

Schuykill County Comprehensive Plan



2006

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Chapter One: Background/Planning Process

Chapter One: Background/Planning Process

Introduction

Schuylkill County is located in the middle of the eastern half of Pennsylvania, within 15 miles of Allentown and Reading and about 25 miles from both Harrisburg and Wilkes-Barre (Figure 1.1). It is a county steeped in mining history and culture that is today home to industry, agriculture, and a diverse mix of different sized communities set against a backdrop of natural landscapes. The surrounding counties are Dauphin and Lebanon Counties to the west, Northumberland and Columbia Counties to the northwest, Luzerne County to the north, Carbon County to the east, Lehigh County to the southeast and Berks County to the south.

Schuylkill County encompasses a physical area of 780 square miles, roughly half a million acres. It is located in the Appalachian Mountains in the Ridge and Valley Region just north of the Piedmont Plateau. The landscape of Schuylkill County is characterized by alternating mountain ridges and lowland valleys running in a northeast-southwest direction. Two significant drainage basins run through Schuylkill County - the Delaware and the Susquehanna. A number of streams and watersheds converge within the Delaware drainage basin to form the Schuylkill River, for which the county is named. Woodlands comprise approximately 45 percent of the land area of the county, with agriculture encompassing about 30 percent.

A prominent feature in both the county's history and landscape is the presence of two large anthracite coal belts which are located northeast to southwest through the center of the county. Many of the county's existing villages and boroughs were developed around mining centers to house workers and their families. Mining as a land use currently represents 10 percent of the total area of the county.

The county can be divided into four rough geographic areas or regions. The southern tier, which is bound by Hawk and Second Mountains, is dominated by agricultural uses and woodlands. The central tier, between Second and Broad Mountains, overlays anthracite deposits, and has a history associated with mining activities. The northwest corner of the county is oriented to the Mahantongo Creek watershed and valley and is predominantly farmland and forest. The northernmost portions of the county are between Broad Mountain and Buck Mountain and are oriented to the Catawissa Creek watershed and the Ringtown Valley. Uses here are mostly farmland and forest.

The county may also be geographically understood by its three main transportation corridors. PA Route 61 is an important, mostly four-lane highway that runs from Reading to the Susquehanna River at Sunbury, passing through the center of Schuylkill County. PA Route 61 is the historic main spine of the county, reaching Pottsville and, today, providing access to numerous commercial and industrial businesses along its path. Interstate 81

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crosses the northern tier of the county, en route from Harrisburg and points south to Wilkes-Barre/Scranton and New York State. The construction of this roadway has changed the conditions of access in a profound way for the northern half of the county over the last 40 years, and has spawned development of industrial parks, shopping centers, and three prisons. PA Route 309 is the spine road for the county's eastern side, linking Allentown to Hazleton, and passing through Tamaqua Borough in Schuylkill County.

According to the 2000 U.S. census, the total population in the county was 150,336 persons. The county is divided into 67 municipalities, including 36 townships, 30 boroughs, and the City of Pottsville, which is the county seat. Its largest municipalities are Pottsville at 15,549 residents and Tamaqua Borough at 7,174 persons. Many of the county's municipalities have relatively small populations and may not be equipped to perform all of the functions of local government. Over half of the boroughs and townships do not have their own zoning or subdivision and land development ordinances, with the county administering activities related to zoning, subdivision of land and approval of land development.

Growth Trends and Issues

Compared to woodlands, agriculture, and mining, urban uses occupy a relatively small percentage of the total area of the county. However, despite the dominance of open space as a current land use, a gradual encroachment into formerly open areas is occurring. This phenomenon reflects a basic population shift in Schuylkill County, with older settlements losing population while new housing construction takes place in outlying areas. The 1990 census, for example, shows that the rural population grew by 6.4 percent from 1980 to 1990, whereas the urban population dropped by 17.4 percent. More recently, Norwegian Township's population grew by 12.1 percent from 1990 to 2000, while adjoining Pottsville was losing 6.3 percent of its population over the same period.

The effects of this population shift can be seen on the landscape, with new development occurring in formerly wooded and rural areas. Dispersion of residences and businesses brings with it a number of potential problems, including lack of public services in rural areas, a near-universal dependence on private vehicles for mobility, a decline of local city, borough, and village business districts, and loss of the strong social fabric inherent in these communities. The scattered pattern of urban uses that has begun to occur in parts of Schuylkill County also represents potential threats to environmentally sensitive resources, visual intrusions into the countryside, and a weakening of the economic base of the county in agricultural production and tourism.

Schuylkill County has endeavored to increase employment opportunities as the region has experienced the decline of the coal industry. New businesses

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along PA Route 61 and industrial parks along Interstate 81 have provided local jobs. The county also updated the land use component of its 1973 Comprehensive Plan in 1995, seeking to guide growth in a manner that would maintain the attractive rural environment that characterizes the area. In addition, a county-wide water supply study has recently been completed.

The 2003-2004 Comprehensive Plan

Consistent with efforts to attract jobs, stabilize communities, and accommodate new development in a manner that is environmentally sensitive and fiscally sensible, the Schuylkill County Commissioners have determined that this is an opportune time to look at the entire county comprehensively and to set a course for its future. The County Comprehensive Plan is the document intended to guide development in the county, but the existing plan is three decades old and can no longer be considered a useful planning tool. A new plan is needed, one that is action- and policy-oriented, and can be an instrument for guiding, directing, and managing growth over the next twenty years.

The purpose in preparing a new comprehensive plan is fourfold. First, the database for the county has been brought up to date. Chapter Two includes surveys of natural and cultural features, the current land use pattern, transportation and infrastructure systems, mining features, analyses and projections of population and housing, and an examination of the rate and types of change in the county over the last ten years. Second, the plan identifies the basic direction and structure recommended for the future development of the county, derived from explorations of alternative development patterns. Third, the plan specifies the goals, policies, and individual elements that will form the basis for the development of the county. Finally, the plan lays forth a specific implementation strategy and program to aid Schuylkill County in achieving the goals of the plan.

A comprehensive plan for Schuylkill County has the potential to provide a highly effective planning tool that will support day-to-day decisions about future development so that they may be thoroughly rational and consistent and at the same time move the county in a desirable direction in terms of open space conservation, roadway corridor planning, traffic management, historic preservation, infrastructure planning, and mine reclamation planning.

A plan that is fully responsive to the needs of the residents of the county needs to contain both long-range and short-range programs, must balance county and regional needs, requirements, and perspectives with local needs and perceptions, and contain its own logic and strategy for implementation. A good plan can also serve as a “road map” for Schuylkill County in projecting a coherent and mutually agreed-upon development framework and visual image of the county. A new comprehensive plan should serve as an everyday

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working document to be referred to regularly in the review of development proposals, in the planning of long-range capital improvements, and planning for future growth and development.

A comprehensive plan for Schuylkill County needs to be responsible to the requirements of the Commonwealth of Pennsylvania's Municipalities Planning Code (MPC) as to content and the procedure for the preparation and adoption of county comprehensive plans. It also must reflect the unique characteristics of the county and the point of view of its residents.

The Comprehensive Planning Process

In recognition of the age of the 1973 Comprehensive Plan and growing local concerns regarding the character and patterns of recent and future development in the county, the Schuylkill County Commissioners directed the creation of a Comprehensive Plan Task Force to guide the plan preparation and oversee the work of the consultant.

Through the plan preparation process, the Comprehensive Plan Task Force met on a regular basis with the consultant. The Task Force has had several critical roles to play, including:

- Monitoring progress on the *Work Program Schedule*, including scheduling and coordinating all Workshops and Public Information Meetings according to the Comprehensive Plan Work Program Schedule;
- Reviewing study products of the consultant, providing feedback to the consultant, and participating in the consensus-building process;
- Providing information and ideas to the consultant and providing data/contacts/leads and direction to the consultant for upcoming tasks in the Work Program Schedule as the process was underway;
- Publicizing the plan, encouraging community participation and media coverage, advertising specific Public Information Meetings and Public Hearings, and promoting the comprehensive planning process generally and the growth management ideas that emerged during the planning process.

Community participation was a hallmark of the comprehensive planning process, in order to fully inform residents and to create a strong consensus as to the most desirable and achievable common future for Schuylkill County.

Three Public Information Meetings were held during the course of the plan preparation, under the auspices of the Comprehensive Plan Task Force. The first, held in October 2003, was an introduction to the process being undertaken and an opportunity for the Comprehensive Plan Task Force and

Chapter One: Background/Planning Process

consultant to present the range of issues and choices to be examined in the overall Comprehensive Plan preparation process. The second occurred in February 2004, when serious decisions needed to be made as to a direction for the community to take in the coming years, based upon the examination of Alternative Futures in Phase B of the process. The third meeting took place in June 2004, when a Preliminary Draft of the Growth Management Plan chapter was under review by the Comprehensive Plan Task Force.

The response of the public to the information and concepts presented was an important consideration in the decision making of the Comprehensive Plan Task Force. These Public Information Meetings served to update local residents, business operators, landowners, and other interested parties on progress on the new Schuylkill County Comprehensive Plan and elicited feedback on the ideas being put forward by the Comprehensive Plan Task Force.

Following the Task Force's three public meetings, held throughout the comprehensive planning process, an additional public meeting was conducted by the County Planning Commission to allow that body to hear public comment and consider the Draft Comprehensive Plan then under review. The Public Hearing formal review process rounded out the extensive community participation program, with adoption action by the Schuylkill County Commissioners.

The Work Program Schedule (Figure 1.2) outlines graphically the comprehensive plan process that was followed, consisting of three distinct phases.

The first phase of the plan preparation ('Phase A') was primarily devoted to background data collection and the documentation of change in the county during the last twenty years. Tasks within this phase included a review of earlier planning documents and data, creating the base maps of the county for the study, an inventory of natural and cultural features and development limitations, documentation and projections of demographics and development activity, a land use inventory, documentation of infrastructure, documentation of mine features, and documentation of physical change.

As a foundation for the work in Phase B, Phase A concluded with the setting of preliminary goals and objectives for the plan. Phase B itself incorporated a systematic exploration of a variety of planning and development issues and alternative development patterns, culminating in the definition of preliminary development plan recommendations based upon the approach to the future development of the county selected by the Comprehensive Plan Task Force.

The third phase, Phase C, focused on the actual preparation of the Comprehensive Plan for Schuylkill County. The plan was prepared as

Chapter One: Background/Planning Process

preliminary drafts, reviewed by the Comprehensive Plan Task Force, and revised to final draft form. The end of Phase C encompassed the period of public reviews and hearings on the final draft of the plan. Revisions were made based on those reviews and hearings and a camera-ready original of the plan was prepared for printing and public distribution.



SCHUYLKILL COUNTY COMPREHENSIVE PLAN

Location of Schuylkill County

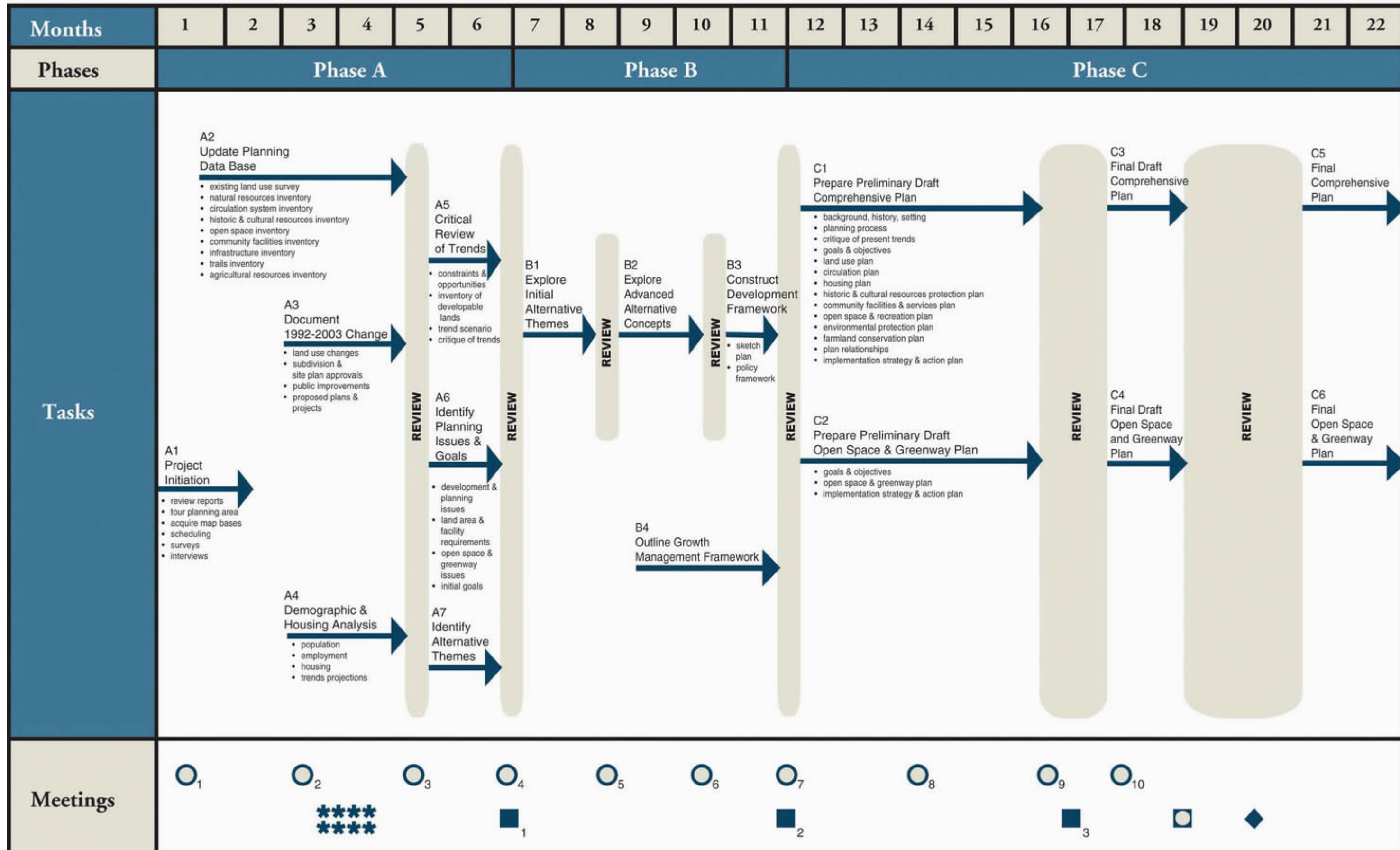
Figure 1.1



0 5 10 15 20 25
Miles

Work Program Schedule

Schuylkill County Comprehensive Plan & Open Space & Greenway Plan



○ Planning Committee Workshops

■ Public Information Meetings

***** Key Person Interviews

□ Planning Commission Public Meeting

◆ Public Hearing

Chapter Two: Existing Conditions

Chapter Two: Existing Conditions

SECTION 1: INTRODUCTION

The purpose of this chapter is to summarize existing conditions in Schuylkill County. In particular, it seeks to develop a clear understanding of the county's physical, demographic, social, and economic conditions, based on current circumstances and historical development. This analysis is intended to enable county officials and county residents to identify potential problems, to determine future needs, and to develop necessary policies and strategies to guide the county over the next twenty years.

The material in this chapter is based on information compiled and maintained by state, county, and local government agencies and offices as well as information produced as part of the comprehensive planning process. This chapter consists of eleven sections in addition to this introduction: Existing Land Use; Pattern of Change; Natural Resources; Cultural, Historic and Landscape Resources; Mining Resources; Population, Housing, and Employment; Circulation; Infrastructure and Environmental Systems, and Suitability for Development.

The Land Use section provides a description of existing land use patterns and their implications for future development and future land conservation. The Pattern of Change section provides an analysis of recent development activity in the county. The Natural Resources section provides a summary of environmental factors. Cultural, Historic and Landscape Resources documents the cultural environment into which new development will be inserted. The section on Mining contains information on the mining landscape in the county. The Population, Housing, and Employment section reviews selected socio-economic characteristics of county residents, employers and employees, and housing development. Included are population, housing, and employment projections. The Circulation section assesses existing conditions regarding transportation systems and circulation, while the Community Facilities section analyzes all public services and facilities serving Schuylkill County. The Infrastructure and Utilities section looks at the provision for water and sewer services, solid waste disposal, and public utilities. The section on Suitability for Development includes analyses of levels of accessibility and suitability for development in the county.

Chapter Two: Existing Conditions

SECTION 2: EXISTING LAND USE

Using information from Schuylkill County, recent aerial photography and relevant recent planning documents, a generalized full-color map of current land use in the county has been constructed (Figure 2.2.1). The inventory includes major categories of non-urban uses (agriculture, woodlands, mining areas, and open land) as well as the traditional full range of urban land uses. These uses include residential, industrial, commercial, and utilities as well as some specialized uses including open space, landfills, and prisons.

The purpose of the land use inventory is to assess the pattern and intensity of utilization of land in Schuylkill County. Based on this assessment, it is possible to evaluate the compatibility of existing uses, the extent of land consumption, and to predict the direction that future development may be expected to take in light of existing conditions. The inventory also makes apparent the extent and location of land potentially available for future development. Finally, through a comparison with aerial photography and other data from about ten years ago, an identification of changes in land use over the decade may be made.

Most areas of Schuylkill County remain nonurbanized, consisting of lands under cultivation, open fields, mining areas, woodlands, surface water bodies, and wetlands. Agricultural land interspersed with wooded areas prevails over much of the county. Surface waters and wetlands are mainly confined to stream valleys.

Urban land uses are concentrated in the boroughs and along major roads. Residential uses predominate, comprising the major land use in the boroughs and villages as well as the most significant type of urban land use along roadways. Within the city of Pottsville and the boroughs, a mix of housing types and densities exists, including single-family detached dwellings, semi-detached (twin) homes, duplexes, rowhouses and some apartment buildings. Pottsville and the boroughs tend to exhibit a mixed-use character at their hubs, with close intermingling of residential, retail, and employment facilities. Outside existing communities, dwelling units are almost exclusively of the single-family detached type, consisting of either conventional or mobile home units. Development densities are low in the outlying areas, with the exception of occasional subdivisions and mobile home parks.

Commercial activity predominates at the cores of the larger communities, including the City of Pottsville as well as the boroughs of Tamaqua, Frackville, Minersville, Port Carbon, Schuylkill Haven, St. Clair, Shenandoah, Ashland, Ringtown, Pine Grove, and Tremont. Commercial activity is also present alongside the major transportation routes that serve these cities and boroughs, and frequently between built-up areas along PA Routes 61 and 309 as well as at interchanges along Interstate 81.

Chapter Two: Existing Conditions

Industrial land uses are generally close to the urban places, but more remote locations are also found. Planned business parks and large industrial districts are rare, except for the High Ridge Industrial Park along Interstate 81 in Cass and Foster Townships; the Humboldt Industrial Park in East Union, Delano, and Walker Townships; and the Tidewood East Industrial Park in Rush Township, near Tamaqua.

Government and community facilities, including fire stations, schools, and religious institutions exhibit a similar pattern, with a concentration of these uses in the city of Pottsville, the boroughs, and the villages. Individual school and church sites, as well as fire stations, are scattered throughout the county along local and state roads.

Open space uses in the county include cemeteries, golf courses, and woodlands. Cemeteries are located throughout the county within or near urbanized areas. Golf courses are located in the county primarily in suburban areas. The largest courses are located in Wayne, West Penn, Ryan, Rush, Eldred, and North Manheim Townships. Major bands of woodlands, located in the central portion of the county, stretch from the western to eastern borders of the county. Other significant wooded areas are located north of Shenandoah Borough in Union, North Union, and East Union Townships.

There are two predominant areas in the county with land use classified as mining. The first is located in the north central part of the county and runs east to west from Ashland Borough to Kline Township. The other area is located in the central portion of the county and runs from the western county border with Dauphin County to Coaldale and Tamaqua at the border with Carbon County. Related to mining uses is the presence of a cogeneration plant in Frailey Township, east of Interstate 81.

Other uses include landfills, transportation, and utilities. Landfills are located in the county in Pine Grove Township and at the convergence of the Foster, Reilly, and Frailey Township borders. The Schuylkill County Airport, a significant transportation use, is located in Foster and Barry Townships. Other transportation and utility uses are located throughout the county in urbanized areas.

Economic Development Zones

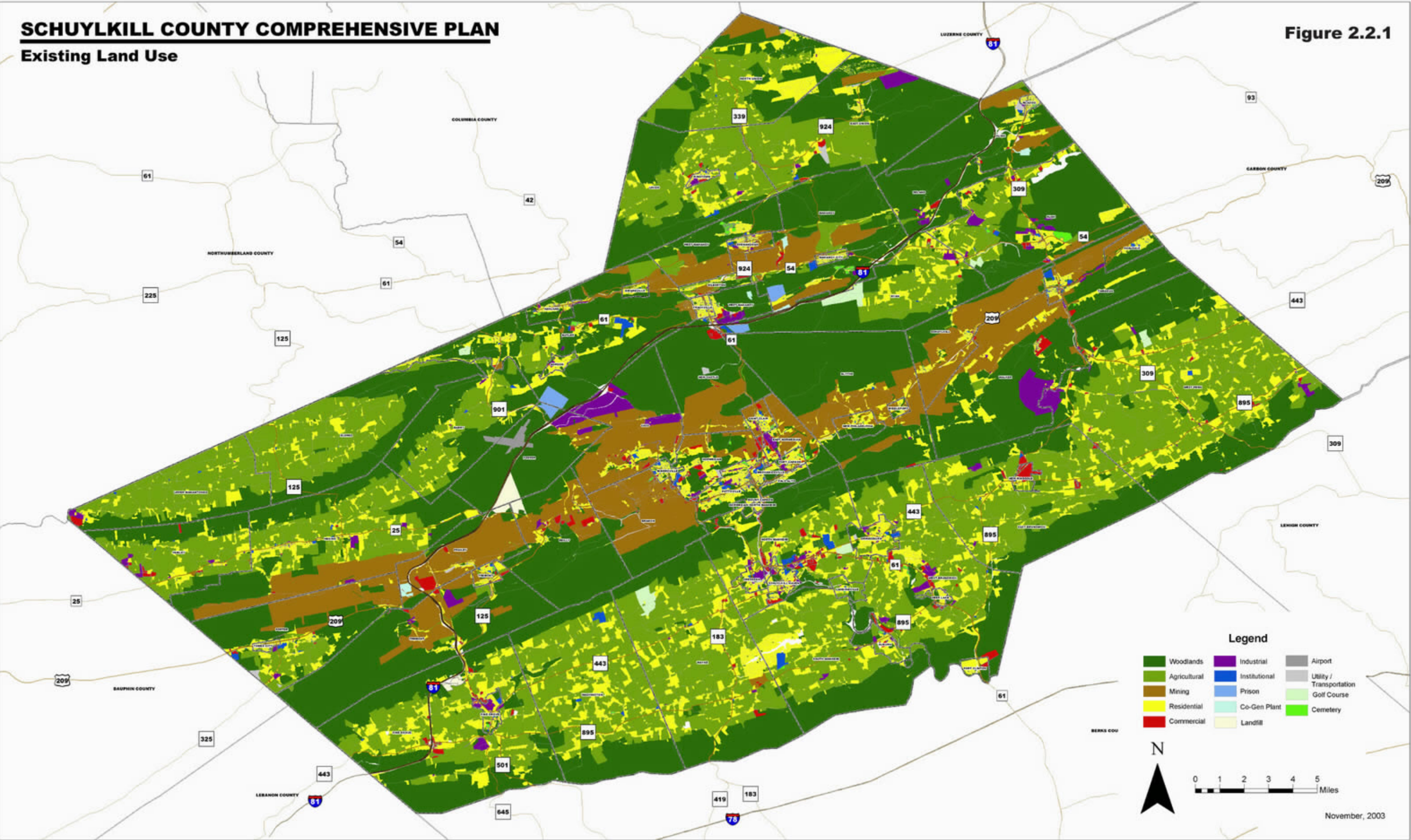
Important to the recent economic development in the county are economic development zones created under the terms of Pennsylvania's Keystone Opportunity Zones (KOZ) and Keystone Opportunity Enterprise Zones (KOEZ) legislation (Figure 2.3.2). These zones are defined, parcel-specific areas with tax-free or tax-abated provisions for property owners, residents, and businesses. KOZs have been designated by local communities and approved by the state; they are, in fact, a partnership between each community and region among state and local taxing bodies, school districts, economic development agencies, and community-based organizations.

Chapter Two: Existing Conditions

KOZs in Schuylkill County are located at the site of the High Ridge Industrial Park east of Interstate 81 and south of that road in Cass Township. Various KOZ sites also exist in West Mahanoy Township, Mahanoy City, Tamaqua, Coaldale, Walker Township, Rush Township, and at the site of the Humboldt Industrial Park in East Union Township. KOEZs are located in Butler Township north of Interstate 81; Ryan Township, south of Interstate 81; Shenandoah; Mahanoy City; West Mahanoy Township; and Tamaqua.

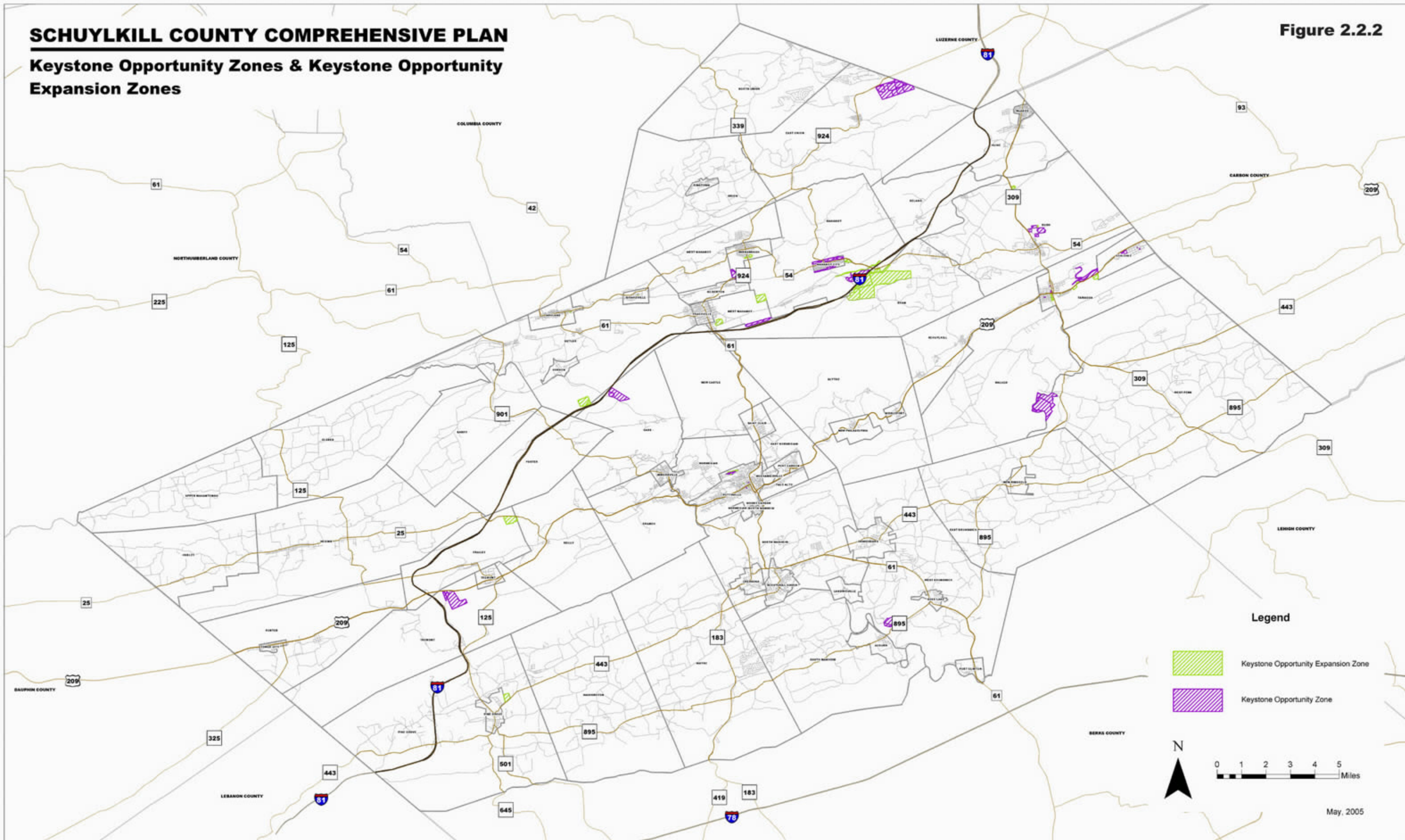
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Existing Land Use

Figure 2.2.1



Keystone Opportunity Zones & Keystone Opportunity Expansion Zones

Figure 2.2.2



Chapter Two: Existing Conditions

SECTION 3: PATTERN OF CHANGE

Recent Development

Recently, Schuylkill County has seen a moderately-paced expansion of development occurring on land that was previously either wooded, in use as agriculture, vacant, or host to a different but developed land use (Figure 2.3.1). The development that has occurred in Schuylkill County over the past decade, since about 1992, has taken the form of four general land use categories: Residential, Commercial, Industrial, and Institutional. Approximately 5,900 acres have been developed during this time period. Although these general categories describe the development that has occurred, it should be noted that within each of the four categories, a variety of types, sizes, and intensities of developments have occurred. For example, residential development that has occurred since 1992 is of a significant variety in the sizes of tracts that have been developed and in the size of the lots that have been created on those tracts.

Residential Development: Residential construction has been the most significant component of all recent development, totaling approximately 3,600 acres, or about 61 percent of the total land developed since 1992. Much of the residential development has taken place across the southern third of the county with larger clusters located near the borough of Pine Grove, in the vicinity of Schuylkill Haven, and in the far east of the county in the townships of West Penn and New Ringgold. Other areas that have shown a significant occurrence of residential development include the city of Pottsville, East and North Union Townships in the northern part of the county on the border with Luzerne County, and in the northwestern corner of Schuylkill County in Upper Mahantongo Township.

While the pattern of recent residential development in Schuylkill County is widespread, it has principally taken the form of single-family homes developed on lots approximately one acre in size and served by existing utilities and roadways. Some of this development has occurred in a typical subdivision form, with homes arranged along internal roadways. Other residential development is more scattered through certain areas. For example, one large dispersed cluster of residential lots south of Schuylkill Haven appears sprinkled on the landscape. In other places throughout the county, large parcels of land have been developed with either single-family dwellings on large-sized lots, or small-lot single-family detached dwellings. Very little of the recent residential development has occurred within existing boroughs and villages, meaning that previously undeveloped land was consumed by this new residential development.

Industrial Development: Industry has been the second most significant land use developed in Schuylkill County since 1992, taking place on approximately 1,190 acres, or 20 percent of the total acreage developed during that time

Chapter Two: Existing Conditions

period. Large tracts of land, most located along Interstate 81, are being developed as industrial parks. Additional land in Rush Township north of Tamaqua as well as in East Union Township on the border with Luzerne County have also been developed as part of industrial parks.

Commercial Development: Commercial land uses have been developed on approximately 730 acres of land in Schuylkill County since 1992, 12 percent of the total acreage developed during that time. Much of this commercial development has occurred on land parcels located along the county's major roadways. These areas include tracts along Interstate 81 in several different places; along PA Route 61 near Pottsville, Saint Clair, and Schuylkill Haven; along PA Route 309 in the southeast in West Penn Township (at the intersection of PA Routes 309 and 895); and north of Tamaqua. Additionally, a rural area in southern Walker Township is being developed for a miniature golf course.

Institutional Development: The development of institutional facilities has been the least consumptive during the last decade. Only 6 percent, or approximately 330 acres of the land area developed over the past decade, has been allocated for new institutional uses. Significant institutions that have been developed over the past decade in Schuylkill County include a resource center at Hawk Mountain Sanctuary on the West Brunswick/East Brunswick Township border, a Girl Scout center in Pine Grove Township, and a state prison in Mahanoy Township.

Pending and Proposed Development

Pending and proposed development includes approved but unbuilt developments and prospective developments (Figure 2.3.2). The total land area in pending and proposed developments is 4,656 acres, with 1,610 acres planned for residential development, 1,099 acres for commercial use, 1,937 acres planned for industrial use, and 10 acres for institutional use.

The pattern for development in the near future, as reflected in the Pending and Proposed Development map, consists of scattered small-scale residential developments throughout the county, mostly south of Interstate 81. In addition, there is one large-scale development planned in the county, the Mountain Valley Golf Course expansion, which is located in Ryan Township just south of Interstate 81. Although there are exceptions, most residential development in the near future will apparently occur in townships, rather than in urbanized areas such as boroughs and the City of Pottsville.

If development occurs along the lines of the Pending and Proposed Development map, then there will be commercial and industrial development in Cass, Foster, and Butler Townships as part of development in and near the Highridge Industrial Park. Additional industrial development will occur in the southwestern part of the county in the vicinity of Interstate 81. Other smaller-

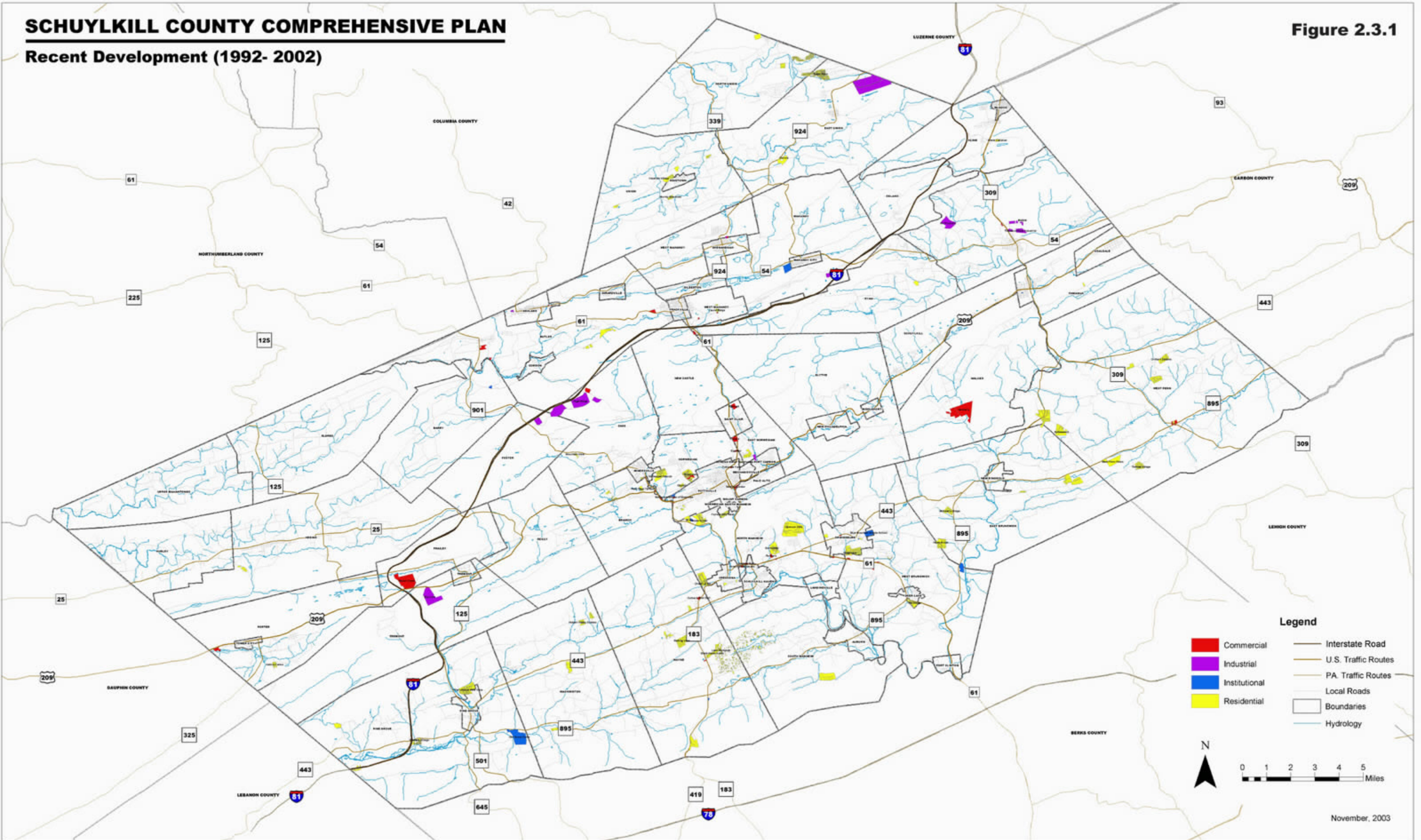
Chapter Two: Existing Conditions

scale commercial development will take place in a scattered fashion throughout the county.

SCHUYLKILL COUNTY COMPREHENSIVE PLAN

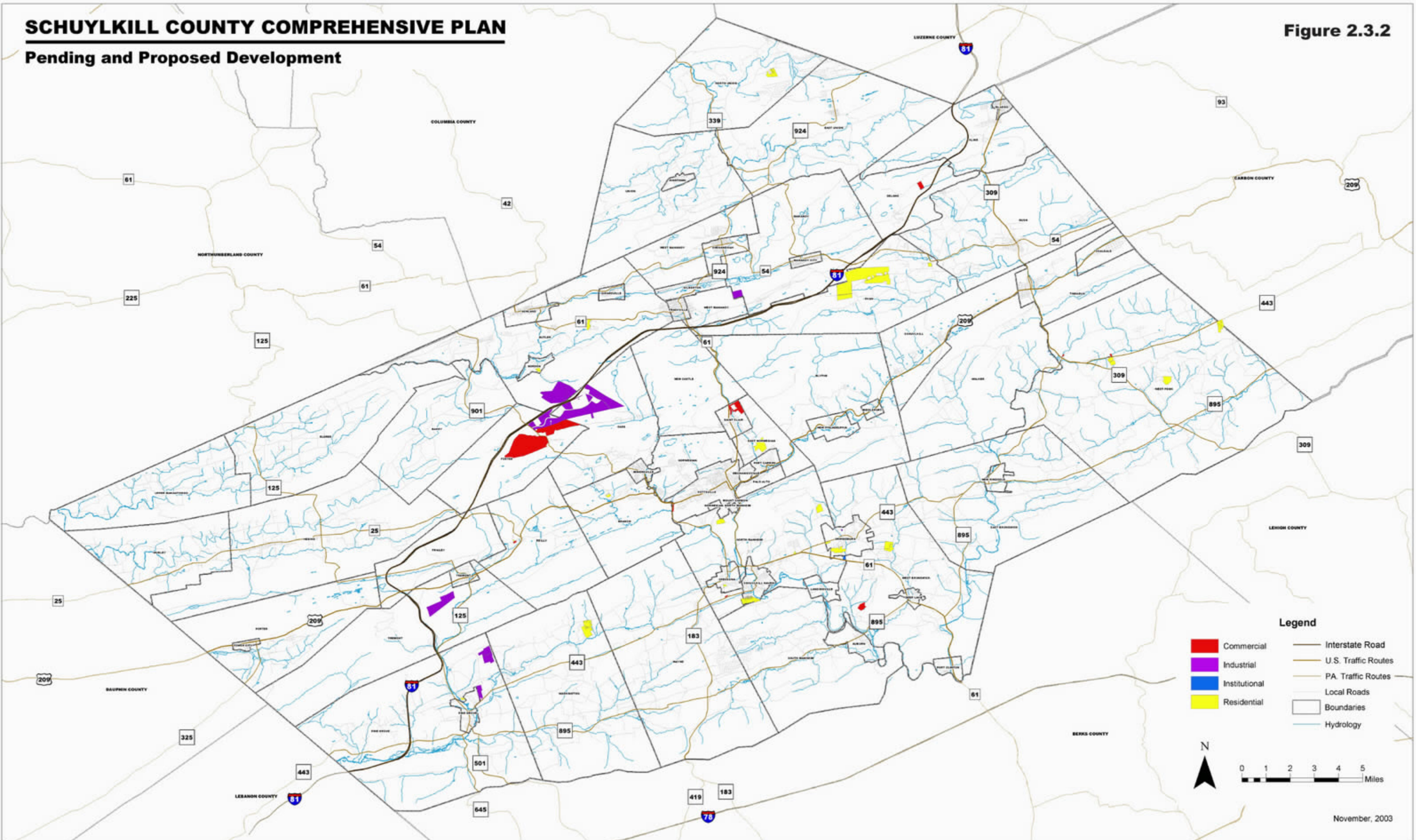
Recent Development (1992- 2002)

Figure 2.3.1



Pending and Proposed Development

Figure 2.3.2



Chapter Two: Existing Conditions

SECTION 4: NATURAL RESOURCES

As part of the examination of existing conditions in Schuylkill County, an inventory of various environmental factors was made. These factors are critical components in any consideration of future alternatives for growth and development.

Some of these factors may impose constraints on development, while others may suggest opportunities for development. It is possible for an environmental factor to represent both an opportunity and a constraint for development. Certainly, environmental factors may serve as indicators of areas where conservation should be considered as a land use strategy in order to protect scarce natural resources or important ecological systems.

Inventory maps have been prepared that delineate these resources, including the following:

- Hydrological Features
- Steep Slopes
- Woodlands
- Agricultural Soils

These interrelated, interpretive maps permit the identification of areas within the county requiring preservation, areas requiring conservation, and areas available for development.

Areas requiring preservation include streams, floodplains, public parklands and protected areas, source water supply watersheds, and other lands generally undevelopable due to physical characteristics or statutory regulations. Areas in need of conservation would include fragile environmental areas such as wetlands and areas that contain steep slopes or are subject to erosion, and areas of woodlands, farmlands, and those that contain historic sites and scenic features. These represent areas to be protected or conserved due to their environmentally sensitive nature and to the importance of these valuable resources to the county.

For areas not requiring special efforts toward preservation or conservation, there remain factors that make lands more or less suitable for development, based on the availability of water and sewer service, soil capacity, existing roads, and other relevant factors.

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Terrain

The slopes, valleys, and changing elevations that characterize the Schuylkill County landscape contribute significantly to its beauty and diversity. The topography (and the natural resources it hosts) has also exerted considerable influence over where settlements, agriculture, mining, and roads have located throughout the county.

Schuylkill County is located in the Ridge and Valley Region of the Appalachian Mountains, from which the county derives its diverse topography. Two mountainous ridges traverse the county in a northeasterly to southwesterly direction. Blue Mountain, running along the southern border of the county, separates it from its southern neighbors, Berks and Lehigh Counties. Blue Mountain forms a section of the continuous Kittatinny Ridge, which runs through southern New York, northwestern New Jersey, and through Pennsylvania almost to the Maryland border. The Kittatinny Ridge is well known as an important travel corridor for many species of birds and functions as an important greenway link and connector for this region's otherwise frequently disconnected ecosystems. Second and Broad Mountains parallel Blue Mountain, running along the same northeastern to southwestern axis through the center of the county. Broad Mountain is a significant plateau-like crest that covers approximately 80 miles in the center of the county running from the community of Tremont to Tamaqua and beyond into neighboring Carbon County. In addition to being a notable landmark, Broad Mountain divides the county into its two principal river drainage basins, the Delaware and the Susquehanna. A number of other important named mountains in the county include Mahantongo Mountain in the northwest, stretching eastward almost to the town of Ashland, and Spring Mountain in the northeast of the county including Mahanoy, East Union, and Delano Townships. Of note is the presence of Hawk Mountain, home to the Hawk Mountain Sanctuary, located on the southern border of the county near Port Clinton. This mountain is an important part of the Blue Mountain/Kittatinny Ridge system.

Elevations in Schuylkill County vary widely, from as low as 200 feet above sea level in southern areas of the Schuylkill River watershed near Schuylkill Haven and Port Clinton, to above 1,800 feet in the northeastern portion of the county in the townships of Delano and Mahanoy. The closest large community to these high elevation areas is Tamaqua, which has an elevation varying between 800 feet and 1,000 feet.

Slope

Approximately one third of the county's land area exists with grades less than 8 percent (Figure 2.4.1). Another third or so of the county's land area has grades of between 8 and 15 percent, and the final third of the land area can be characterized as either steep with grades between 15 percent and 25 percent,

Chapter Two: Existing Conditions

or very steep, with grades of greater than 25 percent. The areas of steep and very steep slopes are generally found on the flanks of the mountains described above and form impediments to road travel, agriculture, and urban development that run in the same northeastern to southwestern orientation as the mountain ridges. Large areas of moderate or flat land area also exist in what can be characterized as agricultural valleys in the western and southeastern portions of the county.

Hydrology

Schuylkill County is located in two major drainage basins, the Delaware and the Susquehanna, which are principally separated by Broad Mountain (Figure 2.4.2). Broad Mountain, as described above, is a long plateau-like crest running in a northeast to southwest direction that covers approximately 80 square miles in the center of Schuylkill County. It separates the two major drainages, supplying water to both. Generally, hydrologic features and water runoff in the eastern side of the county flow into the Delaware River drainage basin while flows from the western part of the county reach the Susquehanna drainage basin.

The principal drainage route on the eastern side of the county consists of the West Branch of the Schuylkill River, the Schuylkill River, and the Little Schuylkill River as they flow generally in a southerly direction. The West Branch of the Schuylkill River and the Schuylkill River merge near Cressona and Schuylkill Haven. These branches merge with the Little Schuylkill River near Port Clinton, before leaving the county at its southern border. The West Branch of the Schuylkill River forms in Cass Township to the northwest of the City of Pottsville and originates in a number of streams including Crystal Run, West Creek, Schafer Creek, and Indian Run. The Schuylkill River originates west of Tamaqua and flows toward the center of the county along Route 209, merging with the West Branch of the Schuylkill River and Panther Creek north of Schuylkill Haven. Traveling southeast, the Schuylkill River intersects with Red Creek, Plum Creek, and Bear Creek, before merging with the Little Schuylkill River just to the northwest of Port Clinton. The Little Schuylkill River originates north of Tamaqua and is fed by Lofty and Neifert Creeks north of Tamaqua as well as Rabbit Run, Owl Creek, Stump Run, and Brushy Run along the shared borders of Walker, West Penn, and East Brunswick Townships.

The principal water features on the western side of the county include Mahantongo Creek and Little Mahantongo Creek just south of the county's northern border with Northumberland County, and Deep Creek and Pine Creek which merge just east of the county's western border after flowing west on either side of Route 25. All of these water features flow toward the west and leave Schuylkill County along its western border with Dauphin and Northumberland Counties. Farther to the south is West Branch Fishing Creek,

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which is located in an exceptional value watershed¹, as well as the Lower Little Swatara Creek, Black Creek, Panther Creek, and the Upper Little Swatara Creek, which merge to form the Swatara Creek near the community of Pine Grove before flowing west into Lebanon County. Other less significant water features do exist throughout Schuylkill County, including the Catawissa Creek in East and North Union Townships, as well as Panther Creek near Tamaqua and Mahanoy Creek, which runs between Shenandoah and Ashland.

These drainage patterns are significant in the analysis of stormwater runoff as well as in planning for sanitary and stormwater sewer extensions. Other hydrologic characteristics contribute strongly to delineating areas that are available for development and those that constrain development. Of major concern are flood prone zones adjacent to bodies of water and wetlands.

Development in floodplains is hazardous to life and property, not only on proposed development sites, but also in existing developed areas downstream. These areas may be subjected to unexpected changes in stream channel location or in flood heights and velocities. The 100-Year and 500-Year Floodplain areas in Schuylkill County have been identified by the Federal Emergency Management Agency (FEMA) under the National Flood Insurance Program. The most extensive floodplains occur in lowland areas where stream gradients are less, where there is generally flat land adjacent to or near streams, creeks and drainages, and where the valleys are wider than in the mountains. Notable 100-Year floodplain areas include land in the southwestern part of Schuylkill County adjacent to the Upper Swatara Creek and the Lower Little Swatara Creek and their convergence near the community of Pine Grove into Swatara Creek. Small pockets of land around and within Pine Grove are located in a 500-Year floodplain. In the northwestern part of Schuylkill County, 100-Year floodplains follow the Mahantongo and Little Mahantongo Creeks, Mahanoy Creek near the community of Gordon, and Pine and Deep Creeks in the vicinity of Route 25. In the northern part of Schuylkill County, 100-Year floodplains surround the Little Catawissa Creek and the Catawissa Creek as they meander through North and East Union Townships. In the southeast, 100-Year floodplains follow Panther Creek as it runs through the town of Tamaqua and the Little Schuylkill River and some of the smaller streams (known as runs) that feed into it as it travels southwest from Tamaqua. Finally, from the center of the county running southeast, is the Schuylkill River. It is surrounded by a 100-Year floodplain for the majority of its passage through the communities of Middleport, New Philadelphia, Port Carbon, Mechanicsville, Schuylkill Haven, Auburn, and, finally, Port Clinton on Schuylkill County's southern

¹ An Exceptional Value Watershed is a watershed that contains a stream or streams that have been rated Exceptional Value. Streams may receive this rating if DEP testing demonstrates that they possess "high biotic integrity and health with test data from over a year." Exceptional Value streams include those in state natural areas or federally protected wilderness areas, "other waters that receive a score of 92% biotic integrity ranking and wilderness trout streams."

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border. There are pockets of land that are located in the 500-Year floodplain along the upper reaches of the Schuylkill River in Port Carbon, along the enlarged Schuylkill River in Schuylkill Haven and nearby Cressona, and throughout the final curves of the Schuylkill River as it reaches Port Clinton and flows south into Berks County.

Surface water area in Schuylkill County is not extensive. There are only a few lakes and reservoirs, including Lake Hauto in Rush Township and Sweet Arrow Lake in the southwest, near Pine Grove. However, the total area and widespread pattern of stream courses and their related floodplains are noteworthy. Wetlands are among our most valuable resource areas because they control flooding, improve water quality, and support a wide variety of animal and plant species. Wetlands are characterized generally by a high water table, poor drainage, and some degree of surface ponding during the year. The U.S. Fish and Wildlife Service has delineated wetlands in Schuylkill County under the National Wetlands Inventory Project. These wetlands include surface water bodies, most floodplains, and other small areas. Schuylkill County is dotted with hundreds of farm ponds which, according to the National Wetland Inventory, qualify as wetlands.

Most hydric soils also qualify as wetlands. A hydric soil is one that in its undrained condition is flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. Hydric soils exist in Schuylkill County along the paths of many of the streams described above. There is a cluster of hydric soils in the southwestern part of the county surrounding the community of Tremont, another along Route 443 east of Pine Grove, and large concentrations in the far northeast in the townships of East Union and Rush. There are large swaths of hydric component soils, which are less concentrated although similar in character, located in the lowland valleys between the two major topographic ridges that run southwest to northeast through the county.

Soils

Soils information is a vital component of any natural resource evaluation because soil characteristics indicate the inherent suitability of an area for development, agriculture, or other land uses. Additionally, in areas under development pressure, the presence of agricultural soils is an important anchor for conservation, farm preservation, and other growth management efforts. The Agricultural Soils map for Schuylkill County, prepared by the United States Department of Agriculture Natural Resources Conservation Service and the Soil Survey Geographical Data (SSURGO), shows areas of the county that have prime agricultural farmland soils and soils of statewide importance (Figure 2.4.3). Prime farmland, of which there are 66,285 acres in the county, is defined as land best suited for producing food, feed, forage, fiber, and oilseed crops, and also is available for these uses. The land could be cropland,

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pastureland, rangeland, forest land, or other land but not built-up land or water. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed, including water management, according to modern farming methods.

Prime agricultural soil is generally made up of silty, and in fewer cases gravelly, channery or sandy loams, on land that is sloped less than 8 percent. Broad swaths of prime agricultural farmland soil exist in Schuylkill County, throughout low-lying areas, often following significant watersheds and generally located near other farmable soils. The largest band of agricultural soil is in the southern part of the county and stretches from its east to west border, encompassing large areas between Schuylkill Haven to the north, Pine Grove to the west, Auburn to the south, and from Carbon County to the east. Another large band of prime agricultural farmland soil stretches from the westernmost point of Schuylkill County in Upper Mahantongo Township east into Butler Township near Frackville. There is a third large concentration of prime agricultural farmland soils in Union and North Union Townships in the north of Schuylkill County. The final large concentration is northwest of Tamaqua in Ryan and Rush Townships.

Additional land of statewide importance, of which there is 86,384 acres, is land, in addition to prime farmland, that is of statewide importance for agricultural production. These soils are generally various types of silty loams, and in fewer cases gravelly, shaly or channery sandy loams, on land that is sloped between 3 percent and 15 percent. Not surprisingly, the location of these soils of statewide importance throughout the county mirrors the concentrations and patterns of the prime agricultural soils described above.

Woodlands

Schuylkill County forests, as classified by the United States Department of Agriculture Forest Service, are located in an area of the state known as the Central Appalachian Broadleaf Forest–Coniferous Forest–Meadow Province. Compared to other land uses in the county, woodlands comprise the largest, with approximately 224,000 acres or 43 percent of county land. Major bands of woodlands, located in the central portion of the county, stretch from the western to eastern borders of the county. Other significant wooded areas are located north of Shenandoah borough in Union, North Union, and East Union Townships surrounding Ringtown Borough.

The county has over 9,000 acres of woodlands preserved in Weiser State Forest in association with the Second and Blue Mountain ranges. This acreage is located in the following townships: Barry, Branch, Eldred, North Manheim, Reilly, Ryan, South Manheim, Washington, Wayne, West Brunswick, and West Penn.

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Composite Constraints

The preceding natural resource information was combined and synthesized to illustrate the relative level of development constraints affecting various areas of Schuylkill County (Figure 2.4.4). These features, including:

- Floodplains;
- Wetlands;
- Slopes;
- Woodlands; and
- Hydric Soils

represent environmentally sensitive natural and scenic resources as well as potential constraints for future development.

Floodplains and wetlands, and the waterways around which they often cluster, are generally precluded from development due to the flood risk and the substantial and still evolving regulatory framework that controls the degree and type of disturbance permitted in these areas. Floodplains and wetlands qualify as being very severe constraints for development.

Steeply sloped areas pose severe constraints for most development, while woodlands and hydric soils represent moderate constraints for development. The balance of the county has only slight development limitations.

The composite pattern illustrates the prominent but controlled form of floodplains through most of the county, the striated form of the two mountain ridges that run northeast to southwest through the county, and the dense combinations of the series of features constituting moderate constraints for development in the foothills abutting the mountains. The rest of the county exhibits a very rough mosaic of moderately constrained areas and areas with only slight constraints, dominated by large valleys through which the county's many waterways run.

Natural Areas Inventory

The natural areas of Schuylkill County provide a habitat for a great diversity of plants and animals, including rare, threatened, and endangered species. The Natural Areas Inventory map documents examples of intact natural communities and sites for species rarely found in the state or the world.

All information on the Natural Areas Inventory map (Figure 2.4.5) and the accompanying table (Table 2.4.1) has been taken from the Schuylkill Conservation District's *Natural Areas Inventory of Schuylkill County, Pennsylvania, 2003*. The map depicts species and selected geologic features of statewide significance. In addition, the map identifies areas that are significant on a county-wide scale, but were not recognized as exemplary

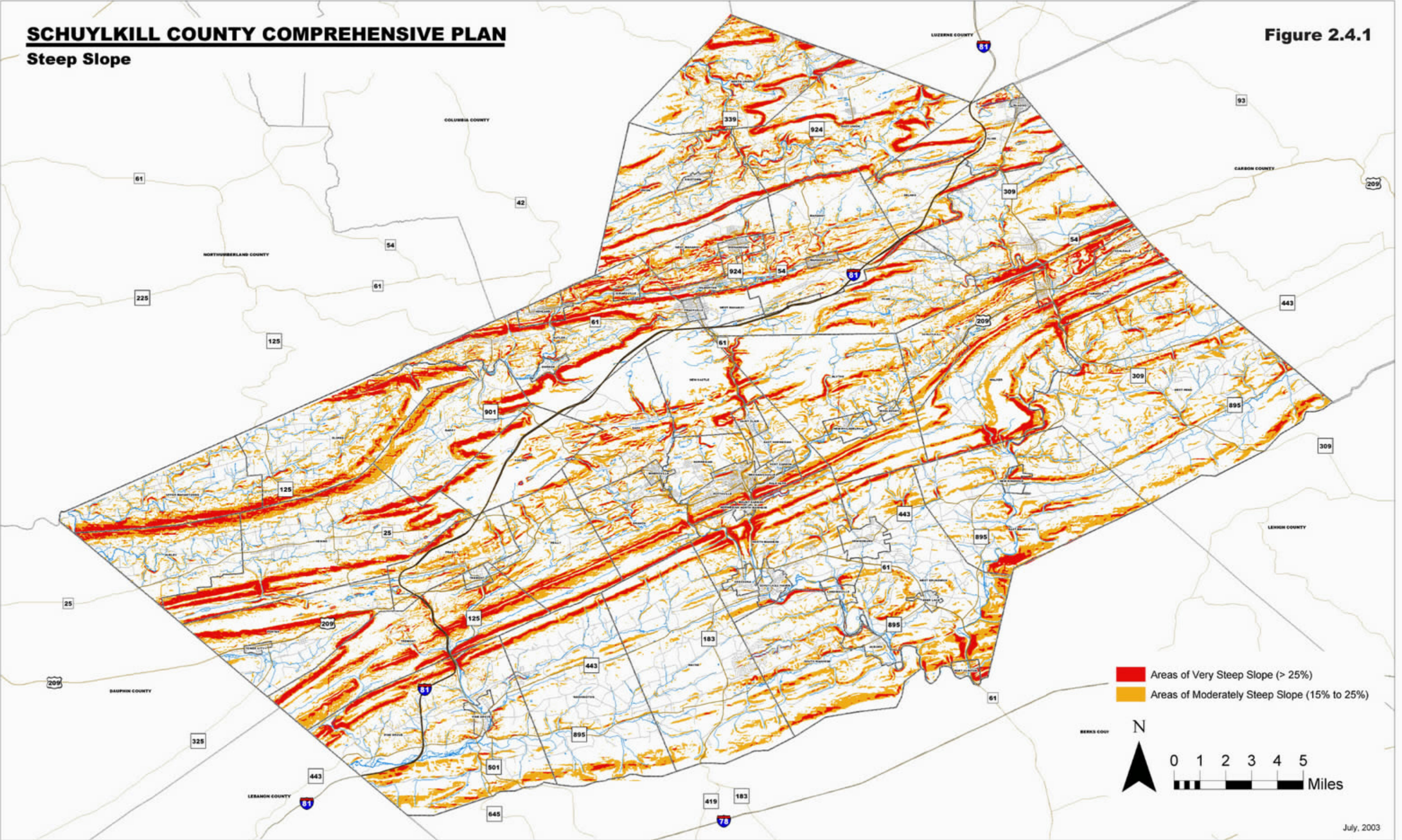
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natural communities since no species of concern are known to be present from recent survey efforts. However, the county-wide significant sites represent good examples of habitats that are relatively rare in the county, support an uncommon diversity of plant species, and/or provide valuable wildlife habitat on a local level. In many, but not all cases, areas of state-wide and county-wide significance correspond to areas that are preserved through state ownership of parks, forests, and gamelands.

Natural areas are also available and are used for human activities. Both residents and visitors to the county can enjoy scenic and recreational opportunities in these areas

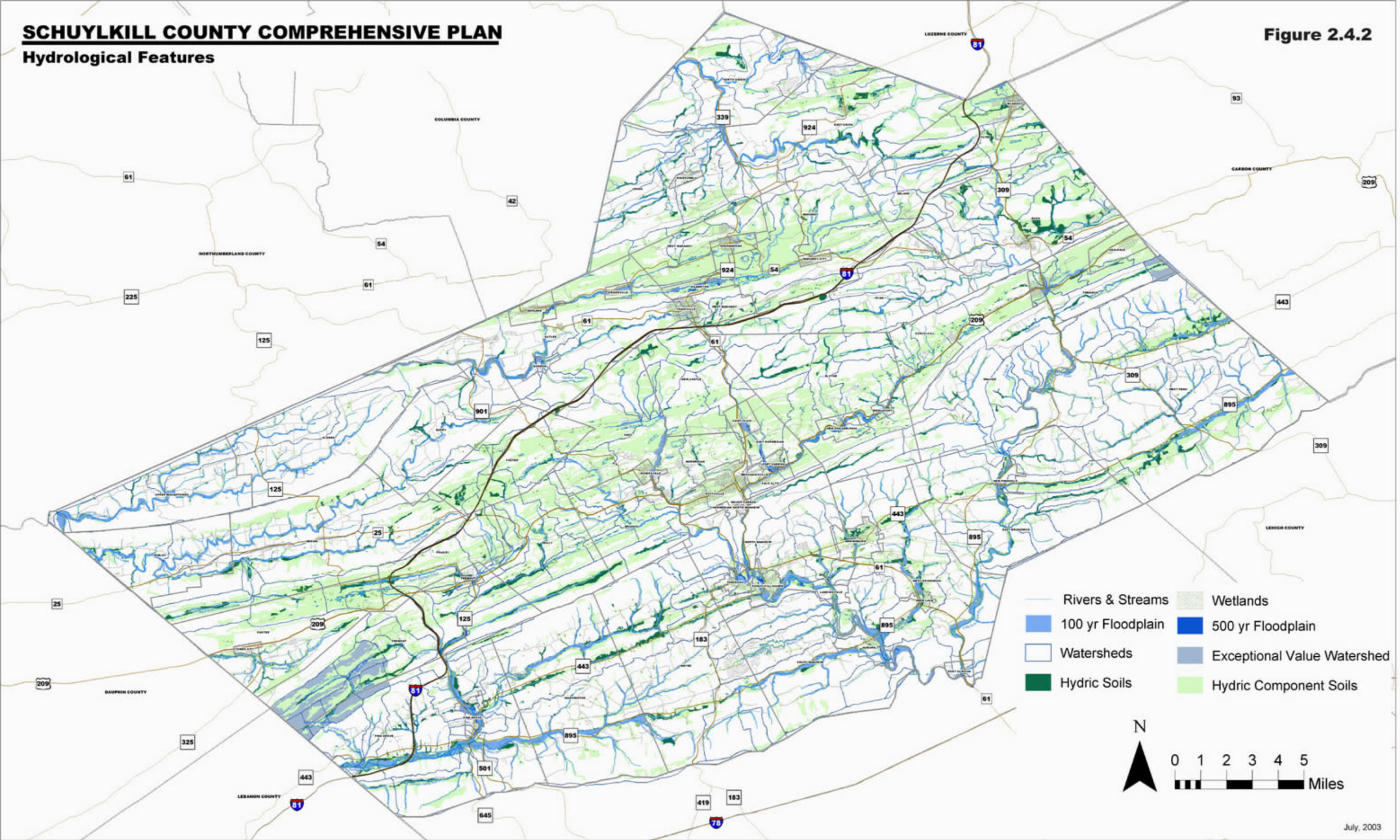
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Steep Slope

Figure 2.4.1



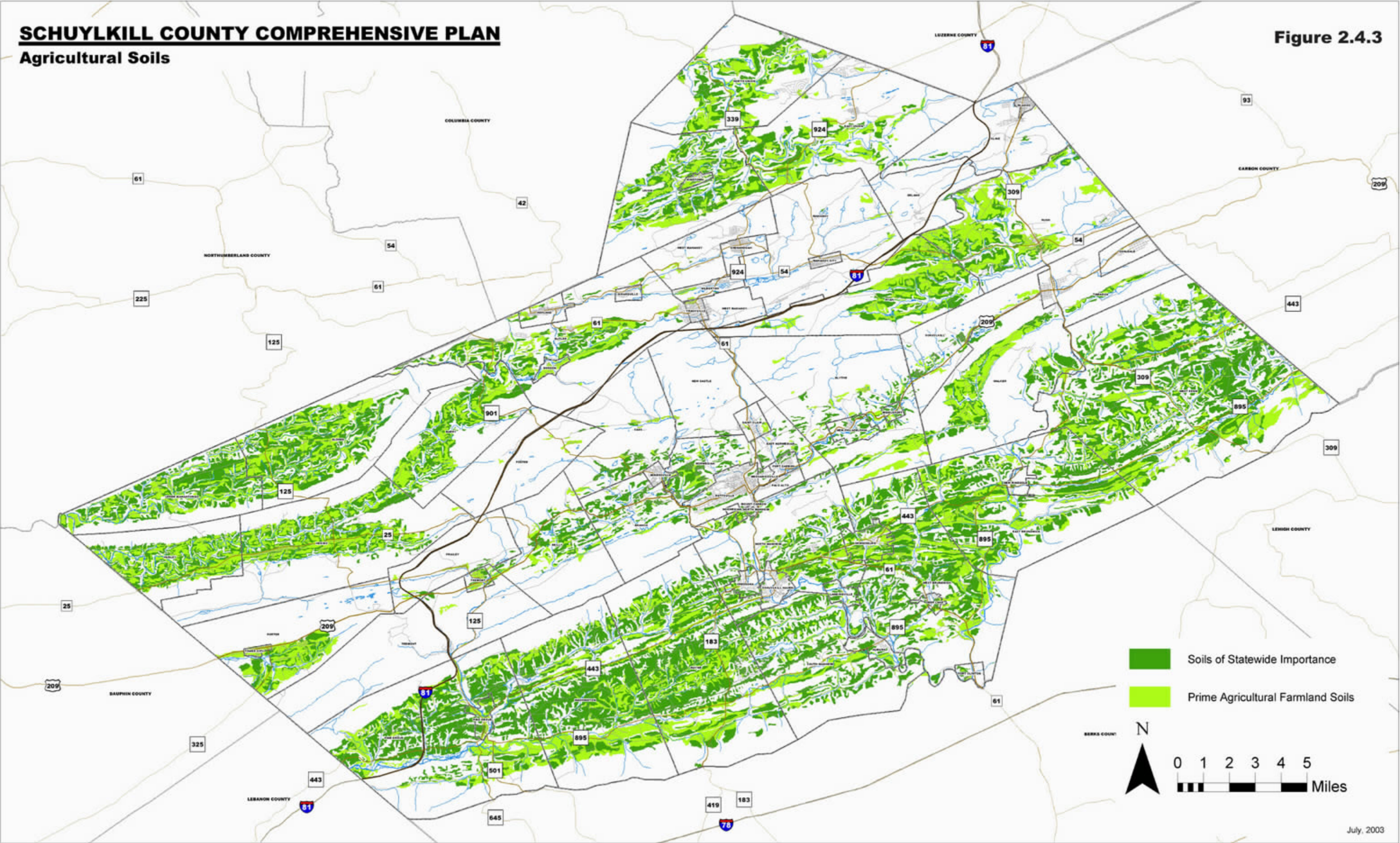
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Hydrological Features

Figure 2.4.2



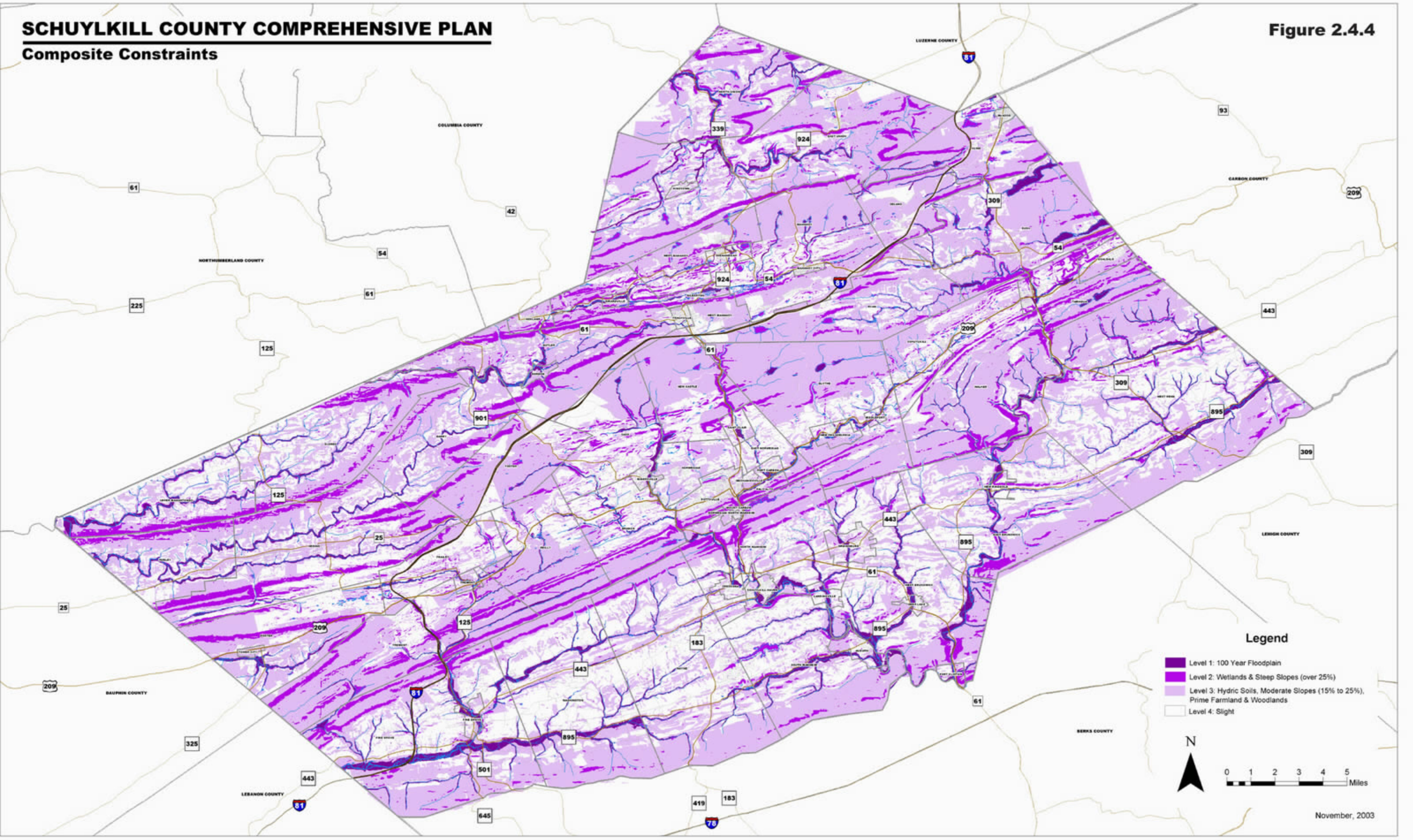
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Agricultural Soils

Figure 2.4.3



SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Composite Constraints

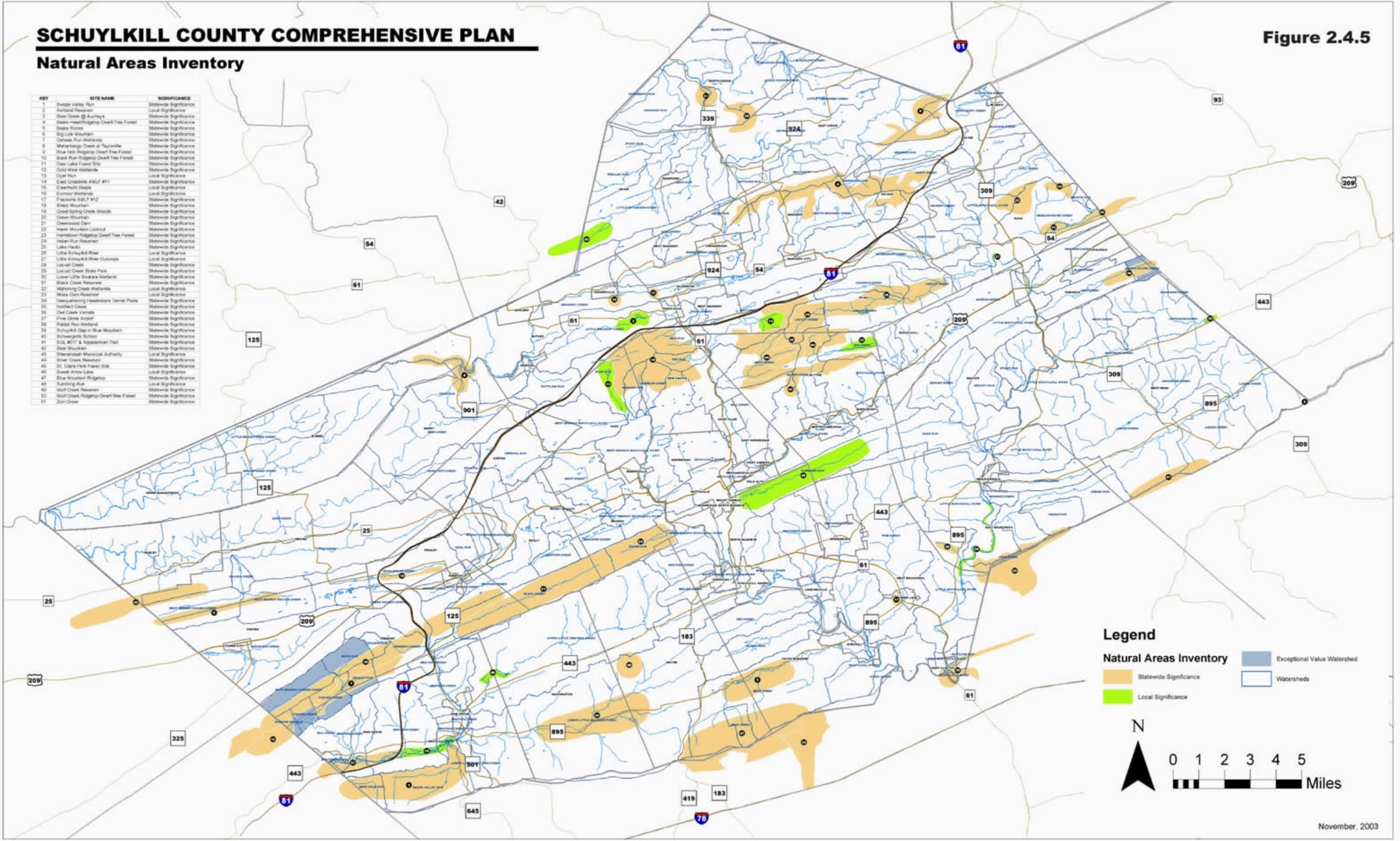
Figure 2.4.4



SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Natural Areas Inventory

Figure 2.4.5

KEY	SITE NAME	SIGNIFICANCE
1	Swiss Valley Run	Statewide Significance
2	Ashland Reservoir	Local Significance
3	Beaver Creek @ Auchys	Statewide Significance
4	Beaver Head Ridge/Dwarf Tree Forest	Statewide Significance
5	Beaver Rocks	Statewide Significance
6	Big Lick Mountain	Statewide Significance
7	Deer Run Wetlands	Statewide Significance
8	Mahantago Creek at Taylorsville	Statewide Significance
9	Blue Knob Ridge/Dwarf Tree Forest	Statewide Significance
10	Black Run Ridge/Dwarf Tree Forest	Statewide Significance
11	Deer Lake Forest Site	Statewide Significance
12	Gold Mine Wetlands	Statewide Significance
13	Oyster Run	Local Significance
14	East Grangeville AMU #11	Statewide Significance
15	Everetts Ridge	Local Significance
16	Exmoor Wetlands	Local Significance
17	Frackville AMU #12	Statewide Significance
18	Sharp Mountain	Statewide Significance
19	Good Spring Creek Woods	Statewide Significance
20	Green Mountain	Statewide Significance
21	Greenwood Dam	Statewide Significance
22	Hawk Mountain Lookout	Statewide Significance
23	Hemlock Ridge/Dwarf Tree Forest	Statewide Significance
24	Indian Run Reservoir	Statewide Significance
25	Lake Hauls	Statewide Significance
26	Little Schuylkill River	Local Significance
27	Little Schuylkill River Outcrops	Local Significance
28	Locust Creek	Statewide Significance
29	Locust Creek State Park	Statewide Significance
30	Lower Little Schuylkill Wetland	Statewide Significance
31	Rock Creek Reservoir	Statewide Significance
32	Mahoning Creek Wetlands	Local Significance
33	Moss Glen Reservoir	Local Significance
34	Nequebec Reservoir	Statewide Significance
35	Northkill Creek	Statewide Significance
36	Old Creek Vernalis	Statewide Significance
37	Pine Grove Airport	Statewide Significance
38	Rabbit Run Wetland	Statewide Significance
39	Schuylkill Gap in Blue Mountain	Statewide Significance
40	Schweigerts School	Statewide Significance
41	SGL #217 & Appalachian Trail	Statewide Significance
42	Star Mountain	Statewide Significance
43	Sheradown Municipal Authority	Local Significance
44	Silver Creek Reservoir	Statewide Significance
45	St. Clare Farm Forest Site	Statewide Significance
46	Sweet Arrow Lake	Local Significance
47	Blue Mountain Ridge/Dwarf Tree Forest	Statewide Significance
48	Tumbling Run	Local Significance
49	Wolf Creek Reservoir	Statewide Significance
50	Wolf Creek Ridge/Dwarf Tree Forest	Statewide Significance
51	Zion Grove	Statewide Significance



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Table 2.4.1 Natural Areas Inventory

	Site Name	Significance
1	Swope Valley Run	Statewide Significance
2	Ashland Reservoir	Local Significance
3	Bear Creek @ Auchey's	Statewide Significance
4	Bears Head Ridgetop Dwarf-Tree Forest	Statewide Significance
5	Bears Rocks	Statewide Significance
6	Big Lick Mountain	Statewide Significance
7	Dehaas Run Wetlands	Statewide Significance
8	Mahantango Creek at Taylorville	Statewide Significance
9	Blue Nob Ridgetop Dwarf-Tree Forest	Statewide Significance
10	Buck Run Ridgetop Dwarf-Tree Forest	Statewide Significance
11	Deer Lake Fossil Site	Statewide Significance
12	Gold Mine Wetlands	Statewide Significance
13	Dyer Run	Local Significance
14	East Girardville AMLF #11	Statewide Significance
15	Eisenhuth Seeps	Local Significance
16	Exmoor Wetlands	Local Significance
17	Frackville AMLF #12	Statewide Significance
18	Sharp Mountain	Statewide Significance
19	Good Spring Creek Woods	Statewide Significance
20	Green Mountain	Statewide Significance
21	Greenwood Dam	Statewide Significance
22	Hawk Mountain Lookout	Statewide Significance
23	Hometown Ridgetop Dwarf-Tree Forest	Statewide Significance
24	Indian Run Reservoir	Statewide Significance
25	Lake Hauto	Statewide Significance
26	Little Schuylkill River	Local Significance
27	Little Schuylkill River Outcrops	Local Significance
28	Locust Creek	Statewide Significance
29	Locust Creek State Park	Statewide Significance
30	Lower Little Swatara Wetland	Statewide Significance
31	Black Creek Reservoir	Statewide Significance
32	Mahoning Creek Wetlands	Local Significance
33	Moss Glen Reservoir	Local Significance
34	Nesquehoning Headwaters Vernal Pools	Statewide Significance
35	Northkill Creek	Statewide Significance
36	Owl Creek Vernal	Statewide Significance
37	Pine Grove Airport	Statewide Significance
38	Rabbit Run Wetland	Statewide Significance
39	Schuylkill Gap in Blue Mountain	Statewide Significance
40	Schweigerts School	Statewide Significance
41	SGL #217 & Appalachian Trail	Statewide Significance
42	Bear Mountain	Statewide Significance
43	Shenandoah Municipal Authority	Local Significance
44	Silver Creek Reservoir	Statewide Significance
45	St. Claire Fern Fossil Site	Statewide Significance
46	Sweet Arrow Lake	Local Significance
47	Blue Mountain Ridgetop	Statewide Significance
48	Tumbling Run	Local Significance
49	Wolf Creek Reservoir	Statewide Significance
50	Wolf Creek Ridgetop Dwarf-Tree Forest	Statewide Significance
51	Zion Grove	Statewide Significance

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SECTION 5: HISTORIC AND LANDSCAPE RESOURCES

Landscape Character and Scenic Resources

Schuylkill County has a rich landscape, a significant portion of which remains untouched by urban, suburban, or industrial development. These include areas of farmland and woodlands. A most basic difference among the different geographic areas in the county is their underlying geology. The various geologic formations and their weathering over time have created the landforms and drainage patterns with which we are familiar today. The landforms, the drainage patterns, the soils developed from the geologic formations, and the other natural resources characteristic of each geographic area have played a large part in shaping the settlement and use of the land by people. Land use, in turn, has given shape to the Schuylkill County landscape by establishing its spatial patterns, divisions, and degrees of accessibility, as well as by influencing the vegetative growth, which is constantly changing. In seeking to preserve the landscape of Schuylkill County, it will be important to identify fully those elements that contribute to the landscape's character, and to create policies and processes that preserve and reinforce those elements as the county continues to grow and develop.

Historic Resources

Historic resources in Schuylkill County represent the region's different periods of settlement. The oldest development grew around the county's waterways and crossroads. Later resources represent the growth around railroad lines and the subsequent mining communities that developed. Since its initial European settlement in the 1700s, the county has experienced change through development and evolution of existing industries and institutions, economic conditions, and way of life. As a consequence, the historic character of the county's landscape has remained strong. From the standpoint of historical significance, Schuylkill County is predominantly home to a 19th-century agricultural and 19th-to-20th-century industrial landscape. Historic resource types include farmsteads, residences, mills, schoolhouses, and churches and tend to be related to the peak development of boroughs and villages located in mining areas or concentrations of farms.

As part of this comprehensive planning process, a review of previous surveys of local historic resources was undertaken. Following is a list of the existing resources as well as new resources reviewed for this plan. These resources are also mapped out in Figure 2.5.1.

County Trail System

The county has an important trail system that passes through many natural and man-made resource areas (Figure 2.5.2). Expansion of this trail network and linkages to other areas outside the county are ongoing.

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Schuylkill County is bound on its southern border by the famous Appalachian Trail which stretches from Georgia to Maine. However, the county also contains a number of other scenic paths and trails, many of which are located along the banks of the Schuylkill River and its tributaries as they flow to the south. In conjunction with the many water features, parkland, and other open space in Schuylkill County, the trail system is an important resource recreationally as well as economically because of the visitors it attracts and quality of life it provides.

Appalachian Trail: The Appalachian Trail, or the “A.T.” as it is known to hikers, runs along a large extent of Schuylkill County's southern border. On its route through the Schuylkill County area, the A.T. passes through woodland, mountain ridges, important bird migration zones and viewing areas, and amongst many of Schuylkill County's streams and rivers. It leaves the county just southeast of Port Clinton near the Hawk Mountain Sanctuary.

Bartram Trail: This trail follows elements of the Schuylkill River on its eastern shore as it meanders south from the Pottsville area through Schuylkill Haven, Landingville, and Auburn, ending in Port Clinton on the county's southern border. The Bartram Trail is part of a system that extends beyond the boundary of the county.

Lehigh and New England Rail Trail: Opened in June 2002, this former rail line turned into a recreation trail under the Rails-to-Trails program and runs along PA Route 309 between the borough of Tamaqua and West Penn Township in the eastern part of Schuylkill County.

Little Schuylkill Branch Trail: This trail is located on the banks of the Little Schuylkill River as it flows from above the Borough of Tamaqua toward Port Clinton and Schuylkill County's southern border. South of Tamaqua the trail runs on the western side of PA Route 309 before heading southwest through Walker Township, New Ringgold, East and West Brunswick Townships, and Port Clinton.

Schuylkill River West and Main Branch Water Trail: This path, as its name suggests, follows the western and then main branches of the Schuylkill River from their origin in Cass Township to the southern border of the county near Port Clinton. The trail travels south through Minersville and along the western edge of the City of Pottsville before trending southeast through Cressona, Schuylkill Haven, Landingville, and Auburn, and converging with the Little Schuylkill River in Port Clinton. This path is part of a system that extends beyond the boundary of the county.

Schuylkill Valley Heritage Trail: Running between Middleport and Tamaqua, as well as extending south along PA Route 309, this trail will eventually connect the Lehigh and New England Rail Trail in the eastern part of Schuylkill County with the Bartram Trail running south from the Pottsville

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area. The Schuylkill Valley Heritage Trail runs along the southern side of US Route 209.

Stony Valley Railroad Grade Trail: Located amidst State Gamelands, the West Branch Creek, and other water features on the western edge of Schuylkill County, this trail is relatively remote. It originates at the western border of Schuylkill County with Dauphin County and runs approximately 22 miles east into Tremont Township.

Swatara State Park Trail: Located in Swatara State Park and following eight miles of the Swatara Creek, this trail is another successful conversion from a former rail line. The trail originates in Lebanon County and runs east through Pine Grove Township.

Land Conservation and Preservation

Several techniques are now being used to conserve farmland in the county (Figure 2.5.3). The most important is the purchase of agricultural conservation easements, since these essentially preserve farmland in perpetuity. Other techniques, such as Agricultural Security Areas, can be helpful in conserving land for agriculture. Additional land is being considered for preservation in the county through the acquisition of property for State Gamelands, State Parks, and State Forests.

Agricultural Conservation Easements

Schuylkill County is participating fully in the Pennsylvania Purchase of Agricultural Conservation Easements (PACE) program. Easements provide protection of farmland that is essentially permanent. They can be reviewed after 25 years, however, and, if both the state Agricultural Preservation Board and the Local Agricultural Advisory Committee (in Schuylkill County, the Agricultural Land Preservation Board) find that the land under easement is no longer viable agricultural land, the development rights can be sold to the current owner. In order to be eligible for the PACE program, farmland must be located in an Agricultural Security Area. As of 2003, Schuylkill County has acquired easements on 70 farms, totaling approximately 8,500 acres.

The largest concentration of preserved farms is in northwestern Schuylkill County. Preserved farms in this area are located in Upper Mahatongo, Hubley, Eldred, Hegins, and Barry Townships. Other areas of preserved farms include portions of Union and West Penn Townships in the northeast and farms in Wayne and Washington Townships in the south.

Agricultural Security Areas

Many farmland owners have enrolled their land in Agricultural Security Areas. The Agricultural Security Areas law prevents municipalities from enacting

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ordinances that restrict normal farming practices or structures in these areas. It also requires state agencies with programs that might negatively affect farmers to conduct their programs in a manner that will encourage the continuance of viable agriculture in the areas. It requires the approval of the Agricultural Lands Condemnation Approval Board of the Commonwealth before the Commonwealth or local governments use the power of eminent domain to acquire land in an area. Finally, the law requires that state or locally funded development projects in a Security Area be reviewed by the state Agricultural Preservation Board and the Schuylkill County Agricultural Land Preservation Board. Inclusion of an area is voluntary and does not prevent the landowner from developing his land. As of 2003, there were fourteen townships in Schuylkill County that had established Agricultural Security Areas consisting of over 56,900 acres. Agricultural Security Areas in the county cover farmland in the northwest, northeast, south, and southeast. The areas in the northwest and northeast, in particular, make up a large portion of areas of suitable agricultural soils.

State Forests

State Forests in Pennsylvania are administered by the Department of Conservation and Natural Resources (DCNR) Bureau of Forestry. State Forests in the county are overseen through Forestry District #18, the Weiser District, which manages lands in Lebanon, Berks, Dauphin, Schuylkill, Northumberland, and Carbon Counties. As mentioned earlier in the Natural Resources section of this chapter, there are approximately 9,000 acres of Schuylkill County lands managed in Weiser State Forest.

State Gamelands

State Gamelands are managed through the Pennsylvania Game Commission and are scattered throughout the county. The largest concentration in the county is located along the county's southern border with Berks County. Other areas exist along the border of Delano and East Union Township and along the border of Schuylkill Haven and North Manheim Townships. Other municipalities that contain state gamelands include Tremont, Porter, Hubley, Reilly, Eldred, Hegins, Rush, New Castle, Butler, and Walker Townships, and Tamaqua Borough.

State Parks

Locust Lake State Park

Known for its popular camping area, Locust Lake State Park nestles on the side of Locust Mountain in Ryan Township. Hiking, fishing, biking, and camping are popular activities in the 1,089-acre park.

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Swatara State Park

The 3,515-acre Swatara State Park, is located in Lebanon and Schuylkill Counties and situated along Interstate 81 between Second and Blue Mountains. One of the main focal points is the eight miles of Swatara Creek that winds through the park. A recreation area is planned for the future and will offer canoeing, fishing, hiking, picnicking, bicycling, swimming, camping, and environmental education.

Tuscarora State Park

The 1,618 acre park is located in Ryan, Rush, and Schuylkill Townships and surrounding Tuscarora Lake. Activities available in the park include picnicking, fishing, hiking, camping, and environmental education. The park is home to the Park Office and Visitor Center for Tuscarora and Locust Lake state parks.

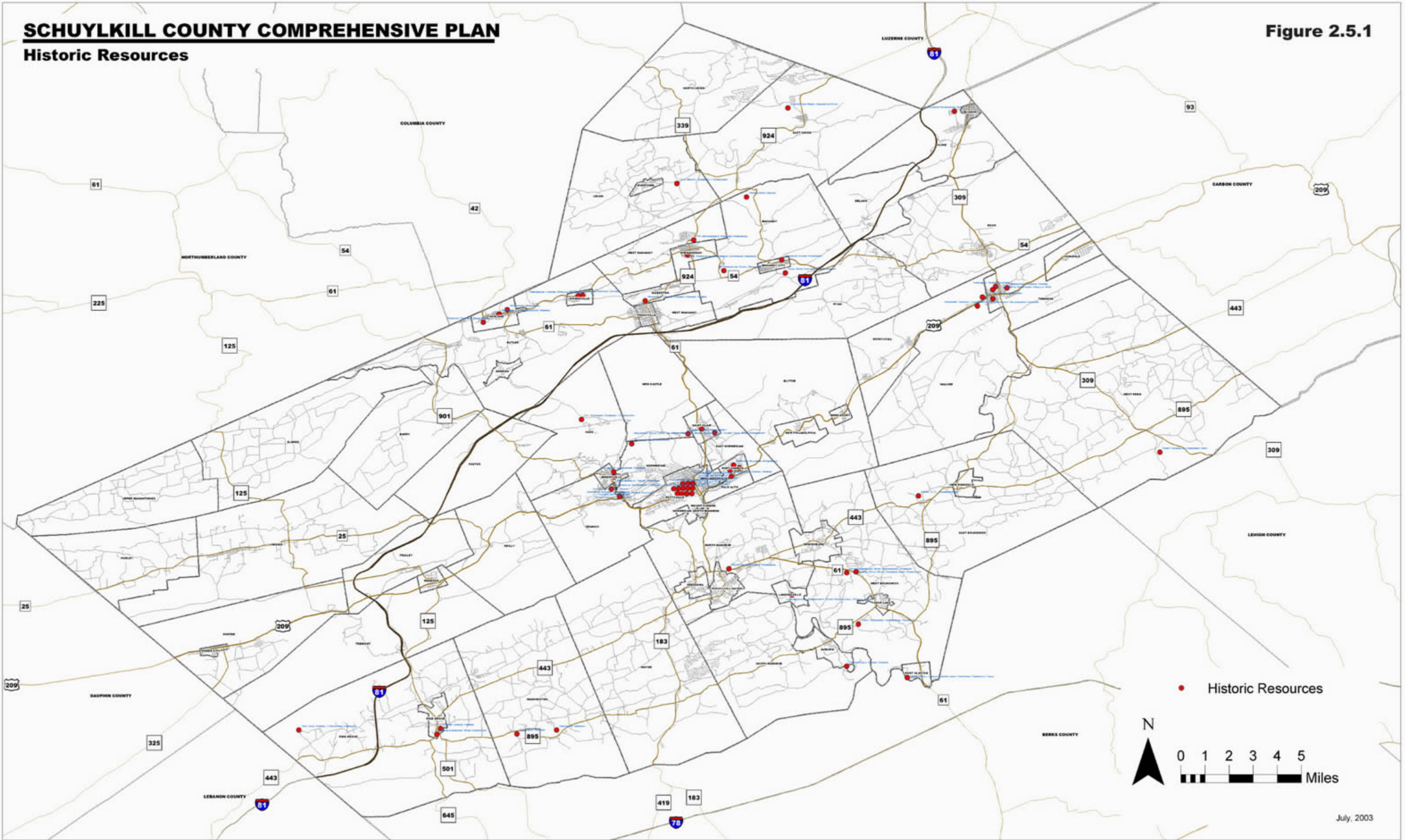
County-owned Lands

Sweet Arrow Lake

Schuylkill County has acquired land surrounding Sweet Arrow Lake in Pine Grove and Washington Townships in order to develop the first county park. Plans for recreational activities include facilities for swimming, fishing and boating. There are also plans to renovate the historic clubhouse at the lake as well as ongoing environmental work on the dam.

SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Historic Resources

Figure 2.5.1



Chapter 2: Existing Conditions

Table 2.5.1 Historic Resources

ID Number	<u>Resource Name</u>	<u>Location</u>
1	The Old Forge / Swatara Furnace	Pine Grove
2	Union Canal Ruins	Pine Grove
3	Revolutionary War Cemetery	Pine Grove
4	Covered Bridge	Washington
5	Covered Bridge	Washington
6	Vietnam Veterans Memorial	Schuylkill Haven
7	Pioneer Tunnel Coal Mine	Ashland
8	Museum Of Anthracite Mining	Ashland
9	Mothers Memorial	Ashland
10	Pennsylvania Anthracite Miners Memorial	Shenandoah
11	St. Michael's Ukrainian Catholic Church	Shenandoah
12	Charles Kaier Mansion	Mahanoy City
13	Mahanoy Plane Engine House Ruins	Frackville
14	Hibernian House (Molly Maguires)	Girardville
15	Girard Estate Office	Girardville
16	St Nicholas Coal Breaker	Mahanoy Township
17	Peddler's Grave	Mahanoy Township
18	Civil War Soldiers Monument	Mahanoy Township
19	Sheppton Mine Disaster Site	East Union Township
20	Old White Church / Cemetery	Union Township
21	New St. Nick Breaker	Norwegian Township
22	St. Kieran's Church / Cemetery	Cass Township
23	Pottsville Maroon's Football Field (Kings Village)	Branch Township
24	Coal Miner Statue	Branch Township
25	Minersville Train Station	Minersville
26	St. Nick's Ukrainian Church	Minersville
27	Henry Clay Monument	Pottsville
26	Yuengling Brewery	Pottsville
28	Schuylkill County Jail	Pottsville
29	Schuylkill County Courthouse	Pottsville
30	John O'Hara House	Pottsville
31	St. John's Roman Catholic Church	Pottsville
32	Presbyterian Church	Pottsville
33	United Methodist Church	Pottsville
34	Nicholas Biddle Grave	Pottsville
35	Garfield Square Monument	Pottsville
36	Yuengling Mansion	Pottsville
37	Charles Baber Cemetery	Pottsville
38	Schuylkill Canal Ruins	Port Carbon
39	Port Carbon Soldiers Monument	Port Carbon
40	Mother Allison Memorial	Port Carbon
41	Schuylkill Canal Mural	Port Carbon

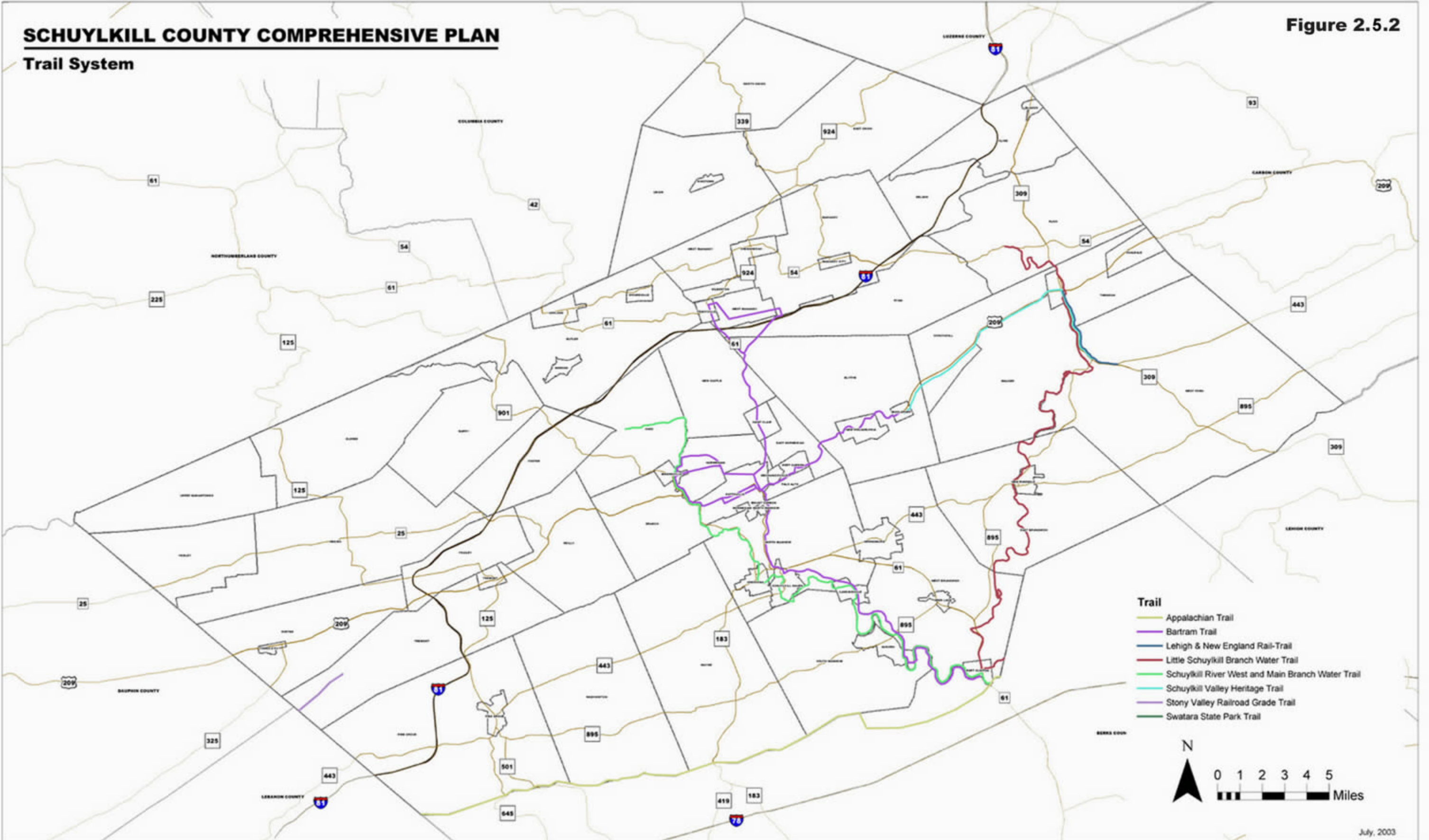
Chapter 2: Existing Conditions

Table 2.5.1 Historic Resources (continued)

ID Number	Resource Name	Location
42	John Siney Monument	St. Clair Area
43	Walker's Hall (Site of First Miners Union Meeting)	St. Clair Area
44	St. Clair Civil War Monument	St. Clair Area
45	Fort Lebanon Historical Marker	West Brunswick
46	Landingville Community Park Schuylkill Canal Ruins	Landingville
47	Schuylkill Canal Ruins	West Brunswick
48	Schuylkill Canal Ruins and Historic Towpath Trail	West Brunswick
49	Zions (Old Red) Church and Cemetery	West Brunswick
50	Revolutionary War Historical Marker	West Brunswick
51	Kelayres Massacre Site	Kline Township
52	Newkirk Tunnel Historical Site	Tamaqua
53	Tamaqua Train Station	Tamaqua
54	Burkhart Moser House	Tamaqua
55	Odd Fellow's Cemetery	Tamaqua
56	St. Jerome's Cemetery (Molly M's)	Tamaqua
57	Hegarty Blacksmith Studio	Tamaqua
58	Fort Franklin Historic Site	West Penn Township
59	First Schuylkill County Courthouse	East Brunswick Township
60	Other churches in Minersville	Minersville
61	[unassigned]	
62	Pine Grove Historic District	Pine Grove
63	Tamaqua Historic District	Tamaqua
64	Port Clinton Historic District [proposed]	Port Clinton
65	Pottsville Downtown Historic District	Pottsville

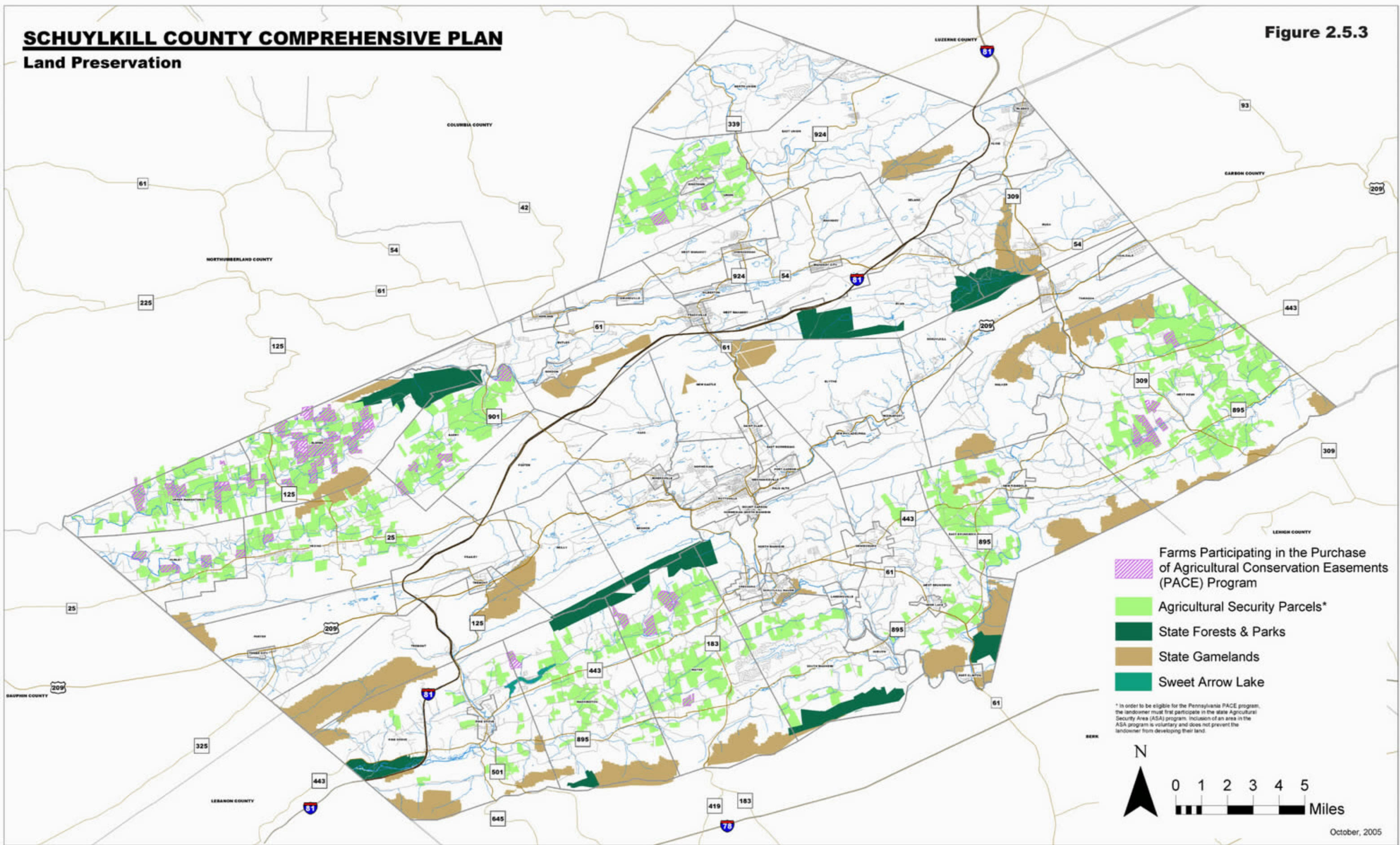
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Trail System

Figure 2.5.2



SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Land Preservation

Figure 2.5.3



Chapter 2: Existing Conditions

SECTION 6: MINING RESOURCES

Schuylkill County is a significant part of the coal region that is located in southeastern Pennsylvania. The hard coal, or anthracite, beds are located in several narrow bands that run northeasterly between the Blue Mountain and the Susquehanna River. The region is divided into three fields – southern, middle, and northern. The southern field was the first to be developed and its central part is known as the Pottsville District. In the fields, the coal lies in dozens of seams, or “veins,” some only a few inches thick and unworkable and some as much as 40 feet thick. In the county, anthracite occurs in a large number of veins, one above the other, separated by thicker or thinner beds of slate and shale.

In Schuylkill County, there are two predominant bands of anthracite coal (Figure 2.6.1). The first is located in the north central part of the county and runs west to east from Butler Township to Kline Township. The other area is located in the central portion of the county and runs from the western county border with Dauphin County to Coaldale and Tamaqua at the border with Carbon County. A smaller area occurs in the northern part of the county in East Union and North Union Townships.

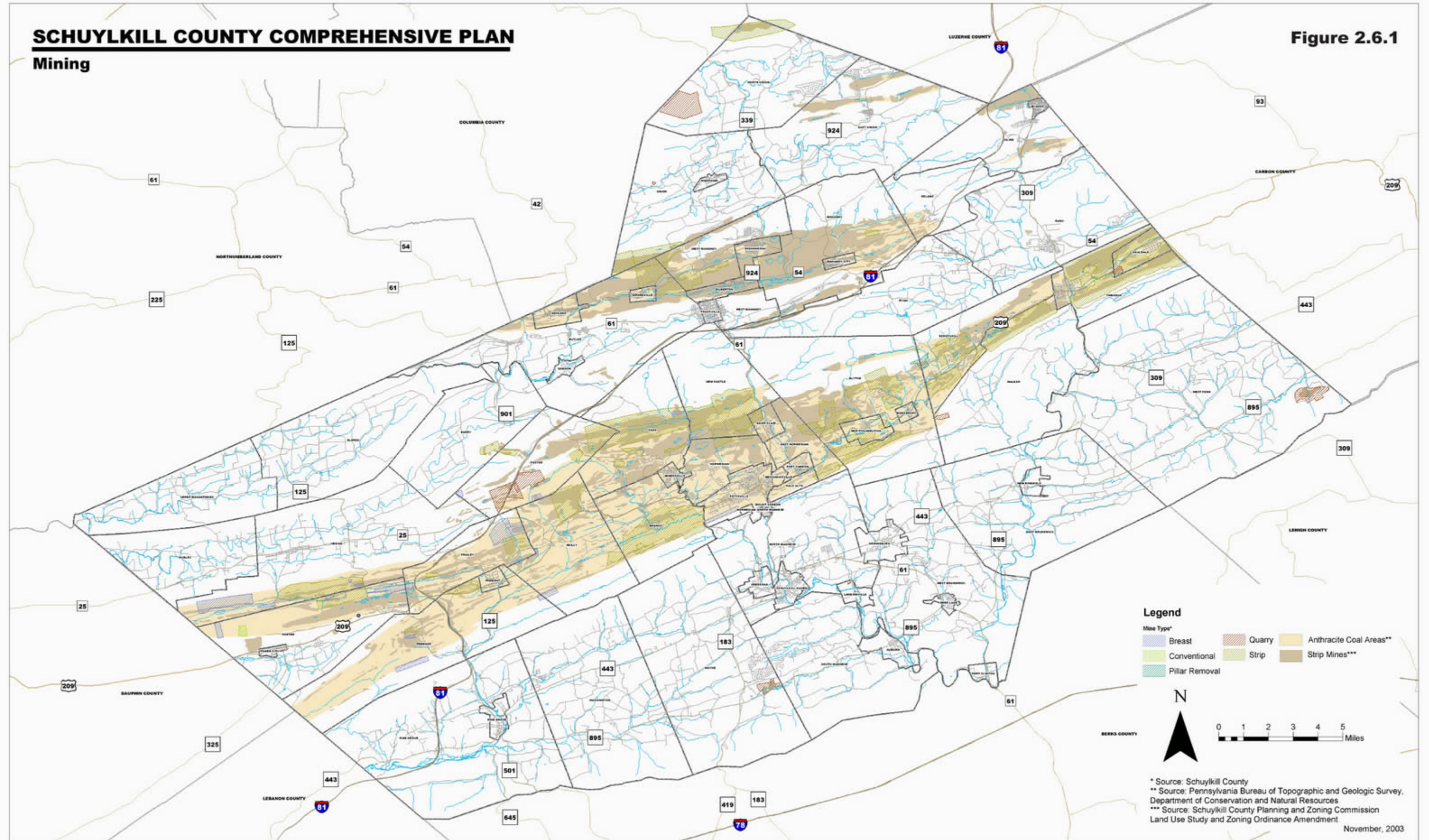
These areas have largely been disturbed from mining activities. In the north central band of anthracite deposits, large areas from western Delano Township to Butler Township have been disturbed. Other disturbed areas in this band include areas along the Luzerne and Carbon County border in Kline Township and McAdoo Borough. There are large areas of disturbance in the coal band that crosses the central portion of Schuylkill County in the eastern and central portions of the county. Other areas in this band show only pockets of disturbed areas. Most of the anthracite area in East Union and North Union Townships show large areas of disturbance.

In addition to the areas of anthracite deposits that show disturbances, there are areas scattered throughout the county where deep and strip mining are currently permitted. Permitted areas for strip mining include portions of Butler, Mahanoy, New Castle, Porter, Frailey, and Wayne Townships as well as the Borough of Shenandoah. In addition, deep mining is permitted in areas of Porter and Tremont Townships.

SCHUYLKILL COUNTY COMPREHENSIVE PLAN

Mining

Figure 2.6.1



Legend

Mine Type*

- Breast
- Conventional
- Pillar Removal
- Quarry
- Strip
- Strip Mines***
- Anthracite Coal Areas**

* Source: Schuylkill County
 ** Source: Pennsylvania Bureau of Topographic and Geologic Survey, Department of Conservation and Natural Resources
 *** Source: Schuylkill County Planning and Zoning Commission Land Use Study and Zoning Ordinance Amendment

November, 2003

Chapter 2: Existing Conditions

SECTION 7: POPULATION, HOUSING, AND EMPLOYMENT

Population projections are an essential part of planning for future growth in that they can be translated into approximations of the future need for housing, community facilities, and other forms of development. Many factors are taken into account in making population projections but these factors are constantly subject to change. The longer the time period of the projections and the smaller the present population, the less reliable the projections are likely to be. For instance, projections for individual municipalities are less valid than those for a county, for a large region or for the entire nation, and 15- or 20-year projections usually are less valid than five-year projections.

Population, housing, and employment trends and projections are discussed in this section. Data for Schuylkill County and its constituent municipalities are contrasted with regional and statewide data where appropriate. The demographic analysis provides a basis for predicting future growth and estimating residential and nonresidential land area requirements.

Population Trends

The population of Schuylkill County, which was 173,027 in 1960, declined to 150,336 by 2000, representing a reduction of the 1960 population by 13 percent (Tables 2.7.1 and 2.7.2). Most of the decline occurred in the first three decades of the forty-year period and, from 1990 to 2000, Schuylkill County declined only slightly (-1.5 percent). While many other counties in the region have experienced slight growth in the population during this time period, counties such as Luzerne and Northumberland have also experienced this type of moderate population loss.

The largest municipality in Schuylkill County is the county seat, the City of Pottsville, with a 2000 population of 15,549. The second largest municipality in the county is the Borough of Tamaqua, with a population of 7,174. Other boroughs with significant populations include Shenandoah with a population of 5,624 and Schuylkill Haven with a population of 5,548. The smallest boroughs in the county are Landingville, with a population of 175, and Mount Carbon, with a population of 81. Almost all of the boroughs as well as the City of Pottsville have experienced slight to moderate population loss during the period from 1960 to 2000.

The most populous townships in the county are Butler Township, with a 2000 population of 4,987, and Wayne Township with a population of 4,721. There are other townships close to this size, including the townships of Hegins, Mahanoy, North Manheim, Pine Grove, Rush, West Brunswick, West Mahanoy, and West Penn. The townships with the smallest population include Frailey Township with a 2000 population of 416, New Castle Township with a population of 395, and Tremont Township with a population of 250.

Chapter 2: Existing Conditions

The townships have fared somewhat better than the boroughs with regard to population change. Fourteen townships have experienced population increases from 1990 to 2000. One reason for this may be that people are leaving the boroughs to live in more suburban or rural environments in nearby townships. In addition, institutional populations in federal and state prisons in Ryan, Butler, and Mahanoy Townships have contributed the bulk of the population increase in these communities.

Age Characteristics

According to the 2000 Census, 23 percent of Schuylkill County's population is under 18 years-of-age, 57 percent is 18-65, and 20 percent is over 65 years-of-age (Tables 2.7.5 and 2.7.6). These percentages are generally in keeping with those exhibited by Pennsylvania's population as a whole. However, Schuylkill County's percent of population over 65 years-of-age is higher than the state's figure of 15.6 percent; in fact, Schuylkill County has one of the highest percentages in the state of residents over 65. Related to this is the trend of a rising median age. The median age in the county has increased from 37.4 years-of-age in 1970 to 40.9 in 2000. This is somewhat higher than the state's median age for 2000 which was 38.0 years-of-age.

Housing Characteristics

Over 80 percent of the housing units in Schuylkill County are either single-family attached or single-family detached dwellings (Table 2.7.7). There are also significant amount of other housing types available in the county with 13.7 percent of all housing units being part of multi-unit structures and 4.3 percent being mobile homes.

Schuylkill County's vacancy rate has increased over the years, from a rate of 7.6 percent in 1970 to a rate of 10.7 percent in 2000. However, throughout the same period, the number of housing units has grown in the county from 64,825 in 1970 to 67,806 in 2000. The reasons for this ongoing construction of new residential units may include a demand for different housing types from those available in the county and a decrease in household size, as Schuylkill County has experienced a slight decrease in persons per household from a high of 2.66 in 1980 to a low of 2.36 in 2000 (Table 2.7.8).

Population and Housing Forecasts

Alternative population forecasts for Schuylkill County have been made for the period 2000 to 2025 (Table 2.7.9). In most cases, forecasts use the U.S. Bureau of the Census's 2000 county population total of 150,336 persons.

Alternative 1 shows population forecasts for 2025 that were shown in the 2002 *Data Pamphlet* for Schuylkill County by Woods & Poole Economics. This estimate used 1990 Census information as a base and developed future

Chapter 2: Existing Conditions

forecasts based upon an estimated 2000 population of 150,240. For Schuylkill County, a 2010 population of 148,180 and a 2025 population of 147,430 residents were forecast in 2002.

Alternative 2 takes the actual annual growth rate for the county from 1990 to 2000, around -0.15 percent per year, and projects this rate out over 25 years, from 2000 to 2025, on Schuylkill County's starting population of 150,336 (the 2000 Census figure). The results show that around 144,698 people would live in Schuylkill County by the year 2025.

Alternative 3 takes the actual annual growth rate for the nine-county area, which includes Schuylkill County and all counties adjacent to it, from 1990 to 2000, 0.37 percent per year, and projects this rate out over 25 years, from 2000 to 2025, on Schuylkill County's starting population of 150,336 (the 2000 Census figure). This projection reveals that around 164,236 people would live in Schuylkill County by the year 2025.

Alternative 4, takes the housing construction rate for Schuylkill County, 0.2 percent per year. This rate is projected out over 25 years, from 2000 to 2025, on Schuylkill County's starting population of 150,336. The resultant 2025 population for the county is about 157,836 people.

Housing Units to be Constructed

Based on the forecasts and projections discussed above, including a prospective county 2025 population of between 147,400 and 164,200 residents, an estimate of the number of housing units to be constructed over the planning period has been formulated (Table 2.7.10). Three rates of population growth are used: a "low" estimate of 150,000 residents, a "medium" estimate of 155,000 residents, and a "high" estimate of 160,000 residents.

This forecast assumes that 95.2 percent of the population will live in households, that the average number of persons per household will be 2.2, that vacancies will comprise 8 percent of the total housing stock, and that there will be a modest need to replace some of the existing housing stock over the planning period. (Figures used are consistent with the Federal Census for Schuylkill County for 1980, 1990, and 2000 and area population and housing trends.)

Applying this method, the total number of new housing units to be constructed in the county from 2000 to 2025, a 25 year period, could range from 3,652 to 8,325, with about 5,989 new units corresponding to a "medium" rate of population growth. This latter figure translates into about 240 units per year. Based upon the "medium" population forecast, the county may expect construction of new housing units over the planning period at a slightly higher pace than recent history.

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Employment Trends and Forecasts

Employment trends and forecasts are important in planning for future growth. While population forecasts and housing data can be translated into approximations of the future need for housing units and land for new housing construction, employment forecasts for a given locale may be converted into estimates of potential demand for land for new commercial and industrial establishments. Both kinds of forecasts may give clues as to the future need for varying kinds of community facilities and services.

According to the 2000 Census, 63,902 people are employed in Schuylkill County (Table 2.7.11). The largest percentage of workers, 26 percent, are employed in the manufacturing sector. The sectors of education, health and social services, and that of retail trade also are strong in the county, employing 19.5 percent and 12.3 percent, respectively, of the total number of people employed in the county. These employment figures are in keeping with the averages of nearby counties, except for the fact that the manufacturing sector in Schuylkill County employs more workers than that sector does in the surrounding counties (Table 2.7.12).

Employment forecasts are taken from the *2002 Data Pamphlet* by Woods & Poole Economics. Forecasting future employment is more difficult than population because of many factors influencing employment at the national, regional, and local levels. Unlike population changes, which generally tend to be more gradual and relatively predictable, employment forecasts may vary widely because of broad forces such as foreign trade, world economics, politics, military conflicts, national monetary policies, demographic trends, and social forces. Local factors such as labor force availability, land prices, transportation networks, and local political climate also play important roles determining employment levels. Sources of current employment data often vary. At the federal level, the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA), and the Bureau of Census all provide data on current employment; however, the methods and sources of the data vary among different agencies, producing different sets of results.

The Woods & Poole Economics estimate of a 2000 employment figure of 63,902, was forecast in 2002 to increase to 68,690 by 2010, 72,260 in 2000, and 74,460 by 2025 (Table 2.7.13). Obviously, there are a great many potential influences on the total number of jobs likely to be found in Schuylkill County by 2025. A concerted effort to attract new businesses could produce results that would seriously affect these Woods and Poole 2002 forecasts. On the other hand, a serious decline in the county resident population could reduce the expected level of demand for retail trade and services.

In comprehensive planning, the primary purpose in forecasting future jobs is to arrive at some general estimates of the land required for new commercial and industrial development. Naturally, other factors come into play apart from total

Chapter 2: Existing Conditions

numbers of forecast jobs. The kinds of jobs that will comprise the total is a significant determinant of land needed for new non-residential development, as is the intensity of development (jobs per acre).

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Table 2.7.1 Population Totals in Schuylkill County Municipalities and Selected Jurisdictions, 1960-2000

	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Schuylkill County	173,027	160,089	160,630	152,585	150,336
<u>Boroughs and Cities</u>					
Ashland	5,007	4,737	4,226	3,856	3,283
Auburn	936	895	999	913	839
Coaldale	3,949	3,023	2,762	2,531	2,295
Cressona	1,854	1,814	1,810	1,694	1,635
Deer Lake	334	347	515	550	528
Frackville	5,654	5,445	5,308	4,700	4,361
Gilberton	1,712	1,293	1,096	953	867
Girardville	2,958	2,450	2,268	1,889	1,742
Gordon	888	856	892	768	781
Landingville	224	175	170	192	175
McAdoo	3,560	3,326	2,940	2,459	2,274
Mahanoy City	8,536	7,257	6,167	5,209	4,647
Mechanicsville	588	663	519	540	515
Middleport	775	609	577	520	458
Minersville	6,606	6,012	5,635	4,877	4,552
Mount Carbon	308	184	157	132	87
New Philadelphia	1,702	1,528	1,341	1,283	1,149
New Ringgold	314	314	301	315	291
Orwigsburg	2,131	2,661	2,700	2,780	3,106
Palo Alto	1,445	1,428	1,321	1,192	1,052
Pine Grove	2,267	2,197	2,244	2,118	2,154
Port Carbon	2,775	2,717	2,576	2,134	2,019
Port Clinton	739	363	337	328	288
Pottsville	21,659	19,715	18,195	16,603	15,549
Ringtown	849	880	837	853	826
St. Clair	5,159	4,576	4,037	3,524	3,254
Schuylkill Haven	6,470	6,125	5,977	5,610	5,548
Shenandoah	11,073	8,287	7,589	6,221	5,624
Tamaqua	10,173	9,246	8,843	7,943	7,174
Tower City	1,968	1,774	1,667	1,518	1,396
Tremont	1,893	1,833	1,796	1,814	1,784

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Table 2.7.1 (cont'd)

	1960	1970	1980	1990	2000
<u>Townships</u>					
Barry	1,176	715	869	845	967
Blythe	1,302	1,199	1,228	1,023	905
Branch	1,749	1,798	1,906	2,051	1,871
Butler	3,340	3,738	4,240	4,099	4,987
Cass	2,950	2,508	2,414	2,088	1,840
Delano	735	643	686	573	487
East Brunswick	1,060	1,165	1,554	1,506	1,601
East Norwegian	1,198	1,076	999	991	864
East Union	1,387	1,452	1,470	1,374	1,419
Eldred	974	677	726	736	719
Foster	600	378	289	298	268
Frailey	637	570	465	518	416
Hegins	3,320	3,253	3,562	3,561	3,519
Hubley	919	808	895	928	889
Kline	2,019	1,624	1,768	1,722	1,591
Mahanoy	8,536	7,257	1,525	1,273	3,093
New Castle	996	727	718	567	395
North Manheim	2,829	3,312	3,574	3,404	3,287
North Union	879	843	1,139	1,143	1,225
Norwegian	1,389	1,592	1,822	1,938	2,172
Pine Grove	2,267	2,197	3,521	3,699	3,930
Porter	2,738	2,525	2,593	2,560	2,032
Reilly	1,088	941	884	835	802
Rush	2,316	2,730	3,440	3,472	3,957
Ryan	1,022	1,073	1,275	2,296	2,461
Schuylkill	1,732	1,516	1,518	1,230	1,123
South Manheim	650	771	1,015	1,558	2,191
Tremont	442	252	289	297	250
Union	1,169	969	1,162	1,458	1,308
Upper Mahantongo	750	727	787	696	652
Walker	697	730	884	949	936
Washington	1,292	1,497	2,205	2,423	2,750
Wayne	1,729	2,065	3,565	3,929	4,721
West Brunswick	906	1,795	2,519	3,227	3,428
West Mahanoy	4,514	3,968	3,934	3,606	3,175
West Penn	2,464	2,636	3,388	3,693	3,852
<u>Counties</u>					
Berks	275,414	296,382	312,509	336,523	373,638
Carbon	52,889	50,573	53,285	56,846	58,802
Columbia	53,489	55,114	61,967	63,202	64,151
Dauphin	220,255	223,713	232,317	237,813	251,798
Lebanon	90,853	99,665	108,582	113,744	120,327
Lehigh	227,536	255,304	272,349	291,130	312,090
Luzerne	346,972	341,956	343,079	328,149	319,250
Northumberland	104,138	99,190	100,381	96,771	94,556
Pennsylvania	11,319,366	11,800,766	11,864,720	11,881,643	12,281,054

Chapter 2: Existing Conditions

Table 2.7.2 Population Change in Schuylkill County Municipalities and Selected Jurisdictions, 1960-2000

	1960-1970		1970-1980		1980-1990		1990-2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Schuylkill County	(12,938)	-7.5%	541	0.3%	(8,045)	-5.0%	(2,249)	-1.5%
Boroughs and Cities								
Ashland	(270)	-5.4%	(511)	-10.8%	(370)	-8.8%	(573)	-14.9%
Auburn	(41)	-4.4%	104	11.6%	(86)	-8.6%	(74)	-8.1%
Coaldale	(926)	-23.4%	(261)	-8.6%	(231)	-8.4%	(236)	-9.3%
Cressona	(40)	-2.2%	(4)	-0.2%	(116)	-6.4%	(59)	-3.5%
Deer Lake	13	3.9%	168	48.4%	35	6.8%	(22)	-4.0%
Frackville	(209)	-3.7%	(137)	-2.5%	(608)	-11.5%	(339)	-7.2%
Gilberton	(419)	-24.5%	(197)	-15.2%	(143)	-13.0%	(86)	-9.0%
Girardville	(508)	-17.2%	(182)	-7.4%	(379)	-16.7%	(147)	-7.8%
Gordon	(32)	-3.6%	36	4.2%	(124)	-13.9%	13	1.7%
Landingville	(49)	-21.9%	(5)	-2.9%	22	12.9%	(17)	-8.9%
McAdoo	(234)	-6.6%	(386)	-11.6%	(481)	-16.4%	(185)	-7.5%
Mahanoy City	(1,279)	-15.0%	(1,090)	-15.0%	(958)	-15.5%	(562)	-10.8%
Mechanicsville	75	12.8%	(144)	-21.7%	21	4.0%	(25)	-4.6%
Middleport	(166)	-21.4%	(32)	-5.3%	(57)	-9.9%	(62)	-11.9%
Minersville	(594)	-9.0%	(377)	-6.3%	(758)	-13.5%	(325)	-6.7%
Mount Carbon	(124)	-40.3%	(27)	-14.7%	(25)	-15.9%	(45)	-34.1%
New Philadelphia	(174)	-10.2%	(187)	-12.2%	(58)	-4.3%	(134)	-10.4%
New Ringgold	-	0.0%	(13)	-4.1%	14	4.7%	(24)	-7.6%
Orwigsburg	530	24.9%	39	1.5%	80	3.0%	326	11.7%
Palo Alto	(17)	-1.2%	(107)	-7.5%	(129)	-9.8%	(140)	-11.7%
Pine Grove	(70)	-3.1%	47	2.1%	(126)	-5.6%	36	1.7%
Port Carbon	(58)	-2.1%	(141)	-5.2%	(442)	-17.2%	(115)	-5.4%
Port Clinton	(376)	-50.9%	(26)	-7.2%	(9)	-2.7%	(40)	-12.2%
Pottsville	(1,944)	-9.0%	(1,520)	-7.7%	(1,592)	-8.7%	(1,054)	-6.3%
Ringtown	31	3.7%	(43)	-4.9%	16	1.9%	(27)	-3.2%
St. Clair	(583)	-11.3%	(539)	-11.8%	(513)	-12.7%	(270)	-7.7%
Schuylkill Haven	(345)	-5.3%	(148)	-2.4%	(367)	-6.1%	(62)	-1.1%
Shenandoah	(2,786)	-25.2%	(698)	-8.4%	(1,368)	-18.0%	(597)	-9.6%
Tamaqua	(927)	-9.1%	(403)	-4.4%	(900)	-10.2%	(769)	-9.7%
Tower City	(194)	-9.9%	(107)	-6.0%	(149)	-8.9%	(122)	-8.0%
Tremont	(60)	-3.2%	(37)	-2.0%	18	1.0%	(30)	-1.7%

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Table 2.7.2 (cont'd)

	1960-1970		1970-1980		1980-1990		1990-2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Townships								
Barry	(461)	-39.2%	154	21.5%	(24)	-2.8%	122	14.4%
Blythe	(103)	-7.9%	29	2.4%	(205)	-16.7%	(118)	-11.5%
Branch	49	2.8%	108	6.0%	145	7.6%	(180)	-8.8%
Butler	398	11.9%	502	13.4%	(141)	-3.3%	888	21.7%
Cass	(442)	-15.0%	(94)	-3.7%	(326)	-13.5%	(248)	-11.9%
Delano	(92)	-12.5%	43	6.7%	(113)	-16.5%	(86)	-15.0%
East Brunswick	105	9.9%	389	33.4%	(48)	-3.1%	95	6.3%
East Norwegian	(122)	-10.2%	(77)	-7.2%	(8)	-0.8%	(127)	-12.8%
East Union	65	4.7%	18	1.2%	(96)	-6.5%	45	3.3%
Eldred	(297)	-30.5%	49	7.2%	10	1.4%	(17)	-2.3%
Foster	(222)	-37.0%	(89)	-23.5%	9	3.1%	(30)	-10.1%
Frailay	(67)	-10.5%	(105)	-18.4%	53	11.4%	(102)	-19.7%
Hegins	(67)	-2.0%	309	9.5%	(1)	0.0%	(42)	-1.2%
Hubley	(111)	-12.1%	87	10.8%	33	3.7%	(39)	-4.2%
Kline	(395)	-19.6%	144	8.9%	(46)	-2.6%	(131)	-7.6%
Mahanoy	(1,279)	-15.0%	(5,732)	-79.0%	(252)	-16.5%	1,820	143.0%
New Castle	(269)	-27.0%	(9)	-1.2%	(151)	-21.0%	(172)	-30.3%
North Manheim	483	17.1%	262	7.9%	(170)	-4.8%	(117)	-3.4%
North Union	(36)	-4.1%	296	35.1%	4	0.4%	82	7.2%
Norwegian	203	14.6%	230	14.4%	116	6.4%	234	12.1%
Pine Grove	(70)	-3.1%	1,324	60.3%	178	5.1%	231	6.2%
Porter	(213)	-7.8%	68	2.7%	(33)	-1.3%	(528)	-20.6%
Reilly	(147)	-13.5%	(57)	-6.1%	(49)	-5.5%	(33)	-4.0%
Rush	414	17.9%	710	26.0%	32	0.9%	485	14.0%
Ryan	51	5.0%	202	18.8%	1,021	80.1%	165	7.2%
Schuylkill	(216)	-12.5%	2	0.1%	(288)	-19.0%	(107)	-8.7%
South Manheim	121	18.6%	244	31.6%	543	53.5%	633	40.6%
Tremont	(190)	-43.0%	37	14.7%	8	2.8%	(47)	-15.8%
Union	(200)	-17.1%	193	19.9%	296	25.5%	(150)	-10.3%
Upper Mahantongo	(23)	-3.1%	60	8.3%	(91)	-11.6%	(44)	-6.3%
Walker	33	4.7%	154	21.1%	65	7.4%	(13)	-1.4%
Washington	205	15.9%	708	47.3%	218	9.9%	327	13.5%
Wayne	336	19.4%	1,500	72.6%	364	10.2%	792	20.2%
West Brunswick	889	98.1%	724	40.3%	708	28.1%	201	6.2%
West Mahanoy	(546)	-12.1%	(34)	-0.9%	(328)	-8.3%	(431)	-12.0%
West Penn	172	7.0%	752	28.5%	305	9.0%	159	4.3%
Counties								
Berks	20,968	7.6%	16,127	5.4%	24,014	7.7%	37,115	11.0%
Carbon	(2,316)	-4.4%	2,712	5.4%	3,561	6.7%	1,956	3.4%
Columbia	1,625	3.0%	6,853	12.4%	1,235	2.0%	949	1.5%
Dauphin	3,458	1.6%	8,604	3.8%	5,496	2.4%	13,985	5.9%
Lebanon	8,812	9.7%	8,917	8.9%	5,162	4.8%	6,583	5.8%
Lehigh	27,768	12.2%	17,045	6.7%	18,781	6.9%	20,960	7.2%
Luzerne	(5,016)	-1.4%	1,123	0.3%	(14,930)	-4.4%	(8,899)	-2.7%
Northumberland	(4,948)	-4.8%	1,191	1.2%	(3,610)	-3.6%	(2,215)	-2.3%
Pennsylvania	481,400	4.3%	63,954	0.5%	16,923	0.1%	399,411	3.4%

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Table 2.7.3 Population Density in Schuylkill County and Selected Jurisdictions, 1960-2000

Population Density (persons per square mile)						Land Area
	1960	1970	1980	1990	2000	(Square Miles)
Counties						
Schuylkill	222	206	206	196	193	779
Berks	321	345	364	392	435	859
Carbon	138	132	139	149	154	383
Columbia	110	113	128	130	132	486
Dauphin	420	426	443	453	480	525
Lebanon	251	275	300	314	332	362
Lehigh	656	736	785	840	899	347
Luzerne	389	384	385	368	358	891
Northumberland	226	216	218	210	206	460
Pennsylvania	253	263	265	265	274	44,820

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Table 2.7.4 Population Density in Schuylkill County Municipalities, 1990 and 2000

	Population Per Square Mile		Area (Square Miles)
	1990	2000	
Ashland	2,362.3	1,900.8	1.6
Auburn	548.8	505.4	1.7
Coaldale	1,162.5	1,055.2	2.2
Cressona	1,659.4	1,600.3	1.0
Deer Lake	1,317.8	1,261.8	0.4
Frackville	7,879.0	7,309.8	0.6
Gilberton	668.9	608.3	1.4
Girardville	3,600.1	3,327.4	0.5
Gordon	1,210.7	1,230.7	0.6
Landingville	227.8	207.6	0.8
McAdoo	7,483.9	6,916.7	0.3
Mahanoy City	10,159.1	9,060.8	0.5
Mechanicsville	1,635.8	1,559.8	0.3
Middleport	1,207.9	1,065.5	0.4
Minersville	7,439.0	6,948.8	0.7
Mount Carbon	2,150.2	1,414.1	0.1
New Philadelphia	863.1	772.9	1.5
New Ringgold	369.0	340.4	0.9
Orwigsburg	1,273.2	1,419.3	2.2
Palo Alto	1,128.8	995.9	1.1
Pine Grove	1,965.5	1,997.0	1.1
Port Carbon	2,791.4	2,638.6	0.8
Port Clinton	657.5	577.4	0.5
Pottsville	3,948.4	3,697.4	4.2
Ringtown	1,932.9	1,869.1	0.4
St. Clair	2,880.1	2,661.7	1.2
Schuylkill Haven	3,940.8	3,908.2	1.4
Shenandoah	4,108.2	3,710.7	1.5
Tamaqua	808.1	729.9	9.8
Tower City	3,117.9	4,546.9	0.5
Tremont	2,339.8	2,305.6	0.8

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Table 2.7.4 (cont'd)

	Population Per Square Mile		Area (Square Miles)
	1990	2000	
Townships			
Barry	50.6	57.9	16.7
Blythe	37.2	32.9	27.5
Branch	175.3	159.9	11.7
Butler	152.4	185.4	26.9
Cass	149.1	131.4	14.0
Delano	69.9	59.4	8.2
East Brunswick	49.4	52.5	30.5
East Norwegian	241.7	210.7	4.1
East Union	52.8	54.6	26.0
Eldred	33.2	32.4	22.2
Foster	22.6	20.3	13.2
Frailey	56.9	45.7	9.1
Hegins	111.3	110.0	32.0
Hubley	70.8	67.9	13.1
Kline	141.1	130.4	12.2
Mahanoy	60.9	148.0	20.9
New Castle	46.5	32.4	12.2
North Manheim	166.0	160.3	20.5
North Union	57.2	61.3	20.0
Norwegian	334.1	374.5	5.8
Pine Grove	96.8	102.9	38.2
Porter	141.4	112.3	18.1
Reilly	51.5	49.5	16.2
Rush	151.6	172.8	22.9
Ryan	128.3	137.5	17.9
Schuylkill	125.5	114.6	9.8
South Manheim	75.6	106.4	20.6
Tremont	12.7	10.7	23.3
Union	66.0	59.2	22.1
Upper Mahantongo	47.0	44.1	14.8
Walker	41.6	41.1	22.8
Washington	78.2	88.7	31.0
Wayne	112.3	134.9	35.0
West Brunswick	106.5	113.1	30.3
West Mahanoy	346.7	305.3	10.4
West Penn	63.7	66.4	58.0

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Table 2.7.5 Population by Age Groups and Median Age in Schuylkill County, 1970-2000

	1970		1980		1990		2000	
<u>Age Groups</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
0-4	11,230	6.6%	9,234	5.7%	8,773	5.6%	7,357	4.9%
5-17	37,847	22.3%	30,780	19.2%	24,885	15.8%	27,210*	18.1%
18-24	11,003	6.5%	15,951	9.9%	13,234	8.4%	7,623**	5.1%
25-44	45,114	26.6%	37,096	23.1%	42,795	27.2%	63,750	28.3%
45-54	25,348	15.0%	18,488	11.5%	15,133	9.6%	21,224	14.1%
55-64	19,492	11.5%	22,126	13.8%	22,126	14.0%	14,530	9.6%
65-74	13,787	8.1%	17,728	11.0%	17,776	11.3%	14,552	9.7%
75+	5,536	3.3%	9,227	5.7%	12,773	8.1%	15,314	10.2%
TOTALS	169,357	100%	160,630	100%	157,495	100%	150,336	100%
Median Age	37.4 years		n/a		38.6 years		40.9 years	
*5-19 years of age								
**20-24 years of age								

Table 2.7.6 Percent Distribution of Population by Age Groups in Schuylkill County and Pennsylvania, 1980-2000

	1980	1990	2000
<u>Age Groups</u>			
Schuylkill County			
0-4	5.7%	5.6%	4.9%
5-17	19.2%	15.8%	18.1%*
18-24	9.9%	8.4%	5.1%**
25-44	23.1%	27.2%	28.3%
45-54	11.5%	9.6%	14.1%
55-64	13.8%	14.0%	9.6%
65-74	11.0%	11.3%	9.7%
75+	5.7%	8.1%	10.2%
Pennsylvania			
0-4	-	6.7%	5.9%
5-17	-	16.8%	20.6%*
18-24	-	10.3%	6.1%**
25-44	-	30.8%	28.6%
45-54	-	10.2%	13.9%
55-64	-	9.8%	9.2%
65-74	-	9.0%	7.9%
75+	-	6.4%	7.7%
*5-19 years of age			
**20-24 years of age			

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Table 2.7.7 Schuylkill County Housing Unit Inventory, 1980-2000

	1980		1990		2000	
Structural Type	Number	Percent	Number	Percent	Number	Percent
Single-Family Detached (Units)	n/a	n/a	31,718	47.7%	34,922	51.5%
Single-Family Attached (Units)	n/a	n/a	21,918	33.0%	20,599	30.4%
Two to Four Family Buildings (Units)	n/a	n/a	5,550	8.4%	5,502	8.1%
Five or more Family Buildings (Units)	n/a	n/a	3,348	5.0%	3,804	5.6%
Mobile Homes (Units)	n/a	n/a	3,923	5.9%	2,943	4.3%
Boat, RV, van, etc.	n/a	n/a	-	0.0%	36	0.1%
TOTALS	64,825	100%	66,457	100%	67,806	100%
Total Occupied Housing Units	59,899	92.4%	60,773	91.4%	60,530	89%
Total Vacant Housing Units	4,926	7.6%	5,684	8.6%	7,276	10.7%

Table 2.7.8 Population Totals, Population in Households and Persons per Household in Schuylkill County, 1970-2000

	1970	1980	1990	2000
Total Population	160,089	160,630	152,585	150,336
Population in Households	n/a	159,294	150,202	143,110
Persons per Household	2.5	2.66	2.47	2.36

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Table 2.7.9 Schuylkill County Alternative Population Forecasts

Alternative	1990	2000	2010	2020	2025	2000-2025	
						Number	Percent
1. Projections for Schuylkill County (2002)*	152,585	150,336	148,180	147,420	147,430	(2,906)	-1.9%
2. County Growth Rate, 1990-2000 (-0.15%/yr.)	152,585	150,336	148,081	145,826	144,698	(5,638)	-3.8%
3. Growth Rate for Adjoining Counties, 1990-2000 (0.37%/yr)	152,585	150,336	155,896	161,456	164,236	13,900	9.2%
4. Housing Construction Rate for Schuylkill County (.2%/yr)	152,585	150,336	153,336	156,336	157,836	7,500	5.0%

* from 2002 Data Pamphlet, Woods & Poole Economics, based upon a 2000 estimate of 150,240

Table 2.7.10 Schuylkill County Housing Units to be Constructed, 2000-2025

	"Low"	"Medium"	"High"
Population Projection, Year 2025	150,000	155,000	160,000
Population in Households (95.2%)	142,800	147,560	152,320
Persons per Household	2.20	2.20	2.20
Occupied Housing Units	64,909	67,073	69,236
Vacant Units (8%)	5,193	5,366	5,539
Total Housing Units Required	70,102	72,439	74,775
Existing Stock, Year Round Housing Units, 2000	67,806	67,806	67,806
Net Additions to Housing Stock	2,296	4,633	6,969
Replacement of Existing Stock (3%)	2,034	2,034	2,034
Conversions (1%)	-678	-678	-678
Total Housing Units to be Constructed, 2000-2025 (25 years)	3,652	5,989	8,325
Average Number of Housing Units to be Constructed per Year (2000-2025)	146	240	333

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Table 2.7.11 Schuylkill County Employment by Major Industry, 1990-2000

Industry	Number of Employees		Percent Distribution	
	1990	2000	1990	2000
Agriculture, forestry, fishing, hunting, mining	2,362	1,360	3.7%	2.1
Construction	4,543	4,195	7.0%	6.6
Manufacturing	21,514	16,596	33.3%	26.0
Wholesale Trade	2,068	2,324	3.2%	3.6
Retail Trade	10,244	7,840	15.9%	12.3
Transportation, warehousing, utilities	3,798	3,101	5.9%	4.9
Information	-	937	-	1.5
Finance, insurance, real estate, rental and leasing	2,443	2,419	3.8%	3.8
Professional, scientific, management	3,447	3,304	5.3%	5.2
Educational, health, social services	9,197	12,491	14.2%	19.5
Arts, entertainment, recreation, accommodation, food services	426	3,329	0.7%	5.2
Other services (except public administration)	2,186	2,977	3.4%	4.7
Public administration	2,334	3,029	3.6%	4.7
Total Employment	64,562	63,902	100%	100%

Table 2.7.12 Percent Distribution of Employment by Major Industry in Schuylkill County and Selected Jurisdictions, 2000

Industry	Schuylkill County	Nearby Counties	Pennsylvania
Agriculture, forestry, fishing, hunting, mining	2.1	1.2	1.3
Construction	6.6	5.8	6.0
Manufacturing	26.0	19.4	16.0
Wholesale Trade	3.6	3.8	3.6
Retail Trade	12.3	12.0	12.1
Transportation, warehousing, utilities	4.9	5.5	5.4
Information	1.5	2.5	2.6
Finance, insurance, real estate, rental and leasing	3.8	6.0	6.6
Professional, scientific, management	5.2	6.9	8.5
Educational, health, social services	19.5	20.3	21.9
Arts, entertainment, recreation, accommodation, food services	5.2	6.9	7.0
Other services (except public administration)	4.7	4.4	4.8
Public administration	4.7	5.0	4.2
Total Employment	100%	100%	100%

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**Table 2.7.13 Schuylkill County Alternative Employment Projections,
1990-2025**

						2000-2025	
	1990	2000	2010	2020	2025	Number	Percent
1. Projections for Schuylkill County (2002)*	64,562	63,902	68,690	72,260	74,460	10,558	16.5%

* from 2002 Data Pamphlet, Woods & Poole Economics, based upon a 2000 estimate of 65,760

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SECTION 8: CIRCULATION

Since the period in the mid-1970s when Schuylkill County's last Comprehensive Plan was completed, traffic in the county has increased. A number of different factors, including increased rates of car ownership and long-distance commuting, new patterns of residential development, and new concentrations of employment activities, means that a rethinking of current and future transportation needs is due.

The Existing Roadway Network

The transportation network of Schuylkill County consists of two main north-south highways and an Interstate Highway that runs northeast to southwest through the county (Figure 2.8.1). Additional state and local roads run through the various parts of the county. Larger communities are generally well served by the road network. One of the more significant aspects of the recent history of Schuylkill County is the manner in which transportation corridors have influenced land use. Formerly commercial and industrial activities tended to be concentrated in and near boroughs and other important settlements. Recently, these uses have occurred along PA Route 61 and at the interchanges along Interstate 81. Similarly, residential uses are no longer so much focused on Pottsville, boroughs, and villages with new development now occurring frequently in more remote locations.

Key corridors in Schuylkill County are described below:

- Interstate 81: This northeast to southwest highway crosses the northern tier of the county, passing through lowlands in between the county's two major mountain ridges en route from Harrisburg and points south to the Wilkes-Barre/Scranton area and New York State. The highway enters Schuylkill County from Lebanon County to the southwest and leaves it in Luzerne County to the northeast. The construction of this roadway has changed the conditions of access in a profound way for the northern half of the county over the last 40 years, and has spawned development of industrial parks, shopping centers, three prisons, and two large landfills. Economic incentives, as well as superior access and generally developable land, have helped spur development. Residents of the county use Interstate 81 heavily as a transportation link to county businesses and employment centers.
- PA Route 61: This important, mostly four-lane highway, runs from Reading to the Susquehanna River at Sunbury, passing through the center of Schuylkill County and its largest community, the City of Pottsville. PA Route 61 is the historic main spine of the county, providing access to numerous commercial and industrial businesses along its path and tying together a number of Schuylkill County's large

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communities, including Schuylkill Haven, the City of Pottsville, Mechanicsville, Saint Clair, Frackville, Shenandoah, and Ashland. PA 61 enters Schuylkill County from Berks County to the south in the community of Port Clinton and leaves via Ashland heading northwest into Northumberland County. PA 61 has seen an increase in traffic and congestion in recent years, particularly in areas south of Pottsville. This is a corridor-wide problem, but is felt most acutely in Schuylkill Haven and other places where the roadway runs right through the middle of historic communities.

- PA Route 309: The third significant transportation corridor is this well-traveled and historic highway on the eastern side of Schuylkill County. Considered a spine for the eastern portion of the county, PA Route 309 links Allentown to Hazleton, passing through Tamaqua Borough in Schuylkill County. This road has seen significant increases in traffic. PA 309 enters Schuylkill County from Lehigh County to the south, intersecting with PA Route 895 before heading north through Tamaqua and Rush Township and exiting the county into Luzerne County parallel with Interstate 81.

Current Traffic Volumes

As indicated by traffic counts performed, estimated, and tabulated by PennDOT in 2000 and 2001, there is a wide diversity of traffic volumes throughout different parts of Schuylkill County (Figure 2.8.2). Major roads such as Interstate 81 and PA Route 61 carry heavy volumes of vehicles, often with an annual average daily traffic (AADT) rate of between 20,000 and 26,000 vehicles. Many of the county's other state routes, especially those which allow east to west movement, are less well traveled but still have significant AADTs, ranging from 2,000 to 8,000 vehicles. Finally, there are a number of smaller local roads and sparsely traveled state routes that have AADT levels well below 2,000 and sometimes as low as 150. These routes are generally located in the corners and along the edges of the county and are not near or between the county's major population centers.

Schuylkill County's highest traffic volumes are generally found on the state routes that run north and south through the county. The most significant traffic volumes are found along Interstate 81 and were measured at an AADT of 26,000 along its entire length as it runs northeast to southwest through Schuylkill County. PA Route 61 also has high traffic volumes in the 16,000 to 24,000 range where it enters Schuylkill County in Port Clinton and north along the Schuylkill River through the communities of Schuylkill Haven, Pottsville, Saint Clair, and at its intersection with Interstate 81 south of Frackville. The traffic volumes on PA Route 61 west of Frackville are significantly lower. In this stretch, traffic volumes are between 6,900 and 9,200 near Ashland and as PA Route 61 leaves Schuylkill County for Northumberland County to the west.

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PA Route 901 has relatively heavy traffic volumes, in the 10,000 to 18,000 range, between the communities of Cressona and Minersville, although the roadway is less well-traveled south of Cressona and near the southern border of Schuylkill County. The central portion of PA Route 309 that runs north to south on the eastern edge of Schuylkill County has high levels of traffic. Traffic volumes are between 6,000 to 8,000 in the southern stretch of the highway to between 13,000 and 17,000 as PA Route 309 passes through Tamaqua Borough and Rush and Kline Townships on its way north to Luzerne County.

More moderate, although still significant traffic volumes are found on the state routes that run east to west through Schuylkill County. US Route 209 east of Interstate 81, as well as along PA Route 54 between Shenandoah and the intersection with PA Route 309 have traffic volumes between 3,000 to 9,000 AADT. Lower volumes, in the 2,000 to 4,000 range, are found along PA Route 443 and PA Route 25, although on both of these roads the measured AADT does rise above 5,000 in some specific places. Along PA Route 443, traffic volumes rise to between 5,000 and 9,000 AADT around Pine Grove, Schuylkill Haven, and Orwigsburg.

Also of note in this general traffic volume range are PA Routes 895 and 901. PA Route 895 runs north to south from near the southern border of Schuylkill County north towards Tamaqua and averages AADT volumes between 5,300 and 6,200. PA Route 901 runs northwest from Minersville to Northumberland County near Ashland and has traffic volumes between 6,000 and 9,500 AADT along its length.

Finally, there are many state routes and local roads that feature lower levels of traffic volumes, with AADTs registering below 2,000 and as low as 150 on some minor local roads. These low traffic volume roads are generally located in the far north, far west, and far southeast areas of Schuylkill County, and are appropriate for the rural landscape and lack of population centers in those areas. There are several lightly traveled state routes serving these areas that are worth noting because they provide important access to the more rural and less developed areas of the county. These include PA 895 west of Auburn, PA 25 east and west of Hegins Township, and PA Routes 339 and 924 running north and northeast from the Shenandoah area into the northernmost area of Schuylkill County.

Functional Classification of Major Highways

Roadways perform two very distinct and sometimes contradictory functions - moving traffic and providing access to adjacent land uses (Figure 2.8.3). Limited access highways (expressways) provide no access to adjacent land uses and are best at moving traffic. Since providing access to adjacent land uses detracts from the ability of a highway to provide for smooth traffic flow, it is important for planning purposes to classify roadways by function. The following functional categories are typically used:

Chapter 2: Existing Conditions

- Principal Arterial: A street or road that is used primarily for fast or heavy volumes of through traffic including freeways, expressways, and high-volume through-roadways carrying regional traffic.
- Minor Arterial: A street or road that is used primarily for through traffic. Minor arterials carry generally lower volumes of traffic than major arterials.
- Major Collector: A street or road that carries traffic from minor borough streets and township roads to the arterial system.
- Local: All other borough streets or township roads, providing access to abutting properties in residential, commercial, industrial, and rural areas.

The classification of key roadways for Schuylkill County routes is summarized as follows:

Principal Arterials

US Interstate 81
PA Route 61
PA Route 309

Minor Arterials

US Route 209
PA Route 443
PA Route 183
PA Route 895 (b/w PA Route 61 and New Ringgold Borough)
PA Route 54 (west of PA Route 309)
PA Route 924
PA Route 901

Major Collectors

PA Route 443 (west of Interstate 81)
PA Route 501
PA Route 645
PA Route 125
PA Route 25
PA Route 339
PA Route 54 (east of PA Route 309)
PA 895 (west of PA Route 61 and east of New Ringgold Borough)

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Public Transportation System

Public transportation in Schuylkill County is maintained and operated by the Schuylkill Transportation System (STS) (Figure 2.8.4). Founded in 1982, STS faced the task of providing public transportation options to residents within a diverse and largely rural county. Since its founding, STS has tripled the number of bus routes, updated its equipment, and built a modern maintenance and storage facility.

The bus lines are generally organized along the lines of a hub and spoke type of pattern, focused on important community centers with routes expanding outward to more rural parts of the county along major roads. The various routes are summarized below:

Route 10 Originating in Pottsville, Route 10 heads north on PA Route 61 through the communities of Mechanicsville, Saint Clair, and Frackville before ending in Shenandoah.

Route 14 Heading east from Pottsville, Route 14 travels along the Little Schuylkill River following US Route 209 through the communities of Mechanicsville and Palo Alto before arriving in Port Carbon.

Route 20 As with many of the STS bus routes, Route 20 originates in its most populous community, the City of Pottsville. It runs west through the streets of Pottsville before turning north and linking up with PA Route 901 in Minersville where the route ends.

Route 30 Heading south on PA Route 61, Route 30 travels through the township of North Manheim into Cressona and Schuylkill Haven and then turns east on Route 443 before returning to Pottsville.

Route 31 Route 31 follows Route 30 south on PA Route 61 and east on PA Route 443, ending further east in the community of Orwigsburg.

Route 40 Essentially a continuation of Bus Route 14, Route 40 begins in Port Carbon and continues northeast along U.S. Route 209 and the Little Schuylkill River. It runs through New Philadelphia to Middleport, where it is met by Route 45.

Route 45 Originating in Middleport, at the terminus of Route 40, Route 45 runs northeast along parts of U.S. Route 209 and along the Walker/Schuylkill Township line. Upon entering the town of Tamaqua in the eastern part of Schuylkill County, Route 45 heads north on Route 309 to its end point in McAdoo.

Route 51 Originating south of Frackville near the intersection of Interstate 81 and PA Route 61, Route 51 heads east following Interstate 81. It

Chapter 2: Existing Conditions

veers north towards the Delano/Kline Township line and then turns to the west, intersecting with Route 54 north of Mahanoy City.

Route 52 Also originating at the intersection of Interstate 81 and PA Route 61, Bus Route 52 runs north into Frackville before turning west and heading to Ashland through Butler Township on PA Route 61. After Ashland, Route 52 heads east, passing through Girardville and then north to the end of the line in Shenandoah.

Route 53 This bus route originates in Shenandoah, serving Shenandoah Heights in West Mahanoy Township.

Route 54 This route originates in Bowmans, travels through Delano, Grier City, New Boston and ends at the Schuylkill Mall.

Route 60 Following Interstate 81 from its intersection with PA Route 61, Bus Route 60 travels southwest until the I-81/Route 25 intersection in Frailey Township. The route then follows Route 25 west through Hegins Township into Hubley Township, ending just short of Schuylkill County's western border.

Route 70 Bus Route 70 leaves the City of Pottsville heading north before turning west on PA Route 125 and providing transit service to the communities of Norwegian Township and Minersville. From Minersville, Bus Route 70 heads southwest to the community of Tremont, still traveling on PA Route 125. This route eventually ends in Pine Grove in Schuylkill County's southwest corner.

Route 100 This route loops through both the outskirts and central spine of the City of Pottsville, providing transit service throughout the city.

Pending and Proposed Transportation Improvements

Pending and proposed transportation improvements in Schuylkill County consist of two types of projects (Figure 2.8.5). First, there are projects that have been approved as of May 2003 by the Pennsylvania Department of Transportation (PennDOT) to be part of their Transportation Improvement Program (TIP). Second, there are projects that are part of the Schuylkill County Planning Commission's Recommended Priority List for inclusion on PennDOT's TIP. These are projects recommended for the TIP in addition to the ones already on it and are further described in Table 2.8.1.

For both categories, proposed projects consist of those for Construction, Final Design, Preliminary Engineering, and Right of Way improvements. While both the approved TIP projects and those recommended for the TIP occur on roadways throughout the county, there are a significant number of projects in

Chapter 2: Existing Conditions

the south, the most populous area of the county. These projects are proposed to take place on heavily traveled roads such as PA Route 61, PA Route 895, and US Route 209. Other areas where current projects are planned are along the Interstate 81 corridor, in Tamaqua, and in various townships in the northeastern part of the county.

Railroad and Airport Facilities

Railroad Facilities

County industries are served by the privately-owned Reading Blue Mountain and Northern Railroad (RBMNR). Freight rail activity in Schuylkill County was traditionally linked to the coal industry, and rail use declined as the coal industry declined. More recently, RBMNR has tried to attract general merchandise customers but this has proven difficult because the rail system was set up for the coal industries and to a large extent does not reach appropriate locations to serve other customers. The railroad also runs occasional passenger excursion trips.

The active rail lines in the county run north from Berks County along the Schuylkill River and along the northern tier of the county (Figure 2.8.6). From the southern border of the county near Port Clinton, the Pottsville Secondary Line, the Good Spring Secondary Line, and the Minersville Branch reach west to Porter Township and also branch northwest, terminating in Pottsville and Middleport. The Greenwood Industrial Track and the Lansford Industrial Track head northeast to Coaldale and into Carbon County. The lines formerly belonging to the Carbon and Schuylkill, New Boston Secondary and Shamokin Secondary Railroads and the Shenandoah Industrial Track run along the northern part of the county from Butler Township at the Columbia County border east to Rush Township at the Carbon County border.

There are also a number of inactive rail lines located in Schuylkill County, including whole inactive lines as well as branches of the aforementioned railroad lines. Major inactive lines include the Schuylkill Secondary from South Manheim Township at the Berks County line to Tamaqua Borough, and Cass and Mahanoy Townships, the LNE Main Line from West Penn Township to Tamaqua, the Catawissa Branch from North Union Township to Rush Township, the Delano Secondary from Union Township to Delano Township, the Auburn and Susquehanna Line in Pine Grove Township and Borough and Tremont Townships, and the Lebanon and Tremont Line in Porter Township and Tower City Borough.

Airport Facilities

The Schuylkill County (Joe Zerbey) Airport is located in Foster Township and is administered by the Schuylkill County Airport Authority (Figure 2.8.6). The airport currently serves corporate (air taxi) aviation and is open 24 hours a day.

Chapter 2: Existing Conditions

While many large corporations utilize the airports facilities, there are also many suppliers and clients of smaller, local corporations that use the facilities as well. The airport is located amongst formerly mined lands, with small areas of residential, commercial, and institutional uses in its vicinity.²

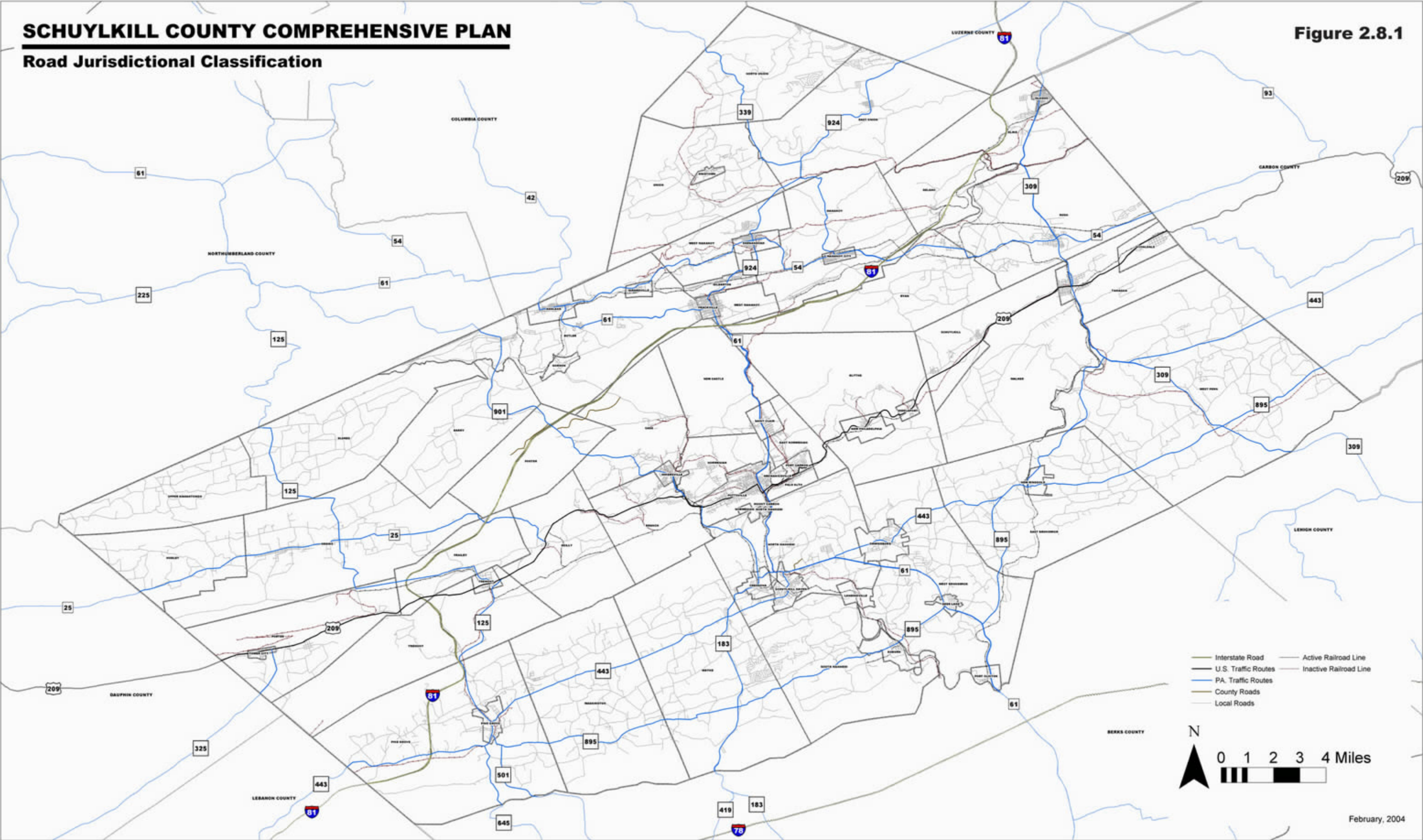
According to the *Schuylkill County (Joe Zerbey) Airport Master Plan Update Final Report*, a primary purpose of the airport has been to assist in local economic development efforts. Several large corporations have established facilities in the area and Schuylkill County Economic Development Corporation (SEDCO) has worked successfully to develop the Highridge Industrial Park, located within five miles of the airport.³

² “Schuylkill County (Joe Zerbey) Airport, Pottsville, PA, Master Plan Update Final Report,” prepared for Schuylkill County Airport Authority by McFarland-Johnson, Inc, 2002; 1.18, 1.27.

³ Ibid., 1.2.

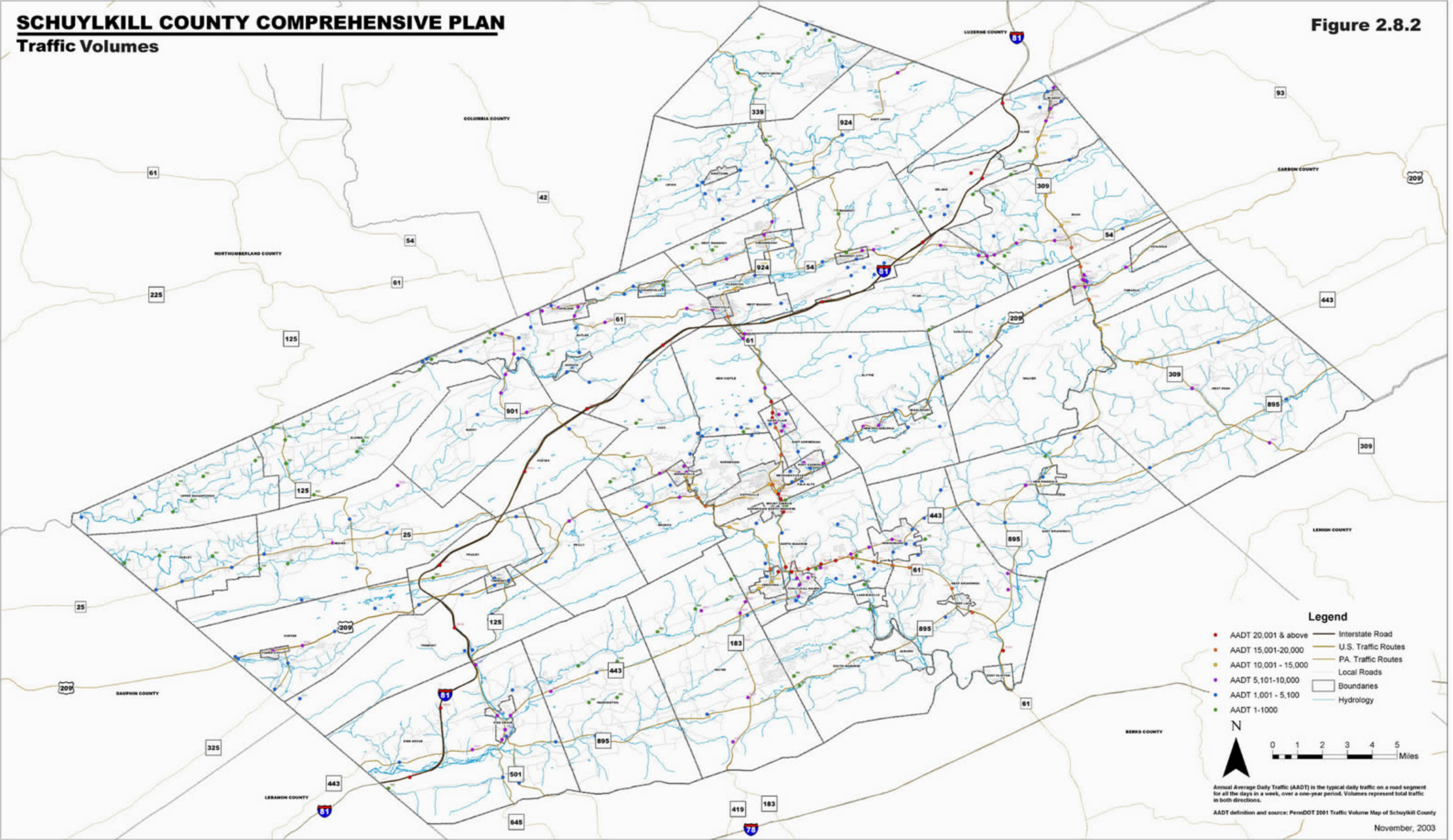
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Road Jurisdictional Classification

Figure 2.8.1



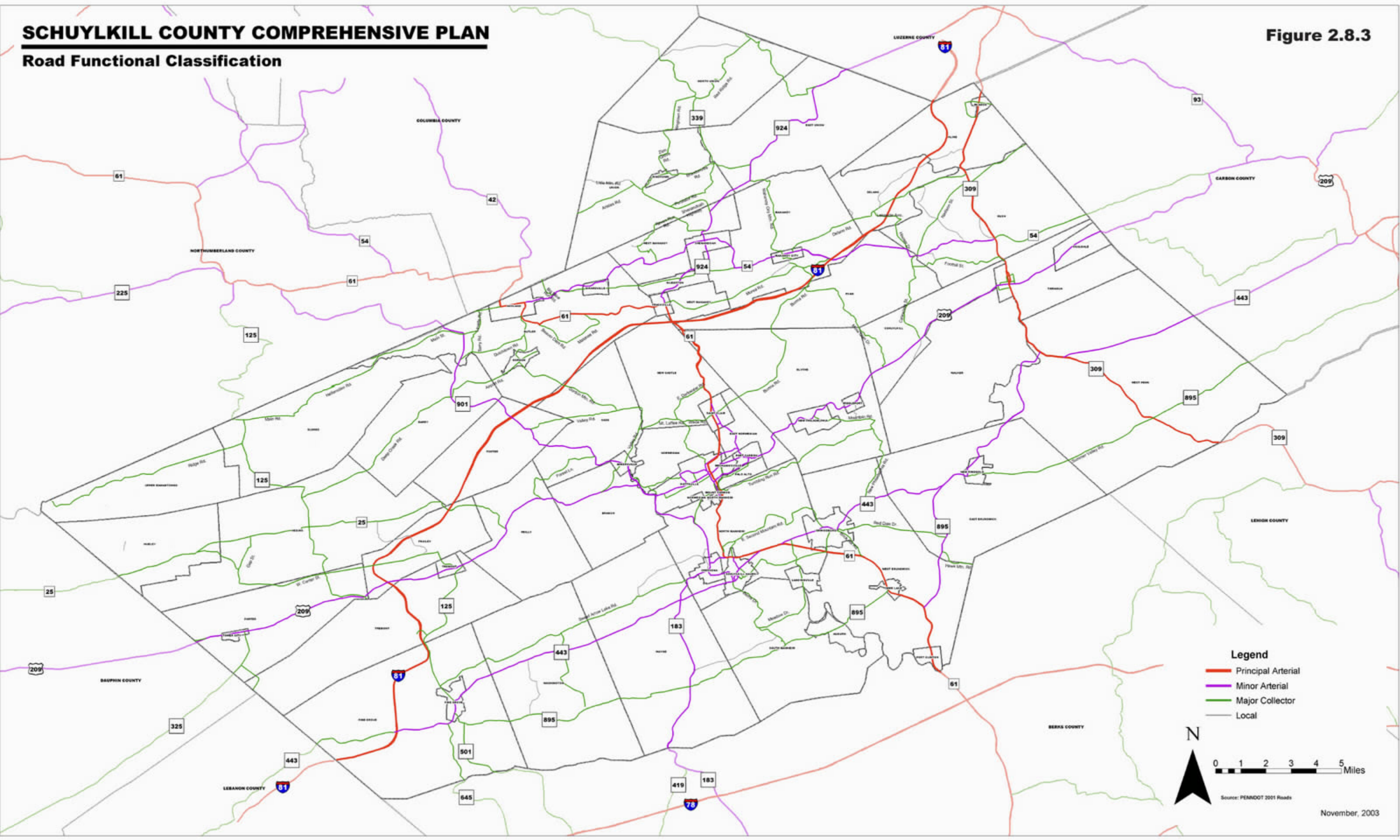
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Traffic Volumes

Figure 2.8.2



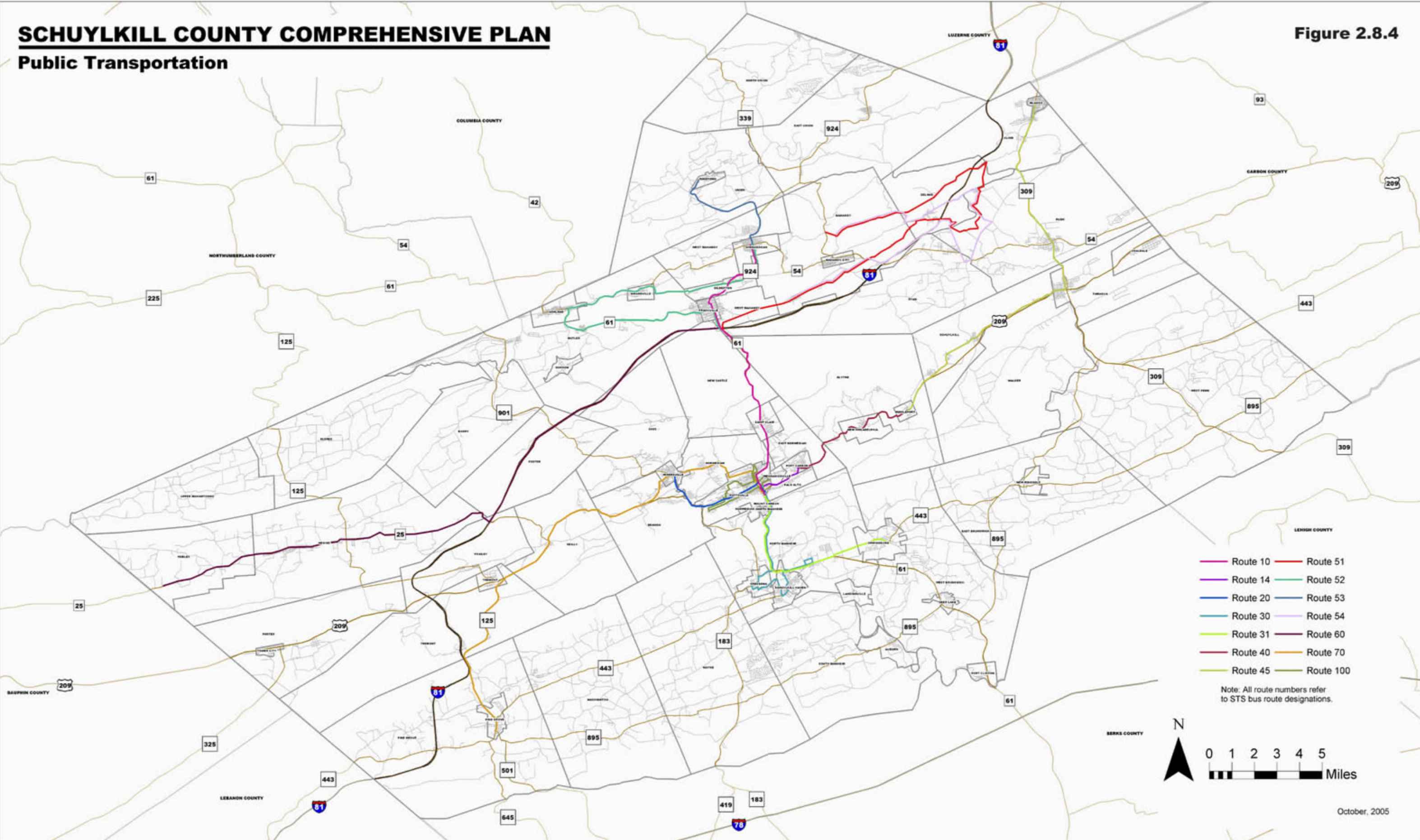
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Road Functional Classification

Figure 2.8.3



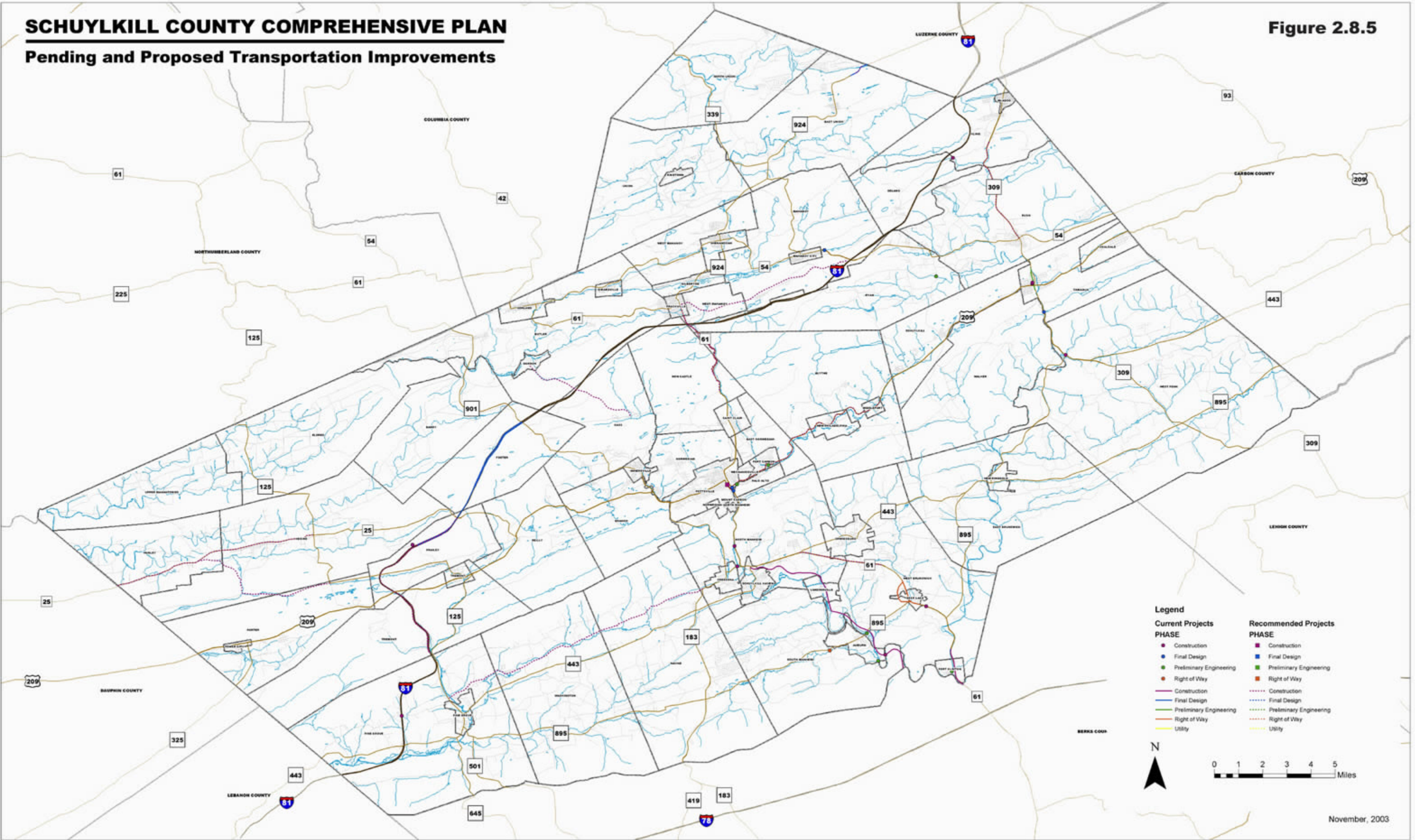
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Public Transportation

Figure 2.8.4



SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Pending and Proposed Transportation Improvements

Figure 2.8.5



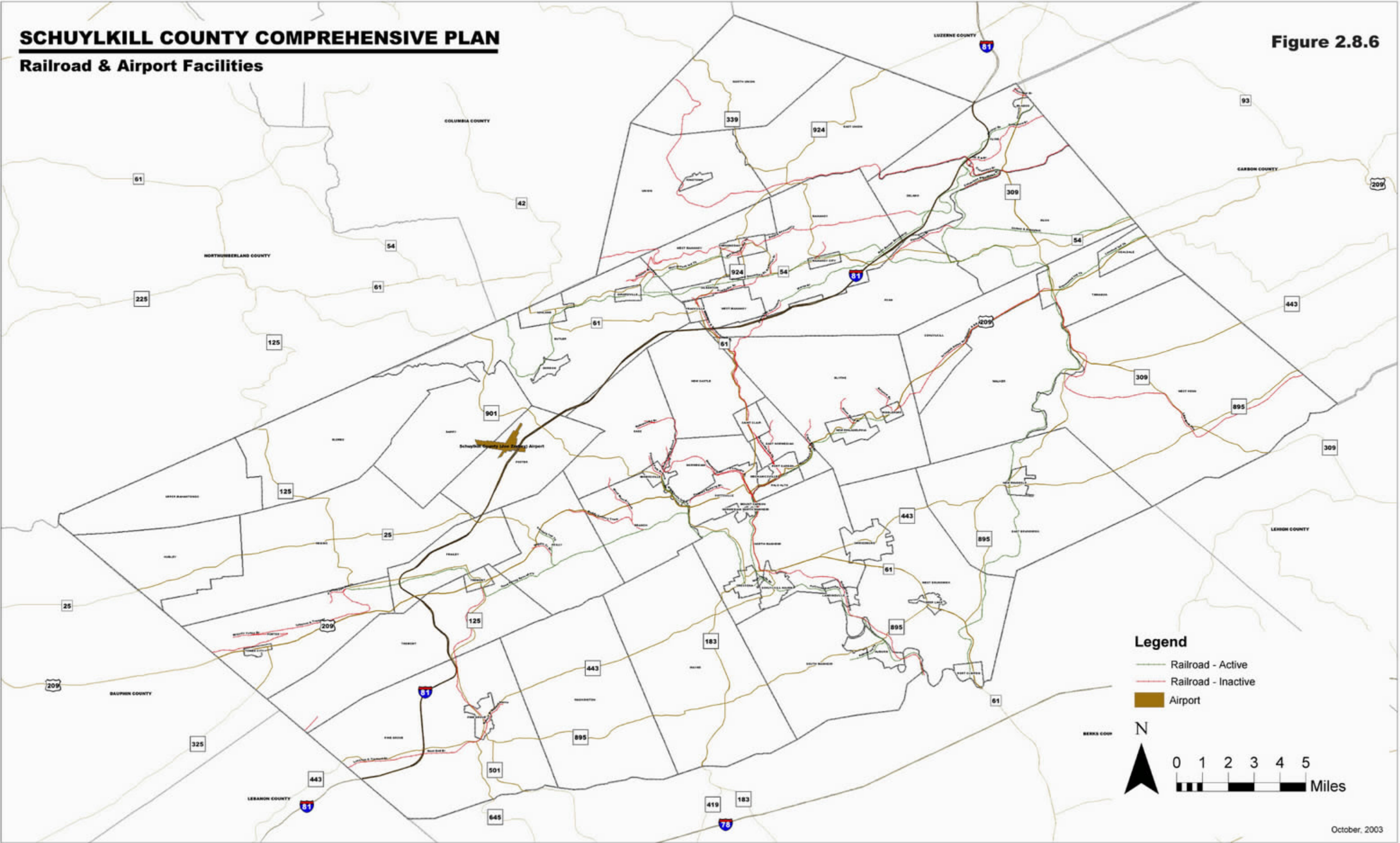
Chapter 2: Existing Conditions

Table 2.8.1 2003-2006 TIP – Additional Recommended Projects for Inclusion by Schuylkill County Planning Commission

NAME	TYPE	ROUTE	MUNICIPALITY
Pine Creek Bridge	Bridge	4013	Hubley Township
Sr 309/Sr 895 Intersection	Safety	309	West Penn Township
Sr 61/Bacon Street Intersection	Safety	61	Palo Alto Borough
Sr 61/Liberty Street Intersection	Safety	61	N Manheim, W Brunswick
Sr 183/Sr 443 Intersection	Safety	443	Wayne Township
T-750/Sr 61intersection	Safety	61	E Norwegian, Norwegian
Sr 0125/Sr 0025 Intersection	Safety	25	Hegins Township
Spruce Street/Sr 0061 Intersection	Safety	61	Frackville Borough
Sr 0209/Sr 0061 Intersection	Safety	61	Pottsville City
Sr 1002/Sr 0061 Intersection	Safety	61	Pottsville City
Arch Street/Sr 0061 Intersection	Safety	61	Pottsville City
Market Street Bridge	Rehab		Mahanoy City Borough
Union Street/Good Spring Creek	Bridge		Tremont Borough
Brookside Road/Swatara Creek	Bridge	645	Pine Grove Township
Forrest Drive/Deep Creek	Bridge	480	Hegins Township
Mountain Road/Deep Creek	Bridge	879	Hegins Township
Pine Drive/Pine Creek	Bridge	520	Hegins Township
Old Country Lane/Cold Run Creek	Bridge	850	East Brunswick Township
Pine Valley Road/Cold Run Creek	Bridge	757	East Brunswick Township
Cold Run Road/Cold Run Creek	Bridge	902	East Brunswick Township
Wild Turkey Lane/Indian Run Creek	Bridge	753	East Brunswick Township
Red Ridge Road/Little Catawissa Creek	Bridge	974	Union Township
Dreherstown Road/Bear Creek	Bridge		Deer Lake Borough
Union Station Center Project	Con	61	Pottsville City
County Bridge #50	Bridge		Port Carbon Borough
Sr 183 To University Drive	Safety	61	Schuylkill Haven, Cressona
Sr 4003 Darkwater Road To Sr 0924	Con	61	New Castle Township, Frackville Borough
I-81 Exit 32 To Exit 34	Con	81	Tremont Township, Frailey Township
Sr 0025 To Good Spring	Con		Hegins Township, Hubley Township
Sr 0924 To County Line	Safety	61	Frackville, Butler Township, Ashland
Sr 0061 To I-81 Exit 37	Con	1008	Frackville, W Mahanoy Twp, Mahanoy Twp
Sr 309 To I-81	Con	54	Rush Township
Sr 0125 To County Line	Con	25	Hegins Township, Hubley Township
Aristas Road To County Line	Rehab	4034	Union Township
Sr 2014 To Sr 0443	Con	61	N Manheim Twp, W Brunswick Twp
Sr 0209 Resurface In Pottsville	Resurf	209	Pottsville City
Sr 4002 To Sr 4006	Con	4007	Cass, Butler, Gordon
Sr 0901 To T-881	Drain	4002	Foster Township, Cass Township
Sweet Arrow Lake Road	Con	3002	Pine Grove Twp, Washington, Wayne, N Manheim
Sr 0209 Continuation Of 4 Lane Road	Con	209	Pottsville, Pt. Carbon, Palo Alto, & Others
T-412 Rock Scaling	Rock	412	Tremont Township
Eagle Rock Resort S Curve	Con	924	East Union Township
Mady's Bridges Detour	Detour		Pottsville City
Sr 4016 Resurface	Resurf	4016	Upper Mahantango Township, Eldred Township
Sr 0061 Mill And Resurface	Resurf	61	Palo Alto Borough

SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Railroad & Airport Facilities

Figure 2.8.6



Chapter 2: Existing Conditions

SECTION 9: COMMUNITY FACILITIES

Community facilities in Schuylkill County encompass a wide range of features (Figure 2.9.1). The following section discusses the existing educational institutions, fire, police, and EMS services, and environmental and recreational facilities available in the county.

K-12 Education

The county has fourteen public school districts (partially or wholly within the county) as well as a number of independent schools (Figures 2.9.1 and 2.9.2). Four public school districts cross county boundaries. District public and parochial enrollments are compared in Table 2.9.1.

Higher Education

There are many institutions of higher education located in the county. They range from branch campuses of community and state colleges to independent trade schools. These schools are listed in Table 2.9.2.

Police, Fire and EMS

Police and Fire stations are generally located in and near existing boroughs, villages, and the City of Pottsville. Many of the less populated boroughs and townships rely on state police coverage as they have very limited local police service. Ambulance corps are associated with some of the fire companies. EMS service is available also in boroughs, townships, and Pottsville. Police, Fire and Ambulance services are listed in Table 2.9.3 and EMS service providers are listed in Table 2.9.4.

Environmental and Recreational Facilities

In addition to the facilities mentioned above, Schuylkill County has a number of important recreational and environmental areas.

Hawk Mountain Sanctuary

Hawk Mountain Sanctuary, a non-profit organization, is located in East Brunswick Township at the border with Berks County. Its mission is to foster the conservation of birds of prey worldwide and further the conservation of

the natural environment, particularly the Central Appalachian region. Staff carry out integrated conservation programs in education, research, and

Chapter 2: Existing Conditions

monitoring, including operating a Visitors' Center and other facilities year-round.

The Sanctuary manages its 2,600 acres for multiple uses, balancing mission-based programs like education and awareness, with the need to maintain a healthy and functioning ecological system. The organization works to protect the scenic and ecological integrity of its property and nearby National Park Service Land (Appalachian Trail Corridor) through fees and easement acquisitions.

County and State-owned Lands

Schuylkill County owns Sweet Arrow Lake, located north of State Route 443 in Pine Grove and Washington Townships. The site of the County Fairgrounds, located south of State Route 895 in Wayne Township, is owned by the Foundation for Agriculture and Resource Management (FARM). There are three state parks in the county, Swatara State Park, located in Lebanon and Schuylkill Counties, Locust Lake State Park in Ryan Township, and Tuscarora State Park in Ryan, Rush, and Schuylkill Townships. Also of importance are state forests and gamelands. All of these state- and county-owned parks, gamelands, and forests are discussed in further detail in Section 5 of this Chapter.

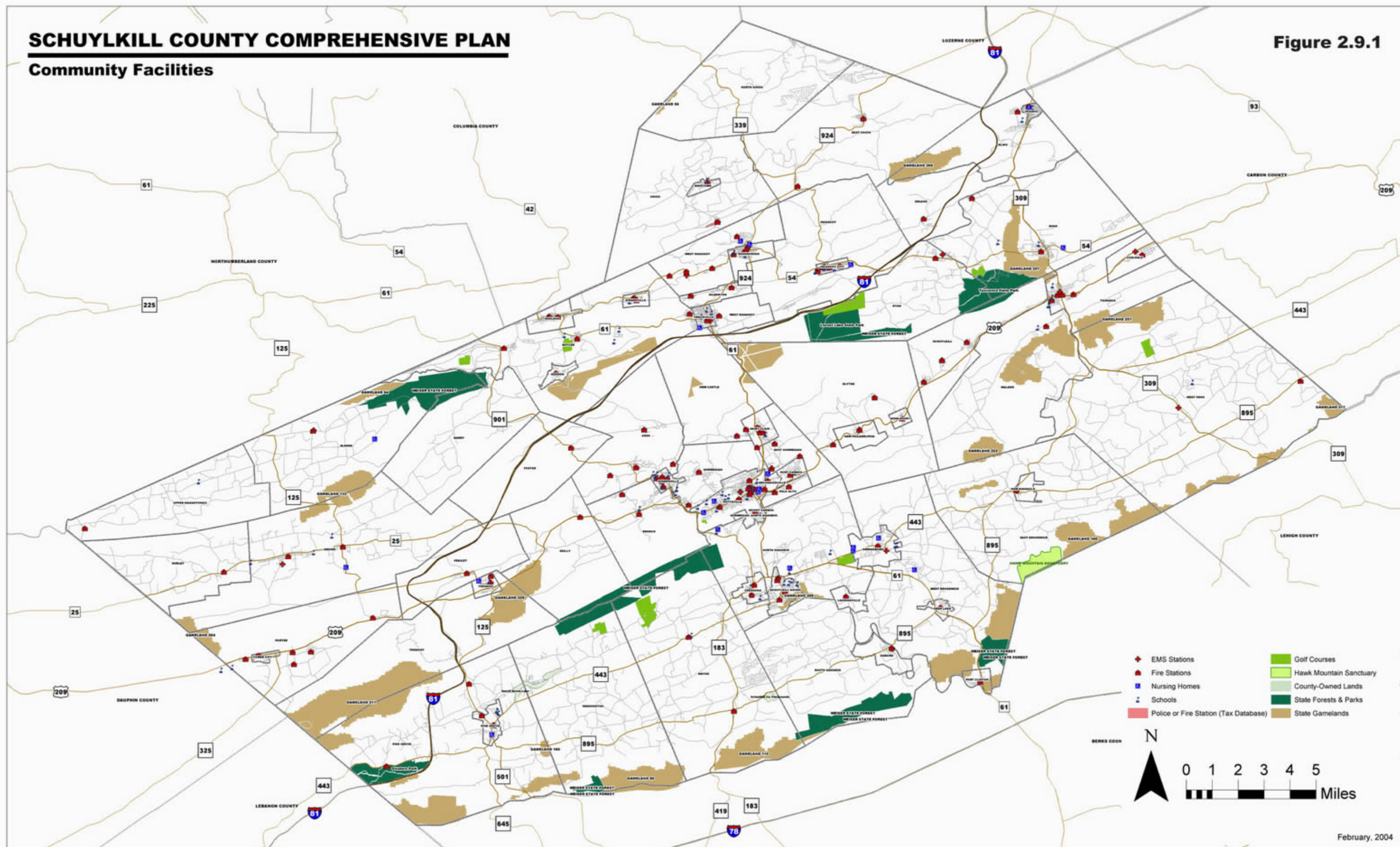
Community and Regional Parks

Additional recreational areas in the county include municipally owned community and regional parks (Table 2.9.6). Active recreation areas in the county include ballfields, playgrounds, skating rinks, hiking trails, golf courses, and driving ranges. In addition, there are also areas for passive recreation including fishing and picnicking areas. Other areas in the county include privately owned fish and game clubs.

In addition to existing areas for recreation, there are a few sites in the county that could be redeveloped or reused for recreational purposes. These sites include Sandy Beach in West Mahanoy Township and the Landingville Dam.

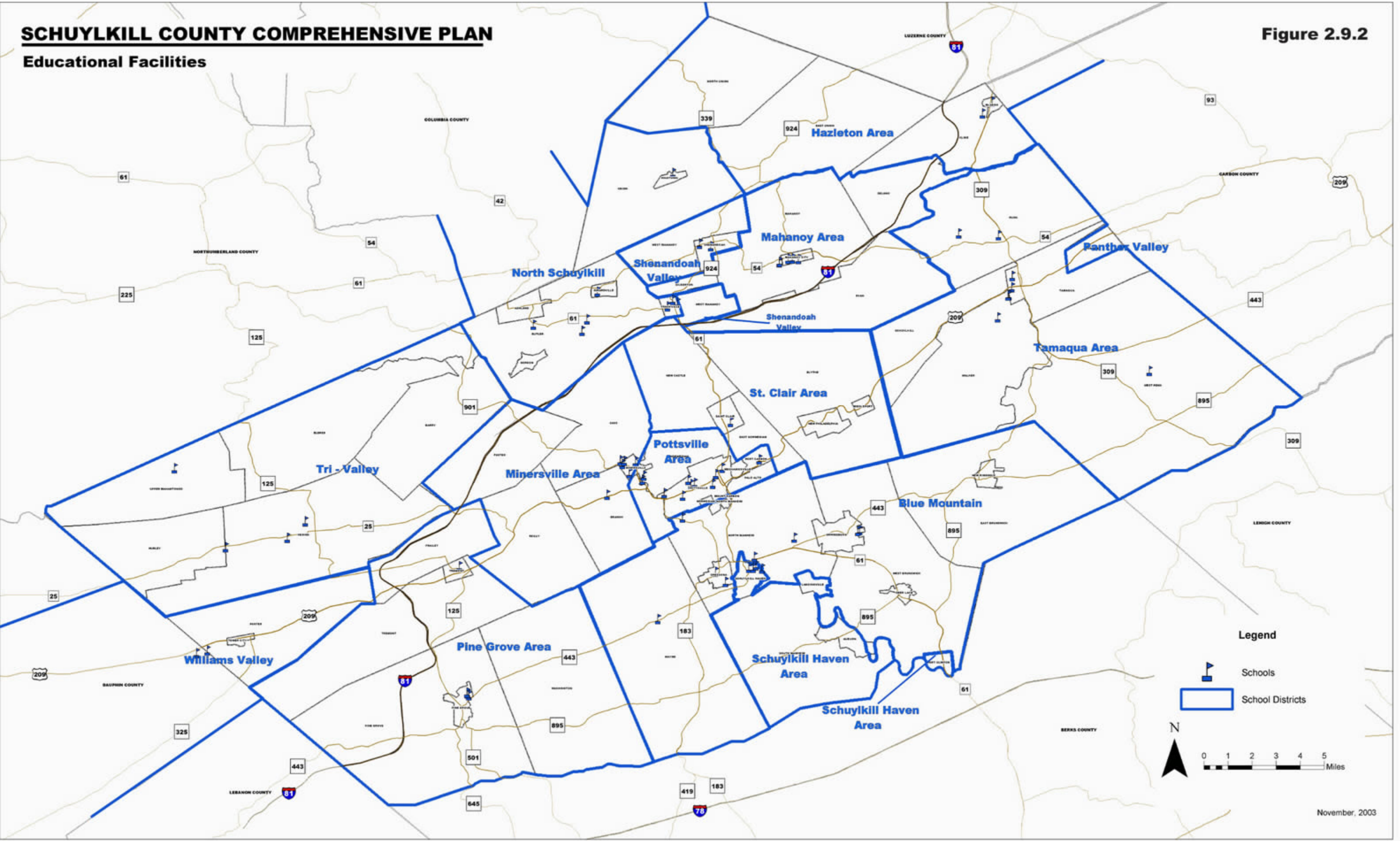
Community Facilities

Figure 2.9.1



SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Educational Facilities

Figure 2.9.2



Legend

-  Schools
-  School Districts



0 1 2 3 4 5 Miles

Chapter 2: Existing Conditions

Table 2.9.1 Public School Districts Enrollments and Projections

Public School District	Enrollment 2002-2003		Enrollment Projections 2007-2008		Enrollment Projections 2012-2013		% Change 2002/03 to 2012/13	% Change 2002/03 to 2012/13
	Grades K-8	Grades 9-12	Grades K-8	Grades 9-12	Grades K-8	Grades 9-12	Grades K-8	Grades 9-12
Blue Mountain	1969	994	1748	914	1739	769	-11.7%	-22.6%
Hazleton Area	5941	2872	5509	3179	4861	2954	-18.2%	2.9%
Mahanoy Area	809	402	617	349	488	244	-39.7%	-39.3%
Minersville Area	773	408	690	362	626	311	-19.0%	-23.8%
North Schuylkill	1368	644	1084	597	929	445	-32.1%	-30.9%
Panther Valley	1023	469	1016	540	1153	494	12.7%	5.3%
Pine Grove Area	1218	560	1108	542	1083	434	-11.1%	-22.5%
Pottsville Area	1908	1209	1704	1178	1814	932	-4.9%	-22.9%
Saint Clair Area	551	n/a	538	n/a	568	n/a	3.1%	n/a
Schuylkill Haven	943	408	906	414	996	388	5.6%	-4.9%
Shenandoah Valley	645	314	505	285	499	185	-22.6%	-41.1%
Tamaqua Area	1562	700	1461	767	1448	693	-7.3%	-1.0%
Tri-Valley	664	319	640	309	726	252	9.3%	-21.0%
Williams Valley	855	376	691	370	579	305	-32.3%	-18.9%

Chapter 2: Existing Conditions

Table 2.9.2 Independent School District Enrollments

Independent School	Enrollment 2002-2003	
	Grades K-8	Grades 9-12
Academy Of The Blessed Virgin Mary	88	
All Saints Catholic Elementary	252	
Cressona Christian School	88	
Flat Hill Amish Parochial School	14	
Pine Grove Mennonite	14	
Father Walter J. Ciszek Elementary	173	
Frackville Learning Center	10	
Good Shepherd Regional School -1	74	
Good Shepherd Regional School -2	64	
Hegins Valley Mennonite School	30	5
Holy Family School	90	
Immaculate Heart School	142	
Mc Adoo Catholic	141	
New England Valley Mennonite School	14	5
Overcomer's Christian Academy	3	
St. Ambrose School	178	
St. Jerome Regional School	172	
St. Joseph Center For Special Learning	13	3
St. Nicholas School	168	3
St. Stephen Regional School	163	
Trinity Center For Children	6	
Cardinal Brennan High School		268
Marian High School		319
Nativity B.V.M. High School		217

Chapter 2: Existing Conditions

Table 2.9.3 Higher Education Facilities in Schuylkill County

<u>School</u>	<u>Location</u>
Alvernia College	Pottsville
Lehigh Carbon Community College	Frackville, Pottsville, Tamaqua
McCann School of Business & Technology	Mahanoy City, Pottsville
Penn State Schuylkill Campus	Schuylkill Haven
Pottsville Hospital School of Nursing	Pottsville
Schuylkill Institute of Business & Technology	Pottsville
Schuylkill Technology Centers	Frackville, Mar Lin
Temple University - MSW Program	Pottsville

Chapter 2: Existing Conditions

Table 2.9.4 Police, Fire and Ambulance Providers in Schuylkill County

Owner	House #	Street Address	Municipality
Good Intent Hose Co	12	Silverton Street	Branch Township
Phoenix Park Comm Fire Co	2186	Main Street	Pottsville
Friendship Fire Co	121	Pine Street	Frackville
Lavelle Volunteer Fire Co	409	Main St	Lavelle
Lavelle Volunteer Fire Co	22	Fifth St	Lavelle
Butler Township	69	Broad Street	Butler Township
American Fire Co		Fountain Street	Ashland
American Fire Co		Fountain Street	Ashland
South Cass Citizens Fire Co		Sunbury Street	Cass Township
Duncott Hose Co	1332	Valley Rd	Pottsville
Forestville Citizens Fire Co	1	Line Avenue	
Delano Fire Co		Birch Alley	Delano Township
Borough Of Minersville	136	Third Street	Minersville
Mountaineer Hose Co U		Third Street	Minersville
New Minersville Hose Co		Line Street	Minersville
Indpndnt Hse Co Of Mnrvle	511	Sunbury Street	Minersville
Rescue Hook & Ladder		North Street	Minersville
Good Will Fire Co # 1		Front Street	Minersville
Mt Carbon Fire Co #1	120	Main Street	Mount Carbon
Community Fire Co		Railroad Street	Port Carbon
East End Hose House	230	Savory Street	Palo Alton
Citizens Fire Company		Bacon Street	Port Carbon
Pine Grove HH&L No 1		Orchard Street	Pine Grove Borough
North End Fire Co		North Tulpehocken Street	Pine Grove Borough
Pine Grove Community Council		Mifflin Street	Pine Grove Borough
Pine Grove Comm Amb Assoc		Depot	Pine Grove Borough
Good Will Fire Co No 1		Washington Street	Port Carbon
Port Clinton Fire Co Inc		Penn Street	Port Clinton
West End Hose Co	1219	Market Street	Pottsville
Yorkville Hose Co		Norwegian Street	Pottsville
Yorkville Hose&Fire Co		Norwegian Street	Pottsville
Good Will Hose Co		Nichols & Coal Street	Pottsville
Pottsville City Hall	401	Centre Street	Pottsville
Schuylkill County Prison		Second Street	Pottsville
Humane Fire Co No 1		Third Street	Pottsville
Phoenix Hook & Ladder Co No 2	320	Norweigan Street	Pottsville
Greenwood Hill Fire Co 65		Wolfe Street	Pottsville

Chapter 2: Existing Conditions

Table 2.9.4 Police, Fire and Ambulance Providers in Schuylkill County			
Owner	House #	Street Address	Municipality
Good Intent Fire Co	7	Second Street	Pottsville
American Hose Co		4th & Norwegian Street	Pottsville
Ringtown Chemical Fire Co No 1		Main Street	Ringtown
Ringtown Chemical Fire		Main Street	Ringtown
Ringtown Community Amb Assn	10	Main Street	Ringtown
Municipal Auth		Center Street	
Rescue Hook & Ladder Co		Second Street	St. Clair
Borough Of St. Clair	24	Second Street	St. Clair
Alert Fire Co Of St Clair		Second Street	St. Clair
St Clair Borough Of		Second Street	St. Clair
Columbia Hose Co No 2	106	Lawton Street	St. Clair
Rainbow Hose Co No 1		Dock Street	Schuylkill Haven
Borough Of Schuylkill Haven		Main Street	Schuylkill Haven
Schuylkill Hose Co#2		Union Street	Schuylkill Haven
Liberty Fire Co		Columbia Street	Schuylkill Haven
Fire Dept Turkey Run		Furnace Street	Shenandoah
Rescue Hook & Ladder Co	200	Main Street	Shenandoah
Phoenix Fire Co		Jardin Street	Shenandoah
Polish Amer Fire Co		West Street	Shenandoah
Polish American Fire Co	111	Center Street	Shenandoah
Polish Amer Fire Co No 4	111	Center Street	Shenandoah
Columbia Hose & Steam Co #1		Centre Street	Shenandoah
Citizens Fire Co 1		Rowe Street	Tamaqua
Emergency Rescue #1		Pine Street	Tamaqua
Tamaqua Community Ambulance	32	Mauch Chunk Street	Tamaqua
American Hose Co 1		Mauch Chunk Street	Tamaqua
East End Fire Co	611	Broad Street	Tamaqua
South Ward Fire Co		Van Gelder Street	Tamaqua
South Ward Fire Co		Van Gelder Street	Tamaqua
Volunteer Fire Co 1		Grand Avenue	Tower City
Tower City Volunteer Fire Co		Wiconisco Avenue	Tower City
Tremont Borough Of	19	Pine Street	Tremont
Tremont Fire Company No 1		Main Street	Tremont
Tremont Fire Company No. 1		Clay Street	Tremont
Blythe Township Of		Water Street	Blythe Twp.
Kaska Volunteer Fire Co		Maple Street	Kaska
Citizens Fire Co			Ringtown
Shepton Volunteer Fire		Center Street	East Union Township

Chapter 2: Existing Conditions

Table 2.9.4 Police, Fire and Ambulance Providers in Schuylkill County			
Owner	House #	Street Address	Municipality
Mahantongo Fire Co No 1	54	Main Road	Pitman
Donaldson Fire Co		Center Street	Tremont
Independent Hose Co		Sunshine Street	Pottsville
St Clair Veterans Mem Amb Fund		Mill Creek Avenue	St. Clair
American Fire Co	809	Fifth Street	Port Carbon
Valley View Fire Co		Maple Street	Valley View
Hegins Fire Co		Chestnut Street	Hegins Twp.
Sacramento Comm Fire Co		Main Street	Sacramento
Kline Twp Fire House		Fifth Street	Kline Twp.
Mar Lin Citizens Hose Co	406	Maple Street	Mar Lin
Norwegian Twp Of		4th Street	Norwegian Twp.
Seltzer Hose Co		Main Street	Seltzer City
Phoenix Hose Co	30	Ann Street	Pottsville
Suedberg Fire Company		Suedberg Road	Pine Grove Township
Ravine Fire Co No 1		Spittler Road	Pine Grove Township
West End Fire Co		Maple Street	Tower City
Porter Twp School Dist	333	Dietrich Street	Porter Twp.
Reinerton Community Hall		Wiconisco Avenue	Reinerton
Muir Volunteer Fire Co		Church Street	Muir
Joliett Fire Co			Tremont
Reilly Township Of		Spruce Street	Reilly Township
Citizens Fire Co			Branchdale
Quakake Fire Co		Second & Walnut Street	Rush Township
Hometown Fire Co			Hometown
Ryan Twp Fire Co		Park Crest	Ryan Township.
Brockton Fire Co		Alley	Schuylkill Township
Mary D Fire Co Inc		Main Street	Mary D
Tuscarora Fire Co		Wyoming Street	Tuscarora
Union Twp Fire Co 1			Union Township
Klingerstown Fire Co 1		Main Street	Upper Mahanoy Township
New England Fire Company	7	Miller Lane	Walker Township
Summit Station Fire Co No. 1			Summit Station
West Penn Supervisors Of	27	Municipal Road	West Penn Twp.
Penn Mahoning Ambulance Assoc	1748	West Penn Pike	
Andreas Volunteer Fire Company	42	Andreas Road	Andreas
Washington Fire Co 1	1305	Center Street	Ashland
Ashland Borough Hose House	638	Walnut Street	Ashland
Vigilant Hose Co		Front Street	

Chapter 2: Existing Conditions

Table 2.9.4 Police, Fire and Ambulance Providers in Schuylkill County			
Owner	House #	Street Address	Municipality
Volunteer Fire Co # 1		High Street	Coaldale
Cressona Fire Co	59	Second Street	Cressona
Good Will Hose Co		Sillyman Street	Cressona
Deer Lake Fire Co			Deer Lake
Deer Lake Borough Of		Lake Front Drive	Deer Lake
West Brunswick Fire Co			West Brunswick Twp.
Frackville Borough Of		Balliet Street	Frackville
Frackville Borough Of		Frack & Broad Mountain	Frackville
Hose House Amer Hose Co			Gilberton
Continental Hose Co 3		Main Street	Gilberton
Friendship Hose Co #1		Liberty Street	Orwigsburg
New Philadelphia Borough Of		Macomb Streect	New Philadelphia
W Mahanoy Twp Suprv Of		Pennsylvania Avenue	West Mahanoy Twp.
Shenandoah Hts Fire Co		Swatara Road	Shenandoah
Altamont Fire Company		Green Street	West Mahanoy Township
Rangers Hose Co	9	Ogden Street	Girardville
Girard Hose Co No 1	118	Main Street	Girardville
Girardville Borough Of		Forth Street	Girardville
Gordon Borough Of	324	Plane Street	Gordon
Community Fire Co Landingville		Park Street	Landingville
Community Fire Co		Fire Station Road	Landingville
West End Fire & Rescue Co		Mahanoy Ave	Mahanoy City
Humane Steam Fire Company No 1	322	Center Street	Mahanoy City
Citizens Fire Company		Center Street	Mahanoy City
Mahanoy City Borough Of		Pine Street	Mahanoy City
Good American Hose Co No 3		South Street	Mahanoy City
Mahanoy City Borough Building		Mahanoy Street	Mahanoy City
Mcadoo Fire Company	28	Blaine Street	McAoo
Mcadoo Fire Co Inc		Kennedy Drive	McAoo
Keystone Fire Co 1		Grant Street	McAdoo
Mc Adoo Borough	23	Hancock Street	McAoo
Mechanicsville Hose Co	925	Pottsville Street	Mechanicsville
Mechanicsville Hose Company	927	Norwegian Street	Mechanicsville
Middleport Borough Of		Washington Street	Middleport
Tremont Area Ambulance		North Street	Tremont

Chapter 2: Existing Conditions

Table 2.9.5 Emergency Medical Service Providers in Schuylkill County

Name	Type
Ashland EMS	EMS
Auburn EMS	EMS
Coaldale EMS	EMS
Girardville EMS	EMS
Mahanoy City EMS	EMS
Minersville EMS	EMS
New Philadelphia EMS	EMS
Pottsville Area EMS	EMS
Schuylkill Haven EMS	EMS
Shenandoah EMS	EMS
Tamaqua Area EMS	EMS
Tremont Area EMS	EMS
Port Carbon QRS	QRS
Yorkville QRS	QRS
Tamaqua ALS	ALS
West Schuylkill ALS	ALS
Shenandoah ALS	ALS
Pottsville Area ALS	ALS
Frackville EMS	EMS
Mcadoo EMS	EMS
New Ringgold EMS	EMS
Ringtown EMS	EMS
Pitman EMS	EMS
Schuylkill Haven ALS	ALS
Saint Clair EMS	EMS
Saint Clair EMS	EMS
Orwisgsburg EMS	EMS
Hegins EMS	EMS
Nuremburg EMS	EMS
Pine Grove EMS	EMS
Tower City EMS	EMS
Ryan Township EMS	EMS
Schuylkill Township EMS	EMS
Penn Mahoning EMS	EMS
Lost Creek EMS	EMS

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory

	<u>Facility Name</u>	<u>Location</u>	<u>Size</u>	<u>Comments</u>
Townships				
Barry	Barry Township Baseball Field	SR 4020	3.2	Baseball Field & Playground
	North Schuylkill Rec. Assoc.	Airport Road	5.8	Soccer Fields and Basketball Court
Blythe	Blythe Township Playground	James Road	3.7	Playground, Basketball Court, Baseball Field, Tennis Court
	Blythe Township Ball Field	SR 209	6.2	Baseball Field, Playground, Basketball Courts
Branch	Branch Tot Lot	4th & Springwood	0.13	Tot Lot
	Branch School	Llewellyn Road	8	Baseball Field, Playground, Volleyball Court, Tennis Court
	Phoenix Park	Main St.	0.3	Playground
Butler	Ashland Gun & Country Club	Fountain Street	18.4	
	Ashland Fish & Game Protective	Germanville	78.7	
	Lavelle Park	Main Street	0.6	Tot Lot, Basketball Courts
	Fountain Springs Playground	Catherine Street	0.6	Basketball Court, Tot Lot
Cass	Minersville Fish & Game	Live Oaks Road	21.5	
	Primrose Athletic Fields	SR 901	7	Baseball Fields
	Heckcherville Playground	SR 4008	1.65	Basketball Courts, Playgrounds
	Forestville Citizens Fire Co. Park	SR 4008	12	Basketball Courts, Playgrounds
Delano	Delano Park	RT 483	2.8	Playground
	Delano Playground	Willow Street	3.1	Playground, Basketball Court, Tennis Court
East Brunswick	Tennis Courts	Rt 745	1	Tennis Courts
	Friedens Evan. Church	Church Road	3.7	Baseball Field
	East Brunswick Playground	Catawissa Street	1.6	Playground, Pavilion
East Norwegian	East Norwegian Ballfield	Division Street	1.66	Baseball Field
	Park Ave Ballfield	Park Avenue	0.67	Ballfield

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory (cont'd)

	<u>Facility Name</u>	<u>Location</u>	<u>Size</u>	<u>Comments</u>
East Union	Shenandoah Archery Club	Phineyville Road	22.4	
	Sheppton Playground	Center Street	0.82	Playground
	Columbia Hose Fire Company	Spruce Street	5.3	Picnic Grove
	Pumping Station	Pole Road	63.5	Fishing Lake
Eldred	Mahantongo Fire Co. Ballfield	Main Road	2.1	Little League Baseball Field
Foster	Foster Township	PA 901		
Frailey				
Hegins	Hegins Park	Park Street	3	Soccer Field, Baseball Fields
	Hegins Park	Park Street	28.6	Picnic, Passive
	Valley View Park	T-474	40.6	Baseball Field, Playground
	Valley View Park	SR 4013	20	Passive
	Valley View Park	SR 4011	54.7	Picnic, Open Field
Hubley				
Kline	Veterans Memorial Park	Hancock Street	13.7	Little League, Basketball Court, Tot Lot
	Kline Township	Lofty Road	0.4	Skating Rink, Volleyball Area
	Kelayres Playground	James Street		Tot Lot
Mahanoy	East End Park	East End Road	4.8	Softball Field, Playground and Pavilion
	Mahanoy City High School		7	Football Stadium, Baseball Field, Tennis Courts
	Morea Park	Rt. 53035	2	Baseball Field, Basketball Court, Pavilion
New Castle				
North Manheim	Blue Mountain HS Complex	PA 443	25	Soccer, Baseball, & Softball Fields, Tennis Courts, Football Stadium
	Second Mt Rod and Gun Club	Second Mt. Rd	5	
	Pottsville Youth Soccer Fields	Gordon Nagle Trail	8.7	Soccer Fields
	Seider's Hill Baseball Field	Gordon Nagle Trail	2	Softball Field
North Union	Shenandoah Arrowhead Club	502 Red Ridge	22	
	Community Park	Mahanoy Street	5.2	Playground, Volleyball Court, Basketball Court, Pavilion

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory (cont'd)

	<u>Facility Name</u>	<u>Location</u>	<u>Size</u>	<u>Comments</u>
Norwegian	Seltzer Playground	Delaware Street	0.96	Playground
	Seltzer Hose & Gun Club	Seltzer Road	39	Ballfield
	Marlin Citizen Hose	Maple Street	0.17	Playground, Ballfield
Pine Grove	Pine Grove Fish & Game	Geary Wolf Road	6.1	
	Pine Grove Township Playground	Long Stretch Road	5.0	Playground, Basketball Hoops, Ballfield
Porter	Tower City American Legion Baseball	T-325	12.3	Baseball Fields
	Tower City Little League	Wisconisco Street	5.4	Baseball Field
Reilly	Reilly	SR 4008	0.9	Open Space
Rush	Marian High School	Marian Ave.	10	Football Field and Track, Baseball and Softball Fields
	Quakake Playground	Tamanend Road	0.52	Basketball Court, Playground
	Ryan Park	Kellers Road	13	Basketball Court, Playground
	Rush Elementary School	Meadow Ave.	5	Basketball Court, Playground, Baseball Field, All Purpose Field
	White Birch Golf Course	Tuscarora Park Road	90.6	Golf Course
	Lincoln Park	Lincoln Street	0.21	Playground, Basketball Court
	Hometown Fire Company	Mahanoy Avenue	0.2	Basketball Court
	Air Products Wildlife Sanctuary	SR 1019	2	
	Ryan Township Fire Company	SR1017	8.4	Baseball Field, Pavilion
	Richard E. Miller Park	Miller Avenue	2.9	Being Developed
Ryan				
Schuylkill	Howard D. Buehler Memorial Pool	S.R. 209	2	Swimming Pool
	Bungalow Park	S.R. 209	4	Little League, Basketball Court, Playground, Volleyball, Pavilion
	Mary-D Ball Field	S.R. 209	4.8	Baseball Field
	Tuscarora Ball Field	S.R. 209	2	Baseball Field
South Manheim				
Tremont				
Union	Shenandoah Fish and Game	Zions Grove	440	Fishing Lake, Picnic Area
	Ringtown Little League	Route 4033	6.4	Little League field, Tee Ball Field, tot Lot
	Union Township	Zions Grove Road	14	Undeveloped

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory (cont'd)

	<u>Facility Name</u>	<u>Location</u>	<u>Size</u>	<u>Comments</u>
Upper Mahantongo	Klingerstown Fairgrounds	Carnival Road	17.6	Fairgrounds
Walker	Wildcat Park	Township Road	5.2	Playground, Basketball Court, Tennis Courts
	Hilltop Sportsmen Assoc.	Catawissa Road	27.4	
	Deep Run All Sports Club	Route 529	315	
	Rosemont Camp Grounds	Valley Road	11	
	Heisler's Miniature Golf	Catawissa Road	16.5	Miniature Golf and Driving Range
Washington	Washington Municipal Building	Frantz Road	4.2	Basketball Court, Tennis Courts
Wayne	Wayne Township Playground	Rolling View Drive	1.31	Playground & Pavilion
	Summit Station Playground	SR 895	1.7	Playground
	Blue Mt. Elementary West	Sr 443	2	Open Field, Pavilion, Tot Lot
West Brunswick	Pindale Driving Range & Miniature Golf	Centre Turnpike PA 61	12	Driving Range & Miniature Golf
	West Brunswick Recreation Park	Pheasant Run Rd.	6	Softball Field, Soccer Field, Little League Field
West Mahanoy	Sandy Beach	PA 924	13.8	Inactive site-picnicking and swimming
	Shenandoah Soccer Field	Route 54	2	2 Soccer Fields
	Shenandoah Softball Field	Lost Creek #2	1	Softball Field
	Altamont Playground	Green Street	0.61	Pavilion, Grounds, Tot Lot
	Heights Fire Company Playground	Swatara Road	1.8	Tot Lot, Basketball Courts, Pavilion
	Whipporwill Dam	Morea Road	24.1	Fishing, shooting range, pavilion, old playground
West Penn	Villas Crossing Golf Course	Golf Road	58.2	
	Laurel Lake Campgrounds	Summer Valley Rd.	53.4	
	JEM Park	Rt. 443	1	Under Construction
	West Penn Park	Zions Stone Church Rd.	21.3	Playground, Pavilions, Baseball Fields, Basketball Courts, Nature Trails

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory (cont'd)

	<u>Facility Name</u>	<u>Location</u>	<u>Size</u>	<u>Comments</u>
Boroughs				
Ashland	Ashland Park	Spruce Street	0.1	Playground
	Oakland Street Playground	Oakland Street	0.37	Playground, Basketball Court
	Ashland Little League	Center Street	4.3	Baseball Field
Auburn	Auburn Memorial Park	Market St.	20	Baseball & Soccer Fields, Pavilions, Playground, Basketball Courts
	Auburn School District	Pearson St.	0.92	Basketball Courts
Coaldale	Seek Playground	Foster Ave.	1	Basketball Court, Baseball Field, Playground
	East Ward/Ridge Terrace	East Phillips	0.69	All Purpose Field
	Coaldale Complex	Phillips & 6th	1.61	Playground, Basketball Court, Sand Volleyball Court, All Purpose Field
Cressona	Cressona Playground	Sillyman St.	2.3	Tot Lot, Tennis, Basketball
	Cressona Pool	Graeff St.	2.2	Pool
	Cressona Ballfield Complex	Schuylkill St.	10.9	Baseball Fields, Park
	Blue Mountain Elementary School	Wilder St.	3.15	
Deer Lake	Deer Lake Park	Lakefront Drive	4	Tennis, Basketball, Little League, Swings, Picnic area, Pavilion
	Deer Lake	Lakefront Drive	21	Fishing, Boating
Frackville	Arch St. Park	Arch Street	1	Basketball Courts, Tot Lot, Pavilion
	Memorial Park	Pine Street	6	Swimming Pool, Football & Baseball Fields, Tennis Court, Tot Lot, proposed Ice Rink
	High St. Park	High St.	6	Baseball Fields
	Broad Mountain Park	Broad Mountain Ave.	0.5	Tot Lot
Gilberton	Mahanoy Plane Park	Main Street	1.5	Tot Lot, Pavilion,
	Gilberton	Main Street	0.74	Tennis Courts, Basketball Courts
Girardville	East End Recreation Complex	B Street	2	Little League Field, Basketball Courts, Playground
	C Street Park	C Street	0.2	Tot Lot
	West End Park	Preston & Richard	0.2	Tot Lot
Gordon	Oak Street Park	Oak Street	14.1	Playground, Pavilion, Open Space, Basketball Courts
Landingville	Landingville Community Playground	Dock Street	3	Playground, Tot Lot, Pavilion, Passive

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory (cont'd)

	<u>Facility Name</u>	<u>Location</u>	<u>Size</u>	<u>Comments</u>
Mahanoy City	Eighth Street Park	Eighth Street	2	Basketball Courts
	Mahanoy City Little League	Spruce Street	2.5	Baseball Park
	Fifth Street Park	Fifth Street	0.35	Tot Lot, Gazebo
	St. Canicus Playground	S. Catawissa Street	0.18	Paved Basketball Courts
	Police Tot Lot	East Pine	0.1	Police Station Property
McAdoo	St. Michael's	Grant Street	0.2	Basketball Court, Playground
	Adams Street	Hancock Street	0.52	Basketball Court, Tot Lot
Mechanicsville				
Middleport	Middleport Ball Field	SR 209	0.5	Ball Field
	Middleport Courts	SR 209	2.1	Basketball Courts, Tennis Courts
	Middleport Park	SR 209	0.4	Passive
Minersville	Minersville Recreation Complex	South Fourth Street	8.76	Community Pool, 3 Ballfields, Playground, Soccer Field, Basketball Court, Walking Trail
	North Second Street Playground	North Second Street	0.52	Basketball Court
	Penn Street Playground	Penn Street	0.4	Basketball Court, Playground
	New Minersville Playground	Line Street	3	Softball Field, Basketball Court
	Teaberry Hill Playground	Josephine Street	0.39	Basketball Court
Mount Carbon	Mount Carbon Fire Co.	Main Street	0.17	Tot Lot
New Philadelphia	New Philadelphia Little League	Valley Street	12.1	Baseball Fields
	Clay Street Playground	Clay Street	0.24	Playground, Basketball Court
	Simon Kramer Institute	Alliance Street	4	Soccer Field, Track
New Ringgold	New Ringgold Little League	Railroad Street	10.7	Baseball Field
Orwigsburg	Orwigsburg Community Park	Grove Street	12.1	Tot Lot, Picnic Area, Pavilion, Wooded Area
	Blue Mountain Middle School	Reddale Road	1	Playground
	Fishers Pond	Washington Street	2	Pond, Fishing
	Memorial Park	Grove Street	7	Tot Lot, Little League Field, Basketball Courts, Indoor Recreation Center
	Walborn Community Park	Tammany Street	0.5	Tot Lot, Basketball Court
Palo Alto	Palo Alto Playground	E. Bacon Street	0.91	Playground
	Palo Alto Park	W. Bacon Street	0.65	Basketball Court

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory (cont'd)

	<u>Facility Name</u>	<u>Location</u>	<u>Size</u>	<u>Comments</u>
Pine Grove	The Canal	Mill Street	14.8	Swimming Pool, Passive
	The Canal	Canal Street	5.2	Playground
	Pine Grove High School	High Street	4.66	Football Field, Baseball Field
Port Carbon	Mirawall Park	Pottsville & Commerce	3	Softball Field, Soccer Field, Tot Lot
	Miller Playground	Mill Street	3.7	Tennis Courts, Little League Field, Basketball Courts, Tot Lot, Pavilion
Port Clinton	Port Clinton Park	Schuylkill Street	2.5	Baseball Field, Playground
Ringtown	North Schuylkill School District	Hancock Street	1.5	Baseball Field, Basketball Courts
St. Clair	St. Clair Area Football Stadium	North Nichols Street	8	Gated Facility
	North Ward Playground	North Morris St.	0.83	General Playground
	St. Clair Fish and Game	Lawton Street	6	Outdoor Recreation, Baseball field, Tot Lot, and Pavilion
	John Siney Park			Picnicking and Pavilion
	3rd Street Playground	16 S. Third St.	0.74	General Playground
	St. Clair Swimming Pool	Lawton Street	1	Community Pool
	Little League Park	East Johnson St.	1.6	
	Arnot's Addition Basketball Court			
	St. Clair Area Elementary School	Mill St.	0.5	General Playground
Schuylkill Haven	Garfield Ave	Garfield Ave.	0.28	Tot Lot
	Fritz Reed	Fritz Reed Ave.	0.2	Tot Lot
	Saylor Street	North Berne St.	1.21	Playground with basketball court
	Willow St.	Willow St.	1.6	Playground with basketball court
	Green Goose	Jackson Street	0.6	Playground with basketball court
	The Island	Fritz Reed Ave.	10	Softball Fields, Soccer Field, Boat Launch, Playground, Passive
	Schuylkill Haven High School	N. Main Street	14.4	Football Stadium, Baseball Fields, Tennis Courts
	Bubeck Park	Washington St.	3.1	Stoyer's Dam, Playground, Passive, Pavilion
Shenandoah	Bicentennial Park	Herald Road	5.8	Softball Field, Tot Lot, Fields, Tennis Courts
	Girard Park	Route 924	1.5	Passive, Pavilion
	Shenandoah Little League	West Coal St.	5	Practice Fields and Ballpark
	Veterans Stadium	W. Centre St.	6	Practice Fields, Football Stadium, Baseball Field, Track
	Vine Street Playground	Vine Street	0.5	Basketball Courts, Playground

Chapter 2: Existing Conditions

Table 2.9.6 Park and Open Space Inventory (cont'd)

	Facility Name	Location	Size	Comments
Tamaqua	East End Park	Mountain Ave.	0.5	Basketball Court, Playground
	South Ward Playground	Penn Street	0.41	Basketball Court, Playground
	Tamaqua Area Baseball Assoc.	S. Biddle Street	2.07	Baseball Fields
	North & Middle Ward Playground	Washington & RR	0.76	Basketball Court, Playground
	Willing Park	E. Cedar Street	2.2	Basketball Court, Playground, Skate Park
	Dutch Hill	Willing St.	0.88	Baseball Fields
	Tamaqua Elementary	Nescopec Street	2.3	Playground, Tennis Courts, Basketball Courts
	Tamaqua High School	Stadium Hill	5	Football Stadium , Baseball & Softball Fields, All Purpose Field, Tennis Courts
Tower City				
Tremont	Tremont Little League	Maple Creek Drive	3.2	Little League Field
	Tremont Elementary School	Clay Street	5.5	Tennis Courts, Basketball Courts, Baseball Field
	Veterans Memorial Park	E. Main Street	0.19	Under Construction
	Poplar Street Park	W. Main & Laurel		Basketball Court, Playground
Cities				
Pottsville	Race Street Playground	Race Street	0.14	Playground
	Peacock Street	Peacock Street	1.3	Tot Lot, Playground, Basketball Courts
	Forest Hills	Deerfield Drive	7.4	Tot Lot, Baseball Field, Picnic Area, Tennis Courts
	Greenwood Hill	Wolfe Street	0.58	Tot Lot, Basketball Court
	General G. Jowlwan	E. Norwegian	12.1	Tot Lot, Basketball Court, Skating Park Proposed
	Peacock St. Housing Authority	Peacock Street	0.06	Tot Lot
	Fairmont Avenue Housing Authority	Fairmont Ave.	0.06	Tot Lot, Basketball Court
	John O'Hara Housing Authority	W. Laurel Street	0.06	Tot Lot
	Main Street	Main Street	0.11	Tot Lot, Basketball Court
	JFK Memorial	First Street	4.8	Basketball Courts, Tennis Courts, Picnic Area, Swimming Pool
	Mt. Hope	Mount Hope Ave.	0.06	Tot Lot
	Rotary Park	Mahantongo Street	5.1	Little League Baseball Field, Tot Lot, Basketball Courts, Tennis Courts
	Railway Park	Nineteenth Street	2.5	Little League Baseball Field
	Bunker Hill	Schuylkill Avenue	2	Tot Lot , Basketball Court, Tennis Court
	Market Square	12 th Street	4.8	Tot Lot, Playground, Basketball Courts
	Ivyside Club	Mahantongo Street	2.55	Swimming Pool, Basketball Court, Tennis Court
	Pottsville High School	16th Street	7	Soccer and Mini Football Fields
	Pottsville High School	16th Street	5	Football Stadium and Track
	Pottsville High School	16th Street	2.4	Baseball Field
	Pottsville High School	16th Street	5.4	Softball Filed
	John C. Clarke Elementary School	16th Street	1	Tot Lot
	Nativity High School	Pottsville Blvd.	5	Football Field and Track

Chapter 2: Existing Conditions

SECTION 10: INFRASTRUCTURE AND UTILITIES

Water Supply Service Areas

Most of the areas of public water service in the county center upon existing communities and their nearby suburbs. The locations of existing service areas can be seen in Figure 2.10.1. Schuylkill County completed a comprehensive Water Supply Study in 2002. The information presented in this section is excerpted from that report.

Types of Water Suppliers

Schuylkill County residents receive their water from three main sources: wells, reservoirs, and springs. This water is provided to the residents by community, private, and self-suppliers. The Pennsylvania Department of Environmental Protection defines a community water supplier as those providers serving at least 15 connections used by year-round residents, or regularly serves at least 25 year-round residents. The larger suppliers of water are mostly municipal systems, which provide water for a large number of people within a small area or cluster. These suppliers are usually located throughout the County. The smaller suppliers are generally located in the rural sections of the county.⁴

Annual Water Use

The annual water usage throughout the county is an estimated 33 million gallons per day (MGD), which is metered by the public water suppliers. There are a number of water suppliers throughout the county that do not meter the water that they supply because they utilize an annual flat rate for billing purposes. Most non-metered suppliers charge an annual flat rate for the water supply.⁵

Average Daily Water Use

The 1999 average daily water usage for Schuylkill County residents and industries was approximately 32.1 MGD. The water suppliers serviced approximately 138,187 people throughout the County or 91.9% of the population. The other 8% of the population is served by private wells. Figure

⁴ "Schuylkill County Water Supply Study," Prepared for Schuylkill County and the Pennsylvania Department of Environmental Protection by Vitillo Corporation, revised February 25, 2002, 10.

⁵ Ibid.

Chapter 2: Existing Conditions

2.11.2 shows the average daily usage by individual water suppliers throughout the county.⁶

⁶ Ibid., 15.

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Table 2.10.1 Municipal and Community Water Supply Systems

Community Water Supplier	Average Daily Usage (mgd)	2009 Projected Avg. Daily Usage (mgd)	2019 Projected Avg. Daily Usage (mgd)	Pop. Served
Ashland Water Authority	0.4520	0.4280	0.4048	4659
Auburn Borough Municipal Authority	0.4520	0.4280	0.4048	925
Blythe Township Municipal Authority	1.0030	0.9490	0.8977	8300
Country Hills Apartments	Unknown	Unknown	Unknown	40
Cove Village Community Trust Vat	0.0240	0.0220	0.0215	250
Deer Lake Citizens Association	0.0467	0.0441	0.0417	750
Eagle Rock Community Association	Unknown	Unknown	Unknown	450
Frieden Manor Mobile Home Park	Unknown	Unknown	Unknown	376
Friendly Nursing Home	0.0034	0.0032	0.0030	108
Happy Valley Mobile Home Park	Unknown	Unknown	Unknown	Unknown
Hazleton City Authority Water Department	0.1930	0.1830	0.1728	341
Hegins Township Authority	0.2449	0.2315	0.2190	2890
Hubley Township Authority	0.0155	0.0147	0.0115	980
Kline Township Water Authority	0.6836	0.6465	0.0139	6700
Lake Wynonah Municipal Authority	0.0930	0.0880	0.0832	2500
Lansford/Coaldale Joint Water Authority	0.7330	0.6930	0.6558	9300
Mahanoy Township Authority	1.8700	1.7690	1.6733	n/a
Mary-D Community Association	0.0155	0.0148	0.0139	360
Melanie Manor Mobile Home Park	0.0075	0.0071	0.0067	100
Minersville Municipal Water Authority	0.9616	0.9095	0.8602	7500
Morea Citizens Water Company	0.0860	0.0810	0.0769	350
Mountain Springs Water Authority	0.0320	0.0300	0.0288	95
Mountain Water Authority Of Joliett	0.0480	0.0450	0.0429	497
Nuremburg Division Of United Water Company	Unknown	Unknown	Unknown	500
Orwigsburg Municipal Water Works	0.3200	0.3020	0.2859	3000
Pa Water Company - Frackville District	Unknown	Unknown	Unknown	Unknown
Pine Grove Municipal Water Works	1.2370	1.1700	1.1064	3170
Pine Terrace Mobile Home Park	Unknown	Unknown	Unknown	Unknown
Pinebrook	Unknown	Unknown	Unknown	Unknown
Port Clinton Water Co-Op Association	0.0130	0.0120	0.0115	240

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Table 2.10.1 Municipal and Community Water Supply Systems (cont'd)

Community Water Supplier	Average Daily Usage (mgd)	2009 Projected Avg. Daily Usage (mgd)	2019 Projected Avg. Daily Usage (mgd)	Pop. Served
Retreat Village	Unknown	Unknown	Unknown	Unknown
Ringtown Borough Water Department	0.0640	0.0610	0.0577	950
Consumers Pa Water Company - Roaring Creek Division	4.8740	4.6100	4.3604	6100
Sammy's Mountain View Mobile Home Park	0.0030	0.0027	0.0026	45
Schuylkill County Municipal Authority - Mountain Laurel, Broad Mountain & Indian Run	4.4390	4.1980	3.9709	31850
Schuylkill County Municipal Authority - Tremont System	0.2000	0.1890	0.1791	2515
Schuylkill Haven Borough Water	1.8030	1.7060	1.6132	8500
Shenandoah Municipal Water Authority	0.8750	0.8280	0.7829	9500
Swatara Village	0.0120	0.0110	0.0108	40
Tamaqua Area Water Authority	2.3150	2.1890	2.0708	8000
The Pines	Unknown	Unknown	Unknown	Unknown
Tower City Borough Authority	Unknown	Unknown	Unknown	Unknown
Wildcat Park Corporation	Unknown	Unknown	Unknown	Unknown

Chapter 2: Existing Conditions

Changes in Schuylkill County Water Systems

Major changes have been made to the water systems in Schuylkill County since the completion of the Comprehensive Area Wide Water and Sewer Study in the 1970's. One major factor which affected these changes was the passing of the Surface Water Identification Protocol Rule (SWIP). This rule mandated that all systems using groundwater sources that are influenced by surface water must be filtered. This required community water suppliers to update their treatment systems or change over to well systems.⁷

The passage of the Filtration Rule was even more significant in the early 1990's in that it required all surface water systems to construct filtration plants, switch to well systems, or cover the existing reservoirs to prevent contamination. This rule initiated construction of numerous state-of-the-art filtration plants in Schuylkill County that brought water supplies up to date with current technology and provided the ability to serve safe, potable water to its residents. This rule also initiated the takeover or buy-out of non-compliance systems.

Another major change within the county was the consolidation in 2001 of two of the water suppliers, the Hegins Township Authority and the Hubley Township Authority. Previously the two suppliers were obtaining source water from the same wells. The Hegins Township Authority was selling bulk water to Hubley Township Authority so the two boards decided it would be easier politically and financially if there were just one governing authority.⁸

Out Of County Suppliers

There are three out of county water suppliers that service county customers: Eagle Rock Community Association, Pennsylvania Consumers Water Company, and Landsford/Coaldale Joint Water Authority. These suppliers produce potable water and distribute it to both Schuylkill County and adjoining county consumers. Pennsylvania Consumers Water Company produces water entirely in Northumberland County and transmits it through distribution lines to Schuylkill County consumers. Because they are located on or near the Schuylkill/Luzerne County line, Eagle Rock Community Association and Lansford/Coaldale Joint Water Authority draw water from aquifers within Schuylkill County and service both Schuylkill and adjacent county residents.⁹

Water Sources

There are two main sources of water that water suppliers utilize to serve their customers; surface storage (reservoirs) and groundwater (wells). Approximately fifty-six percent of county customers receive reservoir water

⁷ Ibid., 12.

⁸ Ibid., 12-13.

⁹ Ibid., 13.

Chapter 2: Existing Conditions

and forty-four percent receive well water. The Friendly Nursing Home, which supplies approximately 100 people (or less than one percent of county customers), is a unique water supplier within the county because they provide groundwater by means of a surfacing spring.¹⁰

Compared to surrounding counties, a large percentage of consumers within Schuylkill County receive their water from surface sources. Coal companies in the county built large reservoirs to help maintain water levels in the local canal systems, which were used to ship their product to market. Once the canal system became obsolete, these large reservoirs were sold to the water companies. Due to new filtration requirements in the 1990's for surface water, suppliers were forced to decide between building or renovating filtration plants or converting to well sources. The Pine Grove Municipal Authority was one of a number of suppliers in the county that converted over to well systems and maintained control of the reservoirs for reserve purposes. The suppliers that had ownership of the larger reservoirs such as Tumbling Run, Still Creek, and Silver Creek opted to build or upgrade filtration plants. These systems have an enormous amount of reserve capacity that could potentially be used in a drought situation.¹¹

Water Treatment And Storage

All of the water suppliers that service residents in Schuylkill County treat raw water. Most of the suppliers that utilize wells disinfect the raw water with chlorination. The geology of the region tends to propagate high levels of iron and manganese, so the suppliers add coagulant treatment to try and remove these minerals from the water. There are eleven water suppliers within the county that utilize treated surface water. These suppliers all use upflow clarifiers to treat their raw water. These, as well as most of the other suppliers have treated storage capacity on reserve in the event of an emergency situation. Different types of treatment within the County are used to get clean potable water to their consumers. The vast majority of the suppliers are very localized and do not extend into the rural community.¹²

Community water suppliers are mandated to treat potable water to meet standards of the United States Environmental Protection Agency and the Pennsylvania Department of Environmental Protection. Groundwater, or well systems, typically provide chemical treatment for disinfection in the form of chlorine addition, and in some cases, provide chemical treatment for corrosion control. The geology of the region tends to propagate high levels of iron and manganese. In these cases, suppliers may use both chemical and physical (in the form of filtration) treatment to remove the constituents.

There are eleven water suppliers within the county that utilize treated surface water. These suppliers typically provide chemical treatment, filtration, and

¹⁰ Ibid., 13-14.

¹¹ Ibid., 14.

¹² Ibid., 15-16.

Chapter 2: Existing Conditions

disinfection to prevent water born pathogens and bacteria from entering the system. Most of the filtration plants were constructed in the 1990s as state-of-the-art facilities with ample capacity for growth. Most community systems have adequate finished potable water storage to provide for fire protection and reserve capacity during emergencies. The community water systems are typically municipally owned and operated and centered on existing developed areas including the City of Pottsville, boroughs, and villages. Their locations limit extensions into rural communities.

Sewer Service Areas

Most of the existing central sewer service areas in Schuylkill County are located in Pottsville, the boroughs, and their environs (Figure 2.11.2). Landingville and Port Clinton are two boroughs that lack central sewer service. Some areas in townships with central sewer service not associated with boroughs include areas in Butler, North Union, East Union, Rush, Cass, Foster, South Manheim, and Wayne Townships.

Proposed service areas include Pine Grove Township west of Pine Grove Borough, Frailey Township north of Tremont Borough, Gilberton Borough, New Ringgold Borough, New Philadelphia Borough, Middleport Borough, and along the US Route 209 corridor in Blythe and Schuylkill Townships.

Sewage Sludge and Septage

Under Pennsylvania Act 101 of 1988 sewage sludge and septage fall within the municipal solid waste planning responsibility of counties; thus counties must plan for future disposal of area sludge.

Sewage is collected from homes and businesses in all of the boroughs and several other municipalities in Schuylkill County by sewer systems, and sewage sludge is produced by municipal sewage treatment facilities. Annual septage collected in 1995 was estimated at 3,985,000 gallons. Septage is disposed by one of six haulers:

1. Johnny on the Job
2. Clifford Hill Sanitation Service
3. Strouse Brothers
4. Lake Wynonah Municipal Authority
5. Christman's Septic Service
6. ABC Sewage

Chapter 2: Existing Conditions

Biosolids Management System

According to the *Act 101 Municipal Solid Waste Plan*, completed in 2003, facilities responding to a survey regarding management practices indicated that the primary method of disposal for biosolids are composting and landfilling. Landfills currently have the excess capacity to meet the disposal needs of all biosolids generated annually. The biosolids management system is sufficient to manage the biosolids generated from county sources over the next ten years.¹³

Septage Management System

According to the *Act 101 Municipal Solid Waste Plan*, the county will continue to rely on wastewater treatment plants in the region that are accepting septage, as well as land application at permitted sites in the county. The plan reported that the current system is adequate, with the anticipation of several new treatment facilities and the utilization of existing facilities that are planning to expand capacity or have excess capacity.¹⁴

Municipal Solid Waste

A wide variety of solid wastes are generated within the boundaries of Schuylkill County, including primarily residential, commercial, and other types of municipal solid wastes; industrial and agricultural residues; and sewage sludge and septage. Small amounts of hazardous, infectious, or other types of toxic materials may also be generated by particular industries or institutions.

The municipalities in the county are responsible under the Solid Waste Management Act of 1980 (Act 97) only for ensuring the proper collection, storage, processing, transportation, and disposal of household, commercial, and other types of municipal wastes. Industrial and agricultural residues, and all forms of toxic wastes are regulated by state and federal government agencies. In this section, the primary emphasis will be placed on municipal solid wastes, but mention will be made of the amounts of other wastes generated within the county, since county and municipal officials should be aware of potential problems from the storage, handling, and disposal of these other wastes.

Pennsylvania Act 101 of 1988 requires each county in the Commonwealth to prepare a plan for municipal solid waste management. The *County of Schuylkill Municipal Solid Waste Management Plan* was completed in 1991 and updated in 2003. The plan indicates that the majority of storage, collection, and transportation of municipal solid waste (MSW) will continue to remain a private function throughout the county. Furthermore, the plan states that existing disposal facilities and transfer stations will continue to be utilized for disposal of

¹³ *Act 101 Municipal Solid Waste Plan*, 40.

¹⁴ *Act 101 Municipal Solid Waste Plan*, 40-41.

Chapter 2: Existing Conditions

solid waste and additional facilities will be added as needed. Table 2.10.2 shows categories of solid waste disposed in Schuylkill County.¹⁵

Table 2.10.2 Schuylkill County Waste Disposed, 1997-2000

Type	Tons/Year				Total	Average
	1997	1998	1999	2000		
Municipal	121,020	98,243	92,887	110,736	422,886	105,722
Biosolids	8,069	8,669	3,355	5,081	25,174	6,294
ICW	311	322	305	290	1,228	307
C&D	11,895	18,786	16,284	16,480	63,445	15,861
Asbestos	200	174	163	553	1,090	272
Total	141,495	126,194	112,994	133,140	513,823	128,285
Residual	22,860	14,099	20,474	15,743	73,176	18,294

The operating facilities being used to manage the MSW generated in Schuylkill County include landfills, transfer stations, composting facilities and recycling facilities. Pine Grove Landfill in Pine Grove Township and Commonwealth Environmental Systems Landfill in Foster Township accept for disposal approximately 97% of the MSW generated in the county. In addition to the county landfills, there are three transfer facilities, Tamaqua Transfer Station in Walker Township, North Schuylkill Landfill Association Transfer Station in West Mahanoy Township and Coal Township Transfer Facility in Northumberland County. Composting facilities include Natural Soil Products in Frailey Township as well as registered municipal compost facilities in Pottsville, Schuylkill Haven, Tamaqua, Minersville, Girardville and Hegins Township.¹⁶ Recycling facilities will be discussed in the next section.

Recycling Activities in Schuylkill County

County recycling programs include municipal recycling programs and county drop-off programs. Seven county municipalities that had a population of 5,000 or greater according to the 1980 census were mandated by Act 101 to provide residential curbside recycling. These municipalities were Pottsville, Tamaqua, Shenandoah, Schuylkill Haven, Mahanoy City, Minersville, and Frackville. Due to a decline in population in the 1990 and 2000 censuses, Mahanoy City, Minersville, Frackville are no longer required to maintain their programs but, all but Frackville have continued their programs voluntarily. In addition to residential recycling programs, there are also 27 drop-off program sites throughout the county.¹⁷

County recycling facilities include Weiner Iron and Metal in North Manheim Township, Cougles Recycling in Hamburg, Berks County, St. Jude Polymer and North Schuylkill Landfill Association Transfer Station, both of which are

¹⁵ Act 101 Municipal Solid Waste Plan, 31.

¹⁶ Act 101 Municipal Solid Waste Plan, 9-12.

¹⁷ Act 101 Municipal Solid Waste Plan, 19.

Chapter 2: Existing Conditions

located in West Mahanoy Township, Tamaqua Transfer Station in Walker Township, Natural Soil Products in Frailey Township, and Hillside Compost in Reilley Township.¹⁸

As of 2000, Schuylkill County was, on average, recycling 22% of its MSW. This is shown in Table 2.10.3.

Table 2.10.3 Total MSW Generated in Schuylkill County, 1997-2000

Year	Waste Generated			
	Disposed	Beneficially Used	Recycled	Total
1997	141,495	0	29,132	170,627
1998	126,194	0	31,919	158,113
1999	112,994	2,809	42,643	158,446
2000	133,140	3,291	45,198	181,629
Total	513,823	6,582	148,892	668,815
Average	128,456	1,546	37,223	167,204
Percent	77%	1%	22%	100%

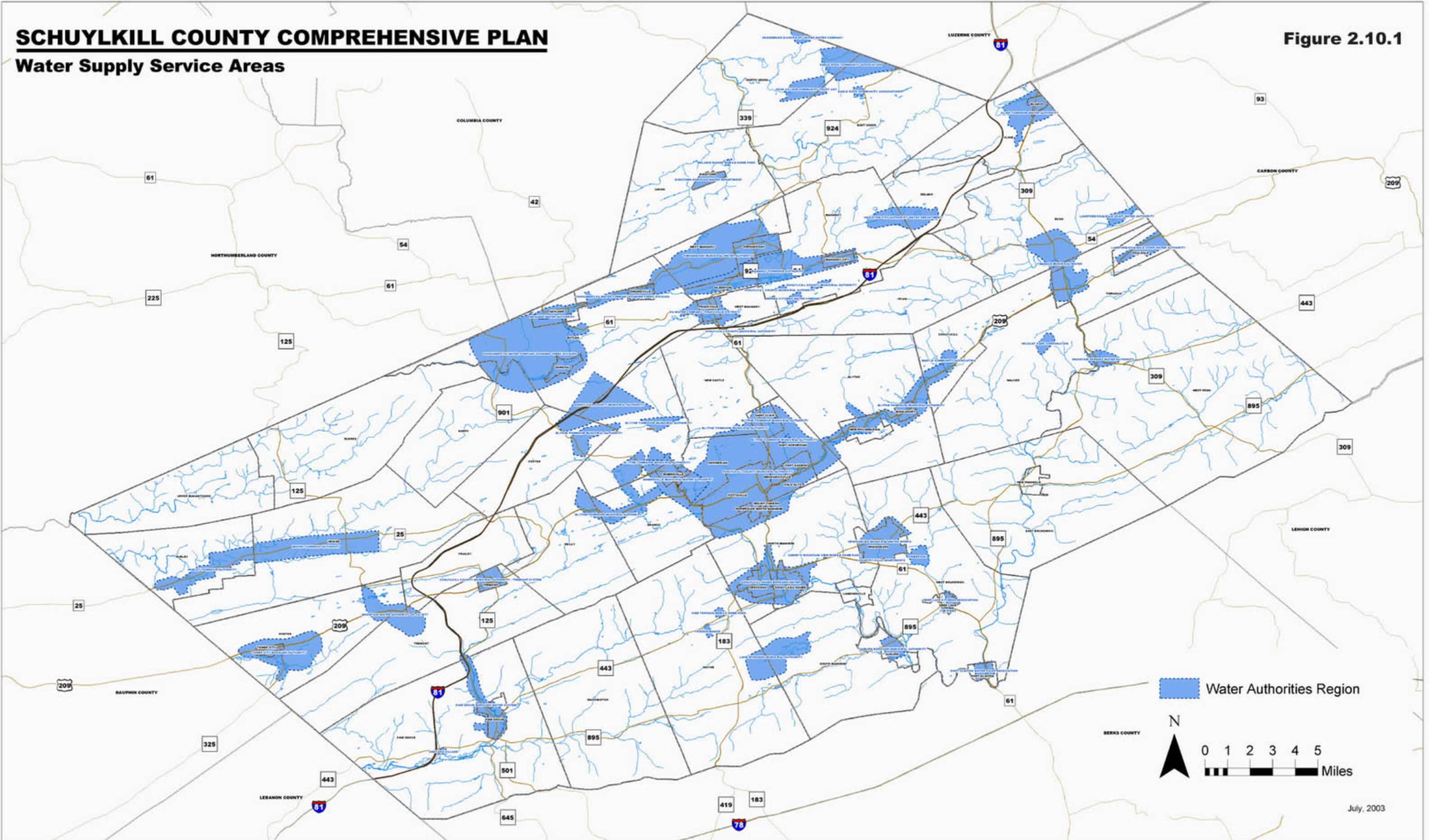
In order to meet the state-wide goal of recycling 35% of MSW by 2003, the county had proposed the following practices to increase their recycling activities:

- Requesting technical assistance that would identify methods to improve municipal programs;
- Evaluating the effectiveness of the county-wide drop-off program;
- Expanding programs to include additional recyclable materials, specifically woody vegetation and brush;
- Encouraging businesses and institutions to begin or expand recycling programs where economically feasible; and
- Increase recycling data collection efforts in order to gain additional information on private recycling programs, including local businesses.

¹⁸ Act 101 Municipal Solid Waste Plan, 28.

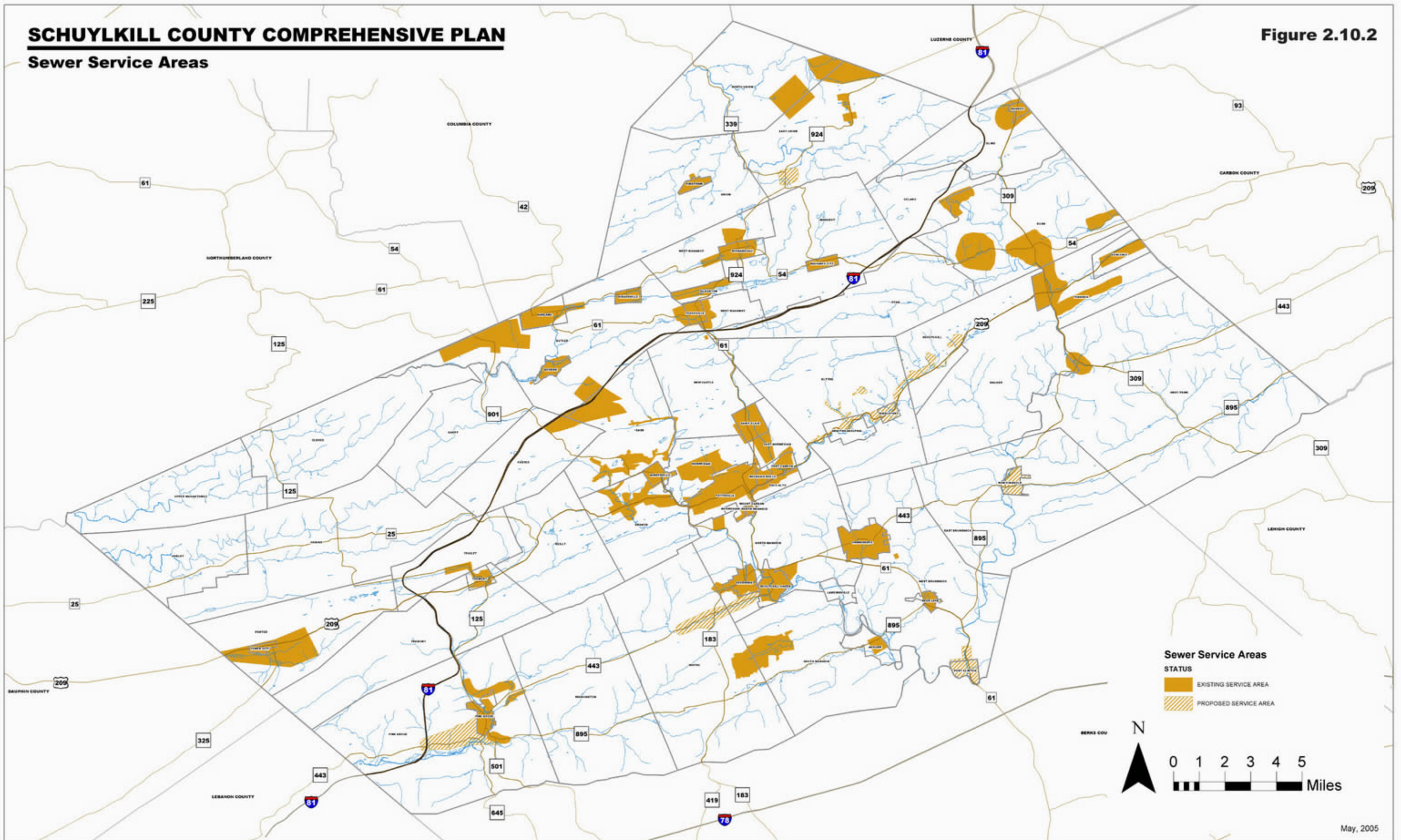
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Water Supply Service Areas

Figure 2.10.1



Sewer Service Areas

Figure 2.10.2



Chapter 2: Existing Conditions

SECTION 11: SUITABILITY FOR DEVELOPMENT

Suitability Analysis

Positive factors influencing the relative suitability of land for development have been combined with composite natural constraints information compiled as part of this study. Areas of the county may be considered more suitable for development in consideration of their relative advantages in accessibility and serviceability. These additional factors have been synthesized with the composite constraints designations to yield a Suitability for Development map for Schuylkill County.

In this exercise, areas already developed, under public ownership, deed restricted, or otherwise unavailable for development have been excluded from consideration.

With respect to accessibility factors, a designation of Accessibility 1 was applied to areas situated close to major roadways, in the vicinity of interchanges, or close to urban centers. Areas not qualifying as having Accessibility 1 have been designated Accessibility 2.

Servicing factors were also established. The Service 1 category included lands already part of central water and sewer service areas or only part of central sewer service. The Service 2 designation indicates areas not meeting Service 1 classification criteria. Accessibility and servicing factors have been combined with the composite constraints designations to yield a Suitability for Development index, as shown in Table 2.11.1, which was then mapped.

Table 2.11.1 Suitability Analysis

<i>Composite Constraints</i>	<i>Accessibility and Servicing Factors</i>			
	Accessibility 1		Accessibility 2	
	Service 1	Service 2	Service 1	Service 2
Slight	Good	Moderate	Moderate	Limited
Moderate	Moderate	Limited	Limited	Very Limited
Strong	Limited	Very Limited	Very Limited	Very Limited
Severe	Very Limited	Very Limited	Very Limited	Very Limited

The Suitability for Development map (Figure 2.11.1) illustrates areas with good suitability in and around many existing communities as well as areas near Interstate 81 interchanges. Areas with moderate or limited suitability exist along major roadways other than Interstate 81 and areas near existing centers. Areas least suitable for development include those constrained for development by prominent natural features and areas that are relatively remote and/or poorly serviced in the county.

Chapter Two: Existing Conditions

Accessibility Analysis

An analysis of the county was undertaken to identify those areas with better accessibility by virtue of being near highways, interchanges, or urban places (Figure 2.11.2). This analysis was done, in part, to help identify areas more suitable for development or less suitable for development over the next twenty years.

Areas close to interchanges and urban places were defined as follows:

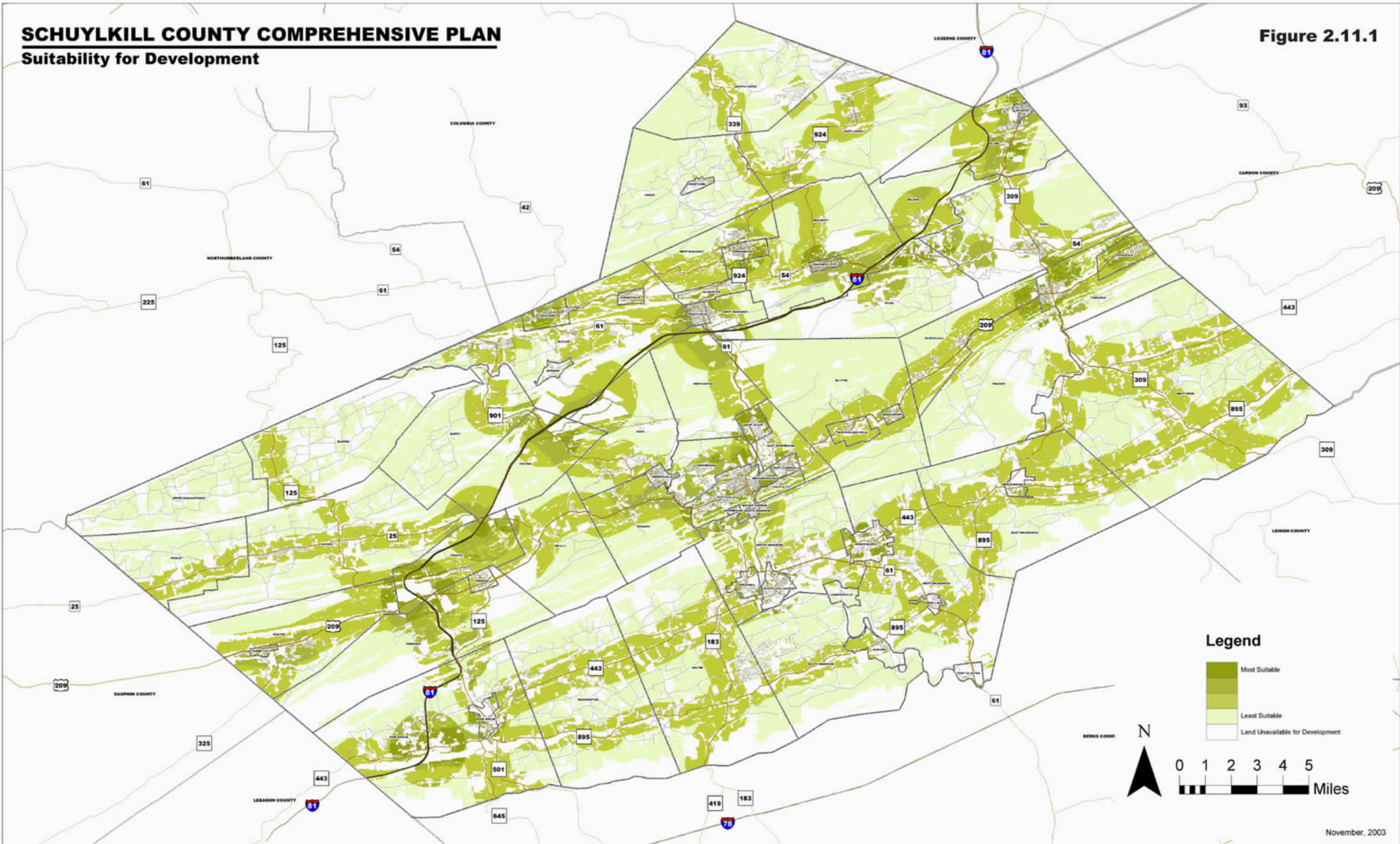
- Areas within a 1½-mile radius from each interchange on Interstate 81;
- Areas within a 2-mile radius from the center of Pottsville;
- Areas within a 1½-mile radius from the center of Tamaqua;
- Areas within a 1-mile radius from the center of other boroughs with populations of at least 5,000 residents; and
- Areas within a ¾-mile radius from the center of boroughs with populations of between 2,000 and 5,000 residents.

Areas close to major roads were defined as follows:

- 1 mile along either side of principal arterials;
- ¾ mile along either side of minor arterials; and
- ½ mile along either side of major collectors.

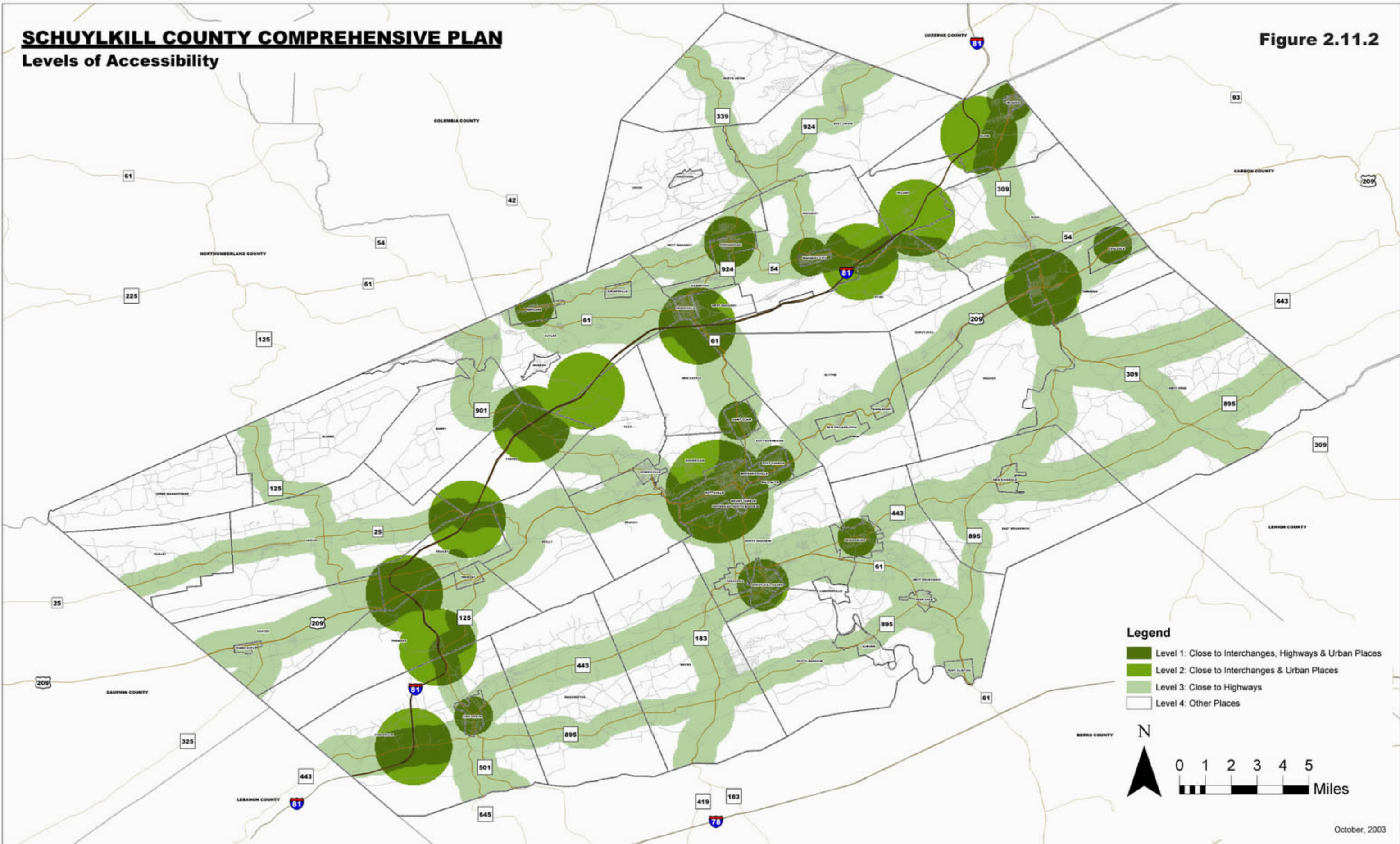
SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Suitability for Development

Figure 2.11.1



SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Levels of Accessibility

Figure 2.11.2



Chapter Three: Growth Management Plan

Chapter Three: Growth Management Plan

SECTION 1: GENERAL INTRODUCTION

The Growth Management Plan is intended as a guide for future growth and land development in Schuylkill County. Several months of background research and analysis, coupled with regular meetings with the Comprehensive Plan Steering Committee, form the basis for the plan. It not only reflects a comprehensive set of goals and policies for development, but also attempts to embody shared community wants and aspirations.

The Growth Management Plan is composed of several elements pertaining to land use, circulation, housing, community facilities, utilities, agricultural and open space conservation, mine features reclamation and environmental protection. Prior to discussion of the elements, Section 2 presents a summary of goals and objectives on which the plan has been structured. The remainder of the chapter develops the components of the recommended development pattern for Schuylkill County.

The Growth Management Plan represents a guide to be followed by the County and by local municipalities, school districts, other public and quasi-public organizations, and by private developers in order to address important issues and problems related to the county's overall development. Many of these problems and issues are interrelated, so that effective resolution of one cannot take place without simultaneous efforts to resolve others.

An especially significant aspect of the Growth Management Plan is the close coordination and mutual reliance between the Land Use Plan (Section 3) and the Open Space Conservation Plan (Section 8). The character of the land use concepts outlined in Section 3 are closely tied to the development of a county-wide open space and greenway network, detailed in the *Schuylkill County Open Space and Greenway Plan*, which has been prepared concurrently with the Schuylkill County Comprehensive Plan.

Other mandatory planning processes, such as requirements for municipalities to complete Act 537 sewerage facilities plans, are fundamental in the presentation of the various elements of the Growth Management Plan.

The Growth Management Plan is focused on the location, character, and timing of future development. In particular, the plan proposes that future development be directed to locations and in a manner that allows the phasing-in of specific transportation and water and sewer service systems improvements. The emphasis on the incremental processes of development is also a primary concern of the plan with reference to resource conservation and open space and greenway creation.

The Growth Management Plan provides opportunities for all 67 of the county's municipalities to grow. Under Pennsylvania statutory law,

Chapter Three: Growth Management Plan

municipalities have the right to exercise local approval for subdivision and land development. However, in Schuylkill County, 37 of the municipalities are governed either by the county Zoning Ordinance, the county Subdivision and Land Development Ordinance, or both. This leaves Schuylkill County with the responsibility for approving much of the development that occurs within the confines of the county, but at the same time presents a strong platform from which to lead all 67 municipalities toward sound growth management practices.

Under Pennsylvania case law, all municipalities must provide land development opportunities for all reasonable uses. The only alternative to providing these broad growth opportunities in each and every municipality would be through the joint municipal planning and zoning provisions of the Municipalities Planning Code, where several municipalities could band together, produce joint ordinances, and limit growth to a few locations within the joint area. This has begun to occur in one instance in Schuylkill County. Eastern Schuylkill Planning (ESP) is currently undertaking a comprehensive planning process for the development of a multi-municipal plan and this process may lead to multi-municipal zoning. This coalition consists of Tamaqua Borough and Rush, Schuylkill, Walker, and West Penn Townships, which are all located in the in the Tamaqua Area School District. In general, the Growth Management Plan supports this concept, and recommends that the school districting system be employed to initiate joint municipal planning in other municipalities in Schuylkill County (see section 3 of this chapter). Until such time as joint planning and zoning are in place and widespread in Schuylkill County, the Growth Management Plan must be mindful of the central role of municipalities in approving and providing for growth.

Chapter Three: Growth Management Plan

SECTION 2: GOALS & OBJECTIVES

Development Pattern

GOAL:

Achieve a future overall development pattern that is responsive to the economic, social, and cultural needs of county residents, and that considers the realities of regional trends.

GOAL:

Preserve and enhance the physical and environmental characteristics that make Schuylkill County a distinctive and identifiable place, while at the same time provide for the needs of existing and prospective residents.

GOAL:

Ensure that development occurs in ways that minimize degradation of natural and cultural environments.

GOAL:

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.

Objective:

Establish a county-wide open space and greenway system to be implemented in concert with other development actions during the planning period.

Objective:

Direct residential, commercial, industrial, and institutional development to designated growth areas, where sewer, water, and transportation improvements can be phased in concert with new development.

Objective:

Designate growth areas that can be readily served by existing or expanded infrastructure systems, transportation networks, and public services.

Objective:

Identify areas for future growth and development, even if not presently served by infrastructure, where such future development would be appropriate for the protection of community character or to maximize the use of major transportation facilities.

Chapter Three: Growth Management Plan

Objective:

Allocate sufficient land to accommodate most of the county's projected population and employment within designated growth areas, allowing for flexibility in real estate markets.

Objective:

Identify incentives and strategies to promote continued or enhanced investment in established communities.

Economic Base

GOAL:

Expand and diversify the county's economic base and offer a broad range of job opportunities for county residents.

Objective:

Enhance the tourism industry by identifying, protecting, and promoting natural, cultural and historic resources, by maintaining an attractive visual and aesthetic environment, and encouraging more locally based, compatible tourism opportunities.

Objective:

Locate new employment centers close to major transportation corridors and interchanges and, where possible, in or near existing communities in order to maximize accessibility for potential employees and clients.

Objective:

Attract new businesses and industries that will tap the skills of county residents who currently commute to jobs outside of the county.

Objective:

Attract recession-resistant, environmentally benign businesses that will provide additional full-time job opportunities.

GOAL:

Identify appropriate locations for industry, research and development, offices, retail sales, and services that may be available in the short- and long-term.

Objective:

Discourage random or scattered industrial development patterns, which can produce environmental, traffic, aesthetic, and other problems.

Objective:

Coordinate the provision of new or improved transportation facilities with the establishment of centers of economic development.

Chapter Three: Growth Management Plan

Objective:

Provide appropriate locations for both "light", environmentally benign industries and businesses, and for heavy industries, which should be developed only in accordance with specific performance standards.

Objective:

Discourage strip development of business uses along major roadways.

GOAL:

Maintain the economic viability of existing communities.

Objective:

Encourage investment in existing business districts, compatible with the historic/architectural character of the particular community.

Objective:

Maintain residential neighborhoods and expand housing opportunities close to existing urban business districts.

Housing

GOAL:

Provide a diversity of housing opportunities, in harmony with existing development and the historical and natural environments.

Objective:

Facilitate a range of housing types, sizes, and price levels, to respond to changing housing needs and to provide housing for various stages of the life cycle, household configurations, and income levels.

Objective:

Identify policies that will provide for the housing needs of elderly and handicapped residents.

Objective:

Encourage an expanded role for private developers, local authorities, and non-profit housing development corporations to meet local housing needs.

Circulation

GOAL:

Achieve a safe, efficient, mostly congestion-free circulation system that will best serve business, tourism related, institutional, and personal trips.

Chapter Three: Growth Management Plan

Objective:

Improve safety and efficiency for all intra-county, intercounty, and regional through-county vehicular trips.

Objective:

Encourage regionally oriented traffic to utilize regional arterial highways and discourage this traffic from using locally oriented collector roads.

Objective:

Identify existing and potential future deficiencies in the county's major roadway network, along with methods of eliminating these deficiencies.

Objective:

Encourage traffic flow improvements and the implementation of design standards that are based on a functional classification of roadways.

Objective:

Identify and generally set priorities for projects which are appropriate for inclusion on PennDOT's Twelve-Year Highway Program.

Objective:

Identify scenic excursion routes and other roadways with particularly strong visual characteristics as well as outstanding scenic vistas that are worthy of special preservation efforts.

Objective:

Locate areas appropriate for tourist oriented development and identify circulation improvements needed to serve these areas.

Objective:

Identify opportunities to expand the existing county trail network as part of transportation improvement projects.

GOAL:

Minimize costs (construction, maintenance, social, and environmental) associated with the development of new and improved highway segments.

Objective:

Identify the potential growth inducement effects of proposed transportation improvements.

GOAL:

Consider the long-range potential for reducing reliance on the automobile.

Chapter Three: Growth Management Plan

Objective:

Encourage ride sharing among local residents and identify areas that might be used for long distance and commuter parking areas.

Objective:

Establish criteria upon which the need to establish future transit opportunities might be based.

Objective:

Encourage mixed use development, especially near the interchanges of major arterial roadways.

Objective:

Consider low cost physical improvements to new roads and roads undergoing upgradings to accommodate bicyclists.

Community Services

GOAL:

Provide public services, facilities, and utilities in the most efficient, cost-effective manner, taking into account community needs and environmental factors.

Objective:

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 Growth Management Plan of the County Comprehensive Plan.

Objective:

Provide an adequate supply and mix of parks, playgrounds, and other recreation facilities, both active and passive, to serve the existing and projected populations of Schuylkill County.

Infrastructure

GOAL:

Encourage the preparation of local sewer and water facility plans that are consistent with county and municipal plans, and established growth area boundaries.

Objective:

Develop local water service area plans that are consistent with official sewage facilities plans.

Chapter Three: Growth Management Plan

Objective:

Direct development to areas deemed appropriate for centralized water service so as to avoid overdrawing or contaminating groundwater.

GOAL:

Evaluate local sewer systems for adequacy of capacity and environmental soundness.

Objective:

Undertake county-wide review of local service providers.

Resource Protection

GOAL:

Protect environmentally sensitive areas of the county.

GOAL:

Protect culturally significant areas of the county.

Objective:

Protect groundwater, floodplains, wetlands, mature woodlands, steep slopes, prime farmland, orchards, habitats of rare and endangered species, and other environmental features.

Objective:

Preserve the abundant and widespread historic resources of the county.

Objective:

Reinforce the character and ambience of historic settlements.

Objective:

Maintain locally and nationally significant historic resources in appropriate settings.

Open Space and Greenways

GOAL:

Preserve open space in Schuylkill County for recreational, environmental, agricultural, cultural, and tourism-related purposes.

GOAL:

Expand the existing county trail network.

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Objective:

Develop a planning, management, and acquisition strategy for a county-wide open space and greenway network.

Objective:

Incorporate open space and greenway provisions as part of newly planned residential, commercial, and industrial developments.

Agricultural Resources

GOAL:

Preserve highly productive farmland for agricultural use.

Objective:

Minimize scattered urbanization which causes conflicts with farming, such as additional vehicular traffic and land use incompatibilities.

Objective:

Discourage the conversion of highly productive farmland to non-farm uses.

Objective:

Protect farming operations in Agricultural Security Areas (ASAs) from incompatible, non-farming-related uses.

Objective:

Identify areas within Schuylkill County that are appropriate for ASA designation, but which are not currently designated as such.

Objective:

Encourage locally generated policies consistent with the "Clean and Green" Act (preferential tax assessment), the Schuylkill County Agricultural Land Preservation Program (purchase of development rights), and private land preservation programs.

Objective:

Encourage the enactment by municipalities of effective agricultural zoning in highly productive agricultural areas of Schuylkill County.

Planning

GOAL:

Put in place a variety of approaches, mechanisms, and tools appropriate for dealing with the challenges posed by growth.

Chapter Three: Growth Management Plan

Objective:

Coordinate planning and development efforts with adjacent counties, local governments and institutions, school districts, and State and Federal agencies.

Objective:

Encourage and assist local communities in the preparation of new and updated comprehensive plans through technical and financial assistance.

Objective:

Encourage and assist local communities in the preparation and enactment of new and improved development regulations.

Chapter Three: Growth Management Plan

SECTION 3: LAND USE PLAN

The Land Use Plan (Figure 3.1.1) ties together all the elements that make up the Comprehensive Plan. It thus becomes the primary reference against which land use decisions, as well as decisions on major public expenditures, can be measured for the next twenty years. The Land Use Plan is concerned with the proposed location, intensity, and amount of different uses. It strives to be in harmony with trends affecting economic development in the county and its region, while mirroring the values, needs, and expectations of county residents.

The Land Use Plan, as well as the other specific elements of the Growth Management Plan, is oriented toward planned development of Schuylkill County through 2025, and reflects modest growth, a balanced land use mix, conservation of natural and cultural resources, and efficient utilization of existing systems. The Growth Management Plan is based upon a 2025 Schuylkill County population of between 150,000 and 160,000 persons and an increase of about 3,600 to 8,300 housing units above the present inventory.

General Description

The Land Use Plan incorporates a growth area concept to provide for the orderly extension of development. Growth is directed primarily to areas already served by central water and sewer systems, community facilities and services, and having a high level of accessibility. The growth area concept provides an efficient and economical way to allow new growth to occur while limiting the consumption of agricultural land and environmentally sensitive resources. The majority of the residential, commercial, industrial, and institutional development is planned to take place within designated growth areas. Areas outside the growth area are intended primarily for agricultural, recreational, open space conservation, and environmental protection uses.

Growth areas are focused in and around existing boroughs, villages and the City of Pottsville -- with their residential neighborhoods, shopping cores, community service facilities, and public utilities -- and in areas in close proximity to the interchanges along Interstate 81.

The growth area concept of the Land Use Plan should be integrated within policies set forth in municipal Act 537 sewage plans. If county and local land use plans and municipal sewage facilities plans are properly coordinated, more intensive development in rural and agricultural ("non-growth") areas can be severely curtailed.

Care should be taken in relating the picture of future development in Figure 3.3.1 to expected development through the planning horizon of about twenty years. The Land Use Plan has built-in slack; rather than being a strict representation of

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the twenty-year "build-out", it illustrates those areas in which particular land uses can be supported by the policies of the Growth Management Plan.

Growth Areas

The Land Use Plan recognizes current and expected development trends in Schuylkill County, indicating that its southern tier, areas near the Interstate 81 Corridor and, in some cases, areas in the northeast portion of the county will continue to be primary growth areas. Growth in the south is focused on existing boroughs and their surrounding areas, including Pine Grove, Schuylkill Haven, Cressona, Auburn, Orwigsburg, Deer Lake, and New Ringgold. Some growth is planned for areas in townships that already have development concentrations, including the townships of Washington, Wayne, North and South Manheim, East and West Brunswick, and West Penn. Limited growth is planned for the boroughs of Landingville and Port Clinton, since these communities lack public sewer systems.

In the central area of the county, growth is directed to boroughs, the City of Pottsville, and their environs. In addition to the larger communities, villages in the townships of Reilly, Schuylkill, Cass, Tamaqua, Walker, Rush, and Ryan are also designated for some degree of growth.

Growth in the portion of the county north of I-81 is planned for existing boroughs and parts of townships around them. Additional growth areas include villages in Hegins, Butler, and East Union Townships and adjoining existing residential concentrations in Union, North Union, and East Union Townships.

In addition to the growth areas discussed above, there are designated growth areas surrounding all of the interchanges of Interstate 81. These are discussed later in this chapter in the "Interchange Activity Centers" section.

Parks, Permanent Open Space, and Preservation Areas

The Land Use Plan designates important natural and cultural resource areas as permanent open space and resource protection lands. These include state parks, forests and gamelands, a county-owned park, preserved farms, areas designated as significant by the County Conservation District's *Natural Areas Inventory of Schuylkill County Pennsylvania, 2003*, the county's extensive system of floodplains and significant wetlands, and prominent woodlands (Figures 2.4.1, 2.4.2, 2.4.5, and 2.6.1). Permitted uses for these areas under the Land Use Plan would include low intensity recreation and open space uses (subject to on-site environmental conditions and statutory regulations), limited agriculture, and forest management. Prohibited uses would include any commercial or industrial facilities and, except in rare circumstances, any new residential dwellings.

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In addition to the resource areas already mentioned, permanent open space may also include perimeter buffer zones around designated growth areas (Figure 3.3.1). In all instances, potential buffer zones would include existing sensitive natural resource lands, but these have been extended in places in Figure 3.3.1 to complete perimeter rings of open space around the growth areas. The buffer zones are intended to be a permanent open space and recreational resource for growth area communities, to become part of a larger county-wide permanent open space and greenway connector system, to provide an effective transition from urban uses within the ring to agricultural ones beyond, and to limit uncontrolled expansion of growth areas. (While the physical limits to growth areas represented by the perimeter buffer zones are considered generous for the twenty-year planning horizon, it is conceivable that growth area expansion in periods beyond will entail leapfrogging the perimeter buffer. This action would not, however, negate the value of the ring for local and county-wide open space and recreation. To resist urban sprawl and rapid consumption of agricultural land, leapfrogging the ring should be strongly resisted over the current planning period.) Implementation of the buffer concept would come about principally through the land development process (see "Creating the Permanent Open Space System" in Section 8 of this chapter).

Resource Conservation, Agricultural, and Very Low Density Residential Areas

The broad extent of the county that qualifies neither for growth nor for strictest preservation is intended primarily for resource conservation. A major goal of the Comprehensive Plan is to conserve agricultural land, but also areas of steep slopes, woodlands, aquifer recharge areas, source water supply watersheds, and cultural resources. The Land Use Plan formally apportions the county into growth and "non-growth" areas, with the intent of limiting development outside the growth zones and encouraging continuing agricultural production, as well as the protection of the county's natural resources and rural landscape. This area outside designated growth boundaries additionally permits low intensity recreational and residential uses, but only to the extent that new development does not diminish or conflict with agricultural or wooded lands or degrade areas of scenic beauty or environmental sensitivity. Except for agricultural, recreational, and resource-based enterprises, new commercial and industrial uses should be prohibited in rural areas of the county.

The Land Use Plan implies a general discouragement of development within agricultural and wooded areas, coupled with incentives to develop within designated growth areas. Various plan implementation techniques are intended to be applied across the county to bring about the desired result. Discouragement of development in rural areas may be achieved through the promotion and enactment of agricultural conservation easements, the adoption of agricultural zoning, and the encouragement of cluster residential development (see Section 9 of this chapter).

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The Land Use Plan does recognize that some residential development will occur beyond designated growth areas. Given that prospect, it is important that various types of land development controls be adopted which will ensure that when development does take place outside growth areas, it is of high quality, and that the process of development actually contributes to long-term conservation of land. Examples of this include the exercise of development rights to build houses in an agricultural area coupled with regulations limiting the area for houses to only a small piece of the farm and preserving most of the acreage for agriculture in perpetuity. Another example is the implementation of transfer-of-development-rights (TDRs) opportunities. Here a landowner's right to develop homes on his property may be separated from the property in question and exercised on another, more-appropriately-located, property. As part of this process, the original landowner gains monetary benefit from exercising a right to develop, in return for which he agrees to use the original property in question for agriculture or specified open space/recreation uses only, in perpetuity.

In general, the Land Use Plan can support a variety of land development concepts in rural areas, but only if these approaches support the basic principles of conserving land for non-urban purposes. Very low overall densities only should be permitted, such as in legitimate agricultural zoning. Clustering of permitted units on a small portion of a tract, while the rest is left open in perpetuity for agricultural or other, legitimate resource conservation purposes, is fundamental. Clustering might be done in small assemblages, such as in a ten to twenty unit grouping, or in larger ones, such as a "village cluster" of about one hundred units that might be put together through a TDR process in a particular municipality. Innovative approaches to sewage treatment, such as private community on-site wastewater management treatment plants, and methods to treat effluent disposal, such as spray or drip irrigation, should also be part of any development outside designated growth areas, where environmentally sound and capable of approval by the Pennsylvania Department of Environmental Protection (see Section 11 of this chapter).

Generally, however, proposals to construct central sewer and water service in very low density residential areas should be discouraged. Exceptions should be made only in cases where specific development proposals, when implemented, would result in the preservation of agricultural lands.

Residential Uses

The housing element of the Schuylkill County Growth Management Plan (see Section 5 of this chapter) explains in detail the intended locations for residential use, incorporating a gradation of densities from very low to moderately high. Distinctions among residential categories are made according to gross density limits rather than by specific housing types to increase flexibility in responding to natural site conditions, public recreational needs, and market demands for a range of housing types and site sizes. On newly developing tracts, it is intended

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that this flexibility should lead towards open space conservation, as well as the opportunity for development of a range of housing types to meet the needs and desires of the present and future residents of the county.

In general, very low-density residential development is proposed for most of the county, reflecting the primary agricultural, recreational, and resource-protection uses intended. Higher densities are proposed, ranging from medium-low through to medium-high densities, in designated growth areas.

Industrial Uses

In addition to the aforementioned Interchange Activity Centers, other industrial growth will focus on development near or redevelopment of the other industrial parks and other industrial areas in the county. Some of these areas, including the Humboldt and Tidewood Industrial Parks, have Keystone Opportunity Zones (KOZ) and Keystone Opportunity Expansion Zones (KOEZ) designations in order to stimulate economic development in these locations. The type of uses projected for these locations will be, for the most part, light industrial. Within the region as a whole, traditional heavy or "smokestack" industry has generally given way to enclosed manufacturing, assembly, and warehousing facilities which are not noxious and present similar appearances to office or commercial structures.

The Growth Management Plan strongly recommends that most new industrial development be located in planned, visually attractive, settings.

Commercial Uses

The Growth Management Plan directs new commercial development to designated growth areas. ("Commercial" refers primarily to consumer-oriented retail activity, but also most office uses as well.) A major goal of the plan is to reinforce borough and city business districts while simultaneously conserving rural landscapes and reducing transportation demands; an emphasis on the core areas of existing boroughs and selected new centers for both retail and office activities supports these goals. Additional commercial uses in boroughs and other centers ensures their long-term economic viability, which is the critical component towards maintaining community functions and character. If carefully planned and designed, new uses in older communities can enhance their aesthetic harmony and ambience. The combination of new and existing residential areas focused on traditional core functions of boroughs and other centers allows for home-work and home-shopping connections that are physically close, and that present the opportunity for short-distance and -duration trips by automobile or alternate means, such as bicycle or on foot.

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The Land Use Plan implies a commitment on the part of boroughs and townships to recognize the inherent economic, social, and aesthetic value of their existing settlements, and to follow through on community economic revitalization efforts, new and updated local comprehensive plans (with strong emphases on circulation and parking questions), and the preparation and adoption of design guidelines and controls for new development in historic places. (Also see Section 7 of this chapter.)

The Land Use Plan identifies two major classifications of commercial use -- mixed-use City/Borough/Village Center and Interchange Activity Centers. The former category encompasses a wide variety of settings for small-, medium- and large-sized retail, office, and combined retail-office, retail-residential, and office-residential facilities. Included in these areas are residences that are not necessarily combined with commercial uses in the same structure, but are found interspersed with commercial uses or close to them. These mixed-use areas follow the precedent of these types of existing communities by keeping a variety of different uses together in a closely-knit setting.

Within this broad category, certain distinctions may be made. Borough and City Centers are based on existing incorporated areas, with their historic and current mixed use character and, in the case of many of them, significant commercial activity. Their character and economic significance should be recognized and reinforced through the adoption of appropriate zoning regulations and design standards.

Village Centers denote small existing or evolving nodes of activity, primarily residential in character, with limited commercial uses. Particularly when historic structures are present, the retention of existing buildings and other notable features should be promoted through carefully crafted development regulations that also provide for mixed use structures and incentives for architecturally compatible rehabilitations and new small-scale "infill" development. There are a variety of tools available to encourage compatible development and revitalize these existing communities (see sections 5 and 7 of this chapter).

The Land Use Plan recognizes that not all projected commercial uses are compatible with traditional business districts. As mentioned above, some service oriented commercial will be included as part of Interchange Activity Centers. Other large scale commercial uses should be located within identified growth areas of existing communities among other similar developments. The revitalization of malls and other suburban commercial areas is encouraged, but new commercial areas should be associated with existing centers or Interchange Activity Centers. For all of these larger scale uses, circulation issues should be investigated to manage the impact of new or different types of development on the road network.

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Interchange Activity Centers

To build upon the pattern of development that has taken place recently in the county, with new industrial and business park uses and some new residential uses along Interstate 81, the Land Use Plan focuses growth in proximity to these interchange areas. Some of these interchange areas are experiencing major growth, due in part to their location along a regional road network and, in some cases, their designation as KOZs or KOEZs.

The significance of the interchange locations for industrial and business park use goes beyond the simple availability of convenient access for trucks and employees via Interstate 81. The objective is to facilitate travel to and from establishments in the county from beyond its borders via regional roadways that have the capacity for this traffic, as opposed to the two lane state highways, many of which are already frequently congested, or the rural road network.

The primary goal of the Interchange Activity Center concept (see Figure 3.3.1) is to encourage mixed-use hubs of office park, industrial, service commercial, and, in some cases, residential uses in proximity to the I-81 interchanges. Some Interchange Activity Centers may be said to be already established and for these areas and for other potential Interchange Activity Centers, encouraging other uses, such as residential, will complement and enhance the existing Interchange Activity Centers over the planning period.

While many different kinds of uses are possible, some uses are clearly more compatible with the concept of Interchange Activity Centers than others, as noted below:

Recommended

- Mixed use, multi-story buildings, with service oriented commercial and offices at ground level, and offices or apartments above;
- Hotels and other hospitality related buildings with service commercial uses;
- Single story light industrial buildings with industry related offices;
- Landscaping and designated open space areas to link to the planned county-wide open space network;
- Adequate parking areas;
- Transit-oriented buildings, uses and access.

Not Recommended

- Single-floor, free-standing, single-use office buildings;
- Tall buildings;
- Big surface parking lots;
- Sparse or non-existent landscaping.

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The Interchange Activity Centers would be similar in scale to existing business park and industrial centers, but with more mixing of uses and services, integration of open space, and, for some, a degree of pedestrian orientation.

There is the potential for public transportation to serve these areas. There are currently existing Schuylkill Transportation System (STS) routes that provide service along roads near the interchanges. With greater concentration of jobs and even dwellings at or near these interchanges, a stronger market for transit may emerge at these locations. With concentrated development, it may be possible for STS to offer new routes or the expansion of existing routes to Interchange Activity Centers.

The Land Use Plan's recommendations for multiple Interchange Activity Centers along I-81 are only a first step toward the establishment of true mixed-use hubs at these locations. Follow-up studies for specific Interchange Activity Centers will be needed, looking closely at the current circumstances and potentials of each center. *Interchange Activity Center Studies* should be undertaken as follow-through implementation actions for the Comprehensive Plan, focusing on the following issues:

- Land use; vehicular and pedestrian circulation; building scale, placement, orientation, and character; and
- Site layout, landscaping, signage, setbacks, parking, stormwater management, lighting, and buffering to insure a high-quality image and environment for these areas.

The Growth Management Plan assumes that implementation of its recommendations concerning Interchange Activity Centers can occur through the cooperation and authorizations of public agencies having jurisdiction (chiefly the county and the local municipalities, but also state agencies) and rational decision making on the part of owners of private property. The plan does not envision condemnation of land by public entities in order to effectuate change in areas intended for the Interchange Activity Centers. It is assumed that investors in land will behave in a manner that will maximize their return on their investment and that property owners will seriously consider development and redevelopment of parcels that they control, in a manner consistent with the Land Use Plan and all relevant development regulations, when circumstances make such actions attractive.

The Land Use Plan's recommendations represent only a first step toward implementing its ideas for Interchange Activity Centers over the planning period. As outlined, a necessary next step would be to look at the implications of the plan on these areas in greater detail, focusing on land use; vehicular and pedestrian circulation; parking; building scale, placement, orientation, and character; landscaping; and lighting. In order to carry the Land Use Plan's recommendations with respect to the Interchange Activity Centers forward, priorities for the development of specific interchanges areas should be set and

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more focused plans should be developed for each of these areas. Once these detailed plans have been formulated, the county would be in a position to publicize and promote them and to solicit property owner and developer interest in implementation.

Institutional Uses

In the Land Use Plan, institutional uses are directed to two kinds of locations. First, these uses will continue to be associated with existing centers. Second, they are recommended for Interchange Activity Centers. At these locations, these uses can contribute to the evolving mixed-use character intended for these centers.

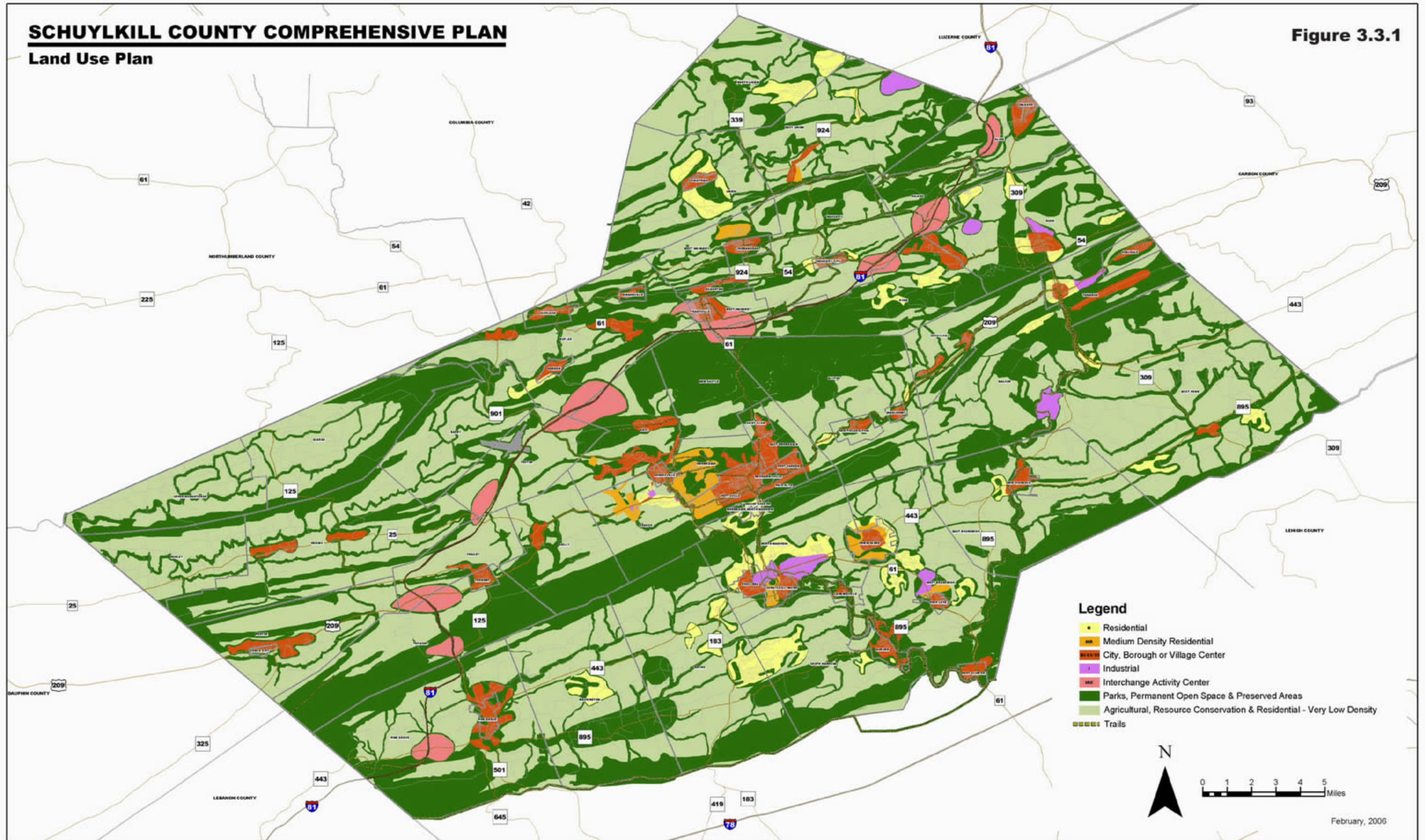
Land Use Policies -- Summary

1. *Promote the basic Growth Management Plan concepts of growth areas, resource conservation areas, and permanent open space and preservation areas, and their configuration in the Land Use Plan. Assist municipalities in the preparation and adoption of local comprehensive plans and land use controls consistent with the Land Use Plan.*
2. *Assist municipalities and land developers in the planning and design of additions to existing built-up areas and new residential, employment, and mixed-use areas, consistent with the Land Use Plan.*
3. *Encourage the establishment of employment centers in designated areas.*
4. *Promote the establishment of a permanent, designated, interconnected open space network throughout the county and the development of recreational facilities at selected locations.*
5. *Direct new commercial activity to existing borough cores and new mixed-use centers, in conformance with the Land Use Plan.*

SCHUYLKILL COUNTY COMPREHENSIVE PLAN

Land Use Plan

Figure 3.3.1



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SECTION 4: CIRCULATION PLAN

It is clear that the road network serving Schuylkill County will be subject to increasing traffic loads over the planning period. In order to prepare for both county and regional growth and to maintain and improve roadway safety, the Circulation Plan makes a series of recommendations, consistent with the Growth Management Plan's goals and objectives and the framework for development provided by the Land Use Plan (see Section 3).

Regional, county-wide, and local circulation issues are addressed by the Circulation Plan, all in the context of the Land Use Plan's growth area concept, which directs future development primarily to existing boroughs and their vicinities, as well as to the Interchange Activity Centers along the Interstate 81 corridor. In addition, future public transportation needs, non-vehicular circulation, and transportation in conjunction with open space planning are issues that are also addressed.

Long Range Transportation Planning

Current transportation priorities were identified in Chapter 2, Section 8. Figures 2.8.1 and 2.8.2 identified projects for the state's Transportation Improvement Program (TIP) for 2003 through 2006 as well as additional projects that were recommended for inclusion on the TIP for this period by the Schuylkill County Planning Commission.

The county's Long Range Highway Improvement Plan includes the following:

Route 61 Corridor Improvements

- Completion of improvements as identified in Engineering Study prepared by Alfred Benesch & Co. in 1996. Specific projects included are:
 - o Deer Lake North
 - o Frackville to Saint Clair
 - o Red Church to PA 443
 - o Congestion management in Frackville area

Route 309 Corridor Improvements

- Completion of improvements as identified in Engineering Study prepared by Alfred Benesch & Co. in 2002. The study recommends congestion management improvements in the Tamaqua area.

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Route 183/901 Corridor Improvements in the Schuylkill Haven–Cressona Area

- Improvements include safety improvements and congestion management. This project includes the reconstruction and widening of an outdated railroad overpass.

Interconnector between I-81 and I-78

- Construction of a new limited access highway to improve travel conditions on Route 61 through the county. Specific projects include:
 - Improve safety on Route 61 by diverting through truck traffic
 - Reduce congestion on Route 61
 - Create opportunities for siting new business
 - Expedite truck movements

While the I-81 to I-78 connector has been a component part of the county's Long Range Highway Improvement Plan, this link constitutes a very large construction project on a completely new right-of-way through undeveloped portions of the county. In light of the roadway's likely substantial cost, topographic and other environmental constraints, and the Growth Management Plan's emphasis on land development in conjunction with existing centers and new Interchange Activity Centers along I-81, the feasibility and desirability of undertaking construction of the I-81 to I-78 should be reviewed by the county.

In addition to the previous projects included as part of the County's Long Range Plan, the following projects are recommended for inclusion on the list:

- Route 901 improvements from I-81 to Route 443, in particular on the portion of the roadway through Minersville that is becoming increasingly congested because of traffic from the Highridge interchange of I-81;
- Valley Road (SR 4002) and Gordon Mountain Road (SR 4007) improvements due to increased use due to the Highridge Business Park.

Throughout the planning period, projects identified on the TIP as part of long-range planning activities should be periodically reviewed and updated.

Interchange Activity Centers

The primary goal of the Interchange Activity Center (IAC) concept (see Section 3 of this chapter) is to encourage a mixed-use hub of office park, industrial, service commercial, potentially transit-related uses and, in some cases, residential uses, in proximity to the I-81 interchanges. Some of these uses already exist at I-81 interchanges and encouraging other uses, such as

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residential and transit-related development, will complement and enhance existing uses.

In conjunction with the implementation of the Land Use Plan's recommendations with respect to the Interchange Activity Centers, new local roads and linkages to existing roads, as well as new streets for internal circulation in the IACs will be required. Provisions for public transportation at the IACs are discussed in this section under "Public Transportation."

In addition, urban design studies may be required to identify changes envisioned for each IAC area. *Interchange Activity Center Studies* should be an early implementation action for the Comprehensive Plan, focusing on the following:

- Land use, vehicular and pedestrian circulation, building scale, placement, orientation and character; and
- Site layout, landscaping, signage, setbacks, parking, stormwater management, lighting, and buffering. These more focused plans may be used to publicize and promote the Interchange Activity Centers and to solicit property owners and developer interest in implementation.

In order to implement these recommendations concerning Interchange Activity Centers, it is essential to have the cooperation and authorizations of public agencies having jurisdiction (chiefly the local municipalities, but also the Pennsylvania Department of Transportation and possibly other state agencies). The county should work cooperatively with those stakeholders in order to advance the Interchange Activity Center idea through to implementation.

Regional Transportation Planning

The Rural Planning Organization (RPO) for the region of Pennsylvania that includes Schuylkill County is the Northeastern Pennsylvania Alliance (NEPA). NEPA serves as the coordinating agency for transportation planning in the region that includes Schuylkill County as well as the counties of Carbon, Monroe, Pike, and Wayne. Since 1991, the Alliance has had an annual work program with PennDOT. This work program requires that NEPA convene a rural transportation planning committee on a regular basis. This committee has evolved over the years into Northeastern Pennsylvania Rural Transportation Planning Organization (NPRTPO) Committee. The NEPA and the NPRTPO Committee are responsible for identifying the transportation needs and priorities in the rural region. Currently, the NEPA/NPRTPO committee is in the process of planning for the development of a regional transportation plan. Schuylkill County should continue to support the undertaking of this regional transportation plan in 2004 and continue to participate in the regional planning process.

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Transportation and the Open Space Network

The primary elements of the Circulation Plan are consistent with the goals of the Open Space and Greenway Plan, including providing a network of open space for non-motorized vehicle and pedestrian access and concentrating growth in the county where there is sufficient infrastructure in place to accommodate it.

Development of the county-wide open space network will build upon the existing county trail system, for walking, hiking, and cycling; will permit pedestrian and bicycle access to a variety of destinations, including adjacent and nearby communities, other residential developments, schools, special natural features, shopping, and specific sites for recreational facilities; and will provide appropriate buffers between high volume traffic arteries and residential areas. Development of trails in conjunction with roadway improvement projects, such as in the case of Route 61 south of Pottsville, should be encouraged. Other circulation enhancements that encourage non-motorized transportation alternatives, such as bicycle lanes and pedestrian paths, should also be considered when planning for roadway improvement projects (for more information, see “Non-Vehicular Circulation”, below). Finally, the county should also encourage the identification and preservation of scenic roadway corridors as a way to preserve the rural character of the landscape and reinforce the county open space network. This is discussed further in the Cultural, Historic and Landscape Resources Plan in Section 7 of this chapter.

Non-Vehicular Circulation

The provision for safe and convenient movement of pedestrians and bicyclists is an important element of the plan. It is recommended that within boroughs, villages and Pottsville, sidewalks or other forms of all-weather pedestrian paths be provided in locations where pedestrian travel may reasonably be expected to occur or where it is to be encouraged. These improvements can be incorporated into local streetscape improvement projects. Between growth areas, on selected highways and rural roads, shoulders should be installed wide enough to provide for pedestrians and bicycles. Bicycle and pedestrian paths should be considered integral with major new residential developments and as part of the interconnected county-wide open space system (see "Transportation and the Open Space Network" in this section).

Public Transportation

Schuylkill Transportation System (STS) expects its paratransit service to grow in the future due to increased demand for such services on the part of older county residents. For its Employment Transportation Program, STS is working with employers to establish transit links to newly developing

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employment centers so as to establish transit as a community alternative before employee travel patterns become fixed. STS would also like to use paratransit and fixed-route bus systems together for better service and flexibility.

STS is currently planning for the Union Station Intermodal Transportation Center project. In addition to providing a hub for county bus service, there is the possibility with this project to link services STS offers with inter-city public service through Capitol Trailways, as well as with excursion rail.

Interchange Activity Centers

In addition to the planning for new roadways that will need to take place for the IACs, there is also the potential for public transportation to serve these areas. There are currently Schuylkill Transportation System (STS) routes that provide service along roads near the interchanges. With well-planned, mixed-use development at IACs, the potential exists to generate demand for transit services. In the coming years, it may be possible to for STS to offer new routes or the expansion of existing routes to serve Interchange Activity Centers. There is also the potential for STS to offer new or expanded service as part of their Employment Transportation Program for these locations.

Schuylkill County Airport

The County Airport is planning a few changes and improvements that will require coordination with local and county governments. The airports *Master Plan Update* Plans recommends extensions of two runways as well as property acquisition and/or easements for a recommended new road and for the areas near the runways in order to improve sight distances. These actions are expected to have little noise or environmental impact on adjacent properties. In addition, the airport may be looking in the future to expand service so as to be able to accommodate air freight service. With this in mind, county and local municipalities should plan together so as to effectively limit impacts of any land use or service changes on surrounding and neighboring areas.

In particular, since there are some areas adjacent to the airport that are identified on the Land Use Plan as potential links to the county-wide open space network, any future plans for potential acquisition of properties by the airport should be carefully coordinated with the county and local municipalities.

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Circulation Policies -- Summary

1. *Continue to plan at the regional and county levels to identify and prioritize transportation projects that manage congestion, eliminate hazardous conditions, improve public safety, and direct growth to the areas of the county identified in the Growth Management Plan.*
2. *Preserve and enhance the scenic qualities of county roadways.*
3. *Respect the integrity of contiguous historic structures and settings in the course of planning and implementing roadway improvements.*
4. *Continue to incorporate open space and greenway connections along roadways in the county.*
5. *Continue to provide for the changing public transportation needs for county residents.*
6. *Support the use of existing railroad lines located in the county for freight rail and excursion rail.*
7. *Continue to balance the objectives of the Schuylkill County Airport with county needs for economic development and needs of adjacent local communities.*

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SECTION 5: HOUSING PLAN

Introduction

The goal of the housing element of the Growth Management Plan is to provide the opportunity for a range of housing types and sizes within the county to meet diverse housing needs while at the same time supporting the other major goals of the plan.

The housing element of the plan explicitly recognizes the division of the county into growth and "non-growth" areas. Non-growth areas include most of the land area of the county, and are proposed primarily for agriculture, resource conservation, environmental protection, and recreation, with housing in a relatively minor role. Growth areas are designated as the primary locations for housing development. The Growth Management Plan recommends that the implementation tools of local comprehensive plans, zoning, water and sewer system extensions and improvements, road improvements, and community facilities development be employed in concert to promote residential development within growth areas as opposed to rural areas.

The housing element recognizes the goal of the plan to conserve agricultural land by recommending residential clustering as a technique to achieve a more efficient use of land. Clustering reduces the amount of land consumed for residences when compared with conventional development methods, while at the same time preserving a portion of development tracts for agricultural or permanent open space uses. The plan recognizes that cluster development is a significant method for growth areas as well as rural ones, since the issues of resource conservation, environmental protection, and recreation are relevant to all parts of the county, including lands within the proposed growth areas.

The plan permits realistic opportunities for land development, to be implemented through local plans and county and municipal zoning regulations. Potential changes in residential development patterns are recognized for many municipalities in the county, and townships and boroughs should enact zoning regulations that are appropriate for each community.

The housing element recognizes the Growth Management Plan's goals and objectives with respect to community services and resource protection. The plan's interconnecting permanent open space and greenway system, intended to permit pedestrian and bicycle connections to recreation, education, shopping, and employment locations, as well as to preserve natural resources, is projected to be implemented largely through the ongoing process of land development. It is recommended that residential clustering be promoted in order to help realize the county permanent open space system. "Clustering" can refer to any development design technique that concentrates buildings in specific areas on a site to allow the remaining land to be used for permanent agricultural and/or

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recreational uses, and the preservation of environmentally sensitive areas. Clustering can involve only modest set-asides of land for these uses (30 to 40 percent), or can involve set-asides of 80 percent or more of the whole tract considered for development. From the point of view of the Land Use Plan, the latter kind of clustering is essential in agricultural and rural areas, and still preferable in growth areas. The modest set-aside version of clustering is only appropriate in designated growth areas. (Also see the discussion of agricultural zoning and TDRs in "Agricultural, Resource Conservation, and Very Low Density Residential Areas" in Section 3, and further details on agricultural zoning in Section 8.)

To achieve increased set-aside of environmentally sensitive areas, residential clustering provisions may be combined with ordinance regulations (zoning) permitting flexibility in the construction of housing types. By implementing regulations based on gross density classifications, rather than specific housing types and individual lot-size requirements, developers will be more likely to set aside environmentally sensitive areas of tracts undergoing development. Greater development flexibility may result in increased creation of permanent open space lands and a housing-type mix that is better tuned to the needs of residents as they pass through the various stages of the life cycle.

The plan proposes to increase opportunities for affordable housing principally by providing new settings for housing construction at medium and medium-high densities within designated growth areas. At the same time, housing opportunities may be expanded through more efficient use of the current housing stock. Provisions for residential conversions, accessory apartments, and shared housing should be addressed through plan implementation. Efforts should continue, utilizing state and federal funding, to keep housing affordable and safe for county residents by providing subsidized rental and homeownership opportunities and by rehabilitating substandard homes. Particularly important is to carry through additional housing unit rehabilitation and replacement efforts in established county settlements, such as boroughs. Design standards for new residential subdivisions should be established, appropriate to each community, addressing such issues as street widths, lot sizes, frontage widths, and setbacks -- all within the context of creating high-quality and affordable residential areas.

Residential Classifications - Very Low Density

Residential development for most of the extent of Schuylkill County, excepting designated growth areas, should reflect very low densities. This is in keeping with the need to encourage continuing agricultural production, as well as the protection of the county's historic and rural landscape, and the preservation of environmentally-sensitive resources (see "Agricultural, Resource Conservation, and Very Low Density Residential Areas" in Section 3, Land Use Plan, of this chapter).

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The chief tools towards achieving very low density residential development outside designated growth areas are development regulations such as zoning. The county and its municipalities need to work cooperatively to achieve suitable regulations which will permit some degree of residential development in non-growth areas, but not at the expense of the primary functions indicated for these areas in the plan. Regulatory flexibility is recommended, giving property owners a variety of choices if they choose to develop their land and containing various economic inducements to build compactly and to support the long-term goals and objectives of the plan for these areas.

Development regulations for very low density residential areas should be based on the principles of agricultural zoning and resource conservation zoning (outlined in Section 9 of this chapter). For conventional residential development an overall density limit of 1 dwelling unit per 25 acres might be widely adopted in Schuylkill County. Density gains could be achieved, however, by landowners who consent to develop compact arrangements of dwelling units, rather than widely-spread homes. Eligibility to pursue alternative ways of developing, such as clustering of units, should be conditioned upon the owner's agreement to construct a street off of the existing frontage road to serve the new lots, with access to the frontage road restricted in order to minimize traffic conflict points and the use of the county road network as subdivision streets. Availability of central water and sewer service would affect lot size and density requirements, with commensurate amounts of the development tract remaining undeveloped and preserved for agricultural or open space use.

The economic incentives built into land use controls and the tradeoffs possible among the provisions for central sewer, minimum lot sizes, and required permanent open space would be designed to encourage developers to build in a concentrated portion of a tract, leaving the rest preserved in perpetuity for agricultural or other open space uses.

Other land development controls should be employed to help maintain the rural character of non-urbanized areas. For example, even where conventional lot-by-lot development is pursued, ample rear-yard building setbacks may be required on each lot, to effect a transition space between the developed lots and the agricultural uses that may abut residential development (see Section 9 of this chapter).

Residential Classifications - Medium-Low Density

Residential development within designated growth areas should occur at significantly higher densities when compared to rural and agricultural areas. The enactment of zoning ordinances supporting this idea, along with the extension of public roads and water and sewer service to growth areas, are the principal measures by which the county and its municipalities can promote development within designated areas as opposed to rural areas.

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Medium-low density development in Schuylkill County should be at densities between one and four dwelling units per acre, with an average of 2.5 dwelling units per acre.

Medium-low residential densities are usually associated with single-family detached housing types on generous lots, but the housing element of the Comprehensive Plan recommends that cluster development be promoted in these areas in addition to the very low density residential portions of the county. Cluster development remains an important prospect for development within growth areas. First, farmland and woodland covers a significant portion of the undeveloped acreage of the county. Concentration of a tract's maximum potential housing units on a small portion of the overall tract allows the preservation of the remaining area for agricultural, resource conservation, or open space uses. Second, residential clustering encourages developers to set aside the most environmentally sensitive areas of tracts undergoing development. Third, this type of residential development creates permanent open space lands usable for recreation. Fourth, clustering may produce construction economies in the form of reduced lengths of roads and sewer mains, and operational economies in service systems. Finally, studies of clustered housing in Loudoun County, Virginia, suggests that clustering does not undercut housing values; land values for clustered housing were as high as for conventional suburban tract housing on three-acre lots. Cluster development, then, is essential for environmental protection and land conservation, has the potential to make housing more affordable, and does not undercut property values.

As with very low density areas, regulatory flexibility and zoning incentives in medium-low density areas are recommended. The county or municipalities may offer landowners conventional zoning for traditional medium- and large-lot residential construction, and a variety of options, including special conditions and associated benefits, for development that is supportive of county and local plans.

Residential Classifications - Medium and Medium-High Density

Areas close in to the center of boroughs, Pottsville, and designated new centers (see Section 3 of this chapter and Figure 3.3.1), with their existing or anticipated public services, accessibility, community facilities, employment, and shopping areas, are recommended for medium and medium-high density residential use. For development at the medium density end of this range, conventional single-family and lot-line detached dwelling units are likely structural types. Cluster development is proposed as an available option, incorporating density bonuses in return for open space preservation, and making available the opportunity to construct other housing types.

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Medium and medium-high density areas in Schuylkill County should be at densities between three and twelve dwelling units per acre, with an average of five dwelling units per acre.

Medium-high density residential development, found principally at the center of several existing boroughs and villages, is expected to occur in conjunction with these urban places, and to include a wide variety of structural types, including small-lot single-family detached dwellings, single-family attached (townhouse), and multi-family (garden apartment, mid-rise apartment) units. Provisions for on-site or neighborhood permanent open space must be made. A diversified housing mix, attractive to various household types and income levels, should be pursued for boroughs, villages, and the City of Pottsville.

As outlined under "Commercial Uses" in Section 3, a major goal of the Plan is to reinforce borough business districts. New residential development in and around these districts is a critical component in support of this goal, but this development must be undertaken in a manner that is sympathetic to the character of historic borough, village, and city centers. Appropriate housing types in borough business districts should be encouraged. In particular, apartments that occur on higher floors of buildings with commercial and office storefronts should be encouraged for both new construction and renovation of existing buildings.

Affordable Housing

As outlined in Chapter 2, Section 7, housing affordability in Schuylkill County is formally assisted through a combination of privately- and publicly-operated facilities and publicly-administered programs for low- and moderate-income families and individuals. The number of units of assisted housing is considered moderate for the region, compared to neighboring counties, but is still less than one percent of the total housing units in the county. For most county residents, housing affordability questions must be addressed without the availability of formal subsidies.

Traditionally, affordability in Schuylkill County has been assisted by relatively low land costs in both rural areas and in existing communities. Even though many existing communities that grew as a result of industry, particularly mining, are experiencing a decline in population due to lack of economic opportunity and increased suburbanization, there still exists a demand for residential units in these centers, in part due to their affordability. Many of these municipalities are also "entitlement" communities, where affordable housing efforts are funded through Community Development Block Grants. As this housing plan focuses, in part, on maintaining and providing opportunities for residential use within existing boroughs and Pottsville, the county should continue to explore opportunities for providing additional housing in conjunction with these community revitalization efforts.

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The county should continue to pursue state and federal funding where it is available for new construction, rehabilitation, low-interest mortgages, and rental-assistance programs. Increased economic opportunities in Schuylkill County would also assist residents to afford suitable housing.

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Housing Policies -- Summary

1. *Assist municipalities in the preparation and adoption of local comprehensive plans and land use controls consistent with the County Comprehensive Plan.*
2. *Facilitate water and sewer system improvements, including extensions of existing systems and creation of new ones, consistent with the Land Use and Housing Plans.*
3. *Promote residential clustering through the preparation of model zoning ordinances and their adoption by municipalities.*
4. *Advocate construction of new medium and medium-high density housing at appropriate locations within designated growth areas.*
5. *Generate and publicize model land use controls and other means which would create additional affordable housing opportunities and accommodate residents with special housing needs.*

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SECTION 6: COMMUNITY FACILITIES PLAN

The goal of the community facilities element of the Growth Management Plan is to provide the full complement of facilities needed to serve the projected population of Schuylkill County through the planning period. To meet this goal the following general policies are recommended:

1. Public facilities improvements, where needed, shall be made in an orderly and reasonable fashion consistent with the Growth Management Plan and County and local capital improvements programs.
2. New school, fire, and police facilities and other required public facilities shall be located convenient to the maximum number of residents.
3. Wherever possible, public facilities used for different purposes shall be combined to minimize public expenditures and maximize convenience to county residents.

K-12 Education

School facilities and recent enrollment statistics are described in detail in Chapter 2, Section 10. The county subdivision into thirteen school districts is outlined, and district public school and countywide parochial facilities and enrollments are compared (Tables 2.10.1 and 2.10.2 and Figure 2.10.1).

While many school districts in the county have consolidated some or all of their facilities into campuses or have combined portions of their facilities (i.e. consolidating elementary schools into one facility or having combined junior/senior high schools), there are also many smaller, individual schools throughout the county. Because the overall trend is one of decline for school district enrollments (a few districts are projected to experience modest increases in enrollments), generally speaking, existing facilities together with facilities currently in the planning stages should be adequate to meet the needs of the communities in the county. It should be noted that enrollment projections beyond five years that are completed by the Pennsylvania Department of Education are subject to errors in the lower grades resulting from inconsistencies between actual and projected live births. These projections should be periodically reviewed and updated in order to effectively anticipate future change.

The idea of redistricting throughout the county to consolidate services for districts that have low enrollments has been considered in the past. This idea should be revisited, particularly for districts that expect further declines in enrollment through the planning period.

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The county and the school districts should make every effort to coordinate planning in order to ensure that school facilities are true community resources, with opportunities for use by student and general resident populations (see "Parks and Open Space," following).

Higher Education

There has been an ongoing trend for regional higher educational institutions to establish facilities in the county (see Chapter 2, Section 9). Many of these institutions are offering limited programs but may increase them as demand rises. If this tendency occurs, there may be a need to expand existing or find new facilities for some of the schools. Over the past few years, many schools, including Alvernia College and Lehigh Carbon Community College (LCCC), have either begun programs or offered significant upgrades in the number of programs offered in the county.

In order to encourage further expansion of educational opportunities, the Schuylkill Community Education Council should investigate additional locations in areas where programs may be in demand. Included may be potential sites for facilities in the western portion of the county, perhaps near one of the Interstate 81 interchanges.

Police, Fire Protection, and Ambulance Services

Police and fire stations are generally located in and near existing boroughs, villages, and the City of Pottsville. With respect to police services, many of the less populated boroughs and townships rely on state police coverage as they have very limited local policing. Boroughs and townships that expect to see growth during the planning period should consider either increasing the level of locally provided police services or establishing local police departments in order to accommodate the expected increased demand for policing brought about by population growth.

Fire protection services in existing communities such as the boroughs, the City of Pottsville, and more developed townships are generally adequate. However, growing townships are often without fire hydrants, especially in the less developed areas. The construction of water supply systems and hydrants to establish full fire protection services for many of those areas will be needed over the planning period. Alternatives to traditional water systems and hydrants, such as the possibility of installing dry hydrants, should also be investigated.

Many existing communities contain multiple fire houses, which were originally established to serve larger populations. Where feasible, these organizations should consider consolidation of local fire houses in order to manage costs, share equipment and staff, and achieve more efficient ways of providing services.

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Ambulance corps are associated with some of the fire companies and EMS service is available also in boroughs, townships, and Pottsville. Currently, all of the fire companies and ambulance corps other than in Pottsville operate on a volunteer basis. This situation could begin to produce increased staffing problems into the future in areas of the county that expect to see growth during the planning period. Fire and ambulance corps in these locations should consider increasing their staffing and equipment to accommodate the expected increase in demand for services.

Community-based emergency service providers such as fire companies and ambulance corps must compete with a variety of other agencies, activities, and programs for residents' time and interest. Currently, volunteers must submit to greater time demands due to more sophisticated training procedures, and widely dispersed work locations coupled with increasing traffic congestion may make it difficult for adequate numbers of volunteers to reach emergency scenes quickly during regular business hours. Some paid staff may be needed to augment existing volunteer staff over the planning period.

County Services

As the county seat, and in view of its central location, Pottsville is a logical place for locating county services including the county courts, administrative offices, and health and human service agencies. Ideally, a variety of basic services (such as licenses and permits) should be offered at offices in various regions of the county as a convenience to residents; however, funding these kinds of decentralized operations represents a challenge. During the planning period, the county should consider establishing some decentralized operations in locations such as the western and northern areas of the county that have expressed a desire to have basic services closer than the county seat.

Additional space for county offices and services in the county courthouse is already a demonstrated need, and this is likely to become more pronounced over the planning period. Further study of this issue should be a priority for the county, recognizing that capital funding of new facilities is a significant impediment to physical expansion of county offices.

Parks and Open Space

Currently, units of government other than Schuylkill County provide open space and recreational facilities in the county. Chapter 2, Section 10 details the various state and local government facilities available in the county and its environs, a number of community-based, quasi-public entities that provide local parks, and information on other, publicly-accessible facilities (Figure 2.9.6).

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A key role for the county in future parks and recreation development will be in promoting the establishment, protection, and selective development of the countywide permanent open space system. As described in Section 8 of this chapter, the county needs to facilitate the development of appropriate park and recreational facilities within the framework of the overall open space system through a variety of lobbying, planning, and funding functions. These will need to be efforts undertaken in cooperation with other levels of government, with public and private interest groups, and with property owners. The proposed interconnecting permanent open space network will include lands under the direct administrative control of several entities, possibly including the county itself, but the chief county goal will be the realization of the linked system of protected open spaces outlined in Section 8.

Community Facilities Policies -- Summary

1. *Review all development proposals to determine their probable effects on public services, including schools, emergency services, recreation, and administrative services.*
2. *Coordinate county land use planning and school plant development so as to ensure the most efficient use of current and projected space and equipment, and accommodate general resident needs for community facilities.*
3. *Evaluate the range of existing and potential community services and determine the best locations for service providers to meet current and projected needs.*
4. *Implement recommendations of the Schuylkill County Open Space and Greenway Plan including providing support to local municipalities in planning for open space, parks and recreation in their communities.*

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SECTION 7: HISTORIC AND LANDSCAPE RESOURCES CONSERVATION PLAN

Implications of the Land Use Plan for Historic and Landscape Resources

The implication of the proposed Land Use Plan on Schuylkill County's landscape is, by and large, the preservation of its existing character and resources. However, this preservation will occur only if the plan can be implemented. A clear and effective historic and landscape resources conservation plan will be an important part of the implementation process. The process must guide development to, and promote development in, the locations and forms outlined in the Land Use Plan. It must provide specific types of regulations in order to protect rural areas from scattered and breakaway development and to ensure that such development occurs in a manner sympathetic to the landscape being conserved. It must also provide options to preserve and rehabilitate the historic resources in existing communities in ways that are sympathetic to economic and other community concerns.

Conservation Strategy

Conservation in Schuylkill County is not a matter of protecting isolated historic buildings or specific natural features. It is a matter of protecting the overall fabric of the rural and urbanized landscape of which the buildings and features are a part. The county's landscape is already rich, diverse, and appealing. A reasonable amount of growth and development can occur in this landscape without destroying its character provided that the development is sympathetically integrated into the landscape. Such integration is accomplished by identifying the elements that give the landscape its character and quality, and by preserving and reinforcing those elements. A wide range of planning and preservation tools are available to accomplish this goal. Individuals interested in historic preservation must work closely with individuals interested in other diverse but related areas, such as tourism, agricultural and natural resource preservation, and water quality.

Natural Resources Protection

The core of any conservation plan is the protection of environmentally sensitive natural resources. Historic preservation is closely tied to the preservation of sensitive natural resources because many historic resources were originally located where they were, in part, specifically because of the proximity of some desirable natural resource, often water or fertile lowland soil. In an agricultural landscape, the natural resources comprise the framework which gives the landscape its structure. In many cases, development occurred in borough and village settings in the locations due to access to natural transportation features such as waterways or due to geographic constraints.

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The protection of natural resources is discussed in Section 3 of this chapter, the Land Use Plan, and in Section 12, the Environmental Protection Plan. Many aspects of natural resource protection are based upon state and federal laws and programs, such as the National Flood Insurance Program and the Pennsylvania Department of Environmental Protection wetlands regulations. While these laws and programs provide the basis for resource protection, they will not achieve it at a local level. The desire for protection of natural resources at a local level has been achieved through the Schuylkill Conservation District's *Natural Areas Inventory of Schuylkill County Pennsylvania, 2003* (see Section 2.4). To build upon the documentation that was collected in this inventory, it is recommended that among the basic governmental natural resource protection measures at the county and local levels should be the following:

- *Protection of Stream Corridors and Hydric Soils:* The county should prepare a model ordinance for the protection of stream corridors and hydric soils and should promote the inclusion of such an ordinance in local zoning and subdivision and land development codes. The ordinance should require the on-site identification of hydric soils as a part of any subdivision and land development plan. The ordinance should prohibit building and development and should limit disturbance within the area of hydric soils as well as within a specific distance (fifty feet is common) of intermittent and perennial streams. These areas should also be netted-out of lot density calculations. Additionally, setbacks for new construction should be established from the boundaries of these wet soils areas. In municipal zoning codes such protection of streams and hydric soils is often combined with the National Flood Insurance Program requirements outlined in Section 12 of this chapter in a "Flood Hazard and Wet Soils Overlay District." They provide a more detailed, comprehensive, and site-specific protection of wetlands and wet soil areas than do state regulations. Samples of such ordinances are available from other local jurisdictions.
- *Stormwater Management:* The county should prepare and promote the adoption of model ordinances and design guidelines for the retention of stormwater from new development and for temporary and permanent sedimentation and erosion control. Stormwater management areas should be located and designed to be extensions of permanent natural open space areas, rather than conventional retention basins, with appropriate native vegetation and wildlife habitat.
- *Protection of Steep Slopes:* The county should prepare and promote the adoption of measures for the protection of steep slopes (slopes over 15%) in county and municipal zoning and subdivision and land development ordinances.
- *Conservation Ordinances:* The county should prepare a comprehensive model Natural Features and Resources Conservation Ordinance and should promote its adoption by the municipalities and the county. This ordinance

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should compile all zoning and subdivision and land development provisions related to the conservation of natural features and resources. It would include provisions regulating land disturbance and the removal and management of vegetation.

Agricultural Conservation

The subject of agricultural conservation is fully discussed in Section 9 of this chapter, the Agricultural Resources Conservation Plan. The implementation of this plan will be instrumental in the conservation of the rural landscape, including its historic resources.

Historic Preservation

Schuylkill County is rich in historic resources. As was noted in Chapter 2, Section 5, and is evident in Figure 2.5.4, rural agricultural and village resources in the county are widely scattered and there are also significant urban resources concentrated in existing communities. The oldest development grew around the county's waterways and crossroads. Later resources represent the growth around railroad lines and the subsequent mining communities that developed.

The county's historic fabric is often taken for granted. In rural areas, this fabric is comprised of many elements in addition to its historic buildings, including roads and site features such as boundary lines, archeological resources, park structures, and bridges. Many of these elements are integral to the landscape, and this is in part why the preservation of Schuylkill County's rural landscape is a central feature of the Land Use Plan. Also important is the historic fabric of the county's many existing villages, boroughs and the City of Pottsville. Due to economic issues as well as trends in exurban living, the county's existing communities have, in many cases, suffered a decline.

The county's primary role in the preservation of historic resources is to promote and assist in awareness of the need for preservation at the local level. Key to this effort will be encouragement by the county of municipal historical commissions, the detailed inventory and assessment of historic resources at the local level, and the adoption of municipal ordinances and review procedures requiring preservation and mitigation. The protection of historic buildings and structures should include protection of the historic contexts in which the buildings are situated. This is accomplished through the identification and protection of the historically significant landscape areas and features directly associated with the buildings under consideration. To address some of the economic issues associated with the preservation of historic resources, many programs are available including grants, technical assistance, and tax credits. Among the recommended county actions with regard to historic preservation are the following:

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- *County Historical Advisory Board/Commission:* The county should create, initially, a Historical Advisory Board (perhaps later becoming a County Historical Commission) as an advisory organization to the County Commissioners. The Historical Advisory Board/Commission would coordinate county policy established by the County Commissioners and have responsibility for overseeing county programs related to historic preservation. The Historical Advisory Board/Commission should have representation on the County Planning Commission and the proposed Environmental and Open Space Subcommittee recommended in Section 8 of this chapter.
- *Historic Resource Inventories and Assessments:* One of the priority tasks for the County Historical Advisory Board/Commission should be to undertake a county-wide inventory of historic resources. Through the County Historical Advisory Board/Commission and the County Office of Planning and Development, and making use of matching grant programs provided by the Pennsylvania Historic and Museum Commission (PHMC), the county should coordinate and assist local municipalities and historical commissions with the inventory and assessment of historic resources within their jurisdictions. The inventories should use the most recently updated PHMC inventory as a point of departure. The new, more comprehensive inventories should include an overview of municipal history; a review of common themes that tie the historic resources together; an assessment of individual resources and of the resources as a whole; the preparation and filing of PHMC Historic Resource Survey Forms; the mapping of historic resources and correlation of resources with lot numbers; an outline of county and/or municipal historic preservation goals, programs, and tools; and a bibliography. Inventories should be bound and available for use by the public. The county should coordinate the inventory and assessments to ensure consistency. Survey information should be submitted to the National Park Service's for inclusion in the National Register database. This program should at some point become the general database for use by the county planning office in preservation planning work.
- *County Planner/Historic Preservation Officer:* As a way to implement historic preservation policy and programs, the county should consider establishing a professional planner position on the Schuylkill County Office of Planning and Zoning staff with historic preservation qualifications to work with the Historical Advisory Board/Commission. Initially, this individual could have planning duties in addition to those related to preservation. As the county grows and planning staff increases, however, the professional historic preservation planner would increasingly be devoted to preservation-related activities. It is possible that matching funding for creation of such a position could be obtained from the (PHMC), with which the county planner in question would work closely. Among the duties of this planner would be to:

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- a.) Coordinate and implement county policy with regard to historic preservation in conjunction with the Historical Advisory Board/Commission;
 - b.) Promote public awareness of historic preservation within the county;
 - c.) Assist municipalities in the creation and establishment of historical commissions, the inventory of historic resources, and the preparation of historic preservation ordinances and policies;
 - d.) Advise municipal officials and their representatives on issues of historic preservation in instances where a historic commission does not exist;
 - e.) Assist county residents with issues related to historic preservation;
 - f.) Act as a liaison on behalf of the county with PHMC regarding issues of historic preservation;
 - g.) Assist in Section 106 reviews on behalf of the county in determining the effects of federal, federally-assisted, or federally-licensed undertakings on properties included in or eligible for the National Register of Historic Places as required by the National Historic Preservation Act of 1966;
 - h.) Act as a liaison on behalf of the county with other governmental agencies and programs related to historic preservation (i.e., Pennsylvania Department of Transportation, Pennsylvania Department of Community and Economic Development, etc.).
- *Historic Overlay Zoning:* The county should prepare a model historic overlay zoning ordinance and promote its incorporation into municipal zoning codes. Historic overlay zoning should be the principal historic preservation ordinance at work within the municipalities with scattered historic resources, such as townships, as opposed to historic districts, which should be the principal historic preservation tool at work in historic boroughs, villages, and the City of Pottsville (see Certified Local Governments, below). Historic overlay zoning involves the identification and mapping of scattered historic resources throughout a municipality. It is not the establishment of a historic district and does not require the creation of a historic architectural review board. Historic overlay zoning protects the character of historic resources by regulating the subdivision and land development review process. It clearly communicates to developers the desire of the municipality to preserve historic resources and contexts, and it identifies those resources and contexts. Historic overlay zoning requires a developer to assess the impact of a proposed subdivision or land

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development plan upon the historic resources on the tract being developed as well as upon adjacent affected tracts. Mitigation of the impact is required and/or negotiated through the exploration of design alternatives, buffering, landscaping, design standards, and other appropriate measures. Lot sizes and configurations as well as the design and location of improvements are controlled to preserve the integrity of the historic resource and its related landscape. Demolition of historic resources can be delayed or denied by the ordinance to allow for acceptable alternatives to demolition to be negotiated. Adaptive reuse of historic resources is encouraged through the provision of special "use alternatives" not normally permitted in the underlying zoning district. Historic overlay zoning has been successfully applied in a number of locales in Pennsylvania.

- *National Register Nominations:* The County Historical Advisory Board/Commission and the County Office of Planning and Development, in conjunction with the National Park Service and the Schuylkill County Historical Society, should coordinate the preparation of new nominations for listing on the National Register of Historic Places. The work should concentrate on thematic nominations of groups of significant historic resources and cultural themes singular to Schuylkill County. Possible themes could include industrial complexes and industrial archeological sites, rail stations and settlements, prehistoric archeological sites, architectural building types, mills; schools; churches; original settlements, landscapes and structures related to state and county parks, etc. Matching grants could be obtained for such nominations from PHMC.
- *Certified Local Governments:* The Certified Local Government (CLG) program is administered by PHMC under federal guidelines and in association with Pennsylvania Act 167 authorizing the creation of historic districts in municipalities. CLG status enables a municipality to participate in special PHMC grant programs. Currently, there are not any CLGs in Schuylkill County. The county, through the Historical Advisory Board/Commission and County Office of Planning and Zoning, should investigate the feasibility of establishing CLGs for Pottsville and Tamaqua, the two municipalities in the county with Act 167 Historic Districts.
- *Other Tools for Historic Districts:* In addition to the Act 167 Historic Districts discussed above, there are other, more flexible controls for preserving historic districts allowed in Pennsylvania. These include historic ordinances allowed by Act 247 (Pennsylvania Municipalities Planning Code), Historic District Overlay Zones (previously discussed) Village Commercial Zoning, Historic District Cluster Zoning, and Special Exception Ordinances. These tools have been used successfully in municipalities throughout Pennsylvania. The county should encourage communities with historic resources that are interested in local controls to assess the appropriateness of these standards for their communities and should develop and promote model ordinances for use by local municipalities.

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- *Main Street/Elm Street Programs:* There are a number of municipalities in Schuylkill County that are currently or in the process of becoming Main Street communities, which receive state technical assistance and grants for commercial revitalization through historic preservation. The state has recently passed the Elm Street Bill, which will provide similar assistance to residential districts adjacent to Main Street communities. The county should encourage suitable local municipalities to participate in these programs.
- *Additional Funding Sources:* In addition to state grants geared directly to historic preservation goals, other sources of funding can be used to further the aims of preservation and community revitalization. For instance, if historic rehabilitation guidelines are met, Community Development Block Grant (CDBG) funds can be used for housing and economic development projects for historic buildings. Additionally, federal tax credits such as the Low Income Housing Tax Credit and the Historic Rehabilitation Tax Credit can be combined in projects where rehabilitation guidelines are met. Also, Transportation Enhancement Projects provide funding for certain types of historic transportation projects. The county should investigate available funding sources to further the aims of revitalizing historic communities and promote these programs to local municipalities.
- *Schuylkill County Historical Society:* The County should find ways of providing additional assistance to the Schuylkill County Historical Society to enable the Society to increase the basic historical data it has on file, to further organize and modernize its existing collection of data, and to undertake new historical research programs. Assistance could be in the form of additional funding, coordination of grant programs, and support in fund raising events such as yearly county-wide house and garden tours. Assistance should also be provided to other locally-based historical societies.
- *Schuylkill County Conservancy (SCC) or Other Advocacy Group:* There is the potential for SCC to participate further in historic preservation, natural features and landscape preservation efforts. Such programs should include various types of land donations, ranging from outright gifts or bargain sales of land, to gifts of land with retained life estates, to conservation easement donations. The conservancy would not only organize and promote the programs, but would become the legal entity acting as steward for property donations. The conservancy could also serve as an advocacy group of high integrity for preservation issues within the county. If SCC determines that these tasks are not within their organizational capacity, the county should support the creation of an independent, non-profit, county-wide conservancy to privately promote historic preservation and to undertake private land stewardship programs not possible for, or appropriate to, governmental agencies.

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Landscape Preservation

In addition to the Agricultural Conservation Plan, the Open Space Conservation Plan, and the zoning, subdivision, and land development recommendations discussed elsewhere in this chapter, other measures should be undertaken within the county to protect the character of rural areas. These could include:

- *Environmental and Open Space Subcommittee:* The county should create an Environmental and Open Space Subcommittee of the Schuylkill County Parks and Recreation Commission as an advisory organization to the County Commissioners. The Environmental and Open Space Subcommittee would work closely with the county planning staff, and should have representation on both the County Planning Commission and the Historical Advisory Board/Commission.
- *Open Space and Greenway Plan:* A primary responsibility of the Environmental and Open Space Subcommittee should be to oversee the implementation of the County Open Space and Greenway Plan, which is being developed in conjunction with the county's comprehensive plan. The purpose of the Open Space and Greenway Plan is to establish a long-term open space and greenway program for the county as well as for local municipalities. This plan is discussed in detail in Section 8 of this chapter. The Open Space and Greenway Plan's policies and provisions for the additional protection of historic resources, specifically vernacular and designed landscapes, may be an appropriate tool for the use of the proposed County Historical Advisory Board/Commission.
- *Comprehensive Plans for Growth Areas:* In addition to the creation of Certified Local Governments, a critical tool in the control of new development in projected growth areas in and adjacent to historic communities is the adoption of detailed comprehensive plans for these areas. The county should promote and assist municipalities in the production of these plans, as well as in the adoption of ordinances and land development controls necessary for implementation. The plans should incorporate many of the open space, natural resource, and historic preservation recommendations noted elsewhere in this chapter. These detailed Comprehensive Plans will be essential to the preservation and restoration of the historic character of existing communities, and should lead to the adoption of detailed review procedures and design guidelines to help ensure that new development is compatible with existing historic and landscape character.
- *Scenic Byways and Historic Roadway Corridors:* The County Historical Advisory Board/Commission, in conjunction with the Environmental and Open Space Commission should identify other ways of designating historic road corridors in addition to local designation. These areas can also be

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included in the Pennsylvania Scenic Byways Program, which is administered through the Pennsylvania Department of Transportation. Transportation Enhancements funding is also available to improve and preserve these corridors.

Historic and Landscape Resources Policies -- Summary

1. *Promote the preservation of historic resources through creation of county preservation programs and by encouraging participation of municipalities and other local groups in such programs.*
2. *Encourage the preservation of natural resources associated with historic and cultural resources by creating model ordinances and promoting their adoption and enforcement throughout the county.*
3. *Promote the preservation of landscape character and scenic resources through agricultural preservation programs, adoption of model ordinances, implementation of an open space plan, and comprehensive planning and land development controls in growth areas.*

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SECTION 8: OPEN SPACE CONSERVATION PLAN

Despite the dominance of open space as a land use component in Schuylkill County, where approximately 45 percent of the county is woodlands and 30 percent of the county is agricultural lands, a gradual encroachment of urbanizing development is occurring. This phenomenon reflects a basic population shift in Schuylkill County, with older settlements losing population and new housing construction taking place in outlying areas. The effects of this population shift can be seen on the landscape, with development occurring in formerly agricultural and wooded areas. Dispersion of residences and commercial businesses brings with it a number of potential problems, including lack of public services in rural areas, a near universal dependence on private vehicles for mobility, a decline of local business centers, and loss of the strong social fabric inherent in borough and village communities. Scattered urban uses also represent potential threats to environmentally sensitive resources, visual intrusions into the countryside, and a weakening of the economic base of the county in agricultural production and tourism.

The opportunity to examine open space and greenway issues in-depth at the same time that the county is preparing a new comprehensive plan is invaluable. Through an analysis of existing natural and cultural features, as well as accessibility and servicing factors, areas in the county better suited for future development and areas better suited for conservation and preservation measures can be identified. Taking the next step, an interconnected network of open space along stream valleys and ridge lines, including other types of other environmentally sensitive features, can form the backbone of a greenway system that has multiple roles in the county, including joining the diverse subregions of the county in a system of trails and scenic roads.

Preparation of the County Open Space and Greenway Plan is being undertaken in conjunction with the County Comprehensive Plan effort. This section summarizes the recommendations of the Open Space and Greenway Plan; a document, in whole, that is an addendum to the Schuylkill County Comprehensive Plan. This section identifies areas of the county to be preserved as open space, mechanisms by which these areas may be preserved, priorities for open space preservation and facility creation, and ways of coordinating with adjacent counties to develop a regional open space and greenway network.

Implications of the Land Use Plan for Open Space Resources

A goal of the Land Use Plan described in Section 3 of this chapter is to conserve natural landscape resources of Schuylkill County by encouraging growth and new development in the vicinity of existing boroughs, villages, and the City of Pottsville. In order to protect natural and landscape resources to the maximum

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extent, this new development is proposed to occur in more compact form than that associated with conventional new development in rural and suburban areas. In addition to the proposed growth in and around existing communities, the plan calls for new development to be encouraged in other selected locations. This additional development would also occur in a fairly compact form, including “clustered” residential dwelling and associated service commercial and business areas. Only a limited amount of scattered residential development in non-designated growth areas would also take place.

The implication of the proposed Land Use Plan for Schuylkill County's natural and landscape resources is, by and large, the conservation of existing character. However, this conservation will occur only if the Land Use Plan can be implemented. A clear and effective open space conservation plan, coordinated with the Land Use Plan, will be an important part of the implementation process. The process must guide development to, and promote development in, the locations and forms outlined in the Land Use Plan. What will also be needed are specific types of regulations in order to protect rural areas from scattered and breakaway development and to ensure that such development occurs in a manner sympathetic to the landscape being conserved.

For existing boroughs, villages, the City of Pottsville and areas adjacent to these communities, the Land Use Plan implies some growth and change. However, if growth in and around these communities is properly planned and managed, it will be possible to use that growth as a mechanism toward revitalizing communities while building upon and reinforcing that community character with new development.

An important aspect of the Growth Management Plan is the Circulation Plan outlined in Section 4 of this chapter. The primary elements of the Circulation Plan are generally consistent with the goals of natural and landscape resource conservation. Circulation improvements can have significant and far-reaching implications for natural and landscape resources. Any proposed new roadways, for example, must be located to minimize their impact on natural and historic resources as well as on the scenic landscape. The tendency for road improvements to induce new traffic and to produce new development pressures must be carefully gauged. During the planning period, potential adverse impacts from circulation improvements must be assessed, mitigated, and managed.

A similar concern with respect to water and sewer infrastructure also exists. New and upgraded utilities can also support the Land Use Plan recommendations in tangible ways, but infrastructure expansion, if not carefully guided, can also have potential adverse consequences.

The success of the county's comprehensive plan, and of any conservation elements within it, will depend upon the effectiveness of future planning, the processes of local government, and the attitude of the local population. Implementation of the Land Use Plan described herein will require a high degree

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of intergovernmental cooperation as well as types of land development controls not previously made use of within the county. Without land development controls and intergovernmental cooperation, increased threats to natural resources, the character of the landscape, and the quality of life in Schuylkill County could occur. In order to prevent these threats from occurring, strong leadership and an ambitious implementation program will be required to foster cooperation and to implement the controls necessary. Perhaps most important, however, will be the challenge of developing a consensus amongst the general population that the plan, its goals, and its methods are in the best interest of the county's future and of engaging the population in the plan's implementation through participation in, and the monitoring of, local decision making.

The Open Space and Greenway Plan

The Open Space and Greenway Plan for Schuylkill County is presented in Figure 3.8.1 and Table 3.8.1. The figure shows the system of open space and greenways throughout the county that collectively comprise the Open Space and Greenway Plan. This system is an interconnected network of areas and corridors, to a large extent based upon existing preserved open space areas, including state, county, and municipal parks, State Gamelands, State Forests, land preserved through agricultural easements, and trails. To these existing preserved areas are added extensive areas of environmentally sensitive lands and resources, new trail corridors, greenways along roadways, and open space buffers. These new areas comprise fifty discrete elements, detailed in the table, organized into five general conservation categories — Natural Areas, Greenways, County Lands, Watersheds, and Trails. The new areas are to be brought into the conservation fold over time, many as Short Term priorities, and others as Mid Term and Long Term priorities. In total, some 70,000 acres of Natural Areas, Greenways, County Lands, and Watersheds and more than 200 miles of trails are to be given status as permanent open space.

The Plan for a countywide system of open space and greenways is consistent with and supportive of plans for a statewide system of greenways. The Schuylkill County system is an important component of the Schuylkill River Greenway and Kittatinny Ridge corridors identified in the statewide plan.

Table 3.8.1 - Priority Areas for Open Space and Greenways

Map No.	Proposed Conservation Area	Location	Acres/ Miles	Comment	Priority
	<u>Natural Areas</u>				
1	Bears Head Ridgetop Dwarf-Tree Forest	Delano Township East Union Township Mahanoy Township West Mahanoy Township	3,469	NAI Site	Short Term
2	Blue Nob Ridgetop Dwarf-Tree Forest	East Union Township Kline Township	1,338	NAI Site	Mid Term
3	Buck Run Ridgetop Dwarf-Tree Forest	Cass Township Foster Township New Castle Township	4,231	NAI Site	Mid Term
4	Dehaas Run Wetlands	Pine Grove Township Tremont Township	1,073	NAI Site	Mid Term
5	Greenwood Lake Wetland	Rush Township	322	NAI Site	Mid Term
6	Lower Little Swatara Wetland	Washington Township Wayne Township	3,216	NAI Site	Mid Term
7	Sharp Mountain	Reilly Township Tremont Township Lebanon County	4,071	Connector to State Gamelands and other Greenways	Mid Term
8	Wolf Creek Ridgetop Dwarf-Tree Forest	Blythe Township Ryan Township	3,694	NAI Site	Mid Term
9	Green Mountain	North Union Township	654	NAI Site	Long Term
10	Mahanoy Creek at Taylorville	Barry Township Butler Township Eldred Township	973	NAI Site	Long Term
11	St. Clair Fern Fossil Site	Blythe Township	177	World Renowned Fern Fossil Site Privately held property	Long Term
12	Owl Creek Wetlands	Tamaqua Borough	868	High Quality Stream and Class A Trout Water, Top ranked county NAI site	Short Term
13	Tower City Wetlands	Porter Township	100	Locally significant NAI site	Mid Term
14	Swope Valley Run	Pine Grove Township		NAI Site	Short Term
	<u>Greenways</u>				
15	Blue Mountain Ridge	West Penn Township East Brunswick Township South Manheim Township Wayne Township Washington Township Pine Grove Township	-	Connector to Complete Kittany Ridge Top NAI Site Audubon Society important bird area	Mid Term
16	Panther Valley Tract	North Manheim Township	750	Proposed land acquisition by Schuylkill County Conservancy	Short Term
	<u>County Lands</u>				
17	County held lands adjacent to Jeff's Swamp	Tremont Township	1,000	Property adjacent to State Game Lands # 229	Short Term
18	County held lands south of Big Lots Distribution Center	Tremont Township	1,200	Potential site for ATV Park Excellent Hunting Area	Short Term
19	Koenigs Creek Flood Control Dam	East Brunswick Township	46	Existing Flood Control Dam Potential for Public Park	Short Term
20	Sweet Arrow Lake	Washington Township Pine Grove Township	184	Various Recreation Improvements to be completed. See Sweet Arrow Lake Master Plan	Short Term
	<u>Watersheds</u>				
21	Ringtown Reservoirs No. 5 & 6	Union Township	2,348	Drinking Water Supply	Short Term
22	Raven Run Reservoirs No. 2 & 3	West Mahanoy Township Union Township	691	Drinking Water Supply	Short Term
23	Wolf Creek Reservoir	Blythe Township	2,006	Drinking Water Supply Critical NAI Site	Short Term
24	Indian Run Reservoir	Branch Township North Manheim Township Wayne Township	2,174	Drinking Water Supply Critical NAI Site	Short Term
25	Mt. Laurel Reservoir	New Castle Township Buyler Township	621	Drinking Water Supply Formerly Mud Run Reservoir	Short Term
26	Kaufman Reservoir	New Castle Township	684	Drinking Water Supply	Short Term
27	Pine Run Reservoir	New Castle Township	866	Drinking Water Supply Formerly Tar Run Reservoir	Short Term
28	Eisenhuth Reservoir	Blythe Township Mahanoy Township Ryan Township	1,789	Drinking Water Supply	Short Term

Table 3.8.1 - Priority Areas for Open Space and Greenways

Map No.	Proposed Conservation Area	Location	Acres/ Miles	Comment	Priority
29	Tumbling Run Reservoir	Blythe Township North Manheim Township	3,835	Drinking Water Supply	Short Term
30	Still Creek Reservoir	Rush Township Kline Township	2,631	Drinking Water Supply	Short Term
31	Moss Glen Reservoir	Schuylkill Township Blythe Township	968	Drinking Water Supply	Short Term
32	Silver Creek Reservoir	Blythe Township	803	Drinking Water Supply	Short Term
33	Crystal Reservoir	Cass Township Foster Township	3,225	Drinking Water Supply NAI Site	Short Term
34	Ashland Reservoir	Butler Township New Castle Township	600	Drinking Water Supply	Short Term
35	All Surface Water Supply Reservoirs owned by Mahanoy Township Authority	Mahanoy Township	2,796	Drinking Water Supply Includes all reservoirs under permit by PADEP	Short Term
36	Minersville Reservoir	Cass Township	3,111	Drinking Water Supply	Short Term
37	Rattling Run Reservoir	Port Clinton Borough West Brunswick Township	200	Drinking Water Supply	Short Term
38	Lebanon Reservoir	Pine Grove Township Tremont Township	535	Drinking Water Supply	Short Term
39	Black Creek Reservoir	Branch Township Reilly Township	1,942	Study completed	Short Term
40	Mary-D Reservoir	Schuylkill Township	372	Drinking Water Supply	Short Term
	<u>Trails</u>				
41	Bartram Trail	Port Clinton Borough West Brunswick Township Landingville Borough North Manheim Township Schuylkill Haven Borough Cressona Borough City of Pottsville Norwegian Township East Norwegian Township Saint Clair Borough New Castle Township Frackville Borough	52 mi.	Easements partially secured. Regional connector management entity in place	Short Term
42	North Schuylkill Rail Trail	Delano Township East Union Township Mahanoy Township West Mahanoy Township Union Township Shenandoah Borough Gilberton Borough Mahanoy City Borough	51 mi.	Study completed.	Short Term
43	Appalachian Trail	West Penn Township East Brunswick Township South Manheim Township	41 mi.	Additional acreage adjoining trail may be acquired by federal government	Short Term
44	Tamaqua-Summit Hill Trail (Panther Valley Trail)	Tamaqua Borough Coaldale Borough	5 mi.	Connection Schuylkill River and Delaware and Lehigh Trail	Short Term
45	Sweet Arrow Lake Trail	Washington Township Pine Grove Township	4 mi.	Proposed trail construction dependent on Army Corps placement of dredge material from lake bed.	Mid Term
46	Swatara State Park to Sweet Arrow Lake Trail	Pine Grove Township	7 mi.	Connecting from Swatara State Park to Sweet Arrow Lake Park	Mid Term
47	West Branch Schuylkill-Blackwood-Indian Run Trail	Tremont Township Reilly Township Branch Township North Manheim Township	13 mi.	Extension of western branch of Bartram Trail	Mid Term
48	Little Schuylkill River Trail	Port Clinton Borough West Brunswick Township East Brunswick Township New Ringgold Borough Walker Township Tamaqua Borough West Penn Township Rush Township	17 mi.	Connects Berks County to Schuylkill County & will connect The Schuylkill Valley Heritage Trail to the Bartram Trail	Long Term
49	Lehigh Valley and New England to Carbon County Trail	Tamaqua Borough West Penn Township	9 mi.	Connect to Lehigh New England Trail	Long Term
50	Pottsville to Middleport Trail	City of Pottsville Palo Alto Borough Port Carbon Borough East Norwegian Township Blythe Township New Philadelphia Borough Middleport Borough	7mi.	Potential extension of Bartram Trail to connect with Heritage Trail	Long Term

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Other Open Space Areas

The system described above is the centerpiece of the County's approach to creating designated open space and greenways. In concert with the establishment of this system is a parallel approach toward protecting more of the nearly 500,000 acres of land that make up the county as open space. The system of existing and future permanent open space represented in the Open Space and Greenway Plan reflects a widespread pattern of existing protected lands (State Parks, Gamelands, and Forests, County lands, and privately-conserved properties) and delineated natural resource corridors (Figure 3.8.2). These resource corridors are based largely on existing natural features such as the extensive county-wide web of floodplains associated with creeks and stream courses, and can be said to be to some extent already established. In many instances, even where municipal zoning does not exist, floodplain and wetlands regulations, administered by municipalities and/or state and federal agencies, already prohibit or restrain most development. In this broader initiative, the overall objective is to link resource corridors together, give them permanent protection, and, where appropriate, facilitate improved public access.

Establishing greenway corridors is one of the most effective methods of protecting open spaces and enhancing the environment. Because greenway corridors are often lands that are not considered developable due to floodplains, wetlands, steep slopes, or past use such as rail lines, they are often open. Providing permanent protective measures for these green corridors preserves sensitive natural areas, reconnects fragmented landscapes, and enhances habitats for wildlife.

In the context of a county that contains significant open space assets but is facing some increased development pressures in certain areas, the long-term protection of these sensitive resources will depend on concerted efforts by public and private agencies. Natural feature corridors are proposed to be combined with existing protected areas, such as parks, state forests, and gamelands, and with projected linear buffers to form a permanent interconnected open space system. This broad permanent open space system is an adjunct component of the Open Space and Greenway Plan, and is seen as the primary mechanism to simultaneously protect county resources and to offer long-term opportunities to meet open space and recreational needs.

The continuous, interconnected, permanent open space network is intended, then, to serve several purposes: 1) to conserve areas of environmentally sensitive and culturally valuable resources; 2) to provide appropriate buffers, where possible, between areas of differing land use, such as between urban uses and agricultural ones; 3) to build upon the existing county trail system, for walking, hiking, and cycling; 4) to permit pedestrian and bicycle access to a variety of destinations, including adjacent and nearby communities, other residential developments, schools, special natural features, shopping, and specific sites for recreational facilities; 5) to create sites where public

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recreational facilities may be developed; 6) to provide for some of the private open space and recreational space needs of the residents of each new housing development; 7) to provide appropriate buffers between high volume traffic arteries and residential areas; and 8) to maintain and enhance wildlife habitat.

Creating the Permanent Open Space System

The first identification and formal recognition of a county-wide permanent open space system, should lead directly towards programs for its protection and, in places, for its further development. The county needs to act as advocate and promoter for the network and, through plan implementation, as a facilitator for appropriate protective and developmental efforts by public and private agencies. These actions include lobbying state and federal governments to make additional acquisitions of land that border existing state forests, game lands and parks; to fund further open space and greenway planning efforts; to assist in the purchase of conservation easements; and to provide financial assistance for local parks and open space development. Within its own borders, the county needs to urge its municipalities to recognize the permanent open space network and to undertake local efforts in support of it, particularly through the adoption of appropriate planning documents and the enactment and enforcement of new development regulations. Local comprehensive plans should formally recognize the parts of the system relevant to each township or borough, and municipalities should promote residential clustering, which concentrates a tract's potential development on a small portion of the overall tract, leaving the remaining area as permanent open space, by adopting suitable zoning regulations. The county should work with existing conservation associations where feasible or through the Schuylkill County Conservation District encourage the establishment of new watershed associations and other voluntary groups where appropriate that would take an active role in promoting stream valley and other corridor preservation.

Provisions within the framework of regulations governing land development are extremely important in helping to create the permanent open space network. A primary method by which the system would be achieved is the utilization of residential cluster development zoning provisions by landowners, in combination with existing and potential new regulations limiting development of environmentally sensitive lands. With local comprehensive plans in place cognizant of the county-wide network, the county and municipality can evaluate a prospective development's potential open space lands in terms of the permanent open space system and its various parts. Under certain conditions (such as under cluster development provisions) local regulations may mandate the offering of any subdivision's required open space to the township or borough, and the municipality may, depending on a tract's specific location, accept a developer's offer of dedication. Otherwise, a public access easement may be required, or lands may simply be left to the exclusive use and responsibility of the respective homeowners' association. Depending on the value of a particular piece of ground to the county's permanent open space network, the land may become part of the overall system in various ways, or may not be included.

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Through various means, including outright purchase by different levels of government or by private nonprofit conservation organizations, through the granting of conservation easements on relevant properties, and through the residential land development process, residents of the county may become the beneficiaries of lands to be permanently preserved as open space, potentially developed as new parkland, or to be held as part of a long-term land bank for future park development and open space needs. In the latter cases, the dedicated or otherwise conserved land can still function as part of a continuous trail system in the interim since, for most of the proposed permanent open space network, the emphasis should be on low maintenance, natural growth, passive recreation paths, with minimal upkeep needs. When the time comes for more capital intensive park development of portions of open space lands, state programs for parkland acquisition and development may assist in facility construction of recreational sites.

The permanent open space system offers an opportunity to expand open space and recreational opportunities in Schuylkill County, and is intended to be complementary to existing state and county parks, state forests and game lands, and local recreational facilities. As part of the interconnecting network themselves, these other facilities have major roles to play in the system's development, and as the sponsor of the overall system, the county should ensure that the agencies that operate them are full participants in the process. Cooperation among the various levels of government can produce tangible open-space benefits for county residents, as well as visitors to the area. The Open Space Conservation Plan will also provide provisions to preserve natural, scenic landscape and other historic resources in conjunction with the strategy outlined in Section 7 of this chapter.

Other benefits of the permanent open space network may include:

- Reduction of stormwater flood drainage;
- Maintenance of stable groundwater levels;
- An attractive amenity that can be a strong selling point in gaining business investment;
- Enhancement of property values for bordering and neighboring residences.

In order to develop the Open Space and Greenway Network, the county should embark on several efforts, summarized below:

- *Environmental and Open Space Subcommittee:* The county should create an Environmental and Open Space Subcommittee of the Schuylkill County Parks and Recreation Commission as an advisory organization to the County Commissioners. The Environmental and Open Space

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Subcommittee would coordinate county policy established by the County Commissioners and have responsibility for county programs related to the protection of natural resources, open space, and rural landscape preservation. The Environmental and Open Space Subcommittee would work closely with the county planning staff, and should have representation on both the County Planning Commission and the proposed Historical Advisory Board/Commission (see Section 7 of this chapter).

- *Implementation of the Open Space and Greenway Plan:* A primary responsibility of the Environmental and Open Space Subcommittee should be to oversee the implementation of the County Open Space and Greenway Plan. The purpose of the Open Space and Greenway Plan is to establish a long-term open space and greenway program for the county as well as for local municipalities. Implementation of the plan will mean follow-up work, including analyzing the existing and proposed trail network in the county, identifying additional areas for preservation, developing an open space network in the county based upon these areas, and making specific recommendations for preservation of areas both by the county and by municipalities. The county plan should be followed by subsequent, more detailed municipal plans which would fill in the overall framework established by the county. The open space and greenway program would involve the long-term protection of environmentally sensitive areas such as stream corridors, which could serve as open space links between various portions of the county. In conjunction with the proposed County Historical Advisory Board/Commission, the Open Space Plan will include policies and provisions for the additional protection of historic resources, specifically scattered rural resources and vernacular and designed landscape resources.
- *Partnerships:* The county should continue to work with the state Department of Conservation and Natural Resources (DCNR) in their efforts to collection information for their statewide network of greenways. The county should continue to engage local and regional partners involved in land preservation, conservation, and acquisition as well as in the promotion of recreation and tourism. The Schuylkill County Conservancy, for example, should be prepared to take a leading role in implementing high-priority conservation activities as outlined in Table 3.8.1. The county should also work with adjacent counties and regional planning commissions in order to plan and promote efforts at developing a regional open space network.

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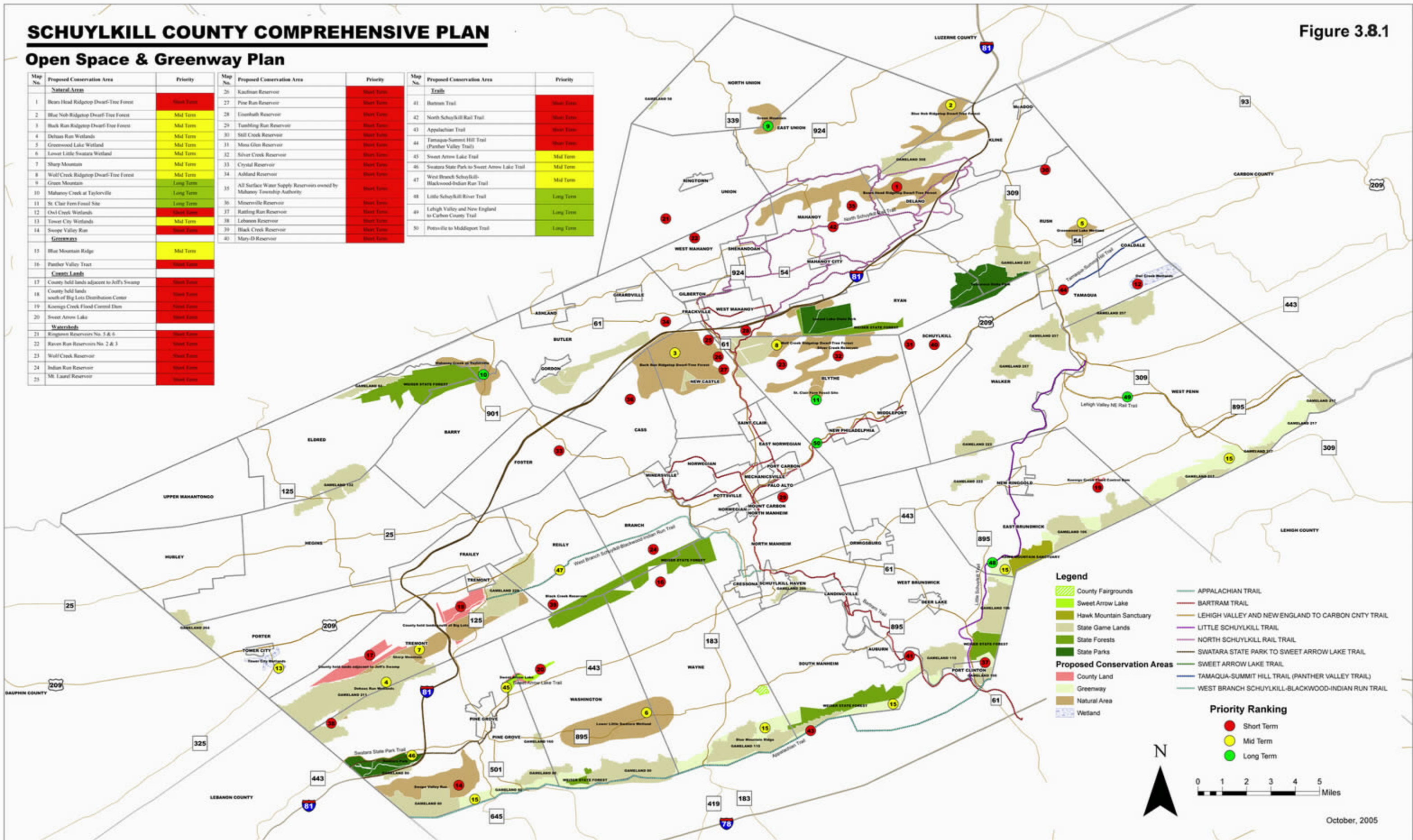
Open Space Conservation Policies -- Summary

1. *Establish a county-wide network of open space and greenways.*
2. *Implement recommendations of the Schuylkill County Open Space and Greenways Plan including providing support to local municipalities in planning for open space in their communities.*
3. *Coordinate efforts with partner organizations to preserve and promote the open space network at the regional and state levels.*

SCHUYLKILL COUNTY COMPREHENSIVE PLAN

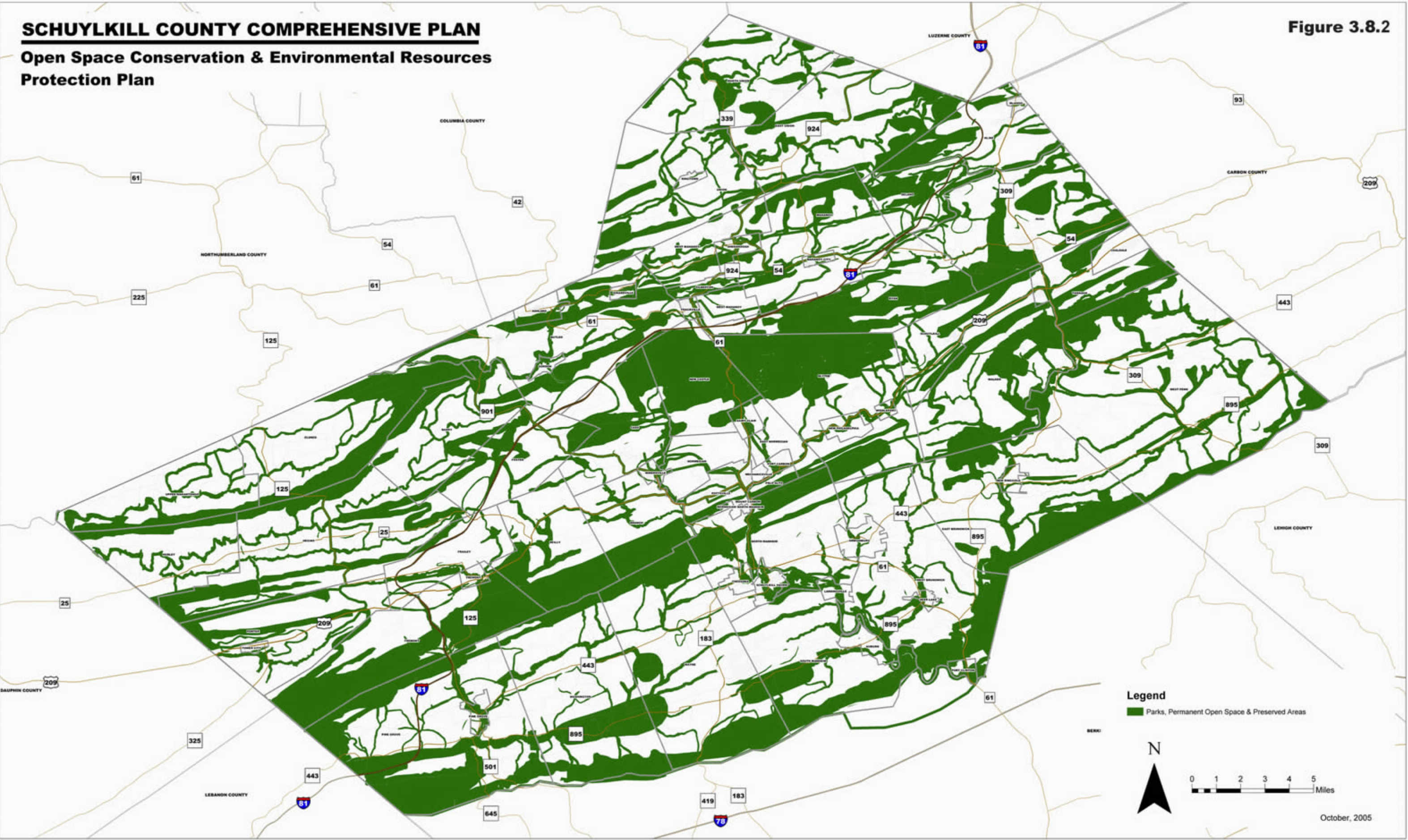
Open Space & Greenway Plan

Map No.	Proposed Conservation Area	Priority	Map No.	Proposed Conservation Area	Priority	Map No.	Proposed Conservation Area	Priority
Natural Areas			Trails					
1	Bear Head Ridge/Dwarf Tree Forest	Short Term	26	Kashman Reservoir	Short Term	41	Barton Trail	Short Term
2	Blue Nod Ridge/Dwarf Tree Forest	Mid Term	27	Pine Run Reservoir	Short Term	42	North Schuylkill Rail Trail	Short Term
3	Black Run Ridge/Dwarf Tree Forest	Mid Term	28	Eisenbahn Reservoir	Short Term	43	Appalachian Trail	Short Term
4	Delmar Run Wetlands	Mid Term	29	Tumbling Run Reservoir	Short Term	44	Tamaqua-Summit Hill Trail (Panther Valley Trail)	Short Term
5	Greenwood Lake Wetland	Mid Term	30	Still Creek Reservoir	Short Term	45	Sweet Arrow Lake Trail	Mid Term
6	Lower Little Swatara Wetland	Mid Term	31	Moss Glen Reservoir	Short Term	46	Swatara State Park to Sweet Arrow Lake Trail	Mid Term
7	Sharp Mountain	Mid Term	32	Silver Creek Reservoir	Short Term	47	West Branch Schuylkill-Blackwood-Indian Run Trail	Mid Term
8	Wolf Creek Ridge/Dwarf Tree Forest	Mid Term	33	Crystal Reservoir	Short Term	48	Little Schuylkill River Trail	Long Term
9	Green Mountain	Long Term	34	Ashland Reservoir	Short Term	49	Lehigh Valley and New England to Carbon County Trail	Long Term
10	Mahanoy Creek at Taylorville	Long Term	35	All Surface Water Supply Reservoirs owned by Mahanoy Township Authority	Short Term	50	Pottsville to Middleport Trail	Long Term
11	St. Clair Ferry Fossil Site	Long Term	36	Minersville Reservoir	Short Term			
12	Owl Creek Wetlands	Short Term	37	Rattling Run Reservoir	Short Term			
13	Tower City Wetlands	Mid Term	38	Lebanon Reservoir	Short Term			
14	Swope Valley Run	Short Term	39	Black Creek Reservoir	Short Term			
Greenways			40	Mary-D Reservoir	Short Term			
15	Blue Mountain Ridge	Mid Term						
16	Panther Valley Tract	Short Term						
County Lands								
17	County held lands adjacent to Jeff's Swamp	Short Term						
18	County held lands south of Big Lotts Distribution Center	Short Term						
19	Koenigs Creek Flood Control Dam	Short Term						
20	Sweet Arrow Lake	Short Term						
Watersheds								
21	Roughman Reservoirs No. 5 & 6	Short Term						
22	Raven Run Reservoirs No. 2 & 3	Short Term						
23	Wolf Creek Reservoir	Short Term						
24	Indian Run Reservoir	Short Term						
25	Mt. Laurel Reservoir	Short Term						



SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Open Space Conservation & Environmental Resources
Protection Plan

Figure 3.8.2



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SECTION 9: AGRICULTURAL RESOURCES CONSERVATION PLAN

The general goal for agricultural resources has two interrelated parts: to maintain a strong agricultural industry and to protect farmland for agricultural use. The two parts of the general goal are equally important and are interrelated. If the farming industry is to continue, it is necessary that its land resource base be maintained. But the protection of the land base will not assure that the agricultural industry will remain profitable. And if farming is not profitable, there will not be an economic reason to protect the land resource. Many of the policies advocated to advance one objective will also advance the other.

If the general goal for agriculture can be achieved, county residents and visitors will enjoy numerous additional benefits in addition to the maintenance of the agricultural economy and the agricultural land resource. They will avoid the social, economic, and environmental disadvantages of sprawl and the possibility will be enhanced of achieving a development pattern that is more convenient and less expensive. They will also benefit from the continuation of the county's traditional culture and landscape.

The Plan to Maintain a Strong Agricultural Industry

The first set of objectives relates to maintaining a strong agricultural industry. Many factors that affect the agricultural industry are beyond the control of the county or its municipalities (for example, foreign competition, federal farm policies and programs). The Schuylkill County Comprehensive Plan addresses such factors only through the recommendation that an agricultural advisory committee be established that could advise the County Commissioners on state and federal policies and legislation.

The plan concentrates on more local factors. It addresses the fact that nearby urbanization often results in additional financial costs to farmers and in conflicts between farmers and non-farm neighbors.

Minimize Financial Costs to Farmers Resulting from Nearby Urbanization

As an area develops, owners of farmland and other undeveloped land typically face higher tax bills. Land prices rise and assessments follow. Non-farm residents who move into the formerly rural area demand and get urban style services and public expenditures rise. When utility lines are extended through rural land, owners of land they pass through are typically assessed on a front-foot basis to pay for the "improvement" that the utility line represents. The plan advocates a number of programs and measures that offset these monetary costs.

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The county is now participating in the differential assessment program (Act 319 of 1974, commonly known as the Clean and Green Act) and encourages owners of farmland to enroll their property in it. Enrollment in Act 319 assures the property owner that his land will be assessed at its farm use value instead of at its development value. To qualify for agricultural use, a property must have produced an agricultural commodity for three years prior to application and must be at least 10 acres or have a demonstrable annual agricultural income of \$2,000. Lands qualifying as forest or agricultural reserve are also eligible for differential assessment. If the use of land enrolled under Act 319 is changed to an ineligible use, the owner must pay rollback taxes for the seven most recent years and interest on the rollback taxes of 6 percent. Rollback taxes are the taxes saved under differential assessment.

To the extent that non-farm development is limited in areas planned for farm use, the demands for urban-level services are also likely to be limited. The limitation of development in agricultural areas is discussed in The Plan to Protect Farmland, following. Utility lines should not be extended through farmland areas, because they will greatly increase the pressure for development. But if they are, owners of farmland in areas planned for agriculture should be exempted from front-foot assessments.

Often when non-farmers move into a farming area, they are annoyed by noisy, dusty, or smelly farm operations and bring pressure on the municipality to enact ordinances that will restrict farming operations, and thus cause farmers to use more costly operating techniques. The Pennsylvania Agricultural Security Areas Law prevents municipal governments from passing ordinances that restrict normal farming practices or structures in Agricultural Security Areas. The County Comprehensive Plan encourages owners of farmland within areas planned for agriculture to petition their local governing bodies to establish Agricultural Security Areas so that their land will be afforded these and other protections. Security Areas covering 56,900 acres had been established in the county as of November 1996.

Another approach to limiting conflicts is to give notice that agriculture is the primary industry in the area and that landowners may be subject to inconvenience or discomfort arising from accepted agricultural practices. Such notices should be entered in agreements of sale and deeds of all land in areas planned for continuation in agriculture. As a result, potential buyers who are not prepared to live in the environment of commercial agriculture are not likely to buy in the area, but those who find agricultural activities compatible will not be deterred and are likely to be good neighbors when they move in.

Minimize Conflicts with Farming Caused by Nearby Urbanization

Conflicts occur between farmers and non-farm neighbors for a number of reasons. The plan has both physical and non-physical remedies to prevent such conflicts. Additional traffic through the farm area is a basic problem. It can be

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remedied by locating new non-farm development where it will cause the least increase in traffic. Non-farm neighbors must be protected against pesticides, herbicides, and other chemicals that farmers find it economically necessary to use. Therefore, a buffer of 100 feet should be required on parcels to be developed that are adjacent to any parcel in an area planned for continuation of agricultural use. Such setbacks are common in a number of jurisdictions around the country. The state of Maine requires a 100-foot setback on any land adjacent to a registered farmland tract. A larger setback should be required from an existing intensive agricultural use, such as a feedlot.

One of the best ways to minimize conflicts between farmers and non-farm neighbors is to discourage people from moving into the area who are likely to find living within an agricultural area to be incompatible. The notification procedure discussed above serves this end.

Additional ways of managing the demand for rural residential development include encouraging cluster development and developing ways of making village and borough development more attractive. Cluster development, which is discussed in detail in Section 5 of this chapter, can provide open space buffers to manage the impact of adjacent uses and can concentrate development at a higher density, thus preventing dispersed development into rural areas. Ways of encouraging village and borough living can include additional municipal or county investment in rehabilitating or constructing new residential units or participation in Main Street or Elm Street programs to increase the desirability of living in existing communities by encouraging commercial and residential redevelopment (see Section 7 of this chapter).

Increase the Profitability of Farming by Allowing Accessory Activities on Farms

Although farming near built-up areas is burdened by costs and annoyances, it has one clear advantage: it is close to customers. Farmers should be allowed to benefit from this advantage. They should be allowed, through zoning provisions, to operate seasonal farm stands on their properties, and thus capture the retail mark-up. It is, however, important to ensure against small farm stands growing into supermarkets that bring excessive traffic into the farm area. Therefore, farm stands should be limited in size (say to 600 square feet of floor area) and their operation should be limited to seven months of the year. It is not the intent of this recommendation to limit the size of larger commercial farm stands that exist in the county along major roadways, rather it seeks to manage the size of commercial operations in farm areas.

In order to supplement farm incomes, zoning ordinances should allow farmers to operate small home industries or bed-and-breakfasts in their farmhouses. These activities should be limited in size so that traffic generated is not excessive and sewage and other wastes can be disposed of adequately. The county should develop a model ordinance for farm-based businesses. Municipalities could use

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the model ordinance as a guide in drafting ordinances tailored to their specific conditions and needs.

Reduce Obstacles that Make It Difficult for Young People to Enter Farming

Extremely high capital costs -- for land and for equipment --make it difficult for young people to enter the farming business. In areas experiencing growth pressures the cost of land is generally much higher than what would be justified based on agricultural income from the land. The cost of land under an agricultural conservation easement is an exception. When it comes on the market, land under easement should sell at a price comparable to farm use value, because such an easement prevents the development or improvement of the land for other than agricultural purposes. Experience elsewhere indicates that the availability of farmland under easement makes it possible for beginning farmers to acquire land. A study of 279 participants in farmland purchase of development rights programs in Massachusetts and Connecticut found that all persons who bought land already under easement said they bought it for agricultural use; 84 percent said they were able to purchase it only because the easement had reduced the value; and 44 percent said they had never owned farmland before.

Because agricultural conservation easements make farmland affordable for farming, in addition to protecting the land from development, the Comprehensive Plan favors their acquisition, both through the Pennsylvania Agricultural Conservation Easement program and through donation of easements to conservancies.

The county or a private conservancy could help young farmers to enter farming by maintaining a registry of young farmers wishing to buy farms and farmers considering selling their farms immediately or bringing a young farmer into their operation and transferring ownership over an extended period of time. The Lancaster Farmland Trust now operates such a matching service for farmers in Lancaster County.

Reduce Obstacles to the Economic Expansion of the Agricultural Industry in the County

The county's agricultural industry would benefit from having an organization that would keep track of trends, problems, and opportunities that face farmers in the county. Such an organization would be comparable to industrial development organizations that seek the economic improvement of non-farm sectors. It could, for example, develop marketing campaigns for Schuylkill County farm products, keep abreast of development and zoning issues that affect farming, and develop coherent policies to be carried out cooperatively by the farm sector, municipal governments, and the county government. Such an organization could provide mechanisms for matching farm labor needs with local labor pools, and farmers wishing to buy farmland with those wishing to sell it. The organization could

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also conduct programs to explain the importance of farming in the county and the problems it faces to school children and citizen groups. As a final example, the organization could foster the offering of college-level agricultural and business courses within the county or at nearby locations.

This function of an agricultural development council might be most efficiently and effectively carried out by enlargement of the scope of the Schuylkill County Agricultural Land Preservation Board, which now confines its interest to the Pennsylvania Agricultural Conservation Easement Program.

The Plan to Protect Farmland

Minimize Development Pressure on Farmland

Areas with good highway access and available sewers are well known to attract development. Therefore, the plan stipulates that highway improvements in agricultural areas should be kept to a minimum and that sewers should not be extended into agricultural areas. Prevention of such growth generating infrastructure will require firm and consistent action by the county and its municipalities.

The county has an important role to play in approving requests for sewer extensions or other projects that would require an amendment to a Sewage Facilities Plan. The County should argue before the Pennsylvania Department of Environmental Protection (DEP) against any proposal to extend a sanitary sewer into an area shown as agricultural in the County Comprehensive Plan. DEP is bound to make a finding of consistency between any sewage plan or plan revision and local, county, and state plans before granting a permit.

The county should also oppose utility extensions into areas planned for agriculture that are sought by local utility companies or authorities when proposals come before the Pennsylvania Public Utilities Commission (PaPUC). In a 1989 administrative ruling (No. A-210540 F002, concerning an application of the Columbia Water Company opposed by the County of Lancaster), the PaPUC has made it clear that the PaPUC must take local and county planning into consideration in making a decision on a utility extension.

Prevent the Division of Farmland into Small Tracts

Land in stable agricultural areas is typically in large tracts. As land is divided into smaller tracts, its price per acre generally rises, and as a result, it becomes less affordable by farmers who have to derive their income from the land. Because smaller tracts are available, the total cost of a piece of land may decrease, even though the price per acre increases. Thus, the smaller tracts may be more attractive to non-farm buyers, and they will push farmers out of the market.

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In order to maintain a land market in which farmers can compete, the division of land should be limited so that parcels created will not be smaller than is appropriate for continuation of the existing types of commercial farming in the area. Limitations on land division in agricultural areas can be set by local municipalities. For example, the zoning ordinance of Hopewell Township, York County, allows division of agricultural land into two or more parcels only if each resulting parcel contains at least 100 acres. If the original parcel is less than 100 acres, land from it may be transferred to another parcel so long as the second parcel, after transfer, is at least as large as the original parcel was before transfer. The standard of 100 acres was based on the fact that typically farm cores in the township were 100 acres or larger. The farm core is the area of a farm excluding outlying tracts. It is the part of a farm that is most efficient to operate, has the most permanence, and thus forms the economic basis of the farm.

Note that the limitation on division of land into tracts of less than 100 acres does not preclude the creation of one-acre lots under sliding scale agricultural zoning (which is discussed below).

Prevent the Conversion of Farmland to Non-Farm Uses

The measures outlined so far provide incentives to keep land in agriculture, but they do not prevent it from being developed. They are not enough to ensure that areas planned for agriculture will remain as viable agricultural areas. A small amount of scattered development within an agricultural area can lead to land use conflicts that make the continuation of farming difficult if not impossible. It is necessary to adopt measures that will prevent the conversion of farmland to non-farm uses.

Agricultural Conservation Easements

The most effective measure for preventing the development of farmland is the acquisition of agricultural conservation easements. These are legally binding instruments, which go with the deed, that prevent development forever.

The Pennsylvania Agricultural Conservation Easement (PACE) program is the best-known program for easements. As of 2003, Schuylkill County has acquired 70 farms, totaling 8,500 acres. The Comprehensive Plan strongly endorses the continuation of the PACE program, but recommends some changes in the rating system used for choosing properties on which easement offers are to be accepted.

The selection system now used by Schuylkill County for the PACE program specifies a number of conditions that a property must meet in order to be considered eligible. These conditions include that it be 25 acres or more, be located in an Agricultural Security Area, be primarily in cropland, pasture, or grazing, and be primarily of Agricultural Capability Class I - IV soils. The Plan recommends that the eligibility requirements be expanded to require that the

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property be in an area indicated for agricultural use in the Land Use Plan (Figure 3.3.1). Thus, properties planned for other than agricultural uses (such as properties in future growth areas) would not be eligible for the PACE program.

A second method for acquiring easements is through donation to non-profit conservancies. Landowners who donate easements can count the value of the easement as a charitable donation that can be deducted from income for federal income tax purposes, thus lowering their tax liability. A number of conservancies active in the state, including the American Farmland Trust, are available for donation of easements, but working within the existing Schuylkill County Conservancy would greatly increase the area that could be maintained for farming in the county. Established organizations to serve as models in the region include the Lancaster Farmland Trust and the York County Farmland Trust.

Acquisition of easements through the PACE program and through conservancy action, however, will account for only a small fraction of the county's farmland. For most Pennsylvania counties, PACE allocations might be able to cover 3 percent of the land in farms in the county. Conservancy action might account for another 3 percent. Other techniques must be used if the vast bulk of farmland in the county is to be protected from development.

Agricultural Zoning

The most promising, and well-tested, technique is strong agricultural zoning. Strong agricultural zoning strictly limits land uses to agriculture and related uses and limits residential development to no more than one dwelling per 20 acres on average. Such zoning is common in York and Lancaster Counties and has also been adopted by Upper Tulpehocken Township in Berks County.

For municipalities in Schuylkill County that have local zoning, adoption of agricultural zoning is ultimately the responsibility of each municipality. However the county, with zoning jurisdiction over approximately half of the county's municipalities, can lead the way by adopting these zoning provisions for county administered zoning. In addition, the county can also assist local municipalities by developing model ordinances and providing technical assistance to municipalities that are exploring zoning alternatives.

Agricultural zoning will greatly strengthen the Pennsylvania Agricultural Easement Program in which the county is participating. It will prove to be difficult to continue to farm farms protected by conservation easements if they are surrounded by land zoned, and someday developed, at suburban densities. Therefore, the considerable county and state funds spent for easements in such locations may ultimately be wasted if agricultural zoning is not adopted. For that reason, the Comprehensive Plan recommends that the existence of agricultural zoning be given greater weight in the process for selecting sites on which to purchase easements.

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If it is to prove effective, agricultural zoning should have the following characteristics:

1. Overall, it should permit no more than 5 and preferably no more than 3 non-farm dwelling units per 100 acres.
2. It should be the area-based allocation variety of agricultural zoning. Area-based allocation limits the number of houses that can be built on a property given its area, instead of simply setting a large minimum lot size. It establishes an overall permissible density, such as one dwelling unit per 20 acres, but requires each house to be built on a small lot, for example, one acre, and located in a place that will interfere as little as possible with agricultural activities on the remainder of the tract. The area-based allocation form makes possible much more flexibility in siting and leaves much more extended and uninterrupted areas in one ownership and available for farming.
3. Desirably, it should be the sliding scale form of area-based allocation zoning. The sliding scale form, which has been upheld by the Pennsylvania Commonwealth Court (Boundary Drive Associates v. Shrewsbury Township, 1984), allows somewhat higher densities of development for smaller parcels than for larger ones. This is justified because smaller parcels are less suitable for farming and often their owners have investment-backed expectations for developing them. Usually they account for a relatively small total area and so their development at somewhat higher densities does not add an excessive number of dwelling units to the agricultural zone.

The sliding scale schedule of Upper Tulpehocken Township, Berks County provides one model for Schuylkill County to follow:

<u>Size of Parcel</u>	<u>No. of Dwelling Units Permitted</u>
2 - 10 acres	1
10 - 30 acres	2
30 - 49 acres	3
49 - 99 acres	4
99 - 149 acres	5
149 - 199 acres	6
199 - 299 acres	7
299 - 399 acres	8
399 - 499 acres	9
499 acres & over	10

4. The allowable units should be grouped together instead of stretching along the road frontage of the tract.
5. The sizes of individual parcels are the sizes as of a given date, preferably a date well before the adoption of the ordinance.

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6. The uses allowed in the zone should be strictly limited to uses that are supportive of agriculture or at least highly compatible with it.
7. Farm stands should be allowed in agricultural zones so that farmers can capture some of the retail markup on their produce. The farm stands, however, should be limited to seven months operation per year and to about 600 square feet in floor area. Otherwise, they may become intense year-round markets that bring excessive activity into the agricultural zone that conflicts with farming activities.
8. A simple and foolproof system should be instituted to keep track of the number of dwelling rights initially assigned to each parcel, the number of building permits granted, and the resulting number of rights remaining for dwellings to be built in the future.

In lieu of the sliding-scale form of agricultural zoning, some other types of the area-based allocation variety of agricultural zoning may be pursued. In all cases, however, only non-farm residential development that has overall very low densities should be permitted in agricultural areas, with strong limitations on the percentage of a tract permitted to be disturbed for development.

One possible scenario for non-farm development in agricultural areas provides a series of incentives in the form of density bonuses to encourage landowners to develop compact arrangements of dwelling units, rather than widely spread houses. The incentives in the form of density bonuses would promote developers to proceed under cluster and compact cluster provisions of a zoning ordinance, further reducing the potential land area disturbed in development. Such a system of incentives could conceivably culminate with a transfer of development rights (TDR) option.

Under a transfer of development rights (TDR) option, the agricultural area could become a “sending” area for development rights that are exercised within designated growth areas of a township instead of in agricultural areas. Under TDRs, an owner of a tract of land can separate the rights to develop that land from the property in question and transfer those rights to a different tract of land. As a general growth management tool, TDRs can be very useful to a community, since it can designate areas that it would like to keep relatively undeveloped as “transferring-out” or “sending” areas for TDRs and areas appropriate for more intensive development as “transferring-in” or “receiving” areas for TDRs.

It should be noted that TDRs are conceived of as a development alternative for a landowner, to be exercised by him at his option. Landowners in “sending” areas receive compensation for transferring development rights to growth areas, and the system is one whereby the financial benefits of generally rising land prices in a community may be equitably distributed to landowners in designated growth and low-growth areas alike. It should also

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be emphasized that, in addition to selling his development rights for compensation, the “sending” area landowner also retains the right to use his land for non-urban uses, such as agriculture.

In Pennsylvania, the 1988 re-enactment and update of the Municipalities Planning Code (MPC) officially sanctioned “Transferable Development Rights” under Article VI, Section 619.1 and Article VII, Section 702.1. Later updates in 2000 to Article XI, Section 1102 allow transfers between municipalities. This could be a key element in encouraging development in areas of the county designated for growth while allowing rural areas with few services to remain rural and rural property owners to achieve monetary compensation for giving up their rights to develop on rural sites.

Agricultural Resources Policies -- Summary

1. *Reduce development pressure on farmland by controlling the location of new infrastructure.*
2. *Encourage municipalities to enact effective agricultural zoning.*
3. *Prevent the division of farmland into small tracts.*
4. *Continue the acquisition of conservation easements on farmland and focus their location.*
5. *Strengthen the agricultural economy.*
6. *Reduce potential conflicts between farmers and non-farm residents in areas planned for agriculture.*

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SECTION 10: MINE FEATURES RECLAMATION PLAN

Introduction

Schuylkill County has many abandoned mine land features from past mining, including dangerous pits, shafts and cropfalls, which pose serious public safety and environmental hazards. Abandoned mine lands also collect and direct good water into old underground mines, turning it into acid mine drainage that pollutes local waters. Areas that have been disturbed by mining activities have been summarized in Chapter 2, Section 12 and shown in Figure 2.6.1.

Any plan for the future of the county must address the prospects for these prominent mine features. The Comprehensive Plan emphasizes the reclamation of mine spoils for development areas for future industrial, commercial, residential, and open space uses. The focus of the plan on revitalizing areas in and around existing communities and creating Interchange Activity Centers represents a course of action that, among other benefits, tries to harness new development and redevelopment as means to reclaim mine spoils areas. At the same time, directing new development to these concentrated mixed use areas promotes the plan's goal to control sprawl and to conserve the natural resources of the county.

Over time, mine spoils reclamation has been proceeding in various areas of the anthracite regions of the county, generally responding to two sets of circumstances and opportunities. The first is industrial and commercial development. An example of redevelopment for commercial uses has taken place in St. Clair Borough, with the reclamation of mine spoils as part of construction of a Wal-Mart for retail commercial use. Similarly, the development of the Humboldt Industrial Park in East Union Township meant the reclamation of mine spoils areas for industrial sites.

The second type of reclamation that has been taking place is the exploitation of existing culm piles as a fuel source by cogeneration facilities, which use the culm to produce steam and supply commercial enterprises with power. Projecting into the future, this is seen as a steady, positive program that will, over many years, gradually consume the culm piles in the county, effectively reclaiming sites for potential future industrial, commercial, institutional, residential, and open space uses.

Reclamation Plan

The process of mine spoils reclamation in the county concurrent with new industrial, commercial, or residential development has not been extensive or rapid. Spoils reclamation represents an up-front development cost in addition to

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the usual expenses of site acquisition, conventional clearance, access, servicing, approvals, and construction. Where additional development costs can be avoided, entrepreneurs and investors usually do so. This factor tends to limit the likelihood that marketplace factors alone will lead towards substantial reclamation of the county's extensive disturbed mining areas.

Growth areas, as discussed in the Land Use Plan section of this chapter and shown in Figure 3.3.1, and which coincide with locations that have been disturbed by mining activities, are identified as Highest Priority in the Reclamation Plan (Figure 3.10.1). These areas include existing communities such as boroughs, villages, and the City of Pottsville, other areas of concentrated development, such as areas close to the aforementioned communities, and Interchange Activity Centers along the Interstate 81 corridor. Mid-priority mine spoils reclamation areas include adjacent to the growth areas identified above that also have been identified as places with high accessibility or high suitability for development in Figures 2.10.1 and 2.10.2. The lowest priority areas for mine spoils reclamation are those areas that are not part of growth areas or do not have high accessibility or suitability for development.

Funding Sources

There is, at the present time, a Pennsylvania Department of Environmental Protection (DEP) program for mined area reclamation, but funding is limited and priorities focused on major safety problems state-wide. There is also a DEP Growing Greener Grant Program that is available to address water quality impaired watersheds in the state that are polluted by nonpoint sources of pollution, including abandoned mine drainage. Projects that put forth innovative approaches to clean-up are favored.

At the federal level, funds may be available to address issues related to watershed clean-up through the Environmental Protection Agency's (EPA) Section 319 Nonpoint Source Implementation Grants. In addition, EPA Brownfields funding could be available for mine reclamation projects through that agency's collaboration with the Department of the Interior's Office of Surface Mining. These two agencies have been working together to revise the brownfields program to fit watersheds affected by the presence of coal mines and coal mining activities.

Additionally, many state-sponsored Keystone Opportunity Zones and Keystone Opportunity Expansion Zones are located in areas of the county with disturbed mining areas. As discussed in Chapter 2, Section 13, these zones are defined parcel-specific areas with tax-free or tax-abated provisions for property owners, residents, and businesses. The combination of incentives offered to investors in these areas may provide the impetus for new businesses to undertake reclamation efforts and locate industrial activity in these zones.

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Even for highest priority areas, and almost certainly for the mid- and low-priority mine spoils reclamation areas, investment may not flow in the absence of a reclamation assistance package (including additional county and local sources of financing and, perhaps, technical assistance in addition to financing) that can be presented to prospective developers by the county and local municipalities.

Future Funding

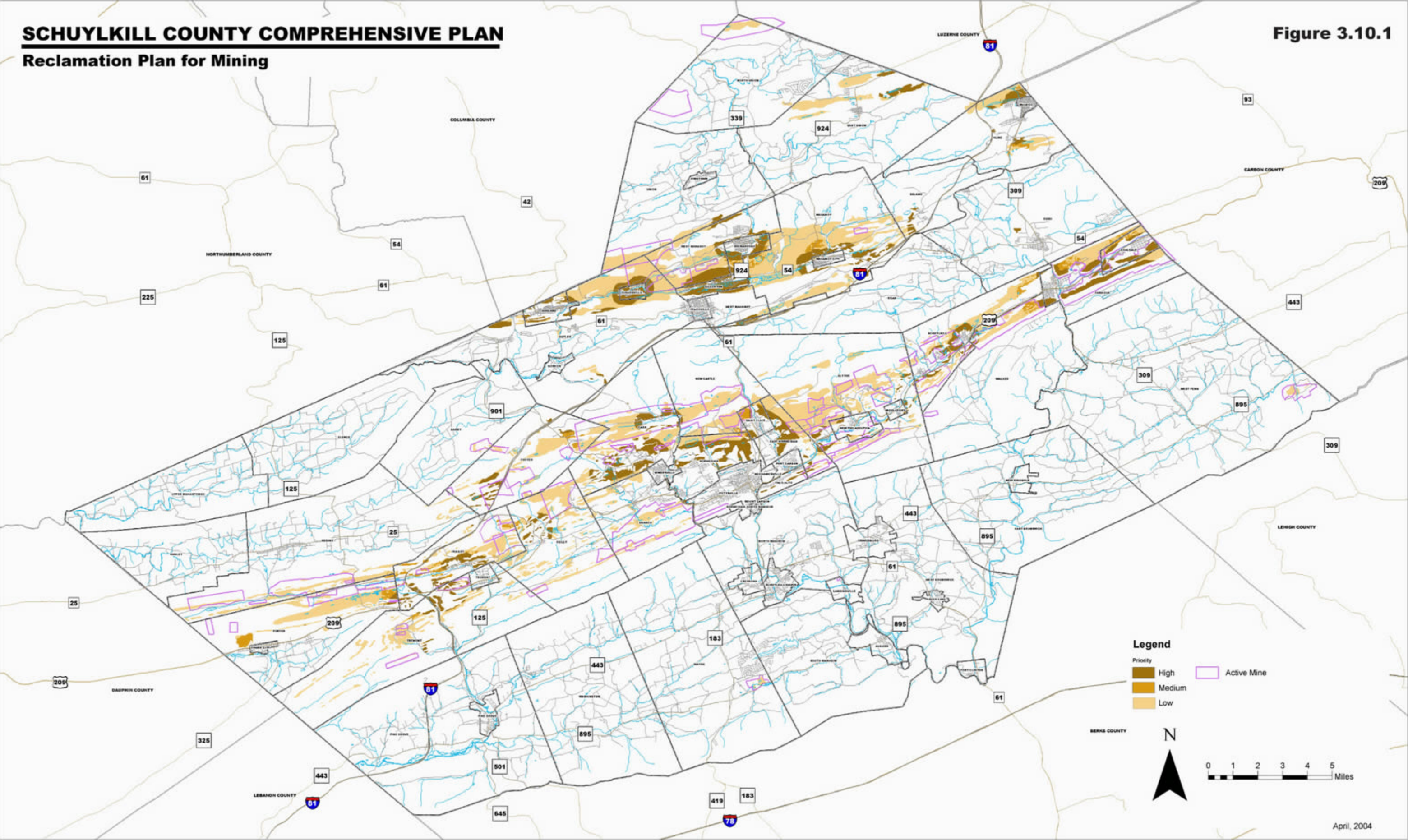
Pennsylvania DEP has recently announced a funding package that would aggressively fund abandoned mine reclamation projects throughout the state. In addition to an increase in state funding, there is the potential for the state to secure additional funding for reclamation if the federal Abandoned Mine Land Fund were to be reauthorized in late 2004. With these additional sources for assistance, there is the expectation that a greater number of abandoned mine lands can be reclaimed.

Mine Reclamation Policies -- Summary

1. *Develop a structured mine reclamation program that balances environmental, economic, and community goals.*
2. *Investigate sources of funding of and innovative approaches to mine reclamation.*

SCHUYLKILL COUNTY COMPREHENSIVE PLAN
Reclamation Plan for Mining

Figure 3.10.1



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SECTION 11: UTILITIES PLAN

Introduction

Providing adequate water supplies and wastewater treatment for the planned population growth (approximately 5,500 dwelling units and associated commercial and industrial facilities) throughout Schuylkill County over the next twenty years will be a complex task. The job will not be easy nor automatically accomplished without a detailed planning effort and the dedication, patience, and participation by municipal officials and residents as well as county officials. Although the county's water systems will be adequate to accommodate growth, there will be a need to plan for system upgrades and improvements in anticipation of this growth. With regard to wastewater treatment, many of the municipal systems are at or nearing their capacity. There are also environmental issues with some systems with regards to treatment practices.

The Land Use Plan (see Section 3 of this chapter and Figure 3.3.1) envisions new development primarily in and around existing communities (boroughs, villages, and the City of Pottsville) as well as in the new Interchange Activity Centers. A small amount of growth will be scattered individual residences in rural areas. Development in and around existing communities will take the form of redevelopment or new construction, with cluster development being encouraged whenever possible.

Central municipal water supply systems will have to increase their capacity to serve the increased residential and business population that are part of existing communities. Corresponding increases in wastewater treatment capacity will also be needed. Residential and commercial areas adjacent to or near existing centers where water supplies lack adequate yield or quality may need to have water supply service extended to them, adding to the requirements for increased centralized capacity. Similarly, nearby areas where individual on-site septic tank wastewater treatment systems are inadequate may need to be connected to the central sewer systems.

The areas around the Interstate 81 interchanges not currently served with water and sewer services will need to have their own water supplies and wastewater treatment systems designed and installed as part of their project planning, development, and construction or have municipal systems extended to those locations.

The Land Use Plan would make maximum use of existing and planned increases in water supply and wastewater treatment capacity. Furthermore, expansion of capacities beyond those currently planned would make use of the Act 537 sewer and water supply planning process that is familiar to municipal planning officials and firmly established through the Pennsylvania

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Department of Environmental Protection (DEP) review and approval process.

Consideration should be given to zoning, subdivision and land development regulations, and other approaches for protecting groundwater and surface water sources of potable water supplies, particularly for growing communities and planned new centers. Well head protection zones and source water supply zones should be enacted to protect the water supply.

The utilities element includes provisions for municipal solid waste disposal in accordance with Act 101, requiring the county to prepare a solid waste management plan to ensure disposal capacity for at least the next ten years. The Schuylkill County Solid Waste Management Plan (discussed in Chapter 2, Section 11) was completed in 1991 and updated in February 2003.

In addition to the discussion of water supply and wastewater treatment planning, this section will also include a discussion of planning for alternative energy sources and for telecommunications planning.

Water Service Plan Element

The *Schuylkill County Water Supply Study*, completed in 2002, evaluated all water suppliers in the county. In general, there are more than adequate sources for water available in the county. However, in evaluations of individual systems, problems included difficulties with older distribution lines and inadequate mapping of systems. In some cases, the study recommended regionalization for water systems for suburban developments that were adjacent to a municipality with an existing public water system.¹

In order to analyze the county's water demands in the future, the Schuylkill County's Water Supply Study used population trend information from the U.S. Census Bureau. Due to the declining population and a high unemployment rate, causing employment seekers to look outside the county for work, the study predicted a net loss in consumption in water in the near future.²

However, based on the analysis of population, housing, and employment information in Chapter 2, Section 7 of this plan as well as information on areas of growth discussed in the Land Use Plan (Section 3 of this chapter), there are growth trends that will affect the water service providers in the county. These include:

- An overall net increase in the number of housing units due to a decrease in overall household size;

¹ "Schuylkill County Water Supply Study," Prepared for Schuylkill County and the Pennsylvania Department of Environmental Protection by Vitillo Corporation, revised February 25, 2002, 31-99.

²Ibid., 105-106.

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- An ongoing shift in development to the periphery of existing communities due to increased desire for larger homes or a suburban lifestyle (commercial development is growing in these areas also);
- Ongoing development along the Interstate 81 corridor.

These trends may require extension or increased capacity in existing systems or, in the case of I-81 development, the creation of new systems.

Current and Projected Water Use

As discussed in Chapter 2, Section 11, the annual water usage throughout the county is an estimated 33 million gallons per day (MGD). There are two main sources of water that water suppliers utilize to serve their customers; surface storage (reservoirs) and groundwater (wells). Approximately fifty-six percent of county customers receive reservoir water and forty-four percent receive well water.³

Water Supply Development Plan

Approximately 90 percent to 95 percent of new development is intended to take place in growth areas, that is, in and around existing communities as well as in the new Interchange Activity Centers. This development will be split between the two types of growth areas. The remaining growth will take place in the form of scattered individual residences in rural areas.

Central municipal water supply systems will have to be increased in capacity to serve the increased population in and around existing communities and the associated businesses. Residential and commercial areas adjacent to or near existing boroughs and new centers where water supplies lack adequate yield or quality may need to have water supply service extended to them, adding to the requirements for increased centralized capacity.

Existing Communities and Vicinities

A total of about 2,400 to 2,600 new housing units are projected in and around existing boroughs in the Land Use Plan (Figure 3.3.1). This implies the need for an additional 566,000 to 613,000 gallons per day supply capacity at 100 gallons per person per day and 2.36 persons per housing unit.

Interchange Activity Centers

In addition to the growth areas that focus on existing communities, the Land Use Plan indicates Interchange Activity Centers as designated new locations

³ Ibid., 10, 13-14.

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for growth. About 2,400 to 2,600 housing units are projected for such areas. Although the distribution of residential units will not be even among the 10 Centers, on average the number of units per center will be 240 to 260, requiring a total of approximately 56,000 to 61,000 gpd of new water supply per center. Currently, only limited areas around the Interstate 81 interchanges have water service. All Interchange Activity Centers will need to have water supply and wastewater treatment systems designed and installed as part of IAC project planning, development, and construction.

Scattered Single-Family Residential Units

The Land Use and Housing Plans include about 275 to 550 additional residential housing units that are primarily single-family detached residential units spread throughout the county. Presumably, each of these would be sited on roughly at least an acre of land and would have an independent water supply well and on-lot septic tank and drain field wastewater treatment system.

Dispersing these residential units at an average density of roughly one dwelling unit per acre would appear to present few problems within the 502,000 acres of Schuylkill County.

Cluster Development

For areas where cluster development is appropriate, either expansion of existing water systems or creation of new systems is a logical response to the Growth Management Plan's designation of these areas for development over the planning period. For new development where a connection to the existing system is not appropriate, introducing central water supply lines at the same time as sewer collection lines makes the establishment of such systems more economical, and providing central system water lines in conjunction with new construction obviates the need for a municipality to deal with the often intractable problem of contamination of private individual wells.

It is expected that any new residential developments in the county over the planning period that incorporate more than a few units will be served by central water facilities. The county should work with local municipalities to plan for provisions for maintenance of these systems and should also develop strategies to ensure environmentally safe conditions.

Protection of Well-Head and Aquifer Recharge Areas

Contamination of water supplies is a major problem throughout Pennsylvania and the entire country. Frequently, the problem can be traced to leaking underground storage tanks (most often old tanks under gasoline stations), former dumps, or spills of industrial chemicals. The *Schuylkill County Water*

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Supply Study identified areas in the county where well head protection is recommended. The study recommended the following water suppliers enact this type of protection: Hegins Township Authority, Hubley Township Authority, Orwigsburg Municipal Water Works, Port Clinton Water Co-op Association, Ringtown Borough Water Department, and the Pines Subdivision.⁴

Well head protection zones should be established around each major water supply well, extending at least 1/4 mile from the well. The area should include the "zone of influence," and the siting within that zone of commercial, industrial, or other facilities which might pollute the well should generally be prohibited. (While existing industrial or commercial facilities within 1/4 mile of existing wells cannot be forced to move, nor all commercial or industrial activities within 1/4 mile of existing wells be prohibited, consideration can be given to measures such as double-wall tanks, dikes and catch basins to prevent the potential of leaking tanks polluting wells.) Furthermore, protection of the entire aquifer from which the wells draw their groundwater should be considered: Limitations on development of potentially polluting facilities or activities throughout the "zone of contribution" or "recharge" area for the well (the area on which rainwater falls and percolates through the earth to supply water to the aquifer) should be enacted by all municipalities.

The United States Environmental Protection Agency (EPA) has published a document providing guidelines to local communities to address some of these contamination problems.⁵ Tools outlined include specific zoning regulations, environmental protection or sensitive area easements, and design controls on commercial, industrial, and multi-family residential development. These tools are primarily useful for protecting the immediate area around a well head. The problem of protecting a broad area contributing to the recharge of an entire aquifer is more difficult, since many square miles of land are often involved. However, Schuylkill County is particularly well suited for instituting such controls since large areas are currently in agriculture or forest, open space, wetlands and flood plains, or have scenic vistas. In the process of protecting such areas, aquifer protection can be either a by-product or a direct result of protective zoning, easements, or other types of controls.

As discussed in Chapter 2, Section 10, a large portion of county residents receive their water from public water supply reservoirs. These source water supply watersheds are in need of protection as well. For a further discussion of source water supply protection strategies, see Section 12 of this chapter, the Environmental Protection Plan.

⁴ Ibid., 31-99.

⁵ U.S. Environmental Protection Agency, "Wellhead Protection: A Guide for Small Communities," Office of Water, Office of Research and Development, February 1993, accessed at <http://www.epa.gov/ORD/NRMRL/Pubs/1993/625R93002.pdf>.

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Stormwater Management

The EPA has recently published regulations regarding stormwater discharges, in order to prevent problems from erosion, sedimentation, flooding, pollution, and other results of improper consideration of stormwater control and management.⁶ Although the federal regulations do not require any formal action on the part of Schuylkill County, they do raise the issue as to whether adequate consideration of stormwater has taken place throughout the county and its municipalities.

The Commonwealth of Pennsylvania, through its Act 167, the Stormwater Management Act, requires the preparation of stormwater management plans for all watersheds. DEP funding of these plans is available and the county has completed one study so far, a joint effort with Carbon County for the Owl Creek, Lizard Creek, Mauch Chunk Creek, and Mahoning Creek watersheds. In addition to the one completed study, a study of the Wisconisco Creek watershed is underway.

Several other counties in Pennsylvania are taking action to study the adequacy of stormwater control and management measures and structures on specific creeks streams and rivers. The consequences of severe flooding from major storms can be so devastating that regular evaluation of the adequacy of stormwater management and control is a prudent step in implementing any comprehensive plan. As development continues, stormwater runoff patterns and amounts can change so that previously adequate structures may no longer handle the flow volume and rate of discharge. Also, the structures themselves may erode, corrode, and wear out over the course of time.

It is recommended that all municipalities identify stormwater management and control structures that may need repair or replacement, as well as stream segments that may need clearing, riprap, bank improvements or other measures to handle anticipated stormwater flows that may occur over the course of the next ten to twenty years.

Water Conservation

A value of 100 gallons per person per day is a rough estimate of the amount of water used in Schuylkill County. This value is not unlike average values for other parts of Pennsylvania and the country, however lower amounts of water consumption could be achieved through various water conservation measures. Each gallon per day saved is one less gallon that must be provided by the local water authority or on-site well. This saving also means that one less gallon is required for wastewater treatment in central municipal systems. Furthermore,

⁶ U.S. Environmental Protection Agency, "National Pollutant Discharge Elimination System - Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges" (*Federal Register*, Volume 64, Number 235, pages 68722-68852), December 8, 1999.

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if less hot water is used in the home, office, or industrial facility, significant energy savings can be achieved. All of these savings can add up to appreciable cost savings to individual residents as well as to municipalities.

A number of water conservation measures are widely advertised and widely available, from low-flow shower heads to low-flush toilets. Numerous municipalities throughout the country have enacted ordinances or local plumbing codes requiring such devices or measures in new construction. It is a recommendation of this plan that each municipality in Schuylkill County consider enacting such ordinances, codes, or other measures to achieve further reductions in water use.

Capital Improvements Funding

The *Schuylkill County Water Supply Study* outlines the different sources of funding that are available to water suppliers for capital improvement projects. Water suppliers should explore alternatives for financing needed for capital improvement projects.

Pennsylvania Infrastructure Investment Authority (PennVest)

Pennsylvania Infrastructure Investment Authority (PennVest), an independent agency of the Commonwealth of Pennsylvania, was formed in 1988 to assist with improving substandard and deteriorated water supply and sewage disposal systems.

The formation of PennVest provides for the funding of infrastructure improvements for water system operators via low-interest loans and in some cases disbursement of grant allocations. Eligible project costs are those associated with the acquisition, construction, improvement, expansion, extension, repair or rehabilitation of all or any part of any facility or system, whether publicly or privately owned, for the distribution of drinking water. Financing priorities are based on the project's benefits to public health and safety, environmental impact, economic development impact, and improving adequacy and efficiency.

Rural Utility Service (RUS) Programs

RUS provides loans, guaranteed loans, and grants for water facilities in rural areas and towns of up to 10,000 people. Recipients must be public entities and can include municipalities, counties, special purpose districts, Indian tribes, and corporations not operated for profit, including cooperatives. A new entity may be formed to provide the needed service if an appropriate one does not already exist. Grants may be provided when necessary to reduce user costs to a reasonable level. They can cover up to 75 percent of eligible facility development costs.

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Emergency Community Water Assistance Grants

Emergency Community Water Assistance Grants may be available to rural communities when disaster strikes. Congress may appropriate funds for the program after a flood, earthquake, or other disaster if Federal assistance is warranted. Applicants must demonstrate that a significant decline in quantity or quality of water occurred within two years of the date the application was filed with RUS. Public bodies and nonprofit corporations serving rural areas, including cities or towns whose population does not exceed 10,000 people may be eligible.

Technical Assistance and Training Grants

Technical Assistance and Training Grants are made available from at least one percent and not more than three percent of the funds appropriated for Water and Waste Disposal Grants. Private nonprofit organizations may receive grants. Applicants must have the proven ability, background, experience, legal authority, and actual capacity to provide technical assistance and/or training to associations. Technical Assistance and Training Grants may be used to:

- Identify and evaluate solutions to water related problems of associations in rural areas.
- Assist entities with preparation of applications for Water and Waste Disposal loans and grants.
- Provide training to association personnel in order to improve the management, operation and maintenance of water and/or waste disposal facilities.
- Pay expenses related to providing the technical assistance and/or training.

Community Development Block Grants

The Community Development Block Grant Program (CDBG) is limited to non-entitlement, urban counties, with low-moderate income levels. Fifty-one percent of the affected households must be under income guidelines used by CDBG. Schuylkill County's CDBG program was started in 1985 and has allocated 4.8 million dollars to various infrastructure projects to date. Of the 4.8 million dollars, \$942,000 (19.63%) has been awarded to water suppliers throughout the county ranking the water suppliers as the largest grant recipients.

Commercial Sources

Tax Exempt Bank Loan: Local financial institutions may be used to provide loans for project development, interim financing, or long-term financing.

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Fixed interest rates may be limited to less than three years. The retention of financial advisors, including Bond Counsel is required.

Public Bond Issue: This has been a traditional method for long-term financing of municipal water supply projects. It provides long term fixed rates, with a 30 to 35 year term. Bond underwriters, financial advisors, and Bond Counsel are required.

Bond Pools: Bonds issued by other Authorities in the state, with proceeds available to lend to qualified borrowers. Fixed and variable rates are available with short term and long-term borrowing considered. Financial advisors and Bond Counsel are required. Participation in the governmental programs (specifically PennVest) is often the most desirable funding source for infrastructure construction and/or improvements. In all cases, adequate funding must be available for a municipality to plan and construct an affordable project with confidence, using one of the governmental funding programs.

Small Water Systems Regionalization Grant Program

Since 1992, DEP has been providing grant funding to study the feasibility of consolidating small community water systems. These studies have identified many projects where the consolidation of two or more systems would allow suppliers to provide safe and reliable water service at a reasonable cost. The purpose of the Small Water Systems Consolidation Construction Grant Program is to provide funding to implement these and other consolidation projects.

Eligible projects include construction of water lines to interconnect systems, and repair of existing small systems to meet the standards or conditions of the acquiring system. Eligible costs associated with these projects include design, permits, layout, materials, labor, construction management and project administration.

Sewerage Service Plan Element

Most of the municipal sewer systems in Schuylkill County were installed in the early 1970s. Some of these systems are now overloaded. Upgrade projects are underway, including a Pottsville project to separate the sanitary sewer lines from the stormwater discharge system and the addition of a new treatment plant in Pine Grove Township to add capacity.

Countywide, a longstanding issue of concern is that there are environmental problems with some sewage treatment practices. There are instances where dwellings and businesses are hooked up to public sewer lines but the lines then discharge untreated sewage. This practice occurs where sanitary sewer

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and storm sewers are collected together in combined sewer. The discharge from this practice is referred to as Combined Sewer Overflows (CSOs). Recent legislation mandates the separation of flow. Where combined systems occur in the county, the systems should be separated in order to comply with legislative requirements and to have more economical and environmental sewer service systems.

An overall study of the county is needed to assess the capacity of existing systems as well as address environmental issues. This study should also address prospective new development since the Growth Management Plan clearly implies corresponding increases and improvements to existing sewer systems will need to occur to accommodate growth in and around existing communities during the planning period.

Wastewater Treatment Development Plan

There are thirty-six sewage collection and treatment systems currently operating in Schuylkill County. These are discussed in Chapter 2, Section 10 and mapped in Figure 2.10.3. There are also three proposed sewer service areas.

Existing Boroughs and Vicinities

A total of about 2,400 to 2,600 new housing units are projected in and around existing boroughs in the Land Use Plan (Figure 3.3.1). This implies the need for an additional 566,000 to 613,000 gallons per day of wastewater treatment capacity at 100 gallons per person per day and 2.36 persons per housing unit.

Interchange Activity Centers

Approximately 2,400 to 2,600 housing units are also projected for these areas, with 240 to 260 as an average number of units per center. This will require a total of approximately 56,600 to 61,300 gallons per day of wastewater treatment capacity per center. Currently, only limited areas around selected Interstate 81 interchanges have sewer service. All Interchange Activity Centers will need to have wastewater treatment systems designed and installed as part of IAC project planning, development, and construction.

Scattered Single-Family Residential Units

About 275 to 550 new housing units are envisioned for primarily single-family detached residential units spread throughout the county. Presumably, each of these would be sited on roughly at least one acre of land and would have its own water supply well and on-lot septic tank and drain field wastewater treatment system.

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Cluster Development

To implement the growth management principles of the Comprehensive Plan, Schuylkill County and its constituent municipalities should recognize and plan for the construction of a limited number of private community on-site wastewater management treatment plants to serve prospective cluster development through the planning period. These plants would be constructed and maintained by third parties, coming under the Commonwealth's definition of 'public utilities'. Each individual plant would be expected to serve one or more new developments, and possibly existing dwellings and businesses as well. In this way, new private community on-site wastewater management treatment plants would be built as part of a comprehensive, coordinated system of future sewage collection and treatment and not in a haphazard manner.

The county also needs to address the related question of treated effluent disposal from private community on-site wastewater management treatment plants. There are a number of methods that could be used, ranging from stream discharge through spray or drip irrigation. As part of sewer service planning, appropriate disposal techniques should be identified. The method selected should be tailored to each area's circumstances, including future types, intensities, and patterns of development as directed by the County Comprehensive Plan.

The county should also ensure that local municipalities have a role overseeing the operation of private community on-site wastewater management treatment plants, so as to be able to assure the protection of the communities from environmental damage and the municipality from a need to involuntarily financially and administratively take over a system. Agreements with present and prospective private community on-site wastewater management treatment plant operators should contain sewer oversight provisions, including escrow of funds for municipal inspections and reports on the operation of the system.

On-Site Systems

Actions to address environmental problems associated with substandard individual on-lot disposal sewage systems should also be recognized as an important part of managing growth. As existing on-site septic tank and tile field sewage disposal systems in the county age, failure rates may increase. In this case, connection to the municipal collection system or a private community on-site wastewater management treatment plant may be required for affected properties. Sewer planning for the county should consider the implications of such occurrences on the sewage collection system and wastewater treatment plant capacities and capabilities.

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Sewage Sludge and Biosolids

Chapter 2, Section 10 describes the current status of the generation and disposal of sewage sludge and septage in the county. As noted there, the annual septage collected in 1995 was 3,985,000 gallons and the average amount of biosolids generated in the county from 1997-2000 was 6,294 tons. This data is based on earlier studies that projected no increase in county population, so the quantities were projected to remain constant into the future.⁷ As discussed in the Water Service Plan Element of this section, there are various trends occurring in the county that affect future growth and, in turn, production of sewage sludge and septage.

Although there are a number of facilities in or near the county that dispose of biosolids by landfilling and composting, the increased use of agricultural lands and mining lands for land application of biosolids is encouraged by this plan. The Schuylkill County Conservation District (SCD) reports that seven county farms are currently land applying biosolids, thus utilizing a beneficial resource rather than disposing of and taking up valuable landfill space. The SCC supports the use of biosolids on crop and mine land when applied according to the permit regulations. The organization will continue to promote the land utilization of biosolids and encourage all county sewage treatment plants to either compost or land apply, thus saving valuable landfill space.

Sewer Service Study

In order to accurately assess the conditions of the current public sewer systems and to plan for future growth, the county should undertake a Sewer Service Study. This study would be similar in scope to the recently completed *Schuylkill County Water Supply Study*. It would inventory current service providers, make recommendations for upgrades to existing conditions and consolidation of systems where appropriate, and also make recommendations as to how to remedy environmental problems.

Many of the funding programs for water system improvements programs also may be useful to finance sewer improvements (See “Capital Improvements Funding” section in the discussion of the Water Supply Development Plan in this chapter). These kinds of programs should be employed to implement the recommendations of the completed Schuylkill County Sewer Service Study.

⁷ “Schuylkill County Septage and Biosolids Management Study,” submitted to Schuylkill County Office of Solid Waste Management by Gershman, Brickner and Bratton, Inc., June 1996; “County of Schuylkill, Pennsylvania Act 101 Municipal Solid Waste Plan Update,” April 2003.

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Utility Regionalization

As a way of alleviating capacity and other service problems associated with municipal water and sewer systems, municipal authorities and other service providers strongly encouraged to explore the potential for regionalizing services. Regionalization has great potential to reduce the costs of providing services through increased operational efficiencies and could mean fewer fees to subscribers.

Solid Waste

Currently Schuylkill County imports trash for disposal from other locations as well as manages the disposal of trash generated from within the county. The importation of trash for disposal had been viewed as a positive economic force, generating income to the county to offset revenue losses such as resulting from county business and industrial closings. As Schuylkill County's role in the region continues to evolve and more businesses and industries choose to locate in the county, it should achieve a transition so as to be seen more as a location for industry and less as a location for depositing solid waste.

For managing the solid waste for the county, the quantity of refuse to be disposed can be greatly reduced through recycling. The county should vigorously promote recycling. In addition to reducing the amount of solid waste, there are important economies possible through recycling. Savings are significant, both in terms of avoided tipping fees at processing or disposal facilities and a reduction in the need for additional processing or disposal capacity.

Telecommunications Planning

The Telecommunications Act of 1996 provided major changes in laws affecting cable TV, telecommunications, and the Internet. The law's main purpose was to encourage the rapid development and growth of new telecommunications technology such as wireless telephones and digital television. As a need for these services continues to expand in the marketplace, the county should continue to look for opportunities to include telecommunications equipment such as cellular towers and high-speed cable lines as part of new land developments and as part of revitalization projects in existing communities.

Providing appropriate design standards and development controls for locating wireless communication antennas and similar devices will remain important during the planning period. These devices should be located so as to minimize visual effects on adjacent and neighboring properties, public rights-

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of-way, and parks and public open space and they should be placed where existing topography, vegetation, buildings, or other structures can provide effective visual screening.

Alternative Energy Sources

There are a number of public and private ventures currently taking place in Schuylkill County to harness alternative energy sources. These include wind power, cogeneration facilities to use mine spoils as a power source, and the use of methane from landfills as fuel.

Wind Power

Wind energy uses the energy in the wind for practical purposes such as generating electricity, charging batteries, and pumping water. Wind turbines convert the kinetic energy of the wind into other forms of energy. Large, modern wind turbines operate together in wind farms to produce electricity for utilities. Small turbines are used by individual homeowners and small village clusters to help meet more local energy needs.

The Pennsylvania Department of Environmental Protection recently sponsored the development of the Pennsylvania Wind Map that identifies appropriate locations for siting wind turbines. There are a number of locations along the mountain ranges in Schuylkill County, particularly in the northern tier, that have the potential to generate sufficient wind power for energy uses. Opportunities to harness wind power in Schuylkill County and generate energy jobs should be encouraged.

Cogeneration Facilities

A number of cogeneration facilities in the county are actively using existing culm piles from previous mining operations as a fuel source. These facilities use the culm to produce steam and supply commercial enterprises with power. In the planning stages in the county is a plant that uses coal reserves to generate a cleaner, more energy efficient type of diesel fuel. In addition to power and fuel generation, another benefit to these operations is the reclamation of sites that previously contained culm piles for potential future industrial, commercial, institutional, residential, and open space uses (for more information on mine reclamation activities, see Section 10 of this chapter). The Growth Management Plan endorses cogeneration and the incremental consumption of culm piles as two vital activities for Schuylkill County over the planning period.

Methane Fuel

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Masser Potato Farms in the Hegins Valley is currently purchasing methane generated from landfills to both fuel the cooking and dehydration of potatoes at their processing operation. This type of energy source is being used because its low cost allows the company to compete with larger farming operations elsewhere in the region and country in the potato industry.

With respect to methane fuel as well as culm and wind, due to the emergence of industries in Schuylkill County that are either generating or using alternative energy sources, there is the potential during the planning period for this activity to continue to expand. The county should continue to look for opportunities to support these emerging types of activities.

Utilities Policies -- Summary

1. *Undertake a County Sewer Service Area study to collect comprehensive information about service providers in the county.*
2. *Assist municipalities in the review an update of water supply and wastewater treatment facilities plans, consistent with the Growth Management Plan and its projected distribution of population, services, and industry.*
3. *Assist municipalities in the preparation and adoption of regulations for well head protection and source water supply watershed protection.*
4. *Promote water conservation regulations.*
5. *Review and evaluate stormwater management facilities and procedures.*

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SECTION 12: ENVIRONMENTAL PROTECTION PLAN

Introduction

The environmental protection element of the Growth Management Plan identifies specific areas in the county that are environmentally sensitive, including floodplains, wetlands, aquifer recharge and wellhead areas, and other critical natural features. It also addresses wildlife and plants, and stormwater management. Information presented on these subjects is based on several sources: The US Army Corps of Engineers' 100-Year Floodplain designation prepared for the National Flood Insurance Program; the National Wetlands Inventory undertaken by the US Fish and Wildlife Service and Pennsylvania Department of Environmental Protection; the Schuylkill County Soil Survey prepared by the US Department of Agriculture Soil Conservation Service; the *Natural Areas Inventory of Schuylkill County, Pennsylvania, 2003*, prepared by the Schuylkill Conservation District; and 1999 aerial photography. Areas that have been mapped include floodplains, wetlands, hydric soils, steep slopes, woodlands, and wildlife habitat (see Figures 2.4.1, 2.4.2, 2.4.3, 2.4.4, and 2.4.5).

These classes of environmentally sensitive features are not uniform in their impact on development potential nor in what they represent as hazards to human life and property. There are levels of sensitivity, suggesting corresponding levels of response.

Floodplains

The first and most specific level is represented by the 100-year floodplain designated by the federal government (Figure 2.4.2). There is clear authority for a complete prohibition of development within designated floodplains, and a set of standards for regulating design and construction within floodplains so as to prevent exacerbation of the flood hazard. Flood prone soils, identified by the U.S.D.A Soil Conservation Service Soil Survey, at times do not correspond precisely with the federal floodplain designations. The flood prone soils, so classified because of their alluvial nature, indicating that they were deposited by floodwaters, reflect not only 100-year floods but also floods of lesser frequency. Where flood prone soils lie outside the federally designated areas, the burden of proof should be on land developers to demonstrate by specific on-site tests, engineering analysis, and analysis of effects of impervious cover percentages of upstream development that could increase flow levels, that the generalized soil classification is in error for the specific site or that any construction will be designed to avoid any possibility of creating a hazard to human life and property or exacerbating local flooding. Thus, as a matter of policy, the flood prone soils initially should be subject to all of the development restrictions of the land within the 100-year floodplain.

The Hydrology map for Schuylkill County (Figure 2.4.2) is an extremely important resource for the county. The extent and pattern of floodplains has

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been strongly influential in shaping the current Land Use Plan for the county. Implementation of the Land Use Plan (Figure 3.3.1), as well as the preservation of environmentally sensitive resources, will rely to a considerable degree on the protection of the widespread network of floodplains across the county. The county should be vigilant in preserving floodplains and in encouraging townships and boroughs to do the same.

Stormwater Management

Stormwater management and flood and erosion control along Schuylkill County's creek and stream corridors are linked to upstream land development practices. Future development of residential, commercial, industrial, and institutional uses may result in increased discharge rates into these creeks during and following major storms. The county, with funding assistance from the Pennsylvania Department of Environmental Protection, should initiate watershed studies with the participation of relevant municipalities. These studies should focus on potential effects of land development upon discharge rates into creeks and streams, and should lead to model subdivision and land development regulations to assure that developments use the best available technology to minimize off-site stormwater runoff, increase on-site infiltration, minimize off-site discharge of pollutants, and encourage natural filtration functions. Best available technology may include measures such as detention and retention basins, recharge trenches, porous paving and piping, contour terraces, and swales. It is essential that local land development regulations be based on watershed wide considerations.

Wetlands

Another important level of environmental sensitivity is represented by wetlands; generally areas within forested lands with a high water table and poor drainage, and having some degree of surface ponding during the year (Figure 2.4.2). Under the jurisdiction of the US Army Corps of Engineers and the State Department of Environmental Protection, there is at the present time a steadily evolving regulatory framework concerning wetlands in Pennsylvania; mandating wetland surveys by developers of land and controlling the degree and type of wetland disturbance permitted. Counties and municipalities can provide long-term wetlands protection by directing development away from these areas, by encouraging clustered construction on higher ground surrounding wetlands, and by purchasing wetlands important to protecting local floodplains or ecological systems.

The Growth Management Plan permanent open space system incorporates a variety of natural resource areas, including floodplains and significant wetlands, where known.

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Aquifer Recharge and Well Head Areas

As outlined in Chapter 2, Section 11, and Section 11 of this chapter, groundwater is the source of approximately half of residents' drinking water in Schuylkill County. It is therefore essential that zoning and other land development regulations be employed to protect well heads and aquifer recharge areas. Well head protection zones should extend at least 1/4 mile from each major water supply well, prohibiting within the zone commercial, industrial, or other facilities that might pollute the well. Protection of each well's aquifer should be ensured by limiting the type of development permitted throughout the recharge area (also see Section 9 of this chapter).

For the residents and businesses in the county that obtain their drinking water through reservoirs, source water supply watershed protection should be enacted. Aquifers underlie areas of the county and feed springs that supply area streams and creeks. Efforts to protect water at its sources should be undertaken at the local and county levels, in addition to state regulations.

The Land Use Plan reveals a generous proportion of the county intended for *Parks, Permanent Open Space, Resource Protection & Recreation* uses that can act as an extensive aquifer recharge area and assure a permanent framework for source water recharge even as development may proceed into the future. Schuylkill County should employ this framework for source water recharge and protection of source water quality. A key technique is adoption of appropriate land use regulations, including those that would:

- Maintain an overall low intensity of development through large portions of the county designated as *Parks, Permanent Open Space, Resource Protection & Recreation*;
- Provide incentives for clustered residential development;
- Conserve woodlands;
- Encourage the use of infiltration technology for sewage treatment, when appropriate.

Riparian Buffers

One of the chief ways in which stream course water quality may be affirmed or improved is through the maintenance of riparian buffers. A riparian buffer is a corridor of varying width adjacent and generally parallel to a stream or similar water course, extending for some distance back from the stream bank. Ideally, the buffer is wooded, shading and cooling the water, trapping

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nutrients and sediment runoff, stabilizing stream banks, and providing food and cover for aquatic and terrestrial wildlife.

The characteristic combination of a floodplain with a stream course and the frequent association of environmental-sensitive areas such as wetlands and steeply-sloped terrain, in addition to woodlands, with streams, can begin to define a specific dimensional width to a riparian buffer. Many municipalities have adopted riparian buffer provisions into their zoning ordinances, limiting the development of lands within a certain distance of a stream bank, and taking into account whether floodplains, wetlands, steeply-sloped terrain, and woodlands are present.

Applying the concept of riparian buffers to critical source water resources and not only to stream courses is another way to protect water quality. The appropriate type and size of buffer would depend on the type of resource and the geography that is present.

Wildlife and Plants

According to the United States Department of the Interior, Fish and Wildlife Service, except for occasional transient species, no federally-listed or -proposed threatened or endangered species are known to exist in the county. Several animal and plant species on state threatened or endangered lists have been observed in the county at dates varying from the 1920s through 1990. More recent sightings have been mapped in an extremely general way by the *Natural Areas Inventory of Schuylkill County, Pennsylvania, 2003* (Figure 2.17.1), and this information should be consulted by the county when reviewing proposed development. Where there is a suspicion that threatened or endangered habitats or species may be present, more detailed field studies should be undertaken by the developer.

Other Natural Features

A further level of environmental sensitivity includes the following resources: Mature woodlands; areas of steep slope or erodible soils; and areas having a seasonal high water table within six inches of the soil surface. These features, especially where occurring in combination, suggest that little or no development should take place or that development should be severely curtailed and closely regulated. The policy of the county toward these environmentally sensitive areas should be one of discouraging development wherever possible to prevent destruction of important resources or to protect residents of the county from future problems.

The chief instrument that the county and its townships and boroughs will have at their disposal to protect these areas will be the encouragement or requirement of cluster development and the flexible gross density development approach in

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residential areas. By requiring developers to base the number of dwelling units allowed to be built on the gross developable acreage of their development parcels, areas designated by the county and its municipalities as being environmentally sensitive are more likely to end up being set aside.

It must be recognized that maps of environmentally sensitive areas are accurate to a general level only. Developers should be required as a matter of county and local policy to undertake more detailed field studies of specific parcels proposed for development that will verify or modify the precise location of the sensitive features on the county-wide or municipal-wide maps. If such studies are required, especially where there is a strong suspicion or known presence of environmentally sensitive features, developers will be more aware of the need to protect scarce resources and to avoid future problems at an early point in the development process, leading to better land planning and design solutions in the long run.

Environmental Protection Policies -- Summary

1. *Monitor and update, as needed, maps and other inventories of environmentally sensitive resources in the county, and make this information known to local municipalities, authorities, and other public and private organizations.*
2. *Prepare and promote model regulations for the protection of environmentally sensitive resources and assist municipalities in the adoption of such controls.*
3. *Review each development proposal to determine its possible effects on environmentally sensitive resources and promote ways to minimize their impairment.*
4. *In conjunction with the state and local municipalities, conduct watershed studies focused on land development's effects on stormwater discharge.*

Chapter Four: Implementation Strategy

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The Need for Action

The comprehensive plan is a blueprint for the future for Schuylkill County, showing how growth and redevelopment can be guided and managed -- to preserve farmland, to provide new economic opportunities, to conserve historic and rural resources, and to revitalize existing communities.

The benefits of managed growth are many, but may be realized only through concerted efforts on the part of residents of Schuylkill County. County government may take the lead, but it must be joined by local municipalities and by other public agencies and private organizations. Deliberate, cooperative steps to bring this plan into effect can make managed growth a reality for Schuylkill County. Delayed or disjointed planning efforts are likely to mean that the current opportunity to direct growth to specific areas and to ensure that development occurs in suitable ways will be missed, and the special qualities of Schuylkill County will become diminished.

The Schuylkill County Comprehensive Plan is a call to action. The Implementation Strategy chapter provides specific sequences of steps for the county, its municipalities, local agencies, the state, and others to make the future vision of the county embodied in the Growth Management Plan a reality.

The County Role

In taking the lead towards managing growth, the county needs to mobilize its own resources and to bring them to bear on the issues raised by the County Comprehensive Plan. The Implementation Strategy outlined in this chapter calls for a higher profile county planning role over the coming years. The Implementation Strategy also calls for a higher profile local planning role, and Schuylkill County municipalities will be looking to the county to help them get started on a path of more and better planning. The county government, with its unique position of administrator of zoning or subdivision and land development for more than half of local municipalities, invariably must be the lead agency in the implementation of the County Comprehensive Plan.

Schuylkill County municipalities will require county assistance in addressing planning problems, including preparation of local planning and zoning documents and continuing planning assistance. The county should consider developing a formal Planning Assistance program with local governments, encompassing the delivery of specialized professional planning services from the Office of Planning and Zoning to local governments under contractual terms favorable to local governments and/or the distribution of small grants to municipalities to assist them in engaging their own professional planning expertise.

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As the diagrams following illustrate, there is plenty of work to be done to implement the plan. Actions are required by all the actors influencing the future direction of Schuylkill County, but it is up to the County Commissioners and the Office of Planning and Zoning to begin the process.

Information Gathering, Processing, Storage and Retrieval

The county uses current and emerging computer and data processing technology for processing, storing, and retrieving information regarding subdivision, land development, and zoning applications and approvals. In addition to the electronic databases that the Planning & Zoning Department maintains, the Schuylkill County Real Estate/Engineering Department has developed a mature Geographic Information System (GIS) application for the purpose of managing tax assessment records and geographically linking them with tax parcels. While the Planning and Zoning Department does not currently utilize this technology for managing subdivision, land development, and zoning records, there is the potential in the future to directly link the county's existing GIS information through tax code information to computerized document management and permit management. In this way, documents could be linked electronically in the GIS system to their subject parcels for ready access. The Planning and Zoning Department should continue to investigate the feasibility for integrating GIS technology to improve the management and retrieval of zoning, subdivision, and land development records.

County staff should prepare an annual report to County Commissioners and the Planning Commission summarizing development activities in the county. The compilation and publication of the following data would be useful in documenting the character and quantity of change in the community over time and would be extremely useful in the day-to-day administration of its planning and zoning activities. The items recommended for inclusion in the report are as follows:

- Population estimates
- School population
- Employment estimates
- Development activity summary (new development & redevelopment)
- Residential development
 - New housing units, by type
 - Acres of residential development
 - Acres of private and dedicated open space

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- New nonresidential construction
 - Acres of new development by land use
 - Gross floor area by use
- Changes of zoning

Planning Commission Annual Plan

The Planning Commission should, as an annual agenda item, should formally undertake the Planning Commission Annual Plan, which should:

- Review the degree of accomplishment of the previous year's objectives;
- Summarize studies or projects finished or underway;
- Identify comprehensive plan recommendations that are planned to be addressed in the next year;
- Plan for future projects or studies, including issues that the Planning Commission intends to review or initiate and ordinances that require review.

Required Actions

In the diagrams that follow, the policy statements that conclude and summarize each section of the Growth Management Plan (Chapter 3) are followed by sequences of actions required by various bodies and groups to implement each policy statement.

The most critical actions include the preparation and adoption of local comprehensive plans and development regulations consistent with the new County Comprehensive Plan by all of Schuylkill County's municipalities that administer their own regulations. It follows that successful implementation of the County Comprehensive Plan in these independent municipalities relies to a very great extent on municipal follow-through on the ideas presented in the plan. The county role in promotion of the plan, in administration of county zoning, subdivision and land development ordinances, in education, and in preparing planning tools and demonstration studies is an essential part of the overall implementation process.

The highest priority action items and studies are summarized in Table 4.1.1, Action Plan for Implementation of the Comprehensive Plan. Detailed implementation steps are outlined in Table 4.1.2, Implementation Steps for the Comprehensive Plan.

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Table 4.1.1: Action Plan for Implementation of the Comprehensive Plan

<u>Action</u>	<u>Timing</u>	<u>Primary Responsible Parties</u>
1. Adopt the Comprehensive Plan	Immediate	Commissioners
2. Adopt the Open Space and Greenway Plan	Immediate	Commissioners
3. Undertake Sewer Service Area Study	Within 1 yr.	Office of Planning & Zoning/Planning Commission
4. Establish County Historical Advisory Board/Commission	Within 1 yr.	Commissioners
5. Establish County Environmental and Open Space Subcommittee	Within 1 yr.	Commissioners
6. Update Cultural Resources Inventory	Within 2 yrs.	Historical Advisory Board/Commission
7. Update County Zoning Ordinance	Within 2 yrs.	Planning Commission
8. Update Subdivision & Land Development Ordinance	Within 2 yrs.	Planning Commission
9. Undertake Economic Development Strategy Study	Within 3 yrs.	Commissioners/SEDCO
10. Update Municipal Zoning and Subdivision & Land Development Ordinances	Within 3 yrs.	Individual Municipalities
11. Prepare Urban Design Plans for Interchange Activity Centers	Within 3 yrs.	Planning Commission
12. Implement Mine Reclamation Plan	Within 3 yrs.	Planning Commission
13. Implement the Open Space and Greenway Network	Within 5 yrs.	Environmental and Open Space Commission
14. Implement Interchange Activity Center Urban Design Plans	Within 6 yrs.	Planning Commission
15. Review the Comprehensive Plan, Consider an Update	Within 10 yrs.	Planning Commission

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan

LAND USE					
Policy Statement	Actors	1)	2)	3)	4)
1) Promote the basic Growth Management Plan concepts of growth areas, resource conservation areas, and permanent open space and preservation areas, and their configuration in the Land Use Plan. 2) Assist municipalities in the preparation and adoption of local comprehensive plans and land use controls consistent with the Land Use Plan.	Schuylkill County	1) Increase staffing of planning office to be able to provide higher levels of assistance to municipalities. 2) Make presentations, municipality by municipality, offering follow-up technical assistance. 3) Encourage municipalities to adopt comprehensive plans that are consistent with the county plan.	1) Prepare model zoning ordinances and other land development controls, present to each municipality. 2) Invite municipal participation in technical assistance programs, consider funding incentives. 3) Update county zoning ordinance for municipalities without local zoning control.	1) Update local comprehensive plans with participating communities. 2) Tailor model ordinances to specific municipalities' needs.	1) Assist municipalities in adoption of updated land development controls. 2) Monitor land development controls success; assist in revisions if needed.
	Municipalities	1) Review local plan and land development controls; update needs in light of recent development activity and County Comprehensive Plan.	1) Participate in county technical assistance programs	1) Update local plan and land development controls.	1) Monitor updated plans and controls; revise as needed.
3) Assist municipalities and land developers in the planning and design of additions to existing built-up areas and new residential, employment, and mixed-use areas, consistent with the Land Use Plan.	Schuylkill County	1) Encourage municipalities to promote infill development, orderly borough, village, and city expansions, Interchange Activity Centers, and various forms of residential clustering.	1) Prepare model plans for recommended types of development; present to municipalities and developers. Develop design guidelines.	1) Provide technical assistance programs with municipalities entailing design assistance for newly emerging types of development.	1) Monitor development implementation and gauge degrees of success. Revise process and technical aspects as needed.
	Municipalities	1) Communicate county and local planning and design directions to prospective developers.	1) Monitor model plans, design guidelines; recommend revisions.	1) Coordinate and review developer- and county-initiated plans.	1) Enter into formal agreements with developers prior to approving plans. Supervise implementation.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

LAND USE - Continued					
Policy Statement	Actors	1)	2)	3)	4)
	Developers	1) Prepare plans consistent with new directions embodied in County Comprehensive Plan and relevant local plans.	1) Enter into process of early coordination of any proposed plans and designs with county and local municipality.	1) Work towards consensus with local and county planners.	1) Implement proposed development.
4) Encourage the establishment of employment centers in designated areas.	Schuylkill County	1) Coordinate activities of municipalities, sewer authorities, Schuylkill County Economic Development Corporation (SECDO), and Pennsylvania Department of Transportation (PennDOT) to work towards establishing serviced sites in designated areas.	1) Prepare model plans and designs for employment centers.	1) Conduct site-specific planning and design technical work with prospective investors, municipalities, local authorities, etc.	1) Monitor development implementation. Coordinate intergovernmental and interagency cooperation.
	Municipalities	1) Participate with county efforts to establish employment centers.	1) Review model plans and designs.	1) Coordinate specific employment center promotion, planning, design, and development with county, other relevant agencies, and prospective developers.	1) Enter into formal agreements with developers. Supervise implementation.
	SECDO	1) Promote Schuylkill County to selected employment sites to prospective developers.	1) Review model plans and designs.	1) Assist local municipalities and county in site-specific development promotion and implementation.	1) Provide technical expertise in formal agreement execution. Monitor process.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

LAND USE - Continued					
Policy Statement	Actors	1)	2)	3)	4)
5) Direct new commercial activity to existing village, borough and city cores and new mixed-use centers, in conformance with the Land Use Plan.	Schuylkill County	1) Assist municipalities in the creation/updating of local comprehensive plans.	1) Prepare model zoning ordinances and other land development controls for existing communities, Interchange Activity Centers; present to local municipalities; encourage adoption.	1) In consultation with municipal officials and land developers, prepare model plans for village, borough, and city cores and Interchange Activity Centers.	1) Monitor development implementation; assist local municipalities as required.
	Municipalities	1) Update local comprehensive plans consistent with County Comprehensive Plan. Survey and inventory potential Interchange Activity Centers areas, with emphasis on land use, traffic, parking, and community character.	1) Adopt updated zoning and other land development controls to promote commerce while protecting community values. 2) Enforce new regulations.	1) Promote Interchange Activity Center concepts in communities and to prospective developers.	1) Implement development consistent with new controls and design guidelines.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

CIRCULATION					
Policy Statement	Actors	1)	2)	3)	4)
1) Continue to plan at the regional and county levels to identify and prioritize transportation projects that manage congestion, eliminate hazardous conditions, improve public safety, and direct growth to the areas of the county identified in the Growth Management Plan.	Schuylkill County	1) Continue to identify and update needs as part of the county's TIP and Long Range transportation plan priorities. 2) Assist municipalities in updating the transportation component of comprehensive plans. 3) Participate in regional planning with Northeastern Pennsylvania Alliance (NEPA) including the regional Long Range Transportation Planning effort.	1) Monitor feasibility and environmental studies as part of new projects. 2) Encourage participation and cooperation of municipalities and stakeholder groups in feasibility and environmental studies.	1) Facilitate implementation of circulation improvements consistent with the comprehensive plan.	
	Municipalities	1) Update local comprehensive plans.	1) Participate in feasibility and environmental studies.		
2) Preserve and enhance the scenic qualities of county roadways. 3) Respect the integrity of contiguous historic structures and settings in the course of planning and implementing roadway improvements. 4) Continue to incorporate open space and greenway connections along roadways in the county.	Schuylkill County	1) Coordinate transportation objectives with environmental and cultural objectives to preserve and document resources.	1) Incorporate greenways and development of non-motorized transportation options needs with transportation and other improvement projects.	1) Facilitate implementation of Open Space and Greenway systems that add to the transportation network.	
	Municipalities	1) Coordinate historic, landscape, and open space and greenway objectives with local transportation objectives.	1) Identify additional opportunities to promote objectives as part of Comprehensive Plan and Open Space and Greenway Plan implementation.	1) Work with other public agencies and private sector interests to implement objectives.	

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

CIRCULATION – Continued					
Policy Statement	Actors	1)	2)	3)	4)
5) Continue to provide for the changing public transportation needs for county residents.	Schuylkill County	1) Coordinate transportation and development projects with Schuylkill Transportation System (STS). 2) Promote new economic development and business plans and land use strategies that would benefit existing and future transit riders.			
	Municipalities	1) Coordinate objectives with county and STS to serve local populations with transit and paratransit needs and encourage additional transit use.			
	STS	1) Keep county and municipalities informed of plans for new or significant changes to existing transit and paratransit services.	2) Work with county and employers to establish new transit links.		
6) Support the use of existing railroad lines located in the county for freight rail and excursion rail.	Schuylkill County	1) Coordinate county economic development and tourism objectives with the imperatives of rail owners and users.	1) Identify opportunities to develop rails-to-trails projects consistent with the Open Space and Greenway Plan.		
	Municipalities	1) Coordinate local land use objectives with county and with rail owners, operators, and users.	1) Work with county to identify opportunities for rails-to-trails projects.		

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

CIRCULATION - Continued					
Policy Statement	Actors	1)	2)	3)	4)
	Reading, Blue Mountain and Northern Railroad	1) Inform county and local municipalities regarding changes to or expansion of services.	1) Work with county and local municipalities on rails-to-trails opportunities.		
6) Continue to balance the objectives of the Schuylkill County Airport with county needs for economic development and needs of adjacent local communities.	Schuylkill County	1) Coordinate county economic development objectives with the objectives of airport operators and users.			
	Municipalities	1) Coordinate local land use objectives with county and airport.			
	Schuylkill County Airport	1) Inform county and local municipalities regarding changes to services at airport.			

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

HOUSING					
Policy Statement	Actors	1)	2)	3)	4)
1) Assist municipalities in the preparation and adoption of local comprehensive plans and land use controls consistent with the County Comprehensive Plan. 2) Promote residential clustering through the preparation of model zoning ordinances and their adoption by municipalities. 3) Advocate construction of new medium and medium-high density housing at appropriate locations within designated growth areas. Encourage redevelopment and rehabilitation of existing medium and medium-high density housing types within growth areas. 4) Generate and publicize model land use controls and other means which would create additional affordable housing opportunities and accommodate residents with special housing needs.	Schuylkill County	1) Assist municipalities to create/update local comprehensive plans consistent with the housing element of the County Comprehensive Plan.	1) Devise model zoning provisions consistent with the housing element of the Comprehensive Plan; present to each municipality. 2) Promote innovative techniques to reduce housing sprawl including agricultural zoning, cluster development, and small-lot single family detached and mixed structural types constructed in growth areas. 3) Promote innovative approaches to reducing housing costs, including performance subdivision regulations, streamlined approvals process and provisions for residential conversions, accessory apartments and shared housing. 4) Promote rehabilitation and selective redevelopment of housing in existing communities.	1) Assist municipalities in the preparation and adoption of local land use controls.	1) Monitor local regulations implementation.
	Municipalities	1) Create/update local comprehensive plans in consultation with county.	1) Analyze local housing needs, coordinate finding with county studies.	1) Adopt appropriate land use controls to meet local housing needs.	1) Revise and update regulations as community grows and/or changes.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

HOUSING - Continued					
Policy Statement	Actors	1)	2)	3)	4)
5) Facilitate water and sewer system improvements, including extensions of existing systems and creation of new ones, consistent with the Land Use and Housing Plans.	Schuylkill County	1) Review current 537 plans and water service facilities plans in light of new County Comprehensive Plan; prepare County recommendations for updates and revisions to selected plans.	1) Recommend to local municipalities and DEP 537 plans and water service plans that are consistent with County Comprehensive Plan and County's 537 updates' recommendations.	1) Review 537 plan and water service plans amendments. 2) Encourage local municipalities and authorities, other public and private agencies, and developers to steer growth to areas consistent with 537 plans and water service plans.	1) Provide technical assistance for implementation of 537 plans and water service plans.
	Municipalities/ Authorities	1) Review local 537 and water service facilities plans for consistency with County Comprehensive Plan and any evolving local comprehensive plans. 2) Coordinate research with county efforts, communicate findings with county and state; coordinate recommendations with county, state, and neighboring municipalities.	1) Update local 537 and water service plans as to be consistent with the County Comprehensive Plan	1) Coordinate local planning and development approvals with newly-updated 537 and water service plans.	1) Implement new 537 and water service plans through development approvals process, including developer agreements and municipal capital improvements programs.
	Pennsylvania Department of Environmental Protection (DEP)	1) Monitor review process for 537 and water service facilities.	1) Support county and local efforts to steer growth to areas designated in County Comprehensive Plan.	1) Approve local 537 and water service plans consistent with County Comprehensive Plan.	1) Provide technical, administrative and funding support to implement approved 537 and water service plans.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

COMMUNITY FACILITIES					
Policy Statement	Actors	1)	2)	3)	4)
1) Review all development proposals to determine their probable effects on public services, including schools, emergency services, recreation, and administrative services.	Schuylkill County	1) Determine consistency of proposals to comprehensive plan goals, objectives, and policies.	1) Advise developers, local municipalities, and service providers as to implications of development proposals for community facilities.	1) Recommend alternative strategies to maximize public benefits, minimize public costs.	1) Provide technical assistance and, in some cases, funding assistance to implement community facilities improvements.
	Municipalities	1) Review development proposals to determine local impacts.	1) Coordinate county and local impact determinations, advise developers and local service providers.	1) Monitor developer responses; coordinate county, local service provider strategies.	1) Monitor implementation of community facilities improvements.
	Service Providers	1) Review proposals to determine agency/organization impacts.	1) Develop agency/organization strategies to address impacts.	1) Develop improvements implementation program.	1) Implement facilities improvements.
2) Coordinate county land use planning and school plant development so as to ensure the most efficient use of current and projected space and equipment, and accommodate general resident needs for community facilities.	Schuylkill County	1) Monitor demographic changes, land development patterns, and resident recreational preferences.	1) Provide technical assistance to school districts in capital improvements programming, facility planning, and programming.	1) Coordinate facility planning and programming with school districts.	1) Monitor improvements implementation.
	School Districts	1) Conduct long-range facilities planning consistent with population and development trends.	1) Update capital improvements program.	1) Conduct detailed facility planning and programming with county input.	1) Implement facilities improvements.
3) Evaluate the range of existing and potential community services and determine the best locations for service providers to meet current and projected needs.	Schuylkill County	1) Review providers' programs, facility types, and locations.	1) Advise local municipalities and service providers as to short-range improvements and long-range projected facility needs.	1) Coordinate facility planning and programming with service providers.	1) Monitor improvements, reevaluate community needs and services' programs and locations.
	Service Providers	1) Coordinate short-, medium-, and long-range planning with county.	1) Conduct preliminary capital improvements programming.	1) Conduct detailed facility planning and programming.	1) Implement improvements.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

COMMUNITY FACILITIES – Contd.					
Policy Statement	Actors	1)	2)	3)	4)
4) Implement recommendations of the Schuylkill County Open Space and Greenway Plan, including providing support to local municipalities in planning for open space, parks, and recreation in their communities.	Schuylkill County	1) Assist local communities in the planning and development of the open space and greenway network. 2) Assist local communities in updating local comprehensive plans and ordinances to effect the study's recommendations.	1) Implement the County Open Space and Greenway Plan through coordinated actions with the state government, municipalities, school districts, other service providers, and interest groups.		
	State Government	1) Support county and local efforts through technical and financial assistance.	1) Continually monitor study implementation stressing conceptual and physical integration of open space and greenway areas and functions.		
	Municipalities	1) Integrate local planning with study recommendations. 2) Review local planning relevant to county study. 3) Prepare detailed open space, greenway, and recreation planning, programming, and funding strategies.	1) Implement local facility improvements and update recreational programming.		

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

CULTURAL, HISTORIC, AND LANDSCAPE RESOURCES					
Policy Statement	Actors	1)	2)	3)	4)
1) Promote the preservation of historic resources through creation of county preservation programs and by encouraging participation of municipalities and other local groups in such programs.	Schuylkill County	1) Create County Historical Advisory Board/Commission. 2) Establish County Planner/Historic Preservation Officer. 3) Define roles, procedures, and guidelines. 4) Continue and reinforce assessment of impacts on historic resources as part of county subdivision and land development review process.	1) Investigate potential for establishing Certified Local Governments in communities with Act 167 Historic Districts. 2) Promote different types of historic commissions and preservation ordinances for communities. 3) Support Main Street/Elm Street program development in communities. 4) Investigate potential grant programs. 5) Research and create model historic overlay zoning ordinances. 6) Establish priorities for new National Register nominations. 7) Coordinate with programs of Schuylkill County Historical Society and Schuylkill County Conservancy.	1) Promote and create incentives for participation by municipalities in county inventory of historic resources. 2) Promote adoption of historic overlay zoning model ordinance by municipalities. 3) Promote and create incentives for establishment of ordinances and programs that preserve resources in municipalities. 4) Undertake or support program for new National Register nominations.	1) Promote, monitor, and assist in programs undertaken by municipalities. 2) Continue support of programs for new National Register Nominations. 3) Continue program of community education. 4) Continue support of Schuylkill County Historical Society programs.
	Municipalities	1) Monitor and cooperate with county actions.	1) Create municipal historical commissions and/or preservation ordinances. 2) Define role and processes for historical commissions. 3) Initiate historic resource inventory program.	1) Adopt historic overlay zoning ordinances. 2) Initiate program of community education.	1) Continue implementation and refinement of historic overlay zoning in municipal review process.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

CULTURAL, HISTORIC, AND LANDSCAPE RESOURCES – Continued					
Policy Statement	Actors	1)	2)	3)	4)
	Advocacy Groups	1) Monitor and cooperate with county actions. 2) Initiate program of community actions consistent with county actions.	1) Lobby municipalities for creation of historical commissions and/or preservation ordinances. 2) Provide information and expertise to historical commissions. 3) Monitor and cooperate county actions.	1) Lobby municipalities for participation in inventory program and adoption of historic overlay zoning. 2) Undertake or support program for new National Register nominations. 3) Participate in program of community education.	1) Continue and expand actions previously listed.
2) Encourage the preservation of natural resources associated with historic and cultural resources by creating model ordinances and promoting their adoption and enforcement throughout the county.	Schuylkill County	1) Research and create model ordinances and regulations. 2) Initiate program of community education. 3) Initiate dialogue with municipalities.	1) Promote adoption of model ordinances. 2) Create incentive programs for adoption. 3) Assist municipalities in adoption and implementation.	1) Provide information and expertise to municipalities and advocacy groups. 2) Monitor implementation. 3) Refine model ordinances.	
	Municipalities	1) Create environmental task force to study local issues and conditions, and make recommendations to local governing body. 2) Participate in community education programs.	1) Review, customize and adopt model ordinances and regulations. 2) Educate municipal bodies and public in implementation process.	1) Implement ordinances and regulations. 2) Monitor results and refine ordinances and process.	
	Advocacy Groups	1) Participate in community education programs.	1) Lobby municipalities for adoption and implementation. 2) Provide information and expertise to municipalities.	1) Monitor implementation.	

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

CULTURAL, HISTORIC, AND LANDSCAPE RESOURCES – Continued					
Policy Statement	Actors	1)	2)	3)	4)
3) Promote the preservation of landscape character and scenic resources through agricultural preservation programs, adoption of model ordinances, implementation of an open space plan, and comprehensive planning and land development controls in growth areas.	Schuylkill County	1) Create County Environmental and Open Space Subcommittee. 2) Define role, procedures, and guidelines for commission. 3) Research and outline guidelines for comprehensive plans for growth areas. 4) Initiate agricultural preservation programs. 5) Initiate program for community education.	1) Promote municipal comprehensive plans for growth areas. 2) Research and create model ordinances and design guidelines for growth areas. 3) Implement agricultural preservation programs.	1) Phase implementation of County Open Space and Greenway Plan. 2) Promote municipal open space plans. 3) Promote and create incentives for municipal adoption of ordinances and design guidelines in growth areas.	1) Continue phased implementation of County Open Space and Greenway Plan. 2) Promote and implementation of municipal open space plans.
	Municipalities	1) Monitor and cooperate with county actions. 2) Initiate agricultural zoning programs.	1) Create comprehensive plans for growth areas. 2) Implement agricultural zoning programs.	1) Adopt and implement ordinances and design guidelines for growth areas. 2) Prepare municipal open space and recreation plans. 3) Continue implementation of agricultural zoning programs.	1) Implement and refine ordinances and design guidelines for growth areas. 2) Phase implementation of municipal open space and greenway plans.
3) Promote the preservation of landscape character and scenic resources through agricultural preservation programs, adoption of model ordinances, implementation of an open space plan, and comprehensive planning and land development controls in growth areas (cont'd).	Advocacy Groups	1) Monitor and cooperate with county actions. 2) Initiate program for community education. 3) Research methods and funding sources for land stewardship programs and conservation activities.	1) Lobby and provide technical expertise to municipalities. 2) Initiate land stewardship programs.	1) Continue and expand actions previously listed.	

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

OPEN SPACE					
Policy Statement	Actors	1)	2)	3)	4)
1) Establish a county-wide network of open space and greenways. 2) Implement recommendations of the Schuylkill County Open Space and Greenway Plan including providing support to local municipalities in planning for open space in their communities. 3) Coordinate efforts with partner organizations to preserve and promote the open space network at the regional and state levels.	Schuylkill County	1) Assist municipalities to create/update local comprehensive plans consistent with the County Comprehensive Plan. 2) Coordinate open space protection efforts with other levels of government and land protection advocacy groups. 3) Review land development plans and make recommendations to ensure compatibility with the system outlined in the Open Space and Greenway Plan. 4) Work with Schuylkill County Conservancy to increase organization's capacity in the area of preserving environmentally valuable land in the county.	1) Assist municipalities in the preparation and adoption of local land use controls cognizant of the Open Space and Greenway Plan. 2) Support private efforts to establish and maintain the open space and greenway system. 3) Coordinate with state government so that their open space protection and development plans are integrated with county and local plans.	1) Consider a direct county role in open space programming. 2) Consider approving a county bond issue for the acquisition of open space, recreation, and greenway land.	1) Assist municipalities in the planning and development of parts of the open space system. 2) Monitor the open space, greenway, and recreation development efforts of other levels of government and private groups; coordinate planning and programming.
	State Government	1) Prepare open space and greenway plan updates for state-owned lands that are compatible with the County Comprehensive Plan and Open Space and Greenway Plan. Coordinate efforts with county.		1) Provide technical and financial assistance toward local open space, greenway, and recreation facility implementation.	

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

OPEN SPACE – Continued					
Policy Statement	Actors	1)	2)	3)	4)
	Municipalities	1) Create/update local comprehensive plans and open space plans consistent with the County Comprehensive Plan and Open Space and Greenway Plans. 2) Coordinate open space and greenway protection efforts with adjacent municipalities.	1) Adopt new land use controls to protect open space; e.g. prohibition of development in floodplains.	1) Plan for local recreation facilities and open space acquisition and development needs. 2) Monitor county open space and greenway planning. 3) Participate in watershed studies.	1) Implement local facility improvements.
	Schuylkill County Conservancy	Work with county to increase organization's capacity in the areas of preserving environmentally valuable land in the county.			
AGRICULTURAL RESOURCES					
Policy Statement	Actors	1)	2)	3)	4)
1) Reduce development pressure on farmland by controlling the location of new infrastructure.	Schuylkill County	1) Oppose extensions of sewer lines before DEP in areas planned for agriculture. 2) Oppose extensions of water mains before PUC in areas planned for agriculture. 3) Oppose extensions of highways before PennDOT in area planned for agriculture.	1) Require that municipalities adopt appropriate zoning regulations before the county gives approval or commits funds for highways or utility lines that necessarily traverse areas planned for agriculture.		
	Municipalities	1) Revise comprehensive plans to conform with County Comprehensive Plan.	1) Delineate agricultural zoning districts and adopt agricultural zoning provisions.		

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

AGRICULTURAL RESOURCES – Continued					
Policy Statement	Actors	1)	2)	3)	4)
2) Encourage municipalities to enact effective agricultural zoning.	Schuylkill County	1) Develop model agricultural zoning ordinances and provide technical assistance to municipalities. 2) County Agricultural Preservation Board revises rating system to give much more weight to existence of agricultural zoning.	1) Conduct workshops on agricultural lands protection.		
	Municipalities	1) Revise comprehensive plans to conform with County Comprehensive Plan.	1) Delineate agricultural zoning districts and adopt agricultural zoning provisions.		
3) Prevent the division of farmland into small tracts.	Schuylkill County	1) Conduct study of farm core size by sub-region of county.	1) Develop model ordinances and provide technical assistance to municipalities.		
	Municipalities	1) Revise comprehensive plans to conform with County Comprehensive Plan.			
4) Continue the acquisition of conservation easements on farmland and focus their location.	Schuylkill County	1) County Agricultural Land Preservation Board adopts policy to consider only sites in County Plan designated for continuation in agriculture. 2) County Agricultural Land Preservation Board revises rating system to give much more weight to existence of strong agricultural zoning.	1) Work with Schuylkill County Conservancy to increase organization's capacity in the areas of preserving farmland and environmentally valuable land in the county. 2) Appropriate additional funds necessary to match the maximum available from the state.		

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

AGRICULTURAL RESOURCES – Continued					
Policy Statement	Actors	1)	2)	3)	4)
	Municipalities	1) Adopt strong agricultural zoning and, thus, encourage farmland owners to offer to sell easements and protect public investments in easements.	1) Encourage owners of farmland in areas designated for continuation in agriculture to enlist their land in an Agricultural Security Area.		
	Schuylkill County Conservancy	1) Work with county to increase organization's capacity in the areas of preserving farmland and environmentally valuable land in the county.			
5) Strengthen the agricultural economy.	Schuylkill County	1) Expand the functions of the County Agricultural Land Preservation Board to include functions of an agricultural advisory council.			
	Municipalities	1) Permit farm stands, bed-and-breakfasts, and other small home industries in their agricultural zoning districts.	1) Provide appropriate zoning for agricultural support industries.		
6) Reduce potential conflicts between farmers and non-farm residents in areas planned for agriculture.	Schuylkill County	1) Provide technical assistance to municipalities.			

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

AGRICULTURAL RESOURCES – Continued					
Policy Statement	Actors	1)	2)	3)	4)
	Municipalities	1) 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.	1) Require setbacks of 100 feet on all parcels adjacent to any parcel in an area planned for continuation in agricultural use.		
MINE FEATURES RECLAMATION					
Policy Statement	Actors	1)	2)	3)	4)
1) Develop a structured mine reclamation program that balances environmental, economic and community goals.	Schuylkill County	1) Assist municipalities in preparing comprehensive plans consistent with the mine reclamation component of the County Comprehensive Plan.	1) Implement recommendations of County Comprehensive Plan into detailed mine reclamation priorities. 2) Coordinate activities with municipalities as well as with state and federal agencies.	1) Implement mine reclamation priorities.	
	Municipalities	1) Prepare comprehensive plans consistent with the mine reclamation component of the County Comprehensive Plan.	1) Participate in county, state, and federal technical assistance programs and opportunities.		

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

MINE FEATURES RECLAMATION -- Continued					
Policy Statement	Actors	1)	2)	3)	4)
	State & Federal Agencies	1) Coordinate all regional mine reclamation planning with recommendations in the mine reclamation component of the Schuylkill County Comprehensive Plan.	1) Provide technical assistance for county and its local municipalities.		
2) Investigate sources of funding of and innovative approaches to mine reclamation.	Schuylkill County	1) Coordinate with state and federal agencies to investigate sources of funding for mine reclamation programs.	1) Provide information on financial assistance to local municipalities and organizations.	1) Continue to investigate programs that provide funding assistance based upon additional County Comprehensive Plan objectives including those with environmental, open space and greenway, and historic and cultural objectives.	
	Municipalities	1) Coordinate with county for technical and financial assistance needs.	1) Communicate with governmental and other organizations in order to find funding opportunities that meet additional comprehensive plan objectives including those with environmental, open space and greenway, and historic and cultural objectives.		
	State & Federal Agencies	1) Provide information to county and its municipalities on emerging programs and sources of funding for which they may be eligible.	1) Provide technical assistance for grant programs.		

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

UTILITIES					
Policy Statement	Actors	1)	2)	3)	4)
1) Undertake a County Sewer Service Area study to collect comprehensive information about service providers in the county.	Schuylkill County	1) Gather information from municipal and other local authorities to undertake study.	1) Guide implementation of study recommendations.		
	Municipalities	1)) Provide requested information for study.	1) Implement recommendations of study.		
	DEP	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.		
2) Assist municipalities in the review an update of water supply and wastewater treatment facilities plans, consistent with the Growth Management Plan and its projected distribution of population, services, and industry.	Schuylkill County	1) Provide municipalities with guidelines for growth in accordance with the Land Use Plan. 2) Assist municipalities with facilities capacity projections.	1) Assist municipalities with facilities plans preparation. 2) Review facilities plans; obtain revisions as required; approve plans.	1) Assist municipalities in obtaining DEP approval. 2) Provide technical assistance to municipally during construction.	1) Assist municipalities in monitoring capacity versus actual growth patterns. 2) Assist municipalities in review, evaluation and update of facilities plans.
	Municipalities/ Authorities	1) Make growth projections by area and time. 2) Estimate future water supply and wastewater treatment capacities.	1) Prepare updated Act 537 facilities plans and applications for added water supply allocation. 2) Obtain county approval in accordance with county comprehensive plan.	1) Obtain DEP approval. 2) Implement plan - construct new facilities.	1) Evaluate actual growth and capacity requirements versus plan. 2) Review and revise water and wastewater facilities plan as appropriate.
	DEP	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Review and approve facilities plans. 2) Monitor construction progress.	1) Provide technical assistance as requested. 2) Review and approve updated facilities plans.
3) Assist municipalities in the preparation and adoption of regulations for well head and source water supply watershed protection.	Schuylkill County	1) Provide municipalities with guidelines for growth and assist in identifying areas in need of protection.	1) Assist municipalities with determining methods for protection. 2) Assist municipalities with evaluation of potential impacts of regulations.	1) Coordinate protection methods among the municipalities. 2) Assist municipalities, as requested, in adopting/enacting regulations.	1) Assist municipalities in monitoring compliance. 2) Assist municipalities in reviewing success of their protection programs.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

UTILITIES -- Continued					
Policy Statement	Actors	1)	2)	3)	4)
	Municipalities	1) Determine areas to be protected.	1) Determine method to be used for protection - regulations, design standards, or other. 2) Develop protection regulations - evaluate potential impacts.	1) Coordinate with other municipalities and the county. 2) Enact or adopt regulations.	1) Monitor compliance. 2) Review, evaluate, and revise regulations as necessary.
	DEP	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Assist county and municipalities in monitoring compliance. 2) Provide technical assistance as requested.
4) Promote water conservation regulations.	Schuylkill County	1) Assist municipalities in determining appropriate water conservation methods.	1) Assist municipalities in coordinating their water conservation programs.	1) Assist municipalities in enacting or initiating their water conservation programs.	1) Assist municipalities in monitoring the success of their water conservation programs. 2) Assist municipalities, as requested, in revising their programs.
	Municipalities	1) Determine appropriate methods - regulations, design standards, codes, or other measures.	1) Evaluate likely impacts of proposed measures - coordinate with other municipalities.	1) Enact or initiate water conservation program.	1) Monitor success of the water conservation program. 2) Review, evaluate, and revise the program as appropriate.
	DEP	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

UTILITIES -- Continued					
Policy Statement	Actors	1)	2)	3)	4)
5) Review and evaluate stormwater management facilities and procedures.	Schuylkill County	1) Provide municipalities with guidelines for growth in accordance with the Land Use Plan.	1) Assist municipalities in preparing estimates of stormwater runoff. 2) Assist municipalities in evaluating the capacities of stormwater facilities.	1) Assist municipalities in developing stormwater management programs-coordinate the programs.	1) Assist the municipalities in preparing Act 167 stormwater management plans by watershed. 2) Review, have revised as necessary, and approve the stormwater management plans per Act 167.
	Municipalities	1) Determine growth projections by area and time.	1) Prepare estimates of stormwater runoff in each area for the next ten to twenty years. 2) Evaluate the capacity of the stormwater channels and facilities to handle the flow.	1) Develop a program for improving the stormwater management in the future; coordinate with county.	1) Prepare stormwater management plan(s) as per Act 167 for each watershed. 2) Obtain approval of the stormwater management plan(s) by the county and DEP.
	DEP	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Prepare stormwater management plan(s) as per Act 167 for each watershed. 2) Obtain approval of the stormwater management plan(s) by the county and DEP.

Chapter Four: Implementation Strategy

Table 4.1.2 Implementation Steps for the Comprehensive Plan (cont'd)

ENVIRONMENTAL PROTECTION					
Policy Statement	Actors	1)	2)	3)	4)
1) Monitor and update, as needed, maps and other inventories of environmentally sensitive resources in the county, and make this information known to local municipalities, authorities, and other public and private organizations. 2) Prepare and promote model regulations for the protection of environmentally sensitive resources and assist municipalities in the adoption of such controls. 3) Review each development proposal to determine its possible effects on environmentally sensitive resources and promote ways to minimize their impairment. 4) In conjunction with the state and local municipalities, conduct watershed studies focused on land development's effects on stormwater discharge.	Schuylkill County	1) Provide municipalities with guidelines for growth and assist in identifying areas needing protection.	1) Assist municipalities with determining methods for resource protection. 2) Assist municipalities with evaluation of potential impacts of regulations.	1) Coordinate resource protection methods among the municipalities. 2) Assist municipalities, as requested, in adopting/enacting regulations. 3) Direct watershed studies, with funding from DEP and participation of affected municipalities.	1) Assist municipalities in monitoring compliance. 2) Assist municipalities in reviewing success of their protection programs.
	Municipalities	1) Determine extent of sensitive areas to be protected.	1) Determine method to be used for protection - regulations, design standards, or other. 2) Develop resource protection regulations, evaluate potential impacts.	1) Coordinate with other municipalities and the county. 2) Enact or adopt regulations.	1) Monitor compliance. 2) Review, evaluate and revise the regulations as necessary.
	DEP	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Provide technical assistance as requested.	1) Assist county and municipalities in monitoring compliance. 2) Provide technical assistance as requested.

RESOLUTION

Whereas, the Board of County Commissioners adopts the following Resolution pertaining to Schuylkill County's Comprehensive Plan and the Open Space and Greenway Plan.

Now, therefore, be it resolved:

WHEREAS, the Comprehensive Plan and the Open Space and Greenway Plan provide guidance for growth, change and protection of green space in Schuylkill County; and

WHEREAS, as these plans are designed to be a "living" document, as they will be reviewed and, if necessary, updated every five (5) years to ensure they remain relevant to our changing communities; and

WHEREAS, as the public was provided an opportunity to participate in the development and review of the plans; and

WHEREAS, the Schuylkill County Planning Commission has recommended that the Schuylkill County Board of Commissioners adopt the proposed plans as an official planning tool; and

WHEREAS, the Schuylkill County Board of Commissioners has provided an opportunity for public comment by releasing the documents to the public on December 20, 2004 and at a public hearing on February 1, 2006.

Resolved and enacted this 22nd day of February, 2006

ATTEST:

COUNTY OF SCHUYLKILL

BY /s/ Jean M. Heffner
Jean M. Heffner, Chief Clerk

BY: /s/ Frank J. Staudenmeier
Frank J. Staudenmeier, Chairman

/s/ Robert S. Carl, Jr.
Robert S. Carl, Jr., Commissioner

/s/ Mantura M. Gallagher
Mantura M. Gallagher, Commissioner