concept, these resources (including a percentage of 15-25% slopes) are subtracted from the total tract area to calculate a net tract area upon which densities are calculated. This would apply within all zoning districts.
 - a. Floodplains
 - b. Wetlands
 - c. Wetland Margins (buffers)
 - d. >25% slope
 - e. 15-25% slope
 2. Adopt Steep Slope Protection Provisions. Limited areas of steep slope are found in the Region, generally in the southeastern and southcentral portions.
 - a. Control and limit development on steep slopes
 - Require larger lot sizes and impose stricter impervious restrictions for steep slopes 15-25%
 - Prohibit or severely restrict development on slopes >25%
 3. Prepare Wellhead Protection Plans for the wells of the Littlestown Borough Authority (LBA) and implement the Provisions of Wellhead Protection Ordinances to protect the wells of the Littlestown Borough Authority. Ordinance provisions:
 - a. Regulate/Restrict potential contaminating uses

- b. Regulate/Restrict potential contaminating substances
- c. Establish performance standards for uses in overlay zones near water supplies
- d. Establish design standards for uses in overlay zones near water supplies
- e. Establish operating requirements for uses in overlay zones near water supplies
- f. Establish review process for uses in overlay zones near water supplies

The Borough and the Townships should cooperate in protecting the identified wellhead protection zones. As part of the Adams County Water Supply and Wellhead Protection Plan, a detailed analysis was performed on the Meadow View A well. Three zones were established based on the level of potential contamination risk to the groundwater. Zone I is a 100-foot radius immediately around the well, in which development should be prohibited. Zone II is the primary recharge area and the area from which groundwater is diverted to the well during pumping. Zone III is the secondary recharge area and the area that contributes groundwater to Zone II. Wellhead protection ordinances are intended to prevent high risk of contamination activities from occurring in Zones II and III.

Detailed studies should be performed for other wells in the LBA system. The process involves forming a wellhead protection team, defining land areas to be protected, identify potential sources of contamination, evaluating alternative tools and techniques, and developing and implementing a plan of action. In defining land areas to be protected, the steps are to identify the physical condition of the groundwater source location, develop a conceptual groundwater flow model that addresses physical conditions, select and apply a wellhead protection area delineation method, complete a sensitivity analysis, and prepare wellhead delineations to identify Zone I, Zone II, and Zone III wellhead protection areas.

- 4. Adopt Groundwater Protection Provisions:
 - a. Protect aquifers through design standards, construction guidelines, use restrictions, impervious limits, and permit submission requirements.

5. Adopt Tree and Woodland Protection, Management and Planting Provisions to protect wooded areas from clearcutting when tracts are proposed for development. Woodlands are scattered throughout the areas south of Hanover Pike, Basehoar School Road, and White Hall Road, with the greatest concentration occurring in the easternmost portion of Union Township.
 - a. Limit clearance for development in both subdivisions and land developments
 - b. Require tree protection and replacement during development
6. Adopt provisions for Wetland, Wetland Buffer, and Hydric Soil Protection:
 - a. Restrict development in wetlands
 - b. Establish consistent wetland buffer (margin) requirements
 - c. Require wetland delineation in hydric soil areas
7. Adopt Floodplain Protection Provisions:
 - a. Severely restrict development in floodplains to compatible open space uses
8. Establish Stream Corridor Overlay Zoning and require Riparian Buffers for the Alloway Creek, Conewago Creek, Piney Creek and their tributaries.
 - a. Restrict development and impervious surfaces
 - b. Require riparian (vegetative) buffers where appropriate to moderate water temperatures, protect wildlife habitats, control sedimentation, and reduce pollution
 - c. Establish greenways along streams consistent with the Conceptual Pedestrian Concept Plan contained within this Plan and the Adams County Parks, Recreation and Open Space Plan.

Cooperate with Adams County in preparation of the Adams County Greenway Plan. Work with the County in implementation of that Plan.

As the concepts for greenways in the Region are refined, determine whether greenways will involve public ownership, easement, and/or access.

- d. Utilize the Best Management Practices and implement the Monocacy River Watershed Stormwater Management Plan
 - e. Coordinate with existing stream protection programs and farmers in farm areas
9. Adopt Outdoor Lighting Standards to control light pollution and protect the night sky:
- a. Establish illumination levels which are adequate but not excessive
 - b. Require impacts on surrounding streets and properties to be mitigated
 - c. Require full-cutoff fixtures to be used
 - d. Control glare
10. Adopt Forestry Regulations. The Pennsylvania Municipalities Planning Code requires commercial forestry to be permitted in all zoning districts.
- a. Require accepted silvicultural practices
 - b. Require forestry management plan
 - c. Require stormwater and erosion and sedimentation control
 - d. Require properly constructed internal roads
 - e. Require protection of public roads
 - f. Require reforestation
 - g. Require protection during steep slope forestry
- B. Update subdivision and land development ordinances as necessary. Options include:

1. Establish plan data requirements to include a specific listing of environmental, scenic, historic and cultural resources.
2. Require developers to identify the resources within their tracts, analyze the impacts of the development and mitigate those impacts.

Require environmental assessment studies, hydrogeological studies, scenic, historic and cultural resources impact studies; plans for preservation of environmental, historic and cultural resources; and analysis of the site's ability to support the proposed use and intensity of use.

3. Require developers to identify natural, historic, scenic, architectural and cultural resources in their tracts and incorporate them into the open space system. Require management plans for open space as well as mechanisms assuring the continuation as open space.

In review of Subdivision and Land Development Plans, requirements for setting aside open space can be used to provide for greenways and greenway design principles can be incorporated.

4. Establish development guidelines for development in recharge areas, including limits on impervious cover and limits on on-site sewage disposal.
 5. Require protection of vegetation during site work.
- C. Support efforts of conservation agencies to preserve tracts of environmental significance through acquisition of conservation easements, fee simple purchase, donation and dedication through the development review process.
- D. Create municipal Environmental Advisory Councils in the Townships or a Regional EAC to work with governing bodies to preserve open space, protect environmental resources in the Region, and implement open space, greenway and recreation planning.

Act 148 of 1973 authorizes any municipality or group of municipalities to establish, by ordinance, an Environmental Advisory Council to advise the local planning commission, park and recreation board, and elected officials on matters dealing with the protection, conservation, management, promotion, and use of natural resources located within the municipality's territorial limits.

Act 148 empowers Environmental Advisory Councils to:

- Identify environmental problems and recommend plans and programs to the appropriate municipal agencies for the promotion and conservation of natural resources and for the protection and improvement of the quality of the environment within its municipal boundaries;
- Promote a community environmental program;
- Keep an index of all open space, publicly and privately owned, including flood-prone areas, swamps, and other unique natural areas, for the purpose of obtaining information on the proper use of such areas;
- Make recommendations for the possible use of open land areas; and
- Advise the appropriate local government agencies, including, but not limited to, the planning commission and park and recreation board or, if none, the elected governing body, on the acquisition of property, both real and personal.

The EAC(s) would encourage and monitor the protection of floodplains, wetlands, steep slopes, and woodlands within the Region. It would also encourage and monitor establishment of greenways and riparian stream buffers, wellhead protection areas, and groundwater protection. The EAC(s) would also promote acquisition of conservation easements within the Region on identified target properties.

- E. Support efforts of the Adams County Conservation District, County Planning Office, Land Conservancy of Adams County, watershed associations, and other agencies to manage stream corridors through cooperative efforts with landowners to establish riparian buffers, utilize best management practices for stormwater management and agriculture, and promote stream bank improvements, restoration, and stabilization. Cooperate in securing easements along the streams.
- F. Encourage formation of groups within the community to adopt a stream and provide monitoring and oversight along the stream corridor.
- G. Pursue joint wellhead protection and watershed planning opportunities under the Growing Greener initiative and other State programs in order to protect community water supplies and resources.
- H. Promote water conservation programs.

I. Pursuant to Act 167 Stormwater Management Plans:

1. Adopt ordinance provisions to implement the Monocacy River Watershed Stormwater Management Plan (MRWSWMP) within the Townships. Work with PADEP to prepare consistent implementation ordinances. The Plan contains a model stormwater management ordinance addressing General Runoff Control Standards, Numerical Peak Runoff Rate Standards, Numerical Groundwater Quality Standards, Numerical Water Quality Standards, Design Storm Criteria, Runoff Calculations Method, Conveyance System Design Standards, Infiltration System Design Standards, Detention Facility Design Standards, Plan Submission Requirements, Plan Review Procedures, Maintenance Provisions, and Inspection Schedule and Permitting Fees.
2. Develop local programs to coordinate with PaDEP regarding permit application review.
3. Develop a systematic approach for the correction of storm drainage problems and principal flood problems identified in the MRWSWMP and any plan prepared for the Conewago Creek.
4. Union Township will participate in any planning process for the Conewago Creek Watershed, and would have to adopt ordinance provisions consistent with the plan for that portion of the Township in the Conewago Watershed.

Scenic Resources Actions:

- A. Update zoning ordinances as necessary to protect and enhance scenic resources. Options include:
 1. Update Sign Regulations:
 - a. Regulate billboards along the major arterial roads in the Region, including Routes 97, 194, and 116.
 - b. Adopt consistent and appropriate signage standards along road corridors in the Region
 - c. Encourage appropriate signage in existing settlements consistent with community character, particularly along King and Queen Streets in the Borough. Determine the extent to which signs should be regulated.

2. Require landscaping and buffering within commercial and industrial developments.
3. Through Zoning District provisions, protect the agricultural landscapes of northern and southern Union Township and the rural landscapes of eastcentral Union Township and northern, western, and southern Germany Township.

Encourage retention of views of the horse farms, other agricultural areas, and remaining wooded areas in eastern Union Township. Consider whether to enact Scenic Road and Scenic Viewshed Overlay Zoning, which would:

- a. Require greater setbacks from roads in scenic areas
 - b. Require additional landscaping, trees and screening on site
 - c. Establish standards for siting buildings and building height
 - d. Require retention of existing desirable vegetation when it will not conflict with road safety concerns
 - e. Impose sign limitations
- B. Within Subdivision and Land Development Ordinances, require tree plantings along streets in both residential and non-residential developments.
 - C. Establish tree planting and landscaping programs within the Borough and residential concentrations in the Townships where plantings are necessary.
 - D. Minimize visual blight along the road corridors in the Region to enhance the business climate. Work with PENNDOT to identify non-compliant signage and driveways and enforce applicable regulations. Establish responsibility in each municipality for addressing this issue. Investigate the blight removal powers of the Community Development Block Grant Program.

Historic and Cultural Resource Actions:

- A. Update zoning ordinances as necessary to protect historic resources and community character. Options include:

1. Evaluate Historic Resource Overlay Zoning in the Borough, Kingsdale-Georgetown area, Christ Reformed Church area, and road corridors in the Townships containing clusters of sites identified on the Historic Sites Survey and in subsequent analysis.
 - a. Consider creation of historical commissions or a joint historical commission
 - b. Identify historic resources. Use the 1980 Historic Sites Study for the County as a starting point.
 - c. Require developers to do analyses:
 - Nature of historic resources on and near property
 - Impact of proposals on historic resources
 - Mitigation measures
 - d. Encourage adaptive reuse of historic buildings
 - e. Discourage removal of historic structures
 - f. Utilize use, coverage, density, intensity and yard bonuses for architectural treatments, building design, amenities, and open spaces/buffers compatible with existing resources, appropriate reuse of existing resources and donation of façade easements
 - g. Encourage architecture, materials, and development patterns characteristic of the area
 - h. Discourage uses likely to result in demolition of historic resources and uses inappropriate in historic areas
2. Consider adoption of Demolition by Neglect Provisions:
 - a. Require property owners to protect and maintain historic properties so that they are not demolished by vandalism or the elements, such as requiring unoccupied structures to be sealed and/or secured by fencing
3. Identify provisions to protect the character of the Borough, unincorporated village areas, and road corridors and have streets, buildings, and public spaces integrated to create a sense of place, with pedestrian scale where

appropriate. Consideration can be given to adopting the following as standards or promoting them through incentives:

- a. Allow only appropriate uses in scale with, and compatible with, existing appropriate uses, discouraging uses which would transform the character of the areas.
- b. Utilize coverage, density, intensity, and yard bonuses for architectural treatments, building design, amenities, street furniture, open spaces and parking designs consistent with the character of the area.
- c. Require pedestrian amenities as required improvements of land developers.
- d. Construct parking areas to the rear and side of buildings and establish standards for design, buffering and landscaping of new parking facilities.
- e. Require signage appropriate to the area.
- f. Establish appropriate standards for driveway design and access to streets to provide for appropriate access management.
- g. Minimize use of drive-through facilities.
- h. Encourage new development to be compatible with, and integrated into, existing attractive streetscapes when appropriate, with consideration of:
 - Maintaining appropriate siting patterns, such as setbacks of buildings on lots
 - Respecting the massing (volume created by sections of the building) within the neighborhood
 - Using materials of similar appearance and texture to those on existing attractive buildings
 - Using similar architectural details as other buildings in the neighborhood

- Maintaining the scale and proportion of buildings near new structures. Scale deals with the relationship of each building to other buildings in the area; and, proportion deals with the relationship of the height to the width of a building and with the relationship of each part to the whole
- Using similar roof shapes
- Maintaining similar footprints of buildings and rooflines (matching façade masses with existing buildings)
- Using similar building heights
- Having store fronts, upper facades, and cornices of commercial buildings compatible with existing buildings

4. Regulate conversions of buildings within the Borough, addressing:

- Locations where permitted
- How use is treated procedurally
- What type of building can be converted
- Density of converted units
- Lot size for converted building
- Impervious surface/open space requirements
- Units per structure allowed
- Structure size requirements
- Dwelling unit size minimum
- Neighborhood compatibility standards
- Parking requirements to assure adequacy
- Screening of parking and common areas
- Structural revisions limits on buildings

B. Appoint a regional historical commission to be actively involved in historic preservation. The commission would be instrumental in administration of any historic resource overlay zoning which is adopted. The commission(s) would also continue to:

1. Identify, evaluate, mark and foster awareness of historic resources
2. Investigate participation in Certified Local Government Program
3. Inform and involve the public

4. Encourage retention, restoration, enhancement and appropriate adaptive re-use of historic resources and discourage removal of historic structures
 5. Conceive programs, events and interpretive signage and exhibits which emphasize the history of the Region
 6. Evaluate the potential for historic districts and support their creation if warranted. If created, support the adoption of voluntary or mandatory Design Guidelines and Sign Controls for the Historic District(s).
- C. Support the activities of individuals and groups which identify, document, evaluate and protect historical resources and increase public awareness of the area's history and historic resources.
- D. Support the planning of trails to link historic sites and erect informative markers and exhibits at historic resources.
- E. Determine the appropriateness of Borough participation in the Main Street and Elm Street programs.

Main Street activities would be focused on maintaining the vitality of mixed use areas along King and Queen Streets, in the Town Center Mixed Use area.

Elm Street activities would be focused on conserving residential neighborhoods adjoining Main Street areas, such as the Crouse Park neighborhood, generally conforming to the Town Center Residential Densities areas.

LAND USE AND AGRICULTURAL RESOURCES

- A. Update zoning maps and zoning district provisions, to reflect the Future Land Use Plan. Use consistent terminology in zoning ordinances within the Region for zoning district designations, uses, and regulations.
- B. Update Statements of Community Development Objectives contained in municipal zoning ordinances to be consistent with this Plan.
- C. In zoning ordinances, provide for land development techniques designed to protect existing resources, provide open spaces, enhance streetscapes, and protect the character of existing centers.
 - 1. Conservation Zoning (Growing Greener Concept of Natural Lands Trust) in the Townships. The technique would be appropriate in Rural Conservation-Agriculture and Rural Low Density areas in the Townships which are outside Effective Agricultural zoning districts.

Determine whether Conservation Development should be the default and/or encouraged method of development, with density disincentives given to other methods of development which result in less open space and protection of resources. The typical Conservation Development process is:

- a. Net out natural resources
 - b. Establish maximum overall density
 - c. Establish minimum substantial open space requirement
 - d. Establish alternative methods of development
 - e. Require important natural features and resources, such as scenic vistas, historic sites, agriculture, steep slopes, wetlands, and woodland, to be contained in open space
 - f. Provide visual and physical access to open space areas
- 2. Lot averaging, particularly in Union Township south of Hanover Pike, which provides:
 - a. A maximum overall density

- b. Flexibility in lot size, with a minimum established
 - c. Natural features and resources are contained in larger lots so houses can be sited away from them
3. Traditional Neighborhood Development (Neotraditional Development), Village Extension, and Village Design as infill and redevelopment within the Borough, Designated Growth Areas in the Townships, and near crossroads settlements at Kingsdale and the Hanover Road-Littlestown Road intersection. These methods promote the following concepts characteristic of the historic development patterns of towns.
- a. Creation of a sense of community
 - b. Pedestrian oriented design
 - c. Central community facilities
 - d. Public spaces
 - e. Shallow setbacks
 - f. Street trees
 - g. Alleys abutting areas where alleys now exist
 - h. Compact development
 - i. Interconnected streets, closer to a grid pattern
4. Review the appropriateness of the Transfer of Development Rights technique for use in promoting infill in the growth areas in the Region. In the case of a joint zoning ordinance, development rights may be transferable within the Region.
- Review the mechanics of transferring development rights from areas intended for conservation or agriculture to allow increased intensity of development in areas designated for economic or residential development.
5. Adopt corridor overlay zoning along major commercial roads, such as Route 97, 194, and 116 to enhance the appearance of these corridors,

enhance safety and traffic movement, and maintain economic viability. Such overlay zoning would address:

- a. Coordinate landscaping, signage, lighting, street furniture, paving materials, design of site improvements, building façade and windows displays throughout the road corridors
 - b. Increase pedestrian and vehicular connections to adjoining properties and within properties
 - c. Increase size and quantity of landscape material
 - d. Integrate historic resources into development
 - e. Provide site amenities
 - f. Renovate building facades
 - g. Minimize curb cuts and unrestricted access
 - h. Provide more attractive signage
 - i. Locate parking to the rear and side of buildings where appropriate and feasible
 - j. Integrate architecture, landscaping and screening
 - k. Encourage pedestrian oriented design (e.g., sidewalks and benches)
 - l. Encourage pedestrian oriented spaces
 - m. Screen loading areas, outdoor storage and dumpsters
- D. In zoning ordinances, encourage areas for economic development (Community Commercial, Light Industrial, Limited Mixed Use Corridor, Rural Village Center, Town Center Mixed Use) to be developed through coordinated, attractive commercial and business development and discourage additional strip commercial development.
- E. Within zoning district provisions, considering the entire Region as a whole, provide for the accommodation of housing in different dwelling types and at appropriate densities for households from all economic and demographic groups

within the Region, pursuant to the description of Future Land Use Plan categories in the discussion of the future land use plan. (See also discussion of Housing Actions.)

F. Address architectural and related issues within zoning ordinances. For example:

1. In some zoning districts, such as but not limited to Town Center Mixed Use and Limited Mixed Use Corridor, limits on building size may be appropriate to maintain existing character.
2. In some zoning districts, such as Town Center Mixed Use, Limited Mixed Use Corridor, and Community Commercial, and Light Industrial and Business Development in the Borough, emphasis should be placed on encouraging architecture consistent with existing community and/or architectural character.
3. In Town Center Mixed Use, Limited Mixed Use Corridor, Community Commercial, and Business Development districts, typical “big box” architecture should be discouraged through architectural treatments of building facades.

G. Additional zoning actions include:

1. Requiring buffers, landscaping, and/or performance and design standards to enhance compatibility where there will be potentially conflicting uses. Examples include where non-residential development will abut residential areas; where development will occur next to agricultural activities; where residential development of a greater intensity would abut residential areas of lesser intensity, such as infill development in the Borough or new multiple family development abutting existing single family areas.
2. Requiring impact statements (environmental, traffic, services, fiscal, etc.) with requested zoning amendments requiring a zoning district change, to address the impacts of the requested amendment.
3. Giving emphasis to density bonuses for development served by public sewer and public water, rather than development served by package/private systems or individual systems. Allow and give incentives to compact development and higher densities where public sewer and water are available in Designated Growth Areas and Potential Future Growth Areas, and give disincentives to inefficient development techniques.

4. Require sufficiently large lots when on-lot sewage disposal will be used.

H. Update municipal Subdivision and Land Development Ordinances, as necessary. Options include:

1. Require street furniture/pedestrian amenities as required improvements pursuant to municipal streetscape plans.
2. Adopt appropriate refinements to implement the Growing Greener Conservation Development Concept.

If the Conservation concept is used, the design procedure is:

- Identify conservation areas
- Locate house sites
- Align streets and trails
- Draw lot lines

3. Require predesign meetings between planning commissions and developers prior to preparation and submission of subdivision and land development plans.

I. Regional Act 537 planning and water supply planning should be coordinated with this plan, particularly the Future Land Use Plan, to promote compact, efficient, orderly, and phased development within and contiguous to existing developed areas and in recognition of growth areas designated in this plan and the Adams County Comprehensive Plan.

J. The municipalities should continue to monitor zoning along municipal boundaries to provide for compatible zoning districts.

K. Additional Revitalization and Streetscape Plans for Littlestown should be prepared, addressing such issues as landscaping, signage, street furniture, lighting, parking locations and design standards, enhancing the sense of community identity through providing public spaces, and enhancing gateways to the community, Coordinate such efforts with PADCED and PENNDOT, and the County through the Adams County Transportation Planning Organization (ACTPO). Particular attention should be paid to King and Queen Streets.

Agricultural Resources

- A. The Townships should identify and encourage preservation of agricultural lands within Rural Conservation-Agricultural areas.
- B. Union Township should continue Effective Agricultural Zoning regulations for land designated by the Township. Germany Township will consider whether to adopt Effective Agricultural Zoning regulations, evaluating the remaining agricultural areas for appropriateness.

Intensive agricultural operations are more appropriate in Union Township than Germany Township, given the contiguous extent of agricultural areas in Union Township. Designated Growth Areas and Potential Future Growth Areas should be buffered from intensive agricultural uses. Appropriate controls consistent with legislation should be placed on intensive agricultural operations and biosolids. Buffering can take the form of setback requirements for intensive agricultural uses from residential areas and community facilities or designating zones in which intensive agricultural activities would not be permitted.

- C. The Townships should consider encouraging preservation of agricultural lands through the following administrative actions. Actions should be focused in the existing agricultural landscapes in Union Township within the Rural Conservation-Agriculture lands, which are outside the Township's Effective Agricultural Zone. In Germany Township, remaining active farms in the Rural Conservation-Agriculture area which are not included in any Effective Agricultural Zone should also be considered for these administrative actions.
 - 1. Work with local farmers to ensure participation in County's Purchase of Agricultural Conservation Easements Program administered by the Adams County Agricultural Land Preservation Board.
 - 2. Establish Township Purchase of Agricultural Conservation Easements Program
 - 3. Establish Transfer of Development Program within a municipality or across municipal boundaries
 - 4. Promote the inclusion of farms in Agricultural Security Areas.
 - 5. Support measures to relieve property tax burden for farmers
 - 6. Limit extension of public sewer and water facilities to agricultural areas

7. Permit businesses which support agricultural operations
8. Allow farmers to supplement incomes through home businesses, home occupations and farm related businesses
9. Permit appropriate recreational activities, such as hayrides, corn mazes, and festivals
10. Limit non-farm uses which could cause conflicts with agricultural practices and/or require buffers for non-farm uses around the perimeter of farms
11. Where Effective Agricultural Zoning is not used, allow conservation development (Growing Greener) as an option for development. This concept, which provides for significant portions of a tract to be preserved in open space, would typically provide a better chance to preserve some agricultural land than traditional development methods.
12. Allowing farm support businesses and businesses which market or process farm products.
13. Require buffering around the perimeter of agricultural areas by non-agricultural uses.
14. In conjunction with the Transportation Plan, work to assure that roads are adequate to move farm equipment and trucks as necessary to maintain farm operations.
15. Require notices to be entered in agreements of sale for all parcels located in areas planned for in agriculture: agriculture is the primary industry in the area and landowners may be subject to inconvenience or discomfort arising from accepted agricultural practices.
16. Discourage construction of roads through and within agricultural areas.
17. Work to improve relationships between farmers and non-farm neighbors.
18. Make information available on the Pennsylvania agricultural loan program which permits farmers to borrow funds for land, buildings, machinery, or equipment bought, built or renovated for the benefit of the business.

19. Encourage farmers to utilize the Pennsylvania Farm Link program created by the Center for Rural Pennsylvania. This program is designed to help match farmers planning for retirement, and other interested landowners, with farmers hoping to work into farm ownership on long-term leasing.

TRANSPORTATION

Actions:

- A. Update zoning ordinances as necessary.
 1. Include access management standards within zoning ordinances and/or subdivision and land development ordinances as determined by the municipality. See the Transportation Plan Concepts Map for identified target areas.
 - a. Establish access location standards
 - b. Establish access point separation requirements
 - c. Require access to streets of lower functional classification
 - d. Require internal road systems
 - e. Require coordinated/shared ingress and egress
 - f. Require interconnection of properties – access, parking, loading
 - g. Establish separations from intersections
 - h. Require coordinated traffic movements
 - i. Require acceleration and deceleration lanes where appropriate
 - j. Require left and right turn lanes where appropriate
 - k. Establish design standards for intersections, driveways, internal circulation, and parking lot design
 - l. Minimize entrances to roads

- m. Prohibit inappropriate turning movements
- n. Require signalization of high volume driveways

While particularly crucial along the Route 97, 194 and 116 corridors, access should be managed along all roads within the Region.

In mixed use areas, such as King and Queen Streets in Littlestown, where pedestrian activity is encouraged, discourage curb cuts over sidewalks to limit pedestrian/vehicular conflict.

B. Update subdivision and land development ordinances as necessary.

1. Establish appropriate road design standards for each functional classification of road. Safe, buffered, and sufficiently set back bike and pedestrian lanes can be included in the cross-sections with consideration of the Pennsylvania Statewide Bicycle and Pedestrian Master Plan and Guide for the Development of Bicycle Facilities by American Association of State Highway and Transportation Officials (AASHTO). Bike and pedestrian lanes can be required on those roads determined to be appropriate by the municipality.
2. Require traffic impact studies for proposed developments. Such studies would require analysis of existing circulation conditions, the impact of proposed development and resulting circulation conditions and the need for traffic improvements to adequately support the development.
3. Establish appropriate standards for driveway design and access to streets for access management. Coordinate with zoning ordinance design standards and access management provisions. Plans should be reviewed for access management concerns.
4. Require developers to provide for new trails. Standards for trails can be included in the Ordinances. Sufficient rights-of-way and easements can be required during the review process.

Require developers to provide pedestrian paths and sidewalks.

5. Require appropriate ultimate rights-of-way along roads.
6. Require necessary roadway improvements along the frontage of developments.

7. Require appropriate internal circulation patterns with a hierarchy of streets. Such a hierarchy would include a system of local streets feeding to a discernable collector street system which would connect to the road system outside the subdivision or land development.
 8. Require appropriate connections to existing or planned abutting developments.
- C. Adopt Official Maps designating proposed public facilities, streets, road improvements, and trails per the Transportation Plan Chapter. (See the discussion of Official Maps at the end of this Chapter.)
 - D. Implement Capital Improvements Programs for recommended improvements. (See the discussion of Capitol Improvements Programs at end of this Chapter.)
 - E. Establish pedestrian pathway improvement programs to enhance walkability in the Region, such as completion of gaps in and extensions of the sidewalk and trail systems to provide improved access to schools, day-to-day shopping facilities, community facilities, and employment opportunities. ADA requirements should be complied with. Pedestrian crossings at street intersections can be facilitated through consideration of crosswalks, stop signs, limitation of cartway radii, and use of pedestrian buttons and pedestrian cycles at signalized intersections. PennDOT involvement for safety at State roads will be important. Pedestrian circulation can be enhanced through amenities such as benches; maintenance and improvement of existing pathways; and adequate buffering and setbacks from roads.
 - F. Work with PENNDOT to assure adequate maintenance of roads.
 - G. Determine whether Transportation Impact Fee ordinances will be used by individual municipalities and/or jointly and require land developers to address needed transportation improvements in the Region as they develop. Work to establish consistent policies on use of impact fees within the Region.
 - H. Monitor the need for, and work to institute appropriate traffic calming techniques in the Borough and residential neighborhoods.

Work with PENNDOT to monitor existing speed limit and establish appropriate speed limits, reducing them as necessary, in existing developed areas.
 - I. Prepare municipal multi-year programs for street maintenance.

- J. Develop access management plans in cooperation with PENNDOT to address access to major roads and access design standards. Encourage cooperative efforts of landowners to manage and share access. Particularly focus on the Route 97, 194, and 116 corridors.
- K. Foster interconnections between the road systems in subdivisions as noted on the Transportation Plan Concepts map.
- L. Encourage landowners to cooperate with PENNDOT and the municipalities in the redesign of existing strip development areas to manage access and improve streetscapes.
- M. Monitor the need for Transportation Development Districts
- N. Require property owners to keep street rights-of-way available for required improvements and pedestrian systems.
- O. Work together as a Region with the County, Legislators, and PENNDOT to list needed transportation improvements on the 12-year transportation program.
- P. Work with the Adams County Office for Aging and the Adams County Transit Authority to facilitate mobility of seniors. Help make seniors aware of available services.
- Q. Support regional transportation improvements identified in the Southeast Adams County Transportation Study.

Participate in planning for the Route 116 corridor.

Participate in the update of the transportation element of the Adams County Comprehensive Plan.
- R. Facilitate the Inner and Outer Loop concepts of the Transportation Plan for this Region.
- S. Work to implement potential new road segments, corridor management and improvement, corridor maintenance and improvement, core revitalization improvement, and intersection improvements noted in the regional Transportation Plan. Coordinate with Adams County Greenway Plan efforts.
- T. Work to implement the major greenways, major trails, greenways and pathways, and sidewalk extensions noted in the regional Transportation Plan.

- U. Monitor adequacy of parking in the Borough, and address parking needs within the Borough as they are identified. Begin to identify potential for acquisition of parcels for public parking and opportunities for sharing of parking facilities which are underutilized at certain times of the day and/or week (such as church and other institutional parking lots).

There are several community facilities which have underutilized parking spaces downtown during the day on weekdays, including the Borough Hall and Fire Company on East King Street, the VFW on West King Street, Redeemers UCC and Centenary United Methodist Church on East King Street, St. Aloysius RCC on South Queen Street, and St. Paul's Lutheran Church on West King Street. The private parking lot to the rear of Sheetz on East King Street is also underutilized.

Alternatives for new parking areas are limited. The 1971 Borough Comprehensive Plan identified two alternative additional parking areas, one along East King Street where the Sheetz is currently located, and one west of North Queen Street and north of Locust Street. The general area of Locust and Bakery may afford opportunities for public parking in the future.

Prior to acquisition for land for parking, parking management should be addressed, including:

- Public/private sector cooperation in identifying spaces and facilitating use.
- Increased availability of "prime" spaces through employee/employer decisions to leave nearby spaces for customers and park further away from their businesses.
- Private cooperation in utilization of underused spaces in private lots.
- Improvement/marketing of existing spaces in private lots.
- Consolidation of private parking areas to make them more efficient.
- Analysis of efficiency of meter policies.
- Required compliance with Zoning Ordinance standards for on-site, off-site and shared facilities.
- Appropriate identification of and directions to parking facilities.

The Borough should determine whether provision for a fee-in-lieu of providing parking spaces downtown in the Borough Zoning Ordinance should be implemented to help fund a future public parking area.

- V. Implement and enforce ordinances to provide for clear sight triangles and minimum sight distance requirements for all new driveways and streets.
- W. Participate in regional bicycle planning efforts.
- X. Coordinate with ACTPO, Adams County Transit Authority, and the Adams County Office on Aging to explore opportunities for expanding fix route or demand responsive transit service to the Borough and surrounding growth areas.
- Y. Consider whether to allow for mixed use development within designated growth areas in the Township to accomplish trip reduction by providing for compatible services, convenience establishments, and community facilities available to residents.

COMMUNITY FACILITIES, SERVICES, AND DEVELOPMENT

Actions:

- A. Support cooperative efforts of Municipal Open Space and Recreation Commissions to plan for continued improvement and appropriate development of recreation facilities and programs in the Region.
- B. Maintain language in Subdivision and Land Development Ordinances to require developers to dedicate land or pay a fee in lieu of land for all new subdivisions. Adopt recreation plans to permit the charging of fees.

Each subdivision or land development would have to be reviewed to determine whether the dedication of land or the fee in lieu of land would be more appropriate, based upon the size and location of the development and open space and recreation planning.

Maintain standards for recreation facilities. Review standards of National Recreation and Park Association (NRPA) and Adams County Vision for Parks, Recreation, and Open Space for appropriateness.

- C. Work to expand the Littlestown Community Park into the Townships, as the focus of community-wide recreational facilities in the Region.

- D. Where appropriate, work with PENNDOT to widen and improve road shoulders and require developers to improve shoulders along their properties in order to accommodate pedestrian and bicycle facilities.
- E. Maintain a dialog with the Littlestown School District regarding development activities, school facilities needs, location of school facilities, and school bus routes.
- F. Work with the School District to assure availability of school district facilities to the Region's residents.
- G. Promote and support efforts of community organizations to provide recreational facilities and programs for area residents and services and programs for seniors, families and youth. Work to establish additional community centers in the Region. Work with the Adams County Office on Aging to meet needs of seniors.
- H. Provide for public areas within the Region through provision of open spaces, recreation facilities, greenways, improved pathways, and indoor facilities.
- I. Enforce Sewage Management Ordinances and State mandates to manage (including monitoring and maintaining) on-lot sewage disposal facilities in the Region and assure the best available technology is used.
- J. Involve local fire company and school district personnel in review of subdivision and land development plans, where appropriate.
- K. Continue and expand cooperation and dialog between the Townships, the Borough, and community entities such as the School District on provision and sharing of services, equipment, facilities and programs on a regional basis; comprehensive planning; recreation planning; utility planning; transportation planning; and implementation of this plan.
- L. Encourage volunteerism for non-profit organizations such as emergency medical services. Monitor the need for paid personnel.
- M. Expand library capacity in the Region.
- N. Monitor the need to attract fire personnel where less volunteers are available and investigate opportunities to cooperate regionally to provide adequate fire service throughout the Region. Monitor the need for paid personnel in the future.

- O. Coordinate policies of governing bodies and municipal authorities on extensions of public sewer and water facilities with the Future Land Use Plan to assure consistency. Prepare a Regional Act 537 Sewage Facilities Plan.
- P. Continue to involve the Region's residents and business community in committees to address major issues of concern within the Region. Continue to monitor the need for additional or expanded community facilities in the Region.
- Q. Require all wastes to be treated and/or disposed of in an approved, environmentally responsible manner.
- R. Promote efficient, effective, and professional management of public facilities and services.
- S. Continue to analyze the need for a Germany Township municipal building.
- T. Determine the appropriate future use of building space currently occupied by Borough offices.
- U. Support efforts of the Green Ribbon Commission to advance parks, recreation, and greenway conservation efforts and open space conservation efforts in the County,
- V. Through subdivision and land development ordinances, require new developments to contain water supplies for fire protection, such as ponds, cisterns, and dry hydrants.

ECONOMIC DEVELOPMENT

Actions:

- A. Zone areas for economic development pursuant to the Future Land Use Plan designations of Business Development, Community Commercial, Light Industrial, Limited Mixed Use Corridor, Rural Village Center, and Town Center Mixed Use.

Require new development to be designed and constructed to meet environmental performance standards, eliminate adverse impacts on adjacent land uses, provide necessary buffering, and minimize highway access safety hazards.
- B. Monitor opportunities to establish Keystone Opportunity Zones (KOZ's) in industrial areas within the Borough. Work with the Adams County Economic Development Corporation (ACEDC).

- C. With the Littlestown Area Chamber of Commerce, maintain a dialog with businesses in the community to determine their needs and concerns in order to retain existing businesses and assure their experience in the Region is positive. Discuss business financing opportunities available through ACEDC.
- D. Work together as a Region, with cooperation from the School District and state legislators, to attain a favorable tax structure in the Region.
- E. Establish zoning policies for home employment and home occupations. Address home based businesses pursuant to the Municipalities Planning Code.
- F. Encourage appropriate adaptive re-use of vacant and underutilized commercial and industrial buildings through zoning and G. below.
- G. Inform ACEDC of areas and buildings zoned and available for commercial and industrial development in the Region. Determine whether a small business incubator should be encouraged within the Borough.
- H. Enhance the transportation systems within the Region pursuant to the Transportation action items.
- I. Support the necessary legislation to authorize impact fees in addition to those which can now be charged.
- J. Review opportunities created with recent passage of Pennsylvania's Economic Stimulus Package and work with the ACEDC, PADCED, and other State agencies to participate in the programs. The programs include:

- Business in our Sites
- Building PA
- New Pennsylvania Venture Guarantee Program
- New Pennsylvania Venture Capital Investment Program
- First Industries Fund
- Core Industries
- Second Stage Loan Program
- TIF Guarantee Program
- Infrastructure and Facilities Improvement Program
- Keystone Innovation Zones
- Section 108 Loan Pool
- Elm Street
- Penn Works

The most recent elements of the package are:

- Business in Our Sites will offer flexible loans and grants for local municipalities and their economic development partners to create future business growth and attract opportunities through the acquisition and preparation of key sites for development. The program would provide communities with grants and loans of up to \$250,000 to pay for the reclamation of industrial land.
- Building PA will provide funding for the development of real estate assets within the Commonwealth. Funds will be loaned to private investors and foundations looking to match funds to facilitate projects within the Commonwealth.
- New PA Venture Guarantee Program will allow the Commonwealth to more actively partner with the investment community by structuring a program that provides guarantees to venture capital companies interested in Pennsylvania businesses. These guarantees will provide increased capital for Pennsylvania businesses to grow and create jobs.
- New PA Venture Capital Investment Program will provide capital to Pennsylvania-focused venture capital companies that agree to match those funds and make investments in Pennsylvania businesses.
- First Industries Fund. First Industries will provide grants, low-interest loan financing and loan guarantees for agriculture and tourism.
- 2nd Stage Loan Program will provide guarantees for bank loans to second stage manufacturers and technology companies for working capital and other financing needs. Targeted toward manufacturing, advanced technology and biotechnology, these funds will support growth in these sectors.
- Tax Increment Financing (TIF) Guarantee Program. Through TIF, communities can borrow funds for projects that will develop blighted areas and then repay those borrowed monies through the new tax revenues that will be generated as a result of the development. A combination of technical assistance and loan guarantee assistance is proposed to encourage small communities to utilize this program.

- Infrastructure & Facilities Improvement Program is a multi-year grant program that will provide grants to certain issuers of debt in order to assist with the payment of debt service.
- Penn Works will help fund grants and loans for sewer and water projects to spur economic development.

The Pennsylvania Department of Community and Economic Development is the primary contact for most of these programs.

- K. Continue revitalization efforts within the Borough, particularly along King and Queen Streets. Implement a revitalization plan for South Queen Street in the general area of Lumber Street to Boyer Street and Monarch Street to M Street. The South Queen Street area contains a number of attractive older brick buildings which, if maintained and enhanced, could create an exciting gateway to the Borough and a spur to economic activity. Conversely, if allowed to deteriorate, this area could have a blighting influence on the surrounding areas of the Borough. Some buildings, such as Keystone Milling and the former railroad station, are in need of repairs.
- L. Work with the School District, technical institutes, institutions of higher learning, and the Chamber of Commerce to establish training and learning opportunities for residents to meet post high school educational needs.
- M. Encourage the telecommunications Task Force to work with providers to foster computer system access and telecommuting for the Region's residents.
- N. Continue to define the desired role for downtown Littlestown. Development of shopping centers with substantial off-street parking outside the downtown core can affect the desirability of locating downtown. The downtown is not currently a major shopping destination. It has scattered shops, but also empty storefronts and manufacturing and related businesses. The revitalization project underway should increase the desirability of downtown.
- O. Consider tax relief programs as incentives to businesses which create and expand employment opportunities in the Region.
- P. Create a local economic development agency.

HOUSING

Actions:

- A. Maintain adequate housing and property maintenance codes and zoning ordinance provisions as necessary to maintain the building stock and properties within the region. This is particularly important in the Borough, with a generally older and more dense housing stock.
- B. Foster programs which encourage home renovation and rehabilitation in existing older neighborhoods in the Borough.
- C. Foster programs and implement zoning which provide and facilitate affordable senior and family housing. Housing in the Region is increasingly less affordable for people living and working in Adams County and native retirees. Allowing for a variety of dwelling types and densities in designated growth areas as discussed in F. below can potentially contribute to a range of housing costs in the Region.

A particular housing need which has been identified is housing for seniors. Specific provision should be made at locations in the designated growth areas and possibly Town Center Residential Density areas for senior housing developments. Flexibility in housing options should be promoted for senior housing. The municipalities should determine whether provision for a continuum of care for seniors could also be made within these developments. The municipalities could also provide for a senior housing overlay district which could be applied within certain zoning districts.

Another particular housing need is opportunities for those trying to enter the housing market. Some opportunities are afforded within the Borough core. Allowing for multi-family units which could be rented could assist this market group.

- D. Work with residents of the Region and regional taxing entities, including the municipalities, school district, and County, to identify programs and policies that will help residents maintain and enhance their properties, meet housing expenses, and retain their homes as owner-occupied single family residences. Review with PADCED and Adams County available governmental programs to assist those in need. (See the list of programs at the end of this Action Plan.)
- E. Continue to regulate housing conversions through zoning provisions and require adequate parking to be provided. Typically, conversions will be permitted only within certain areas of the Borough.

- F. Provide for a variety of housing types and densities through zoning.

The Municipalities Planning Code allows allocation of land uses over an entire region pursuant to a multi-municipal plan, so each municipality does not have to provide for all density ranges and housing types. The three municipalities should continue to meet to discuss specifically in which zoning districts single family detached dwellings, single family semi-detached dwellings, apartments, two family dwellings, townhouses, mobile homes, apartment conversions, mobile home parks, and mixed housing developments will be allowed. It is necessary to keep in mind that there is limited developable land remaining in the Borough, so the Township should also make provision for a variety of densities and dwelling types within designated growth areas. The Future Land Use Plan establishes the framework for zoning districts and outlines the types of units and densities to be permitted in land use categories.

PLANNING AND REGIONALIZATION EFFORTS

Actions:

- A. Complete an Intergovernmental Cooperative Agreement and establish a Regional Planning Committee. The highest priority for implementation of this Plan is adoption of an intergovernmental agreement by the governing bodies of the three municipalities and creation of a standing Regional Planning Committee within six (6) months of adoption of this Plan. The Regional Planning Committee could be a continuation of the existing Regional Comprehensive Planning Committee or a new Committee appointed by the governing bodies.

Section 1104 of the Pennsylvania Municipalities Planning Code grants municipalities and counties the authority to enter into intergovernmental cooperative agreements. Such agreements are to:

1. Establish the process that the participating municipalities will use to achieve general consistency between the multi-municipal comprehensive plan and zoning ordinances, subdivision and land development and capital improvement plans within participating municipalities, including adoption of conforming ordinances by participating municipalities within two years and a mechanism for resolving disputes over the interpretation of the multi-municipal comprehensive plan and the consistency of implementing plans and ordinances.

2. Establish a process for review and approval of developments of regional significance and impact that are proposed within any participating municipality. Subdivision and land development approval powers under the Code will be retained by the municipality in which the property is located and where the approval is being sought. Under no circumstances shall a subdivision or land development applicant be required to undergo more than one approval process. The participating municipalities will determine what constitutes a development of regional significance.
 3. Establish the role and responsibilities of participating municipalities with respect to implementation of the plan, including the provision of public infrastructure services within participating municipalities, the provision of affordable housing, and purchase of real property, including rights-of-way and easements.
 4. Require a yearly report by participating municipalities to the county planning agency and the Governing Body of each participating municipality and by the county planning agency to the participating municipalities concerning activities carried out pursuant to the agreement during the previous year. Such reports shall include summaries of public infrastructure needs in growth areas and progress toward meeting those needs through capital improvement plans and implementing actions, and reports on development applications and dispositions for residential, commercial, and industrial development in each participating municipality for the purpose of evaluating the extent of provision for all categories of use and housing for all income levels within the region of the plan.
 5. Describe any other duties and responsibilities as may be agreed upon by the parties.
- B. The municipalities should continuously jointly monitor the availability of grants for planning, recreation, economic development, and other elements and pursue such grants.
- C. Each year the Planning Commission and the Governing Body of each municipality should meet to discuss trends in the municipality, surrounding municipalities and the Region; progress of meeting the goals set forth in this plan; the effectiveness of this plan; and implementation of the plan. Specific actions determined to be necessary to implement the plan should be identified and action programs for the following year established. Directives for tasks should be given to appropriate boards, committees and commissions.

- D. This Comprehensive Plan should be given a thorough review by the regional planning committee in five years at the latest, with consideration of trends at that time and development events over those five years.

SECTION 3 – CAPITAL IMPROVEMENTS PLANNING AND OFFICIAL MAP

Two major potential tools in implementing this Plan are capital improvements planning and adoption of an official map, as detailed below. The discussion of the official map is based upon the Pennsylvania Municipalities Planning Code.

Capital Improvements Planning

Capital improvements planning includes financial analysis of past trends in the community, present conditions, and a projection of the community's revenues and expenditures, debt limit and tax rates, to determine what the financial capabilities of the municipality are. It also includes a capital improvements program which establishes a system of priorities. The final element is a capital budget which lists the schedule of improvements over a 5-year period based on the community's financial capacity and availability of grant money.

In the capital improvements program, capital expenditures are separated from operational expenditures. Operational expenditures are those for administration, salaries, maintenance and similar functions, and are short term. Capital expenditures are for assets which have a substantial value compared to the total municipal budget and are expected to provide service for a number of years. The purchase of land or the construction of a building is an example of a capital expenditure.

The capital improvements program schedules the purchase of capital items in a systematic manner rather than allocating a large amount of money for all expenditures in one year. Based on the assessment of future needs, future expenditures are planned so that the municipality can anticipate these major expenditures prior to the budget year. The program is based on identified capital needs, goals for capital acquisitions, and a priority list of all proposed capital expenditures.

A time frame is established for the capital improvements program. Five-year programs are typical. Every year the schedule for capital improvements must be revised and updated as necessary, based on the current municipal priorities. For each project included in the program, estimated costs must be established and a budget prepared.

Benefits of capital improvements programs include:

- It helps assure that projects will be based upon the ability to pay and upon a schedule of priorities determined in advance.

- It helps assure that capital improvements are viewed comprehensively and in the best public interest of the municipality as a whole.
- It promotes financial stability by scheduling projects at the proper intervals.
- It avoids sharp changes in the tax structure by the proper scheduling of projects.
- It facilitates the best allocation of community resources.

Official Maps

The governing body of each municipality has the power to make an official map of all or a portion of the municipality which may show elements of the Comprehensive Plan with regard to public lands and facilities, and which may include, but need not be limited to, the following elements:

1. Existing and proposed public streets, watercourses and public grounds, including widenings, narrowings, extensions, diminutions, openings or closings.
2. Existing and proposed public parks, playgrounds, and open space reservations.
3. Pedestrian ways and easements.
4. Railroad and transit rights-of-way and easements.
5. Flood control basins, floodways and floodplains, stormwater management areas and drainage easements.
6. Support facilities, easements and other properties held by public bodies undertaking the elements described in the Comprehensive Plan.

Each municipality should prepare an official map, but regional cooperation should occur on mapping of projects such as roadways, parks, and trails which will be located in more than one municipality.

The governing body may make surveys and maps to identify the location of property, trafficway alignment or utility easement by use of property records, aerial photography, photogrammetric mapping or other method sufficient for identification, description and publication of the map components. For acquisition of lands and easements, boundary descriptions by metes and bounds must be made and sealed by a licensed surveyor.

The adoption of any street lines or other public lands as part of the official map does not constitute the opening or establishment of any street nor the taking or acceptance of any land, nor does it obligate the municipality to improve or maintain any such street or land. The adoption of proposed watercourses or public grounds as part of the official map does not constitute a taking or acceptance of any land by the municipality.

For the purpose of maintaining the integrity of the official map of the municipality, no permit shall be issued for any building within the lines of any street, watercourse, or public ground shown or laid out on the official map. No person shall recover any damages for the taking for public use of any building or improvements constructed within the lines of any street, watercourse, or public ground after the same shall have been included in the official map; and, any such building or improvements shall be removed at the expense of the owner. However, when the property of which the reserved location forms a part, cannot yield a reasonable return to the owner unless a permit shall be granted, the owner may apply to the governing body for the grant of a special encroachment permit to build.

The governing body may fix the time for which streets, watercourses and public grounds on the official map shall be deemed reserved for future taking or acquisition for public use. However, the reservation for public grounds shall lapse and become void one year after an owner of such property has submitted a written notice to the governing body announcing his intentions to build, subdivide or otherwise develop the land covered by the reservation, or has made formal application for an official permit to build a structure for private use, unless the governing body shall have acquired the property or begun condemnation proceedings to acquire such property before the end of the year.

SECTION 4 – GOVERNMENTAL PROGRAMS

The following is a list of some of the state and federal programs for community and economic development. Programs can be modified or eliminated over time, so it is necessary to contact the responsible agency for availability and eligibility information.

▪ **PENNSYLVANIA DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT (DCED)**

- **Communities of Opportunity** – This program is for state-funded grants for community revitalization and economic development and the development or rehabilitation of low-income housing.
- **Infrastructure Development Program** – This program provides grants and low interest financing for the construction of public and private infrastructure needed for business to locate or expand to a specific site. It also provides financing for infrastructure costs to redevelop former industrial sites, including site clearance costs.
- **Industrial Sites Reuse Program (Brownfields)** – This program provides grant and low interest loan financing for environmental site assessment and remediation work at former industrial sites.
- **Community Revitalization Program** – This program is intended to fund infrastructure improvements, community revitalization, building rehabilitation, and demolition of blighted structures, in order to increase community tax base and promote community stability.
- **New Communities/Main Street Program** – This program is intended to help a community's downtown economic development effort.
- **Elm Street Program** – This program is intended to help revitalize residential neighborhoods near Main Street areas.
- **HOME Program** – This program provides loan and technical assistance to municipalities for expanding the housing supply for low income persons.
- **Small Business Development Centers** – Work with small firms to help them compete and grow.

- **Small Business First Program** – This program provides low interest loans for projects such as site acquisition, building construction, machinery, and working capital for small businesses of less than 100 employees.
- **Local Government Capital Projects Loan Program** – This program provides low interest loans for equipment and municipal facilities.
- **Land Use Planning and Technical Assistance Program (LUPTAP)** – This program provides grant funds for the preparation of community comprehensive plans and the ordinances to implement them.
- **Regional Police Assistance Grant Program** – This program provides grants for the start-up of consolidated police departments.
- **Shared Municipal Services Program Code Enforcement Initiative Grants** – This program assists local governments in the initial administrative expenses of a shared or multi-municipal codes enforcement program.
- **Shared Municipal Services Program** – This program provides matching grants for cooperative municipal efforts to increase the efficiency of public services.
- **Local Economic Revitalization Tax Assistance Act (LERTA)** – Local municipalities, school districts, and counties can offer tax abatements on improvements to property for up to 10 years.
- **Pennsylvania Industrial Development Authority (PIDA)** – Low-interest loan financing through industrial development corporations for land and building acquisition, construction and renovation resulting in the retention or the creation of jobs. Loans up to \$1.25 million (\$1.75 million for areas within Keystone Opportunity Zones, Act 47 Communities, Brownfield Sites, and Enterprise Zones).
- **Floodplain Land Use Assistance Program** – Provides grants and technical assistance to encourage the proper use of floodplains. Local governments may apply for up to 50% of eligible costs.
- **Weatherization Assistance Program** – Works to minimize the adverse effects of high energy costs on low-income, elderly, and handicapped citizens. Local governments and non-profit organizations are eligible.

- **Enterprise Zone Grant Program** – Provides grants to financially disadvantaged communities for business development strategies within Municipal Enterprise Zones. Municipal and redevelopment authorities are eligible.
 - **Community Development Block Grants (CDBG)** – Provides grant and technical assistance to aid municipalities in community and economic development efforts.
 - **Emergency Shelter Grants** – Provides grants to local governments and non-profit organizations to create or rehabilitate shelter space for the homeless.
 - **Act 47 – Municipalities Financial Recovery Act** – Provides loans and grant funds to financially distressed local governments and technical assistance to formulate financial recovery Plans.
- **PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY**
 - **Pennsylvania Conservation Corps (PCC) Project Grant Program** – Grants for projects related to recreation, conservation, and historic preservation. Municipalities and school districts must provide a 25% match.
- **PENNSYLVANIA COMMISSION ON CRIME AND DELINQUENCY (PCCD)**
 - **Local Law Enforcement Block Grant Program** – Provides local governments with funds to hire and train additional law enforcement personnel; establish special task forces; and establish crime prevention programs.
- **PENNSYLVANIA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES** – The Community Conservation Partnerships Program (C2P2) includes the following elements:
 - **Community Recreation Grant Program** – This program provides grants for comprehensive recreation and park planning, greenways and master site development planning. Acquisition and Development Grants can be used for the rehabilitation and development of parks and recreation facilities and acquisition of land for park and conservation purposes.

- **Rivers Conservation Grant Program** – This program provides grants for river conservation plans and non-acquisition, non-development implementation projects. Acquisition and Development Grants can be used for land acquisition and the development of river conservation projects.
 - **Heritage Parks Grant Program** – This program promotes public/private partnerships to preserve and enhance natural, cultural, historical and recreational resources to stimulate economic development through heritage tourism. Grants are awarded for purposes such as feasibility studies, development of management action plans, specialized studies, and implementation projects and management grants.
 - **Recreational Trail Program** – This program provides matching funding for the acquisition, development and maintenance of motorized and non-motorized trails.
 - **Rails to Trails, PA Program** – This program provides matching grants for feasibility studies, plans, acquisition and improvement of former railroad lines for recreational trails.
- **PA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)**
- **Stream Improvement Program** – This program provides design and construction projects to eliminate imminent threats due to flooding and stream bank erosion.
 - **Stormwater Management Program** – This program provides grants for cooperative watershed level planning and municipal implementation programs.
 - **Non-Point Source Pollution Control Program** – This program provides funding for projects that implement innovative practices to control non-point source pollution for impaired waters.
 - **Pennsylvania Source Water Assessment and Protection Program (SWAP)** – This program provides grants for wellhead protection and watershed protection.
 - **Environmental Stewardship and Watershed Protection Grant Program** – This program makes funds available to protect and restore watersheds.

- **Pennsylvania Green Project Bank** – This program is an interactive online marketplace where organizations seeking funding for environmental projects can be matched with organizations seeking to fund such projects.
 - **Alternative Fuels Incentive Grant** – Grants for municipalities for costs associated with implementing alternative fuel program.
 - **New or Innovative Technology Grants** – Funds to improve existing drinking water and sewage treatment facilities through new or innovative technology.
 - **Sewage Management Grants (Act 537)** – reimbursements for municipalities completing sewage facilities planning and enforcement.
 - **Recycling (Act 101)** – Municipalities are eligible for 90 percent reimbursement toward establishing a recycling program.
 - **Act 108 (HSCA) Host Municipality Siting** – Payments to municipalities serving as hosts for hazardous waste facilities.
 - **Act 198 Resource Recovery Development Fund** – Grants for municipalities and authorities to establish new and innovative resource recovery demonstration projects.
 - **Waste Tire Remediation and Market Development Grants** – Reimbursement for cleanup and / or reuse of waste tires.
 - **Formation of Water Authorities Grant Program** – Available to two or more municipalities or counties interested in forming a joint water authority.
 - **Small Water Systems Regionalization Grant Program** – Reimbursement for feasibility studies by small water systems to study regionalization.
- **PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION**
 - **Keystone Historic Preservation Grants** – This program provides matching grants to local government and nonprofit organizations that are rehabilitating or restoring historic properties on or eligible for the National Register.

- **Certified Local Government Grants** – This program provides matching grants and technical assistance to protect historic resources.
- **Historical Marker Program** – Nominations for historical markers are reviewed. When approved, staff works with nominator to prepare text and arrange ceremonies. Limited matching grants are available for markers.

- **PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES**

- **Software Licensing Program** – Program for local governments to save money on software purchases.
- **Cooperative Purchasing Program (Act 57 of 1998)** – Permits local governments to jointly participate in contracts for supplies, services, or construction.

- **PENNSYLVANIA DEPARTMENT OF TRANSPORTATION**

- **Transportation Enhancements Program (TEA 21)**

The program provides funding for programs such as provision of facilities for pedestrians and bicycles; acquisition of scenic easements or historic sites; landscaping or other scenic beautification; historic preservation; rehabilitation and operation of historic transportation buildings, structures or facilities.

- **Transit Assistance Programs** – A variety of programs provide assistance for Public Transportation.
- **Home Town Streets** – This program includes a variety of streetscape improvements that are vital to reestablishing downtown and commercial centers. These projects include activities undertaken within a defined “downtown” area that collectively enhance that environment and promote positive interactions with people in the area. Projects may include sidewalk improvements, planters, benches, street lighting, pedestrian crossings, transit bus shelters, traffic calming, bicycle amenities, kiosks, signage and other visual elements.
- **Safe Routes to School** – This program is designed to work with both school districts and pedestrian and bicycle safety advocates to make physical improvements that promote safe walking and biking passages to schools. Collectively, these efforts would save on school busing costs and

promote a healthy lifestyle for children. In addition, some funding may be used for pedestrian education efforts. Examples of these types of improvements include: sidewalks, crosswalks, bike lanes or trails, traffic diversion improvements, curb extensions, traffic circles and raised median islands.

- **PENNSYLVANIA INFRASTRUCTURE INVESTMENT AUTHORITY** – PENNVEST provides financing for drinking water, stormwater, and wastewater projects.
- **PENNSYLVANIA LEGISLATIVE INITIATIVE PROGRAM** – This program provides discretion to State legislators to award limited amounts of State funds for projects in their home district.

CHAPTER 20
RELATIONSHIP OF PLAN COMPONENTS

The Future Land Use Plan allocates general land uses and specifies the recommended types of land uses and densities for those uses. The availability of sanitary sewer and water facilities influence the shaping of development patterns, including location and density. It is critical to coordinate land use and infrastructure planning so future land use reflects the availability of public sewer and water facilities and public sewer and water facilities are not proposed for those areas not intended for future development.

It is intended that the Designated Growth Area be served by public sewer and water facilities as capacity becomes available to permit a variety of types and densities of residential development. Eventually, Potential Future Growth Areas could be served with public sewer and water after the Designated Growth Area is developed. In general, public sewer and water facilities should not be extended to Rural Conservation- Agriculture areas unless necessary to alleviate public water concerns, as the Rural Conservation-Agriculture area is intended to promote retention of agriculture and rural character, and allow only very low density residential development. It is unlikely Rural Low Density and Low Density Residential areas can feasibly be served by public sewer and water systems.

Through land use planning, such as designation of the Rural-Conservation-Agriculture area, recharge areas for ground water supplies are established. Intensive residential development is not proposed where sewer infrastructure is not planned, available, or in close proximity, and where limitations for on-site sewage disposal have been identified.

It is important that community facilities, including recreation and open space, are available to serve the residents of the area. The Community Facilities Plan proposes substantial expansion of the Littlestown Community Park to serve the designated Growth and Potential Future Growth areas. It is noted that as development occurs in the Designated Growth and Potential Future Growth areas, decisions will be made in individual cases whether neighborhood parks will be required or recreation fees paid in lieu of such parks. The Transportation Plan discusses a series of trails for recreational purposes and to better link residential areas to community facilities and the regional core. Future public facilities should be sited to be consistent with the objectives of the Future Land Use Plan, such as maintaining the rural character of the Rural Conservation-Agriculture area. Typically, public facilities should be located within residential areas to better serve residents.

The Future Land Use Plan encourages economic vitality by providing areas for commercial, business and industrial development and agricultural activities, and supporting revitalization in the area of King and Queen Streets in the Borough. Preservation and logical expansion of residential neighborhoods can provide support for local businesses and provide a work force. Providing for open space and preservation of community resources supports the quality of life in the area and can encourage additional investment in the Region.

It is necessary to maintain a circulation system, which can accommodate generated traffic volumes. In turn, future development should not adversely affect the circulation system. Land use decisions are influenced by the existing circulation system, while at the same time those land use decisions affect circulation systems and the functions which roads are expected to perform.

Rural and residential areas should be protected as much as possible from the impacts of through traffic, which can be accomplished by proposed improvements to the circulation network. Outer and Inner Loop System concepts are proposed to facilitate traffic around the congested central core in the Borough. Efforts to provide and link a variety of modes of transportation, including auto travel, pedestrian and bicycle trails, and transit service are encouraged.

Interrelationships of Plan Components

	Land Use and Housing	Sewer and Water	Community Facilities	Transportation	Natural Environment	Economic Development	
Land Use and Housing	<ul style="list-style-type: none"> ▪ Support existing centers ▪ Provide housing opportunities for all 	<ul style="list-style-type: none"> ▪ Policies coordinated with land use goals to direct development to growth areas 	<ul style="list-style-type: none"> ▪ Make available to serve area residents 	<ul style="list-style-type: none"> ▪ Must consider impacts of growth on the system ▪ Accommodate volumes at acceptable levels of service ▪ Existing residential areas should not have excessive volumes and speed 	<ul style="list-style-type: none"> ▪ Provide open space and protection 		
Sewer and Water	<ul style="list-style-type: none"> ▪ Growth should occur where have adequate facilities 	<ul style="list-style-type: none"> ▪ Consider existing facilities and plans, appropriate discharge standards and methods 	<ul style="list-style-type: none"> ▪ Locate with consideration of ability to serve, consistent with land use goals 	<ul style="list-style-type: none"> ▪ Should be coordinated in support of growth areas 	<ul style="list-style-type: none"> ▪ Water quality should be protected 		
Community Facilities	<ul style="list-style-type: none"> ▪ Include facilities to service residents and growth areas 	<ul style="list-style-type: none"> ▪ Major facilities should be adequately served 	<ul style="list-style-type: none"> ▪ Consider existing facilities and plans, potential cooperative efforts 	<ul style="list-style-type: none"> ▪ Should adequately service facilities in the region ▪ Consider linkages of community facilities 	<ul style="list-style-type: none"> ▪ Can provide recreational opportunities 		
Transportation	<ul style="list-style-type: none"> ▪ Growth should occur where have adequate system ▪ Maintain functional operation and safety when growth occurs 	<ul style="list-style-type: none"> ▪ Should be coordinated in support of growth areas 	<ul style="list-style-type: none"> ▪ Locate major facilities where can be adequately serviced ▪ Concerns for school transportation system ▪ Consider impacts on system from growth 	<ul style="list-style-type: none"> ▪ Consider existing facilities and plans, coordinate with County and PennDOT ▪ Plan improvements to the system 	<ul style="list-style-type: none"> ▪ Can provide roads and services 		
Natural Environment	<ul style="list-style-type: none"> ▪ Development should occur where land is suitable and resources will not be harmed 	<ul style="list-style-type: none"> ▪ Should not extend to areas where irreparably harm important resources 	<ul style="list-style-type: none"> ▪ Can incorporate natural features 	<ul style="list-style-type: none"> ▪ Can facilitate access to resources ▪ Design system with consideration of existing environment and resources 	<ul style="list-style-type: none"> ▪ Existing natural resources should be protected, interpreted 		
Economic Development	<ul style="list-style-type: none"> ▪ Identify appropriate land uses for sensitive areas ▪ Protect water resources ▪ Provide for commercial, industrial, business uses ▪ Neighborhoods provide workforce and market 	<ul style="list-style-type: none"> ▪ Can support development at appropriate locations 	<ul style="list-style-type: none"> ▪ Contribute to quality of life and the attractiveness of the area 	<ul style="list-style-type: none"> ▪ Can support economic development ▪ Enhance regional public transportation system ▪ Address system deficiencies to improve business climate 	<ul style="list-style-type: none"> ▪ Contribute to life and attractiveness of business areas 		

CHAPTER 21
REGIONAL PLANNING CONSISTENCY

Adams County Comprehensive Plan

The Adams County Comprehensive Plan presents the desired future land use pattern in Adams County. The Plan assumes continued steady growth with a balance of mixed uses; conservation of natural, historical and agricultural features; and the efficient use of public utilities and infrastructure.

The Land Use Plan relies upon a future growth area concept that encourages the orderly and efficient expansion of existing communities, such as the Borough of Littlestown. The growth areas provide an economical way to accommodate future development while at the same time preserving the region's rich agricultural heritage. Projected intense, high density development is directed toward existing sewer and water service areas that are accessible to the regional transportation network.

The five major land use policies of the Adams County Comprehensive Plan include:

1. Promote the concepts of designated growth areas, resource conservation areas, and permanently protected open space areas, as presented in the Land Use Plan.
2. Assist municipal governments, landowners, and developers in the planning and design of additions to already built-up areas and the development of new residential, employment, and mixed use areas consistent with the Plan.
3. Encourage the creation of planned employment centers in designated areas.
4. Promote the establishment of permanently-protected, interconnected open space network throughout the county and the development of recreational facilities in appropriate places.
5. Direct new retail and service commercial activity to existing borough cores and new mixed-use centers.

The County Comprehensive Plan projects the future land use of the Germany, Littlestown, and Union planning area with a variety of designations. Littlestown Borough and its immediate surrounding areas are designated as growth areas with land use designations including: Borough Center (Mixed Use); Medium Density Residential; Employment Center; and Medium-Low Density Residential.

Germany Township also contains some growth areas, including Medium Density Residential and Employment Center along the southwestern border with the Borough of Littlestown, and Medium-Low Density Residential along the western and northwestern border with the Borough. The remainder of Germany Township is designated as Parks and Permanent Open Space; and Agriculture, Resource Conservation, and Very Low Density Residential. Furthermore, Germany Township is identified by the Adams County Growth and Development Plan as a “Potential Development Hotspot for 2005-2010.” Hotspots are defined as areas susceptible to growth pressure and potential new development. The majority of the potential hotspot is identified as being to the south and west of the Borough of Littlestown.

Union Township contains a growth area along Hanover Pike to the north and east of the Borough that is designated as Medium-Low Density Residential. The Township contains two other areas designated as Low-Medium Density Residential: one along the border with Germany Township south of the Borough; and the other in the southeast corner of the Township along Pine Grove Road. The remainder of Union Township is designated as Agriculture, Resource Conservation and Residential-Very Low Density; and Park, Permanent Open Space, and Preservation Areas.

The Future Land Use Map for the Germany, Littlestown, and Union Joint Comprehensive Plan is generally consistent with the Adams County Land Use Plan. The Joint Plan designates the Borough as well as surrounding areas of the Townships as Designated Growth Areas, and some areas further out from the Borough, adjacent to the Designated Growth Areas, as Potential Future Growth Areas. Designated and Future Growth Areas are appropriate for development of a higher density including residential, commercial, industrial, and mixed uses. The County Plan designates the Hanover Road area as Agriculture, Resource Conservation, and Residential-Very Low Density. The Region’s Plan allows more intensive development at the intersection of Hanover and Littlestown Roads.

Adjacent Municipal Planning

The Germany, Littlestown, Union planning region is bordered by three municipalities in Adams County: Conewago Township, Mount Pleasant Township, and Mount Joy Township. The following is a brief summary of the zoning ordinance designations and of these adjacent municipalities along the borders of the Planning Region.

Conewago Township

Conewago Township is located to the north and east of Union Township. The entire border with Union Township is designated by the 1999 Conewago Township Zoning Ordinance as Agricultural Preservation. The specific intent of this zone is to preserve the areas of prime agricultural capability and encourage the retention of these agricultural uses by allowing only those land uses and activities which are agricultural in nature, or directly support agricultural activities. Uses allowed within the District include Farms, and single family residential subject to sliding scale provisions.

The Germany, Littlestown, Union Future Land Use Plan designates the bordering areas with Conewago Township as Rural Conservation – Agriculture. There are no inconsistencies between the Townships.

Mount Pleasant Township

Mount Pleasant Township is located directly north and west of Union Township. Mount Pleasant Township zoning is regulated by the Adams County Zoning Ordinance. The Adams County Zoning Ordinance designates the majority of the border with Union Township as Land Conservation, as well as a small area along the PA Route 116 Corridor (Hanover Road) as Single Family Residential.

The intent of the Land Conservation zone is to preserve open land by setting development apart from sensitive natural features such as woodlands, slopes, streams, and floodplains, and preserving the elements of rural character.

The Germany, Littlestown, Union Future Land Use Plan designates the bordering Land Conservation areas of Mount Pleasant Township as Rural Conservation – Agriculture, and the PA Route 116 Corridor as Business Development. Non-residential development north of Hanover Road in Union Township should be buffered, and appropriate performance standards applied to assure no adverse impacts on adjoining uses in Mount Pleasant Township.

Mount Joy Township

Mount Joy Township is located to the west of Germany Township. The Mount Joy Township Zoning Ordinance designates the majority of the border area as Rural Residential, which allows one acre lots where public sewer and water service is available, and two acre lots in areas where on-lot systems are used. The Baltimore Pike Corridor, PA Route 97, is designated as Village to allow for the extension of the Village of Germantown, which is located west of the Germany Township line. The Village designation allows for a mix of neighborhood commercial and residential uses at a variety of densities.

The Germany, Littlestown, Union Future Land Use Plan designates the bordering Rural Residential-zoned areas of Mount Joy Township as Rural Conservation – Agriculture, except for two small areas of Rural Low Density, one along Harney Road, and the other along Fish and Game Road. There appear to be no inconsistencies between the Townships.

Carroll County, Maryland

Carroll County is located directly across the Maryland border, due south of Germany and Union Townships. The Carroll County Master Plan, as well the Carroll County Generalized Zoning Map, designates the border with Germany and Union Townships as Agricultural and Conservation.

The Germany, Littlestown, Union Future Land Use Plan designates almost all the bordering areas along the Carroll County border as Rural Conservation – Agriculture. There are no inconsistencies, except for the Light Industrial designation along Frederick Pike, which reflects existing land usage.

APPENDIX 1

**COMPREHENSIVE PLAN QUESTIONNAIRE
RESULTS BY MUNICIPALITY**

GERMANY, LITTLESTOWN, UNION
COMPREHENSIVE PLAN
QUESTIONNAIRE

1. In what Township or Borough in this region do you live or own property?

Germany Township	72
Littlestown Borough	
Union Township	

2. How long have you lived in your municipality:

5 years or less	22
6-10 years	5
11-20 years	13
more than 20 years	31

3. What do you like most about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like most.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Schools	1	6	4	6	Public Safety	2	1	4	7
Recreational Opportunities	1	1	0	0	Job Opportunities	0	0	0	0
Taxes	1	3	5	4	Cultural Facilities	0	0	0	0
Rural Atmosphere/Open Space	4	27	18	4	Roads	0	0	0	1
Housing Availability & Choice	0	0	0	2	Access to Work	0	2	3	5
Farmland	1	11	5	9	Access to Shopping	1	1	1	2
Emergency Services	3	1	4	4	Small Town Atmosphere	4	11	14	11
Walkability	2	0	0	1	Residential Areas	1	0	0	2
Visual Appearance	2	0	3	3					

4. What do you like least about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like least.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Traffic	0	5	4	4	Loss of Farmland	1	8	11	14
Taxes	0	12	5	1	Cultural Facilities	0	0	0	4
Residential Developments	1	7	7	5	Recreational Opportunities	0	1	5	2
Public Safety	0	0	1	1	Schools	0	2	1	0
Roads	0	3	6	3	Pollution	0	0	0	1
Job Opportunities	0	3	2	2	Sewage Facilities	0	3	2	2
Rate of Development	0	8	5	7	Water Supply	1	0	3	1
Loss of Open Space	1	5	7	6	Access to Work	0	0	0	0

Emergency Services	0	0	0	0	Access to Shopping	0	1	1	1
Housing Availability & Choice	0	1	1	3	Availability of Public Transportation	1	1	1	4
Visual Appearance	0	3	0	1					

5. What do you think are the most important planning issues needing to be addressed within the next 10 years? (Please rank three 1, 2 and 3, 1 being the issue you think is most important.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Managing growth	0	25	7	5
Preserving environmentally sensitive areas such as woodlands, wetlands, and steep slopes	0	2	4	4
Transportation system upgrades	0	0	2	5
Preservation of Farmland	0	9	11	8
Sewage disposal	0	2	1	2
Drinking Water Supply (quantity)	0	8	5	6
Zoning	0	4	2	3
Encouraging balanced development	0	3	4	6
Preservation of open space	0	1	9	3
Preserving historically significant buildings and structures	0	0	1	0
Water quality protection	0	2	4	1
Tax base	0	5	5	4
Police/Crime Watch	0	0	2	2
Promoting vitality of Littlestown Borough downtown	0	2	4	5
Providing recreational facilities	0	0	1	5
Stormwater management	0	0	1	0
Watershed management	0	1	1	2
Emergency services	0	0	0	3

6. Do you support the use of tax dollars toward the following?

Protection of environmental resources?	Yes 54	No 12
Farmland preservation/development rights purchase?	Yes 55	No 13
Preservation and upkeep of more open space?	Yes 52	No 15
Preservation of historic resources?	Yes 39	No 37
Road Improvements?	Yes 66	No 4
Public sewer and water improvements?	Yes 47	No 21
Promoting economic development?	Yes 33	No 34
Enhancing walkability in the region?	Yes 24	No 39
Parks and recreation	Yes 42	No 23
Biking, hiking, and walking opportunities	Yes 36	No 29

7. a. Do you believe that additional public parks and recreation facilities should be provided in the Germany-Littlestown-Union region?

Yes	26
No	27
Not sure	19

- b. If you answered yes, please indicate the most needed park and recreation facilities. (Please check three and rank them 1 to 3, 1 being the most important.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Parks with facilities or areas for fishing, hunting, camping, boating, etc.	0	3	4	4
Trails for hiking, biking, horseback riding	0	5	2	6
Nature reserves	1	2	5	1
Preserving historic sites	0	2	0	1
Playgrounds for children	0	5	4	3
Areas for field sports such as softball, baseball, football, soccer, etc.	0	7	1	0
Community recreation centers	0	0	6	4
Swimming pools	0	1	2	1
Golf courses	0	0	1	0
Basketball Courts	0	0	0	0
Tennis Courts	0	1	2	0
Outdoor ice skating rinks	0	2	0	0
Picnic areas	1	0	1	6
Other _____				

8. Was the increase in residential development in this region over the last ten years....

Acceptable	<u>21</u>
Too high	<u>49</u>
Too low	<u>1</u>

9. Do you think it is important to regulate more strictly signage along road corridors in the region?

Yes	49
No	11
Not Sure	10

10. Do you think it is important to require future non-residential redevelopment in the region to place more emphasis on amenities such as landscaping, attractive signage, decorative lighting and benches?

Yes	42
No	16
Not Sure	13

11. a. Is it important to preserve remaining farmland in the region?

Yes	66
No	3
Not Sure	4

b. If you answered yes, why do you feel it is important to preserve farmland?

6 I live on a farm.

24 I like to purchase local produce.

58 I want farmland available for future generations to farm.

34 I like to view farmland.

39 I want to limit development which occurs in the community.

2 Other _____

12. Do you think it is important to improve roadside appearance....

	<u>Yes</u>	<u>No</u>
Entering the region from the south along Frederick Pike?	34	32
Entering the region from the south along Baltimore Pike?	30	33
Entering the region from the west along Baltimore Pike?	24	39
Entering the region from the east along Hanover Pike?	23	39

13. Should the following be promoted in the region?

Research and development firms	Yes	25	No	36
Light Manufacturing	Yes	36	No	27
Tourism and cultural attractions	Yes	31	No	31
Health services	Yes	53	No	10
Legal and Financial services	Yes	27	No	33
Personal services	Yes	40	No	22
Agriculture	Yes	60	No	4
Restaurants	Yes	43	No	21

Warehousing and distribution facilities	Yes	17	No	43
Big Box Retail	Yes	7	No	52
Department Stores	Yes	19	No	47
Specialty Retail	Yes	32	No	30
Outlet Stores	Yes	16	No	50
Wholesale trade	Yes	17	No	43
Technology based firms	Yes	30	No	34
Cultural facilities	Yes	24	No	37
Medium to Heavy Manufacturing	Yes	18	No	44
Offices to support local businesses	Yes	40	No	30
Corporate offices	Yes	20	No	41
Professional service firms	Yes	30	No	31
Information processing firms	Yes	21	No	38

14. Check any of the following which you think are transportation problems in the region.

Inadequate parking in Littlestown	<u>26</u>
Inadequate public transportation	<u>22</u>
Lack of bikeways	<u>25</u>
Lack of sidewalks or walking paths	<u>13</u>
Traveling Route 97 (Baltimore Pike)	<u>30</u>
Traveling Route 194 (Frederick Pike)	<u>14</u>
Traveling Route 194 (Hanover Pike)	<u>10</u>
Traveling Route 116 (Hanover Road)	<u>10</u>
Traveling Whitehall Road	<u>8</u>
Traveling Littlestown Road	<u>2</u>
Traveling Bollinger Road	<u>3</u>
Traveling Mehring Road	<u>1</u>
Queen Street – King Street Intersection in Littlestown	<u>31</u>
Bollinger Road – Baltimore Pike Intersection	<u>9</u>
Mehring Road – Hanover Pike Intersection	<u>4</u>
Pine Grove Road – Hanover Pike Intersection	<u>7</u>
Littlestown Road – Hanover Road Intersection	<u>5</u>
Whitehall Road – Littlestown Road Intersection	<u>16</u>
Whitehall Road – Baltimore Pike Intersection	<u>19</u>
Parkway Drive travel speeds	<u>3</u>
Bashoar School Road – Hanover Pike Intersection	<u>7</u>
Sight distance alignment on Route 116 at Bender Road	<u>11</u>
Harney Road – Teeter Road Intersection	<u>17</u>
Other _____	_____

15. What types of housing do you feel are needed in the Germany-Littlestown-Union Region?

	<u>Yes</u>	<u>No</u>
Housing for senior citizens	48	15
Housing for young couples	21	29
Housing for families with school children	25	27
Housing for singles	16	32
Housing for empty nesters	19	31
Owner-occupied units	20	31
Rental units	13	33
Other _____		

16. In some areas of the country, planners are designing developments using alternative concepts to standard single family subdivisions. Listed below are some of these concepts. Should these concepts be applied to the Germany-Littlestown-Union region?

	<u>Yes</u>	<u>No</u>
Cluster design. (Reducing lot sizes for houses and grouping the amount of lot size reduction into common open space.)	17	44
Traditional neighborhood development. (Making new development patterns look like they did in towns decades ago)	31	26
Mixed use. (This means creating development that includes a mix of residential and commercial uses or a mix of commercial and industrial uses)	16	44
Borough Extension. (Extending Borough development patterns into adjoining areas of the Townships)	14	45
Conservation Development (Special natural and historic features of a tract are preserved as open space; houses are located to maximize views of open space, and road systems and lot lines are established to conform to open space and house locations)	53	13

17. Every municipality has its “treasures” – places that are unique because of their beauty, appeal, historic character, or because of what they offer the citizens of the municipality. These are special places that citizens often want to preserve for future generations. Please identify up to five such places in the Germany-Littlestown-Union region. You may want to name a village, a historic building, an agricultural area, a public building, a business, a stream valley, an area of countryside which is especially beautiful, or other location you consider a “treasure”.

1. _____

2. _____
3. _____
4. _____
5. _____

18. Certain initiatives or ideas have been mentioned in the region. Please let us know whether you think these initiatives and ideas are important to you and whether you support them.

<u>Initiative or Idea</u>	<u>Is it Important to You?</u>			<u>Do you Support it?</u>		
	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
a. Preserving open space corridors along the Alloway Creek and the South Branch of the Conewago Creek	35	7	22	33	4	21
b. Maintaining rural character in Germany Township	61	1	4	56	2	2
c. Maintaining rural character in Union Township	43	7	10	39	8	8
d. Revitalizing downtown Littlestown	44	14	5	40	9	8
e. Preserving the “horse farm” area	49	7	10	45	5	10
f. Constructing a Littlestown By-Pass	21	28	13	19	27	10
g. Coordinating residential and commercial growth with availability of public sewer and water	44	12	7	43	9	6
h. Preserving more open space within residential developments	51	10	2	43	9	7
i. Improving building facades in the Region	34	14	14	28	14	13
j. Using Transfer of Development Rights (a property owner in an area targeted for preservation sells his rights to develop his/her property to a property owner in an area designated for growth)	20	20	20	13	27	15
k. Lakeview Drive Extension	10	27	22	9	21	26

<u>Initiative or Idea</u>	<u>Is it Important to You?</u>			<u>Do you Support it?</u>		
	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
l. Preserving groundwater recharge areas	46	2	13	42	2	12
m. Providing additional pedestrian and/or bicycle trails	25	27	9	25	24	8

19. What is your age?

18-24	1
25-44	18
45-64	32
65 and older	9

20. Please list any additional comments you have or any other issues in the region that are important to address.

**GERMANY, LITTLESTOWN, UNION
COMPREHENSIVE PLAN
QUESTIONNAIRE**

1. In what Township or Borough in this region do you live or own property?

Germany Township	
Littlestown Borough	137
Union Township	

2. How long have you lived in your municipality:

5 years or less	43
6-10 years	27
11-20 years	14
more than 20 years	52

3. What do you like most about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like most.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Schools	2	9	14	12	Public Safety	3	10	11	10
Recreational Opportunities	1	1	3	2	Job Opportunities	0	0	2	0
Taxes	0	1	0	2	Cultural Facilities	0	0	0	0
Rural Atmosphere/Open Space	3	12	17	16	Roads	0	0	0	0
Housing Availability & Choice	0	0	1	4	Access to Work	1	6	7	2
Farmland	0	1	3	8	Access to Shopping	0	2	6	5
Emergency Services	0	5	8	11	Small Town Atmosphere	5	59	19	16
Walkability	2	8	19	12	Residential Areas	0	3	5	5
Visual Appearance	1	1	2	6					

4. What do you like least about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like least.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Traffic	4	24	15	8	Loss of Farmland	2	4	9	18
Taxes	2	34	10	8	Cultural Facilities	0	1	3	3
Residential Developments	2	6	8	11	Recreational Opportunities	1	0	0	3
Public Safety	0	1	1	0	Schools	0	1	0	0
Roads	4	7	17	9	Pollution	0	0	1	0
Job Opportunities	2	9	5	8	Sewage Facilities	0	1	0	0
Rate of Development	3	12	17	11	Water Supply	0	2	5	6
Loss of Open Space	2	5	10	15	Access to Work	0	1	4	1

Emergency Services	0	0	1	5	Access to Shopping	2	1	2	3
Housing Availability & Choice	0	2	1	3	Availability of Public Transportation	1	1	4	5
Visual Appearance	1	5	5	0					

5. What do you think are the most important planning issues needing to be addressed within the next 10 years? (Please rank three 1, 2 and 3, 1 being the issue you think is most important.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Managing growth	1	48	17	8
Preserving environmentally sensitive areas such as woodlands, wetlands, and steep slopes	1	4	12	5
Transportation system upgrades	0	5	3	6
Preservation of Farmland	2	8	9	9
Sewage disposal	1	0	0	1
Drinking Water Supply (quantity)	1	19	13	10
Zoning	1	1	2	1
Encouraging balanced development	1	4	7	13
Preservation of open space	1	4	9	11
Preserving historically significant buildings and structures	1	0	1	2
Water quality protection	1	3	6	4
Tax base	0	13	13	9
Police/Crime Watch	1	1	9	8
Promoting vitality of Littlestown Borough downtown	1	4	14	11
Providing recreational facilities	1	1	1	12
Stormwater management	0	0	0	0
Watershed management	0	1	0	1
Emergency services	1	3	3	6

6. Do you support the use of tax dollars toward the following?

Protection of environmental resources?	Yes 101	No 22
Farmland preservation/development rights purchase?	Yes 86	No 35
Preservation and upkeep of more open space?	Yes 88	No 36
Preservation of historic resources?	Yes 72	No 47
Road Improvements?	Yes 128	No 7
Public sewer and water improvements?	Yes 118	No 13
Promoting economic development?	Yes 68	No 53
Enhancing walkability in the region?	Yes 68	No 53
Parks and recreation	Yes 97	No 27
Biking, hiking, and walking opportunities	Yes 85	No 39

7. a. Do you believe that additional public parks and recreation facilities should be provided in the Germany-Littlestown-Union region?

Yes	64
No	39
Not sure	33

- b. If you answered yes, please indicate the most needed park and recreation facilities. (Please check three and rank them 1 to 3, 1 being the most important.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Parks with facilities or areas for fishing, hunting, camping, boating, etc.	2	15	5	7
Trails for hiking, biking, horseback riding	1	12	6	5
Nature reserves	1	2	10	6
Preserving historic sites	0	1	4	2
Playgrounds for children	1	12	9	5
Areas for field sports such as softball, baseball, football, soccer, etc.	0	7	8	5
Community recreation centers	2	10	7	10
Swimming pools	2	3	1	5
Golf courses	0	0	2	1
Basketball Courts	0	1	4	1
Tennis Courts	0	0	1	2
Outdoor ice skating rinks	1	0	1	3
Picnic areas	1	2	6	7
Other _____				

8. Was the increase in residential development in this region over the last ten years....

Acceptable	<u>42</u>
Too high	<u>91</u>
Too low	<u>1</u>

9. Do you think it is important to regulate more strictly signage along road corridors in the region?

Yes	71
No	27
Not Sure	38

10. Do you think it is important to require future non-residential redevelopment in the region to place more emphasis on amenities such as landscaping, attractive signage, decorative lighting and benches?

Yes	73
No	29
Not Sure	33

11. a. Is it important to preserve remaining farmland in the region?

Yes	127
No	3
Not Sure	6

b. If you answered yes, why do you feel it is important to preserve farmland?

1 I live on a farm.

60 I like to purchase local produce.

90 I want farmland available for future generations to farm.

59 I like to view farmland.

85 I want to limit development which occurs in the community.

1 Other _____

12. Do you think it is important to improve roadside appearance....

	<u>Yes</u>	<u>No</u>
Entering the region from the south along Frederick Pike?	65	51
Entering the region from the south along Baltimore Pike?	74	47
Entering the region from the west along Baltimore Pike?	67	52
Entering the region from the east along Hanover Pike?	58	59

13. Should the following be promoted in the region?

Research and development firms	Yes	52	No	60
Light Manufacturing	Yes	77	No	42
Tourism and cultural attractions	Yes	58	No	56
Health services	Yes	106	No	18
Legal and Financial services	Yes	56	No	57
Personal services	Yes	75	No	37
Agriculture	Yes	101	No	15
Restaurants	Yes	85	No	37

Warehousing and distribution facilities	Yes	40	No	75
Big Box Retail	Yes	17	No	90
Department Stores	Yes	51	No	66
Specialty Retail	Yes	51	No	59
Outlet Stores	Yes	42	No	75
Wholesale trade	Yes	33	No	70
Technology based firms	Yes	64	No	53
Cultural facilities	Yes	56	No	52
Medium to Heavy Manufacturing	Yes	45	No	70
Offices to support local businesses	Yes	69	No	43
Corporate offices	Yes	45	No	64
Professional service firms	Yes	61	No	50
Information processing firms	Yes	48	No	60

14. Check any of the following which you think are transportation problems in the region.

Inadequate parking in Littlestown	<u>62</u>
Inadequate public transportation	<u>56</u>
Lack of bikeways	<u>43</u>
Lack of sidewalks or walking paths	<u>20</u>
Traveling Route 97 (Baltimore Pike)	<u>41</u>
Traveling Route 194 (Frederick Pike)	<u>26</u>
Traveling Route 194 (Hanover Pike)	<u>29</u>
Traveling Route 116 (Hanover Road)	<u>25</u>
Traveling Whitehall Road	<u>30</u>
Traveling Littlestown Road	<u>12</u>
Traveling Bollinger Road	<u>9</u>
Traveling Mehring Road	<u>9</u>
Queen Street – King Street Intersection in Littlestown	<u>96</u>
Bollinger Road – Baltimore Pike Intersection	<u>14</u>
Mehring Road – Hanover Pike Intersection	<u>8</u>
Pine Grove Road – Hanover Pike Intersection	<u>21</u>
Littlestown Road – Hanover Road Intersection	<u>13</u>
Whitehall Road – Littlestown Road Intersection	<u>37</u>
Whitehall Road – Baltimore Pike Intersection	<u>53</u>
Parkway Drive travel speeds	<u>18</u>
Bashoar School Road – Hanover Pike Intersection	<u>19</u>
Sight distance alignment on Route 116 at Bender Road	<u>22</u>
Harney Road – Teeter Road Intersection	<u>28</u>
Other _____	<u>3</u>

15. What types of housing do you feel are needed in the Germany-Littlestown-Union Region?

	<u>Yes</u>	<u>No</u>
Housing for senior citizens	92	24
Housing for young couples	39	48
Housing for families with school children	54	37
Housing for singles	29	55
Housing for empty nesters	38	50
Owner-occupied units	45	48
Rental units	27	66
Other _____		

16. In some areas of the country, planners are designing developments using alternative concepts to standard single family subdivisions. Listed below are some of these concepts. Should these concepts be applied to the Germany-Littlestown-Union region?

	<u>Yes</u>	<u>No</u>
Cluster design. (Reducing lot sizes for houses and grouping the amount of lot size reduction into common open space.)	26	85
Traditional neighborhood development. (Making new development patterns look like they did in towns decades ago)	78	32
Mixed use. (This means creating development that includes a mix of residential and commercial uses or a mix of commercial and industrial uses)	31	71
Borough Extension. (Extending Borough development patterns into adjoining areas of the Townships)	45	59
Conservation Development (Special natural and historic features of a tract are preserved as open space; houses are located to maximize views of open space, and road systems and lot lines are established to conform to open space and house locations)	93	22

17. Every municipality has its “treasures” – places that are unique because of their beauty, appeal, historic character, or because of what they offer the citizens of the municipality. These are special places that citizens often want to preserve for future generations. Please identify up to five such places in the Germany-Littlestown-Union region. You may want to name a village, a historic building, an agricultural area, a public building, a business, a stream valley, an area of countryside which is especially beautiful, or other location you consider a “treasure”.

1. _____

2. _____
3. _____
4. _____
5. _____

18. Certain initiatives or ideas have been mentioned in the region. Please let us know whether you think these initiatives and ideas are important to you and whether you support them.

<u>Initiative or Idea</u>	<u>Is it Important to You?</u>			<u>Do you Support it?</u>		
	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
a. Preserving open space corridors along the Alloway Creek and the South Branch of the Conewago Creek	61	14	42	63	7	38
b. Maintaining rural character in Germany Township	74	12	29	69	8	25
c. Maintaining rural character in Union Township	73	12	26	67	6	25
d. Revitalizing downtown Littlestown	93	16	14	87	9	21
e. Preserving the “horse farm” area	98	17	7	84	13	11
f. Constructing a Littlestown By-Pass	72	48	26	59	21	30
g. Coordinating residential and commercial growth with availability of public sewer and water	106	12	7	92	9	9
h. Preserving more open space within residential developments	88	16	17	87	8	12
i. Improving building facades in the Region	71	26	22	67	13	20
j. Using Transfer of Development Rights (a property owner in an area targeted for preservation sells his rights to develop his/her property to a property owner in an area designated for growth)	25	33	52	16	35	51
k. Lakeview Drive Extension	32	35	48	24	26	48

<u>Initiative or Idea</u>	<u>Is it Important to You?</u>			<u>Do you Support it?</u>		
	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
l. Preserving groundwater recharge areas	82	6	28	70	4	28
m. Providing additional pedestrian and/or bicycle trails	65	30	25	61	22	23

19. What is your age?

18-24	4
25-44	52
45-64	43
65 and older	34

20. Please list any additional comments you have or any other issues in the region that are important to address.

**GERMANY, LITTLESTOWN, UNION
COMPREHENSIVE PLAN
QUESTIONNAIRE**

1. In what Township or Borough in this region do you live or own property?

Germany Township	
Littlestown Borough	
Union Township	95

2. How long have you lived in your municipality:

5 years or less	26
6-10 years	28
11-20 years	18
more than 20 years	22

3. What do you like most about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like most.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Schools	1	5	3	5	Public Safety	0	1	3	6
Recreational Opportunities	0	0	0	0	Job Opportunities	0	0	1	1
Taxes	0	2	2	6	Cultural Facilities	0	0	0	0
Rural Atmosphere/Open Space	6	45	13	10	Roads	1	0	0	0
Housing Availability & Choice	0	0	2	2	Access to Work	0	1	5	4
Farmland	1	8	19	7	Access to Shopping	2	1	4	6
Emergency Services	1	1	0	0	Small Town Atmosphere	6	14	14	14
Walkability	0	1	6	6	Residential Areas	3	2	3	3
Visual Appearance	4	2	6	11					

4. What do you like least about living in your Township or Borough?
(Please rank three 1, 2 and 3, 1 being what you like least.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>		<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Traffic	1	10	8	7	Loss of Farmland	3	6	7	14
Taxes	0	30	8	8	Cultural Facilities	1	1	2	4
Residential Developments	3	2	6	8	Recreational Opportunities	0	2	3	2
Public Safety	0	4	1	3	Schools	0	2	1	1
Roads	0	5	7	3	Pollution	0	1	2	2
Job Opportunities	0	4	3	4	Sewage Facilities	0	1	0	4
Rate of Development	3	9	9	5	Water Supply	1	0	1	2
Loss of Open Space	2	3	14	8	Access to Work	0	0	0	0

Emergency Services	1	1	4	2	Access to Shopping	0	2	0	1
Housing Availability & Choice	0	0	0	1	Availability of Public Transportation	2	1	2	1
Visual Appearance	0	0	2	1					

5. What do you think are the most important planning issues needing to be addressed within the next 10 years? (Please rank three 1, 2 and 3, 1 being the issue you think is most important.)

	<u>X</u>	<u>1</u>	<u>2</u>	<u>3</u>
Managing growth	3	38	14	10
Preserving environmentally sensitive areas such as woodlands, wetlands, and steep slopes	0	3	9	5
Transportation system upgrades	1	2	4	1
Preservation of Farmland	3	4	10	15
Sewage disposal	0	2	0	1
Drinking Water Supply (quantity)	0	3	8	6
Zoning	0	4	5	0
Encouraging balanced development	2	3	5	5
Preservation of open space	2	5	3	8
Preserving historically significant buildings and structures	0	0	0	2
Water quality protection	1	6	6	5
Tax base	0	10	2	13
Police/Crime Watch	0	2	3	2
Promoting vitality of Littlestown Borough downtown	0	1	4	5
Providing recreational facilities	0	1	0	1
Stormwater management	0	0	2	0
Watershed management	0	0	0	1
Emergency services	0	0	8	4
Providing quality school system			1	
Waste management and recycling				1

6. Do you support the use of tax dollars toward the following?

Protection of environmental resources?	Yes 69	No 16
Farmland preservation/development rights purchase?	Yes 66	No 26
Preservation and upkeep of more open space?	Yes 64	No 27
Preservation of historic resources?	Yes 43	No 46
Road Improvements?	Yes 84	No 9
Public sewer and water improvements?	Yes 64	No 24
Promoting economic development?	Yes 44	No 45
Enhancing walkability in the region?	Yes 35	No 54
Parks and recreation	Yes 57	No 32

10. Do you think it is important to require future non-residential redevelopment in the region to place more emphasis on amenities such as landscaping, attractive signage, decorative lighting and benches?

Yes	58
No	24
Not Sure	11

11. a. Is it important to preserve remaining farmland in the region?

Yes	84
No	4
Not Sure	5

b. If you answered yes, why do you feel it is important to preserve farmland?

5 I live on a farm.

20 I like to purchase local produce.

65 I want farmland available for future generations to farm.

48 I like to view farmland.

55 I want to limit development which occurs in the community.

_____ Other _____

12. Do you think it is important to improve roadside appearance....

	<u>Yes</u>	<u>No</u>
Entering the region from the south along Frederick Pike?	50	43
Entering the region from the south along Baltimore Pike?	51	41
Entering the region from the west along Baltimore Pike?	47	43
Entering the region from the east along Hanover Pike?	36	54

13. Should the following be promoted in the region?

Research and development firms	Yes	34	No	52
Light Manufacturing	Yes	55	No	32
Tourism and cultural attractions	Yes	41	No	48
Health services	Yes	72	No	19
Legal and Financial services	Yes	35	No	51

Personal services	Yes	43	No	43
Agriculture	Yes	75	No	14
Restaurants	Yes	47	No	40
Warehousing and distribution facilities	Yes	22	No	63
Big Box Retail	Yes	7	No	74
Department Stores	Yes	18	No	67
Specialty Retail	Yes	34	No	55
Outlet Stores	Yes	16	No	70
Wholesale trade	Yes	33	No	51
Technology based firms	Yes	51	No	35
Cultural facilities	Yes	41	No	43
Medium to Heavy Manufacturing	Yes	21	No	66
Offices to support local businesses	Yes	51	No	36
Corporate offices	Yes	32	No	54
Professional service firms	Yes	39	No	46
Information processing firms	Yes	36	No	52

14. Check any of the following which you think are transportation problems in the region.

Inadequate parking in Littlestown	<u>32</u>
Inadequate public transportation	<u>24</u>
Lack of bikeways	<u>30</u>
Lack of sidewalks or walking paths	<u>18</u>
Traveling Route 97 (Baltimore Pike)	<u>14</u>
Traveling Route 194 (Frederick Pike)	<u>9</u>
Traveling Route 194 (Hanover Pike)	<u>15</u>
Traveling Route 116 (Hanover Road)	<u>10</u>
Traveling Whitehall Road	<u>19</u>
Traveling Littlestown Road	<u>7</u>
Traveling Bollinger Road	<u>10</u>
Traveling Mehring Road	<u>8</u>
Queen Street – King Street Intersection in Littlestown	<u>46</u>
Bollinger Road – Baltimore Pike Intersection	<u>10</u>
Mehring Road – Hanover Pike Intersection	<u>4</u>
Pine Grove Road – Hanover Pike Intersection	<u>23</u>
Littlestown Road – Hanover Road Intersection	<u>10</u>
Whitehall Road – Littlestown Road Intersection	<u>15</u>
Whitehall Road – Baltimore Pike Intersection	<u>23</u>
Parkway Drive travel speeds	<u>12</u>
Bashoar School Road – Hanover Pike Intersection	<u>27</u>
Sight distance alignment on Route 116 at Bender Road	<u>19</u>
Harney Road – Teeter Road Intersection	<u>11</u>
Other _____	_____

15. What types of housing do you feel are needed in the Germany-Littlestown-Union Region?

	<u>Yes</u>	<u>No</u>
Housing for senior citizens	54	20
Housing for young couples	32	30
Housing for families with school children	35	30
Housing for singles	17	40
Housing for empty nesters	23	37
Owner-occupied units	32	30
Rental units	14	45
Other _____		

16. In some areas of the country, planners are designing developments using alternative concepts to standard single family subdivisions. Listed below are some of these concepts. Should these concepts be applied to the Germany-Littlestown-Union region?

	<u>Yes</u>	<u>No</u>
Cluster design. (Reducing lot sizes for houses and grouping the amount of lot size reduction into common open space.)	13	72
Traditional neighborhood development. (Making new development patterns look like they did in towns decades ago)	54	30
Mixed use. (This means creating development that includes a mix of residential and commercial uses or a mix of commercial and industrial uses)	22	63
Borough Extension. (Extending Borough development patterns into adjoining areas of the Townships)	16	66
Conservation Development (Special natural and historic features of a tract are preserved as open space; houses are located to maximize views of open space, and road systems and lot lines are established to conform to open space and house locations)	76	11

17. Every municipality has its “treasures” – places that are unique because of their beauty, appeal, historic character, or because of what they offer the citizens of the municipality. These are special places that citizens often want to preserve for future generations. Please identify up to five such places in the Germany-Littlestown-Union region. You may want to name a village, a historic building, an agricultural area, a public building, a business, a stream valley, an area of countryside which is especially beautiful, or other location you consider a “treasure”.

1. _____

2. _____
3. _____
4. _____
5. _____

18. Certain initiatives or ideas have been mentioned in the region. Please let us know whether you think these initiatives and ideas are important to you and whether you support them.

<u>Initiative or Idea</u>	<u>Is it Important to You?</u>			<u>Do you Support it?</u>		
	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
a. Preserving open space corridors along the Alloway Creek and the South Branch of the Conewago Creek	51	5	30	56	2	23
b. Maintaining rural character in Germany Township	63	3	16	60	3	17
c. Maintaining rural character in Union Township	89	1	0	84	2	3
d. Revitalizing downtown Littlestown	56	15	16	63	8	14
e. Preserving the “horse farm” area	82	5	6	69	3	12
f. Constructing a Littlestown By-Pass	38	37	14	40	36	12
g. Coordinating residential and commercial growth with availability of public sewer and water	59	16	11	59	14	11
h. Preserving more open space within residential developments	70	9	10	69	5	11
i. Improving building facades in the Region	48	18	22	47	13	20
j. Using Transfer of Development Rights (a property owner in an area targeted for preservation sells his rights to develop his/her property to a property owner in an area designated for growth)	22	37	25	9	47	24
k. Lakeview Drive Extension	16	26	40	13	23	39

<u>Initiative or Idea</u>	<u>Is it Important to You?</u>			<u>Do you Support it?</u>		
	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
l. Preserving groundwater recharge areas	63	2	20	63	1	20
m. Providing additional pedestrian and/or bicycle trails	45	26	16	46	18	18

19. What is your age?

18-24	2
25-44	26
45-64	43
65 and older	23

20. Please list any additional comments you have or any other issues in the region that are important to address.

APPENDIX 2
TRANSPORTATION IMPACT FEES

**SUMMARY OF THE STEPS ASSOCIATED WITH IMPLEMENTING A
TRAFFIC IMPACT FEE ORDINANCE**

<u>Task</u>	Responsible Entity
1. Establish Transportation Service Area and appoint <i>Note: Committee must be at least 7 members, and can be the <u>entire</u> Planning Commission,</i>	Governing Body
2. Public Notice of Intent to implement a Traffic Impact Fee Ordinance. <i>Note: This allows for fees to start being collected <u>and</u> starts an 18 month clock, by which time the Ordinance must be adopted.</i>	Governing Body
3. Committee oversees preparation of Land Use Assumptions plan, holds public hearing, forwards to Governing Body for adoption.	Impact Fee Advisory Committee
4. Committee oversees preparation of Roadway Sufficiency Analysis and forwards to Governing Body for approval.	Impact Fee Advisory Committee
5. Committee oversees preparation of Capital Improvements Plan, holds public hearing, forwards to Governing Body for approval.	Impact Fee Advisory Committee
6. Impact Fee Ordinance text developed and Ordinance adopted.	Governing Body

TRAFFIC IMPACT FEE ADVISORY COMMITTEE FUNCTIONS

- Develop Land Use Assumptions Report
 - Describe existing land uses
 - Project land use changes within the next 5 to 10 years
 - Project development densities and population growth rates
 - Submit to County Planning Commission for review
 - Hold public hearing

- Forward to Governing Body for approval
- Develop Roadway Sufficiency Analysis
 - Identify intersections and/or roads that will be affected by development
 - Collect traffic data
 - Analyze existing conditions [Level of Service (LOS)]
 - Identify preferred LOS
 - Identify existing deficiencies and required improvements
 - Project conditions with “pass-through” trips
 - Identify deficiencies and required improvements
 - Project conditions with new development trips
 - Identify deficiencies and required improvements
 - Forward to Governing Body for approval
- Develop Capital Improvements Plan
 - Identify needed improvements and proportionate costs according to:
 - Needed for existing conditions
 - Needed to accommodate pass-through traffic
 - Needed to accommodate development generated traffic
 - Identify time frame for construction
 - Identify other funding sources (e.g., PENNDOT, Federal funds)
 - Hold public hearing
 - Forward to Governing Body for approval

TRAFFIC IMPACT FEE BASICS

- Allows collecting dollars for “off site” roadway improvements from developers
- Will ultimately require matching PENNDOT or municipal funds for improvements, based on the proportionate share of traffic
- Municipality sets study area, which may ultimately be broken up into one or more Transportation Service Areas (TSA); some of the study area can be eliminated
- Each TSA must be less than 7 square miles
- First step is to determine the study area and appoint an advisory committee
- Advisory committee to be at least 7 members with 40% representation of the builder/realtor community
 - Must be residents or those doing business in the municipality
 - Cannot be municipal officials or employees

- After committee appointed, study must be done within 18 months, but all development plans filed in that period are subject to the fee
- Background studies include
 - Land Use Assumptions
 - Roadway Sufficiency Analysis
 - Capital Improvements Plan
- Collected monies must be used within certain timeframe, set by Capital Improvements Plan
- Partial cost of the Roadway Sufficiency Analysis can be recouped through the collected fees

Adoption Process

for Transportation Impact Fee Ordinance

1. Upon completion of the draft of Land Use Assumptions report, the Advisory Committee must forward copies to the Monroe County Planning Commission, the School District, and each of the adjoining municipalities. Each of these entities has a minimum of thirty (30) days to review the document and submit comments to the municipality.
2. At the conclusion of the review period, the Advisory Committee must conduct a hearing (advertised in compliance with MPC) to present the assumptions and receive comments from municipal residents and the general public. Comments received from the other review entities (those listed above) must be addressed at this hearing.
3. Following the public hearing, the Governing Body must pass a resolution that approves, approves with specific modifications, or disapproves the report. Unless the resolution disapproves the report, it must include a provision stating that the report is adopted as an official policy of the municipality.
4. Upon adoption of the Land Use Assumptions report, the Advisory Committee shall develop a Roadway Sufficiency Analysis to establish the existing level of infrastructure sufficiency and preferred levels of services within the Transportation Service Area (TSA) established by the Land Use Assumptions report. The Roadway Sufficiency Analysis must address every road where there is an anticipated need for improvements due to projected future development. *Roads not addressed by the Roadway Sufficiency Analysis are deemed to be unaffected by future development; impact fees collected pursuant to this Analysis may only be spent to improve roads addressed in the Analysis.*

5. At the completion of the Roadway Sufficiency Analysis, the Advisory Committee shall submit it to the Governing Body. The Governing Body must pass a resolution that approves, approves with specific modifications, or disapproves the Analysis. No public hearing or review by outside agencies is required at this stage, although the resolution must be presented and voted upon at a duly advertised public meeting, such as any regular Governing Body meeting.
6. Based upon the Land Use Assumptions report and the Roadway Sufficiency Analysis, the Advisory Committee shall identify specific capital projects for inclusion in the municipality's Transportation Capital Improvements Plan for the Transportation Service Area. The plan must include a projected timetable and budget for the identified projects in addition to the other elements required by the MPC.
7. The completed draft of the Transportation Capital Improvements Plan must be made available for public inspection for a period of not less than ten (10) working days. Following this inspection period, the Advisory Committee must hold at least one (1) public hearing to present the Plan formally to the public and to receive comments from them. This hearing must be advertised as required by the MPC.
8. After the public hearing(s), the Governing Body may make revisions to the draft Plan that are consistent with comments received at the hearing(s). The Governing Body must then adopt the Plan pursuant to municipal procedures.² If the Plan proposes improvements to be funded at least in part by impact fees for Federal aid or state highways, the Plan must be approved by PENNDOT and, if necessary, the U.S. Dept. of Transportation.
9. Once the Plan is adopted, the municipality may establish an Impact Fee Ordinance meeting the requirements of the MPC. The Ordinance must establish the boundaries of the Transportation Service Area and a fee schedule. The draft Ordinance must be available for public inspection for not less than ten (10) working days prior to the adoption date. The collection of fees may be retroactive for a period of up to eighteen (18) months prior to the date of enactment of the Ordinance.

² The MPC specifically requires that the Land Use Assumptions report and the Roadway Sufficiency Analysis be approved and adopted by resolution. The MPC provisions addressing the adoption of the Transportation Capital Improvements Plan make no reference to the means of adoption.

APPENDIX 3

ADDITIONAL POPULATION AND HOUSING DATA

TABLE 1

GENDER

Littlestown Borough, Germany Township, and Union Township

ADAMS COUNTY

2000

Municipality	Total Population	Males		Females	
		Number	Percent	Number	Percent
Littlestown Borough	3,947	1,875	47.5	2,072	52.2
Germany Township	2,269	1,125	49.6	1,144	50.4
Union Township	2,989	1,476	49.4	1,513	50.6
Adams County	91,292	44,787	49.1	46,505	50.9

Source: U.S. Census Bureau; Profile of General Demographic Characteristics: 2000

TABLE 2**HOUSING TYPE****LITTLESTOWN BOROUGH, GERMANY TOWNSHIP, AND UNION TOWNSHIP
ADAMS COUNTY****2000**

<u>TYPE</u>	Littlestown Borough		Germany Township		Union Township	
	Number	Percent	Number	Percent	Number	Percent
Single Family Detached	1,004	58.4	724	91.9	996	89.6
Single Family Attached	256	14.9	12	1.5	28	2.5
2-4 Unit Structure	326	19.0	24	3.1	36	3.2
5-9 Unit Structure	61	3.5	-	-	-	-
10 or more Unit Structure	72	4.2	-	-	-	-
Mobile Home and Others	-	-	28	3.6	52	4.7
Total	1,719		788		1,112	

Source: U.S. Census Bureau; Profile of General Demographic Characteristics: 2000.

TABLE 3

YEAR MOVED INTO HOUSING UNIT

**LITTLESTOWN BOROUGH, GERMANY TOWNSHIP, AND UNION TOWNSHIP
ADAMS COUNTY**

2000

Year Householder Moved into Unit/ Number of Years Owned Unit	Littlestown Borough	Germany Township	Union Township
Total Occupied Units	1,612	773	1,074
1999 to March 2000 (apprx. 1 year)	322	107	112
1995 to 1998 (5 to 3 years)	482	150	247
1990 to 1994 (10 to 6 years)	259	103	274
1980 to 1989 (20 to 11 years)	214	208	188
1970 to 1979 (30 to 19 years)	116	101	133
1969 or earlier	219	104	120

Source: U.S. Census Bureau; Profile of General Demographic Characteristics: 2000.

APPENDIX 4

WATER SYSTEM CAPACITY ANALYSIS REPORT

**WASTEWATER TREATMENT PLANT
CAPACITY ANALYSIS REPORT**

**Wastewater Treatment Plant Capacity Analysis Report
for the Borough of Littlestown,
Union and Germany Townships, Adams County, Pennsylvania**

I. Executive Summary

The Littlestown Borough Authority owns, and leases back, to the Littlestown Borough Council a 1.0 million gallon per day (MGD) secondary activated sludge Wastewater Treatment Facility (see Exhibit 1). Service is provided to Littlestown Borough and portions of Union and Germany Townships. The original treatment facility and collection system was built in the 1940's, with recent upgrades in 1988 and 2000 and 2003. During the past seven to ten years the Borough and surrounding Townships have experienced significant growth; much of which has resulted in the expansion of the sanitary sewage collection system of the Authority.

The age and condition of the original collection system contributes significant amounts of inflow and infiltration (I/I) to the Wastewater Treatment Plant. It is estimated that as much as 40% of the flow at the plant may be attributed to I/I consuming valuable allocatable capacity. The Annual Wasteload Management Reports for this facility during the past five years project flows below capacity within the next 5 years; however, the majority of these years are reflective of record drought conditions. Prior years, reflective of wet weather conditions have projected hydraulic overloads, primarily due to wet weather and I/I conditions. The 2002 Report reflects an annual average flow of 0.415 MGD, with a five-year projection of 0.692 MGD. The more recent years are reflective of drought year conditions thus significantly reducing the peak flow to annual average flow utilized in projections.

Both Union Township and Littlestown Borough have received requests over the past several years from developers for additional sewer capacity at the Authority's plant. The Authority has been reluctant to grant such requests due to potential/projected hydraulic overload concerns. Planned build out of approved developments within the Borough boundaries will consume a significant portion of the available capacity and may exceed capacity during wet weather years. Union Township projects additional sanitary sewer service for potentially 500 homes (183,000 gallons/day). Presently, there is a moratorium on new sewer connections outside of the Borough itself except for those with previously reserved capacity.

In an effort to work cooperatively and develop a planning strategy that reaches across municipal boundaries, Littlestown, Union and Germany Townships have undertaken a comprehensive evaluation of the existing sanitary sewer facilities and projected future needs. This analysis was conducted using the criteria outlined in the Pennsylvania Department of Environmental Protection's (DEP) Domestic Wastewater Facilities Manual to determine performance-limiting factors of treatment unit processes. Historical data on the performance of the treatment plant was also reviewed and field inspections of the facilities were completed. Preliminary results indicate that the aerobic digester, plant water pumps, oxidation ditches, blower system, and final clarifiers are performance limited for flows above the currently permitted limit of 1.0 MGD.

II. Existing System Evaluation

The Wastewater Treatment Facility has a permitted annual average flow of 1.0 MGD (NPDES Permit No. PA 0021229, See Appendix A) with a wet weather flow of 1.3 MGD. Waste streams are pumped to the Treatment Facility by five (5) off-site pump stations. Flow through the plant is by gravity. Wastewater undergoes preliminary treatment and, if necessary, flow equalization prior to secondary treatment. The secondary treatment process utilizes the oxidation ditch configuration of the extended air activated sludge process. Flocculation and coagulation is provided for by the addition of alum and polymer. Mixed liquor is settled in the final clarifiers and settled sludge is withdrawn into a return sludge wet well by telescopic valves. Effluent from the final clarifiers is disinfected by an ultraviolet light system, prior to discharge into an unnamed tributary of Alloway Creek.

Activated sludge is diverted from the return line and pumped (wasted) into the aerobic digester. Digested sludge flows by gravity into one of two gravity thickeners. Supernatant from the thickeners is decanted and returned to the headworks of the plant; and thickened sludge is pumped to either a belt filter press or reed beds. Dewatered sludge is hauled to the Modern Landfill.

The performance of the plant has generally been good, with effluent pollutant concentrations at or below 10 mg/l CBOD5 (Carbonaceous biochemical oxygen demand) and TSS (Total Suspended Solids). The only violations that have occurred can be attributed to solids carryover in the secondary clarifiers during wet weather conditions.

Major treatment unit and collection pump station processes were evaluated to assess their general ability to achieve desired performance (NPDES compliance) levels as currently designed and permitted and at higher projected flows. Data on the performance of the Treatment Facility was provided by the Littlestown Borough staff. Major unit processes were evaluated based on their performance and their limiting factors under the DEP's Domestic Wastewater Facilities Manual. Recommendations are provided, based upon these issues.

Sanitary Sewer Collection System

The original collection system was constructed in the 1940's, and consists of approximately 15 miles of gravity sewers and force main interceptors much of which was constructed of two-foot lengths of terra cotta pipe with slip seal joints. There are five (5) pumping stations within the system. None of the pump stations are at capacity. The South Queen Street pump station is the oldest station and was rehabilitated in 1988. Inflow and infiltration within this drainage basin is excessive; some of the clay pipe within this basin may be located within springhead areas. Preliminary diagnostic work has been conducted in order to locate the problem spots within this basin. The Borough of Littlestown owns television inspection equipment and has conducted internal television inspections of this area and will continue to evaluate the collection system as wet weather conditions allow. A major sewer system rehabilitation project is scheduled to begin

in the fall of 2003 and is to include replacement of existing terra cotta pipe and rehabilitation of manholes in the South Queen Street drainage basin.

The South Queen Street pump station is marginal due to the severely deteriorated pipe within this service area. However, the capacity of the pumping equipment at this station **is not** limiting and thus when infiltration is corrected, this station should receive a very good rating.

Wastewater Treatment Facilities

A twenty-one (21) inch line conveys the influent wastewater to the treatment plant. Four (4) 100,000-gallon flow equalization basins are provided to store excessive flows during wet weather events. These units operate in an “off-line” mode. Excessive flows enter the basins via a two foot six inch (2' 6”) wide weir plate. The DEP Part 2 permit application indicates a maximum available capacity of 509,000 gallons; aeration is provided by coarse bubble diffusers. The air supply (blowers) is shared with other treatment processes (grit system, aerobic digester, sludge storage, etc.). Depending on the projected future flow, an additional blower unit may be required; however this system is very adequate for the current permitted flow.

An aerated grit channel is provided to remove small (>5mm) particles from the wastestream that may be detrimental to pumping equipment. Control of the velocity of the wastewater within the grit system is by an adjustable weir. Velocity is slowed to allow the small particles to settle out into the bottom of the chamber where they are mechanically removed. The DEP Part 2 permit application indicates a maximum available capacity of 1.76 MGD. The hydraulic capacity of this system is very adequate; operational conditions regarding the adjustment of the air supply for this system is marginal. Insufficient controls are available to regulate airflows.

A fine screen removes, compacts and dewater debris floating within the wastestream. The screen has a peak flow of 3.0 million gallons per day (MGD) with ¼ inch bar spacing. Screenings are washed with organic materials being returned to the influent flow. The device is controlled both by ultrasonic measurement of headloss and a manual timing override device. This unit is adequate for existing and projected flows.

Two oxidation ditches are provided for the activated sludge treatment process. Each unit has a hydraulic capacity of 440,000 gallons with a designed organic capacity of 1,836 pounds per day (total) of BOD5. Mechanical aeration is provided through four (4) partially submerged rotors, each capable of producing 96 pounds of oxygen per hour. These ditches operate in the extended aeration mode (24 hour detention time) thereby allowing nitrification of the wastewater for ammonia nitrogen reduction. The maximum detention time without return activated sludge is 24.0 hours. While treatment is satisfactory, this process is limited to a flow of 1.0 MGD due to detention time limitations; higher flows will not allow adequate time for the nitrification process to occur.

Two chemicals may be added to facilitate flocculation and coagulation of the activated sludge. Alum may be added at the discharge side of the first rotor in each ditch; polymer may be injected

in the effluent line of the oxidations ditches. Chemical addition is more than adequate for flows up to 2.0 MGD. Chemical addition is not currently utilized, as treatment efficiencies are exceptional without the need for further enhancement.

There are two (2) fifty foot diameter secondary clarifiers at this facility. The DEP Part 2 permit application indicates a maximum available capacity of 349,550 gallons with a weir overflow rate of 2,000 gallons per day per square foot average. Modifications to the sludge removal mechanisms were made in 2000 allowing for better operational controls over sludge removal and balancing of each clarifier. Sludge is removed from each clarifier via an eight (8) inch sludge withdrawal pipe that is connected to a return sludge wet well. Sludge blankets in each clarifier are controlled by eight (8) inch telescoping valves located within the wet well. Sludge is pumped from the wet well to the oxidation ditches by two (2) return sludge pumps. These units are rated adequate for flows of 1.0 MGD but would require an additional unit for flows greater than 1.3 MGD due to the weir overflow rate.

There are two common wall rectangular chlorine contact tanks; one tank has been retrofitted to provide for ultraviolet light disinfection of the effluent. This unit is designed for an average flow of 1.3 MGD with a peak flow of 2.4 MGD. This unit is rated adequate for current and projected flows. The other existing unit was not retrofitted, but remains intact and is capable of being utilized for emergency conditions.

One fifty-foot diameter aerobic digester is provided for further volatile solids reduction. It has a capacity of 56,000 gallons and was converted from an anaerobic digester to an aerobic unit in 1988. Solids retention time for this unit is five days at a flow of 1.0 MGD. This unit is fair to marginal in that the DEP requirements for solids retention are a minimum of 15 days for waste activated sludge. At the present flow of 0.550 MGD this unit is not capable of meeting the requirements.

Two gravity-thickening units are provided for increased solids concentrations. Each unit was retrofitted in 2000 to provide submerged sludge removal mechanisms. These units are adequate for flows of up to 1.3 MGD.

Unit Process	Capacity	Additional Unit Required (capacity)	Cost for Construction only
Grit channel	1.0MGD	Consider replacement	
Oxidation ditch(s)/appurtenances	1.0 MGD	1 (0.4 MGD)	\$809,800.00
Circular clarifier	1.0 MGD	1 (0.4 MGD)	\$709,000.00
Aerobic digester	0.4 MGD	1 (0.8 MGD)	\$395,000.00

III. Proposed Connection Area

Proposed future sanitary sewer service areas lie within Union Township, north and east of the Wastewater Treatment Facility. The first area is adjacent to the Meadowview development and is bounded by Basehoar School Road and Whitehall Road. It could potentially be served by gravity sewer lines that connect to the existing collection system of the Meadowview development (Meadowview pump station); or possibly directly into the manhole (MH A) located within the fence at the Treatment Facility northeast of the gravity thickeners. The second area lies east of the Treatment Plant along Route 194 and Mummert Drive. This area could potentially tie into the existing lines located along Route 194. Projected development for these areas is 453 EDU's (Equivalent Dwelling Units) plus 2 commercial lots; this translates into 158,550 gallons per day of residential sewage. Flows for the commercial properties are unknown. There is capacity at both the Meadowview pump station and the Basehoar School Road pump station. The DEP Part 2 permit application for the Basehoar School Road pump station indicates a maximum available capacity of 130,000 gallons per day; current flows are 25,000 gallons per day. Accounting for planned development, there appears to be a safe available capacity of 70,000 gallons per day at this pump station. The DEP Part 2 permit application for the Meadowview pump station indicates a maximum available capacity of 90,000 gallons per day. Current flows are 24,000 gallons per day with planned development accounted for; there appears to be a safe available capacity of 25,000 gallons per day.

Caution must be exercised when discussing available capacity, as the Littlestown collection system has experienced severe hydraulic surges during wet weather; the cumulative effect resulting in at, or near, capacity conditions at the wastewater treatment plant.

Inclusion of the proposed new sanitary sewer service areas of Union Township in the Littlestown system would require an amendment to the Union Township Act 537 Plan and an amendment to the Littlestown/Union Township intermunicipal service agreement. Total flows in excess of 1.0 MGD annual average at the Littlestown plant will require an upgrade to the treatment facility as herein discussed. This upgrade would require preliminary engineering plans, specifications, applications, and design reports to be prepared and submitted to the DEP.

Financing alternatives for these improvements include:

- Private (developer funded)
- Commercial loan (bank proposals)
- Municipal bonds
- PENNVEST
- RUS (Rural Utility Service of USDA)

IV. Recommendations

The recommendations contained herein are based on the data evaluated and a comparison of current facilities to the requirements of the DEP's Domestic Wastewater Facilities Manual. Where costs are shown, they do not include design, engineering, permitting or legal fees.

1. Continue I/I corrective action plan prioritizing the South Queen Street drainage basin.
2. Modify the WWTP control system for the air supply to the grit channel to allow for variable airflows. Consider purchasing a blower that would be dedicated to the grit removal system, permitting lower aeration rates.
3. Average daily flows in excess of 1.0 MGD will require the installation of a third oxidation ditch due to extended air hydraulic detention requirements. We would recommend that the new ditch be of the same size and capacity (440,000 gallons) as the existing ditches to balance the process. There is sufficient space at the site for the construction of a third unit. Estimated costs for the construction of a third ditch are \$809,800.00.
4. In evaluating the secondary clarifiers, DEP requires the utilization of **maximum monthly** flow rates for determination of surface overflow rates and loadings. Using these criteria, the existing facility has adequate settling at the **maximum monthly** flow rate of 1.3 MGD (average daily flow 1.0 MGD). Maximum monthly flows in excess of 1.3 MGD will require the construction of a third clarifier. We would recommend that the new clarifier be of the same size as the existing ones to balance the process. There is sufficient space at the site for the construction of a third unit. Estimated costs for the construction of a third clarifier are \$709,000.00.
5. The existing aerobic digester is inadequate for the currently permitted flow of 1.0 MGD. An additional digester capacity of 80,000 gallons will provide for the WWTP capacity of 1.0 MGD. Currently, staff utilizes the existing base of the old trickling filter as an overflow storage area for sludge. While this tank is adequate in that it has aeration, additional digestion capacity is needed. The estimated cost for procurement of an 80,000-gallon aboveground, glass lined tank is \$395,000.00 including aeration system.

6. The addition of the above noted equipment (oxidation ditch, clarifier, etc.) would exceed the capacity of the existing Motor Control Center (MCC) at the treatment plant. Once equipment has been finalized, a detailed electrical review of the MCC should be made in order to determine if it is more feasible to upgrade the existing system or replace it with a new system. Therefore, costs associated with this process have not been included.

**Water System Capacity Analysis Report
For the Borough of Littlestown,
Union and Germany Townships, Adams County, Pennsylvania**

I. Executive Summary

The Littlestown Borough Authority owns and leases back to the Littlestown Borough Council a water supply system consisting of eleven groundwater wells and one surface water withdrawal source. Water service is provided to Littlestown Borough and portions of Union and Germany Townships. The wellhouse for Wells 1 and 2 dates back to the late 1890's with the most recent treatment facilities (Quarry ultrafiltration) being installed in 2000. During the past seven to ten years the Borough and surrounding Townships have experienced significant growth; much of which has resulted in the expansion of the water distribution system of the Authority.

Both Union Township and Littlestown Borough have received requests over the past several years from developers for additional water service from the Authority's system. The Authority maintains a position that private developers must provide a new water supply equivalent to 525 gallons per day (gpd) per proposed dwelling unit.

In an effort to work cooperatively and develop a planning strategy that reaches across municipal boundaries, Littlestown, Union and Germany Townships have undertaken a comprehensive evaluation of the existing water system facilities and projected future needs. This analysis was conducted using the criteria outlined in the Pennsylvania Department of Environmental Protection's (DEP) Public Water Supply Manual to determine performance-limiting factors of the treatment unit processes. Historical data on the performance of the wellfields was reviewed and field inspections of the facilities were performed.

II. Existing System Evaluation

The Littlestown Borough Authority owns the water system; it is operated through a leaseback agreement to the Littlestown Borough. The water system sources consist of eleven wells and one surface withdrawal from the quarry. All water sources are injected with chlorine for disinfection and pumped into one pressure zone that feeds the system demand and two (2) elevated storage tanks. The Quarry filtration plant serves as the primary source of supply with wells being rotated in and out of service.

These sources have been sufficient through the years, but are highly impacted by drought conditions and growing consumer demands. There are no interconnections to the Littlestown Borough Authority water system. There are two (2) storage tanks utilized for finished water reservoirs within the distribution system. The Cemetery Street standpipe has a capacity of 500,000 gallons, while the East King Street standpipe has a capacity of

450,000 gallons, for a total storage capacity of 950,000 gallons. The distribution system consists of over 99,000 lineal feet (L.F.) of pipeline ranging from 4" to 10" diameter.

The system sources and pump capacities are summarized as follows:

SOURCE	CAPACITY (GPM)
Well No. 1	25
Well No. 2	60
Well No. 5	100*
Well No. 6	100*
Well No. 9	150*
Well No. 11	50
Well No. 13	75
Well A	80
Well D	30
Quarry (filtration plant)	250
Briarwood	50
Appler Wellfield	90
Heritage Hill	80

* Limited by pump capacity

Ultrafiltration Membrane Facility

The ultrafiltration treatment facility has a hydraulic capacity of 250 gallons per minute (gpm) finished flow, but is permitted for 150 gpm, thereby eliminating the need for additional tankage, etc., for future flow. A variable frequency drive (VFD) submersible pump withdraws raw water and pumps it into the process tank. The membrane flux rate is 18 gfd (gallons per foot per day) utilizing a module area of 500 square feet with three (3) Zenon ZW-500 membrane cassettes. Recirculation of the raw water is accomplished by decreasing the operational recovery ratio from 95 percent to 75 percent and directing the reject flow by gravity back into the Quarry at a location counter to the point of withdrawal, thereby eliminating the need for additional mechanical mixing equipment and electrical consumption. Chlorination is provided at three (3) locations: prechlorination of the raw water, chlorination of the backpulse, and chlorination of the finished filtered water. Presently, prechlorination has not been needed. An elevated glass fiber storage tank provides both chlorine contact time and additional storage capacity. Two (2) positive displacement rotary blowers provide 600 scfm (cubic feet per minute) @ 5.00 psig (pounds per square inch) for membrane air scouring. Flow is metered at raw, process and finished water locations. Finished water is pumped into the distribution system by two (2) high service pumps. Raw and finished water on line continuous reading turbidimeters, particle counters and chlorine analyzers monitor process control parameters and are looped in to the PLC (Programmable Logic Controller). All operating parameters are continuously monitored by the PLC and alert/alarm conditions are programmed in accordance with the PADEP requirements for this facility. When an alarm condition occurs, the PLC program will instruct the specific process component to either change operating conditions (speed up, slow down) or shut the system down.

III. Proposed Connection Area

Proposed future water service areas lie within Union Township, north and east of the Wastewater Treatment Facility. The first area is adjacent to the Meadowview development and is bounded by Basehoar School Road and Whitehall Road. The second area lies east of the Wastewater Treatment Plant along Route 194 and Mummert Drive. This area could potentially tie into the existing lines located along Route 194. Projected development for these areas is 453 EDU's (Equivalent Dwelling Units) plus 2 commercial lots; this translates into an additional 237,825 gallons per day of potable water that needs to be furnished to the Authority. Estimated consumption for the commercial properties is unknown.

IV. Recommendations

The recommendations contained herein are based on the data evaluated and a comparison of current facilities to the requirements of the DEP's Public Water Supply Manual.

1. Replace existing four-inch distribution lines with eight-inch ductile iron pipe. Install appropriate valving to isolate service areas.

APPENDIX 5

LITTLESTOWN BOROUGH AUTHORITY

WELLHEAD PROTECTION PLAN DATA

Littlestown Municipal Water Authority

Geologic Terrain: Fractured carbonate rock of Piedmont Lowland.

Hydrogeologic Information: USGS Adams County Report (1999), groundwater conceptual flow model, well and water use data.

Quality of Hydrogeologic Data: Good

Procedure:

1. Establish conceptual groundwater flow model and boundary conditions using data from the USGS 1999 report and water use data from the system reports.
2. Set up USEPA WHPA code using best available hydrogeologic data (Table 23).
3. Model equilibrium conditions using single-point withdrawal at average daily pumping rate.
4. Generate zone of contribution and superimpose onto scaled topography (USGS 7 ½ minute quadrangles).
5. Calculate groundwater recharge area (acres) needed to supply enough groundwater to meet pumping requirements under drought conditions.
6. Delineate upgradient limits of groundwater diversion (Zone II) to encompass the groundwater recharge area needed to feed the withdrawal.
7. Adjust Zone II to accommodate anisotropic groundwater flow along prominent fracture traces in accordance with the conceptual model.
8. Adjust Zone III to accommodate Zone II and the entire upgradient catchment basin.

Disclaimer: The Zone III watershed contributes to Zone II as delineated. It has not been demonstrated that this entire area provides groundwater recharge for Zone II.

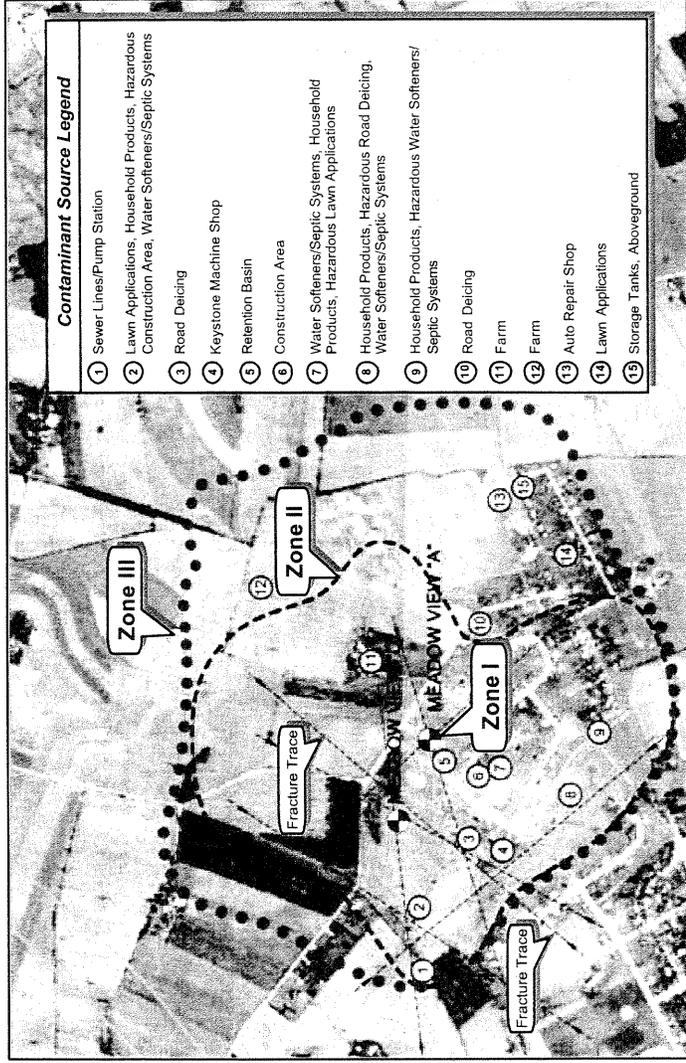
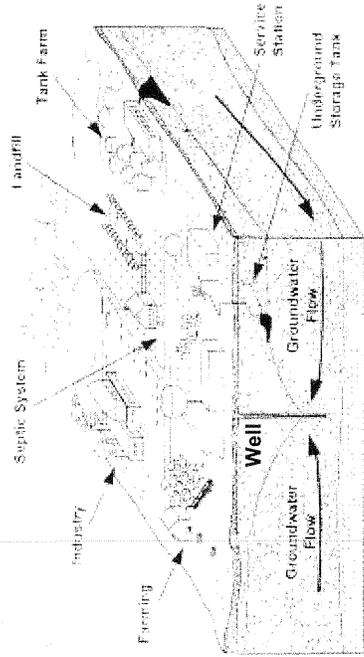
Adams County is growing. In recent years, increased development, along with increased tourism and recreation, has put new pressures on one of our most important resources: groundwater. Groundwater is the primary source of drinking water for the residents of Adams County. As such, we must take steps through proper planning to protect this valuable resource for our future.

The Problem

Groundwater is water that originally falls as rain and soaks into the ground. It is partially filtered and cleaned by its journey through soil and rock. Generally, the longer it takes to filter down through the soil, the cleaner the water becomes. However, as can be seen in the figure below, many man-made contaminants do not get filtered out. In addition, if the water filters through contaminated soil, the water can become contaminated. Cleanup of such contaminated water can be very expensive.

Wellhead Protection Plan

It is important for communities to protect their groundwater sources by preventing contaminants from entering any of the areas that contribute water to the County's water supply wells. The purpose of a Wellhead Protection Plan is to do just that: protect and maintain the quality and quantity of water available to a water supply well.



As part of a Wellhead Protection Plan, the area around a water supply well is delineated into three zones based on the level of potential contamination risk to the groundwater. These zones for the Littlestown Borough Meadow View A water supply well are shown on the upper right-hand map. Zone I is a 100-foot radius immediately around a water supply well in which no development should be permitted. Zone II is a larger area from which the groundwater is diverted to the well during pumping. Generally, when a well is pumped harder, the water is pulled from a greater distance around the well, increasing the size of Zone II. Zone III is the area that contributes groundwater to Zone II. For example, a drop of rain falling onto the ground surface will naturally choose the path of least resistance. If this drop of rain falls into the watershed (Zone III) around a well, it may eventually flow toward Zone II and be captured by the pumping well.

How We Can All Get Involved

Everyone can get involved in groundwater protection. Local government can get involved by passing ordinances that prevent high-risk activities from occurring near water supply wells, by providing public education, and by coordinating efforts with state agencies. Some ways that citizens can protect their groundwater include cleaning out their septic systems regularly, limiting use and properly disposing of hazardous materials, making sure that residential wells are properly grouted, and by cataloging potential contaminant sources in a well's Zone III area, as was completed for Littlestown Borough (see map).

The Adams County Office of Planning and Development can work with you to develop a local water planning team to help protect your water supply. It is necessary to start now to protect Adams County's water resources, as well as to preserve them for future generations. Remember that it is far easier (and cheaper) to protect existing water supplies than to find new clean water sources.



WHIPA Model Output
Littlestown, PA

Transmissivity = 122 sq. ft/day
Discharge Rate = 0.119 mgd (83 gpm)
Hydraulic Gradient = 0.0105
Groundwater Flow Direction = N 95 W
Aquifer Thickness = 495 feet
Scale = 1" = 2000'

