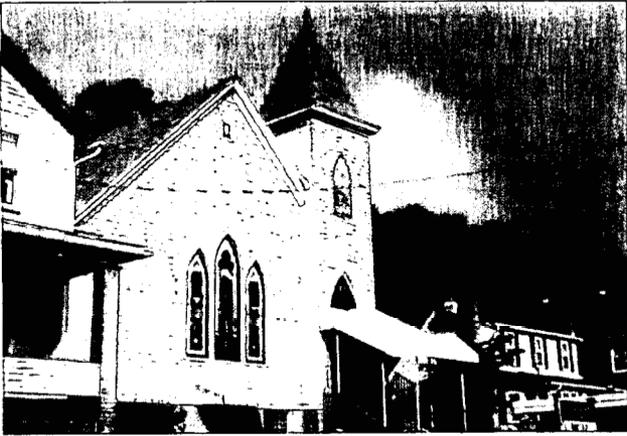


SHALE Multi-Municipal Comprehensive Plan

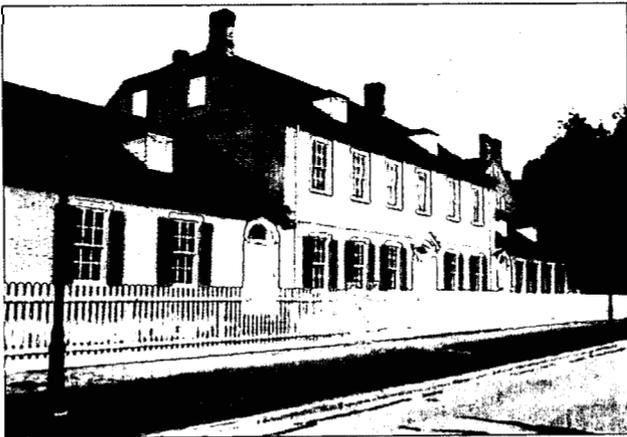
This Multi-Municipal Comprehensive Plan is for South Heights, Ambridge, Harmony, Economy, Municipalities in Beaver County and Leetsdale in Allegheny County. The only municipality in Beaver County that has adopted the plan is Economy Borough.

Rick Packer, Planner, Beaver County Planning Commission

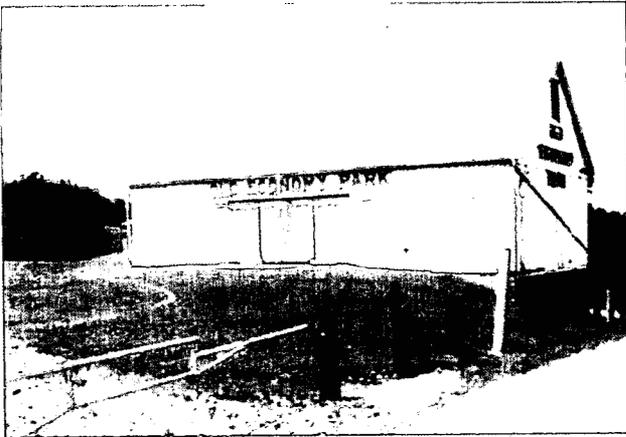
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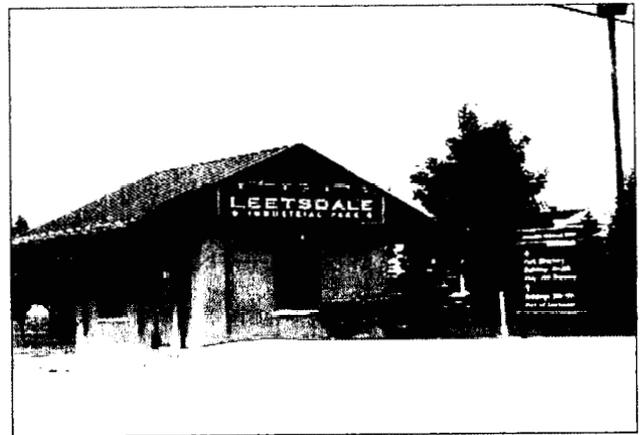
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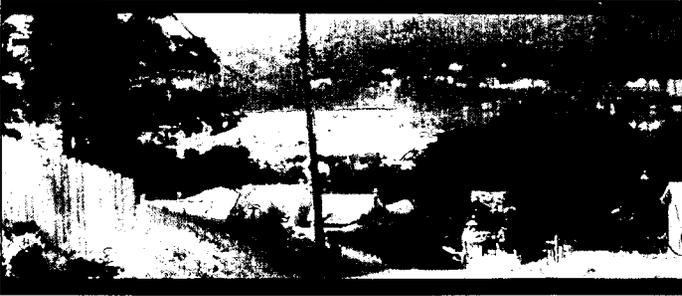
MUNICIPAL



PLAN

A Strategic Vision for Our Future

Prepared by the SHALE Steering Committee and Pashek Associates,
with transportation subconsultants, Herbert, Rowland, and Grubic, Inc.



Existing Land Use Assessment

SHALE EXISTING LAND USE ASSESSMENT

The existing land use was characterized for the region and each municipality over the course of a three-day field view of the area. The purpose of the existing land use assessment is to:

1. Verify and update generalized existing land use data
2. To provide general information on existing land use patterns in the SHALE region (information is not recorded parcel by parcel, but is generalized).
3. To provide a summary of land use trends, and characterize development types and styles for each municipality and the region as a whole.
4. To pinpoint the occurrence of existing land use issues and concerns.

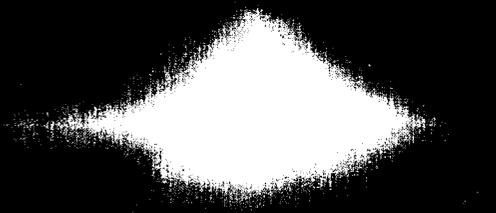
This section includes a summary of land use for the region and the five municipalities according to the following land use categories:

- Residential Land Uses
- Industrial Land Uses
- Commercial/Retail Land Uses
- Open Space/Environmental Features/Parks
- Institutional Land Uses

The Existing Land Use Map on the following page illustrates the differing land uses found within the SHALE region. The map should be referenced when reviewing the description of the SHALE region. Individual maps accompany the discussion for each municipality. The information on the Existing Land Use Map is generalized, and not intended to accurately reflect land use on a parcel by parcel basis.

REGIONAL OVERVIEW

The SHALE region consists of the municipalities of South Heights Borough, Harmony Township, Ambridge Borough, Leetsdale Borough, and Economy Borough. Four of the five municipalities (Ambridge, Harmony, South Heights, and Economy) are located in the southeastern corner of Beaver County, while



Acknowledgments

This multi-municipal comprehensive plan for South Heights, Harmony, Ambridge, Leetsdale, and Economy is a living and working document. The preparation of this plan would not have been possible without the guidance and contributions of the steering committee as well as the input given from local residents and officials.

We would like to thank and recognize the following steering committee members from the five municipalities:

- David Allego, Ambridge Borough
- James Blumling, Economy Borough
- Pam Caskie, Ambridge Borough
- Earl Fitzgerald, Economy Borough
- M.J. Flannery, Ambridge Borough
- Roberta Jones, South Heights Borough
- Randy Kunkle, Economy Borough
- Rob Matzie, Ambridge Borough
- Joseph McGurk, Leetsdale Borough
- Liz Petalino, Leetsdale Borough
- Frederick Retsch, Harmony Township
- Robert Schmetzer, South Heights Borough
- Linda Sovich, Leetsdale Borough
- Lyla Swan, Harmony Township

The preparation of this plan was funded in part by Pennsylvania's Department of Community and Economic Development's Land Use Planning and Technical Assistance Program, the Local Government Academy's Multi-municipal Planning Grant, and through Community Development Block Grants.

Table of Contents

Executive Summary

Introduction 1

Section I: "Where Are We Now?" An Assessment of Existing Conditions

Summary of Strengths and Weaknesses	11
Existing Land Use Assessment	19
Socio-Economic and Housing Characteristics and Trends	33
Cultural and Historic Resources	43
Revitalization and Economic Development	49
Environmental and Natural Resources	61
Community Facilities and Public Utilities	71
Transportation	79
Infrastructure	95
Parks and Recreation	105
Form and Function Government	113
Capital Improvements	125
Quality of Life in the Region: Citizens' Perspective	129

Section II: "Where Do We Want to Be?" Creating the Vision

Vision Statement	139
Community Goal and Objectives	143
Future Land Use Scenario	147
Creating the Future Land Use Map	147
An Overview of the Future Land Use Categories	152
How to Use the Future Land Use Scenario	160
Growing Greener Conservation Subdivision Design	160
The Relationship to Existing Municipal Land Use Regulations	162

Section III: "How Do We Get There?" The Action Plan

Components of the Action Plan	167
A Strong Economy Supported by Economic Development	
Opportunities and Tourism	170
Preserved and Enhanced Cultural and Historic Resources	175
Effective Marketing and Public Relations	178
Strong Land Use and Growth Management Planning	181
A Positive Community Image	185
High-quality Social Services and Community Education	189
A Diverse Community	191
Commitment to Intergovernmental Cooperation	193

Table of Contents Continued

Abundance of Parks and Recreation Opportunities	197
Protected Open Space and Natural Resources	200
High-quality, Affordable Housing	204
Good Public Services - A Safe Community	206
Effective Transportation System	209
Efficient Water and Sewer Infrastructure	215

Maps

Existing Land Use	21
Regional Community Assets	45
Natural Resources	63
Transportation	83
Water Service Areas	99
Sewer Service Areas	101
Recreation Opportunities	107
Future Land Use	155

Tables

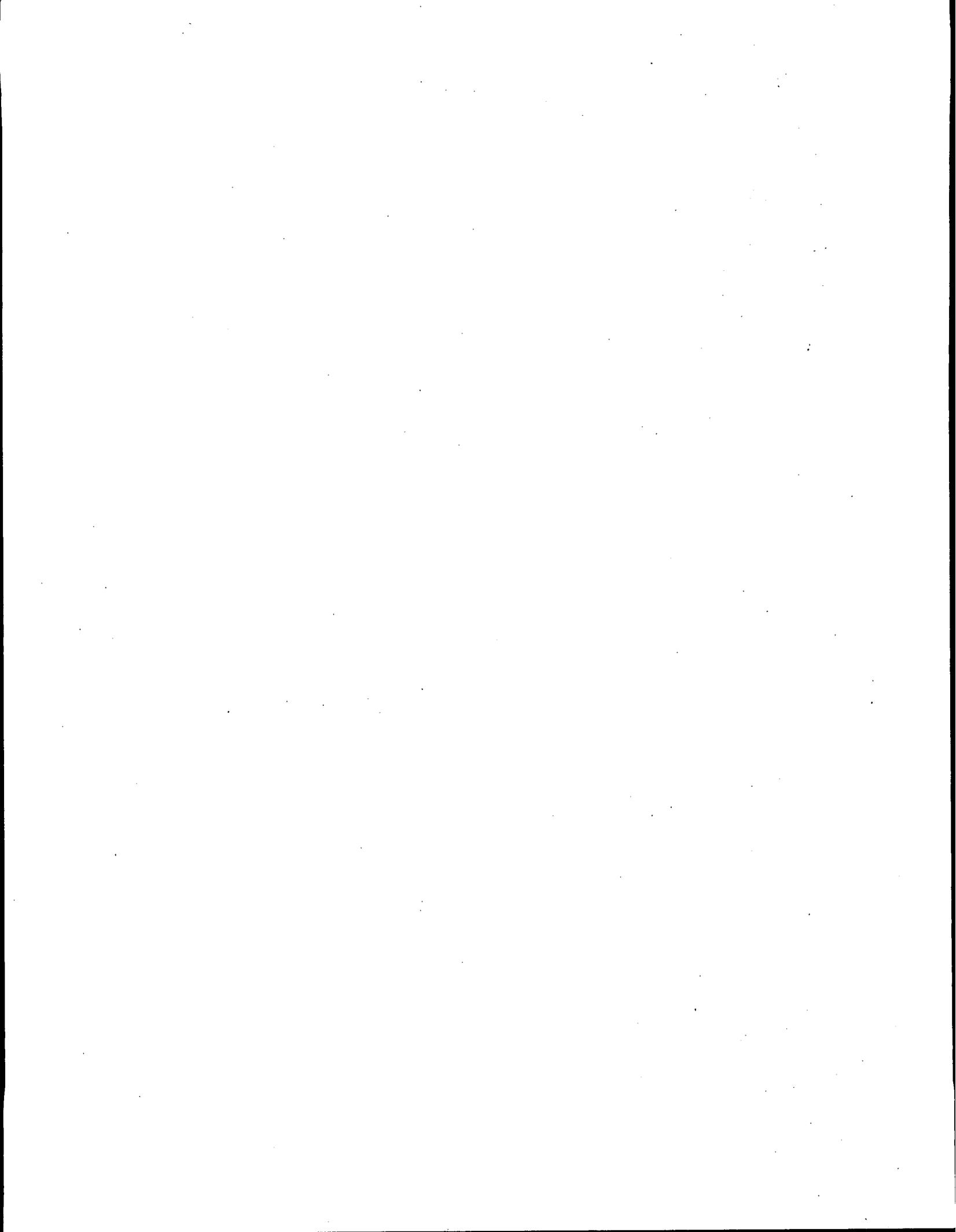
1.1 Total Population: SHALE Municipalities and Counties	33
1.2 Age Distribution, 2000	34
1.3 Population Trends in Age Distribution	35
1.4 Population Race Distribution	36
1.5 Household Characteristics, 2000	36
1.6 Population Trends in Age Distribution: Adjacent Municipalities	37
1.7 Educational Attainment in SHALE Area, 2000	38
1.8 Educational Attainment Trends	38
1.9 Educational Attainment in Adjacent Municipalities, 2000	39
1.10 SHALE Area Housing Types, 2000	39
1.11 SHALE Area: Age of Housing Stock	40
1.12 SHALE Area Housing Vacancy, 2000	40
1.13 SHALE Area Housing Tenure, 2000	41
1.14 SHALE Area Housing and Rent Cost	41
1.15 Adjacent Municipality Housing Rent & Cost	41
1.16 SHALE Area Poverty Characteristics, 2000	42
1.17 SHALE Area Incomes and Trends	50
1.18 Adjacent Municipalities Incomes and Trends	50
1.19 Labor Force Characteristics, 2000	51
1.20 Occupational Characteristics, 2000	51
1.21 Employment by Industry (% of Labor Force)	52

Table of Contents Continued

1.22	Major Industrial Parks in Close Proximity to SHALE Municipalities	53
1.23	Top 10 Major Employers in Beaver County	54
1.24	Employment by Industry (% of Labor Force)	54
1.25	Soil Units in SHALE Region	65
1.26	MPC Land Use Tools for the SHALE Municipalities	115
1.27	SHALE Municipalities Zoning Districts	116
1.28	Community Development Objectives for Previous Planning Efforts	118
1.29	Top 10 Public Comments from Each SHALE Communities	131
2.1	Community Goals and Development Objectives	144
3.1-3.3	Economic Development Opportunities and Tourism	170
3.4-3.5	Cultural and Historic Resources	175
3.6-3.7	Marketing and Public Relations	178
3.8-3.9	Land Use and Growth Management	182
3.10-3.12	Community Image	185
3.13	Social Services and Community Education	189
3.14	Diversity	191
3.15-3.16	Intergovernmental Cooperation	194
3.17-3.18	Parks and Recreation	197
3.19-3.20	Open Space and Natural Resources	201
3.21	Housing	204
3.22-3.23	Public Services - Safety and Crime Reduction	206
3.24-3.26	Transportation	209
3.27-3.28	Water and Sewer Infrastructure	215

Appendices: (bound seperately from plan)

- Appendix A - Steering Committee Meeting Minutes
- Appendix B - Public Meeting Minutes
- Appendix C - Quality of Life Questionnaire
- Appendix D - Bibliography of Funding Sources





Plan Introduction

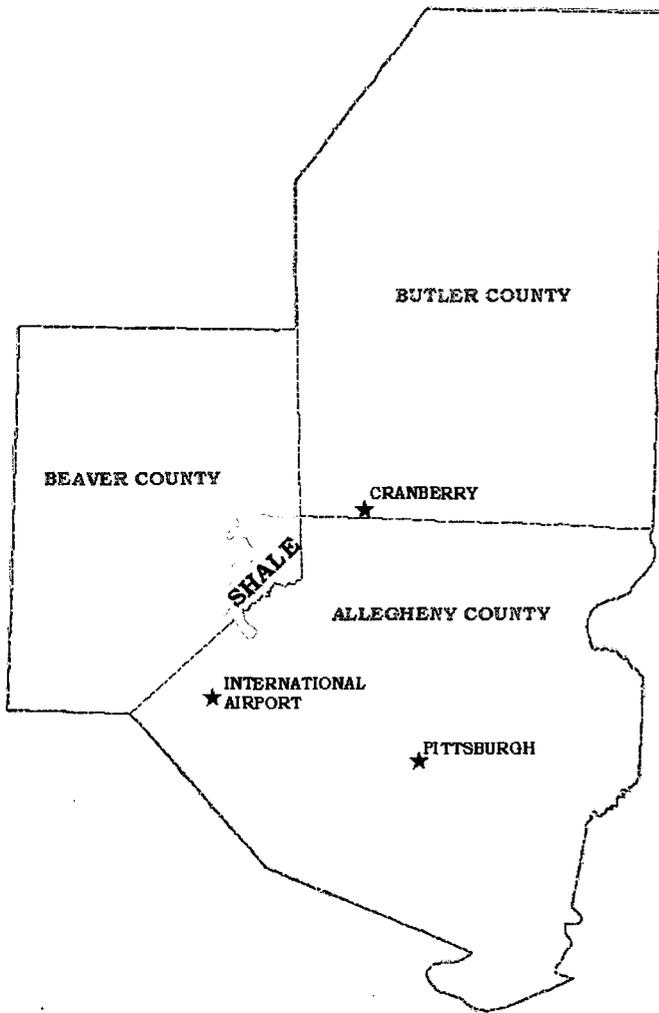
SHALE REGIONAL COMPREHENSIVE PLAN INTRODUCTION

Overview

The communities of South Heights, Harmony, Ambridge, Leetsdale, and Economy decided to join together to develop a strategic multi-municipal comprehensive plan. The planning effort began during the summer of 2003. In a proactive manner, the five communities joined together to examine the strengths, weaknesses, similarities, and differences of each and the relationship to the region as a whole. The communities of Ambridge, Harmony, South Heights, and Leetsdale are older mill towns. Economy is more suburban and rural in nature, yet the Borough has been feeling encroachment of development spawning from the Cranberry area.

At left is a map depicting the location of the SHALE area in the region. Four of the five municipalities (Ambridge, Harmony, South Heights, and Economy) are located in the southeastern corner of Beaver County, while Leetsdale is located in the northwestern corner of Allegheny County, approximately fifteen miles northwest of the City of Pittsburgh. South Heights, the smallest municipality in the SHALE region, is located on the western side of the Ohio River directly across from Ambridge.

The four Beaver County municipalities decided to join together due to a similar school district. Leetsdale, although part of the Quaker Valley School District and within Allegheny County, felt it shared more similarities with the neighboring communities to the north rather than those just south of Leetsdale Borough.



The regional comprehensive plan is intended to help the municipalities jointly assess their existing social, environmental, and economic conditions. They developed a unified vision and set goals through a process approach to planning by addressing three main questions:

- Where are we now?
- Where do we want to go?
- How do we get there?

The process for developing the plan engages local citizens in order to form consensus on a vision and build communication and coordination between municipalities. The plan clearly identifies next steps to maintain and enhance the quality of life in the SHALE region.

What is a Regional Multi-Municipal Comprehensive Plan?

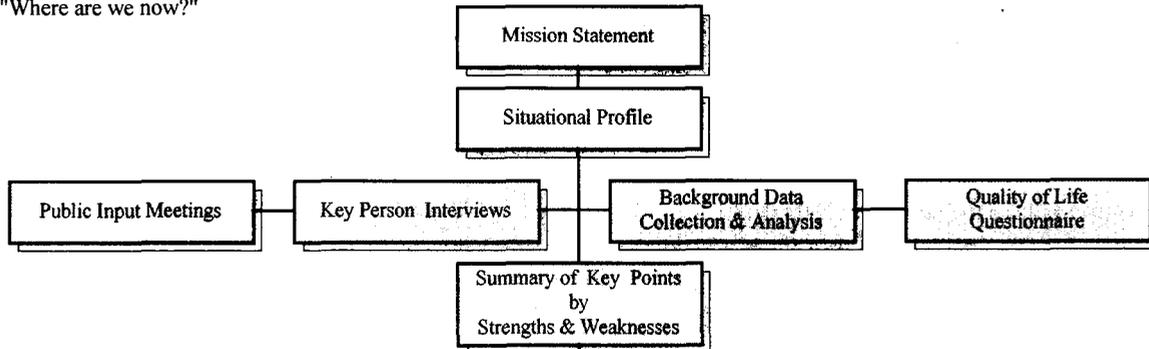
A regional comprehensive planning process fosters cooperation and consensus building among the involved communities. Through consensus building, a vision is formulated for the future by...

- scanning relevant information about physical, social, and economic features
- developing consensus about where to redevelop, preserve, or develop
- providing recommendations and initiatives to achieve regional and community goals
- addressing all items required by the Pennsylvania's Municipalities Planning Code
- providing a rationale for developing or updating land use tools, such as ordinances

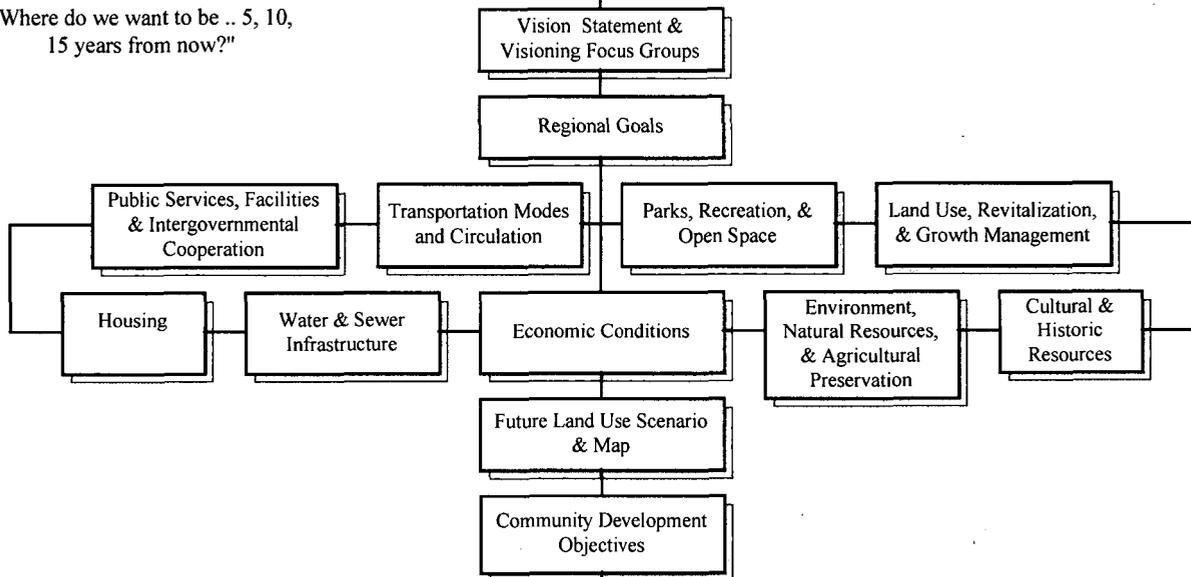
A MULTI-MUNICIPAL COMPREHENSIVE PLAN FOR SOUTH HEIGHTS, HARMONY, AMBRIDGE, LEETSDALE, AND ECONOMY (SHALE)

"Our unique approach : a strategic planning process"

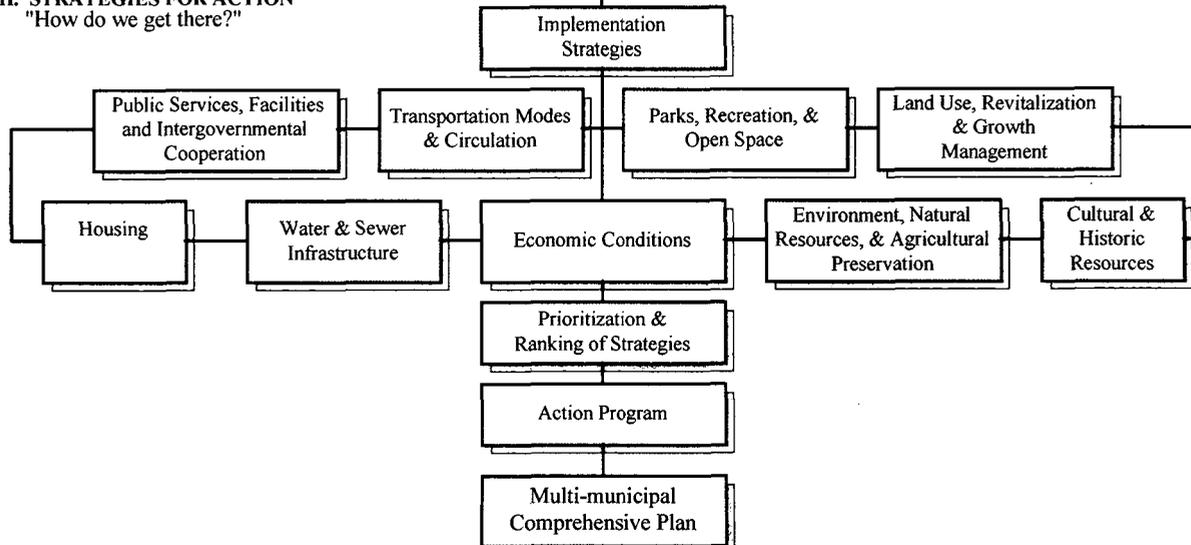
I. SITUATIONAL PROFILE "Where are we now?"



II. CREATING THE VISION "Where do we want to be .. 5, 10, 15 years from now?"



III. STRATEGIES FOR ACTION "How do we get there?"



What is SHALE?

The SHALE communities signed an intergovernmental cooperative agreement before the planning effort began, and they formed an official regional steering committee. The steering committee worked cooperatively to establish regional goals and priorities and to develop this comprehensive plan. Three representatives from each of the five communities make up the SHALE regional steering committee.

Background/History of the Area

The SHALE multi-municipal region is rich in culture, which is captured in the designated historic districts, preserved buildings, sites, and villages. This development of the region has been heavily influenced by the culture and religion of the earliest settlers to the area, specifically the Harmonists, and the steel manufacturing industry, which spurred job growth and the formation of company towns, such as Ambridge. The cultural and historic identity of each municipality in the SHALE region is unique. The Community Assets Map in Section I within the Cultural and Historic Resources section identifies the diversity of cultural and historic assets in this multi-municipal region. The assets fall into the categories of early settlements, historic districts, industrial heritage, and religious institutions.

Mission Statement

At the first steering committee meeting, the committee representatives developed the mission statement written below, which emphasizes the purpose of the SHALE regional comprehensive plan.

SHALE Mission Statement

The purpose of the SHALE Regional Comprehensive Plan is to ...

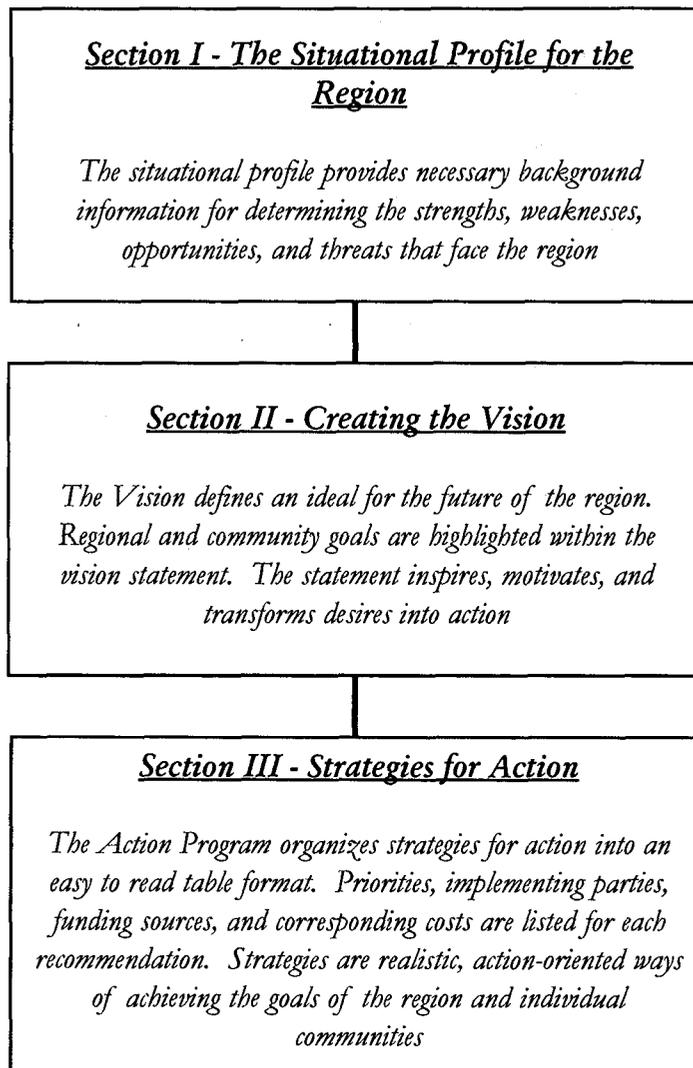
- Build community support, consensus, and awareness of the regional comprehensive plan, the vision, and implementation tools
- Identify economic development opportunities and link redevelopment efforts with job creation opportunities
- Develop an action plan to revitalize industrial areas, brownfields, mainstreets, vacant lots, and older residential housing stock
- Identify, preserve, and promote historic, cultural, open space, agricultural, and recreational assets that are attractive to young professionals
- Identify strategies to improve and market the regional assets to create a vital image of the SHALE region and individual communities
- Increase inter-governmental communications and coordination through the planning process and identify services that would benefit from coordination
- Provide municipalities with a policy tool and updated GIS information for a regional approach to sound land use decision-making

Key planning issues that face the region

A community meeting was held in each municipality at the start of the planning process to help identify key planning issues. Below are common themes stated by citizens.

- Redevelop brownfields, blighted areas, and vacant sites, and link redevelopment efforts with economic redevelopment
- Catalyze more economic development that creates job opportunities
- Improve coordination of community services - police, mail delivery, water, sewer, and stormwater management
- Improve communications between citizens, elected officials, and neighboring communities
- Clean-up and promote a more vital community image to those who live within the community and outsiders
- Enhance the existing mainstreets and business districts - cores of communities
- Provide more housing diversity - types, styles, and affordability
- Identify, preserve, and promote the community assets of the region: historic, cultural, rural/agricultural, and those assets that are attractive to youth and young professionals
- Create more and make improvements to recreational facilities and programs for all ages
- Transportation issues: Make improvements to the Ambridge/Aliquippa Bridge which will provide greater access to Route 51, limit speeding on Route 51, and sustain smooth traffic flow on local roadways throughout the region

Overview of the SHALE regional planning process (3 Phases)



Overview of public involvement process

Public involvement is essential in a multi-municipal planning process for various reasons. First, it helps to foster a sense of ownership and understanding of information included in the plan, and more specifically of the vision, goals, objectives, and recommendations. By using different techniques to involve the public in a planning process, the communities are more likely to foster a sound understanding of the key planning issues in their residents. Both qualitative and quantitative methods of engaging the public have been used in this process. The public input data collected provided guidance to the committee as they began to develop policies for the future.

Below is a brief summary of each public process technique used to develop the plan.

SHALE Steering Committee

We believe the following characteristics are important to have a successfully engaged steering committee. SHALE decided to allow each community to select up to two steering committee members and to designate one alternate.

Each community was given the following criteria, which help a steering committee to be successful.

- varying opinions and interests.
- a willingness to listen to other viewpoints and be willing to work toward a committee consensus on achieving the Vision for the five municipalities.
- decision-makers represented on the committee; someone who is committed to keeping the other supervisors or council persons fully informed throughout the process.
- a commitment to attending all meetings so that consensus-building activities will succeed.
- a reasonable number of members; not so large that each meeting functions more like a public meeting, with little opportunity for discussion

SHALE also intends to establish a regional planning commission, which will include one representative from each municipality.

Quality of life questionnaire

The purpose of the questionnaire is to seek input from a random sample of residents to understand residents' perspectives about planning issues that affect the quality of life in the region. The questionnaire surveyed residents' opinions about what they like and what they do not like about where they live. They were also asked to prioritize the importance of local issues. The results of the questionnaire provide the planning team sound quantitative information to guide the SHALE region when developing the vision, goals, and recommendations for the plan. The results of the questionnaire are summarized at the end of Section I.

Public input meetings

A round of public input meetings was held during the first few months of the planning process. A public meeting was held in each municipality. The purpose of the public input meetings was to provide an overview of the planning process as well as solicit input from residents. Citizens were asked to brainstorm what they like, do not like, and want to see change in their communities related to the planning topics addressed in a comprehensive plan. The citizen comments were tallied and prioritized. The results of the public input meetings are summarized at the end of Section I.

Key person interviews

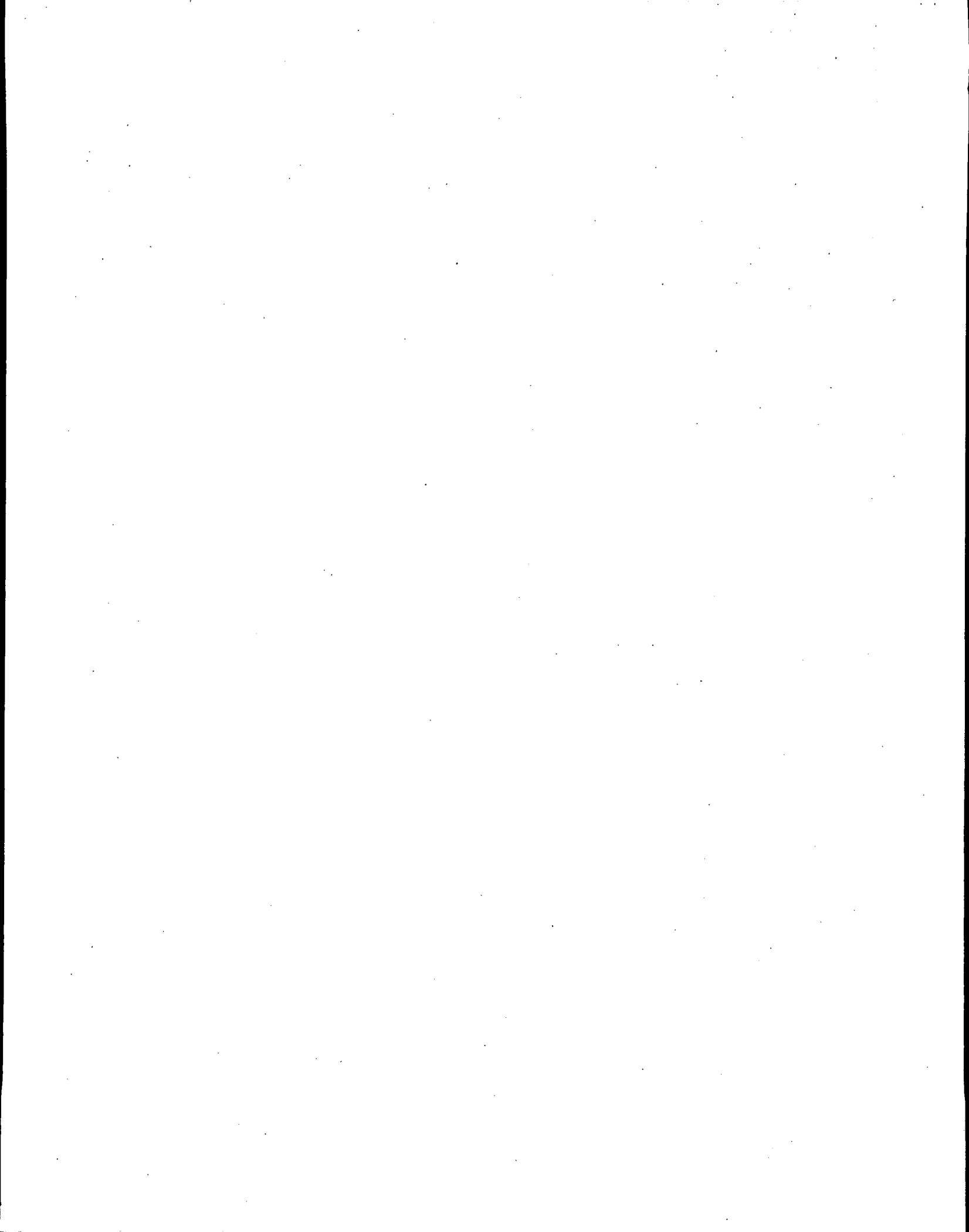
Key person interviews were conducted to gather detailed information about specific topics in the plan so that the plan is tailored to each community. Over 25 key person interviews were conducted. The information gathered was used to supplement the plan elements. A summary of those who were interviewed is included at the end of Section I.

Visioning workshop meetings

During phase II of the process five, visioning meetings were held with the public. The meetings were advertised and invitations were sent directly to local officials as well as to some of the key stakeholders in each municipality. The visioning meetings were facilitated sessions. At each workshop meeting the draft vision and goals were reviewed. Then the attendees worked on developing a future land use map, which diagrammed areas for reinvestment, growth, and preservation. Land use types and mixes of land uses were depicted for the region as a whole. The challenge was developing a regional land use plan in which the five municipalities reached consensus on targeted growth or reinvestment areas as well as on natural, environmental, historic, and cultural areas to be preserved. A summary of the visioning workshop meetings is described in Section II.

Final Presentation of Plan

At the end of the planning process, a public meeting was held to present the draft plan and highlight key recommendations. Citizen comments were noted and reviewed by the SHALE steering committee before the final plan was completed.



transportation system is included on the Transportation Issues Map.

Table 1 reflects the roadway volumes and classifications for the roads in the study area of the SHALE Comprehensive Plan categorized by Municipality.

Arterials

Route 65 is an Urban Principal Arterial also known as Ohio River Boulevard. Regionally, Route 65 provides access from downtown Pittsburgh to Beaver. Locally, Route 65 parallels the Ohio River's eastern shore collecting vehicular traffic from adjacent communities and routing them either north towards Beaver or south toward Interstate 79 and Pittsburgh.

Route 65 consists of four travel lanes (2 lanes each direction) with some auxiliary turning lanes at major intersections and paved shoulders. Access to Route 65 is limited by use of raised medians and median walls. Typical Average Daily Traffic (ADT) volumes on Route 65 are approximately 17,000 to 21,000 vehicles per day (vpd). Truck traffic on Route 65 is 5-7%. Posted speeds vary from 50 to 55 mph. Pavement quality is good with minimal cracking and rutting. Overall, Route 65 is designed for and operates as a primary arterial. Route 65 does, however, have some issues that affect the study area municipalities.



Route 65, Ohio River Boulevard

Route 65 issues consist of limiting access to 6 signalized intersections and a few unsignalized locations. This limited access mainly affects traffic wishing to travel south on Route 65 and forces traffic to divert to available access breaks. Diverging traffic to the access breaks causes operational and safety issues. As a result, traffic diverts to roadways not designed to carry higher traffic volumes or causes traffic to cut through private parking lots.

Related to access on Route 65 are auxiliary turning lanes. Several intersections on Route 65 have no auxiliary left turning lanes. This creates several operational and safety issues. For example, stopped left turning vehicles effectively reduce Route 65 to one through lane and create the potential for high-speed rear end collisions. This situation is most prevalent at the intersection of Route 65 with Ferry Road in Leetsdale. Northbound left turning vehicles stop in the through lane while waiting to make a left turn. Complicating this issue, Ferry Road connects to an industrial area that receives large numbers of trucks and it parallels railroad tracks that prevent left turns while trains are present. These two issues often result in vehicles stopped in the through lane for several minutes while they wait for gaps in traffic or for a train to clear the intersection.

Other issues with Route 65 deal with destination and wayfinding. For example, access to the Ambridge- Aliquippa Bridge requires vehicular traffic to leave Route 65 to access the bridge from the local roadway network. However, there is no signage to direct traffic to the bridge.

Route 51 in South Heights Borough is a Major Arterial connecting the Greater Pittsburgh Airport to Beaver County and on to the Ohio border. Route 51 follows the western shore of the Ohio River and roughly parallels Route 65. South of Route 3038 (Hill Road), the typical four lane divided roadway becomes a two lane undivided roadway. The posted speed is 35 mph through the study area and on street parking is permitted in the two-lane section. Route 51 is approximately 48 feet wide with 2-4 foot paved shoulders. The roadway alignment is straight and level. Concrete curbs, gutters, sidewalks, and street lighting are common on Route 51. Auxiliary turning lanes are provided at the intersection of Route 51 with Route 151 (Laurel Road). Pavement quality is good with some minimal cracking and rutting of the pavement. General roadway frontage is residential and commercial.



Route 51

Section 1

Transportation

Route 51 carries an ADT of approximately 13,000 with 7% trucks. Based on the above observations, Route 51 operates as classified as a major arterial. However, some minor issues were observed throughout the corridor. Pavement marking problems are present at the intersection of Route 51 and Route 151 and at various locations along the roadway. In addition, the lack of vehicles parked in the two-lane section will tend to cause increased vehicular speeds because of excessively wide travel lanes.

Route 989 is a Minor Arterial/Major Collector crossing Ambridge, Economy, and Harmony Boroughs. Route 989 consists of varying local roadway names (8th Street/Duss Avenue/Ridge Road/etc.) and connects Route 65 to Cranberry Township, Interstate 79, and the Pennsylvania Turnpike via Freedom Road. Route 989 has two distinct characters, a rural character in Economy and Harmony, and a more urban character in Ambridge. For this reason, each section will be described separately.



Route 989

Route 989 in Economy and Harmony consists of two lanes with pavement widths of 22-24 feet. Posted speeds are 40 mph and the roadway vertical alignment is generally rolling. Horizontal alignment is winding with many reduced speed curves. Shoulders are mostly unimproved with isolated paved sections. Guide rail and cable barriers are common on many stretches of the roadway. Adjacent land to Route 989 is mainly single family homes with individual driveways accessing the roadway. Most intersections on Route 989 with other local roads are skewed, creating sight distance issues.

Route 989 in Ambridge Borough follows Duss Avenue and 8th Street. Duss Avenue is two lanes with pavement widths of 35-36 feet. Posted speeds vary from 25-40 mph, with slower speeds in more built up areas. Minimal changes in vertical and horizontal alignment are present on the more urban stretch of Route 989. Adjacent land uses on Duss Road are mainly light industrial/commercial with generally undefined driveways. Numerous single indications, side mounted traffic signals exist on Duss Avenue. Nearly all side streets intersect at right angles and intersection sight distance is generally good. 8th Street connects Duss Avenue to Route 65 and completes Route 989. 8th Street is a typical grid style urban street found throughout the built up areas of Ambridge.

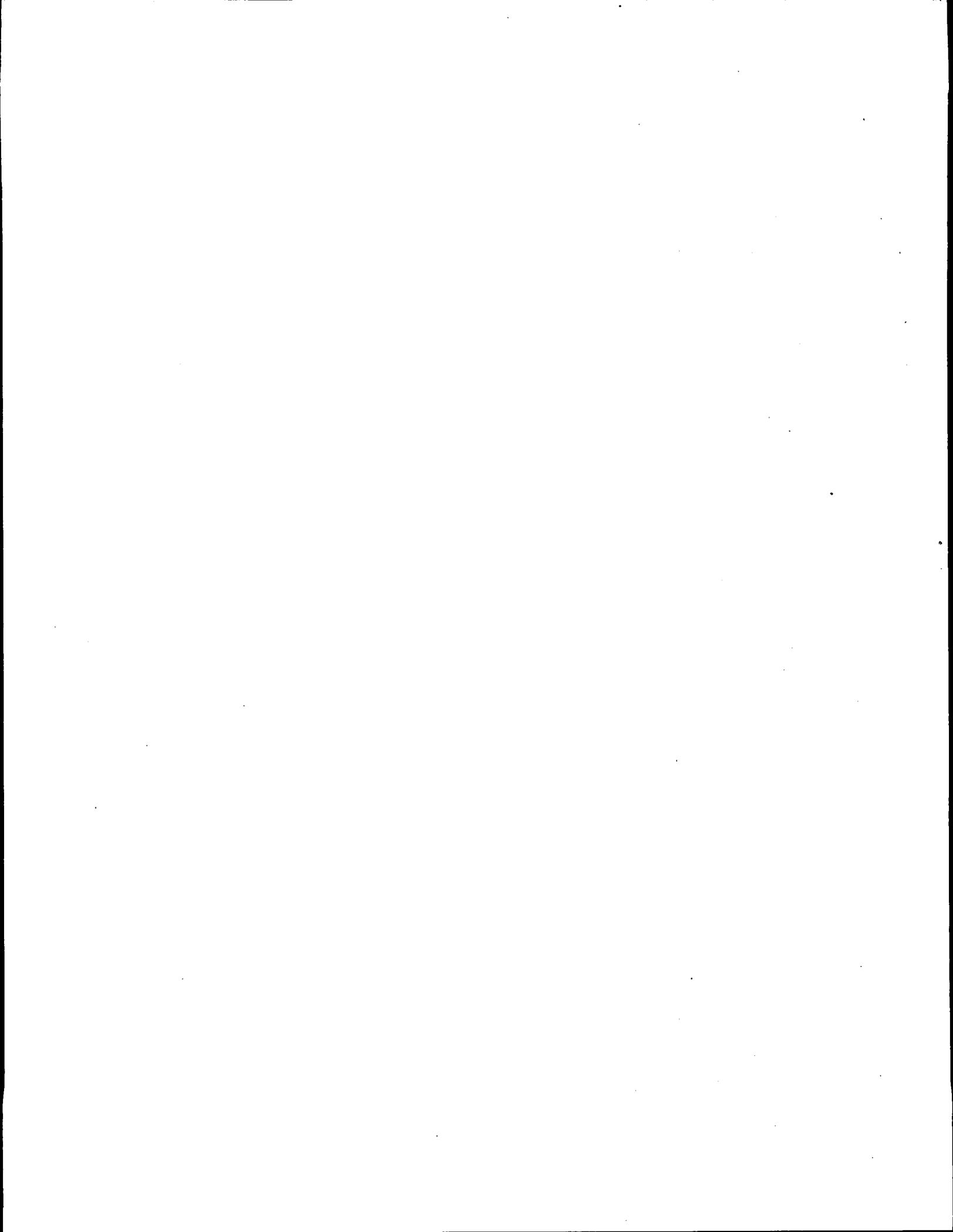
Route 989 has an ADT between 3,900 and 12,000, dependent upon location. Truck traffic varies between 5% and 9%. Pavement quality is fair on most of Route 989 and the roadway generally acts as a Major Collector.

While Route 989 is classified properly, it does have some operational issues. In Economy Borough, Route 989 makes a "zigzag" on Route 2008 (Conway-Wallrose Road). Combined with grades, a skew, and sight distance issues, the intersection does not operate safely or efficiently during high volume conditions. Skewed intersections also create sight distance issues at Route 2012 (Phillips Street), Mason Road, Route 2014 (Hemmerle Road), and others. The western portions of Route 989 in Ambridge have issues with antiquated traffic signals and worn pavement markings.

Route 2001 (Duss Avenue) is a minor arterial that parallels Route 65 across Harmony Borough. Route 2001 terminates at approximately the Harmony-Ambridge Borough line where Route 989 joins Duss Avenue. Similar to Duss Avenue in Ambridge, Route 2001 is approximately 35-36 feet wide and has two travel lanes. ADT is 9,000 with 5% trucks. Industrial/commercial frontage on Route 2001 has similar wide curb cuts and fair but worn pavement quality.



Duss Avenue



Refer to Transportation Issues Map

Route 4036 (Big Sewickley Creek/Main Street/Cross Street) is a minor arterial, also known as the Red Belt that periodically crosses into the study area on the southern boundary of Economy Borough and across northern Leetsdale. Big Sewickley Creek Road is a two-lane roadway that follows Big Sewickley Creek. General pavement width is 26-30 feet with 2 to 4 foot shoulders. Posted speeds are 40 mph within the study area with several reduced speed curves. Adjacent land uses are a mix of residential and commercial, with some businesses having wide curb cuts causing safety problems. Guide rails are present on numerous segments of the roadway. Pavement condition is fair with some evidence of slope instabilities.

On Route 4036 in Leetsdale (Main Street/Cross Street), speeds are reduced to 25 mph as the roadway approaches Route 65. The roadway width is 24 feet with concrete curb and gutter. ADT is 4,400 with 5% trucks. A traffic signal provides full access to Route 65.

Route 2012 (Phillips Street) is a minor arterial that connects Route 989 to Baden and Route 65. The segment of Route 2012 within the study area is a two-lane roadway with residential frontage. Route 2012 is an asphalt roadway approximately 24 to 26 feet wide with a wedge curb. Vertical grades are moderate with some reduced speeds and horizontal curves. Pavement quality is poor with extensive cracking and patched segments. A guide rail is present on long stretches of the roadway.

Route 2012 conveys an ADT of 950 with approximately 2% trucks. The traffic volume is low and its classification resembles most closely to a rural local street. The PENNDOT classification is mainly selected because of the roadway's interconnection to arterials on either end of the road.

8th Street in Ambridge and the Ambridge Aliquippa Bridge are also classified by PENNDOT as arterials. Both roads provide interconnections between other arterials and collectors and carry an ADT of approximately 2,500. However, the Ambridge Aliquippa Bridge is scheduled for replacement in 2009. When the bridge is replaced, access issues in Ambridge should be addressed to prevent traffic from traveling through local streets to reach the bridge.

Major Collectors

Route 2008 (Conway Wallrose Road) is a major collector between Route 989 west to Route 65 across northern Economy Borough. Route 2008 is a two-lane roadway with pavement widths of 24 to 28 feet and minimal (<2') paved shoulders. Posted speed limits on Route 2008 range between 35 and 40 mph. Horizontal alignments are generally designed for the roadway with few reduced speed curves. The vertical alignment is generally rolling and guide rail is present where appropriate. There is however some cable barrier that has been allowed to deteriorate and no longer provides protection to errant vehicles. Residential is the main frontage on Route 2008 with numerous driveway accesses per mile. Some commercial is also present on Route 2008, especially in the vicinity of Route 989. Pavement quality is generally fair to good with little cracking or rutting.



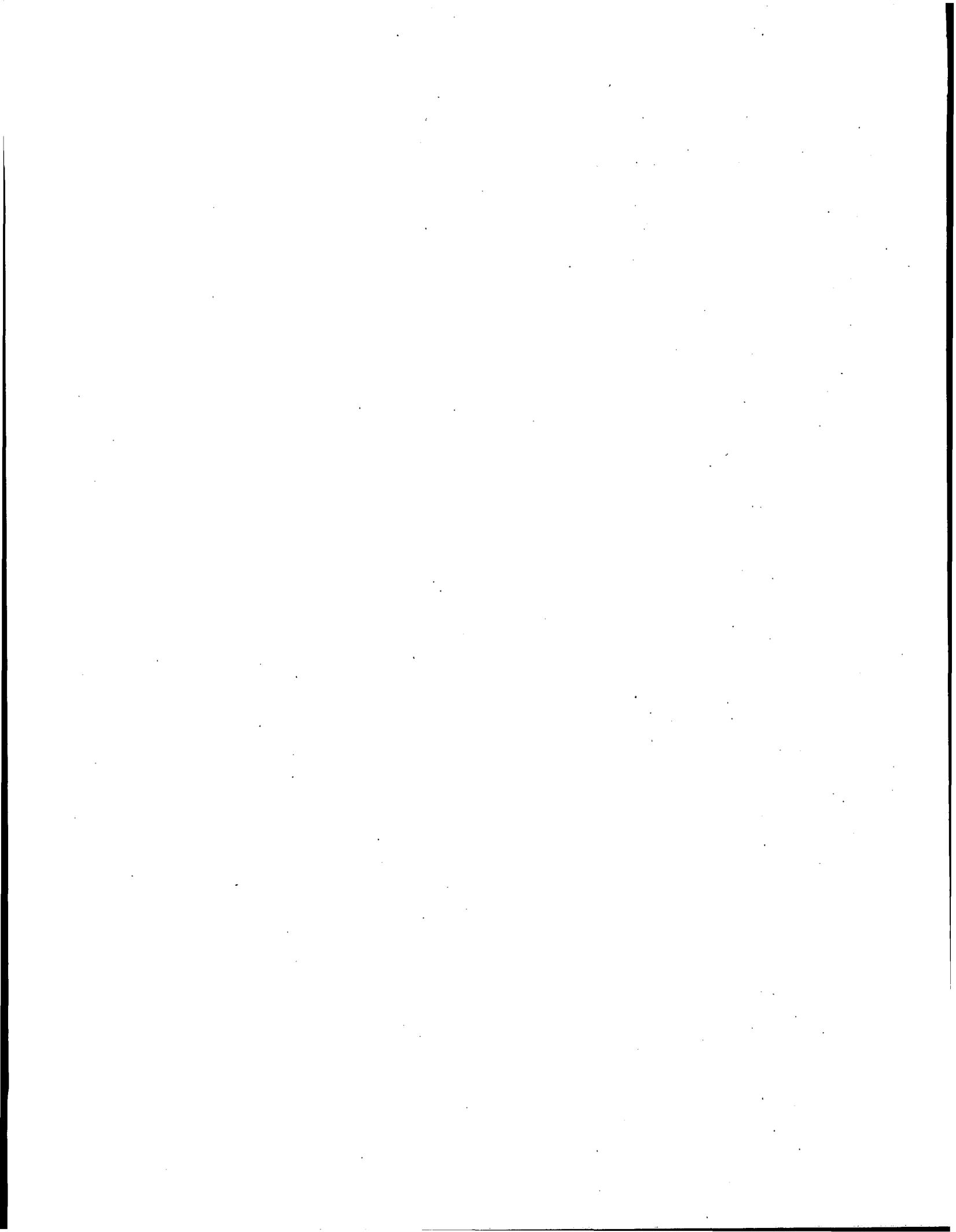
Route 2008, Conway Wallrose Road

Traffic volumes on Route 2008 are approximately 7,900 with 5% trucks. Within the study area limits, Route 2008 is designed and operates as classified as a major collector. The main deficiency with Route 2008 is its intersection with Route 989. As discussed above, Route 989 performs a "zigzag" on Route 2008. The combination of this movement with a skewed intersection and high traffic volumes makes this intersection operate at less than an optimal performance.

Section I

“Where Are We Now?”

An Assessment of Existing Conditions





Summary of Strengths and Weaknesses

Assessment of Existing Conditions

The assessment of the existing conditions for the municipalities of South Heights, Harmony, Ambridge, Leetsdale and Economy serves as the initial building block for the vision, future land use scenario, and action program.

The main topics reviewed in this section include:

- Existing Land Use
- Socio-Economic and Housing Conditions
- Cultural and Historic Resources
- Revitalization and Economic Resources
- Environment, Agriculture and Natural Resources
- Community Facilities and Public Utilities
- Transportation and Traffic Management
- Parks, Recreation and Open Space
- Form and Function of Government
- Summary of Public Input

On the next page, key points from the assessment of existing conditions and public input have been extracted and are identified as either a strength or weakness of an individual municipality or of the multi-municipal region as a whole. This classification is a neutral exercise that identifies strengths to build upon and link as well as issues to focus on for improvement.

For ease of reference the Strengths/Opportunities and Weaknesses/Threats Tables included on the following pages are organized by the following topics:

- Recreational, Historic and Cultural Assets
- Transportation, Water and Sewer Infrastructure
- Environmental Resources and Open Space
- Land Use, Growth Management, Revitalization
- Economic Development and Tourism
- Community Image, Quality of Life, Government Structure

Section 1

Summary of Strengths and Weaknesses

Recreational, Historic, and Cultural Assets	
Strengths/Opportunities	Weaknesses/Threats
<ul style="list-style-type: none"> • Economy has developed a community and neighborhood park master plan for three parks in the Borough • Rich history in the multi -municipal area with many historical and cultural sites: Old Economy Village, Legionville, potential archeological museum • Industrial heritage of the area is significant • Three sites listed and Five sites deemed eligible for listing on the National Registry <ul style="list-style-type: none"> - Old Economy Village is a Historic Landmark - Legionville - Economy Village Historic District - Laughlin Memorial Free Library, Ambridge - Saint Johns Lutheran Church of Old Economy, Ambridge - United States Post Office, Ambridge - Beaver County Bridge No. 23, Economy - Old Lock NO. 4, Harmony • Diverse range of parks and recreational assets in the multi-municipal region exist such as Old Economy County Park, Park Road Park, C.J. Caul Park, Borough of Economy Park, Sunset Hill Park, Recreation Drive Park, Ambridge Country Club, Edward C. Henle Park, and Walter Panek Park. • Opportunities to build trails exists, specifically in South Heights and Economy Borough • Ambridge created an Old Economy Historic District and design guidelines, which assists in improving community image and creates a tourist destination • Over 30 religious institutions (including the Episcopal School of Ministry) in the SHALE multi-municipal region with active coalitions that work within the community • Potential for Greenway linkages throughout the region (destinations exist in urban, suburban, and rural areas as well as natural corridors in Economy and Harmony) • Eastern European presence, diversity, and cultural traditions are evident within the community and daily living • Annual festivals and community events focus on the culture and heritage of the area • Easy access to first class cultural amenities in the City of Pittsburgh • Non-profit groups work to support Old Economy Village and market the asset 	<ul style="list-style-type: none"> • Many of the park and recreational facilities and equipment are in poor condition and resources are needed to upgrade • Unleashed dogs in the area, lack of enforcement • Limited access to waterfront in South Heights, Ambridge, Harmony, and Leetsdale for recreational opportunities • Need for more youth and senior activities and facilities throughout the region • Unfriendly pedestrian connections to the Leetsdale boat launch area • No recreation center/focal point in South Heights • Few existing trails in the area; Legionville Trail is the only one that exists • No neighborhood parks in Harmony Township • Many people within the area and Southwestern Pennsylvania are not aware of the historic opportunities at Old Economy Village – a regional destination • Lack of gateways and connections between Old Economy Village and Merchant Street within Ambridge to encourage tourism and supporting businesses along Merchant Street • The Legionville site is situated along a major industrial corridor (Duss Ave.) surrounded by active and abandoned industrial sites

Transportation, Water, and Sewer Infrastructure	
Strengths/Opportunities	Weaknesses/Threats
<ul style="list-style-type: none"> • Region is in close proximity to the Pittsburgh International Airport, City of Pittsburgh, Beaver, and Aliquippa via Route 65 and Route 51 running north-south through the study area • Access through study area to points east (Cranberry, Pennsylvania Turnpike, Interstate 79) via Route 989 • Pedestrian accommodation (sidewalks, crosswalks) along Merchant Street in Ambridge • Urban grid street layouts • Upgrade of Ambridge-Aliquippa Bridge proposed • Ohio River offers opportunities for alternative modes of transport • Public transportation access to downtown Pittsburgh from Northern Lights and Ambridge • Opportunities for rail transport for goods, services, and public transportation via rail • Availability of transit and park and ride facilities within study area providing connections to metropolitan Pittsburgh • Sewer infrastructure being extended in Economy Borough • Ambridge Reservoir is well-buffered to ensure high water quality • Ambridge Water Authority has a long-range plan and capital improvement plan to address future water and infrastructure needs 	<ul style="list-style-type: none"> • Limited public transportation throughout the region to service local residents, businesses, and rural areas • Limited transportation services for elderly and those with disabilities (ADA) • Duplication of many services in the communities, providing additional costs to citizens and local governments • Limited and often congested access to Route 51 and Route 65 • Lack of auxiliary turn lanes on Route 65 • Single access across Ohio River in study area • Limited amounts of parking spaces during 9-5 hours in the heart of Ambridge • Condition of the Ambridge/Aliquippa Bridge is in need of upgrading • Poor school transportation in the rural areas of Economy • Sewer infrastructure extensions will enable additional growth in Economy Borough • Speeding on Route 51 in South Heights causing safety concerns • South Heights hillside roadways are in poor condition • Presence of CSO's (Combined Sewer Overflows) in Ambridge and Leetsdale need to be addressed per PA DEP CSO Policy – Phase II Regulations • Lack of resources and funding sources for maintenance and upgrading to medium-sized water and sewer systems (Ambridge) • Existing public transportation is not easily accessible to everyone in the region and does not meet destination needs (location and time schedules) • Ambridge Water Authority is required to identify an alternative water source to serve future population • The SHALE area is served by five different water authorities and six different sewer amenities, could be seen as a redundancy of services • Ambridge Water Authority says they are nearing capacity and need to identify a new source in the next 10-20 years

Section 1

Summary of Strengths and Weaknesses

Environmental Resources and Open Space	
Strengths/Opportunities	Weaknesses/Threats
<ul style="list-style-type: none"> • Ohio River and riverfront are recreational amenities and offer opportunities to capitalize on its scenic beauty • Some prime agricultural soils and agricultural enterprises exist in Economy Borough but are not concentrated in any one area • Scenic open space areas in Economy and South Heights • Parklets and green space squares exist in Leetsdale and Ambridge • Scenic rural character in Economy Borough • Over the past 25 years, there has been improved water quality in the Ohio River with species returning • Ohio River (Beaver County) is designated as a Biodiversity Area • Ohio River (Beaver County), Legionville Run (Harmony Township), and Tevebaugh Run (Economy Borough) have been designated as protected for Warm Water Fishes (WWF) • Rivers and streams are significant environmental features that present opportunities for greenway and habitat corridors • Wetlands are located along the Ohio River and along the following streams: Big Sewickley Creek, The North Fork of Big Sewickley Creek, and Legionville Run • Cooney Hollow Biodiversity Area is recognized as a community conservation area for its mature Mesic Central Forest along the stream valley • Economy County Park (332 acres) has been identified in the Natural Heritage Inventory as the most ecologically valuable public properties established to manage and enhance ecological assets in Beaver County • Mature woodlands exist in the northeastern portion of Harmony Township and throughout Economy Borough 	<ul style="list-style-type: none"> • Additional runoff during storms due to poor stormwater management methods & increasing amounts of impervious surfaces in the region, specifically near Route 65 • Noise and air quality is perceived as an issue by some in Leetsdale (public comment) • Many brownfield sites in the region which create community eye sore and contain potential environmental hazards • Soil type varies in the region, some are more suitable for development than others • Industrialization along the riverfront leads to poor environmental conditions which affect the Ohio River and Upper Ohio Watershed • 100 Year floodplain exists where the industrial area is located in Leetsdale between the Ohio River and Route 65 • Slopes greater than 25% exist in South Heights and Economy Borough which limit potential for new development in those areas • Cooney Hollow Biodiversity Area is being encroached upon by new residential development along Amsler Ridge Road in Economy

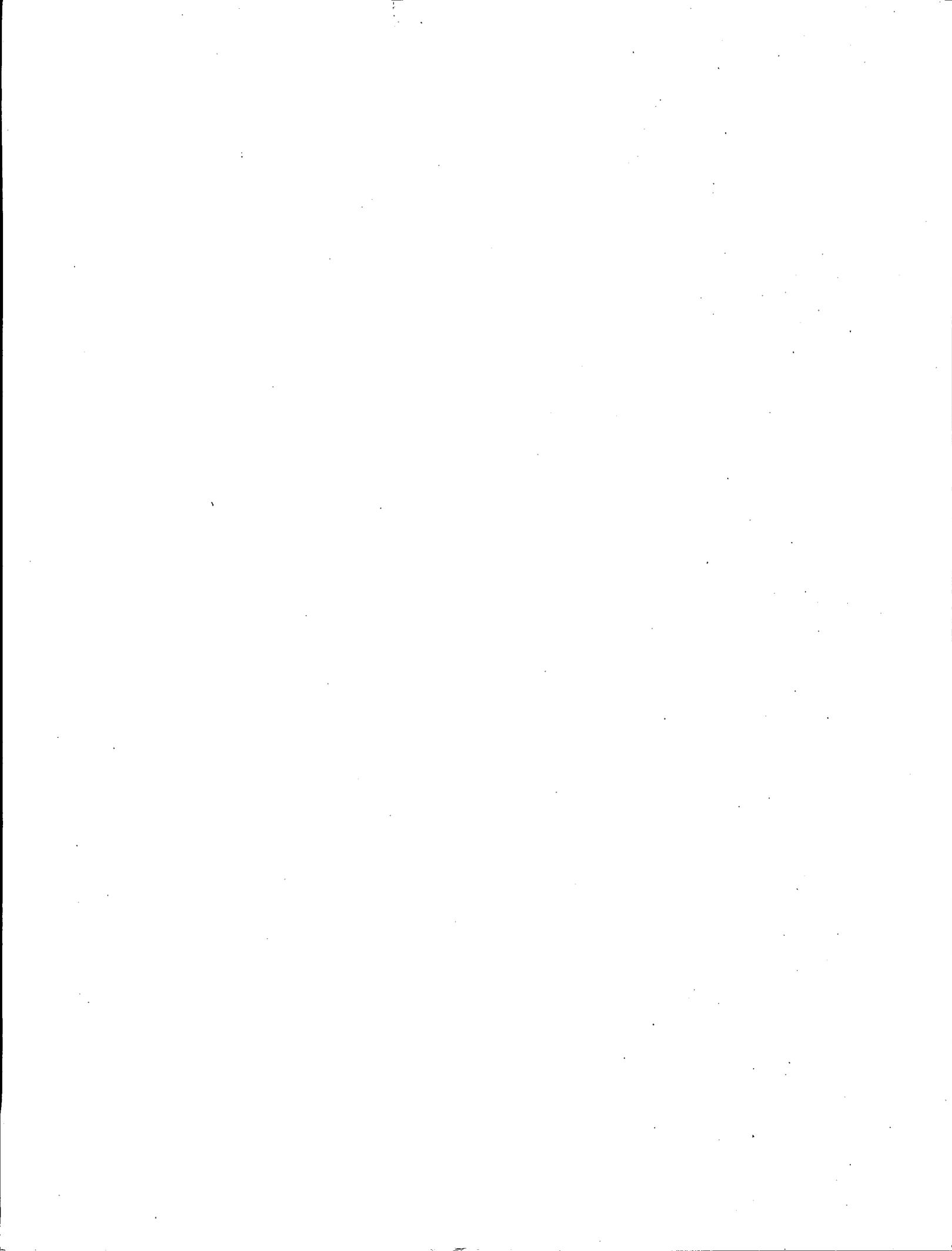
Land Use, Growth Management, Revitalization	
Strengths/Opportunities	Weaknesses/Threats
<ul style="list-style-type: none"> • Viable old town centers exist in Ambridge, South Heights, Leetsdale, and Harmony • Older housing stock is built soundly, is affordable, and has original character • Ambridge, Leetsdale, and Harmony are predominantly designed in a grid layout with integrated mixed-use spaces and sidewalks which create a walkable community environment – current planning trend for new towns • Sustainable pattern of grid orientation of homes with alleys and front porches in Ambridge, Leetsdale, and Harmony encourages neighborly interactions • Economy functions as a bedroom community within the region and complements the services and employment centers provided within the other more dense and older SHALE communities • Idea exists for creating a CBD (Central Business District) in Ambridge and connecting it with the historic district and Old Economy • Merchant Street in Ambridge has potential to be a thriving mainstreet • Riverfront vistas and recreational opportunities exist which could be incorporated into new land use and site design plans • Two regional commercial centers in SHALE <ul style="list-style-type: none"> - Quaker Village Shopping Center in Leetsdale - Northern Lights Shopping Center in Economy • Land use tools and comprehensive planning have been utilized in most of the SHALE communities • Successful home-based businesses in Economy Borough • Personal care facility located in Harmony Township, Harrington Homes • Scenic views of rural vistas exist in Economy Borough which can be incorporated into site designs and increase property values 	<ul style="list-style-type: none"> • Old deteriorating amenities such as sidewalks, lanterns, and curbs exist in many areas in the multi-municipal region • Many above ground public utilities are in poor condition which create an eye sore • Terrain of South Heights hillsides are prone to slides (environmental issues as well) • Majority of the housing stock is old in Ambridge, South Heights, Leetsdale, and Economy – maintenance costs • Poor maintenance and upkeep of some homes in the region • Many vacant buildings and sites in the older areas • Unattractive fronts of buildings, no design standards or consistency • Many absentee landlords, leading to decline of property upkeep • Lack of reinvestment by some existing home owners • Expressed need for a local convenience store within walkable distance in South Heights • Former riverfront industrial/manufacturing sites are now maintenance hazards to the South Heights community • Poor code enforcement in most of the SHALE communities (public comment) • Expressed need for innovative and mixed types and styles of housing in the multi-municipal region • Vacant business sites exist in Northern Lights Shopping Center and strip mall design of development is not environmentally or pedestrian friendly and has traffic circulation issues • Lack of housing options for senior citizens that are in close proximity to services and retail • Ambridge Design Guidelines viewed as overly restrictive to business development

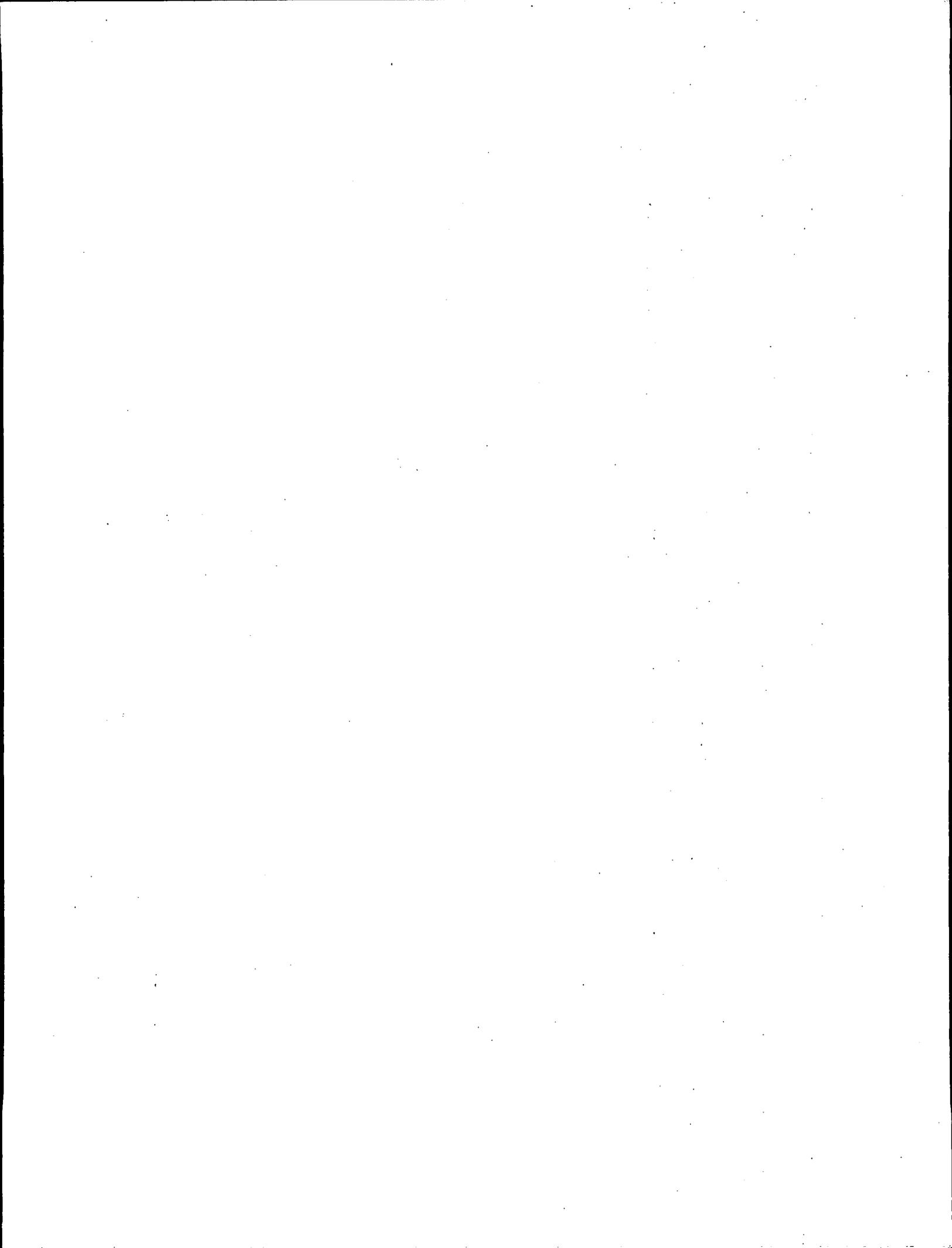
Section 1

Summary of Strengths and Weaknesses

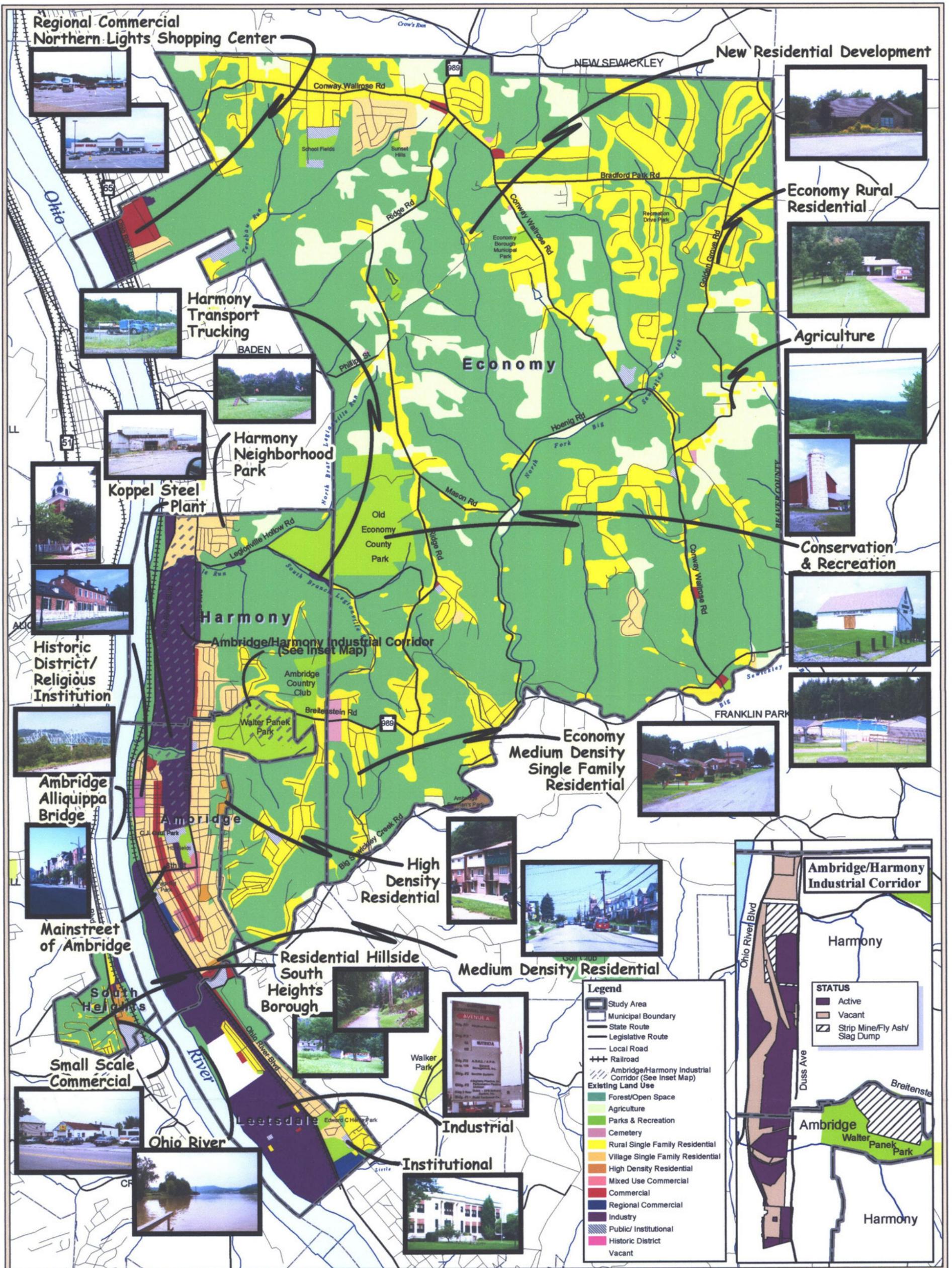
Economic Development & Tourism	
Strengths/Opportunities	Weaknesses/Threats
<ul style="list-style-type: none"> • Close proximity to services and employment opportunities in the City of Pittsburgh • Strong work ethic in local residents • Close proximity to regional businesses and employment opportunities in Cranberry • Potential plans for innovative brownfield redevelopment in Ambridge (Live-Work Housing Prototypes) Ambridge Area Brownfield Partnership • Active industrial and manufacturing businesses in the multi-municipal region • Historical, recreational, and niche business tourism opportunities exist • Economic spin-off from nearby wealthy communities • Telecommunication economic development opportunities exist • Presence of locally-owned and operated businesses and stores • Eight industrial parks located in and around the SHALE area 	<ul style="list-style-type: none"> • Few job opportunities exist to attract young families and professionals to the area • Lack of restaurants and variety in the region • Stagnant tax base • Lack of new retail development and diversification of businesses in existing retail centers and mainstreet areas • High percentage of resale of homes in Ambridge • No hotels/lodging in the area limiting tourism and more economic opportunities • Need for better organization and communication among economic development groups in the area (Chamber, ARDC, CBD) • Many families and seniors living on fixed incomes • Unemployment rates exceed that of both Allegheny and Beaver Counties • High poverty rates in Ambridge, Leetsdale, and South Heights

Community Image, Quality of Life, Government Structure	
Strengths/Opportunities	Weaknesses/Threats
<ul style="list-style-type: none"> • SHALE communities already have a history of interacting with one another and being good neighbors • Strong sense of family values in the region • Many churches and social service organizations and programs exist within the region • Strong school districts at Ambridge and Quaker Valley and new facilities in Economy and Harmony • Many private and parochial schools in the area which provide alternative educational choices • Schools are within walking distance of many neighborhoods • Ambridge increased in population of people 18 years and younger from 1990 to 2000 by 4.7% • Economy Borough increase in population of people 65 years or older from 1990 to 2000 by 20.7% • Ambridge is a self-sustaining community; providing all of its necessary services within the local area • Residents have pride about their local community • Strong volunteer base • Quality health and medical services located nearby • Opportunities exist to tap into state and federal grant programs • Opportunity exists to tap into talents and skills of local residents to help reduce municipal costs • Small town atmosphere • Trinity Episcopal School for Ministry – only college in SHALE region • Some cooperation and coordination among the fire departments exists already • Three EMS providers in the SHALE municipalities <ul style="list-style-type: none"> - Quaker Valley Ambulance Authority - Medic Rescue - Economy Ambulance Incorporated • Good police, fire, and EMS services that operate in an environment of mutual cooperation and aids 	<ul style="list-style-type: none"> • Crime and policing is an issue in some of the communities with issues being: <ul style="list-style-type: none"> - Drug dealings - Loitering - Graffiti • Need for better communications between municipalities, between local officials and citizens, and with the County government • Each municipality has their own police department and volunteer fire department – duplication of services • Decline of population in the region from 1990 to 2000 by 4.7% • Perceived poor internal and external perception of the area, including lack of pride • Technology for most of the local governments is out of date • Evening loitering is a nuisance in Ambridge • No clear vision for the future in the SHALE region • Need for additional leadership and key players to be proactive • Perceived lack of communication and integration between the school districts, local government, and community • Need for additional educational and training opportunities within the multi-municipal region • Presence of the NIMBY (not in my backyard) attitude within the multi-municipal region • No concentrated marketing efforts to help improve SHALE region's image (internally or externally) • Lack of resources for police, fire, and EMS equipment and services (equipment is costly) • Perceived lack of identity in some of the communities





Refer to Existing Land Use Map



SHALE Area Regional Comprehensive Plan

Ambridge Borough, Economy Borough, Leetsdale Borough, Harmony Township & South Heights Borough

Existing Land Use



Map Notes

Source: Southwestern Pennsylvania Corporation & Beaver County GIS data. Ambridge/Harmony Industrial Corridor digitized from paper map created by Environmental Data Resources October 15, 2001. Pashek Associates makes no claims to the accuracy of this data. Existing Land Use based on a windshield survey performed by Pashek Associates in August, 2003.

Map projection: State Plane NAD 1983 units = feet

The project is funded in part by the Pennsylvania Department of Community and Economic Development Land Use Planning and Technical Assistance Program and the Local Government Academy Multi-Municipal Comprehensive Planning Grant Program



PASHEK ASSOCIATES
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Section 1

Existing Land Use Assessment

Leetsdale is located in the northwestern corner of Allegheny County, approximately fifteen miles northwest of the City of Pittsburgh. Leetsdale, Ambridge, and Harmony are located directly on the eastern bank of the Ohio River in a north/south orientation. South Heights, the smallest municipality in the SHALE region with 0.3 square miles, is located on the western side of the Ohio River directly across from Ambridge. Economy, the largest municipality in the planning region with 17.7 square miles, borders Harmony Township to the west and occupies a small portion of riverfront just north of Baden Borough.

The major roadways in the region are Route 65 (Ohio River Boulevard) which runs parallel with the Ohio River through Leetsdale, Ambridge, Harmony, and a small portion of Economy; Route 51 (Jordan Road) which runs parallel with the Ohio River on the western bank through South Heights; and Route 989 (Duss Ave/Breitenstein/Ridge Roads) which follows 8th Street to Duss Avenue in Ambridge, to Breitenstein Road and north along Ridge Road in Economy Borough.

The region contains a mix of residential areas, industrial facilities and parks, and local and regional commercial areas. The housing stock is primarily single family, but varies in age, style, and density. Leetsdale, Ambridge, Harmony, and South Heights tend to contain older, higher density housing in comparison to the new residential development taking place in Economy Borough. Economy Borough is more rural in nature, with pockets of open space and agricultural lands mixed with residential housing areas. It is anticipated that new housing growth will continue to take place in Economy in the future due to infrastructure expansion. Housing densities vary throughout the region. Lower density areas range from 1-2 dwelling units/acre or more, medium density areas range from 4-6 dwellings units/acre, and some high density multi-family (apartments) areas with 20-25 dwelling units/acre. Front setbacks range between 20-30 feet in medium density areas and 50 feet or more in lower density areas. Off-street parking is generally provided at 1-2 parking spaces per dwelling unit. Medium density single family residential neighborhoods are found throughout Ambridge. Other medium-density areas are along Jordan Street in South Heights, Broad Street in Leetsdale, and adjacent to Duss Avenue in Harmony. Of all the municipalities, the layout of Ambridge most closely resembles a grid layout with interconnecting streets and some mixed-use residential areas. The residential areas in Economy Borough are predominantly low-density suburban neighborhoods and scattered pockets of rural housing.

There are a range of regional commercial/retail and local businesses in the area. Two shopping centers, the Quaker Village Shopping Center in Leetsdale and the Northern Lights Shopping Center in Economy, contain medium to large chain stores and businesses. These shopping centers serve as a regional shopping destination for the communities and are accessible from Ohio River Boulevard. In addition, there are businesses scattered along Ohio River Boulevard in Leetsdale, Ambridge, and Harmony. Merchant Street in Ambridge can be characterized as a traditional "mainstreet" for the Borough with local offices, businesses, and restaurants. Duss Avenue in Ambridge and Harmony contains a mix of residential, local commercial businesses, and industrial uses.

Known for their industrial heritage, about 64% of the industrial land in the Borough of Ambridge and Harmony Township is located along the 2.5 miles industrial corridor between Ohio River Boulevard (Route 65) and Duss Avenue. This includes a mix of small active industrial facilities, brownfields, and unused industrial sites. The riverfront area is also dominated by industrial development in Ambridge and Leetsdale, with a number of industrial facilities and parks including the Buncher Industrial District, Leetsdale Industrial Park, Hussey Copper, and the Port Ambridge Industrial Park.

Major parks, recreational, and historic areas include Economy Village, Walter Panek Park in Ambridge, Old Economy County Park in Economy, and the Ambridge Country Club. Old Economy Village is a National Historic Landmark that captures the history of the first settlers, the Harmonists, in the area. The Borough of Ambridge has also designated a Historic District and outlined specific standards to retain the character surrounding Economy Village and Merchant Street. The only public library in the study area, the Hugh Laughlin Memorial Free Library, is located in Ambridge. The study area is split between the Ambridge Area School District (Ambridge, Harmony,

Economy, South Heights) and the Quaker Valley School District (Leetsdale). There are schools scattered throughout the area, with the exception of South Heights. Finally, there are many churches (highly concentrated in Ambridge) and social services organizations located throughout the region.



Old Economy Village, Ambridge

AMBRIDGE BOROUGH

Overview

Ambridge Borough is located on the eastern side of the Ohio River in Beaver County. The Borough borders Leetsdale Borough to the south; South Heights Borough, Hopewell Township, and Aliquippa City across the Ohio River; and Harmony Township to the north and east of the Borough. The land area in Ambridge Borough totals 1.5 square miles.

Ambridge Borough's identity is defined by historic events. The original settlers in the area, the Harmonists, established a thriving society and village, portions of which remain preserved as a historic district on the National Register of Historic Places and National Historic Landmark. The historic Old Economy Village is located between 12th and 16th streets bound by Route 65 and Church Street. A number of the Harmonist homes and buildings remain scattered throughout the residential areas and designated historic district that surround the Village.

Ambridge is the namesake of the American Bridge Company which purchased the land from the Harmonists and founded the Borough as a "company town." The company spearheaded the industrialization of the area and the development of the accompanying residential areas to house the mill workers. The industrial area of Ambridge and Harmony Township was once home to seven major steel mills and supporting industries. Today, the former American Bridge Company site on the Ohio River has been redeveloped into an active industrial site. However, the former office building of the company remains vacant on the corner of 4th Avenue and Ohio River Boulevard. Furthermore, the industrial corridor between Ohio River Boulevard (Route 65) and Duss Avenue in Ambridge and Harmony is a mix of small active industries, brownfield sites, and vacant industrial properties.



The former American Bridge Office Building sits vacant, Ambridge

Ohio River Boulevard (Route 65) cuts through the Ambridge Borough running north/south. The Boulevard separates the main commercial and residential areas in the center of Ambridge from the Port Ambridge Industrial Park on the Ohio River. However, unlike Leetsdale, the core of Ambridge Borough is a mix of commercial areas, old industrial buildings, and residential neighborhoods. Merchant Street is the main commercial/office corridor. Ambridge also has an abundance of churches and religious centers, a senior citizen center, the Laughlin Memorial Free Library, the Ambridge Area High School, and Walter Panek Park.

I. Residential Land Uses

A mix of housing types can be found in Ambridge. The main streets of Ohioview, Maplewood, Melrose, Glenwood, and Lenz are lined with single family homes, duplexes, and row houses. Higher density areas with multi-unit buildings are located on 1st Street, Valley Road, Spruce and Walnut Streets, and the intersection of 5th and Duss Avenue (Ambridge Towers). Likewise, the quality and affordability of housing varies in the Borough.

Section 1

Existing Land Use Assessment

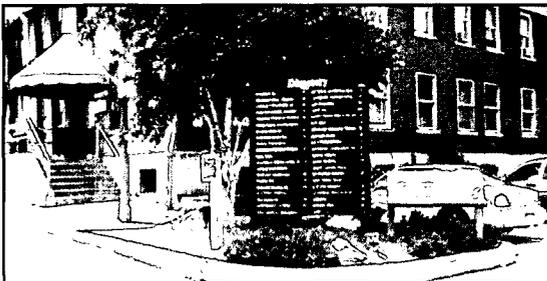


Multi-Family Apartment Building on 1st Street, Ambridge

Larger, single family homes are located on the southern end of Glenwood and along Elm and Pine. Some of the older housing units throughout the Borough are deteriorating, while others have been well-maintained. Multi-family, subsidized housing units are located at the top of 14th Street on Spruce and Walnut Streets.

The housing in Ambridge was built pre-1960's to support steel manufacturing industries. The Borough is fairly built-out, indicating that little new construction has taken place in recent years. However, some infill and vacant lots are identifiable at the intersection of 5th and Pine Streets. Some vacant housing units are scattered throughout the Borough.

The design and character of the neighborhoods also varies. The residential areas on the southern end of Park, Maplewood, and Beaver have sidewalks, uniform setbacks, small yards, tree lawns, and few street trees. Traveling north along Maplewood toward Old Economy Village and the historic district, the streets are at times brick-laden, narrower, and tree-lined. The hilly area of Pine Street, Elm Road, and the southern end of Glenwood are similar in character with sidewalks, tree lawns, street trees, and scenic views toward the Ohio River. The corridor along Lenz Avenue between 9th and 23rd streets has sidewalks, small yards, front porches, and some street trees. The neighborhood up on the hill along Bernadina and Kristufek Street contain single family homes with short setbacks and fewer street trees along the wooded hillside. Hazel Avenue, a no-outlet street on the north side of the Borough extending into Harmony Township lacks sidewalks in some areas and contains a mix of housing types.



Ambridge Regional Manufacturing and Distribution Center located off Duss Avenue

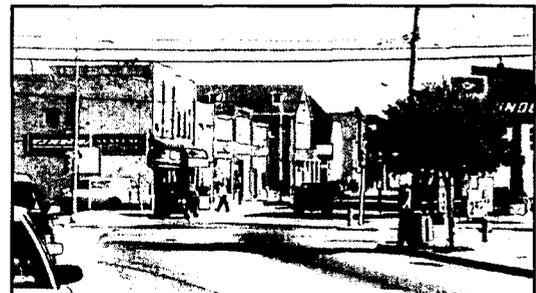
II. Industrial Land Uses

There are two main industrial areas in Ambridge. The first is located west of Ohio River Boulevard (Route 65) along the Ohio River. This area is the Port Ambridge Industrial Park, a 100-acre site with distribution/warehousing, heavy manufacturing, and office space. The other major industrial area is the corridor between Ohio River Boulevard (Route 65) and Duss Avenue extending into Harmony Township. Located in this area are Waste Management of Pittsburgh, Koppel Steel, and the Ambridge Regional Manufacturing and Distribution Center. The Borough of

Ambridge has established the Ambridge Area Brownfields Partnership with the goals of redeveloping the brownfields in the corridor with the assistance of state and federal agencies (USEPA is conducting Phase I and Phase II environmental site assessments of select sites).

III. Commercial/Retail Land Uses

The main street of Ambridge is Merchant Street, which runs north/south from 3d Street to 15th Street. Merchant contains a mix of office and retail space, including local shops, restaurants, gas stations, the post office, and an amphitheater. Businesses are small and appear to be locally owned and operated. Commercial activity extends to some of the side streets mixed with housing. A portion of Merchant St. between 12th and 16th Streets is included in the designated Ambridge Historic District, which is protected by the Historic District Ordinance. Merchant, therefore, is a gateway into the Historic District and Old Economy Village. The Borough of Ambridge has initiated a Main Street Program that is focused on revitalizing Merchant Street and improving the streetscape in the historic district. Merchant Street is a



Merchant Street, Ambridge

walkable tree-lined street with sidewalks and on street metered parking. There are noticeable vacant buildings and store fronts.

There are also a number of social service organizations and businesses located between 3rd and 5th Streets on Maplewood, including churches and community organizations.



Neighborhood Park on Ohioview Avenue, Ambridge

IV. Open Space/Environmental Features/Parks

Ambridge is an urban borough with little open space. However, there are several parks in the area including neighborhood parks, school sports facilities. Walter Panek Park, located on Breitenstein Road and the Harmony Township border, is the largest park in Ambridge. This park can be classified as a community park with a service area of 1 to 2 miles. However, the park facilities do not appear to be well maintained. Ambridge does not have any greenways or greenway connections. The Ohio River is largely cut off due to the industrial land uses adjacent to the river.

VI. Institutional

Public buildings include the Ambridge municipal building, located on 11th Street, the Ambridge Area High School on Duss Avenue, Laughlin Free Memorial Library on 11th Street, and the United States Post Office on Merchant Street.



Laughlin Memorial Free Library, Ambridge

ECONOMY BOROUGH

Overview

Economy Borough is the largest municipality in the SHALE planning region, totaling 17.7 square miles. Economy Borough is bordered by Conway Borough, Baden Borough, Harmony Township, Hopewell Township, and New Sewickley Township in Beaver County, and Bell Acres Borough, Franklin Park Borough, and Marshall Township in Allegheny County. Economy Borough has very little riverfront property in proportion to its land area. The Borough is buffered from the Ohio River by Conway, Baden, Harmony, and Ambridge, save for a small portion of land that supports the railroad yard and Northern Lights Shopping Center on Ohio River Blvd (Route 65). Route 989 is the major roadway that travels through Economy running north/south in the western portion of the borough. The other major road that traverses through the Borough is Conway Wallrose Road.

Economy is primarily rural in nature with a number of residential areas with low-density, single family housing. Much of the housing in Economy Borough has been built in the past 10 to 20 years, and new housing development continues throughout the Borough. The single family housing found through the Borough varies in age, size, and condition from smaller brick cottages to large estate homes. There are also a few mobile home or manufactured home parks in the Borough. There are a number of small businesses, nurseries, and home based businesses spread throughout the rural parts of the Borough, in addition to Northern Lights Shopping Center. The new Economy Elementary School is located near Ambridge Area Junior High in the northern part of the County. There is one unused, vacant school - Economy Elementary on Conway Wallrose Road. The former Ridge Road Elementary on Ridge Road is now being used as a central storage facility and computer lab. Economy is also home to Old Economy Park, cemeteries, and churches.

Section 1

Existing Land Use Assessment



single family home in Economy Borough

I. Residential Land Uses

The majority of housing in Economy Borough is single-family, rural-residential development. There are some duplexes and several mobile home or manufactured home parks, which represents the only medium-density housing in the Borough. Rural residential densities are found at 1 dwelling unit/acre or more. The low-density single family areas range in character. Neighborhoods in the northwestern corner of the Borough are a mix of new, large homes on 1/2 to 1-acre lots and slightly higher-density suburban style neighborhoods with ranch and split-level style homes. The neighborhoods in the northeastern part of the Borough tend to contain large lot houses (1- to 2-acres) on residential streets that are hilly and wooded, which serves as a natural buffer between residences. The southwestern portion of the Borough contains several neighborhoods with small, cottage-style brick homes. There are also new housing developments under construction in the Borough. Roberts Lane (located off Conway Wallrose Road) is being extended for a high-end housing development, Hidden Valley, with large estate homes. In addition, throughout the Borough there are scattered single family homes along Conway Wallrose Road, Mason Road, Ridge Road, and parts of Hoenig Road. Mobile or manufactured housing is located in the Orchard Estates Manufactured Home Community off Amsler Ridge Road, on the southern end of Meriman Road near Sunny Land and off Herr Road.

The level and care of neighborhood amenities such as sidewalks, street trees, streetlights, and landscaping varies, but the majority of neighborhoods do not contain sidewalks.

II. Industrial Land Uses

There are few industrial land uses in Economy Borough. Big Sewickley Creek Road follows the municipal boundary between Economy and Bell Acres Borough in Allegheny County. The road weaves in and out of Economy Borough with some industrial facilities located in or near Economy for the production of asphalt materials and concrete.

III. Commercial/Retail Land Uses

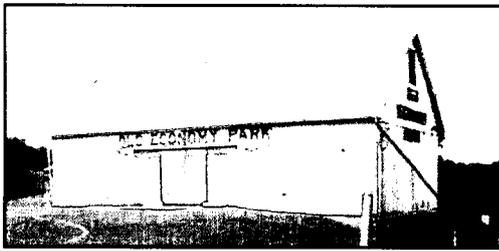
The Northern Lights Shopping Center, a strip mall style shopping center, is a regional shopping destination located off Ohio River Boulevard (Rt. 65). It contains 50,000 square feet of retail space that is currently forty-five percent occupied. Medium sized businesses include Giant Eagle, Citizens Bank, Capone's Fitness, Dollar Tree, Pool City, Jo-Ann Fabrics, and Altmeyer's. In addition, there are several fast food establishments, a bank, and a health center located at the entrance to the shopping center on Ohio River Boulevard. In addition, there is a vacant Ames store that has yet to be leased. Northern Lights Shopping Center has absolutely no landscaping or buffering for its parking lot, and the while the architecture is consistent from store to store, the building materials and aesthetics could be improved upon. In addition, the entrance and exit to and from Ohio River Boulevard contains a number of larger advertising billboards and fast food signs.



Northern Lights Shopping Center on Ohio River Boulevard, Economy Borough

Economy Borough contains a number of small businesses including repair shops, contractors, veterinarian clinics, and nurseries scattered throughout the Borough. There is a cluster of businesses at the intersection of Conway Wallrose and Dunlap Hill Roads including the Candle-lite Lounge, auto supply and repair shops, and restaurants, and an Exxon gas station. There are several car repair shops located at the intersection of Big Sewickley Creek Road and Conway Wallrose Road as well.

There also appears to be several small vacant commercial/retail buildings at the intersection of Conway Wallrose and Freedom Roads. Home-based businesses are also visible in the Borough.



Old Economy Park

IV. Open Space/Environmental Features/Parks

Economy Borough contains a fair amount of open space with rural vistas and scenic views of forest and farmland in some of the more undeveloped parts of the Borough. The far eastern and central portions of the Borough are less developed than the western northern and southwestern parts of the Borough. There is farmland located along Ridge Road and Golden Grove Roads. Old Economy County Park is a public park that falls in both Economy and Harmony. The

Economy Borough municipal complex contains a community park and center, and there are sports fields associated with the junior high and elementary schools on 1st Street.

V. Institutional

Economy Borough contains a number of schools as part of the Ambridge Area School District. A new facility was provided for Economy Elementary on 1st Street in close proximity to the Ambridge Area Junior High School. The former Economy Elementary is vacant on Conway Wallrose Road. The Economy Borough municipal complex and park (including public works, municipal building, and police station) is located on Conway Wallrose Road. There are three fire stations located throughout the Borough on Conway Wallrose and Ridge Roads.



Economy Elementary School

HARMONY TOWNSHIP

Overview

Harmony Township, located on the eastern side of the Ohio River in Beaver County, is bordered by Baden Borough, Economy Borough, Ambridge Borough, and the City of Aliquippa. Ohio River Boulevard runs north/south through Leetsdale, Ambridge, and Harmony Township on the northern border with Ambridge. Like Leetsdale and Ambridge, Harmony Township has riverfront property, but it is mainly used for rail transportation. Harmony Township has a total land area of 2.9 square miles.

Harmony Township is a continuation, in many ways, of the residential neighborhoods and industrial areas found along Duss Avenue in Ambridge. However, unlike Ambridge, Harmony has undeveloped areas of forestland and open space, in addition to areas of low-density suburban style development.

I. Residential Land Uses

Harmony Township contains a range of medium (4-6 dwelling units/acre) and low (1-2 dwelling units/acre) density single family housing. The residential neighborhoods east of Duss Avenue in Ambridge continue up into Harmony along 24th Street, 25th Street, Lenz Avenue, and Manning Street. The housing on Lenz Avenue is single-loaded facing the back of the car dealerships along Duss Avenue. This neighborhood contains smaller brick cottages and larger brick



Neighborhood on Lenz Avenue, Harmony

Section 1

Existing Land Use Assessment

single family houses. The houses in this neighborhood tend to be close together with short front and side setbacks and lawns, sidewalks and tree lawns, and some porches.

The lower density residential areas are located off of Breitenstein Road on Woodland Road and the adjoining streets, and in the southern portion (below Walter Panek Park) of the township in the neighborhoods located along Ridge Road. This residential area is more spread out and suburban in style than the neighborhoods found closer to Duss Avenue. Some of the streets are steeply sloped with views of the industrial facilities lining Ohio River Boulevard. Most of the low-density neighborhoods lack sidewalks. Some of the hillier streets are narrow and extremely steeply sloped.

There is a personal care facility, Harrington Homes, located on Ridge Road between Longview Avenue and Emerald Avenue.



Industrial Facility on Duss Avenue, Harmony

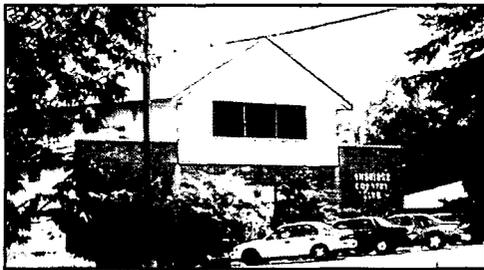
II. Industrial Land Uses

Like Ambridge, Harmony Township emerged as an industrial center during the era of big steel. The industrial corridor between Route 65 and Duss Avenue in Ambridge continues up into Harmony, terminating Legionville Run and the historic Legionville training camp site. Within this industrial area of Harmony are vacant industrial facilities and brownfields. There are some active industrial facilities and a recycling center as well.

III. Commercial/Retail Uses

The major commercial strips in Harmony Township are Logan Drive and Duss Avenue. Logan Drive is located off Ohio River Boulevard on the northern end of the township. There is a Sheetz gas and convenience store and an Aldi's grocery store located on Logan Drive, along with several other small businesses at the intersection of Ohio River Boulevard and Logan Drive.

The southern portion of Duss Ave is the other commercial area in Harmony. There are large industrial facilities located on the western side of Duss Avenue and medium to small-sized local businesses located on the eastern side of Duss. Businesses include convenience stores, gas stations, grocery stores, used car dealerships, repair shops, and small bars and restaurants. The industry and commercial corridor along Duss Avenue contains varied setbacks, intermittent sidewalks, curb cuts, and inconsistent signage throughout the corridor.



Ambridge Country Club, Harmony

IV. Open Space/Environmental Features/Parks

Portions of Harmony Township are forested or general open space. Legionville Hollow Road travels out to Old Economy County Park from Duss Avenue. The road splits and becomes a rough gravel road leading north around the County Park and Hermmerie Road traveling south around the county park. The majority of the area on both sides of Hermmerie Road is also forested except for the Harmony Transport Trucking facility located on the Economy Borough municipal border.

The majority of Old Economy County Park is located in Economy Borough, but a section of the park does fall in Harmony Township between Legionville Hollow Road and Hermmerie Road. Ambridge County Club, a public golf course, is also located in Harmony Township along the municipal border with Economy. The Country Club is accessible from Breitenstein Road.

V. Institutional

The Harmony Township building is located on Woodland Road with access from Breitenstein Road. The Harmony Township Volunteer Fire Department is located on Manning Street. There is a large construction site on Highland Avenue between Ridge Road and Fairdale Avenue on which a new Highland Elementary School is being built.

LEETSDALE BOROUGH

Overview

Located on the eastern side of the Ohio River, Leetsdale Borough is bordered by Edgeworth Borough, Leet Township and Crescent Township in Allegheny County, and Ambridge Borough in Beaver County. The land area in Leetsdale totals 1.0 square miles.

Leetsdale Borough is the southernmost municipality in the SHALE region and closest to the city of Pittsburgh. It is the only municipality in SHALE that is located in Allegheny County and the Quaker Valley School District. The Borough is split down the middle by Ohio River Boulevard (Route 65). Residential areas are found primarily to the northeast of Ohio River Boulevard and large industrial complexes are located to the southwest of the Boulevard along the Ohio River. Some housing is found between the industrial complexes in this portion of the Borough. The adjoining industrial and residential areas are not compatible land uses due to the intensity of the industrial activity. In addition to Route 65, the railroad tracks physically divide the residential and industrial areas. There is a commercial shopping center, Quaker Village, located on the border of Edgeworth Borough. Public buildings and parks include the Leetsdale Borough Municipal Building, Quaker Valley High School, and Edward C. Henle Park.



single family home on Broad Street, Leetsdale

I. Residential Land Uses

The housing in Leetsdale Borough includes single family housing units, as well as townhouses and duplexes. Development densities range from low density (1-2 dwelling units/acre) residential, to medium-density (4-6 dwelling units/acre) residential areas. There are also areas with multi-family housing including duplexes and small apartment buildings. Overall, the neighborhoods are well-maintained. However, the quality of housing does range and some units are vacant. Likewise, housing in Leetsdale ranges in affordability and quality. Housing is primarily older in character with little new construction taking place.

Broad Street from 1st Street to Ferry Street at the Edward C. Henle Park has well-maintained homes along tree-lined streets. Sidewalks, street trees, tree lawns (the area between the sidewalk and the curb), and setbacks are uniform and continuous along the street. Some homes include porches and small landscaped yards. Road widths are appropriate for the development style and accommodate on-street parking.

Victory Lane is a circular street line with a small development of brick townhouses and duplexes. The architecture of the development is consistent and maintains the same village-like theme. Street trees and sidewalk are absent in this area. The development appears to have a higher number of rental units.

Valley Lane and Winding Road are hilly, narrow roads with larger homes than are found on Beaver and Broad Streets. This area can be characterized by wider setbacks and large wooded lots. Sidewalks are not present. Beaver Road backs up against the Leet Township municipal boundary and is steeply sloped. Houses located on the northeastern side of the street are built into the hillside and setbacks are short due to the steep slopes. Maintenance

Section 1

Existing Land Use Assessment

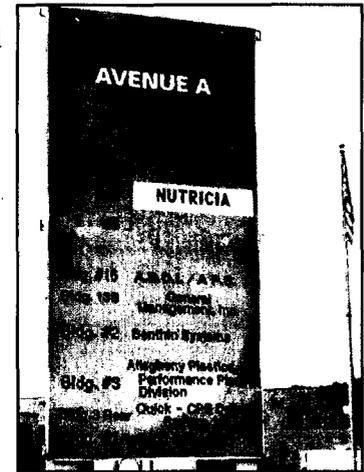
of homes appears to be an issue as you travel along Beaver Road toward Leet Street and vacant housing units are identifiable.

Some single-loaded housing is found along Ohio River Boulevard (Route 65). Houses front the street and look out toward the railroad tracks, industrial areas, and river. Maintenance of some of the homes in this area is an issue.

II. Industrial Land Uses

There is a significant presence of light- to heavy-industry in Leetsdale. The industrial areas are located southwest of Ohio River Boulevard (Route 65) along the Ohio River. There are several industrial complexes in this area including Buncher Industrial District, the Leetsdale Industrial Park, and the Hussey Copper Complex. The Leetsdale Industrial Park is a 1.5 million square-foot facility with thirty businesses which is being expanded by another 220,000 square feet. The Leetsdale Municipal Authority is also located in this area. Industrial activities range from light manufacturing, warehousing, and distribution, to heavy industrial activities.

There is a buffering of trees along the Ohio River that screens the industrial activity. Petrun Road is the only access point for pedestrians and recreational users to the River. Pedestrian and vehicular access to the river via Petrun Road is not clearly identified at access points or residential areas of the Borough. A boat launch is accessible from Petrun Road.



Buncher Industrial District Tenant Sign, Leetsdale

Incompatible land uses are mixed-in with the industrial area. Located between the Leetsdale Industrial Park and the Hussey Copper is a small residential area with homes situated along Washington Street and Monroe Way. The Washington Street neighborhood is the oldest neighborhood in Leetsdale and is historically significant. A playground located on the edge of Monroe is bordered by the Leetsdale Industrial Park and is surrounded by wire fencing, presumably to prevent children from straying into the adjoining industrial area.



Quaker Valley Shopping Center, Leetsdale

III. Commercial/Retail Land Uses

The Quaker Village Shopping Center, a strip mall style shopping area, is located between Quaker Drive and Edgeworth Borough with access to Route 65. Medium sized businesses include Tuesday Morning, Radio Shack, GNC, Giant Eagle, and Eckerd Drug. Fast food restaurants are in close proximity to the shopping along Route 65. Entrance to the parking lot of the shopping center is screened by landscaping and access to and from Route 65 is controlled. In addition, the architecture of the complex is consistent from store to store with fairly well-designed signage, including a multi-tenant

monument sign located at the entrance to the complex, which reduces sign clutter in the area. The interior of the parking lot lacks buffers, pedestrian walkways, and landscaped islands.

There are also some local businesses located along the northern portion of Route 65 in Leetsdale. The businesses are smaller and may be locally-owned.



Edward C. Henli Park, Leetsdale

IV. Open Space/Environmental Features/Parks

The Edward C. Henle Park is a neighborhood park located at the intersection of Broad and Ferry Street. The Borough is fairly built-out and contains little open, undeveloped land. Portions of Beaver Road in the northern portion of the Borough are forested as well as the hillsides along Beaver Road. In addition, portions of the riverfront area are forested. There are no clear trail, pedestrian, or greenway connections that take advantage of the riverfront areas in the Borough or link with existing resources and assets in the Borough.



Quaker Valley High School, Leetsdale

V. Institutional

The Leetsdale Municipal Building and fire/police station is located on Broad Street. The Quaker Valley High School (part of the Quaker Valley School District) is located on Beaver Road, across from Valley Lane. There are no libraries in Leetsdale Borough.

SOUTH HEIGHTS BOROUGH

Overview

South Heights is the smallest municipality in the SHALE planning region and the only municipality located on the western side of the Ohio River. It is bordered by Hopewell Township in Beaver County, Crescent Township in Allegheny County and Ambridge Borough across the Ohio River. The land area of South Heights totals 0.3 square miles.

South Heights is primarily residential in nature, but does contain some commercial and industrial areas as well. Jordan Street (Route 51) bisects the Borough traveling north and south and is the major transportation corridor through the Borough. The area between the Ohio River and Jordan Street is relatively flat, but becomes steeply sloped in the western portion of the Borough.

Single family homes are located on both sides of Jordan Street, in addition to several small businesses, a church, and the Duquesne Light electrical distribution facility.

I. Residential Land Uses

South Heights contains primarily medium to low density single family housing. The Borough is very hilly, which has most likely limited the type and intensity of development in the steeply sloped areas to pockets of low-density residential development. Housing located along Jordan Street is primarily medium-density, single family homes that resemble some of the older housing in Harmony, Ambridge, and Leetsdale. Design characteristics of the residential area along Jordan Street include long front setbacks, short side setbacks, longer setbacks for garages, which place them behind the front of the house, short tree lawns and sidewalks, and front porches. There is a small group of mobile homes located just south of 3rd Street.



Single family homes on Jordan Street, South Heights

Section 1

Existing Land Use Assessment

The residential areas in the hills of South Heights are lower density, single family homes largely surrounded by forested, open space. These areas are located along narrow residential streets including Glenview Drive, Scenic Drive, Duquesne and Cedar Streets. The housing styles range with some newer vinyl-sided, split-level homes. Houses are located on larger lots and are often buffered from adjacent residential lots. Economy and South Economy Streets are alley-like roads that are mostly wooded with some single family homes. Housing quality in the Borough varies and poorly maintained properties are visible.

II. Industrial Land Uses

A portion of the Ohio riverfront along 9th Street in the northern part of the Borough is used for industrial purposes. This is the only industrial area in the South Heights.

The Phillips Power Station is located on the southern end of Jordan Street on the Crescent Township municipal boundary. The riverfront is primarily dominated by the a former Duquesne Light Plant which is now a brownfield. The vacant office building of the Duquesne Plant, located on the southern end of Jordan Street near the Volunteer Fire Department, is overgrown with vegetation.

III. Commercial/Retail Land Uses

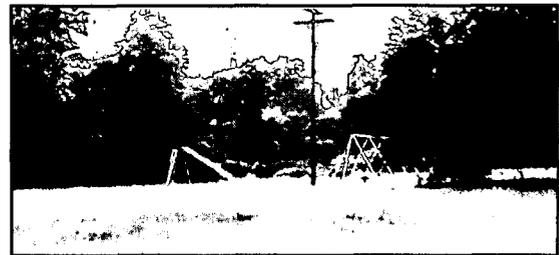
There are a few small businesses located along Jordan Street. They include a bar/restaurant, a small deli, auto repair shops, and a small medical office. The South Heights Post Office is also located on the corner of Jordan and North Streets.



Business located on Jordan Street, South Heights

IV. Open Space/Environmental/Parks

Portions of South Heights are steeply sloped, forested land with some pockets of low density housing developments. There appears to be only one vehicular access point to the Ohio River via North Street. This is also the access point to the industrial area along the riverfront. The presence of private property guard dogs makes the area particularly unsafe for pedestrians. Otherwise, the riverfront is inaccessible due to the Duquesne Light Brownfield site and the active railroad tracks.



Small Playground on Penn Alley, South Heights

V. Institutional

There are no schools in South Heights. The South Heights Fire Hall and Creswell Heights Water Authority are located on Jordan Street.



Socio-Economic and Housing Characteristics

The purpose of this section is to provide a demographic profile of the region. This analysis is based on United States Census data from 1980 to 2000. Comparisons are made with county level data and trends, as well as that of adjacent municipalities. The demographic analysis aids in understanding the characteristics of the community in terms of population, education, housing conditions, and the prevalence of poverty.

This section summarizes existing conditions and trends for the following:

- Population
- Education
- Housing
- Poverty

Population Characteristics

SHALE Region

Table 1.1 shows the population of the SHALE municipalities and Allegheny and Beaver Counties.

The total population of the five SHALE municipalities combined in 2000 was 22,279. The population of the area declined by 4.7% from 23,380 people in 1990 to 22,279 in 2000. Economy Borough has the largest population of the five municipalities, followed by Ambridge, Harmony, Leetsdale, and South Heights.

Table 1.1. Total Population: SHALE Municipalities and Counties

Municipality	1980	1990	2000	% Change 1980-1990	% Change 1990-2000
Ambridge Borough	9,575	8,133	7,769	-15.1%	-4.5%
Economy Borough	9,538	9,519	9,363	-0.2%	-1.6%
Harmony Township	3,977	3,694	3,373	-7.1%	-8.7%
Leetsdale Borough	1,604	1,387	1,232	-13.5%	-11.2%
South Heights Borough	NA	647	542	NA	-16.2%
Total	NA	23,380	22,279	NA	-4.7%
County					
Allegheny County	1,450,085	1,336,449	1,281,666	-7.8%	-4.1%
Beaver County	204,441	186,093	181,412	-9.0%	-2.5%

Source: United States Census

Section 1

Socio-Economic and Housing Characteristics

All the municipalities declined in population from 1990 to 2000. South Heights experienced the greatest rate of decline in population (16.2%) and Economy Borough the smallest (1.6%). The population of Ambridge, Harmony and Economy also declined from 1980 to 1990.¹ However, the population of Ambridge did not decrease as drastically from 1990 to 2000, as it did from 1980 to 1990 (15.1% decline from 1980 to 1990 versus 4.5% from 1990 to 2000). Economy and Harmony, on the other hand, experienced a greater decline from 1990 to 2000 than 1980 to 1990.

Population trends in the SHALE municipalities are consistent with county-wide trends in Allegheny and Beaver Counties, which decreased in population by 4.1% and 2.5% respectively, from 1990 to 2000. However, with the exception of Economy, the SHALE municipalities experienced greater rates of decline in population compared to changes in the county populations. The population of Beaver and Allegheny Counties also decreased in the previous ten-year period from 1980 to 1990, but at a greater rate than what was seen from 1990 to 2000.

Table 1.2 shows the distribution of the population of the SHALE area by age group (0-17 years, 18-64 years, and older than 65 years) for 2000. Economy Borough has the greatest proportion of its population (22.2%) and number of people under the age of 18 of all the SHALE municipalities. This is also true for the 18-64 age group, which makes up 64.2% of Economy's population. Harmony Township has the greatest proportion of senior citizens compared to the other SHALE municipalities with 26.8% of the population age 64 and older, and Economy Borough has the smallest proportion of people in this age group at just 13.6%.

Table 1.2 Age Distribution, 2000

Municipality	Total Population	<18 Years	% of Total	18-64 Years	% of Total	>65 Years	% of Total
Ambridge	7,769	1,684	21.7%	4,300	55.3%	1,785	23.0%
Economy	9,363	2,076	22.2%	6,009	64.2%	1,278	13.6%
Harmony	3,373	645	19.1%	1,823	54.0%	905	26.8%
Leetsdale	1,232	263	21.3%	688	55.8%	281	22.8%
South Heights	542	109	20.1%	346	63.8%	87	16.1%
Total	22,279	4,777	21.4%	13,166	59.1%	4,336	19.5%
County							
Allegheny County	1,281,666	281,176	21.9%	772,074	60.2%	228,416	17.8%
Beaver County	181,412	41,062	22.6%	106,926	58.9%	33,424	18.4%

Source: United States Census

Table 1.3 shows population trends for the three age groups from 1980 to 2000. From 1990 to 2000, the SHALE area declined in population across all age groups. The population of people younger than 18 years of age declined by 7.6%, the number of people 18-64 years of age declined by 3.2%, and the number of people over 65 years declined by 5.8%. However, the population trends in each age group varied by municipality, where some municipalities saw greater increases or decreases in particular age groups than others. Despite its declining population, Ambridge did see an increase by 4.7% in the population of people 18 years and younger from 1990 to 2000, which reversed the declining trend in this age group, as shown from 1980 to 1990. Economy Borough showed the only increase among the SHALE municipalities of people age 18 to 65. Although slight, this population increased by 1.1% in Economy from 1990 to 2000, while Harmony, Leetsdale, and South Heights showed declines in excess of 10% in this population over the same time period. This segment of the population appears to be stabilizing in Ambridge from the more drastic decrease that took place over the previous decade (1980-1990). From 1990 to 2000, Economy had the only growing population of senior citizens age 65 and older, which increased by 20.7%. This continued an increasing trend in the senior citizen population in Economy, which more than doubled from 1980 to 1990.

1. 1980 United States Census Data for municipalities under 2,500 persons was not available. Therefore, 1980 data for Leetsdale and South Heights is not included in this section.

Table 1.3 Population Trends in Age Distribution: SHALE Municipalities

Municipality	< 18 years				
	1980	1990	2000	% Change 1980-1990	% Change 1990-2000
Ambridge	1,864	1,608	1,684	-13.7%	4.7%
Economy	2,955	2,514	2,076	-14.9%	-17.4%
Harmony	776	646	645	-16.8%	-0.2%
Leetsdale	NA	268	263	NA	-1.9%
South Heights	NA	136	109	NA	-19.9%
Total	NA	5,172	4,777	NA	-7.6%
County					
Allegheny County	345,486	282,183	281,176	-18.3%	-0.4%
Beaver County	54,404	43,422	41,062	-20.2%	-5.4%

Municipality	18 yrs - 64 yrs				
	1980	1990	2000	% Change	% Change
Ambridge	5,805	4,441	4,300	-23.5%	-3.2%
Economy	5,941	5,946	6,009	0.1%	1.1%
Harmony	2,413	2,044	1,823	-15.3%	-10.8%
Leetsdale	NA	783	688	NA	-12.1%
South Heights	NA	393	346	NA	-12.0%
Total	NA	13,607	13,166	NA	-3.2%
County					
Allegheny County	905,033	822,355	772,074	-9.1%	-6.1%
Beaver County	125,732	111,151	106,926	-11.6%	-3.8%

Municipality	> 65 years				
	1980	1990	2000	% Change	% Change
Ambridge	1,906	2,084	1,785	9.3%	-14.3%
Economy	642	1,059	1,278	65.0%	20.7%
Harmony	788	1,004	905	27.4%	-9.9%
Leetsdale	NA	336	281	NA	-16.4%
South Heights	NA	118	87	NA	-26.3%
Total	NA	4,601	4,336	NA	-5.8%
County					
Allegheny County	199,566.0	231,911	228,416	16.2%	-1.5%
Beaver County	24,305.0	31,520	33,424	29.7%	6.0%

Source: United States Census

When analyzed in the context of population trends by age group, changes in the make-up of the Ambridge community suggest that it is completing a population cycle characterized by high numbers of senior citizens and is beginning the family cycle, as evidenced by increases in the number of children and young families. The make-up of a community changes through cycles with a higher proportion of families, to non-family households, to senior citizen households, and then back again to households with families. In contrast, Harmony has not completed its community change cycle and still contains a larger percentage of senior citizens. Based on the 2000 Census, non-family households have doubled as a percentage of Ambridge's population. Individuals under the age of 65 and living alone has increased, while the number of senior citizens living alone decreased.²

County wide trends show a declining population of people under the age of 18 and those people 18-64 in both Allegheny and Beaver County's (see table 1.3). However, the rate of decline in these populations decreased from 1990 to 2000 in comparison to 1980 to 1990 trends.

² Ambridge and its Region: 2000 Census Report #1 Borough of Ambridge, November 2001

Section 1

Socio-Economic and Housing Characteristics

The number of people age 65 and older increased from 1980 to 1990 for both Allegheny and Beaver Counties, by 16.2% and 29.7%, respectively. However, from 1990 to 2000, this population increased in Beaver County by 6% and decreased by 1.5% in Allegheny County.

Table 1.4 shows the racial distribution of the population in the SHALE municipalities. The racial make-up of the SHALE region is predominantly white (93.3% of the population). African Americans make up only 4.9% of the population. Ambridge is the most diverse of all the municipalities with 85.7% of the population white and 11.4% African American.

Table 1.4. Population Race Distribution

Municipality	% White	% Black or African American	% American Indian	% Asian	% Two or more Races	% Hispanic Origin (can be any race)
Ambridge	85.7	11.40%	0.1%	0.5%	1.7%	1.8%
Economy	98.3	0.70%	0.1%	0.3%	0.5%	0.4%
Harmony	97.5	1.50%	0.0%	0.1%	0.6%	0.6%
Leetsdale	89.2	7.30%	0.0%	0.0%	2.8%	1.6%
South Heights	98.5	0.70%	0.0%	0.2%	0.6%	0.4%
Total	93.3%	4.89%	0.1%	0.3%	1.1%	1.0%
County						
Allegheny County	84.3%	12.4%	0.1%	1.7%	1.1%	0.9%
Beaver County	92.5%	6.0%	0.1%	0.3%	0.9%	0.7%

Source: United States Census

Table 1.5 illustrates the population density in the SHALE area and the municipalities. The SHALE area is 24.1 square miles and has approximately 953 people per square mile. The population density (# of persons/square mile land area) is highest in Ambridge with approximately 5,232 people per square mile and lowest in Economy with approximately 529 people per square mile. Therefore, the population density reflects the concentration of development and higher densities found in Ambridge compared to the other SHALE municipalities.

Table 1.5 Household Characteristics, 2000

Municipality	Total Households	Avg Household Size	Family Households		Non-Family Households	
			#	% of total	#	% of total
Ambridge	3,595	2.14	1,967	54.7%	1,628	45.3%
Economy	3,528	2.65	2,853	80.9%	675	19.1%
Harmony	1,439	2.33	992	68.9%	447	31.1%
Leetsdale	576	2.14	341	59.2%	235	40.8%
South Heights	239	2.27	146	61.1%	93	38.9%
Total*	9,377	2.31	6,299	67.2%	3,078	32.8%
County						
Beaver County	72,576	2.44	50,521	69.6	22,055	30.4
Allegheny County	537,150	2.31	332,237	61.9	204,913	38.1

Source: United States Census

Adjacent Municipalities

There are a total of eleven municipalities that border the SHALE area. Five (Aliquippa, Baden, Conway, Hopewell, and New Sewickley) are located in Beaver County. The remaining six (Bell Acres, Crescent, Edgeworth, Franklin Park, Leet, and Marshall) are located in Allegheny County. Table 1.5 includes the populations of the eleven surrounding municipalities. The largest of these municipalities is Hopewell in Beaver County and the smallest is Bell Acres in Allegheny County. Generally, neighboring municipalities of the SHALE area declined in population from 1990 to 2000. The population of Aliquippa (11,734) and Baden (4,377) decreased by 12.3% and 13.7%, respectively. Other municipalities with decreases in population include Conway, Hopewell, Bell Acres, Crescent, and Leet. New Sewickley, Edgeworth, Franklin Park, and Marshall increased in population from 1990 to 2000. Franklin Park's population increased by 12.4% and Marshall's by nearly 50%. The proximity of these two municipalities to the I-79 corridor in Allegheny County, which has experienced rapid growth up through Cranberry Township in Butler County, has likely influenced the positive population change in these two municipalities.

The majority of the surrounding municipalities also decreased in population of young and middle-aged people from 1990 to 2000, as shown in Table 1.6. However, the population of people 18 years and younger in Hopewell, Edgeworth, Franklin Park, and Marshall all increased. In Franklin Park, this sector of the population increased by 68.3% and Edgeworth by 23.7%. Increases in the number of people age 18-64 were seen in New Sewickley, Franklin Park, and Marshall. The population of people age 65 and older increased in all of the surrounding municipalities, except for Aliquippa, Crescent, and Edgeworth, for which the population either remained constant or decreased.

Table 1.6 Population Trends in Age Distribution: Adjacent Municipalities

Adjacent Municipalities									
Municipality	< 18 years			18 yrs - 64 yrs			> 65 years		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
Aliquippa, Beaver Co.	3,132	2,762	-11.8%	7,332	6,331	-13.7%	2,910	2,641	-9.2%
Baden, Beaver Co.	984	762	-22.6%	2,962	2,398	-19.0%	1,128	1,217	7.9%
Conway, Beaver Co.	495	429	-13.3%	1,501	1,326	-11.7%	428	535	25.0%
Hopewell, Beaver Co.	2,621	2,806	7.1%	8,256	7,564	-8.4%	2,397	2,884	20.3%
New Sewickley, Beaver Co.	1,842	1,618	-12.2%	4,304	4,414	2.6%	715	1,044	46.0%
Bell Acres, Allegheny Co.	335	333	-0.6%	875	800	-8.6%	226	249	10.2%
Crescent, Allegheny Co.	596	554	-7.0%	1,549	1,415	-8.7%	345	345	0.0%
Edgeworth, Allegheny Co.	422	522	23.7%	971	931	-4.1%	277	277	0.0%
Franklin Park, Allegheny Co.	3,122	3,495	11.9%	6,238	6,799	9.0%	749	1,070	42.9%
Leet, Allegheny Co.	435	388	-10.8%	1,074	947	-11.8%	222	233	5.0%
Marshall, Allegheny Co.	1,199	2,018	68.3%	2,437	3,515	44.2%	374	463	23.8%

Source: United States Census

Educational Characteristics

SHALE Region

Table 1.7 shows levels of educational attainment for the SHALE municipalities as well as Allegheny and Beaver Counties.

As of 2000, just over 17% of the population (age 25 and older) in the SHALE area had not completed high school, compared to 16.4% in Beaver County and 13.7% in Allegheny County.

Approximately 18% of the population of the SHALE area held a bachelor's degree or higher, compared to 28.3% in Allegheny County and 15.8% in Beaver County. Educational attainment levels tend to be lower in Ambridge and South Heights compared to Economy, Harmony, and Leetsdale. In 2000, over a quarter of the population of Ambridge had not completed high school. Economy Borough has the highest proportion of the population with a

Section 1

Socio-Economic and Housing Conditions

bachelor's degree or higher (23.7%) of the five municipalities, followed by Leetsdale (19.9%), Harmony (14.4%), Ambridge (13.6%), and South Heights (4.8%). Compared to their respective counties, only Economy shows a higher percentage of people with a high school or bachelors degree or higher. In Allegheny County 28.3% of the population has a bachelor's degree or higher compared to 15.8% in Beaver County.

Table 1.7. Educational Attainment in SHALE Area, 2000 (persons 25 and older)

Municipality	Total population >25 years	Less than High School Diploma		High School Grad or Higher		Bachelor's Degree or Higher	
		Persons	%	Persons	%	Persons	%
Ambridge	5,525	1,457	26.4	4,068	73.6%	753	13.6
Economy	6,692	726	10.5	5,966	89.2%	1,584	23.7
Harmony	2,563	423	16.5	2,140	83.5%	369	14.4
Leetsdale	896	162	18.1	734	81.9%	178	19.9
South Heights	398	69	17.4	329	82.7%	19	4.8
Total	16,074	2,837	17.6%	13,237	82.4%	2,903	18.1%
County							
Allegheny County	891,171	121,836	13.7%	769,335	86.3%	252,583	28.3%
Beaver County	126,933	20,823	16.4%	106,110	83.6%	20,051	15.8%

Source: United States Census

The trends in educational attainment from 1980 to 2000 show that the population of the SHALE region is becoming increasingly better educated, as demonstrated in Table 1.8. The number of people without a high school diploma decreased in every municipality over the twenty year period¹. This was coupled with increases in the number of people with a bachelor's degree or higher. South Heights is the only municipality with a decrease in the number of people with a college degree or higher from 1990 to 2000. The total number of people in the SHALE region with a bachelor's degree or higher increased by 41.6% from 1990 to 2000, which outpaced changes in the same category in both Allegheny and Beaver Counties.

Table 1.8. Educational Attainment Trends

Municipality	Less than High School Diploma					High School Grad or Higher					Bachelor Degree or Higher				
	1980	1990	2000	% Change 1980-1990	% Change 1990-2000	1980	1990	2000	% Change 1980-1990	% Change 1990-2000	1980	1990	2000	% Change 1980-1990	% Change 1990-2000
Ambridge	2,289	2,123	1,457	-7.3%	-31.4%	3,371	3,764	4,068	11.7%	8.1%	339	531	753	56.6%	41.8%
Economy	1,408	1,145	726	-18.7%	-36.6%	4,251	5,186	5,966	22.0%	15.0%	690	1,066	1,584	54.5%	48.6%
Harmony	1,193	830	423	-30.4%	-49.0%	1,595	1,943	2,140	21.8%	10.1%	181	267	369	47.5%	38.2%
Leetsdale	NA	235	162	NA	-31.1%	NA	779	734	NA	-5.8%	NA	145	178	NA	22.8%
South Heights	NA	114	69	NA	-39.5%	NA	329	329	NA	0.0%	NA	41	19	NA	-53.7%
Total	NA	4,447	2,837	NA	-36.2%	NA	12,001	13,237	NA	10.3%	NA	2,050	2,903	NA	41.6%
County															
Allegheny County	193,318	194,260	121,836	0.5%	-37.3%	727,245	732,566	769,335	0.7%	5.0%	208,047	209,645	252,583	0.8%	20.5%
Beaver County	31,479	31,885	20,823	1.3%	-34.7%	93,935	95,162	106,110	1.3%	11.5%	14,924	15,140	16,239	1.4%	7.3%

Source: United States Census, 1980, 1990, 2000

Surrounding Municipalities

In general, the level of educational attainment is higher in the municipalities located in Allegheny County versus those bordering the SHALE area in Beaver County. This comparison is shown in Table 1.9. Aliquippa, Baden, Conway, Hopewell, New Sewickley, and Crescent all have comparable education attainment levels to the SHALE municipalities. However, Bell Acres, Edgeworth, Franklin Park, Leet, and Marshall all have a considerably greater percentage of their populations of people with college and advanced degrees (exceeding 34%). On the upper end in Edgeworth, 73.8% of the population holds a bachelor's degree or higher and only 1.6% of the adult population has not completed high school.

1. 1980 United States Census data was not available for Leetsdale and South Heights.

Table 1.9. Educational Attainment in Adjacent Municipalities, 2000 (persons 25 and older)

Adjacent Municipalities	Total population >25 years	Less than High School Diploma		High School Grad or Higher		Bachelor's Degree or Higher	
		Persons	%	Persons	%	Persons	%
Aliquippa, Beaver Co.	8,111	1,796	22.2%	6,315	77.9%	738	9.1%
Baden, Beaver Co.	3,309	601	18.1%	2,708	81.8%	437	13.3%
Conway, Beaver Co.	1,702	283	16.6%	1,419	83.4%	218	12.8%
Hopewell, Beaver Co.	9,847	1,381	14.0%	8,466	86.0%	1,822	18.5%
New Sewickley, Beaver Co.	4,934	791	16.0%	4,143	84.0%	558	11.3%
Bell Acres, Allegheny Co.	988	82	8.2%	906	91.7%	368	37.2%
Crescent, Allegheny Co.	1,595	246	16.0%	1,349	84.6%	224	14.0%
Edgeworth, Allegheny Co.	1,156	18	1.6%	1,138	98.4%	853	73.8%
Franklin Park, Allegheny Co.	7,330	305	4.1%	7,025	95.8%	4,397	60.0%
Leet, Allegheny Co.	1,066	93	8.7%	973	91.3%	362	34.0%
Marshall, Allegheny Co.	3,701	188	5.1%	3,513	94.9%	2,286	61.8%

Source: United States Census

Housing Characteristics

There are a total of 10,146 housing units in the whole region. Ambridge has 4,099 housing units, the greatest number in the SHALE area, followed by Economy with 3,629 units and Harmony with 1,509 units. Leetsdale has just 653 housing units and South Heights even fewer at 256 units. Table 1.10 provides a break-down of the various types of housing units found in the SHALE area.

Table 1.10. SHALE Area Housing Types, 2000

Municipality	1-unit detached		1-unit attached		2-4 units		5+ units		Mobile Home	
	Units	%	Units	%	Units	%	Units	%	Units	%
Ambridge	2160	52.7%	193	4.7%	1092	27%	648	15.8%	6	0.1%
Economy	3359	92.6%	28	0.8%	53	1%	0	0.0%	189	5.2%
Harmony	1413	93.6%	18	1.2%	61	4%	11	0.7%	6	0.4%
Leetsdale	364	55.7%	132	20.2%	84	13%	73	11.2%	0	0.0%
South Heights	184	72.2%	5	2.0%	26	10%	1	0.4%	39	15.3%
Total	7480	73.7%	376	3.7%	1316	13%	733	7.2%	240	2.4%
County										
Allegheny	361753	62.0%	52127	8.9%	64647	11.1%	100634	17.2%	4401	0.8%
Beaver	56933	73.2%	2600	3.3%	7220	9.3%	6601	8.5%	4382	5.6%

Source: United States Census

The majority of housing in the SHALE area is single family, detached dwelling units, which accounts for 73.7% of the housing stock. Apartment buildings (dwelling units in structures with five (5) units or more) are less prevalent, accounting for only 7.2% of the housing stock. Mobile homes make up 2.4% of the dwelling units in the area and are more common in Economy and South Heights.

Over 90% of the housing stock in Economy and Harmony is single family detached dwelling units. The majority of multi-unit buildings are located in Ambridge and Leetsdale. Just over half of the housing stock in Ambridge and Leetsdale is single family detached homes. Structures with 2-4 units or 5+ units make up 27% and 15.8%, respectively, of the housing stock in Ambridge. In Leetsdale, 1 unit-attached homes make up 20.2% of the housing stock and 24% of the housing stock is in buildings with 2+ dwelling units.

Table 1.11 includes information on the age of the housing stock in the SHALE area. Information is presented on the number of housing units built before 1960 and the number built since 1960.

This year was used because the overall population of Southwestern Pennsylvania peaked in 1960, and housing construction since that time indicates where new growth took place. Just over 74% of the housing stock in the

Section 1

Socio-Economic and Housing Conditions

SHALE area was built before 1960, with the majority of new housing located in Economy. Just over half of Economy's housing stock was built prior to 1960, compared to over 90% of the housing stock in Harmony and Leetsdale, 86.9% of the housing in Ambridge, and 79.7% in South Heights. Approximately 64% of the housing stock in Allegheny County was built before 1960 and just over 61% in Beaver County.

Table 1.11. SHALE Area - Age of Housing Stock

Municipality	Total Housing Units	# Units Built before 1960*	# of Units Built 1960-2000	% of Units Built before 1960	% of Units Built 1960-2000
Ambridge	4,099	3563	536	86.9%	13.1%
Economy	3,629	1833	1796	50.5%	49.5%
Harmony	1,509	1360	149	90.1%	9.9%
Leetsdale	653	590	63	90.4%	9.6%
South Heights	256	204	51	79.7%	19.9%
Total	10,146	7,550	2,595	74.4%	25.6%
County					
Allegheny County	583,646	376,156	207,490	64.4%	35.6%
Beaver County	77,765	47,572	30,193	61.2%	38.8%

Source: United States Census

According to Table 1.12, the vacancy rate for the SHALE area in 2000 was 7.6%. Of the 10,146 housing units in the region, 9,377 units were occupied. Housing vacancy rates are highest in Ambridge with 12.3% vacant and Leetsdale with 11.8% vacant. Economy showed the lowest vacancy rate in 2000 of 2.3%, while Harmony and South Height fell in the middle. The overall vacancy rate for Allegheny County in 2000 was 8.0% and 6.7% in Beaver County. Therefore, the vacancy rate in Ambridge and Leetsdale was higher than what was found in their respective counties.

Table 1.12. SHALE Area Housing Vacancy, 2000

Municipality	Total Housing Units	Total Households	Vacant Housing Units	% Vacant
Ambridge	4,099	3,595	504	12.3%
Economy	3,629	3,528	101	2.8%
Harmony	1,509	1,439	70	4.6%
Leetsdale	653	576	77	11.8%
South Heights	256	239	17	6.6%
Total	10,146	9,377	769	7.6%
County				
Allegheny	56,933.0	537,150.0	46,496.0	8.0%
Beaver	77765	72576	5189	6.7%

Source: United States Census

Table 1.13 provides a break-down of the housing stock based on owner-occupied versus renter-occupied. Just over three quarters of the housing stock in the SHALE area is owner-occupied and approximately one quarter is renter-occupied. Ambridge has the lowest rate of owner-occupied units in the region, with just over half (51.5%) of the housing units owner-occupied. In Economy, 94.7% of the housing units are owner occupied.

Table 1.13. SHALE Area Housing Tenure, 2000

Municipality	Occupied Housing Units	Owner-Occupied		Renter-Occupied	
		# units	%	# units	%
Ambridge	3595	1852	51.5%	1743	48.5%
Economy	3528	3341	94.7%	187	53.0%
Harmony	1439	1298	90.2%	141	98.0%
Leetsdale	576	358	62.2%	218	37.8%
South Heights	239	193	80.8%	46	19.2%
Total	9377	7042	75.1%	2335	24.9%
County					
Allegheny County	537150	360036	67.0%	177114	33.0%
Beaver County	72576	54367	74.9%	18209	25.1%

Source: United States Census

The median house values and rents in the SHALE area vary, as shown in Table 1.14. In 2000, Ambridge had the lowest median house value of \$50,300 and Economy had the highest of \$112,600. Median rents ranged from \$399 in Leetsdale to \$570 in Economy. Median house values increased throughout the SHALE region from 1990 to 2000. The greatest changes in median house values were in South Heights, Economy, and Harmony, which increased by 69.2%, 65.1%, and 64.9%, respectively. The median house value in Beaver County increased by 68.3% from 1990 to 2000 and by 47.5% in Allegheny County.

Table 1.14 SHALE Area Housing Rent & Cost

Municipality	Median Rent (\$)			Median House Value (\$)		
	1990	2000	% Change	1990	2000	% Change
Ambridge	213	410	92.5%	\$36,700	\$50,300	37.1%
Economy	280	570	103.6%	\$68,200	\$112,600	65.1%
Harmony	267	534	100.0%	\$45,000	\$74,200	64.9%
Leetsdale	231	399	72.7%	\$38,600	\$57,300	48.4%
South Heights	272	500	83.8%	\$41,600	\$70,400	69.2%
County						
Allegheny County	315	516	63.8%	\$57,100	\$84,200	47.5%
Beaver County	230	438	90.4%	\$50,500	\$85,000	68.3%

Source: United States Census

In general, the median house values are higher in the municipalities surrounding the SHALE region, as Table 1.15 indicates. Nine (9) of the eleven (11) municipalities have median house values that exceed \$80,000. Only Aliquippa and Baden are comparable to the median house values in Ambridge, Harmony, Leetsdale, and South Heights. Bell Acres, Edgeworth, Franklin Park, and Marshall all have median house values that exceed \$120,000, the highest of which is Edgeworth at \$322,500.

Table 1.15 Adjacent Municipality Housing Rent & Cost

Municipality	Median Rent (\$)			Median House Value (\$)		
	1990	2000	% Change	1990	2000	% Change
Aliquippa, Beaver Co.	181	400	121.0%	\$34,300	\$54,700	59.5%
Baden, Beaver Co.	231	397	71.9%	\$45,400	\$74,700	64.5%
Conway, Beaver Co.	215	400	86.0%	\$50,100	\$80,700	61.1%
Hopewell, Beaver Co.	300	572	90.7%	\$59,800	\$93,000	55.5%
New Sewickley, Beaver Co.	251	482	92.0%	\$57,000	\$103,900	82.3%
Bell Acres, Allegheny Co.	267	506	89.5%	\$78,700	\$124,600	58.3%
Crescent, Allegheny Co.	309	679	119.7%	\$57,200	\$87,700	53.3%
Edgeworth, Allegheny Co.	420	844	101.0%	\$209,700	\$322,500	53.8%
Franklin Park, Allegheny Co.	517	1,025	98.3%	\$160,600	\$198,000	23.3%
Leet, Allegheny Co.	275	534	94.2%	\$73,300	\$106,600	45.4%
Marshall, Allegheny Co.	393	693	76.3%	\$144,500	\$211,500	46.4%

Source: United States Census

Section 1

Socio-Economic and Housing Characteristics

Housing Programs

There are several programs in Beaver County that provide housing assistance to low-income individuals and families. The Housing Authority of Beaver County owns and manages 1,317 properties for low-income families and senior citizens, and administers the Section 8 program. The Housing Authority manages several housing communities in Ambridge. A total of 205 low-income family units are spread among three developments on 14th Street, and Duss and Maple Avenues. In addition, Ambridge Towers is a 100-unit building for low-income senior citizens. Other housing programs are offered by Housing Opportunities of Beaver County, a non-profit organization that aids low and moderate-income families in purchasing a home and becoming home owners.

Poverty Characteristics

Poverty is an issue in the SHALE region. Table 1.16 shows the number of individuals and families living in poverty in the SHALE area.

In 2000, 8.8% of individuals and 7.2% of families in the region were living below the poverty level. This is about equal or slightly below the Beaver County levels for individuals and families (9.4% and 7.2% respectively). Ambridge has the greatest number of people and 329 families living in poverty, and highest percent of the population with 17.8% of the total population and 16.4% of families living in poverty, compared to the other municipalities. Economy has the lowest poverty rate with only 2.4% of the population and 2.0% of families living in poverty.

Table 1.16. SHALE Area Poverty Characteristics, 2000

Municipality	Individuals		Families	
	Number	%	Number	%
Ambridge	1377	17.8%	329	16.4%
Economy	224	2.4%	57	2.0%
Harmony	159	4.7%	26	2.6%
Leetsdale	158	12.8%	33	9.6%
South Heights	52	9.6%	13	9.1%
Total	1970	8.8%	458	7.2%
County				
Allegheny County	139505	11.2%	26527	7.9%
Beaver County	16635	9.4%	3640	7.2%

Source: United States Census



Cultural and Historic Resources

The SHALE region is rich in history and culture, which is captured in the designated historic districts, preserved buildings, sites, and villages. This development of the region has been heavily influenced by the culture and religion of the earliest settlers to the area, specifically the Harmonists, and the steel manufacturing industry which spurred job growth and the formation of company towns, such as Ambridge. However, the cultural and historic identity of each municipality in the SHALE region is unique. This section is an overview of the historic and cultural resources in the SHALE region that highlights significant events that shaped the development of the region.

The Regional Community Assets Map should be referenced when reviewing this section. The map shows the locations of the cultural and historic resources discussed below. The discussion of cultural and historic resources is divided into the following categories:

- Early Settlements
- Historic Districts
- Industrial Heritage
- Religious Institutions

Beaver County conducted an Inventory and Assessment of Historic and Heritage Sites in 1998, which includes information on the historic sites throughout Beaver County. The Inventory and Assessment also includes a detailed description of historic preservation funding opportunities. A table of cultural resources in the SHALE region that are identified in the inventory is included at the end of this section.

Nationally Recognized Historic Resources

There is one National Historic Landmark in the SHALE region, Old Economy Village in Ambridge, which was listed as a National Historic Landmark in 1965. In addition, there are two sites listed on the National Register of Historic Places in the SHALE region. They include the Economy Historic District (listed in 1985) in Ambridge and Legionville (listed in 1975) in Harmony.

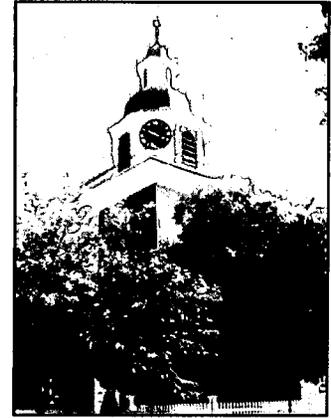
Section 1

Cultural and Historic Resources

Five (5) sites have been deemed eligible for listing on the National Register. They include:

- Laughlin Memorial Free Library, Ambridge
- Saint Johns Lutheran Church of Old Economy, Ambridge
- United States Post Office, Ambridge
- Beaver County Bridge No. 23, Economy
- Old Lock No. 4, Harmony

In addition, there are nationally significant historic sites, such as the former American Bridge Company buildings, that are valued by the communities but not recognized on a state or national level historic registry.



St. John's Lutheran Church in the Economy Historic District



Children at Play in the Courtyard of Old Economy Village

Early Settlements

Old Economy Village

The most significant historic feature of the SHALE region is the Old Economy Village. Founded by George Rapp in 1824, it is the third and final site of the Harmony Society, a successful 19th century religious communal society known for their craftsmanship, entrepreneurial skills, and industrial prosperity. The settlement of the Harmony Society existed between 1824 and 1905, and originally covered 3300 acres in Ambridge, Economy, and Harmony. Today, the religious and economic center of Old Economy Village is preserved as a six (6) acre site bordering Ohio River Boulevard in Ambridge. It contains 17 original structures from the Society in the original layout and design of the village.¹ The land is publicly owned and administered by the Pennsylvania Historical and Museum Commission, which interprets the life of the Harmonists for over 25,000 visitors annually.² The site represents the religious and economic center of the Harmony Society. The adjoining Ambridge Historic District contains an additional 80 original Harmonist structures.³

Old Economy Village is recognized by the community as an asset that should be used as an educational tool. Therefore community-based groups, such as the Harmony Associates, advocate for continued preservation of the Harmonist buildings. The Harmony Associates is a non-profit organization that assists the Pennsylvania Historical and Museum Commission in education and outreach efforts focused on the mission of Old Economy. Their support has resulted in a new Visitor's Center. In addition, there are plans to complete a playground near the Center and donate two buildings for cultural use in association with Old Economy Village.

Legionville

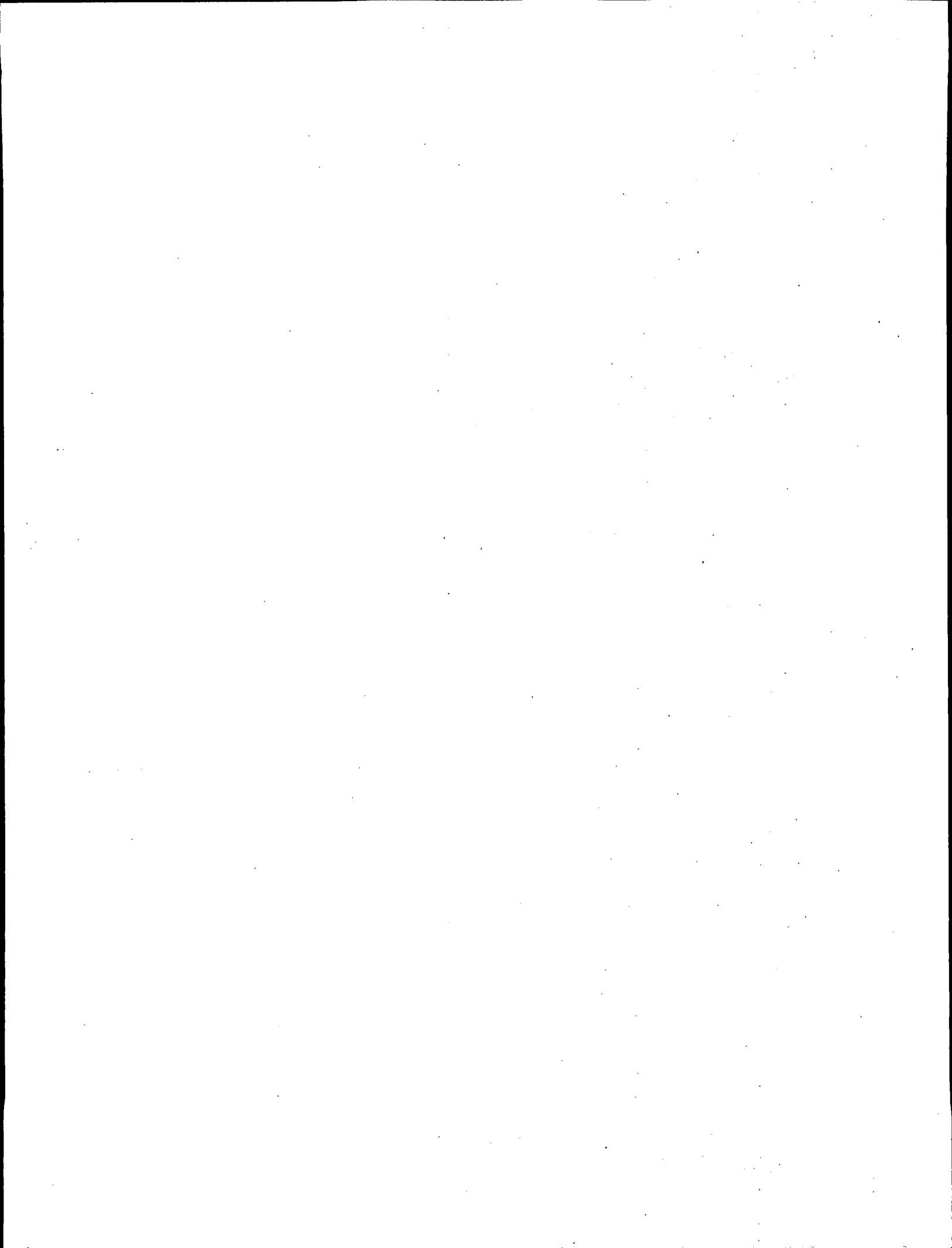
Before the Harmonists settled on the banks of the Ohio River in what is now Harmony Township, the area was occupied by a military camp from 1792 to 1793. The military camp, called Legionville, was a 25-acre site located between Ohio River Boulevard and Duss Avenue. At this site, Anthony Wayne trained American military troops in preparation for war with the Native Americans of the Old Northwest, who were consequently being assisted by the British. The Legionville site is currently owned by three different private companies and is now partially a slag reclamation site.

1. Interview with Site Administrator, Old Economy Village, 9/5/03

2. Interview with Site Administrator, Old Economy Village, 9/05/03

3. Ambridge Historic District Design Guidelines, Appendix B: An Abbreviated History of the Ambridge Historic District.

Refer to Regional Community Assets Map



Legionville was cited by Preservation Pennsylvania in 1992 as an endangered historic site threatened by industrial development. It is also threatened by commercial development on the north end bordering Logan's Lane. Preservation Pennsylvania has not yet removed Legionville from the Pennsylvania at Risk list.⁴

Leetsdale Archaeology Site

Over the past three years (ending in the summer of 2003) the U.S. Army Corps of Engineers explored a site in the Leetsdale Industrial Park along the Ohio River that contains evidence of human occupation dating back 8,000 years. The site, once a sandbar on the Ohio River, is optimal for examining human activities during this time period due to undisturbed layers of soil that have resulted from frequent flooding. The archaeology dig has revealed the remains of a 19th century brick factory associated with the Harmonist Society. In addition, prehistoric remains will provide information about the Middle Arctic Period (6,000-1,100 BC) and the Early Woodland period (1,100 BC - 200 AD). The site has been refilled and returned to the Leetsdale Industrial Park, which owns the property.⁵



Commercial area along Merchant Street in the Ambridge Historic District

Historic Districts

Ambridge Historic District

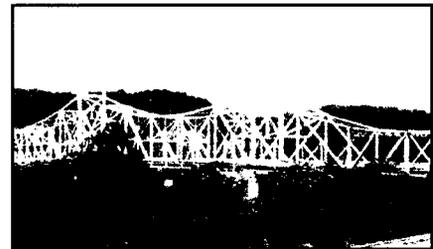
Ambridge Historic District (bound by 11th and 16th Streets, Ohio River Boulevard and extending east past Merchant Street) includes Old Economy Village, the commercial area along Merchant Street, and the surrounding residential area. The district contains a number of private homes that date back to the Harmony Society. The historic district was designated in response to increasing development pressures that threatened the character of the district. Subsequently, design guidelines

have been established to ensure that future development or alteration of buildings in the district is sensitive to the historic significance of the area. The historic district is regulated by a Historic Architectural Review Board which implements the Borough of Ambridge Historic District Design Guidelines. Revitalization efforts are underway for the Historic District, which are discussed in more detail in the Economic Development section, but investment in the historic district is required in tandem with marketing efforts of Old Economy Village to fully take advantage of the potential of this unique area. Appendix B of the Ambridge Historic District Design Guidelines provides an abbreviated history of the Ambridge Historic District, which should be referenced for more information.

Industrial Heritage

Ambridge

In 1905 the Harmony Society disbanded and sold 2500 acres to the American Bridge Company, which formed in 1900 as a result of a merger between twenty-eight (28) small bridge and structural steel companies. The company built fourteen manufacturing buildings and settled the surrounding area of what is now known as Ambridge, developing housing for over 4,000 workers. The company located in Ambridge due to the accessibility to water and rail transportation. The Borough of Ambridge was incorporated in 1905 and named for the American Bridge Company. The company is known for their work on the San Francisco-Oakland Bay Bridge, the Sears Tower, and the Empire State Building. In southwestern Pennsylvania they are responsible for the former Three Rivers Stadium and the Ambridge-Aliquippa Bridge.



Steel manufactured at the American Bridge Company Steel Mills was used to build the Ambridge-Aliquippa Bridge

4. Preservation Pennsylvania, Pennsylvania at Risk 2003, www.preservationpa.org

5. Carpico, Maria. "Dug Out: Archeologists complete excavation of former Leetsdale island." Pittsburgh Post-Gazette, June 4, 2003.

Section 1

Cultural and Historic Resources

The influence of the American Bridge Company on Ambridge and the SHALE region is still felt today. The Company helped their workers become property owners and sustained the Borough of Ambridge economically for nearly eighty (80) years. The Company ceased its operation in Ambridge in 1983 as a result of declining profitability and increased competition from overseas' markets.

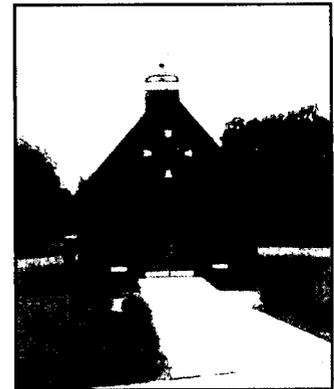
The broader influence of steel manufacturing in Beaver County and southwestern Pennsylvania is recognized in the Rivers of Steel Heritage Area. The Rivers of Steel National Heritage Area was created by Congress in 1996 with the mission of preserving, interpreting, and managing the historic, cultural, and natural resources related the making of steel. When the American Bridge Company left Ambridge, there was nothing of its magnitude to replace it. Like so many company-built towns, Ambridge and other parts of the SHALE region now lack the economic engine that drove its development and the communities are now seeking to redefine themselves. This is not an uncommon trend for many of the cities and towns throughout southwestern Pennsylvania and one of the greater challenges the Pittsburgh region faces today. The Rivers of Steel recognizes this challenge and is working to promote tourism and economic development based on the region's historic industrial era.

Leetsdale

There are no formally designated historic districts in Leetsdale on a state or national registry. However, Leetsdale like Ambridge and Harmony was heavily influenced by the industrial growth that took place along the Ohio River throughout the 20th century. The neighborhood located on Washington Street near the River was the first residential community in Leetsdale. Today, it sits between several active industrial sites which continue to demonstrate the importance of industry in sustaining the region's economy today.

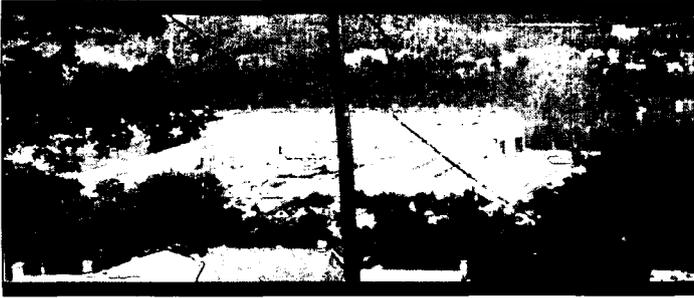
Religious Institutions

The SHALE region benefits from an abundance and diversity of religious institutions that are accessible to community members. There are over thirty (30) religious institutions in the SHALE municipalities, with approximately twenty (20) in Ambridge alone. The religious institutions provide a foundation and a sense of community for the people in the area. Many of the churches have a diverse membership from all SHALE municipalities. Furthermore, the religious institutions have formed partnerships to strengthen their community services. The Ambridge Ministerium, a coalition of religious institutions in Ambridge, provides community services in partnership with social services organizations. These partnerships between local religious institutions and community-based organizations are an asset to Ambridge and the surrounding area. The Trinity Episcopal School of Ministry is located on Merchant Street is often cited as an asset to the community. Likewise, the religious institutions in Economy, Harmony, Leetsdale, and South Heights provide community services to the elderly and youth populations in their communities.



Ukrainian Catholic Chapel,
Economy Borough

The religious institutions and cemeteries in the SHALE region are also a symbol of the diversity of the areas population and the diversity of immigrants that flocked to the area for jobs and a better way of life.



Revitalization and Economic Development

ECONOMIC DEVELOPMENT BACKGROUND

Beaver County developed as one of the major industrial counties in Pennsylvania due to its proximity to both rail and water transportation along the Ohio River Valley. The SHALE communities of Ambridge, Leetsdale, Harmony, and South Heights took advantage of the riverfront and access to the Ohio River for industrial development. Steel mills dominated as the primary employer throughout Beaver County and all the SHALE municipalities depended on the regional economy in Beaver County. In 1970 approximately 80% of the County labor force worked in the industry.¹ The population of Beaver County also peaked at this time at 208,418 people.

With the decline of the steel industry in the late 1970's, severe job losses took place in the manufacturing sector. All of the steel companies cut back on their operations, relocated, or closed their operations which created a domino effect in supporting businesses and services. As a result of losing its primary industry and major employers, Beaver County's population decreased by 10.7% from 1970 to 1990 (United States Census). Today, Beaver County is looking toward a combination of industries and services to diversify its economic base.

The population and economic trends of Beaver County are mirrored in the SHALE municipalities. At one time, Ambridge and Harmony were home to eight major steel mills. Industry and manufacturing remains active in the SHALE region today, but not to the extent that it once did. Trends across the country and in Beaver County show a decline in the manufacturing industry as a whole, while these sectors continue to play an important role in the SHALE region. Therefore, economic diversification in the high-tech, less intensive industries and small-scale businesses will be important to revitalizing and sustaining the economic vitality of the region. This will require the SHALE region is actively promote a skilled and educated work force that is able to meet the demands of potential new employers.

1. Horizons: Planning for the 21st Century, A Comprehensive Plan for Beaver County, December 1999.

Community Income Analysis

A summary of incomes for the SHALE municipalities is provided in Table 1.17. As indicated in the table, income levels vary greatly across the SHALE municipalities. In 2000, Economy Borough had the highest median household income (\$52,446) of the five municipalities and Ambridge had the lowest (\$26,263). This comparison holds true for per capita income as well. From 1990 to 2000, the median household and per capita incomes increased in all of the municipalities except South Heights. Despite showing the lowest income levels, median household income increased at the greatest rate in Ambridge from 1990 to 2000, jumping 29.3% compared to 17.2% in Harmony, 12.5% in Economy, and 0.7% in Leetsdale.

Table 1.17 Shale Area Incomes and Trends

Municipality	Median Household Income (\$)			Per Capita Income (\$)		
	1990 in 2000 dollars	2000	% Change	1990 in 2000 Dollars	2000	% Change
Ambridge	\$20,306	\$26,263	29.30%	\$11,888	\$15,089	26.90%
Economy	\$46,601	\$52,446	12.50%	\$17,234	\$22,453	30.30%
Harmony	\$31,613	\$37,056	17.20%	\$17,087	\$18,663	9.20%
Leetsdale	\$28,472	\$28,672	0.70%	\$16,614	\$19,172	15.40%
South Heights	\$31,821	\$31,023	-2.50%	\$16,744	\$16,440	-1.80%
County						
Allegheny County	\$37,140	\$38,329	3.20%	\$19,952	\$22,491	12.70%
Beaver County	\$32,044	\$36,995	15.40%	\$15,422	\$18,402	19.30%

In comparing incomes in the SHALE municipalities to their respective counties, only Economy and Harmony had median household incomes higher than that of Beaver County's in 2000. Allegheny County's median household income is higher than the median household income reported for Leetsdale. Incomes in the municipalities surrounding the SHALE area also tend to be higher than those found in the SHALE municipalities.

Table 1.18 includes income information for all the municipalities surrounding the SHALE area. In 2000, eight (8) of the eleven (11) surrounding municipalities had median household incomes that exceeded \$40,000. Aliquippa, Baden, Conway, Hopewell, and New Sewickley have incomes that are more comparable to those found in the SHALE area. However, Bell Acres, Edgeworth, Franklin Park, and Marshall all have comparatively high incomes (median household incomes which exceed \$60,000). Marshall has the highest median household income of \$102,351 of all municipalities shown.

Table 1.18 Adjacent Municipalities Incomes and Trends

Municipality	Median Household Income (\$)			Per Capita Income (\$)		
	1990 in 2000 dollars	2000	% Change	1990 in 2000 Dollars	2000	% Change
Aliquippa, Beaver Co.	\$22,181	\$25,113	13.20%	\$11,737	\$13,718	16.90%
Baden, Beaver Co.	\$30,472	\$32,924	8.00%	\$14,913	\$17,112	14.70%
Conway, Beaver Co.	\$31,188	\$34,181	9.60%	\$14,965	\$18,699	25.00%
Hopewell, Beaver Co.	\$39,376	\$42,065	6.80%	\$17,280	\$20,802	20.40%
New Sewickley, Beaver Co.	\$38,345	\$42,614	11.10%	\$14,239	\$18,147	27.40%
Bell Acres, Allegheny Co.	\$47,162	\$61,094	29.50%	\$38,178	\$41,202	7.90%
Crescent, Allegheny Co.	\$46,716	\$49,500	6.00%	\$19,558	\$19,472	-0.40%
Edgeworth, Allegheny Co.	\$91,494	\$99,144	8.40%	\$56,336	\$69,350	23.10%
Franklin Park, Allegheny Co.	\$88,224	\$87,627	-0.70%	\$32,259	\$37,924	17.60%
Leet, Allegheny Co.	\$50,109	\$54,432	8.60%	\$25,538	\$26,415	3.40%
Marshall, Allegheny Co.	\$71,808	\$102,351	42.50%	\$29,771	\$42,856	44.00%

Labor Force Characteristics

The labor force in the SHALE municipalities is described in Table 1.19. Economy and South Heights have the greatest proportion of their population in the labor force (percent of the population age 16 and higher). Fewer people over the age of 16 are in the labor force in Ambridge, Harmony, and Leetsdale, a reflection of their older, retired population. Ambridge and Harmony have the highest proportion of employed persons and the only municipality that falls below their respective county's unemployment is Leetsdale. Overall, unemployment is higher in the SHALE communities as compared to Allegheny and Beaver Counties.

Table 1.19 Labor Force Characteristics, 2000

Municipality	Persons 16 yrs & older	% in Labor Force	% not in Labor Force	% Unemployed
Ambridge	6203	56.7%	43.3%	6.4%
Economy	7509	66.0%	34.0%	4.0%
Harmony	2809	55.5%	44.5%	5.5%
Leetsdale	1017	53.3%	46.7%	3.3%
South Heights	451	64.3%	35.7%	4.5%
County				
Allegheny	630964	61.1%	38.9%	3.7%
Beaver	145097	60.1%	39.9%	3.2%

Source: United States Census

Occupations

The occupational break-down for the SHALE municipalities is shown in Table 1.20. Sales and office related occupations employ the greatest percentage of the labor force in Ambridge, Harmony, and South Heights. Management and professional related occupations employed the greatest percentage of the labor force in Economy and Leetsdale. Allegheny County also has more of its work force in management and professional occupations. In Beaver County slightly more people are employed in the sales and office related occupations than in the management and professional category. Service related occupations are also higher in Ambridge, Harmony, and South Heights compared to Economy and Leetsdale.

Table 1.20 Occupational Characteristics, 2000

Municipality	Management & Professional	Service	Sales & Office	Farming & Fishing & Forestry	Construction & Maintenance	Production & Transportation
Ambridge	23.9%	20.6%	31.9%	0.2%	7.4%	16.1%
Economy	32.9%	11.5%	29.7%	0.8%	12.7%	12.4%
Harmony	24.8%	21.8%	27.5%	0.0%	8.5%	17.5%
Leetsdale	33.0%	16.3%	31.1%	0.0%	6.1%	13.4%
South Heights	20.2%	19.5%	36.1%	0.0%	10.1%	14.1%
County						
Allegheny County	37.8%	15.8%	28.7%	0.1%	7.5%	10.1%
Beaver County	26.2%	17.1%	27.9%	0.2%	10.4%	18.1%

Source: United States Census

Employment by Industry

Table 1.21 shows the percentage of people employed by industry type. In Ambridge, Economy, and South Heights, the three largest industry sectors for employment are education/health/social services, retail trade, and manufacturing. In Harmony, education/health/social services, manufacturing are the dominant industry employers followed by arts/entertainment. In Leetsdale the three largest industry employers are education/health/social services, retail trade, and arts/entertainment.

Section 1

Table 1.21 Employment by Industry (%of Labor Force)

Industry Type	Ambridge		Economy		Harmony		Leetsdale		South Heights	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Agriculture, forestry, fishing, hunting, mining	1.6%	0.1%	1.2%	0.8%	1.9%	0.3%	0.8%	0.0%	1.6%	0.0%
Construction	5.8%	2.4%	6.3%	7.9%	9.6%	6.8%	6.1%	4.4%	6.6%	10.5%
Manufacturing	12.9%	12.4%	13.8%	13.0%	9.2%	13.1%	11.1%	8.3%	18.7%	13.0%
Wholesale Trade	3.8%	0.2%	4.5%	4.5%	2.1%	5.5%	4.3%	2.1%	5.9%	1.4%
Retail Trade	23.8%	14.6%	20.2%	14.3%	20.7%	11.1%	19.0%	17.1%	17.0%	15.9%
Transportation & Warehousing	6.8%	8.1%	9.4%	10.0%	8.4%	8.0%	9.8%	9.2%	8.9%	9.4%
Information	**	2.4%	**	1.1%	**	1.2%	**	2.3%	**	0.0%
Finance, Insurance, Real Estate	4.2%	6.6%	5.9%	5.4%	9.1%	4.6%	8.0%	9.8%	2.0%	8.3%
Professional, Scientific, Management, Administrative, & Waste Management Services	**	9.3%	**	10.0%	**	5.2%	**	8.4%	**	9.0%
Education, Health, Social Services	15.8%	21.9%	15.4%	15.8%	19.7%	21.0%	20.3%	17.9%	16.8%	17.7%
Arts, Entertainment, Recreation, Accommodation, Food Services	**	7.9%	**	5.8%	**	12.6%	**	12.5%	**	11.9%
Other	**	9.7%	**	4.0%	**	6.6%	**	5.8%	**	1.8%
Public Administration	3.7%	4.4%	1.5%	1.9%	4.2%	4.2%	2.4%	2.3%	4.9%	1.1%

** 1990 and 2000 Census Data are not compatible for all industry types. 2000 industry categories are shown

Source: United States Census

Major Employment Centers

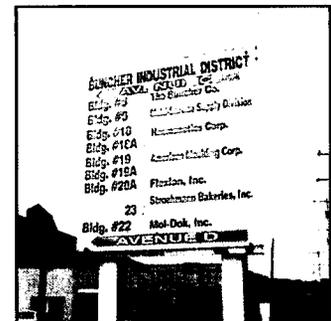
The following is a summary of the major employment centers in the SHALE region and major employers for Beaver County. There are a number of industrial parks in the SHALE municipalities and surrounding region which house heavy and light manufacturing, distribution and warehousing companies. Table 1.22 provides more information on the major industrial parks in the region and individual parks located in the SHALE municipalities are described in more detail on the following page.

Industrial Parks

Buncher Leetsdale Commerce Park: The Buncher Leetsdale Commerce Park is located on Ohio River Boulevard in Leetsdale. The 100-acre site supports light manufacturing and warehouse operations.

Leetsdale Industrial Park: Total space when complete will be two million square feet for light manufacturing and warehouse/distribution. Currently houses thirty businesses, including Alcoa, Shell, Qwest Communications and Metals USA, that employ 600 people. The park is expected to employ 800 people by the end of 2003.¹

Ambridge Regional Manufacturing and Distribution Center: This is a 85-acre site containing 1.2 million square feet of industrial space that houses 46 tenants and employs 400 people. The businesses include distribution, manufacturing, engineering, and service companies.²



Buncher Industrial District, Leetsdale

1. Personal Interview, Buddy Johns, Chapman Properties, 8/29/2003

2. Personal: Interview Gene Pash, President, Value Ambridge Properties, Inc., 9/3/2003

Table 1.22 Major Industrial Parks in Close Proximity to SHALE Municipalities

Name	Location	Site Acreage / Sq. Ft. of Space	Type of Use
Ambridge Industrial Center*	3.4 miles to Route 65, 7 miles to I-79 from Ambridge Borough, Beaver County	4.61 acres	Distribution/warehousing; Heavy Manufacturing
Ambridge Regional Manufacturing and Distribution Center*	7 miles to I-79, 1 mile to Route 65 from Harmony Twp., Beaver County	85 Acres/ 1.2 million sq. ft.	Distribution/warehousing; Heavy manufacturing; Light manufacturing; Office and Lab Space
Buncher Tri County Commerce Park	2 miles from Interstates 76 & 79 from New Sewickley Twp., Beaver County	90 acres	Light manufacturing; Corporate office distribution
Buncher Leetsdale Commerce Park*	Route 65, Leetsdale, Allegheny County	100 acres	Light manufacturing; Distribution/warehousing; Corporate Office Distribution
Hopewell Business and Industrial Park	1/4 mile from Hopewell Twp. Exit of Route 60, 7 miles to Pittsburgh International Airport, Beaver County	17 acres	Light manufacturing; Corporate office distribution
Leetsdale Industrial Park*	Route 65, Leetsdale, Allegheny County	1.5 million sq. ft. (2 million sq. ft. at completion)	Light manufacturing; Distribution/warehousing
Moor Industrial Park	1/2 mile to Route 65, 2 miles to Route 60 from Monaca Borough, Beaver County	7.5 acres	Distribution/warehousing; Heavy Manufacturing
Port Ambridge Industrial Park*	6 miles to I-79, 1/4 mile to Route 65 from Ambridge Borough, Beaver County	100 acres	Distribution/warehousing; Heavy Manufacturing; Office Space

* Located in the SHALE Planning Area

Source: Beaver County Comprehensive Plan, Key Person Interviews

Port Ambridge Industrial Park: Once the site of the American Bridge Company, the former steel mill site has been redeveloped into an industrial park. It is located on the half mile stretch of land along the Ohio River in Ambridge. The park contains six industrial properties and employs 250 people.³

Other significant industrial facilities in the SHALE region include the Koppel Steel Facility in Ambridge and the corporate headquarters of Hussey Fabricated Products and Hussey Copper Ltd. in Leetsdale. Many of the industrial areas are involved with the Ambridge Brownfields projects.

Major Employers

The industrial parks are centers of employment for the SHALE municipalities and surrounding region and house some of the major businesses in the region. The top ten major employers in Beaver County are listed on Table 1.23 on the following page. The list illustrates the importance of the manufacturing sector in Beaver County. Two of the top ten employers are located in the SHALE region - Koppel Steel Corporation and Anchor-Hocking Corporation.

Section 1

Table 1.23 Top 10 Major Employers in Beaver County

Major Employers			
Rank	Employer	Product(s)	Employees
1	Anchor-Hocking Corporation	Glass Products	750
2	Koppel Steel Corporation	Steel Bars & Tubing	715
3	Zinc Corporation of America	Zinc Oxide	700
4	Cutler-Hammer / Division of Eaton Corp.	Electric Circuit Breakers	650
5	J&L Specialty Steel, Inc.	Stainless Steel	614
6	Veka, Inc.	Vinyl Extrusions, Window/Doors	580
7	Norfolk Southern Conway Railyards	Transportation	500
8	NOVA Chemicals, Inc.	Styrene & Polystyrene	420
9	Service Link	Mortgage Closer	370
10	Interforest Corporation	Wood Veneer	350

Source: Beaver County Corporation for Economic Development, 2003

Economic Stability and Versatility

Historically, the SHALE region has been heavily dependent on the primary metals industry, namely steel production. The region was not prepared for the downturn in the steel industry in the late 1970s, which negatively impacted the related businesses and industries. As a result, the economy of the region was destabilized and the population and number of jobs declined, with the mill towns of Ambridge and Harmony the hardest hit in the SHALE area. Over the last twenty years manufacturing has continued to decline in the SHALE municipalities. Table 1.24 illustrates that from 1990 to 2000, employment in the manufacturing sector declined in every municipality in the SHALE area except Harmony.

Table 1.24 Employment by Industry (% of Labor Force)

Industry Type	Ambridge		Economy		Harmony		Leetsdale		South Heights	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Agriculture, forestry, fishing, hunting, mining	1.6%	0.1%	1.2%	0.8%	1.9%	0.3%	0.8%	0.0%	1.6%	0.0%
Construction	5.8%	2.4%	6.3%	7.9%	9.6%	6.8%	6.1%	4.4%	6.6%	10.5%
Manufacturing	12.9%	12.4%	13.8%	13.0%	9.2%	13.1%	11.1%	8.3%	18.7%	13.0%
Wholesale Trade	3.8%	0.2%	4.5%	4.5%	2.1%	5.5%	4.3%	2.1%	5.9%	1.4%
Retail Trade	23.8%	14.6%	20.2%	14.3%	20.7%	11.1%	19.0%	17.1%	17.0%	15.9%
Transportation & Warehousing	6.8%	8.1%	9.4%	10.0%	8.4%	8.0%	9.8%	9.2%	8.9%	9.4%
Information	**	2.4%	**	1.1%	**	1.2%	**	2.3%	**	0.0%
Finance, Insurance, Real Estate	4.2%	6.6%	5.9%	5.4%	9.1%	4.6%	8.0%	9.8%	2.0%	8.3%
Professional, Scientific, Management, Administrative, & Waste Management Services	**	9.3%	**	10.0%	**	5.2%	**	8.4%	**	9.0%
Education, Health, Social Services	15.8%	21.9%	15.4%	15.8%	19.7%	21.0%	20.3%	17.9%	16.8%	17.7%
Arts, Entertainment, Recreation, Accommodation, Food Services	**	7.9%	**	5.8%	**	12.6%	**	12.5%	**	11.9%
Other	**	9.7%	**	4.0%	**	6.6%	**	5.8%	**	1.8%
Public Administration	3.7%	4.4%	1.5%	1.9%	4.2%	4.2%	2.4%	2.3%	4.9%	1.1%

** 1990 and 2000 Census Data are not compatible for all industry types. 2000 industry categories are shown

Source: United States Census

Therefore, a broader regional approach to economic development is required that seeks to diversify the employment and industry base. The southwestern Pennsylvania region is currently redirecting its attention to the following areas:

Advanced Manufacturing: The region is building on its existing strengths and labor force in manufacturing, yet is focusing on less intensive industries that require a skilled and educated labor force. Therefore, taking advantage of opportunities to partner with universities, trade schools, and technical institutes is essential to this area of economic development. The presence of modern industrial parks and manufacturing facilities and a strong work ethic are an advantage for the SHALE area.

Distribution/Logistics: The region is taking advantage of its strategic location in the United States and proximity to Canada in promoting warehousing and distribution. A key component is a reliable transportation infrastructure. The proximity to river, road, rail, and air transit are an advantage for the SHALE area in attracting and expanding distribution and logistics oriented businesses. The potential and opportunities for multi-model transportation should be explored as well.

Information Technology: The region is training people at the 30 college and universities in the southwestern Pennsylvania region in data management, e-commerce, computer networking, hardware and software development. This training is key to creating a work force that will facilitate the transition to a knowledge-based economy.

Medical Technologies and Services: The partnership of universities and major medical centers in the region is advancing medical research, medical technologies, and services.

Tourism and Recreation: The SHALE region has many historic, cultural, and environmental assets that should be promoted to increase visitation and tourism dollars. The preservation of historic resources, such as Old Economy Village, and the natural assets such as the Ohio River are opportunities for SHALE municipalities to develop recreation and tourism related businesses.

On a local level, the Borough of Ambridge has been very proactive in identifying economic development strategies to diversify the business and industry make-up and create a more stable economic environment. The Ambridge economic development strategy focuses on the following:

- coordinating local economic development efforts through the Ambridge Revitalization Development Corporation;
- creating a business friendly environment;
- assisting developers in packaging funding;
- upgrading and maintaining a supportive infrastructure;
- cooperating on a regional level;
- promoting tourism; and
- maintaining and expanding existing businesses.

Underutilized and Undeveloped Industrial and Commercial Areas

The primary focus areas for development and redevelopment of industrial and commercial areas are in Ambridge, Economy, Harmony, and South Heights. Rather than developing new commercial and industrial areas on greenfields (undeveloped open land), the SHALE municipalities should invest in existing commercial and industrial areas that have access to infrastructure (roads, water, sewer). In order to make these sites more viable for businesses and industries, the existing infrastructure conditions should be assessed. Based on the assessment, roads, water, and sewer infrastructure improvements should be made accordingly.

Section 1

Revitalization and Economic Development



A vacant Ames store at Northern Lights Shopping Center, Economy Borough

Commercial and Retail Areas

The main commercial areas in the SHALE region include the Quaker Village Shopping Center, the Northern Lights Shopping Center, and the business district in Ambridge along Merchant Street. The Quaker Village Shopping Center in Leetsdale does not have major vacancies in its retail space. In contrast, the Northern Lights Shopping Center in Economy is struggling to lease its retail space and is currently operating at 45% occupancy². It recently lost an anchor tenant with the closing of the Ames Store. While the Quaker Village Shopping Center caters to the higher income communities surrounding Leetsdale, the

Northern Lights shopping center is dependent upon the municipalities that are located in close proximity along Ohio River Boulevard including Baden, Conway, and Harmony. Population losses and the significant presence of elderly persons on fixed incomes have impacted the viability of the shopping center. Furthermore, the Northern Lights Shopping Center is competing with larger retailers in the Beaver Valley Mall and Cranberry Township.

The commercial and business district in Ambridge has a much different character than the shopping centers in the SHALE area. Merchant Street is the "Main Street" of the business district and commercial redevelopment efforts have focused on Merchant and its adjoining side streets. The business district is embedded in the surrounding residential area and adjoins the Historic District, creating a walkable, mixed-use environment. The population and job losses in Ambridge over the past twenty years have impacted the vitality of the Merchant Street corridor with loss of local businesses and a decline in visitation and use of Merchant Street. In response to these trends, the Borough of Ambridge has been very active in revitalization efforts focused on the Ambridge Business and Historic District. Some of the initiatives undertaken include the formation of the Ambridge Revitalization Development Corporation (ARDC), development of an Ambridge Economic Development Strategy, development of design guidelines for the Historic District, and convening an Ambridge Economic Development Summit.

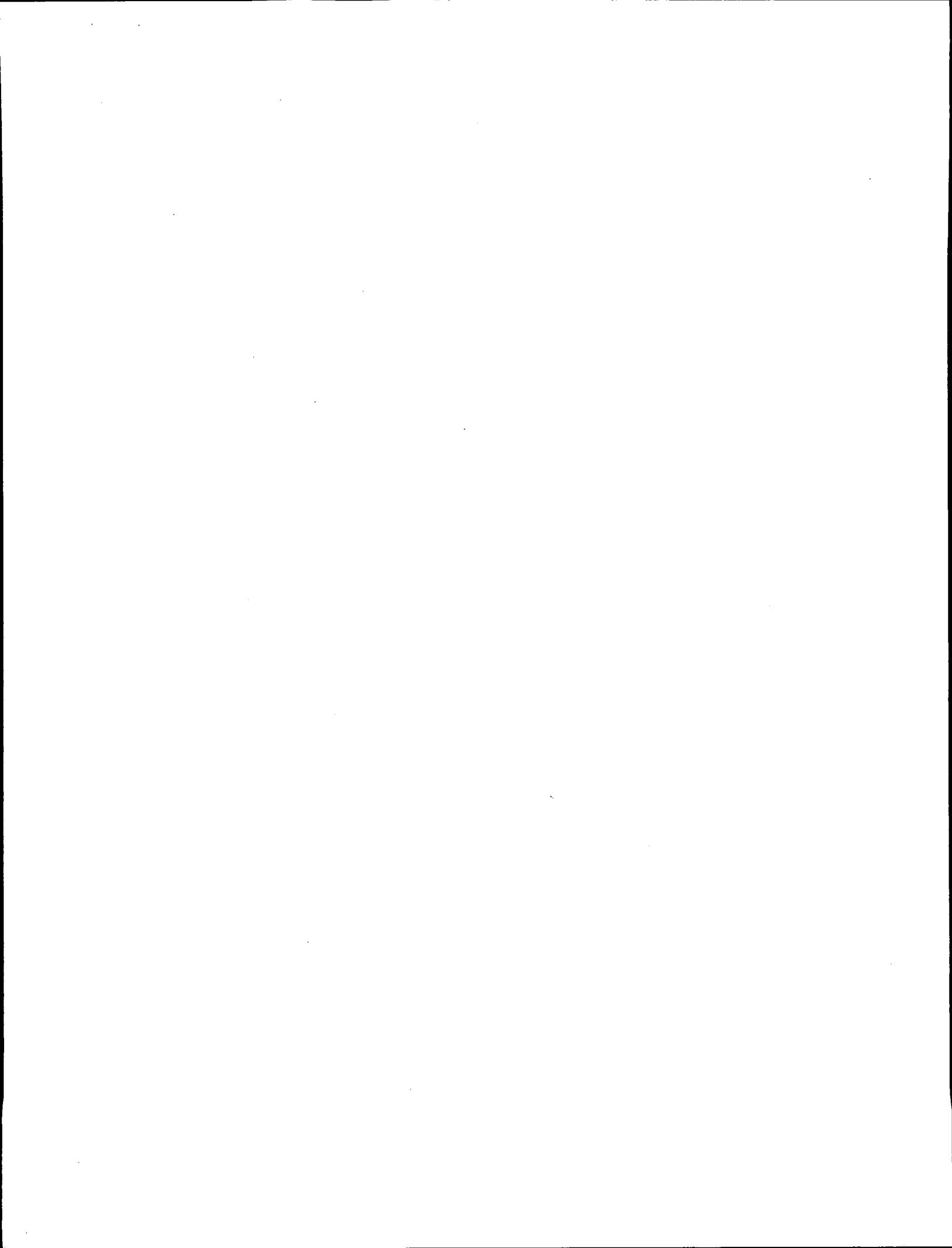


Ambridge Business District, Merchant Street

The ARDC is the official economic development entity for the Borough of Ambridge. It consists of four programs run by local municipal officials, business leaders, and citizens, focused on downtown development, historic district development, industrial reuse, and residential development. The Ambridge Downtown Development Council, organized around three sub-committees (design, business development, image), has spearheaded revitalization and redevelopment efforts of Merchant Street with assistance from the Main Street Program. The Ambridge Historic District Economic Development Commission focuses on enhancing commercial opportunities in the Historic District and around Old Economy Village. The Industrial Council focuses on the redevelopment and reuse of brownfields in Ambridge and Harmony, and the Residential Council supports new residential development in Ambridge. The following initiatives have been spear-headed by the ARDC Downtown Development and Historic Districts Economic Development Committees to enable and encourage economic development:

- **Downtown Development Committee:** Partnered with the Main Street Program and the Beaver County Community Development Program to conduct a market analysis that identifies potential retail opportunities in the Ambridge Business District (4th to 11th Streets) and the Historic District (12th to 16th Streets) and create facade improvement design sketches for building on Merchant Street. The design sub-committee reviews applications and administers funding through the Main Street Program for facade improvement to buildings along Merchant and its adjoining side streets. Ambridge has recently been awarded an Elm Street grant, that provides funding for streetscape and facade improvements in residential areas adjoining Main Street corridors.

2. Personal Interview with Tim Swisher, Casto Skilken Group, 9/23/03.



The Image sub-committee is also working to reverse the negative attitudes of residents that have been projected upon Ambridge in order to improve the image and attitude of the community. Other efforts are focused on parking and instituting a wayfinding system in conjunction with the Historic District Economic Development Commission.

- Ambridge Historic District Economic Development Committee: Worked with the Ambridge Planning Commission to change the Ambridge Zoning Ordinance to allow more commercial uses such as bed and breakfasts, restaurants, coffee shops, and antique shops around the Old Economy Visitor Center and Village. Raised grant monies to fund a Merchant Streetscape Project that will identify design improvements to Merchant between 12th and 16th Streets in order to create a gateway to Old Economy and connect Old Economy and Merchant Street.

Additional focus is required to revitalize the Ambridge Historic District in conjunction with Merchant Street in order to attract tourists not only to the Old Economy Village, but to the Merchant Street shops as well. Increased marketing is required to increase the number of visitors to Old Economy and encourage them to eat and shop in Ambridge. The new Visitor's Center at Old Economy has also created an opportunity to promote the development of a small retail environment around the visitor's center and Old Economy Village. In addition, opportunities need to be assessed for the former American Bridge Company office building which sits vacant, Old Economy Plaza, and the vacant church buildings.

The location and feasibility of commercial and retail uses in the SHALE area should be examined on a regional basis to better understand the market demands for regional destinations such as Northern Lights and Quaker Valley Shopping Centers, and areas catering to local businesses and tourism, such as the Ambridge Historic District. A major challenge for commercial development in the SHALE region is generating market demand in communities with declining populations of younger and middle-aged people and increased competition among regional retailers.

Industrial Areas

Redevelopment and reuse of underutilized industrial sites is primarily an issue in Ambridge, Harmony, and to a smaller extent South Heights. Ambridge and Harmony once supported eight major steel mills, all but one of which are no longer active. The former steel mill sites have been subdivided into smaller parcels with the most contaminated parcels left unused. According to Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the definition of a brownfield site is "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant."³ In Ambridge and Harmony the potential environmental contamination from brownfield sites includes heavy metals, arsenic, metal dross, steel slag, and underground storage tanks (USTs).

The Industrial Council of the ARDC assists in brownfields redevelopment along with the Ambridge Area Brownfields Partnership. The Ambridge Area Brownfields Partnership is a joint effort between Ambridge and Harmony, with representation from the Ambridge Area Industrial Council, the Brownfields Center at Carnegie Mellon, Beaver County Commissioners, Borough of Ambridge, Harmony Township, and Beaver County Corporation for Economic Development. On-going efforts focus on cleaning-up the Ambridge/Harmony industrial corridor. The corridor runs 2.5 miles from 11th to 24th Street between Ohio River Boulevard and Duss Avenue. Approximately 64% of the industrial land in Ambridge and Harmony is located within this corridor and 262 acres are considered to be brownfields.



Duss Avenue Corridor in Harmony Township

3. Brownfields Glossary of Terms (2002). Retrieved October 16, 2003, from <http://www.epa.gov/swerosps/bf/glossary.htm#brow>

Section 1

Revitalization and Economic Development

In 2001, the Ambridge Area Industrial Council and the Ambridge Area Brownfields Partnership held a "Brownsfields in our Neighborhoods" workshop. The purpose of the workshop was to collectively look at the industrial sites along the Ambridge/Harmony industrial corridor to identify options for the corridor and reuse of brownfield sites. The workshop involved both the public and private sector, including community and stakeholder groups, brownfields experts, property owners, and public officials.

Twenty-six industrial sites were identified in the corridor, of which twenty-three have real or perceived environmental hazards. Twenty-one properties could potentially be considered brownfields. Ambridge has received funding from the United States Environmental Protection Agency as part of an eps Pilot Program to prioritize and conduct assessments of the brownfield sites. Ten properties consisting of 99 acres have been identified as brownfields and are priority sites for assessment and reuse. Due to the impact of these sites on the social and economic health of the surrounding community, there is great potential for reuse, and economic gains to the community. The properties include former steel mill sites, industrial properties, an abandoned rail line, and a right-of-way owned by the Borough of Ambridge. As part of the eps Pilot program, Phase II environmental site assessments will be conducted on the priority sites, and a Phase III environmental assessment will be conducted on at least one site. In addition, the Borough has been conducting community outreach and generating public discussions on brownfields by organizing conferences and engaging developers interested in redevelopment of the sites. Potential uses that have been identified include mixed-use commercial and residential areas and senior housing.

South Heights also has underutilized industrial sites, mainly the former Duquesne Light Plant which occupies the area along the Ohio River. Effort to create access and utilize the Ohio River should focus on redevelopment opportunities for this site.

Economic Development Resources

There are several entities in Beaver County that promote economic development in Beaver and Allegheny Counties. Beaver County is in the process of setting up an Economic Development Authority that will have the ability to borrow money and purchase property for redevelopment.⁴ The Authority will be a centralized county organization that is responsible for encouraging and promoting economic development in the county through marketing and recruiting efforts. Other organizations include:

Beaver County Community Development Program

The Beaver County Community Development Program is a County agency that administers state and federal grants that support housing, economic development, job creation, and infrastructure improvements in low and moderate income communities and central business districts experiencing blight and disinvestment. Some of the projects they have supported in the SHALE area include sewer installation in Harmony Township, the Merchant Streetscape Project in Ambridge, and low income housing development throughout the area.

Beaver County Industrial Development Authority

Assists businesses and industries in financing through the issuance of tax exempt bonds and notes for the construction, modernization, and equipping of new and existing facilities.

Beaver County Corporation for Economic Development

The Beaver County Corporation for Economic Development (CED) is a private, non-profit organization that develops and manages industrial sites and buildings, and assists companies in obtaining financing to locate and develop facilities in Beaver County. CED maintains a database of available industrial properties in the county. The organization does not own any properties in the SHALE area, but they have assisted the Port Ambridge Industrial Park and the Ambridge Regional Manufacturing and Distribution Center in obtaining financing. They are also working with Ambridge and Harmony on the brownfield projects.

4. Personal Interview with Frank Mancini, Jr., Beaver County Office of Planning and Economic Development, 9/2/03.
Corporation for Owner-Occupied Projects (CO-OP)

CO-OP is a private, nonprofit economic development agency that assists existing businesses and entrepreneurs in business creation and expansion. CO-OP provides an array of services including business plan development and evaluation, legal and financial counseling, financing for contracts or purchase orders, and equipment grants and low interest loans to companies who hire disabled individuals.

Beaver Initiative for Growth (BIG)

The Beaver Initiative for Growth (BIG) is a partnership of public and private sector organizations who have jointly developed a long-term strategy to strengthen Beaver County's economic base. BIG seeks consensus among its partner organizations in prioritizing initiatives for funding. They represent Beaver County in regional projects and initiatives. The primary focus areas of BIG include business development and retention, arts and culture, housing, marketing, recreation, technology development, and transportation and infrastructure.

Allegheny County Department of Economic Development

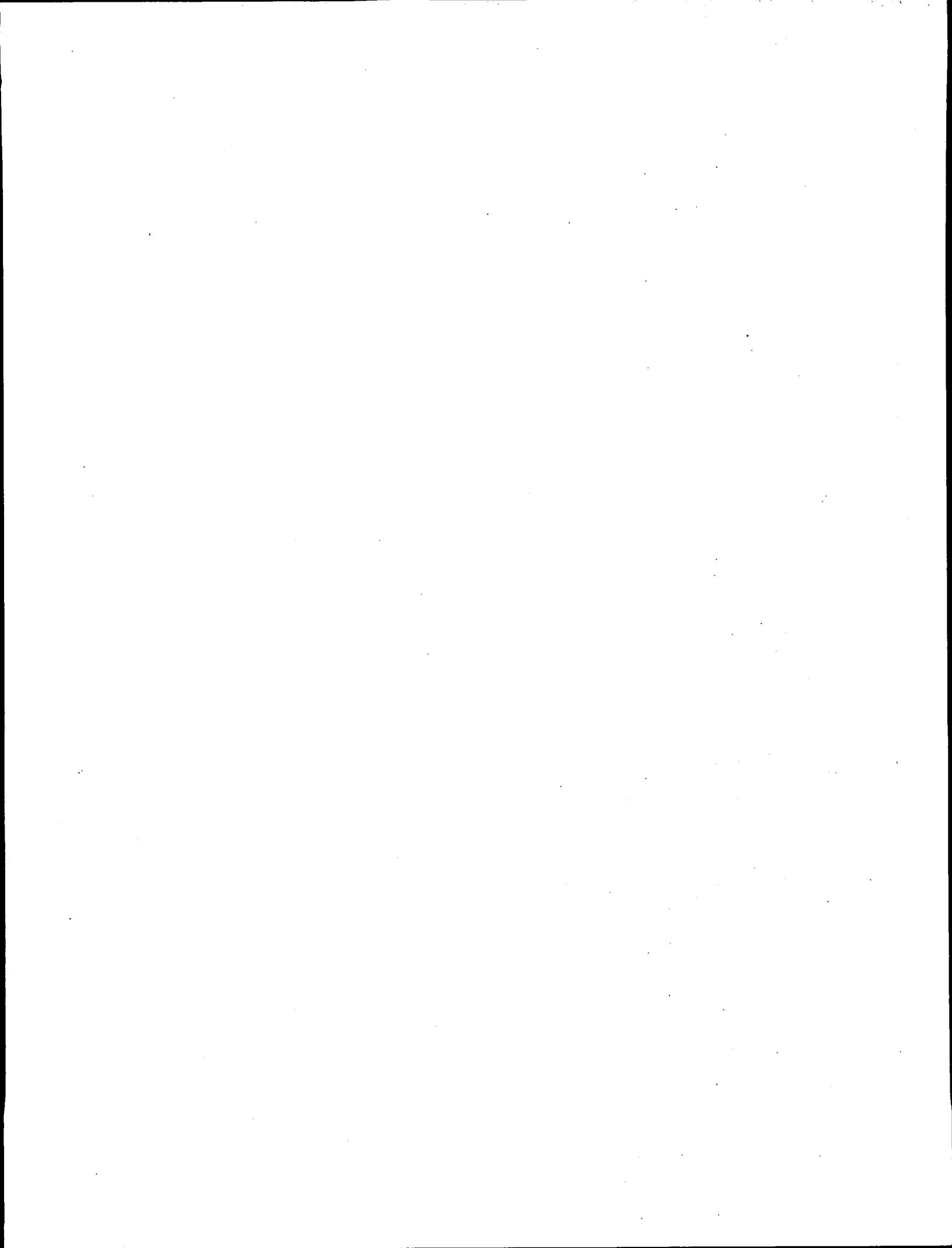
The Allegheny County Department of Economic Development is part of Allegheny County's public offices. The department provides information to developers, investors, and businesses and provides assistance in business development and expansion.

Redevelopment Authority of Allegheny County

The Redevelopment Authority of Allegheny County is a public entity focused on economic and community development. The authority acquires and prepares sites for economic development, manages finances, and facilitates the reuse of vacant, delinquent, or blighted property through the power of eminent domain.

Ambridge Area Brownfields Partnership:

This is an active program to clean-up and redevelop the brownfields in Ambridge. The Partnership is comprised of the Borough of Ambridge, the Industrial Council, Harmony Township, Beaver County, and the Beaver Corporation for Economic Development. Some of their activities include: obtaining an EPA Pilot Assessment Grant, Phase II Assessment Activities, and obtaining development proposals for new uses of the sites.





Environmental and Natural Resources

The natural resources in an area contribute to the economic vitality, environmental health, and quality of life of a community. Environmentally sensitive areas, such as woodlands, wetlands, steep slopes, stream valleys, and floodplains also contribute to the overall scenic beauty of a place and support important ecological functions. For these reasons, environmentally sensitive areas and open space should be preserved and protected. Information on environmental resources should be used to guide growth to areas that are more suitable for development and protect important environmental resources.

This section provides an overview of the environmentally sensitive features and areas in the SHALE region. It is important to understand the extent and location of sensitive environmental features in order to identify limitations to development, avoid severe environmental impacts, prevent property loss or damage, and guide recommendations for preserving open space. Environmental features identified in the SHALE region include:

- Soils
- Rivers and Streams
- Wetlands
- Natural Heritage Inventory
- Woodlands
- Steep Slopes

In addition, this Section discusses the location and significance of agricultural land uses to the SHALE region.

The Natural Resources Map on the following page indicates the occurrence of these features and should be referenced throughout this section.

General Soil Types

Understanding soil types is important for protecting water quality, wetlands, and wildlife habitat.

Information on general soil types are provided by soil surveys, which evaluate the behavior of a type of soil

Section 1

Environment and Natural Resources

under alternative uses, its potential erosion hazard, potential for ground water contamination, and suitability and productivity for cultivated crops, trees, and grasses. The general soil types found in the SHALE region are described below based on The Beaver County Soil Survey (1982) and the Allegheny County Soil Survey (1981). Table 1.25 provides more information on the potential uses and limitations of the soil types found in the SHALE region.

Gilpin-Upshur-Wiekert Association: Found in almost all of Economy Borough and parts of Harmony and South Heights, this association is characterized by gently sloping to very steep, shallow to deep, well drained soils. It forms in residual material from acid shale, siltstone, sandstone, and non-acid red shale.

Urban Land-Monongahela-Tyler Association: Found along the Ohio River in Ambridge, Harmony, South Heights, and Economy, this association is found in areas altered for urban development and is characterized by nearly level to sloping, deep, moderately well drained and somewhat poorly drained soils.

Gilpin-Wharton-Weikert Association: This association is found in only the northeastern tip of Economy Borough. It is characterized by nearly level to very steep, shallow to deep, well drained and moderately well drained soils, formed in residual material from acid shale, siltstone, and sandstone.

Gilpin-Upshur-Atkins Association: This association is found in Leetsdale in Allegheny County. It is characterized by moderately deep and deep, well drained soils underlain by red and gray shale on uplands and deep, poorly drained soils on floodplains.

Urban Land-Philo-Rainsboro Association: This association is found in Leetsdale in Allegheny County along the Ohio River. It is found in areas altered by urban development and is characterized by deep, moderately well drained soils and urban land on floodplains and terraces.

Watershed, Rivers, and Streams

A watershed is the area of land where all of the water that is under it (ground water) or drains off of it travels to the same point, whether it be a stream, lake, river, or the ocean. The watershed is the unit for assessing the water quality in a water body because it is the activities that take place in a watershed and the resulting environmental condition that impact the quality and condition of the water body. Watersheds conform to natural boundaries, rather than municipal and political boundaries and national, state, and local agencies are emphasizing the importance of environmental planning on a watershed level. The SHALE municipalities fall within the Upper Ohio Watershed, which encompasses the southeastern corner of Beaver County and the northwestern corner of Allegheny County and flows to the Ohio River Basin. Smaller watersheds units associated with the streams and creeks in the SHALE municipalities are illustrated on the Natural Resources Map. They include:

- Legionville Run (Harmony Township)
- North Branch of Legionville Run (Harmony, Economy)
- South Branch of Legionville Run (Harmony, Economy)
- Tevebau Run (Economy)
- Big Sewickley Creek (Ambridge, Economy, Harmony, Leetsdale)
- North Fork of Big Sewickley Creek (Economy)
- Cooney Hollow (Economy)
- Crows Run (Economy)

Designated uses and protection standards for the Ohio River and specific watersheds are discussed in more detail below.

All of the SHALE municipalities border the Ohio River, which originates in Pittsburgh at the confluence of the Allegheny and Monongahela Rivers, and flows north and west through Beaver County. The development of cities

Refer to Natural Resources Map

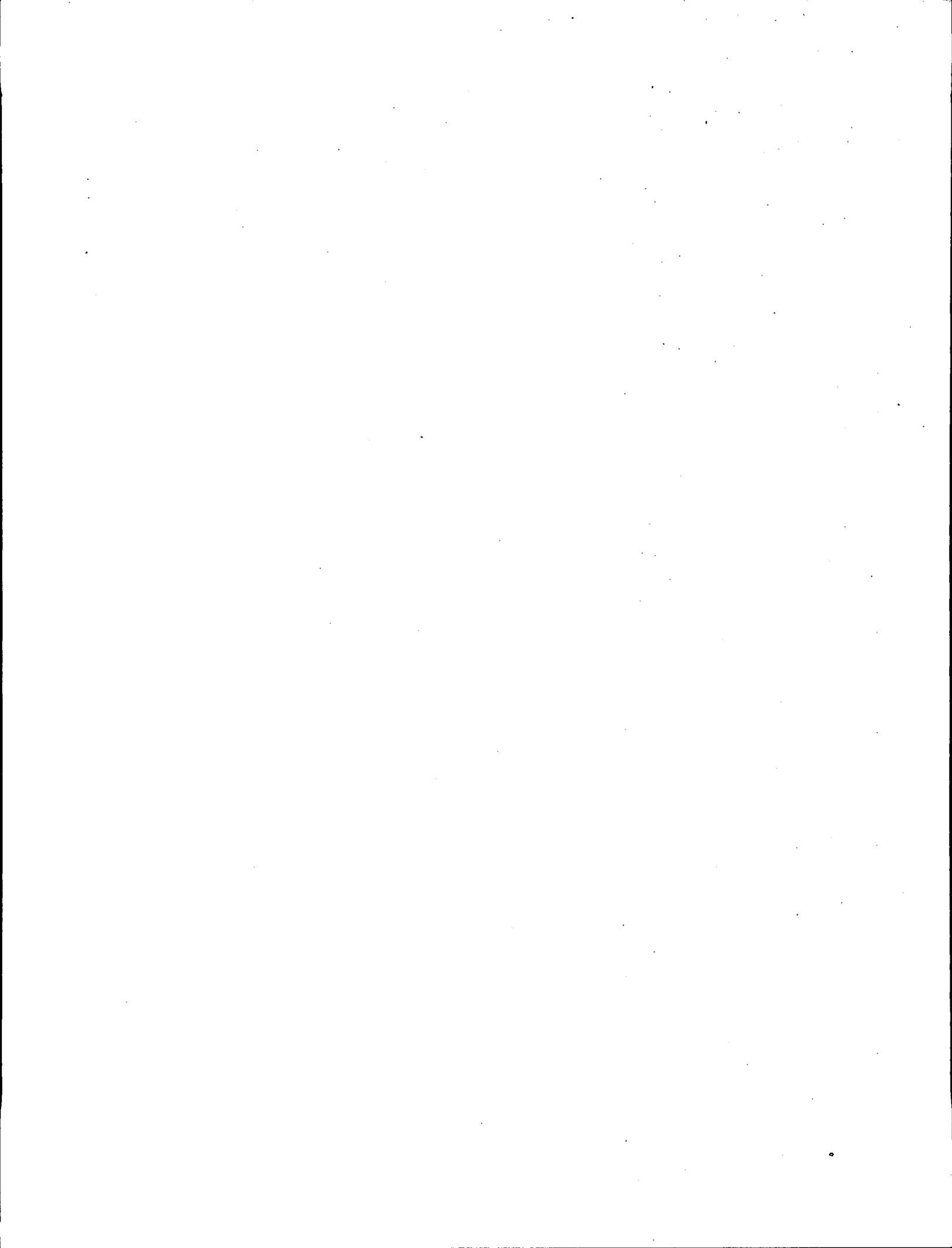


Table 1.25

Soil Units In the SHALE Region: South Heights, Harmony, Ambridge, Leetsdale, Economy				
Soil Units	Township	Soil Description	Soil Potential	Soil Limitations
Urban Land -Monongahela -Tyler Association	Ambridge, Economy, Harmony, South Heights	Urban land and nearly level to sloping, deep, moderately well drained and somewhat poorly drained soils; formed in old alluvium	Fair to poor for farmland; fair to good for woodland and wildlife habitat; fair to poor for nonfarm uses	Seasonal wetness; slow permeability; flooding
Gilpin-Upshur-Wiekert Association	Economy, Harmony, South Heights	Gently sloping to very steep, shallow to deep, well drained soils; formed in residual material from acid shale, siltstone, sandstone, and nonacid red shale.	Fair to poor for farmland; good for woodland and wildlife habitat; poor for nonfarm uses	Slope; depth to bedrock; clayey soil material; hazards of slopes and landslides
Gilpin-Wharton-Weikert association	Economy Borough	Nearly level to very steep, shallow to deep, well drained and moderately well drained soils, formed in residual material weathered from acid shale, siltstone, and sandstone.	Good for farmland, woodland, and wildlife habitat; fair to poor for most nonfarm uses	Seasonal wetness; slow permeability; depth to bedrock, and slope
Gilpin-Upshur-Atkins Association	Leetsdale Borough	Moderately deep and deep, well drained soils underlain by red and gray shale on uplands and deep, poorly drained soils on floodplains.	Good for woodland	Severe limitations for uses other than trees because of slides and the hazard of flooding
Urban Land -Philo-Rainsboro Association	Leetsdale Borough	Deep, moderately well drained soils and urban land on floodplains and terraces	Most of the association is used for residential, commercial, industrial, and transportation development	Hazard of flooding and seasonal high water table

Source: Beaver County Soil Survey (1982) and Allegheny County Soil Survey (1981)

Section 1

Environment and Natural Resources

and towns in Beaver County took place along the Ohio River where industries took advantage of the River for transportation. As a result the Ohio River in the SHALE region is lined with industrial and residential development to the degree that very little natural features exists on this section of the river. The industrialization that occurred along the River during the 20th century resulted in decreased water quality and a loss of native species. This was due to poorly regulated industrial discharges, construction of lock and dams that altered the depths and currents of the river, and dredging of the river to extract sand, gravel, and cobblestone for ease of transportation.

A federal mandate was issued over twenty-five years ago to clean-up the Ohio River. This coupled with a decline in industrial activity has resulted in improved water quality. Present day Ohio River is classified as a low to medium quality warm water fishery. The water quality in the river has improved over the past decade with some fish populations improving their populations and pollution-sensitive species are returning such as walleye, sauger, and bass. The Ohio River has been designated a Biodiversity Area by the Beaver County Natural Heritage Inventory due to the presence of fish species of concern. Additional measures of protection are needed to improve the water quality and protect habitat to ensure the survival of native plants and animals.

The Pennsylvania Code, Title 25. Environmental Protection, Chapter 93. Water Quality Standards (issued under the Clean Streams Law) sets water quality standards for surface water in Pennsylvania. According to the Act, surface waters can be designated for specific water uses, which are protected based on water quality criteria set forth for that particular use. Water uses are designated according to aquatic life, water supply, recreation, and special protection for high quality and exceptional value waters.

The Ohio River (Beaver County), Legionville Run (Harmony Township), and Tevebau Run (Economy Borough) have been designated as protected for Warm Water Fishes (WWF). The WWF designation sets forth water quality criteria for the maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. The Ohio River is also protected for navigational uses, such as the commercial transfer and transport of persons, animals, and goods. Big Sewickley Creek, which forms the southern border of Economy Borough with Allegheny County, is designated as protected for Trout Stocking (TSF). This designation includes maintenance of stocked trout from February 15 to July 31, and maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat.

Riparian Zones

Riparian zones are narrow strips of land bordering creeks, rivers, lakes, and other bodies of water. These areas should be protected from development because they provide a natural buffering around waterways they serve important ecological functions. Plant species, soils, and topography in the riparian zones vary in comparison to the surrounding areas and riparian zones should remain natural because they:

- improve water quality by filtering and promoting sediment deposition
- allow water storage in plant roots and provide pathways to ground water layers.
- provide canopy cover that shades and cools streams, thus improving habitat conditions.
- provide food, shelter, nesting sites, and contiguous habitat for a variety of wildlife.
- provide recreational opportunities such as fishing, hiking, camping, and wildlife observation.
- reduce the volume and velocity of run-off and flood waters in a waterway, which prevents channelization and maintain the natural water flow.

Floodplains

A flood, according to the Federal Emergency Management Agency National Flood Insurance Program, is a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties due to overflow of inland or tidal waters, unusual and rapid accumulation or runoff of surface waters from any source, or a mudflow. A second definition is the collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water

exceeding anticipated cyclical levels that result in a flood. Development in the floodplain can result in loss of life, property damage, and increased downstream flooding. Therefore, it is important to identify those areas in the 100-year floodplain and establish floodplain management guidelines to prevent damage and destruction due to flooding. The 100-year flood plain includes those areas with a history and statistical probability of flooding at least one percent per year.

The Natural Resources Map included on the following page identifies those areas in the 100-year floodplain for the SHALE region as identified by the Federal Emergency Management Agency. The largest floodplain area is located between the Ohio River and Route 65 in Leetsdale where existing industrial development is located. Other areas prone to flooding in the 100-year floodplain include the banks of the Ohio River in South Heights, Harmony, and Economy; along Legionville Run and the South Branch of Legionville Run in Harmony and Economy; and along Tevebau Run, Big Sewickley Creek, and the North Fork of Big Sewickley Creek in Economy.



Riverside area in Leetsdale in the 100-year floodplain

Wetlands

The Natural Resources Map also indicates the presences of wetlands identified by the National Wetlands Inventory of the U.S. Fish and Wildlife Service. Wetlands are generally located within floodplains along the Ohio River in Leetsdale and Harmony, and along portions of the following streams and creeks:

- Big Sewickley Creek (Harmony and Economy)
- The North Fork of Big Sewickley Creek (Economy)
- Legionville Run (Harmony)

Natural Heritage Inventory

The Natural Heritage Inventory for Beaver County was a joint effort of the Pennsylvania Department of Community Development, the Beaver County Planning Commission, and the Western Pennsylvania Conservancy to identify significant natural heritage resources in Beaver County. The inventory was created to assist the public (state, county, municipality) and the private sector in implementing strategies to protect environmentally sensitive areas. These areas are important open space and wildlife habitat that support biological diversity. There are three natural resource areas that are identified in the SHALE area. The two biodiversity areas identified include the Ohio River and Cooney Hollow. Biodiversity Areas (BDA) includes special species habitat, high diversity areas that include a range and abundance of plants and animals native to the county, and community/ecosystem conservation areas that support a rare or exemplary natural community.

Ohio River Biodiversity Area (Highly Significant)

See Watershed, Rivers and Streams.

Cooney Hollow Biodiversity Area (Highly Significant)

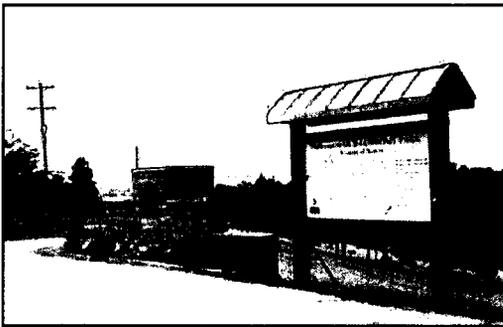
The Cooney Hollow Biodiversity Area is located along a major tributary, Cooney Hollow, to Big Sewickley Creek in Economy Borough. This area is recognized as both a high diversity area and a community/ecosystem conservation area for its mature Mesic Central Forest community along the stream valley, which includes species of American beech, American basswood, sugar maple, and red oak. The high diversity of species found at this site includes wild ginger, bloodroot, round-lobed hepatica, wild geranium, violet species, blue cohosh, twisted stalk, white clintonia,

Section 1

Environment and Natural Resources

and broad beech fern. There are indications that the soils and canopy cover of the forest have been undisturbed for a significant amount of time.

Residential development in the upland areas bordering the southeast side and northern side of the valley is threatening the quality of this Biodiversity Area and restricting future expansion of the natural community. On the southeast side of the valley is the Orchard Estates Manufactured Home Community, which operates a sewage treatment plant that is potentially threatening the quality of the Cooney Hollow tributary stream as a result of overflow from the facility into the stream. New residential development on the northern and northeastern side of the valley is limiting the expansion area for the natural community and impacting the hydrology on the slopes in the valley. Cooney Hollow Road runs directly through the valley, but at the time of the field view was closed to traffic. Therefore, the condition and impacts of the road on the Cooney Hollow Biodiversity Area are unknown. The Natural Heritage Inventory suggests that the uplands around Cooney Hollow should be left undisturbed in order to protect the biodiversity area and that a natural buffer should be established between the natural community should new development occur.



Old Economy Park, Economy

Economy County Park (Managed Lands)

Economy County Park is a publically managed property making up 332 acres. The managed lands identified in the Natural Heritage Inventory are recognized as the most ecologically valuable public properties that are established and managed to enhance important ecological assets in the County. The majority of the park is primarily second and third growth forest on land that was previously used for logging, agriculture, cultivation and grazing, and residential homes. It is noted that Economy County Park has potential to contribute to the natural heritage of Beaver County. Therefore, development and

preservation efforts should be made to adequately buffer the forested areas from development and even extend the park toward to the North Branch of Legionville Run.

Woodlands

The woodlands in the SHALE area are primarily concentrated in the northeastern portion of Harmony Township and throughout Economy Borough. The forested areas of Beaver County include a White Oak Association which are found on the rolling uplands, hills, and slopes. These areas are dominated by white oak, shagbark hickory, red maple, and red oak. The Ohio River valley includes a Sugar Maple-Beech Climax association, which is dominated by sugar maple, American beech, hickory, red oak, white oak, white ash, and American basswood. Concentration of mature woodlands should be examined on a case-by-case situation depending on the proposed development and its impacts on woodlands. These areas are important resources as they add to the rural and scenic beauty of the area, provide wildlife habitat, and offer recreational opportunities. Wooded areas also provide water holding capacity to prevent erosion and siltation which can result in the sedimentation of streams.

Slopes

Slope information is important for all aspects of land use planning as it affects transportation, building design, drainage control and erosion, sewage disposal, and the type of land use practical for a given area. In most cases, steep slopes pose development constraints. The topography of the study area can be described as relatively flat floodplains extending outward from the Ohio River to increasing steeply sloped ridges and stream valleys throughout South Heights and Economy Borough. Steeply sloped areas in excess of 25% are shown the Natural Resources Map. They are found primarily in South Heights west of Route 51, the eastern portion of Harmony, and scattered throughout the northwestern and southern portions of Economy. The Economy Borough Comprehensive Development Plan (1992) states that nearly three-fourths (75%) of the land throughout Economy Borough is in

excess of sixteen percent sloped. These sloped areas tend to congregate around streams and headwaters and follow drainage ways.

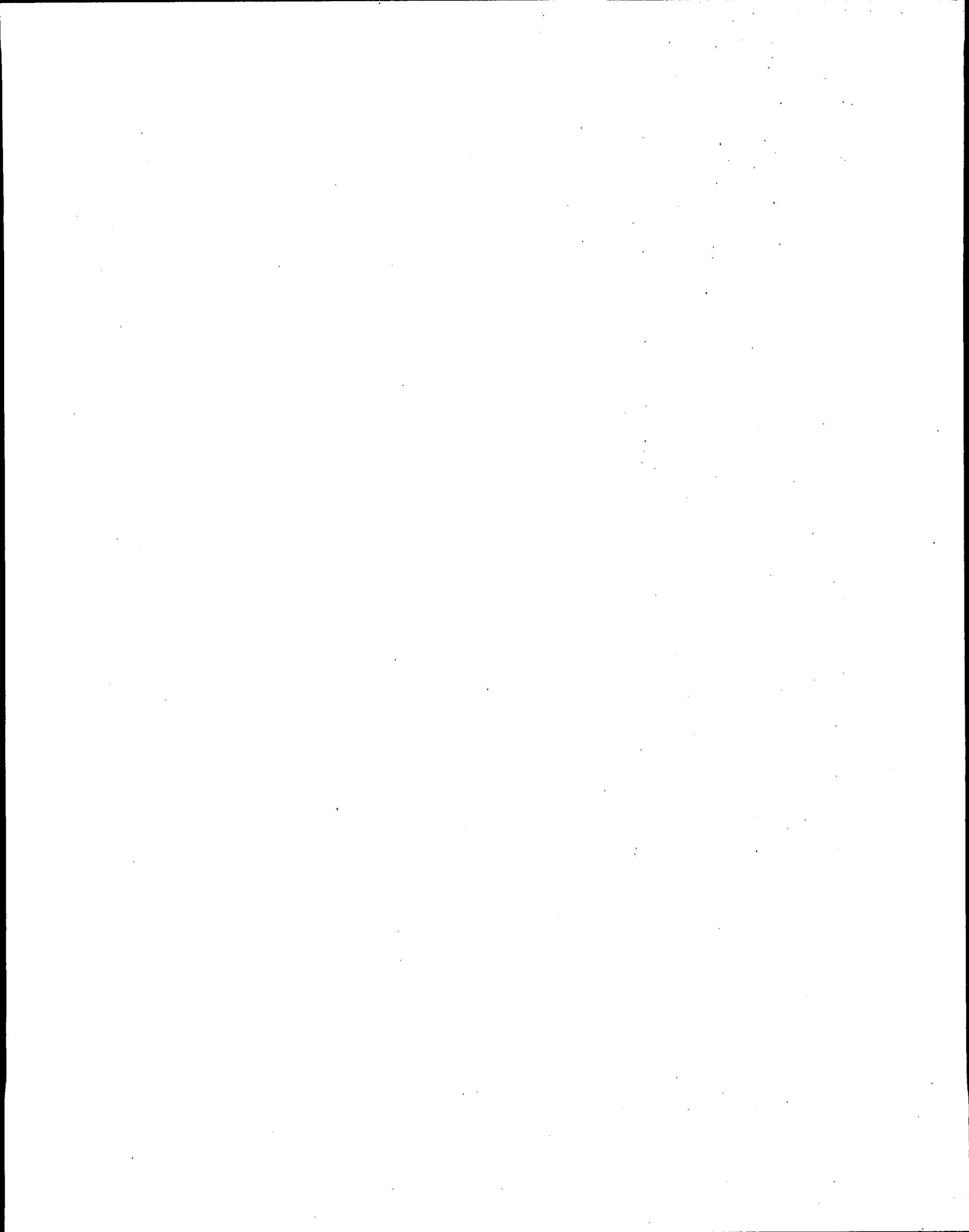
Steeply sloped areas can be part of greenways, woodlands, or connected wildlife corridors because they are cost prohibitive and not suitable for development.

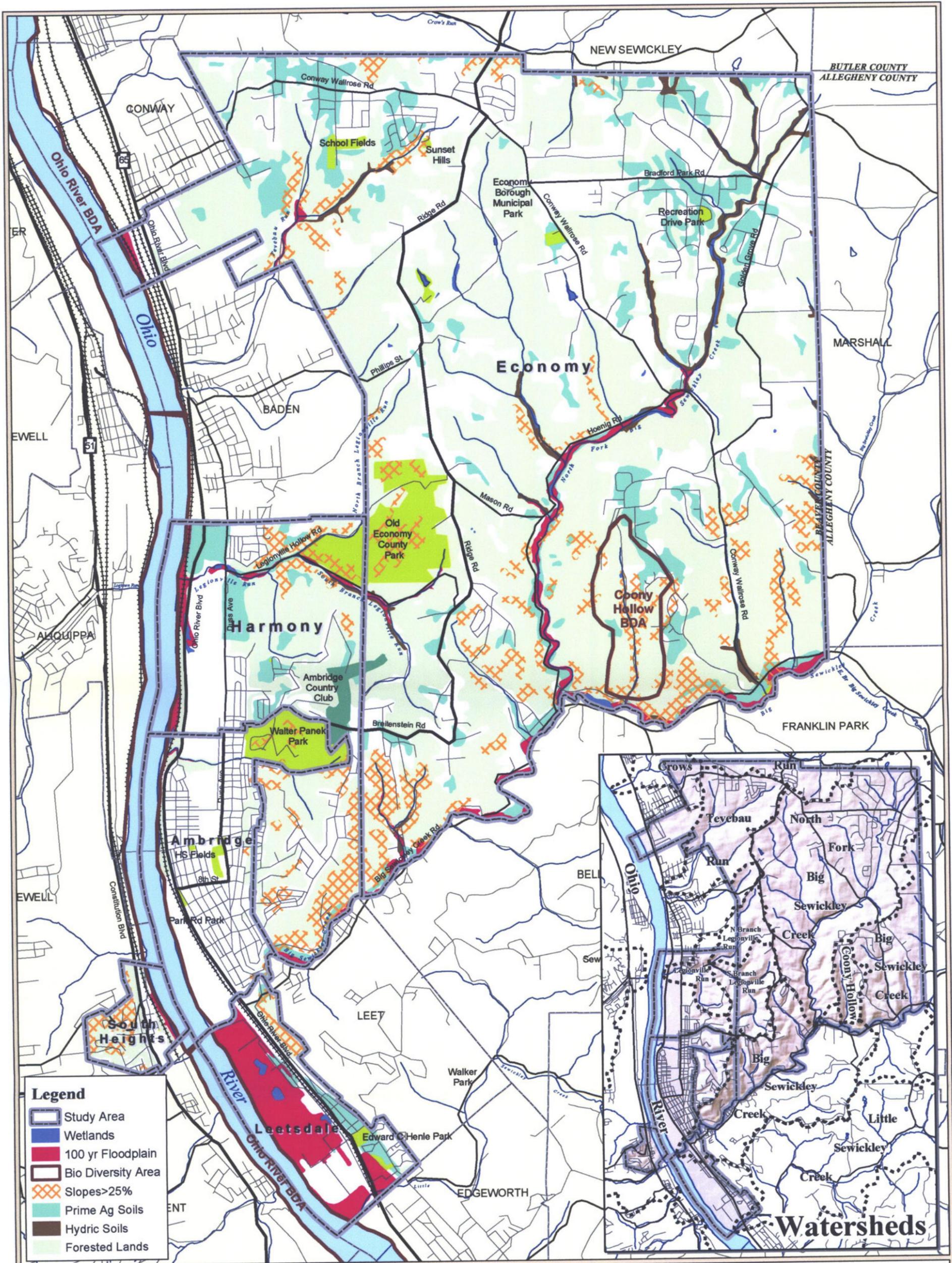
Agricultural Land Use



Farm on Ridge Road in
Economy Borough

Prime agricultural soils are scattered throughout the SHALE area but are not concentrated in any one area. Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses (USDA, 1998). Leetsdale, Ambridge, and Harmony are primarily dominated by urban land and contain no active farms, although some prime farmland exists in these areas. The size and steeply sloped areas of South Heights are too restrictive for agricultural land uses. Therefore, Economy Borough is the only municipality in the SHALE area with an agricultural presence. However, prime agricultural soils are scattered and limited to the northwestern, northeastern, and southeastern corners of the Borough. As a result of the topography and lack of prime farmland, agriculture is not a dominant land use in Economy Borough and very few farms exist. In addition, there are no Agricultural Security Areas in Economy Borough. Designation of an Agriculture Security Area is a pre-requisite for participation in the Pennsylvania Farmland Preservation Program. This is a program administered by the Pennsylvania Department of Agriculture in partnership with county land preservation boards and conservation districts to permanently protect farmland through conservation easements.

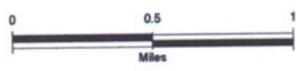




- Legend**
- Study Area
 - Wetlands
 - 100 yr Floodplain
 - Bio Diversity Area
 - Slopes > 25%
 - Prime Ag Soils
 - Hydic Soils
 - Forested Lands

SHALE Area Regional Comprehensive Plan
*Ambridge Borough, Economy Borough, Leetsdale Borough,
 Harmony Township & South Heights Borough*

Natural Resources



Map Notes
 Source: Pennsylvania Spatial Data Access & Beaver County GIS data
 Map projection: State Plane NAD 1983 units = feet
 The project is funded in part by the Pennsylvania Department of Community and Economic Development Land Use Planning and Technical Assistance Program and the Local Government Academy Multi-Municipal Comprehensive Planning Grant Program





Community Facilities and Services

This section inventories community facilities and provides an overview of public services, including police, fire, and emergency medical services. The Regional Community Assets Map indicates the location of school facilities, municipal buildings, police stations, fire stations, and libraries. Utility providers are identified as well, but information on water and sewer infrastructure and service areas is provided separately in Section I.

Public services are essential to maintaining and protecting the health and safety of the community. This section pays particular attention to police protection, fire protection, and emergency medical services. The primary services providers for each township are outlined, including information on staff, equipment, facilities, and funding. Public services are costly for municipalities to provide and many municipalities do not have the resources to support their own police, fire, or EMS providers. In some instances a municipality will rely on the state police or an adjacent municipality for service. Services can also be regionalized among a group of adjacent municipalities. Therefore, recommendations will be made in Section III of the plan on potential areas for cost reductions through resource sharing and partnerships.

SCHOOLS

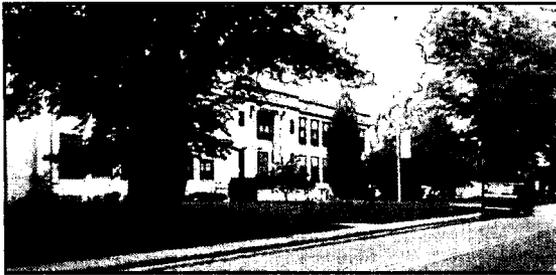
The SHALE municipalities fall within two public school districts. Leetsdale is in the Quaker Valley School District and Ambridge, Economy, Harmony, and South Heights are in the Ambridge Area School District.

Quaker Valley School District

Leetsdale is the only municipality in the SHALE area to belong to the Quaker Valley School District. Ten other municipalities are in the District including Bell Acres Borough, Leet Township, Sewickley Hills Borough, Sewickley Heights Borough, Aleppo Township, Glenfield Borough, Haysville Borough, Osborne

Section 1

Community Facilities and Services



Quaker Valley High School, Leetsdale

Borough, Sewickley Borough, and Edgeworth Borough.

Schools in the District include:

- Quaker Valley High School (Leetsdale)
- Quaker Valley Middle School (Sewickley)
- Edgeworth Elementary (Edgeworth)
- Osborne Elementary (Osborne)

Total enrollment in kindergarten through 12th grade is approximately 1970 students. The student population in the District has been growing steadily and future growth is projected at approximately 3%-5% annually.¹ Growth in enrollment can be attributed to new residential development in the less built-up municipalities in the school district, such as Aleppo, Leet, and Bell Acres. The School District is developing a Master Plan for facility improvements to address future needs, which include expansion of both elementary schools. The School District is assessing future facility needs for the junior high in Sewickley and the high school in Leetsdale as well. Depending on the course of action, expansion of the High School could impact land use and transportation in Leetsdale, despite the fact that Leetsdale's population of school age children declined by 1.9% from 1990 to 2000, and the five-year average for births has decreased overall in Leetsdale over the past thirty years (see information on forecasts for the Quaker Valley School District is provided in the Appendix).

The other main issues the School District is addressing include drug and alcohol use, special education for special needs children, and funding.

Ambridge Area School District

The Ambridge Area School District includes the municipalities of Ambridge, Baden, Economy, Harmony, and South Heights. The total enrollment for the school district is approximately 3,200 students and enrollment has remained relatively stable.²

Schools in the District include:

- Ambridge Area Senior High School (Ambridge)
- Ambridge Area Junior High School (Economy)
- Anthony Wayne Elementary (Ambridge, PA)
- Economy Elementary (Economy)
- Highland Elementary (Harmony - under construction)
- State Street Elementary (Baden)



Economy Elementary School's new facility,
Economy Borough

The Ambridge Area School District has undertaken a number of improvements to facilities to address future educational needs. Economy Elementary is a new facility that is located near the Ambridge Area Junior High School in Economy. State Street Elementary has recently been renovated, and a new Highland Elementary School is currently under construction in Harmony. Anthony Wayne Elementary in Ambridge will close at the end of the 2003-2004 school year. Approximately 378 students who attend the school will be relocated to the new Highland Elementary facility in Harmony Township.

1. Personal Interview with Dr. Joseph Clapper, Quaker Valley School District, 9/2/03

2. Personal Interview with Ron Churchin, Ambridge Area School District, 9/4/03

Private Schools

There are several private schools in the SHALE area. Good Samaritan Catholic is a private primary/middle school in Ambridge and associated with the Good Samaritan Church on Glenwood Avenue. Quigley High School is a private Catholic School in Economy. Mt. Gallitzen is a private school in Baden Borough.

College/Universities

The Trinity Episcopal School for Ministry is the only college located in the SHALE municipalities. It is a Episcopalian graduate school seminary accredited by the Association of Theological Studies (ATS) with 250 full- and part-time students. The school offers graduate degrees in ministry, divinity, religion, and mission and evangelism. Diplomas are offered in basic Christian studies, mission and evangelism, youth ministry, and Anglican studies, and certificates in basic Christian studies and youth Ministry. The Trinity Episcopal School is located on Merchant Street in Ambridge and the school and its students are active participants in the Ambridge community.

PUBLIC SERVICES

An inventory of police, fire, and EMS services was conducted for the SHALE area. Information was collected on personnel, financial resources, and areas of joint cooperation or sharing of services. Overall, public services are adequately meeting the needs of the SHALE communities and all the police, fire, and EMS providers have mutual aid agreements to assist adjacent or nearby municipalities as the need arises.

Police Services

Each municipality in the SHALE area has their own police department. Ambridge Borough has the largest police department and South Heights has the smallest with just a police chief and patrol officer. The police departments are well-qualified and committed to providing quality service to the SHALE municipalities. The police departments are fully-funded by their respective municipalities.

Ambridge Police Department

The Ambridge Police Department is located in the Ambridge municipal building. The police force includes thirteen full-time and eight part-time police officers. The department owns a total of six police cars. They are in the process of hiring additional part-time officers which will allow them to provide routine patrol services as well as investigative functions. The Ambridge Police primarily serves the Ambridge community, but they will assist adjacent municipalities in Beaver County as well. In addition, the department has one formal agreement with Leetsdale Borough in Allegheny County to provide back-up police services to Leetsdale as needed. The department identified the need for additional resources to upgrade the fleet of police cars and the outdated computer system.

Economy Police Department

The Economy Police Department consists of twelve full-time officers and four part-time officers. The department serves Economy Borough and has some Mutual Aid Agreements for back-up services with adjacent municipalities. The department is located in the Economy Borough Municipal Complex on Conway Wallrose Road and a small unmanned substation is located in the Northern Lights Shopping Center. The department owns eight marked police vehicles, two unmarked vehicles, and a tactical response vehicle. It is the only municipal police department in the SHALE area that has a trained Tactical Response Team.

Section 1

Community Facilities and Services

Harmony Township Police Department

The Harmony Township Police Department includes four full-time and five part-time police officers. The police department is located in the Harmony Township Building on Woodland Road. The department provides police service to the adjacent municipalities of Ambridge, Baden, and Economy through a Mutual Aid Agreement. They will also provide service to non-adjointing municipalities when called upon by Beaver County. The department owns two marked police vehicles and one unmarked vehicle.

Leetsdale Borough Police Department

The Leetsdale Borough Police Department consists of four full-time and six part-time police officers. The police station is located within the Municipal Building on Broad Street. The Borough provides police service to the adjacent municipalities of Ambridge, Leet, Bell Acres, Edgeworth, and Sewickley through Mutual Aid Agreements. The department owns four police vehicles.

South Heights Police Department

South Heights has two part-time police officers including a Chief of Police and patrol officer.

Fire Services

Each municipality in the SHALE area has its own fire department. All the fire departments are volunteer-based with the exception of the Ambridge Borough Fire Department, which has both paid fire fighters and volunteers on staff. The fire departments operate in an environment of mutual cooperation and support, as one fire chief noted that the departments tend to help each other out. They rely on a combination of municipal funding and donations for maintaining and purchasing of equipment.

Ambridge Borough Fire Department

The Ambridge Fire Department, located in the Ambridge municipal building, is a combination of four full-time paid employees and eighteen volunteers. The department owns four fire engines (2 Class A pumpers, a ladder truck, and snorkel), a pick-up utility truck, a Hazmat trailer, and a river boat for river rescue operations. The Department provides back-up services to adjacent municipalities through Mutual Aid Agreements. Financial resources are provided by the Borough of Ambridge for equipment and paid personnel. The Department also raises funds from the community to support the volunteers. The fire fighters are trained in First Responder and the use of automated external defibrillators.



Economy Volunteer Fire Department

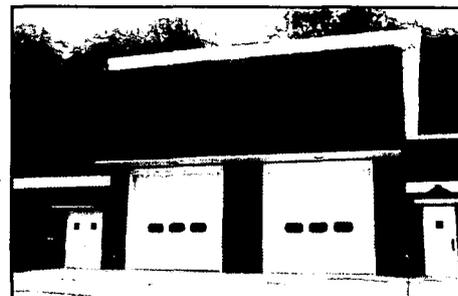
Economy Volunteer Fire Department

The Economy Volunteer Fire Department is operated by forty-three trained volunteer fire fighters. There are three fire stations located throughout the Borough. Station #1 is located at Valley Road and Conway-Wallrose Road, Station #2 is located on Ridge Road, and Station #3 is located at Conway Wallrose and Tevebaugh Roads. The Department owns four fire engines (three Class A pumpers and a tanker truck), a rescue truck, and two brush trucks. Between the three fire stations, the Volunteer Fire Department is able to provide broad

coverage throughout the Borough and the fire fighters are trained in First Responder. The Department also provides back-up services to adjacent municipalities through Mutual Aid Agreements. Funding to support the Fire Department, including equipment and repair, is a combination of Borough funds collected through the local tax and private donations.

Harmony Township Volunteer Fire Department

The Harmony Township Volunteer Fire Department, an independent incorporated organization, is operated by thirty-five volunteer fire fighters. The fire station is located at 24th and Beaver Road. The department currently owns three fire engines, two brush trucks, a squad and a fire car, but they are currently looking to purchase a new fire truck. The Harmony Township Fire Department provides service to Aliquippa, Ambridge, Baden, Economy, Fair Oaks, and Bell Acres Borough through Mutual Aid Agreements. Funding to support the fire department is provided through donations and organized fundraisers. The department also pursues grants to a certain extent.



Harmony Township Volunteer Fire Department

Leetsdale Borough Volunteer Fire Department

The Leetsdale Borough Volunteer Fire Department is operated by over thirty volunteer fire fighters. The fire station is located in the Leetsdale municipal building on Broad Street. The Department owns two fire engines (one Class A pumper and a mini pumper). The Department provides back-up service to Bell Acres, Edgeworth, Leet Township, and Sewickley through Mutual Aid Agreements. They have also responded to calls in Ambridge. The fire fighters are trained in First Responder for emergency rescue and technical rescue, including Hazmat, in the Leetsdale Industrial Park. In river rescue situations, Leetsdale will rely on Crescent Township for the rescue boat, but Leetsdale Volunteer Fire Department will provide land-based support. Funding to support the Fire Department is raised by the Borough of Leetsdale through the local tax. This is the majority of the Department's funding for equipment and repairs, but they do some fundraising as well.

South Heights Volunteer Fire Department

The South Heights Fire Hall is located on Jordon Street (Route 51) in the same location as the municipal building. The South Heights Volunteer Fire Company disbanded in 1997. Since that time, South Heights has contracted with the Crescent Township Volunteer Fire Company to provide service to the Borough. One fire truck is housed in the South Heights Fire Hall on Jordon Street.

Emergency Medical Services (EMS)

There are three main EMS providers in the SHALE municipalities. They include the Quaker Valley Ambulance Authority, Medic Rescue, and Economy Ambulance Incorporated. Medic Rescue and Economy Ambulance Incorporated are non-profit EMS providers. The Quaker Valley Ambulance Authority is a municipal authority that provides services as a function of local government and has the power to levy taxes for services. Many EMS providers rely on a combination of membership dues, donations, and insurance reimbursements. However, it is becoming increasingly difficult for independent non-profit ambulance companies to cover their costs due to increasing equipment and operational expenses. This may be one area in which municipalities will increasingly be required to assume more fiscal responsibility in order to sustain quality service to their residents.

Medic Rescue, headquartered in Bridgewater, Pa, provides emergency medical services (EMS) to 93% of Beaver County (46 municipalities) including Ambridge, Harmony, and South Heights. They also provide service to Economy Borough if called upon by Economy Ambulance Incorporated, the primary EMS provider for Economy Borough. Medic Rescue has 120 employees including paramedics, emergency medical technicians, wheelchair van personnel, and administrative staff. They operate twenty-one (21) ambulances and fifteen wheelchair vans that are strategically positioned along with crews throughout the County in order to reduce emergency response times. Medic Rescue is financially supported by membership fees (individuals and families in Beaver County) and transport service fees collected from non-members and/or insurance companies. Individuals and families that are members qualify for unlimited emergency transports at no cost and discounted stretcher van and wheelchair van services.

Section 1

Community Facilities and Services

Economy Ambulance Incorporated, located in Economy Borough on Ridge Road, is the primary EMS provider for Economy Borough and Baden Borough. Economy Ambulance was originally established as part of the Economy Volunteer Fire Department in 1977 to provide EMS service to Economy Borough. It split with the Fire Department in 1990 to form a non-profit ambulance corporation and expanded its service area. However, provisions in the organization's by-laws state that should the organization dissolve, it will revert back to the Economy Volunteer Fire Department. Economy Ambulance employs approximately forty people including administrative staff, paramedics, and EMTs. Economy Ambulance stations a response vehicle at the fire station on Conway Wallrose Road in order to expedite emergency responses. Economy Ambulance also has Mutual Aid Agreements with Ambridge, Baden, Conway, and New Sewickley to provide back-up services as needed. Economy Ambulance is supported by membership fees and payments for transport services from either the individual or the insurance company. Individuals and families that are members qualify for free emergency transports and discounted fees for non-emergency transports.

Quaker Valley Ambulance Authority provides EMS service to Leetsdale Borough, in addition to Aleppo Township, Bell Acres Borough, Edgeworth Borough, Glenfield Borough, Leet Township, Haysville Borough, Osborne Borough, Sewickley Borough, Sewickley Heights and Sewickley Hills. The Quaker Valley Ambulance Authority was organized as the second municipal ambulance authority in the United States and operates jointly with its partner authority, the Valley Ambulance Authority. The two ambulance authorities share a facility in Moon Township, in addition to personnel and administrative costs. The governing Board of Directors of Quaker Valley Ambulance Authority includes one appointed representative from each municipality, which ensure equal representation from the member municipalities. Quaker Valley Ambulance Authority is supported by insurance payments and donations, and has the authority to levy an annual tax assessment on its municipalities as needed.

The closest hospital facilities for the SHALE municipalities include Aliquippa Community Hospital in Aliquippa (approximately six miles from Ambridge, South Heights, and Harmony Township), The Medical Center in Beaver (15 miles from Ambridge), Sewickley Valley Hospital in Sewickley Borough, Allegheny County (3 miles from Leetsdale), and the University of Pittsburgh Medical Center Passavant in Cranberry Township, Butler County (11 miles from Economy Borough). In addition, there are a number of hospital facilities in the City of Pittsburgh that are within approximately twenty miles of the SHALE municipalities.

PUBLIC UTILITIES

The following is a summary of the public utility providers in the SHALE region.

Electric: Duquesne Light Company, Inc.

Gas: Columbia Gas

Phone: Verizon

TV Cable: Comcast

Public Water Authorities

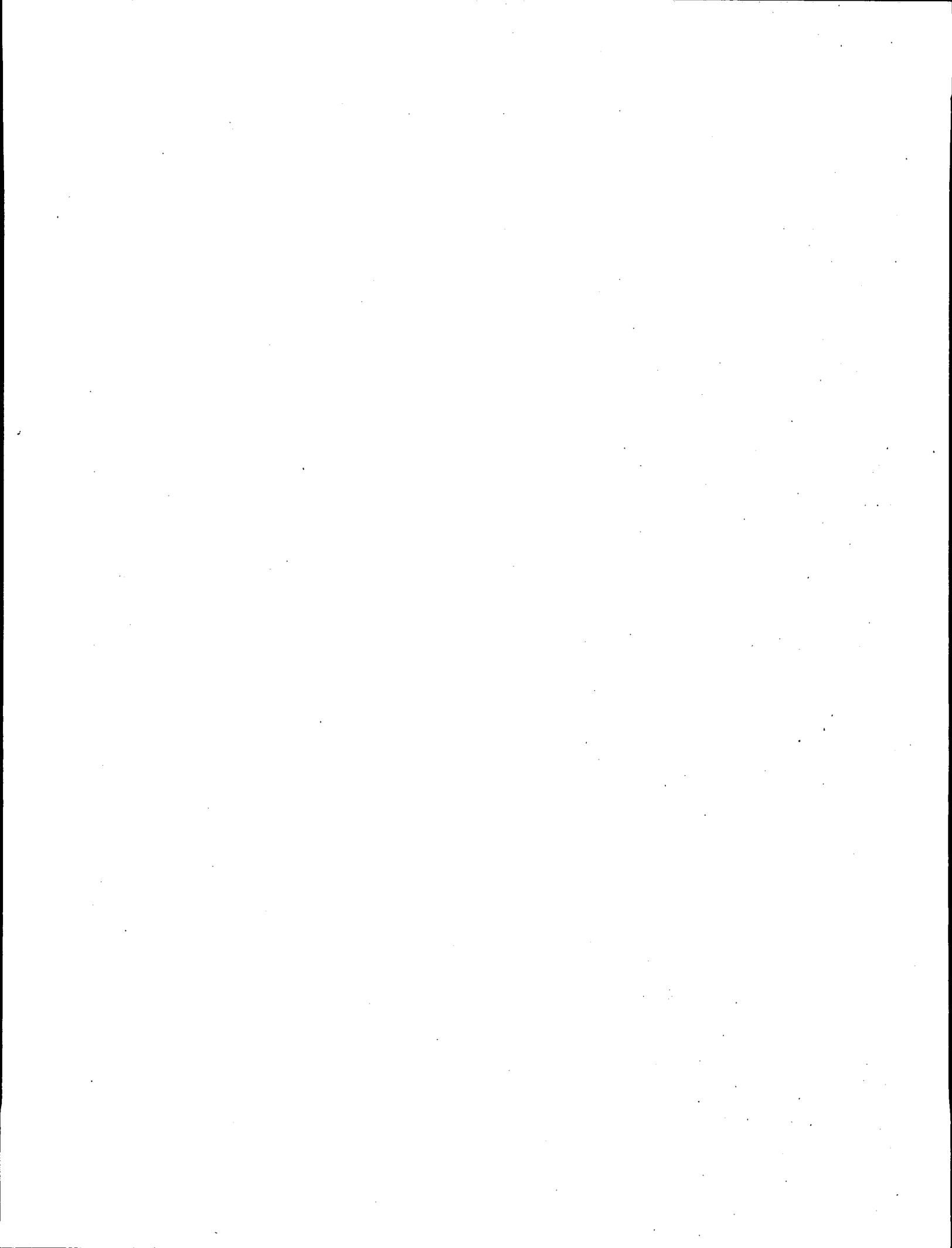
There are a variety of water authorities that service the SHALE community. Below is a description of each. The service areas are outlined in the Water Service Areas Map. A more detailed description of the water authorities and their servicing areas exists in the Infrastructure Section.

- Ambridge Water Authority: Serves Ambridge, Harmony and parts of Economy Borough.
- Conway Borough Municipal Authority: Serves Conway and Northern Lights Shopping Center area in Economy.
- Creswell Heights Joint Water Authority: Serves Hopewell Township, South Heights Borough, and Crescent Township.
- Edgeworth Municipal Authority: Serves Edgeworth Borough, Leetsdale Borough, and portions of Leet Township and Bell Acres Borough.

Public Sewer Authorities

There are several sewer authorities which service the SHALE communities. Below is a description of each. Reference the Sewer Service Areas Map to see the location of existing and proposed sewer service areas. A more detailed description of the sewer authorities and their servicing areas exists in the Infrastructure Section.

- Borough of Ambridge Municipal Authority: Serves Ambridge, portions of Harmony south of Walter Panek Park, the northwestern tip of Leetsdale Borough, as well as parts of Leet Township and Bell Acre Borough.
- Baden Municipal Authority: Serves Baden Borough, the northern portion of Harmony Township, and a small portion of Economy Borough extending just north from the Baden Township border.
- Moon Township Municipal Authority: Provides service to South Heights and Crescent and Moon Townships in Allegheny County.
- Economy Borough Municipal Authority: Serves portions of Economy Borough.
- Leetsdale Borough Municipal Authority: Serves Leetsdale Borough and portions of Leet Township and Edgeworth Borough.
- Hopewell Township Municipal Authority: Service Hopewell Township and a small section of South Heights Borough.





Transportation

TRANSPORTATION

Introduction

In coordination with the existing land use character analysis of the SHALE Comprehensive Plan (South Heights, Harmony, Ambridge, Leetsdale, and Economy), a transportation analysis was also completed by Herbert, Rowland & Grubic, Inc (HRG). The goal of the transportation analysis is to evaluate the existing roadway network in terms of condition and general operation. This evaluation is then used to prioritize roadways and intersections in need of general improvements. For assistance in understanding the terminology used in this study, a glossary of transportation terms used in this section is included in the appendix.

The basis of the transportation analysis consists of a field view of the existing transportation network. This field view was conducted by HRG personnel on September 23, 2003. The field evaluation was supplemented by traffic volume and accident information provided by the Pennsylvania Department of Transportation (PENNDOT) Engineering District 11-0, and transportation surveys completed by the municipalities. The results of the transportation evaluation are summarized in the following sections.

A. EXISTING TRANSPORTATION NETWORK AND CIRCULATION PATTERNS

The study area includes Ambridge Borough, Economy Borough, Harmony Township, Leetsdale Borough, and South Heights Borough. The most heavily traveled route through the study is Route 65 (Ohio River Boulevard), which runs north-south through the study area following the east bank of the Ohio River from downtown Pittsburgh north to Beaver. Additionally, Route 51 follows the west bank of the Ohio River through South Heights and connects the Greater Pittsburgh Airport to Aliquippa, Beaver, and points north. The major roadway providing access into the

Section 1

Transportation

study area is Route 989. Route 989 crosses through Ambridge, Economy, and Harmony Borough and provides access, via Freedom Road, to Cranberry Township, Interstate 79, and the Pennsylvania Turnpike (I-76) in the east. Roadways providing access into each municipality include Route 2001 (Duss Avenue), Route 2008 (Conway Wallrose Road), Route 3038 (Hill Road), Route 2014 (Legionville Hollow Road/Hemmerle Road), Route 4036 (Big Sewickley Creek Road/Red Belt), and others.

Major circulation of vehicular traffic through the study area municipalities is north-south along Routes 65 and 51. Major east-west traffic traveling to/from the area uses Route 989 and Route 2008 (Conway Wallrose Road) to gain access to Route 65.



B. ROADWAY CLASSIFICATION

Functional classification is used to categorize the roadways in the study area municipalities according to their function. Roadways serve two primary roles, mobility (the ability to go from one place to another) and access (the ability to enter adjacent property). A roadway's functional classification balances a roadway's role of mobility versus its role of access. The classifications are further divided between Major/Minor and Urban/Rural. For the purpose of this study, the roadways will be classified into the following four categories.

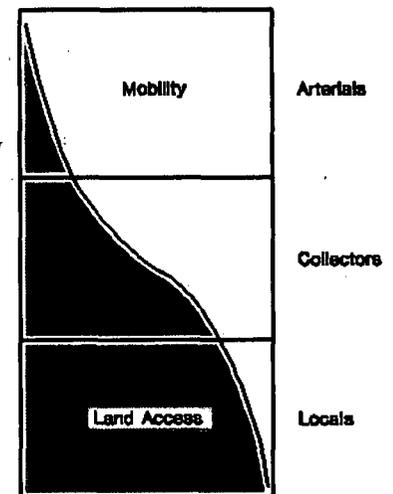
Arterials provide for high mobility and limited direct access. Arterials generally convey an average daily traffic (ADT) volume between 10,000 and 25,000 vehicles. These roads connect urban centers and convey traffic for distances over one mile. Arterials often connect urban centers with outlying communities and employment.

The roadway design is usually four to five 12-foot lanes with 8-10 foot shoulders, medians, and design speeds of 40-60 mph. PENNDOT further classifies Arterials as Principal and Minor, where Principal is synonymous with Major.

Major Collectors are intended to provide for a greater degree of mobility than for land access. Collectors generally convey traffic for medium travel distances (generally greater than one mile) and convey ADTs between 1,500 and 10,000. Collectors serve motorists between local streets and arterial roads. The roadway design is typically two 12-foot lanes with 8-10 foot shoulders and a minimum design speed of 35 mph.

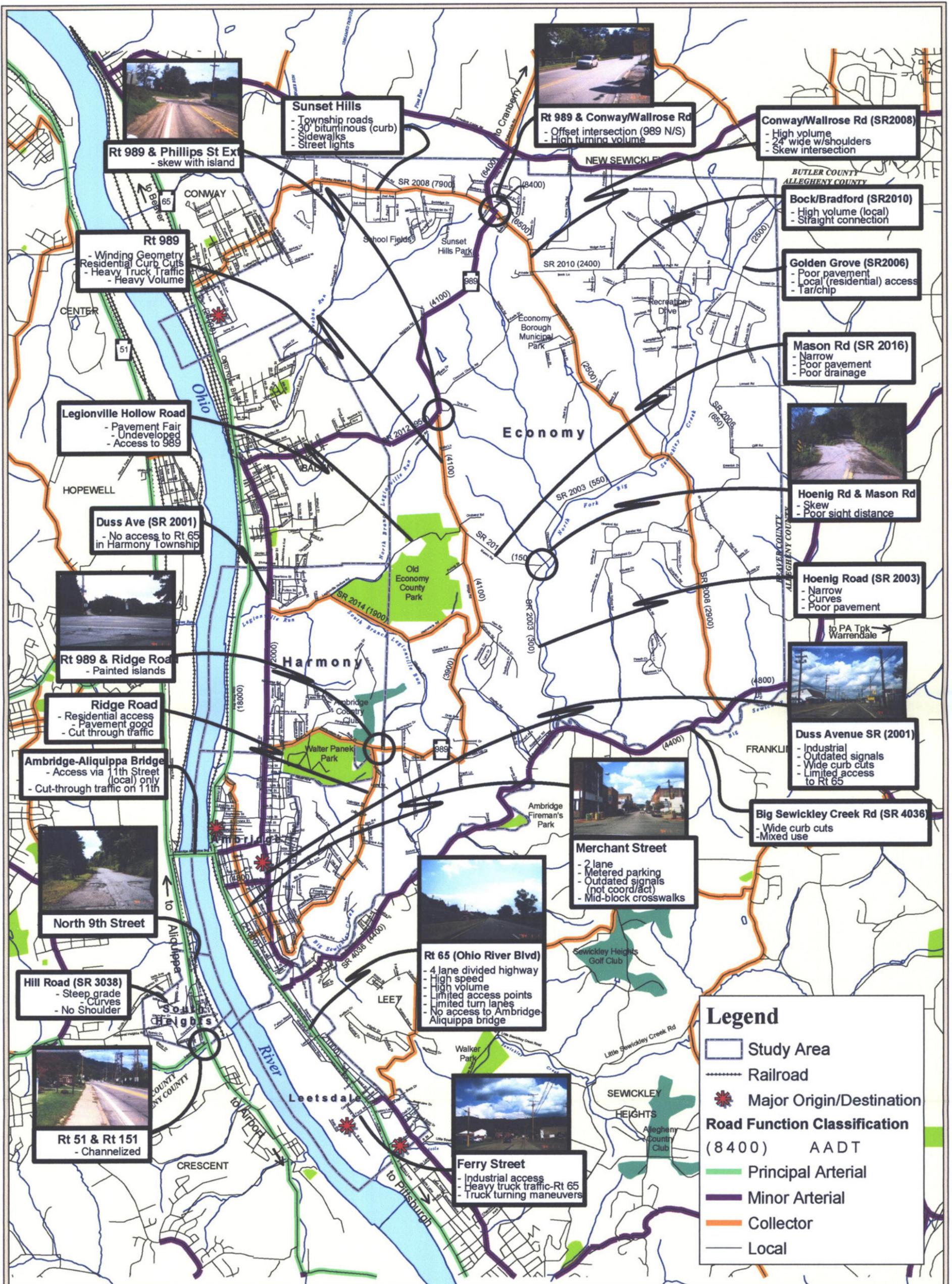
Minor Collectors provide for equal amounts of mobility and land access. These roadways serve as major circulation roads. Minor collectors usually contain two 11-12 foot lanes with 4-10 foot shoulders and a minimum design speed of 30 mph.

Local Roads are intended to provide immediate access to adjoining land uses. Local roads are intended to only provide for transportation within a particular neighborhood, or to one of the other road types described. Local roads are generally 20-22 feet wide with 2-8 foot shoulders and design speeds of 25 mph.



C. ROADWAY CLASSIFICATIONS

The following narrative summarizes the classification of the existing roadways within the study area based on information supplied by PENNDOT and from observations made during the field view. Any existing deficiencies observed or noted in the municipal surveys are also included. A graphical representation of the existing



SHALE Area Regional Comprehensive Plan
Ambridge Borough, Economy Borough, Leetsdale Borough, Harmony Township & South Heights Borough

Transportation Issues

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Miles

Map Notes

Source: Southwestern Pennsylvania Corporation, Pennsylvania Spatial Data Access & Beaver County GIS data
 Map projection: State Plane NAD 1983 units = feet

The project is funded in part by the Pennsylvania Department of Community and Economic Development Land Use Planning and Technical Assistance Program and the Local Government Academy Multi-Municipal Comprehensive Planning Grant Program

HRG
Engineering & Related Services

PASHEK ASSOCIATES
AN ENVIRONMENTAL CORPORATION

Section 1

Transportation

Minor Collectors

Route 2005 (Conway Wallrose Road) is a minor collector crossing Economy Borough from Route 989 east to Route 4036 (Big Sewickley Creek Road/Red Belt). Route 2005 collects traffic from eastern Economy Borough and funnels it to either Route 989 or Route 4036. Similar to Route 2008, this roadway section is two lanes with pavement widths of 24 to 26 feet. Minimal to unimproved shoulders are most common on this stretch of roadway. Posted speed limits are 40 mph with some reduced speed curves. Terrain is generally rolling with a winding horizontal alignment. Guide rails and cable barriers are used where appropriate, however, cable barriers are in need of repair. Residential frontage is most common with many driveway access points. Pavement quality is fair with some cracking, but little rutting.

Traffic volumes are 2,500 vpd between Route 2010 (Bock Road) and Route 2003 (Hoenig Road), and 2,900 south of Route 2003. The highest volume section of Route 2005 is between Route 989 and Route 2010, with an ADT of 6,500 vpd. Overall, Route 2005 functions as a minor collector.

Operation and safety concerns have been noted at the intersection of Route 2005 and Route 2010 (Bock Road). Other major intersections along Route 2005 with Route 2003 (Hoenig Road), Route 2006 (Wallrose Heights Road), and Route 4036 (Big Sewickley Creek Road) should be continually monitored to maintain adequate sight distance, proper pavement markings, and proper signage.

Route 2014 (Legionville Hollow Road/Hemmerle Road) is a minor collector connecting Route 989 in Economy Borough in the east to Route 2001 (Duss Avenue) in Harmony Borough in the west. This roadway is two lanes with an approximate pavement width of 18 to 22 feet. A posted speed limit of 40 mph is present with many reduced speed curves. Rolling terrain and winding roadway alignments are present along the length of Route 2014. Pavement quality is poor to fair with heavy cracking and evidence of poor drainage. Numerous sections of guide rails and cable barriers are present along the length of the roadway. As with other roadways in the study area, the cable barrier is in severe need of repair.

Traffic volumes on Route 2014 are approximately 1,900 with 4% trucks. Route 2014 generally acts as classified as a minor collector. Minor operational issues are present because of the severe curvature of the roadway and narrow travel lanes.

Merchant Street through Ambridge Borough is classified by PENNDOT as a collector roadway. Merchant Street is a two (2) lane roadway through the Ambridge commercial district. Roadway alignment is straight and level. On street parking, as well as some metered parking, exists throughout the length of the roadway. Closed drainage, sidewalks, and street lighting are also present. Pre-timed, side mounted traffic signals are located at most major cross streets. Numerous mid-block crosswalks exist throughout the main business district. Side streets follow a typical urban grid pattern and intersect Merchant Street at near right angles.



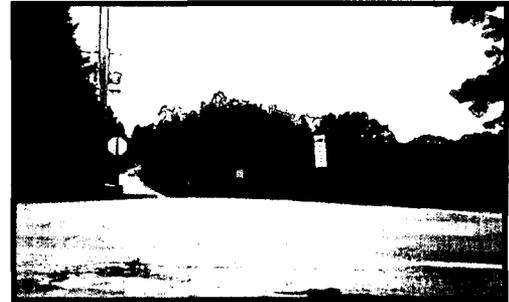
Merchant Street

The main operational concern with Merchant Street involves the traffic signals. All signals are side mounted with one or two signal displays per approach. This configuration does not meet current design standards and often leads to unsafe conditions with traffic at the signal. Additionally, the traffic signals on Merchant Street are also pre-timed, leading to increased delay, as the traffic signal will cycle to the side street with no vehicles present.

Additionally, weathered street markers, lack of guide signs, and worn pavement markings make navigation through Ambridge difficult for the traveler who is unfamiliar with the area. More visible street markers and guide signs to the Ambridge Aliquippa Bridge, and southbound to Route 65 would improve circulation within the community.

Worn pavement markings mainly create issues at 11th Street where there is a well-worn exclusive left turn lane. Without the pavement markings, vehicles use both lanes as through lanes even though there is only one receiving lane on the far side of the intersection.

In addition to Merchant Street, PENNDOT also classifies Ridge Road as a minor collector. Ridge Road is a two (2) lane roadway connecting Southern Ambridge and Harmony Boroughs to Route 989. Ridge Road has a posted speed of 30 mph and an 18-ton weight limit. Ridge Road is approximately 24 feet wide with 2 foot paved shoulders and asphalt wedge curb. Many all-way stop controlled intersections are present at side streets into residential neighborhoods. Side streets generally cross at right angles and have good sight distance. Vertical alignment is generally level with the exception near Ambridge. Roadside development is residential with many driveway curb cuts. Pavement condition is good. Overall, Ridge Road is properly classified as a minor collector.



Ridge Road

Local Roads

There is a wide variety of Local Roads in the study area. They include PENNDOT classified local roads with significant traffic volumes, urban residential streets in neighborhoods, and rural dirt roads.

The following discussion will focus mainly on local roadways on the state highway system as these roadways typically carry higher traffic volumes for longer distances. Further discussion will follow on major, non-state roadways within the study area, and on the general condition of the study area local roadways.

Route 2010 (Bock Lane/Bradford Park Road) is a local roadway connecting Route 2005 (Conway Wallrose Road) to Route 2006 (Golden Grove Road). Route 2010 is a two-lane roadway, approximately 22 feet wide, with minimal paved shoulders and an asphalt wedge curb. Posted speed limit is 35 mph on a generally straight alignment. A 10-ton weight limit is posted for the roadway. Frontage is residential with side streets accessing more residential areas. Side streets are generally well marked and intersect near right angles. An all-way stop controlled intersection exists at Mary Reed Road/Park Hill Road. Pavement condition is generally poor to fair with substantial cracking.

Route 2010 handles an ADT of 2,400 with 5% trucks. Based on the previously stated description as a connector roadway, Route 2010 most similarly operates as a minor collector. However, it is not unreasonable to classify this roadway as a local road since it does not provide a connection to arterial roadways.

Some operational and safety issues were noted at the intersection of Route 2010 with Route 2005 as the horizontal curvature and grades on Route 2005 create some sight distance issues for vehicles pulling out of Route 2010.

Route 2006 (Golden Grove Avenue/Wallrose Heights Road) is a local roadway connecting Route 2005 (Conway Wallrose Road) to Route 2010 (Bock Road/Bradford Park Road) and points north. Route 2006 is a two-lane roadway with 20 to 22 feet of pavement and minimal shoulders (<2'). Posted speeds are 35 mph with several reduced speed curves. Horizontal alignment is winding with rolling terrain. Pavement quality is poor with heaving pavement, cracks, patches, and no pavement markings in the chips and tar section near Route 2005. Abutting land use is residential with driveway access along the roadway length. Some guide rails are present, however, several areas are lacking appropriate protection from roadside obstacles.

Route 2006 carries an ADT of 650 to 2,500 with 5% to 9% trucks. With exception to the elevated truck percentages, this roadway operates as classified. Operation and safety of local roads are usually not an issue because of low traffic volumes and lower speeds. However, there are a few sections of the roadway that should be

Section 1

Transportation

addressed. The intersection at Lovi Road, at the Allegheny County line has sight distance constraints created by the skewed approaches to the intersection. The current chips and tar section of Route 2006 (near Route 2005), has several locations that should have a guide rail.

Route 2003 (Hoenig Road) is a local roadway in Economy Borough connecting Route 4036 (Big Sewickley Creek Road) to Route 2005 (Conway Wallrose Road) along the North Fork of Big Sewickley Creek. Route 2003 carries two-way traffic on 14 to 20 feet of pavement with no shoulders. Posted speed is 35 mph with advisory speed curves of 15 mph. Poor drainage and poor pavement quality are common along the length of the roadway. Substandard cable barriers and unprotected obstacles are an issue along the length of the roadway.

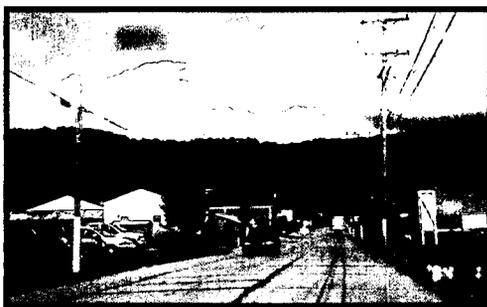
Route 2003 carries an ADT between 300 and 550 and 5% trucks. Overall, the roadway is a typical rural local roadway. If traffic volumes significantly increase, the pavement structure and roadway environment should be upgraded to a more contemporary design.

Route 2016 (Mason Road) is a local roadway in Economy Borough connecting Route 989 to Route 2003 (Hoenig Road). Route 2016 carries two-way traffic on 18 to 20 feet of pavement with no shoulders. Poor drainage, worn pavement markings, and poor pavement quality (rutted/cracked/patched) are common. Numerous locations exist where a guide rail does not protect roadside obstacles. Skewed intersections at both Route 989 and Route 2003 (Hoenig Road) create sight distance issues and operational issues as vehicles maneuver the sharp turn. Route 2016 carries an ADT of 150 with 5% trucks. Route 2016 is correctly classified as a rural local roadway.



Mason Road

Route 3038 (Hill Road) is located in South Heights and connects Route 51 to Route 151. Route 3038 is a two-way roadway approximately 16 to 18 feet wide with minimal shoulders. The posted speed limit is 35 mph with several reduced speed curves. Vertical grades are severe with numerous horizontal curves. Between the winding curves and hilly terrain, sight distance at side streets is minimal. Guide rail exist for long distances along the roadway to protect from steep grades. When not on severe grades, roadside frontage is mainly residential. Route 3038 carries approximately 1,800 vehicles per day with 4% trucks. Based on traffic volumes, speeds, and connections to arterials, Route 3038 most closely resembles a minor collector.



Ferry Street

Ferry Street in Leetsdale intersects Route 65 and provides access to Beaver Road and into the industrial area west of Route 65. Ferry Street east of Route 65 matches the description below of a Leetsdale Borough local street. However, Ferry Street accessing the industrial area is quite different. Large numbers of trucks use Ferry Street to access the industrial area. Ferry Street is a two lane concrete roadway that crosses railroad tracks immediately west of Route 65. Pavement width is insufficient to allow semi-trucks to make turns at unsignalized intersections. Unlimited property access is common as parking/loading areas are paved up to the roadway. As previously mentioned, access issues from Route 65 are present with the lack of left turn lanes and the

affects of the railroad tracks in close proximity to the traffic signal. The municipality is currently working on an overpass at the intersection of Ferry Street and Route 65.

This concludes the detailed descriptions of the major roadways within the SHALE Comprehensive Plan area of study. The following contains a generalized description of local streets that are not on the state highway system. Local streets in Ambridge are approximately 24 to 30 feet wide with two-way and one-way traffic. Streets are

constructed with concrete, asphalt, and brick pavement quality is generally fair. Street layout is a typical urban grid perpendicular to Route 989 (Duss Avenue) and Merchant Street. Parking is allowed on most local streets and speeds are posted at 25 mph. Grades vary significantly from level ground near Route 65 to steep grades east of Duss Avenue.

Local streets in Economy vary greatly. Some local streets are similar to the Sunset Hills neighborhood, where there are 30-foot roadways with asphalt wedge curbs, sidewalks, and streetlights. Other local streets are more rural in nature with winding curves, steep grades, and minimal pavement width. Most local streets are posted at 25 mph.

Harmony Borough's local streets are mainly located near Baden or Ambridge and along Ridge Road. Pavement materials are typically asphalt with widths of 20 to 30 feet. Posted speed limits are generally 25 mph and have on street parking. Pavement quality is generally good.

Local roadways in Leetsdale are similar to other roadways in the study area municipalities. Roads are typically curbed asphalt roadways with sidewalks. Average roadside widths are approximately 24 to 36 feet where there is on-street parking. Side streets have posted speeds of 15 to 25 mph. Streets are generally straight and level and have adequate sight distance and fair to good pavement quality.

South Heights' local streets are mainly asphalt with 26 to 30 foot pavement widths. Roads are typically curbed with on street parking. Streets near Route 51 are generally on a grid network with alleys providing cross access. Other streets, such as North 9th Street, are not as well maintained and provide access into industrial areas.

Based on the collected roadway and accident data, the field view, and municipal surveys, a summary of recommended improvements has been prepared and listed in Section III/Strategies for Action. These improvements are general in nature. Detailed traffic analysis and construction plans will need to be prepared to implement any recommendations from this study. Table 3 summarizes the list of recommended improvements and the priority for each study area municipality. The Traffic Issues Map visually represents the locations of identified operational or safety concerns.

D. VEHICULAR CRASH EXPERIENCE

Vehicular crash experience in the study area municipalities was examined using crash data provided by PENNDOT. Crash data for the past five (5) years was provided for all roadways on the state highway system. As the state roadways are typically the higher volume roadways, this crash data is anticipated to account for the majority of vehicular crashes within the study area.

Crash statistics are provided for each state roadway in each municipality. A brief description of the overall crash rates and apparent crash trends are also discussed. Comparison is also made to the statewide average crash rates.

South Heights

Route 51 has a total of 28 crashes in five (5) years. Sixteen (16) of the crashes occurred at Route 151 (Laurel Road) accounting for seven (7) injuries. The remaining 12 vehicular crashes occurred at various locations along Route 51, accounting for 5 additional injury crashes and one (1) fatality. The average crash rate on Route 51 in South Heights is 1.69 crashes per million vehicle miles traveled (cpmvm). This rate is only slightly higher than the statewide average for similar roadways.

Section 1

Transportation

Route 151 (Laurel Road) has two crashes as it approaches Route 51. Sixteen of the crashes at the intersection of Route 51 and Route 151 were mentioned above. The remaining one crash on the state highway system in South Heights is located on Route 3038 (Hill Road).

Route 3038 (Hill Road) experienced 9 total crashes in the previous five years. Six (6) of the total crashes were angle crashes at the intersection with Route 51. The remaining 3 crashes occurred at various locations along Route 3038 with no differentiable patterns present. The average crash rate for Route 3038 in South Heights is 6.68 crashes per million vehicle miles. This rate is approximately 3.5 times the statewide average for similar roadways.

Harmony

Route 65 (Ohio River Boulevard) experienced 28 total crashes in the previous five years. Sixteen (16) of the total crashes occurred at the intersection of Route 65 with Logan's Lane. The remaining 12 crashes occurred at various locations along Route 65 with no differentiable patterns present. Overall, 60% of the crashes on Route 65 in Harmony involved injuries. The average crash rate for Route 65 in Harmony is 0.58 cpmvm. This rate is approximately one quarter (1/4) of the statewide average for similar roadways.

Route 989, in Harmony, accounted for 4 crashes in the past five years. Four crashes is not a sufficient number of crashes to determine crash patterns. However, the average crash rate for this segment of roadway is 2.25 cpmvm, or 1.5 times the statewide average.

Route 2001 (Duss Avenue) has had 30 reported crashes in the last five years. Nine (9) crashes were indicated at the intersection of Route 2001 and Logan's Lane, with the majority being angle crashes from vehicles pulling out too soon. Of the remaining 21 crashes, 40% occurred at intersections, while the remaining were at various unrelated locations throughout the length of Route 2001 in Harmony. The average crash rate for Route 2001 in Harmony is 1.25 cpmvm. This is approximately two thirds (2/3) of the statewide average crash rate for similar roadways.

Ambridge

The Borough of Ambridge has the most access to Route 65 (Ohio River Boulevard) and hence has the most possible points of conflict. Route 65 experienced 67 crashes in the past five-year period. Overall, the Ambridge portion of Route 65 has an average crash rate of 0.91 crashes per million vehicle miles, or half of the statewide average. Sixteen (16) crashes occurred at the intersection of Route 65 with 4th Street, with 12 of the crashes being injury crashes. Ten (10) crashes occurred at the intersection of Route 65 with Route 989 (8th Street). Of these ten (10) crashes, there were three injuries and one fatality. Six (6) crashes occurred at Route 65 and 13th Street. Five of the crashes involved injuries. Five (5) crashes occurred at Route 65 and Merchant Street with 60% involving injuries.

Route 989 in Ambridge (8th Street/Duss Avenue) accounts for 61 crashes in the last five (5) years. Ten (10) of the crashes overlap at the intersection with Route 65. Four (4) angle crashes occurred at the intersection with Maplewood. Four (4) crashes involving injuries occurred at Merchant Street. Eighty percent (80%) of the six crashes occurring at 11th Street involved injuries. All five (5) crashes at the intersection with 14th Street involved injuries. Overall, of the 61 total crashes, 35 involved injuries with two involving fatalities. The 32 remaining crashes occurred at unrelated locations with no identifiable patterns or trends. The average segment crash rate for Route 989 in Ambridge is 3.70 cpmvm, which is nearly the same as the statewide average.

Leetsdale

Route 65 (Ohio River Boulevard) in the Borough of Leetsdale experienced 30 crashes in the previous five years. Of those 30 crashes, four crashes occurred in the vicinity of Ferry Street and three crashes occurred near the Leet Street overpass. The remaining 23 crashes have no clearly identifiable patterns or trends. Of the 30 total crashes, 21

crashes involved injuries. The average crash rate for the Leetsdale section of Route 65 is 0.57 cpmvm. This is one fourth (1/4) of the statewide average for comparable classes of roadways.

Economy

Economy Borough has the largest land area of any of the study area municipalities, and as such, as the most number of state roadways. Route 65 in Economy Borough consists of a short segment near the Northern Lights shopping center. No crashes were reported by PENNDOT on Route 65 in Economy. However, crashes were reported on other roadways throughout the Borough.

Route 989 has had 39 reported crashes in the last five years. Seven (7) of the crashes occurred at the intersection of Route 989 with Conway Walrose Road, with four being injury crashes. The remaining 32 crashes occurred at various unrelated locations throughout the length of Route 989 in Economy. Approximately 1/3 of the 32 crashes (10 total) occurred at intersections, with the remaining 22 crashes occurring on segments of road between intersections. The average crash rate for Route 989 in Economy is 0.53. This is approximately one third (1/3) of the statewide average.

Route 2005 (Conway Walrose Road) has had 35 reported crashes in the last five years. In addition to the crashes above, seven crashes were indicated at the intersection of Route 2005 with Route 989, with four being injury crashes. Three (3) crashes were indicated at the intersection of Route 2005 and Route 4036, all being angle crashes from improper turning or pulling out too soon. The remaining 25 crashes occurred at various unrelated locations throughout the length of Route 2008 in Economy, with the majority involving collisions with fixed objects such as ditches, guiderail and embankment. The average crash rate for Route 2005 in Economy is 0.96. This is approximately two thirds (2/3) of the statewide average.

Route 2008 (Conway Walrose Road) has had 20 reported crashes in the last five years. Three crashes were indicated at the intersection of Route 2008 and Marr Road, all being rear-end crashes. Of the remaining 17 crashes, approximately 1/3 occurred at intersection, while the remaining were at various unrelated locations throughout the length of Route 2008 in Economy. The majority involved collisions with fixed objects such as trees and utility poles. The average crash rate for Route 2008 in Economy is 0.47. This is approximately one third (1/3) of the statewide average.

Route 2006 (Golden Grove Avenue/Walrose Heights Road) has had 12 reported crashes in the last five years. Approximately 1/2 occurred at intersection, while the remaining were at various unrelated locations throughout the length of Route 2006 in Economy, again involving collisions with fixed objects such as trees and utility poles. The average crash rate for Route 2006 in Economy is 1.41 cpmvm. This is approximately equal to the statewide average for similar roadways.

Route 2003 (Hoening Road) has had 12 reported crashes in the last five years. Two (2) crashes occurred at intersections, while the remaining were at various unrelated locations throughout the length of Route 2003 in Economy, again involving collisions with fixed objects such as embankment and utility poles. The traffic volume on Route 2003 is relatively low, causing an average crash rate of 5.12. This is approximately 2.73 times higher than the statewide average.

Route 2010 (Bock Road/Bradford Park Road) has experienced 8 crashes in the previous five years. Five (5) crashes occurred at intersections (two with Summerfield and two with Sunset), while the remaining were at various unrelated locations throughout the length of Route 2010 in Economy. The majority of all the collisions involved angle crashes involved with turning movements entering or exiting the roadway. The average crash rate for Route 2010 in Economy is 1.06 cpmvm. This rate is 25% less than the statewide average.

Section 1

Transportation

Route 2012 (Phillips Street) accounted for 6 crashes in the past five years. Four (4) crashes occurred at the intersection with Route 989. Of the remaining state roadways in Economy Borough, Route 2014 (Legionville

Hollow Road/Hemmerle Road) experienced 5 crashes, Route 2016 (Mason Road) experienced 3 crashes, and Route 4036 (Big Sewickley Creek Road) experienced 3 crashes in the previous five-year period, with no decipherable patterns. Similar to Route 2003, the low traffic volume causes average segment crash rates of 6.79. This is about 2.5 times the statewide average.

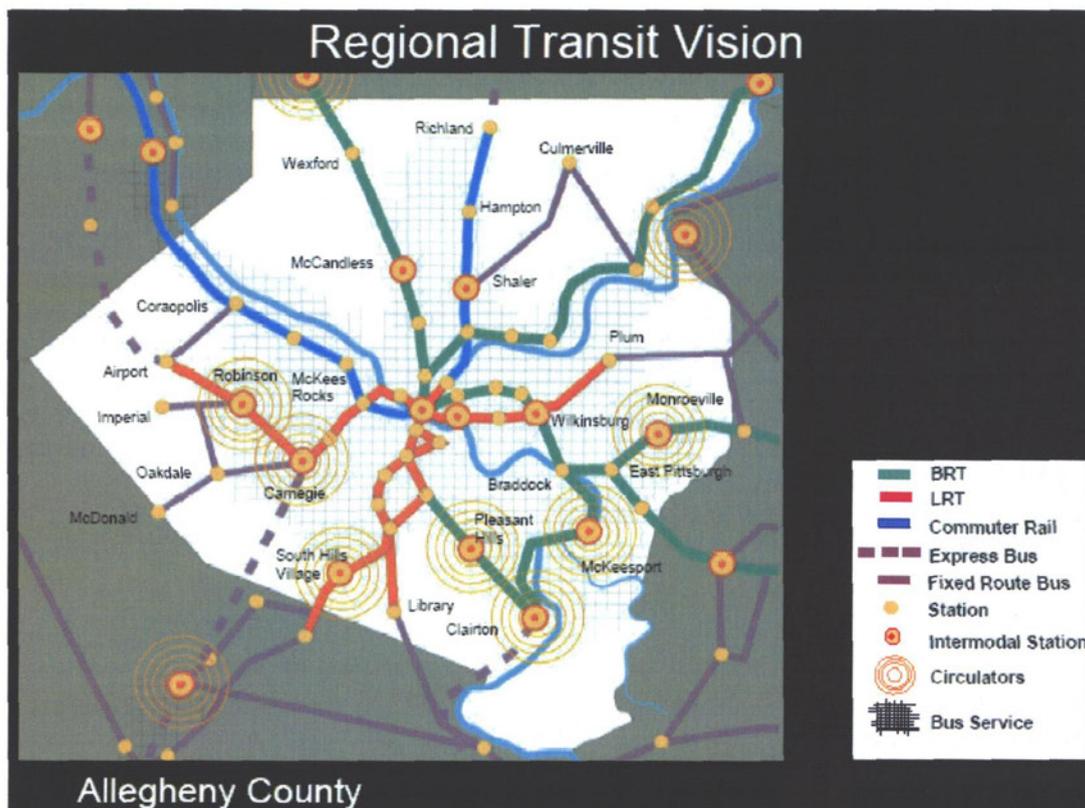
Overall, most roadways within the study area municipalities operate at or below the statewide average segment crash rate. Roadways that have rates exceeding the statewide average are typically narrow roadways with minimal shoulders on rolling terrain. Roadside obstructions (utility poles, trees, etc.) and skewed intersections cause increased accident potential.

E. PUBLIC TRANSIT OPPORTUNITIES

The Port Authority of Allegheny County is currently performing a multi-modal study to examine access to the airport area. The study is examining multiple options for access from downtown to the airport. These options include improvements to the Parkway West for automobiles, expansion of the busway system, expansion of light rail lines (the "T"), or construction of a high speed maglev train. None of these routes provide direct access to the SHALE area, however, they make access much closer.

If constructed, these improvements could be used in concert with existing transit or park & ride facilities to transport commuters from the SHALE area to stations or stops on the proposed airport connections.

The preliminary long range transit vision is shown in the slide below. It shows a commuter rail line and express bus line running into Beaver County. Long term, these routes will provide direct access from the SHALE area (west side of the river) to downtown Pittsburgh and connections onward to the entire metropolitan area.



Section 1

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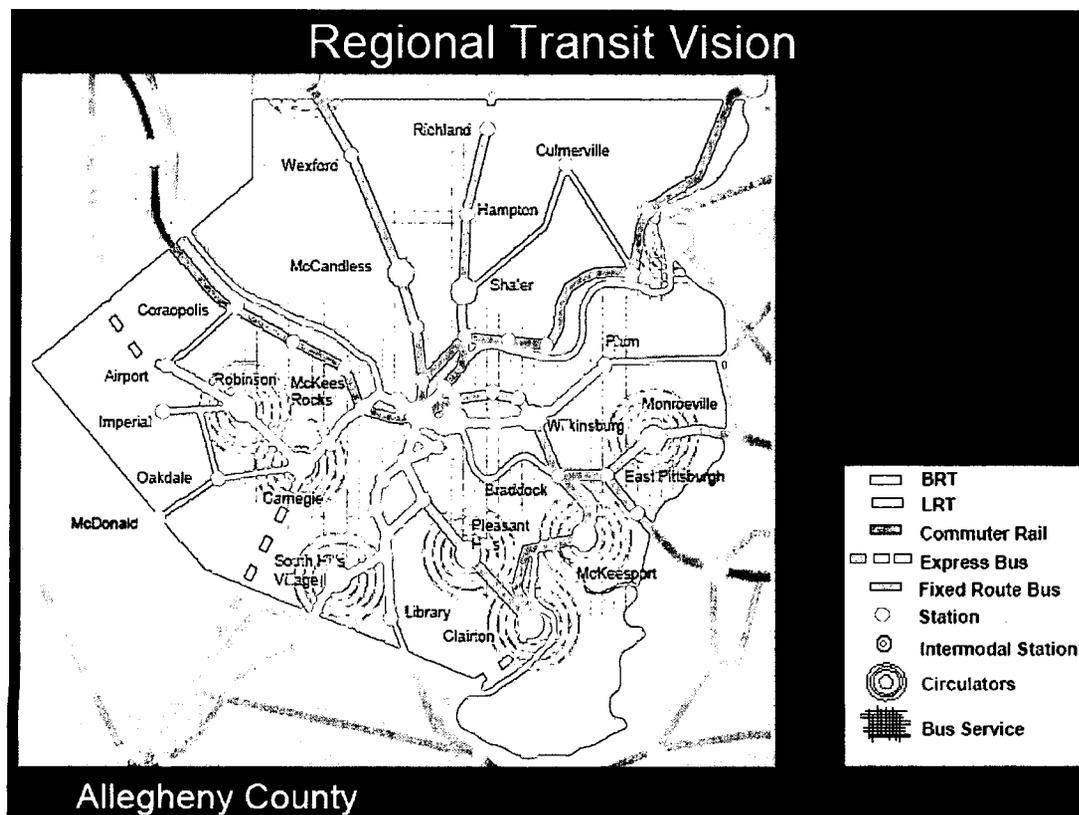
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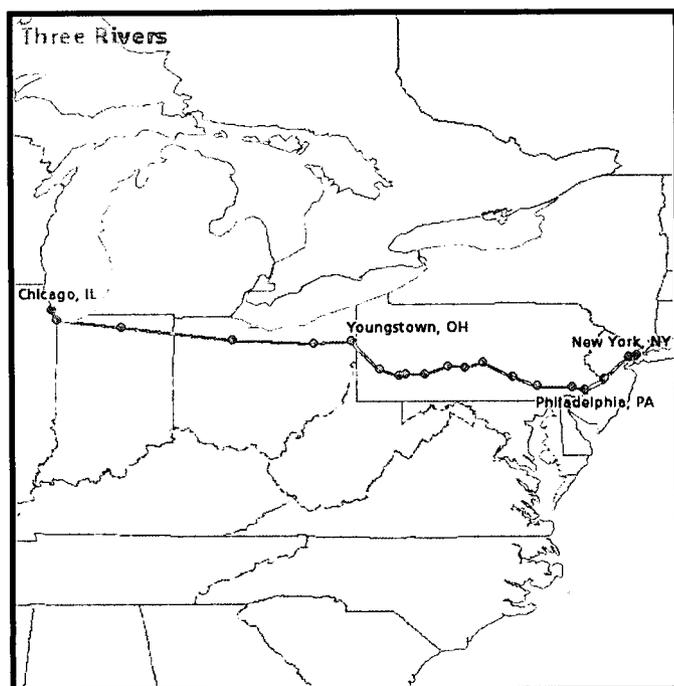
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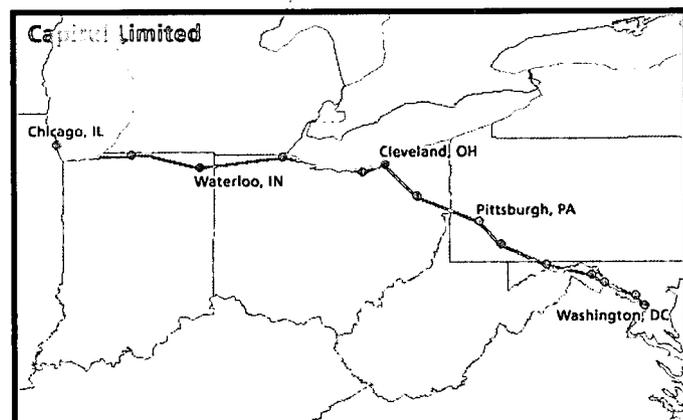
Rail lines used for freight trains are currently located in the area. It is anticipated that these freight lines will continue to carry freight trains into the foreseeable future.

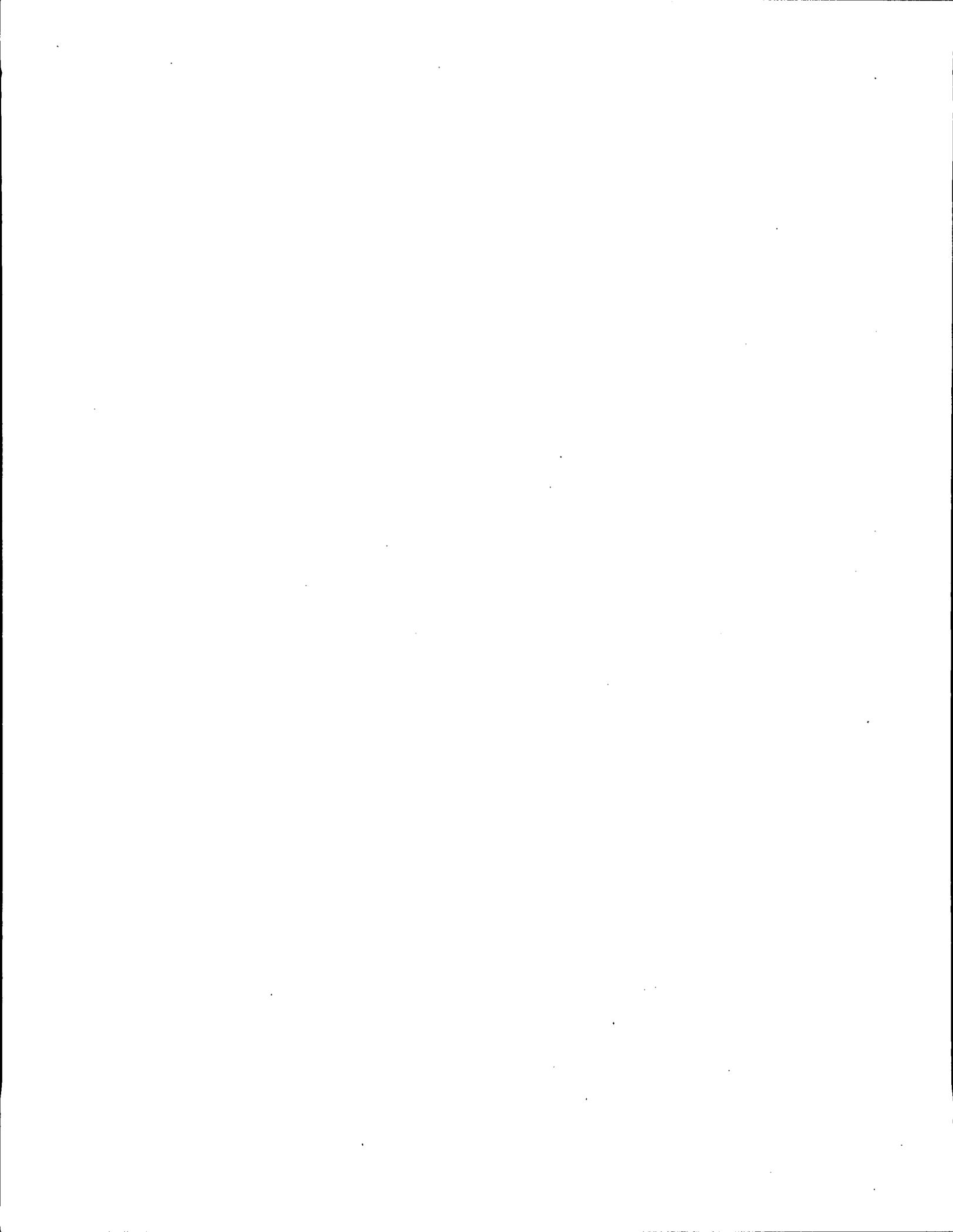
Amtrak runs a passenger train out of Pittsburgh. The Three Rivers Route runs from New York City to Chicago (see below). The route takes the train from Pittsburgh to Youngstown. The Capital Limited route runs out of Pittsburgh and through central Ohio connecting Washington, DC to Chicago. Amtrak typically runs on freight lines, but I am not sure if they use the freight lines present in the SHALE area. If they do use local freight lines, there may be an option for establishment of a local station (if demand exists).

Amtrak Three Rivers Route



Amtrak Capital Limited Route







Infrastructure

The location and capacity of water supply and sewer infrastructure impacts the location and intensity of development in a community. Water and sewer infrastructure enables growth and development to take place at greater densities. Therefore, municipalities and regional organizations should guide infrastructure decisions with community input. The development and expansion of infrastructure should not be an end goal in itself, but should serve the broader development and preservation goals of the community.

This section identifies the existing public water and sewer utility providers and service areas in the SHALE municipalities. Areas where the expansion of service areas is proposed is also presented and discussed.

Municipalities are required to prepare an Act 537 Sewage Facilities Plans according to the Pennsylvania Sewage Facilities Act. Sewage facilities plans should include: 1) an assessment of existing areas served by public sewer systems; 2) future infrastructure requirements based on socio-economic and demographic trends and the existing condition of the systems; and 3) community goals for the preservation of land and designation of growth areas to be served by public sewer. These official sewage facilities plans should be consistent with the goals and objectives identified in the municipal or multi-municipal plan for a community.

Digital data for mapping of the service areas was obtained from the Pennsylvania State Data Center (PASDA) and Southwestern Pennsylvania Commission. Information was verified through telephone interviews of public water and sewer service providers and local engineers. The Water Service Areas Map and the Sewer Service Areas Map and should be referenced when reviewing the information presented in this section.

PUBLIC WATER SERVICE

There are five public water utilities that service the SHALE area. They include the Ambridge Water Authority, Baden Borough Water Department, Conway Borough Municipal Authority, Creswell Heights Joint Water Authority, and the Edgeworth Municipal Authority. The Ambridge Water Authority and the Creswell Heights Joint Water Authority are primary water systems. The Baden Borough Water Department and the Edgeworth Municipal Authority are consecutive systems that purchase water from the Ambridge Water Authority. The Conway Borough Municipal Authority is a consecutive system that receives its water from the Beaver Falls Municipal Authority, which draws its water from the Beaver River. The Creswell Heights Joint Water Authority relies on groundwater for the source of water.

Ambridge Water Authority

The Ambridge Water Authority service area includes Ambridge Borough, Economy Borough, and Harmony Township. Water infrastructure is provided throughout the industrial and residential areas of Ambridge and Harmony Township, but only portions of Economy Borough have tapped into the public water system, as shown on the Water Service Areas Map. The remaining unserved areas rely on private wells.

The Ambridge Water Authority draws water from the Ambridge Reservoir, located in Independence and Raccoon Townships. The Authority is permitted by the Pennsylvania Department of Environmental Protection (PA DEP) to draw on 4.8 million gallons per day (mgd) of water from the reservoir, with a one-day peak per year of 6.6 mgd. The Authority is currently operating near capacity, pumping approximately 4.3 mgd from the reservoir. As a result, PA DEP has issued a mandate to the Authority to identify an additional water source to provide 0.6 mgd. This additional water source will help meet future demand as the existing system nears capacity in the next 20- 25 years.

The breakdown in water consumption by category is listed below. The Ambridge Water Authority sells just over 41% of its water to other water suppliers, including the Baden Borough Water Department, Edgeworth Borough Municipal Authority, and New Sewickley Township Municipal Authority.

- Domestic/Residential Use: 36.2%
- Commercial: 3.1%
- Industrial: 16.2%
- Institutional/Municipal: 3.1%
- Sale/Other public Water Suppliers: 41.4%

The Authority does not have a long-range plan for expansion of the public water system. Expansion of the system takes place on an ad hoc basis, upon request from unserved residents that petition for service. The Authority works closely with the respective local government to prioritize expansion areas. For instance, the Economy Borough Utility Committee in Economy Borough will review resident petitions, existing environmental conditions and impacts of existing wells, and financial feasibility in prioritizing the expansion areas.

The Authority does have a capital improvements plan (included in Appendix I) that identifies needed improvements and the cost of upgrades to the system. Some portions of Ambridge still rely on pipes that were installed by the Harmony Society and many of the pipes in other portions of the service area are over fifty years old. It is anticipated that an increasing number of repairs will be required as the system continues to age. Other issues with regard to the infrastructure requirements include the reconstruction of the Ambridge-Aliquippa bridge, under which the main line for the system is located. This is the only main line and relocation will be necessary when the bridge is replaced.

Financial resources to operate the Authority and maintain and/or expand the system are provided primarily through new user tap-in fees and monthly user fees.

Baden Borough Water Department

The Baden Borough Water Department provides service to the residents of Baden Borough and a very small portion of Economy Borough extending from the northern end of Baden Borough into Economy. The Water Department is a consecutive water provider that purchases water from the Ambridge Water Authority.

Conway Borough Municipal Authority

The Conway Borough Municipal Authority provides both water and sewer service to the Northern Lights Shopping Center in Economy Borough, in addition to the water and sewer service provided throughout the Borough of Conway. For water service, the Authority operates a consecutive system by purchasing water from the Beaver Falls Municipal Authority. The water source for the Beaver Falls Municipal Authority is the Ohio River. There are no plans for expansion of the water or sewer service areas. However, the Authority recently approved a feasibility study for improvements to the existing water system. The feasibility study will examine the need for a new water storage tank and upgrades to the system to improve water volumes and flows. As a result, water volume and flow to the Northern Lights Shopping Center may improve for fire fighting purposes. The Authority is operating within its capacity for both water and sewer service.

Creswell Heights Joint Water Authority

The Creswell Heights Joint Water Authority provides service to South Heights Township, in addition to Hopewell Township, Crescent Township, and a small portion of Moon Township. The Authority provides water service to all of South Heights. Therefore, there is no area available for expansion within South Heights Township.

The Creswell Heights Joint Water Authority draws water from underground wells. The Authority does not anticipate problems with future water availability in South Heights and the remainder of its service area. The Authority is currently pumping approximately 900,000 - 1 million gpd and has a total capacity of two million gpd. Operation and maintenance expenses for the system are covered by user fees.

Edgeworth Municipal Authority

The Edgeworth Municipal Authority provides service to Leetsdale Borough. The residential and industrial areas in Leetsdale are fully served by public water. The Edgeworth Municipal Authority also serves portions of Edgeworth Borough, Leet Township, and Bell Acres Borough, all of which are outside of the SHALE planning area. The Authority is a consecutive water provider that purchases water from the Ambridge Water Authority and distributes it to users in the Edgeworth Municipal Authority service area. Therefore, the Edgeworth Municipal Authority is limited in expansion according to the capacity constraints of the Ambridge Water Authority.

PUBLIC SEWER SERVICE

There are six public sewer service providers in the SHALE area. They include the Borough of Ambridge Municipal Authority, the Baden Municipal Authority, Economy Borough Municipal Authority, Hopewell Township Sewer Authority, Leetsdale Borough Municipal Authority, and Moon Township Municipal Authority.

Borough of Ambridge Municipal Authority

The Borough of Ambridge Municipal Authority provides service to Ambridge and portions of Harmony Township and Leetsdale Borough. The Authority also serves parts of Leet Township and Bell Acres Borough, both of which are out of the SHALE planning area. The Authority serves approximately 4,000 customers and has no plans for future expansion of the existing system to new areas. The total capacity of the wastewater treatment plant is 2.56 mgd. The sewer system operates under capacity for the most part, but on days of heavy rainfall they system will exceed capacity, which results in combined sewer overflows.

The Authority is subject to a consent order with the PA DEP to comply with the DEP's combined sewer overflows (CSOs) policy by 2010. Combined sewer systems collect and convey stormwater and sanitary waste in the same pipe, which is treated at the sewage treatment plant if the capacity exists. During periods of heavy rainfall, the

Section 1

Infrastructure

wastewater volume in a combined sewer system can exceed the capacity of the sewer system or treatment plant. As a result, sewer systems are designed to overflow excess stormwater and wastewater directly in the nearby stream or river, bypassing treatment at the plant. These overflows are a potential public health risk and threaten water quality. There are seven legally permitted CSO's in Ambridge. The Authority is partnering with Ambridge Borough to address the areas with CSOs in order to comply with the PA DEP regulations. Regulations are based on the EPA's Combined Sewer Overflow Policy. The eps policy identifying four guiding principles to ensure that CSO controls are cost-effective and meet local environmental objectives. They include:

- clear levels of control to meet health and environmental objectives
- flexibility to consider the site-specific nature of CSOs and find the most cost-effective way to control them
- phased implementation of CSO controls to accommodate a community's financial capacity
- review and revision of water quality standards during the development of CSO control plans to reflect the site-specific wet weather impacts of CSOs

Baden Municipal Authority

The Baden Municipal Authority provides service to Baden Borough and the northern portion of Harmony Township, and the western tip of Economy Borough along the Ohio River.

Economy Borough Municipal Authority

The Economy Borough Municipal Authority provides public sewer service to Economy Borough. The Borough is in the process of transferring from private on-lot septic systems and small package treatment plants, to a public sewer system. The Act 537 Comprehensive Sewage Facilities Planning Study for Economy Borough was developed in 1991. It identified a series of options for providing a public sewer system in Economy Borough in order to accommodate the growing residential areas and address the inadequacy of the private on-lot septic systems resulting from poor soil conditions and improper maintenance. The public sewer system has been developed over two phases. The first phase involved the connection of over 1,400 dwelling units in the northwestern portion to the Baden Borough sewage treatment plant. The second phase involves the construction of a waste water treatment plant and connection of an additional 1,830 dwelling units. The Utility Service Area Map indicates shows the service areas for Phase I and Phase II.

Economy Borough is now implementing the Big Sewickley Creek Wastewater Treatment Project, a 36 million dollar expansion project, otherwise known as Phase II. Phase II includes the construction of a wastewater treatment plant that is capable of treating 1.25 million gallons of sewage per day, installation of five pump stations and 360,000 feet of sewer line. Approximately 1,830 dwelling units will be connected to the system when Phase II is complete in February of 2004. The start-up capacity of the waste water treatment plant for the initial 1,830 homes is 700,000 gallons per day. A reserve capacity of 550,000 gallons per can accommodate an additional 1,570 homes. With the completion of Phase II, it is anticipated that the monthly sewer user fee will increase from the rate of \$50/dwelling unit to \$57/dwelling unit.

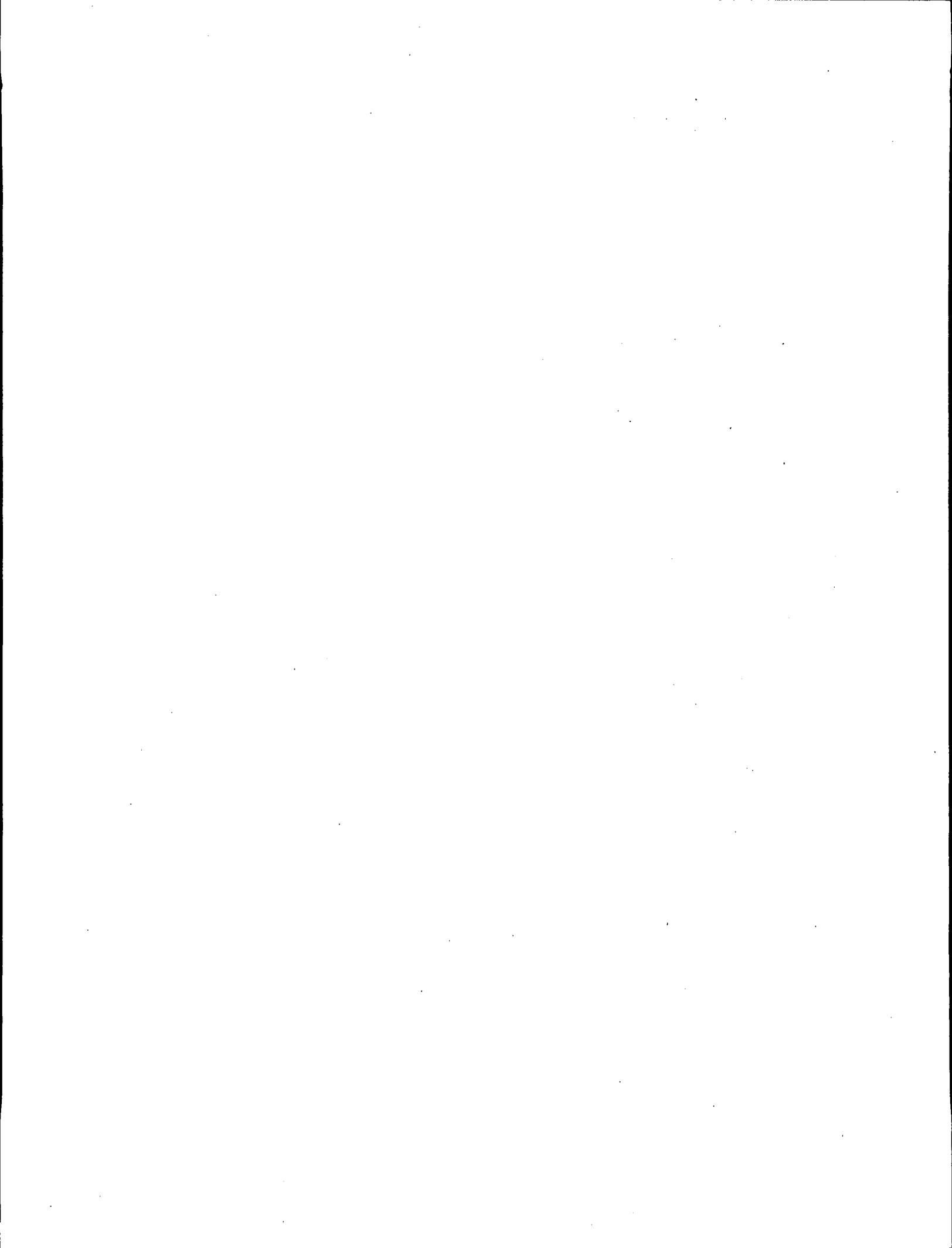
Hopewell Township Sewer Authority

The Hopewell Township Sewer Authority provides service primarily to Hopewell Township. However, the Authority does serve the southwestern tip of South Heights Borough in the area of Highland Avenue and Scenic Drive.

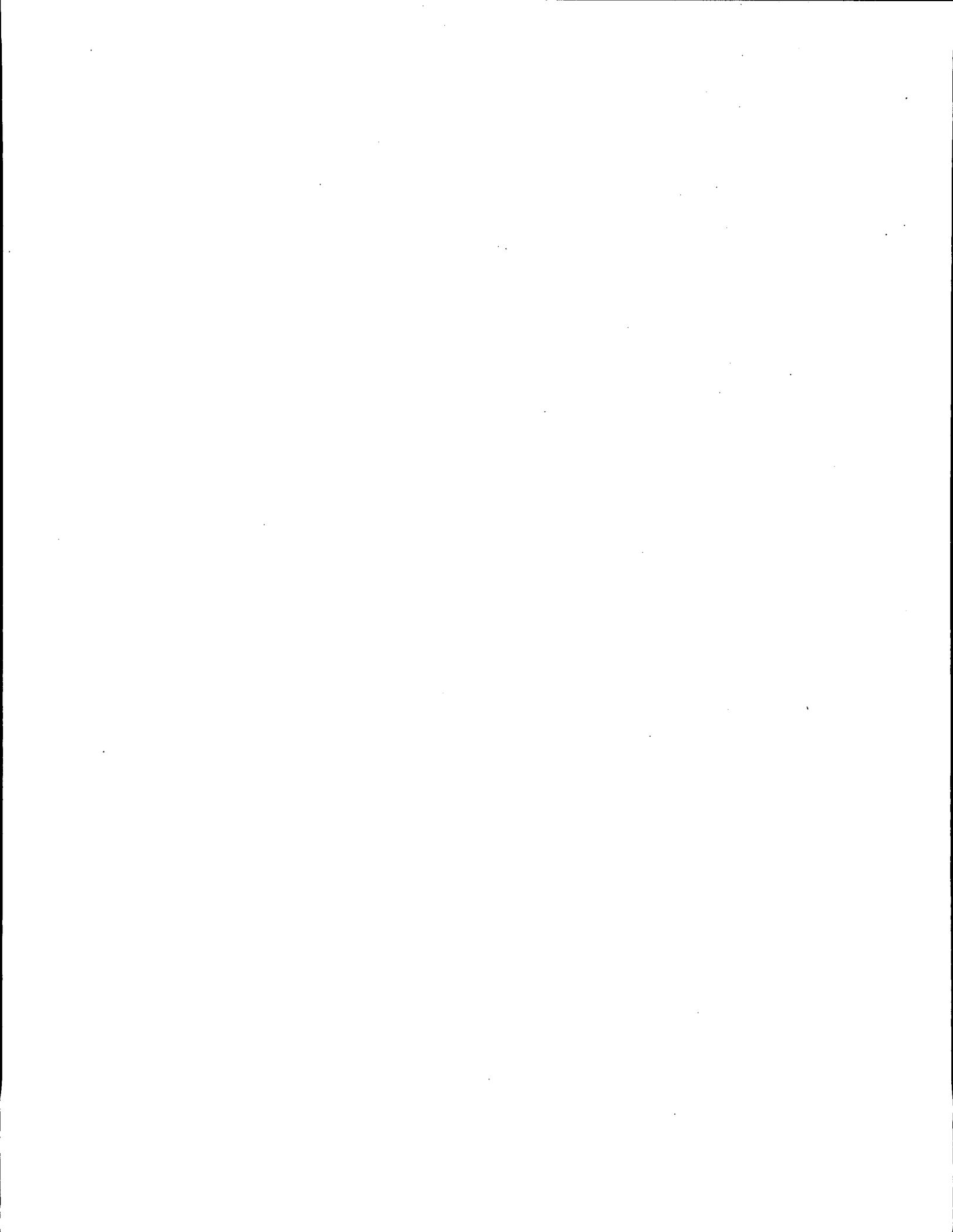
Leetsdale Borough Municipal Authority

The Leetsdale Borough Municipal Authority serves all of Leetsdale Borough, Edgeworth Borough, and portions of Leet Township. The Leetsdale Borough Municipal Authority service area is primarily built-out. However, there are some plans for expansion of the service area in Leet Township. The Authority has been in operation for forty-three years and the system is well-maintained adequately serving its current customers. However, the Authority will be upgrading the capacity of its 0.775 mgd sewage treatment plant within the next three years. The sewer system also contains several DEP permitted combined stormwater and sanitary sewers, for which they are working to comply with the DEP policy on CSOs like the Ambridge Municipal Authority.

Refer to Water Service Areas Map



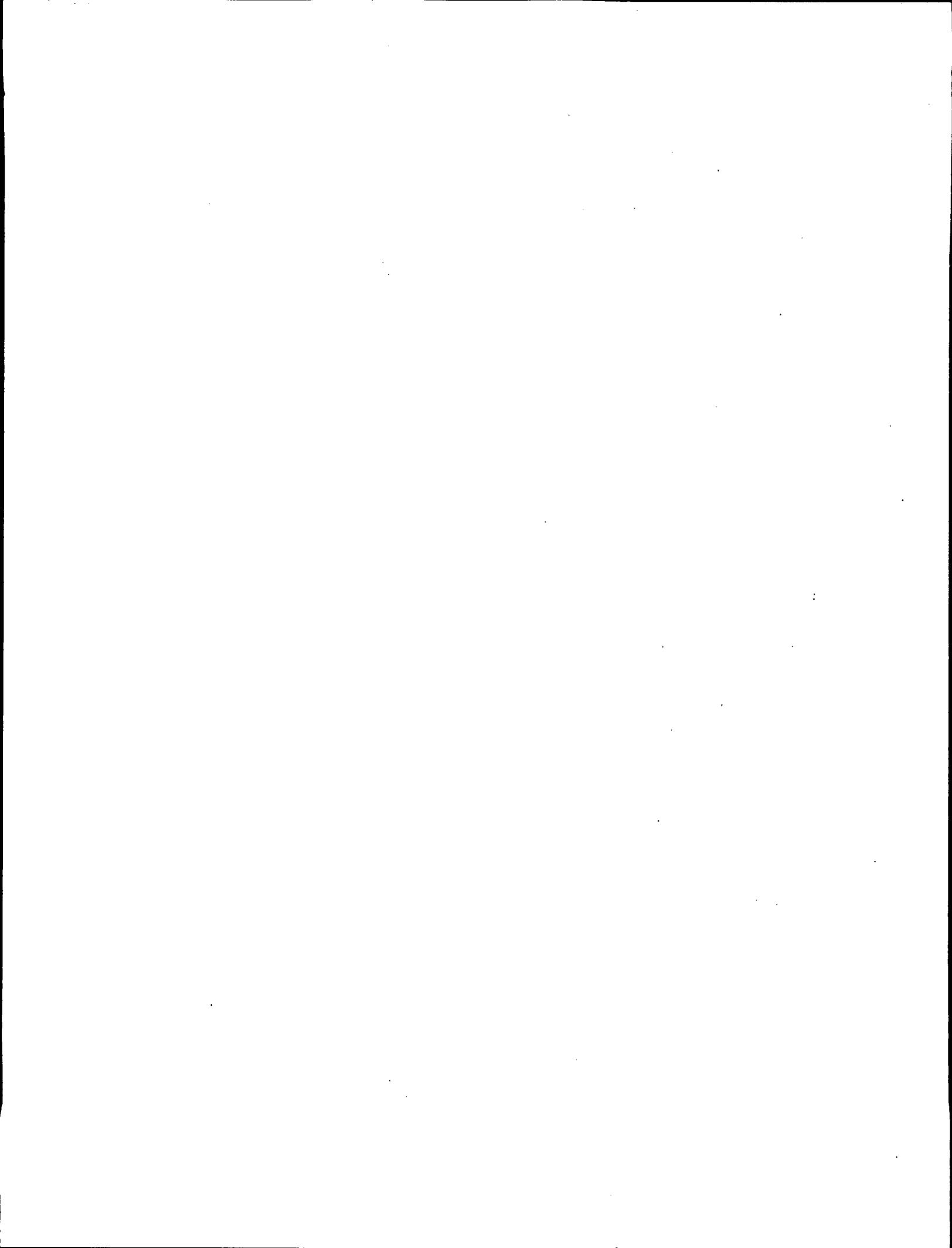
Refer to Sewer Service Areas Map

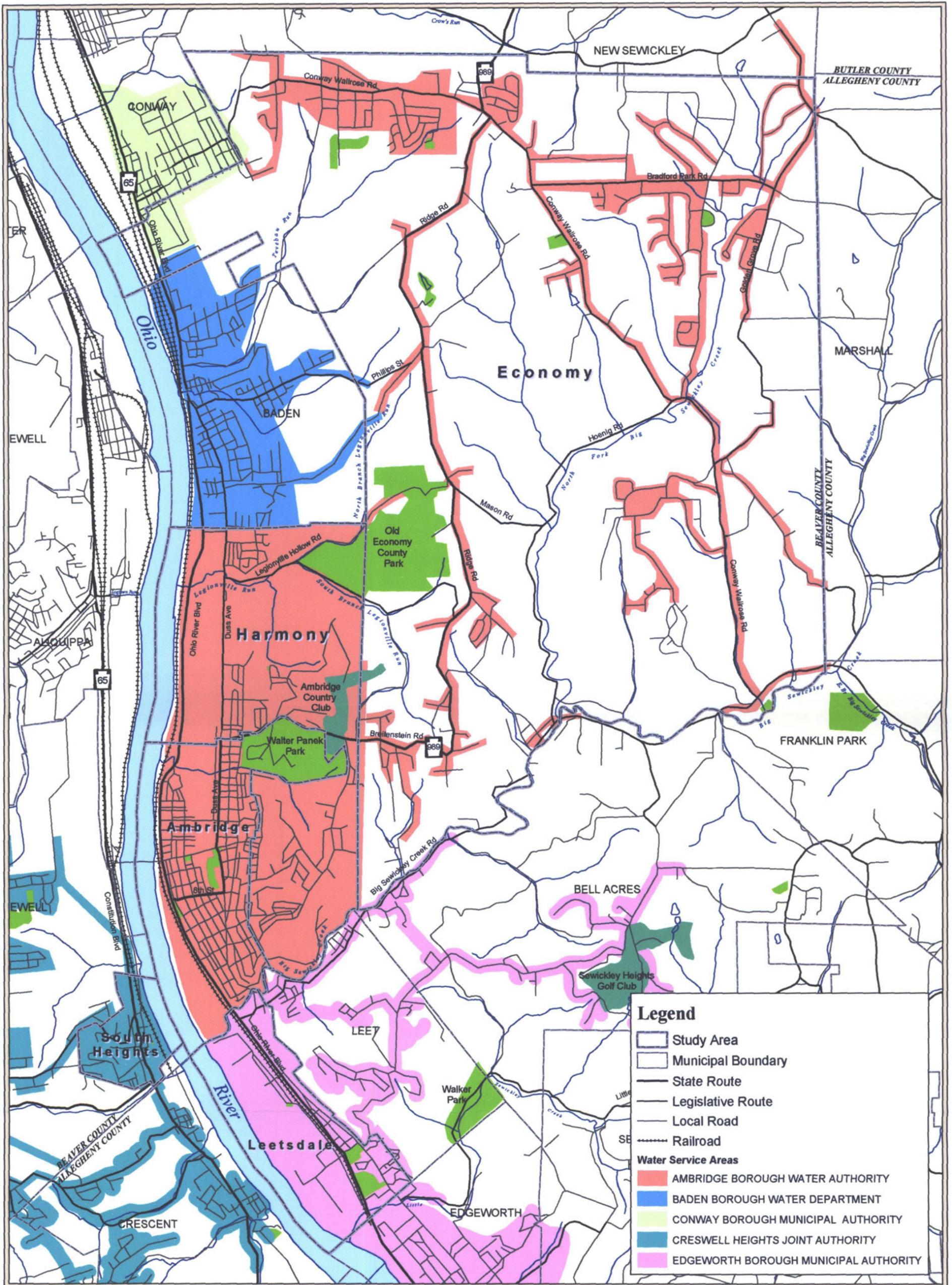


Moon Township Municipal Authority

The Crescent-South Heights Municipal Authority, which formerly provided public sewer service to South Heights and Crescent Township, merged with the Moon Township Municipal Authority in 2000. As a result, public sewer services provided by the Crescent-South Heights Municipal Authority were shifted to the Moon Township Municipal Authority, as well as management of the Crescent-South Heights Sewage Treatment Plant.

The Authority currently manages three wastewater facilities, including the Montour Run Water Pollution Control facility, the Flaugherty Run Wastewater Treatment Plant, and the Crescent-South Heights sewage treatment plant, which treats wastewater from South Heights. Within the next five years the Crescent-South Heights sewage treatment plant will be closed and all sewage will be redirected to the Flaugherty Run Wastewater Treatment Plant. The capacity of this 1.0 mgd facility will be expanded by an additional 1.0 mgd. In addition, a pump station will be expanded in South Heights in order to convey sewage to the Flaugherty plant from South Heights. The Authority received a \$4.7 million loan from PENNVEST to complete the work (which will also prevent further contamination of the Ohio River and its tributaries) and is currently awaiting PA DEP permits to start the work.





SHALE Area Regional Comprehensive Plan

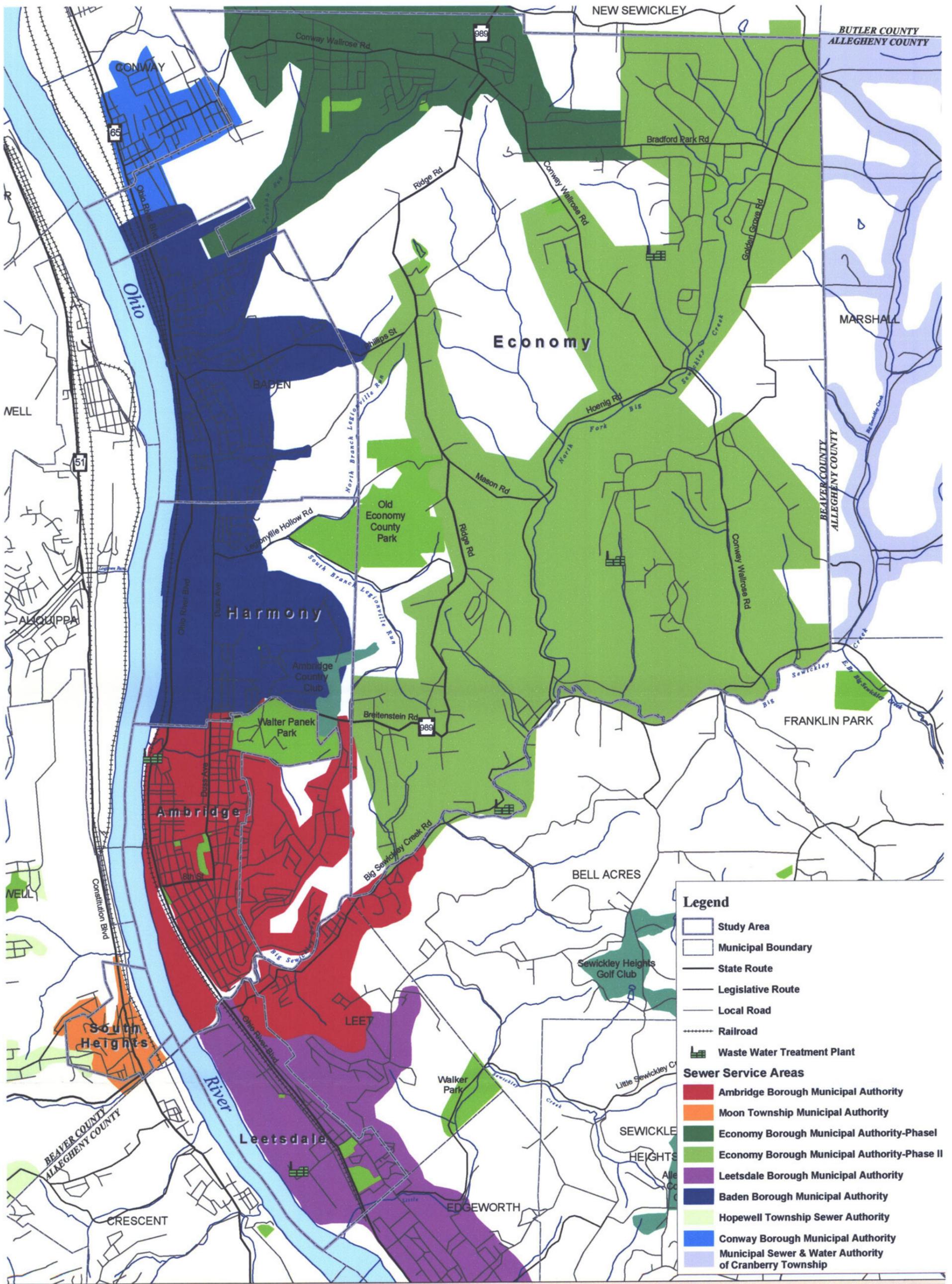
Ambridge Borough, Economy Borough, Leetsdale Borough, Harmony Township & South Heights Borough

Water Service Areas



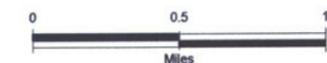
Map Notes
 Source: Southwestern Pennsylvania Corporation & Beaver County GIS data. Pashek Associates makes no claims to the accuracy of this data.
 Map projection: State Plane NAD 1983 units = feet
 The project is funded in part by the Pennsylvania Department of Community and Economic Development Land Use Planning and Technical Assistance Program and the Local Government Academy Multi-Municipal Comprehensive Planning Grant Program





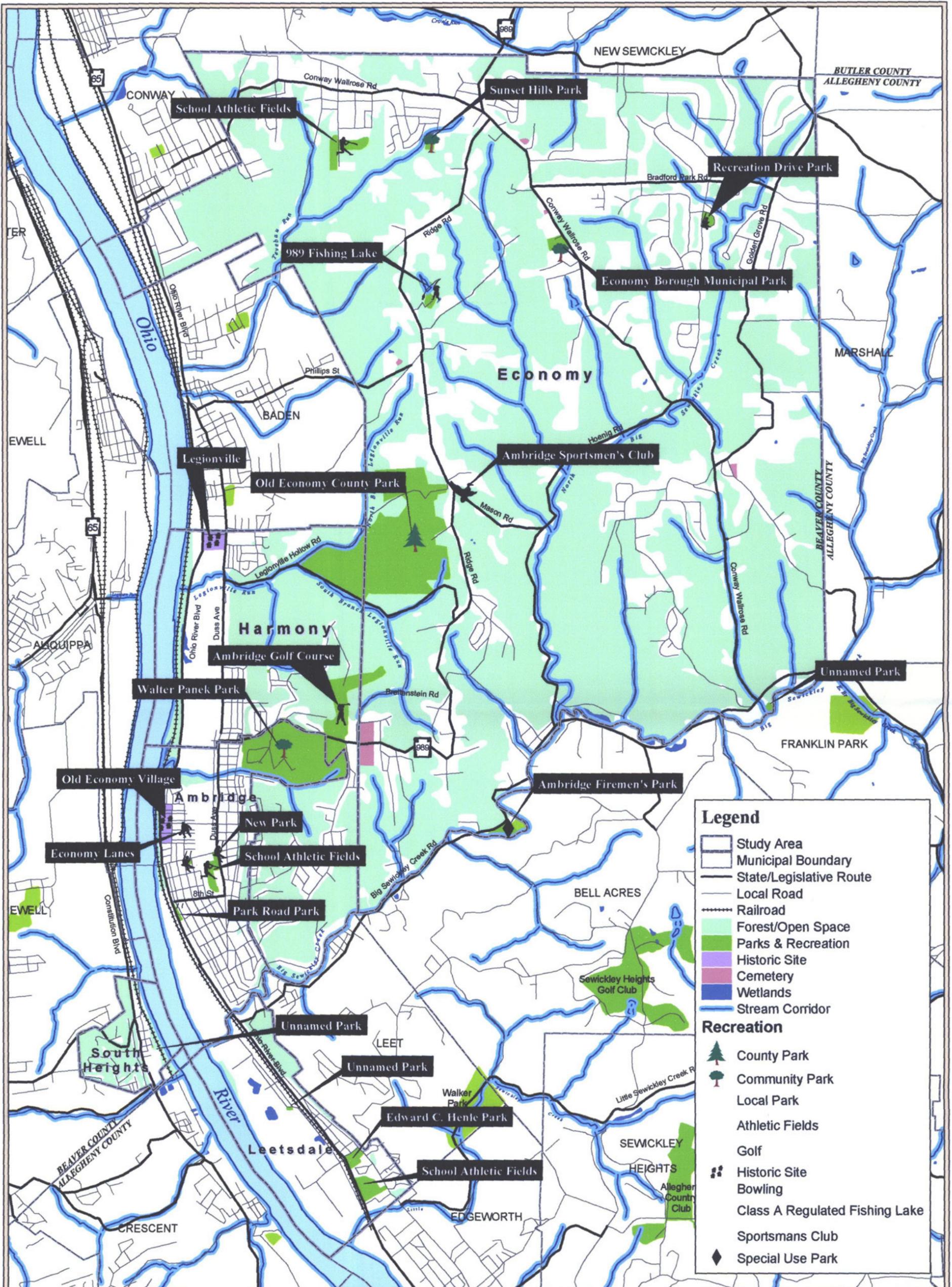
SHALE Area Regional Comprehensive Plan

Ambridge Borough, Economy Borough, Leetsdale Borough, Harmony Township & South Heights Borough



Map Notes
 Source: Pennsylvania Corporation & Beaver County GIS data.
 Pashek Associates makes no claims to the accuracy of this data.
 Economy Borough Phase II sewer service areas - Economy Borough Municipal Authority website.





SHALE Area Regional Comprehensive Plan

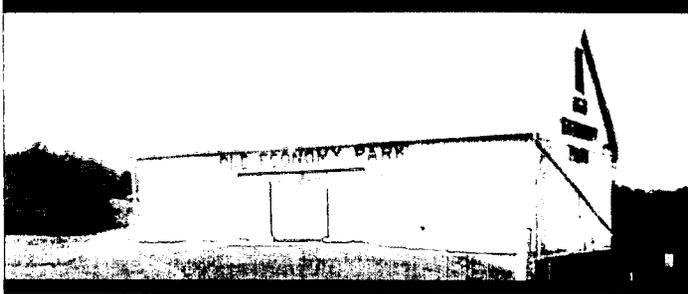
Ambridge Borough, Economy Borough, Leetsdale Borough,
Harmony Township & South Heights Borough

Recreation Opportunities



Map Notes
 Source: Pennsylvania Spatial Data Access & Beaver County GIS data
 Map projection: State Plane NAD 1983 units = feet
 The project is funded in part by the Pennsylvania Department of Community and Economic Development Land Use Planning and Technical Assistance Program and the Local Government Academy Multi-Municipal Comprehensive Planning Grant Program





Parks and Recreation

This section identifies and classifies parks and open spaces in the SHALE area according to recreational opportunities, size and service areas, and types of uses. Existing facilities are examined within the context of the National Recreation and Park Association standards which identify categories of uses. The standards are explained in more detail below.

The Recreation Opportunities Map on the next page should be referenced when reviewing this section. The map indicates the location of park and recreation areas in the municipalities.

PARK AND RECREATION FACILITIES

The National Recreation and Park Association (NRPA) classify parks according to the following categories: 1) regional park; 2) community park; 3) neighborhood park; and 4) special use facility. The categories are differentiated in more detail below, followed by a description of the park and recreation facilities in the SHALE municipalities.

Regional Park

A regional park is generally defined as an area of natural quality for passive outdoor recreation. These activities include many outdoor opportunities such as viewing or studying nature or wildlife habitat, picnicking, fishing, swimming, boating, hiking, among others. A regional park's primary goal is to preserve large areas of land for conservation and natural resource management, with a small amount of land used for recreational development. Parks of this nature are normally large in area and begin at approximately 100 acres in size. The service area of a regional park is 40 to 50 miles.

Community Park

A community park is generally defined as an area of diverse environmental quality which includes areas suited for varying types of recreational opportunities. These activities may include athletic complexes, large

Section 1

Parks and Recreation

swimming pools, or areas of natural quality for outdoor recreation such as, walking, viewing nature or wildlife habitat, or picnicking. A community park is loosely defined due to its nature; it may be any combination of the above depending upon site suitability and community need. This type of park is not as large as a regionally significant park and can range from 25 to 100 acres in size. The service area of a community park is 1 to 2 miles.

Neighborhood Park

The type of park is easily accessible to the adjacent neighborhood population. Its purpose is to be a compact area for non-intense recreational activities such as field games, court games, playground apparatus areas, skating, picnicking, wading pools, and other related activities. Neighborhood parks are not as large as community park facilities, and are typically designed to serve a concentrated population and are typically less than 25 acres in size. The service area for a neighborhood park is one quarter to half a mile.

Special Use Facilities

These are areas for special recreational activities such as golf courses, nature centers, marinas, zoos, conservatories, arboretums, display gardens, arenas, outdoor theaters, gun ranges, and campgrounds. There is no applicable standard for the service area for a special use facility.

The park and recreational facilities in the SHALE municipalities are described in more detail below, including the relevant classification by regional, community, neighborhood parks or special use facility. Information on the operation and maintenance of the park or facility is also provided.



Walter Panek Park, Ambridge

AMBRIDGE

Walter Panek Park - Community Park

Walter Panek Park is a 26 acre community park located off 24th Street/Breitenstein Road in Ambridge. The park contains a baseball field, tennis courts, a playground, a paved walking trail, and a pavilion. The facilities in the park appear to be in fair to poor condition and reinvestment in the park should be considered to improve the conditions of the facilities. The park is operated and maintained by the Borough of Ambridge.

Neighborhood Parks - Park Road Park, C.J. Caul Park

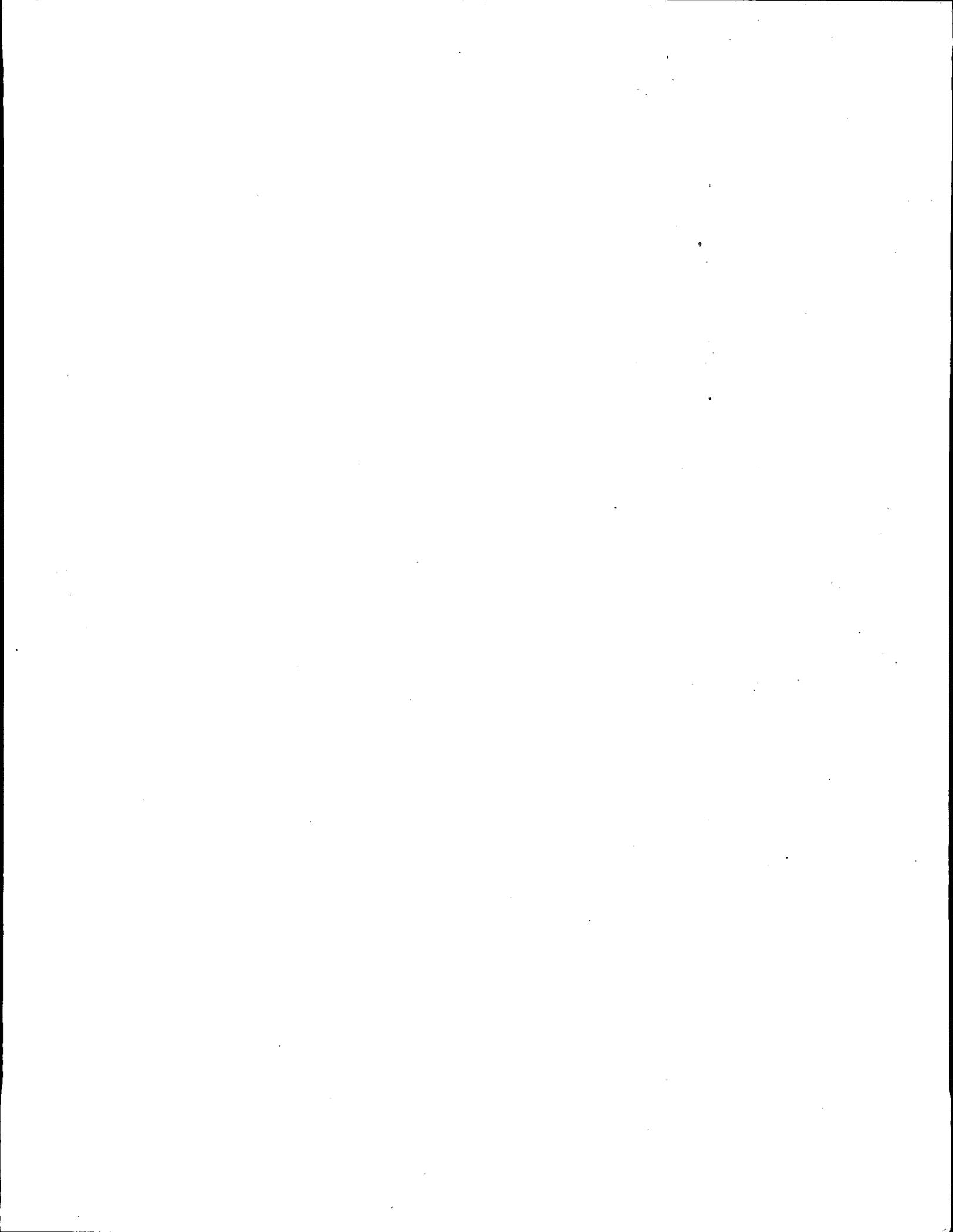
Park Road Park is located between Ohioview Avenue and Park Road along 7th and 8th streets. It is a small, linear neighborhood park with new swings and a playground. There is a new neighborhood park located at 11th St. and Duss Avenue with basketball courts, deck hockey, and bocce courts. The C.J. Caul Park located at 11th St. and Merchant Streets in the business district is an outdoor public space with a gazebo that is used for community events. The neighborhood parks are operated and maintained by the Borough of Ambridge.

ECONOMY

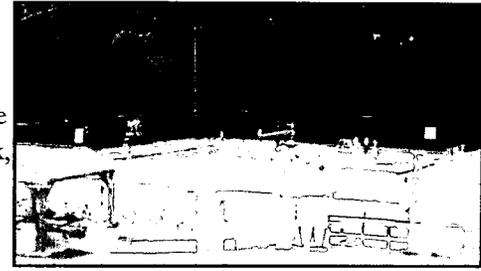
Old Economy County Park - Regional Park

Old Economy County Park contains nearly 400 acres of parkland operated and maintained by Beaver County. It is the only regional park in the SHALE area. A five-mile service area for Economy County Park includes all of the SHALE municipalities plus parts of Hopewell, Aliquippa, New Sewickley, Center, Baden, Conway, and Allegheny

Refer to Recreation Opportunities Map



County. The park facilities include a swimming pool, sports fields, basketball courts, tennis courts, playgrounds, a corncrib and barn, picnic areas, Legionville Trail, and a parking lot. Due to the recreational facilities offered and the surrounding residential neighborhoods, it is more focused on active recreation than the other three Parks (Brush Creek Park, Buttermilk Falls Park, and Brady's Run Park). The Beaver County Comprehensive Recreation and Parks Plan (February 2003) found the facilities of the park to range from poor to good condition. The horseshoes, ball field, 1/2 basketball field, barbeque grills, and first aid/police building were all rated in poor condition and in need of repair or replacement. Only the pavilion, the parking lot, barn, and shelters (Shelter #1, #2, Silver Mines and Orchard) were rated in good condition. The remaining park facilities were rated in fair condition. The Plan recommends that a master site plan, be conducted to identify park and recreation needs of the region and provide a framework for future improvements to the park. Furthermore, the plan recommends that a pool feasibility study and demand analysis for the tennis courts be conducted.



Swimming Pool at Old Economy Park

Borough of Economy Park - Community Park

The Borough of Economy Park is an 34 acre community park located in the Economy Municipal Complex on Conway Wallrose Road. The park contains a baseball field, basketball court, tennis courts, a sand volleyball court, shelter, concession stand, and parking lot. The Municipal Complex also includes a community center. This community park is operated and maintained by the Borough of Economy.

Neighborhood Parks - Sunset Hill Park, Recreation Drive Park

There are two neighborhood parks that are operated and maintained by Economy Borough. They are Sunset Hill Park and Recreation Drive Park.

Sunset Hill Park is a two acre park located on Nova Drive in the central part of the Borough. The park currently has a shelter, a baseball field, a basketball post, four unpaved parking spaces, and a playground which a playground audit found to be unsafe.

Recreation Drive Park is a 3-acre neighborhood park located on Recreation Drive in the northeastern corner of the Borough. The homes on Recreation Drive front the park. The park currently contains volleyball courts, basketball courts, and a small unpaved parking lot.

Community and Neighborhood Park Master Plan

A Community and Neighborhood Park Master Plan for Economy Borough was completed in January of 2003 that assessed the existing conditions of the park facilities in Economy Borough and made recommendations for future improvements. The Plan focused on the Borough of Economy Municipal Park, Sunset Hills Park, and Recreation Drive Park. The following recommendations resulted from the study:

- Economy Municipal Park: Recommended additional facilities include a community play ground, skate area, deck hockey rink, tennis courts, accessible trails (nature, hiking, mountain biking), restroom, and paved parking. The total estimated cost for these improvements is \$2,875,000 spread over six phases and based on the financial capabilities of the Borough.
- Recreation Drive Park: Recommended additional facilities include a playground, flexible open space, shelters, horseshoe pit, trail loop, restroom facility, and paved parking lot. The total estimated cost for such improvements is \$807,000 spread over three phases.

Section 1

Parks and Recreation

- **Sunset Hills Park:** Recommended additional facilities include a playground that meets playground safety requirements, flexible open space, shelter and gazebo, multi-purpose court, trail loop, restroom, and paved parking lot. The total estimated cost for such improvements is \$715,000 over a three phases.

HARMONY

Old Economy County Park - Regional Park

The Old Economy County Park is partially located in Harmony Township, accessible by Legionville Hollow Road. The portion of the park in Harmony is primarily wooded and contains the Legionville Trail. The active recreational facilities are located primarily in the portion of the park in Economy Borough.



Ambridge County Club, Harmony Township

Ambridge Country Club - Special Use Facility

The Ambridge Country Club is a special use facility accessible from Breitenstein Road in Harmony Township. The facility is a 9-hole public golf course, a portion of which falls within Economy Borough.

LEETSDALE

Edward C. Henle Park - Neighborhood Park

The Edward C. Henle Park is a neighborhood park located at the intersection of Broad and Ferry Streets. It is fully handicap-accessible with a picnic area, pavilion, and gazebo. The park is operated and maintained by the Borough of Leetsdale. There is also a small park on Washington Street with a pavilion.



Edward C. Henle Park, Leetsdale

SOUTH HEIGHTS

South Heights lacks park and recreational facilities. There is one small playground located near Penn Alley, which appears to be in poor condition and overgrown by grass and weeds. However, South Heights Borough recently received a grant to build a neighborhood playground in the Borough and is interested in continuing to develop park and recreational facilities.



Playground on Penn Alley, South Heights

Public School Recreation Areas

The public schools in the SHALE municipalities have active recreation facilities and school sports fields. The following public school recreation facilities are in the SHALE area:

- Quaker Valley High School (Leetsdale): under renovation
- Ambridge Area High School (Ambridge): 12 acres
- Ambridge Area Junior High School (Economy): 14 acres

- Anthony Wayne Elementary (Ambridge): 2.0 acres
- Economy Elementary: 25 acres

Greenways

A greenway is a contiguous corridor of open space. Greenways can take on a diversity of forms (narrow versus wide), travel through a variety of different areas (urban, suburban, rural), and can be located on public and private lands along waterways. Some are used for recreation or preserving scenery, while others are used for environmental protection. The location and function differ, but they all have a common focus, which is to protect natural, cultural, and scenic resources within and adjacent to the greenway.

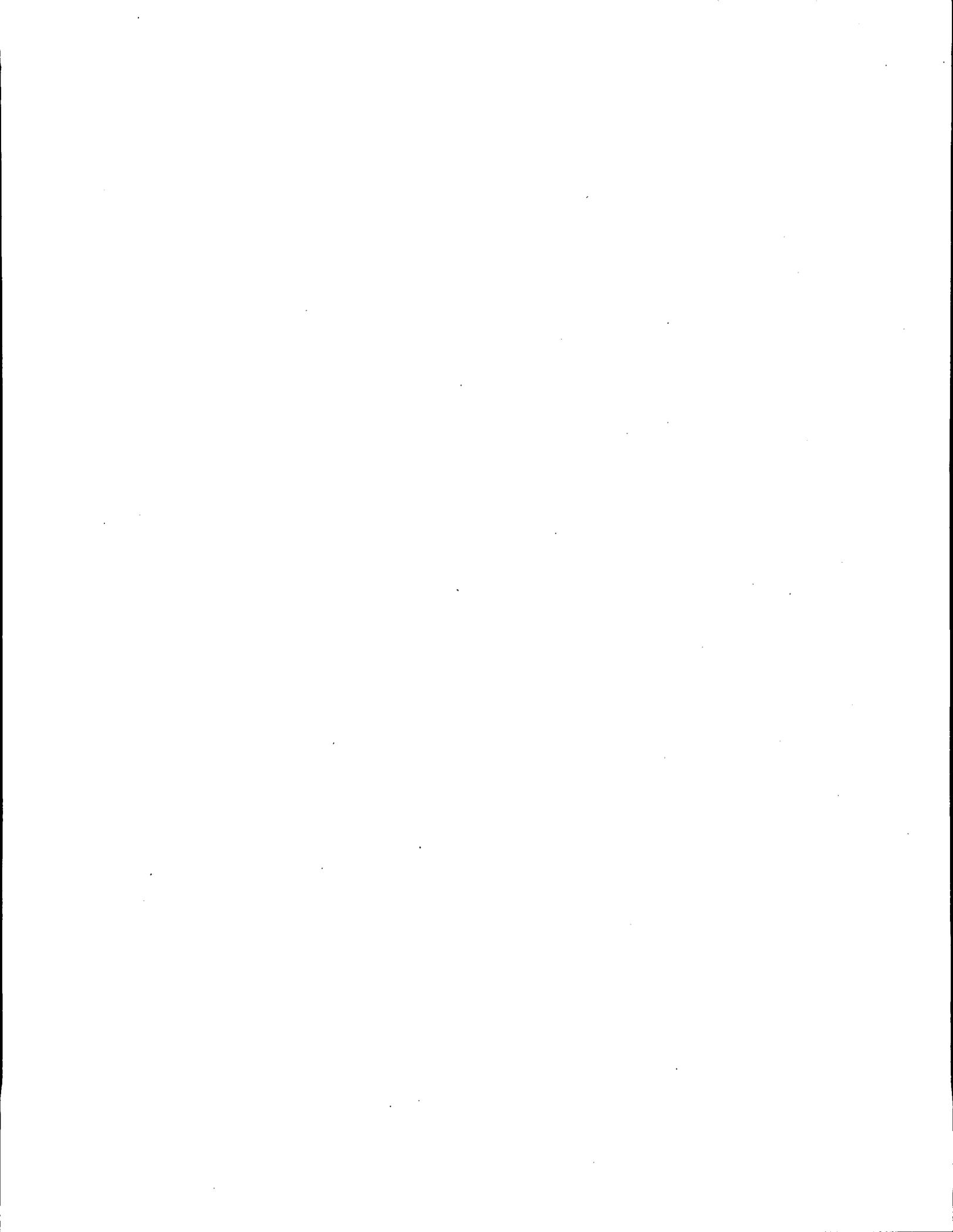
Also referred to as water trails, blueways are primarily recreation routes through scenic areas where a water body forms the corridor. They are used for canoeing, kayaking, fishing, and other outdoor activities. There are many benefits of greenways and blueways, including protecting the environment, providing educational opportunities and alternative transportation routes, fostering public recreation to improve health and fitness, and enhancing quality of life.

Greenways in Pennsylvania can be considered a system of hubs and spokes. The greenways are the spokes that connect significant cultural, natural, and recreational features, which constitute the hubs.

The SHALE area does not have a well-developed greenway system. Legionville Trail is the only existing recreational trail in the area, but it is fully contained in Old Economy Park. However, opportunities do exist for greenway expansion and development. In particular, the Ohio River presents an opportunity to combine both a greenway and a blueway by opening up the riverfront access in the municipalities to create a greenway. In addition, existing parks and cultural resources such as Walter Panek Park, Old Economy Park, Old Economy Village, and the Legionville site could serve as hubs to a multi-municipal greenway system.



Poor Access to the Ohio River Currently Prevents Greenway and Blueway Development.





Form and Function of Government

This section is an overview of the existing local government structure and administrative function in the five SHALE municipalities. An overview of existing land use ordinances, governmental cooperation, and existing plans is provided as well.

GOVERNMENT AND ADMINISTRATIVE ORGANIZATION

Ambridge

Ambridge Borough is governed by a seven-member Council. Council members are elected to a four-year term. The other elected positions include the Borough Mayor and Tax Collector. The day-to-day activities of the Borough Police Force are overseen by the Borough Mayor. The Borough employs a full-time Manager that is responsible for the day-to-day operations of the Borough and reports directly to the Borough Council. The Manager is appointed by the Borough Council and carries out the Borough policies and enforcement of ordinances.

There are four committees appointed by the Borough Council. They include:

- Administration and Finance
- Public Safety
- Public Works
- Recreation

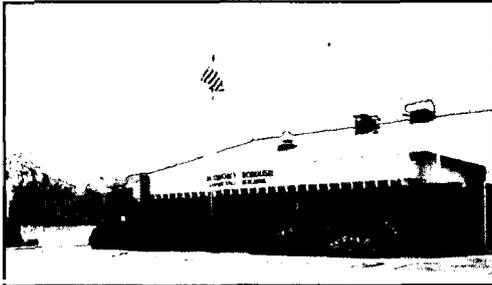
In addition, Ambridge Borough employs two clerks, a secretary, solicitor, engineer, zoning officer, and four firefighters. The Borough has a Street Department consisting of six employees. The Street Department is responsible for maintaining all Borough property, including streets, parks, parking lots, right-of-ways, and buildings.

The Borough also enforces the International Building Code and the International Building Code Property Maintenance Code. All codes are enforced by a subcontractor who provides building inspectors to represent the Borough.

Section 1

Form and Function of Government

Ambridge Borough's planning functions are overseen by the Borough Council, Borough Manager, Zoning Officer, Planning Commission, and Zoning Hearing Board. In addition, the Borough has established an Historic Architectural Review Board (HARB) which oversees the implementation of the Ambridge Historic District Design Guidelines for the Ambridge Historic District.



Economy

Economy Borough is governed by a seven-member Council. Council members are elected to a four-year term. Other elected officials include the Mayor and Tax Collector. Like Ambridge, Economy Borough has a Borough Manager that is appointed by the Council and is responsible for the day-to-day operations of the Borough. Other paid staff positions include the Secretary, Solicitor, and Code Enforcement Officer. Other contracted services include the municipal engineer, municipal authority, and civil services.

Economy Borough implements land use planning and zoning through the Planning Commission and Zoning Hearing Board. There is also a Recreation Board and Road Maintenance Crew that serves the Borough.

Harmony

Harmony Township is the only Township of the five SHALE municipalities. Harmony is a third class township governed by a five-member Board of Commissioners, each elected to a four-year term.

There are five committees appointed by the Board of Commissioners. They include:

- Public Safety
- Roads
- Buildings and Grounds
- Health and Sanitation
- Personnel

In addition, the municipality employs a Secretary, Tax Collector, and Solicitor. Planning and zoning are overseen by the Planning Commission and Zoning Hearing Board.

Leetsdale

Leetsdale Borough is governed by a seven-member Council. Council members are elected to four-year terms. Other elected positions in the Borough include the Borough Mayor and Tax Collector.

The Borough Council appoints the following committees:

- Finance
- Public Safety
- Public Works
- Planning and Zoning

In addition, there are two special committees overseeing the Ferry Street overpass project and the the construction of the new municipal building for the Borough. The Borough also employs a Secretary, Solicitor, and Code Enforcement Officer. The Planning Commission and Zoning Hearing Board oversee planning and implementation of ordinances.

South Heights

South Heights Borough is governed by a seven-member Council. Three Council members are elected to a two-year term and four Council members are elected to a four-year term. Other elected positions in the Borough include the Borough Mayor and Tax Collector.

The Borough Council appoints the following committees:

- Law and Finance
- Roads and Streets
- Utilities/Authorities
- Building Permits/Zoning
- Public Safety - Fire and Police
- Borough Properties
- Health and Sanitation

The Borough also employs a Secretary/Treasurer who acts as the part-time Borough Manager and appointed Zoning Officer. The positions of Borough Engineer, Solicitor, and Auditor are contracted out to private firms.

There is a three-member Zoning Hearing Board that oversees implementation of zoning ordinances. However, the Borough does not have a planning commission.

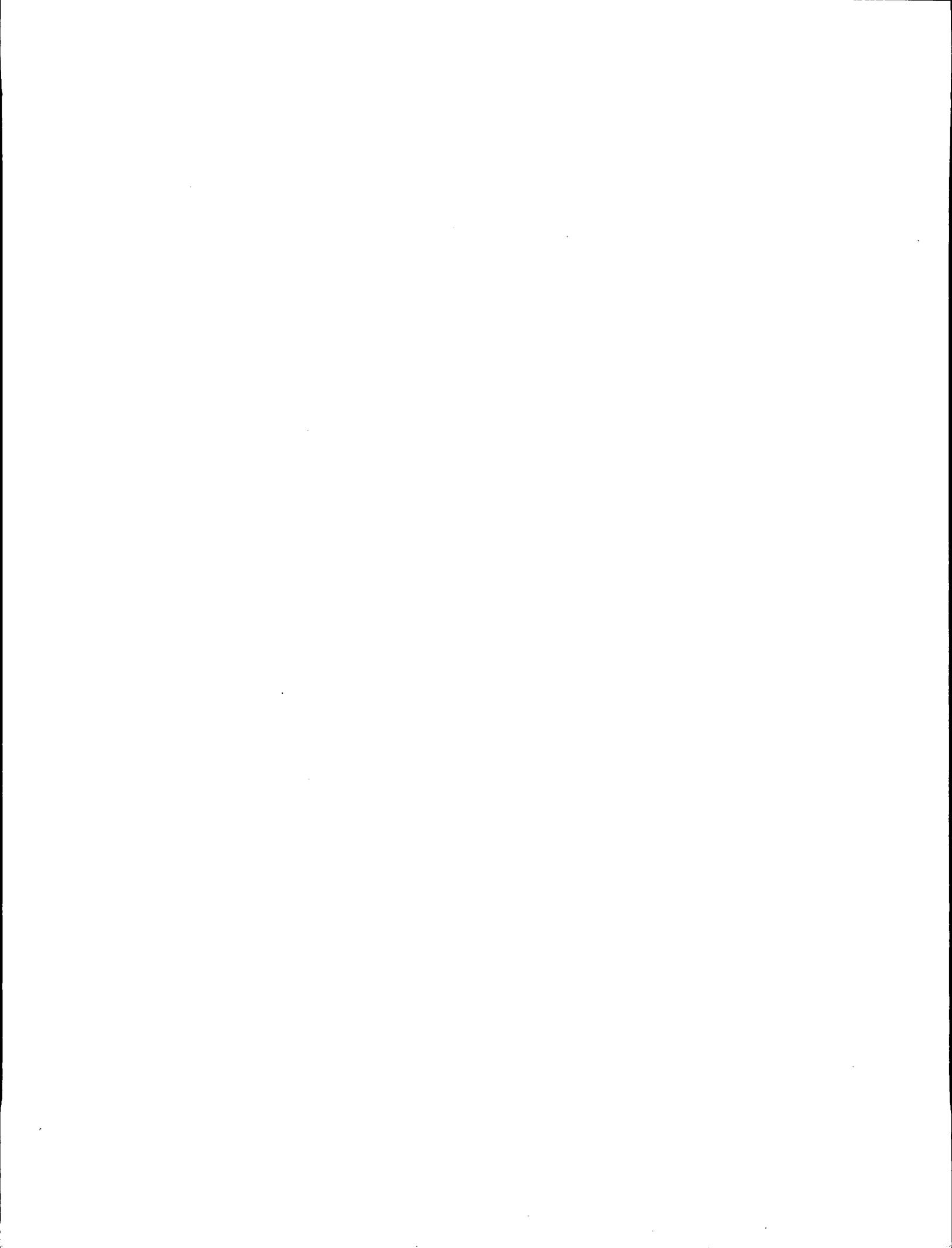
IMPLEMENTATION OF ORDINANCES

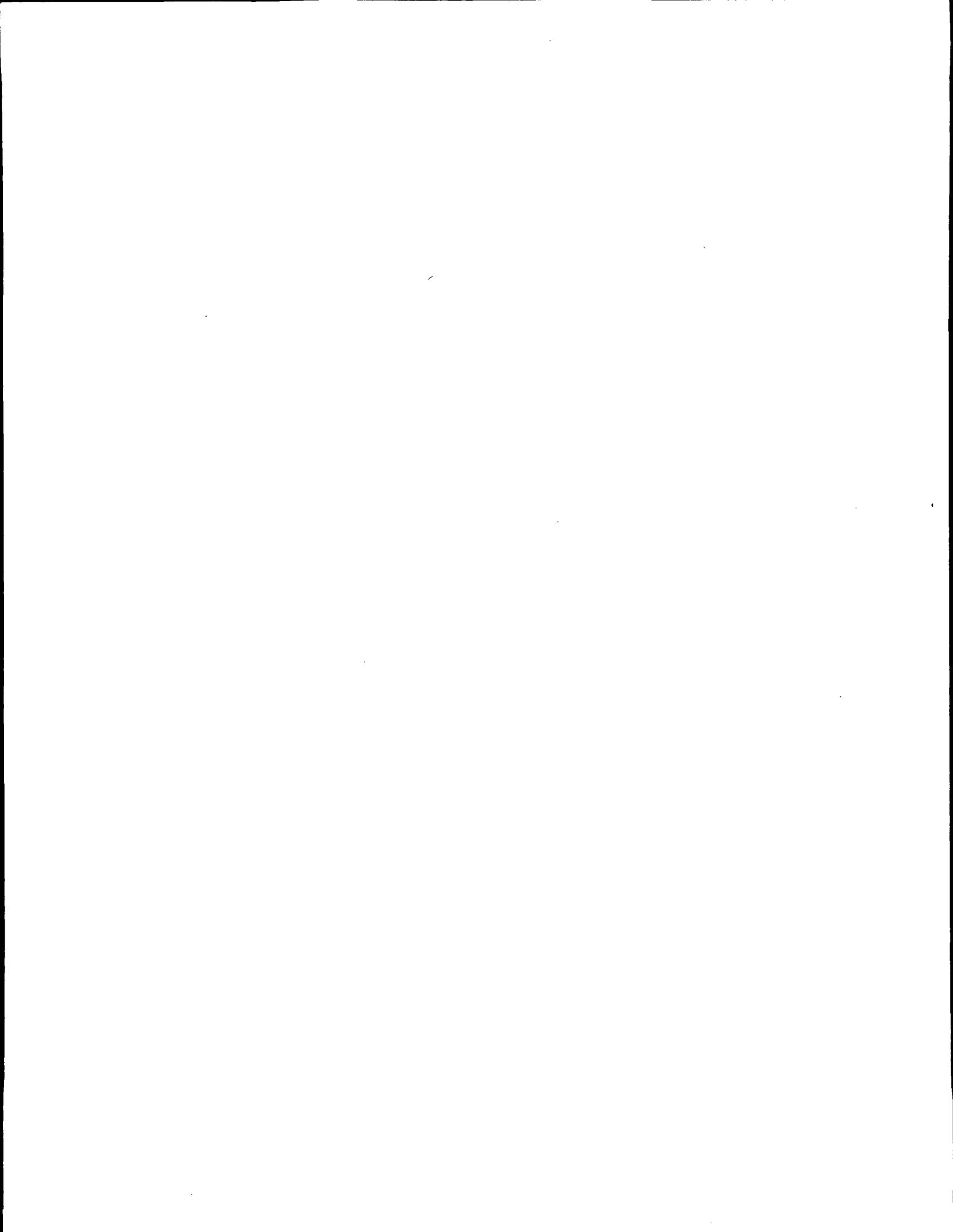
The SHALE municipalities currently utilize a combination of zoning and subdivision/land development ordinances as authorized by the Municipalities Planning Code to manage land use. Table 1.26 provides information about the type of ordinances each SHALE municipality has adopted and enforces. All the municipalities have adopted a zoning ordinance and Ambridge, Economy, and Leetsdale have a subdivision and land development ordinance as well. The designated zoning districts identified in each zoning ordinance are shown Table 1.27. Each ordinance is reviewed below, highlighting specific districts that are unique to the municipality and differences between residential districts within the municipality.

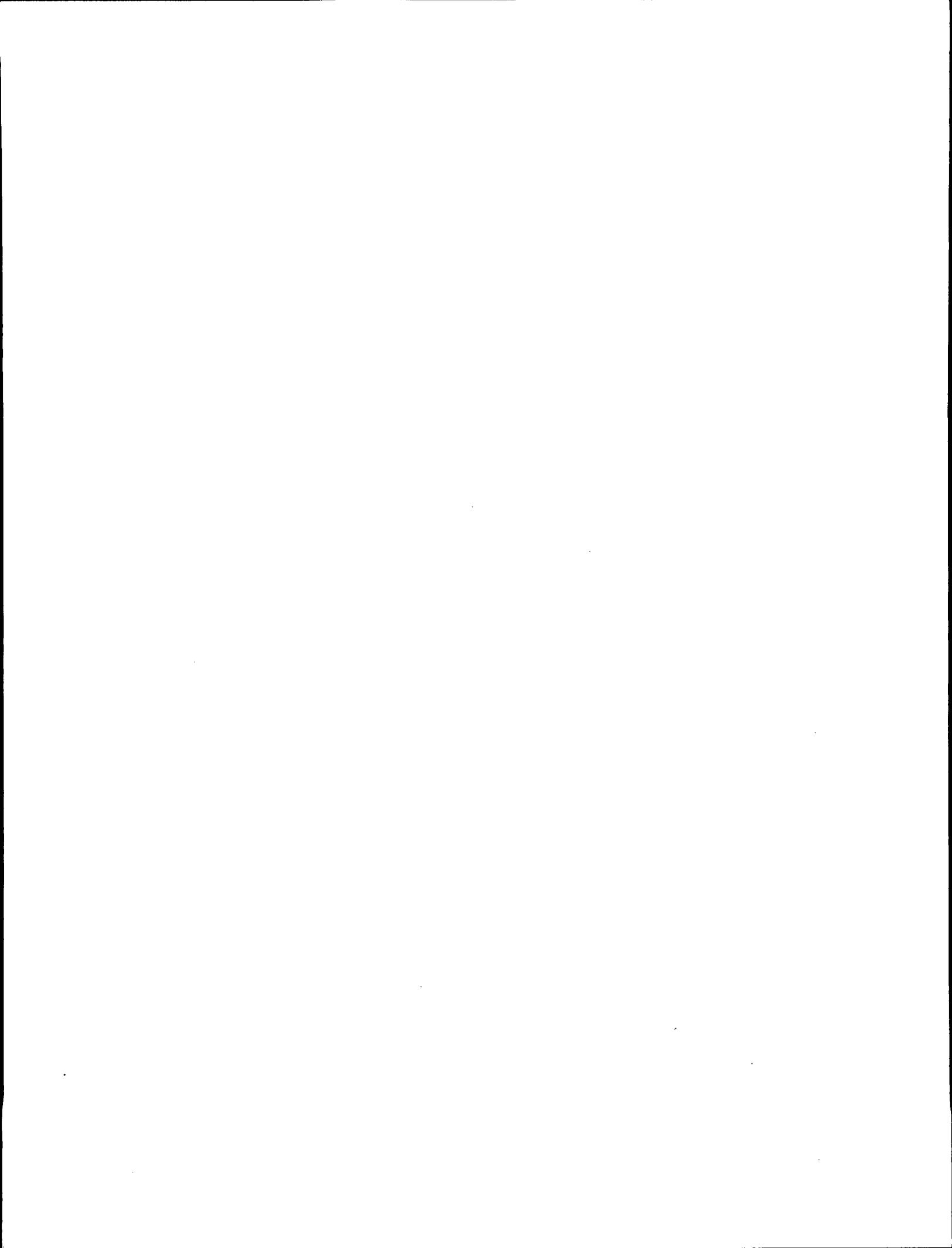
Table 1.26 MPC Land Use Tools for the SHALE Municipalities

	Comprehensive Plan	Zoning Ordinance	Subdivision & Land Development Ordinance	Historic Preservation Ordinance
Ambridge	X	X	X	X
Economy	X	X	X	
Harmony	X	X		
Leetsdale		X	X	
South Heights		X		

The Leetsdale Zoning Ordinance was originally adopted in 1972 and most recently updated in 1991. It does not identify Community Development Objectives. Leetsdale does not have an existing comprehensive plan. The Leetsdale Zoning Ordinance has two distinct single family residential districts - the R-1 district and the R-2 district. The main difference between the two districts is the permitted use of schools and churches in the R-2 district. The ordinance also designates a Multiple-Family Residential District which allows for single family and two-family dwellings and a Multiple Family Residential/Neighborhood Commercial District which allows a mix of residential and small-scale commercial uses. Leetsdale is the only municipality to include an overlay district in its zoning ordinance to regulate development in the floodplain. According to the ordinance, the purpose of the Floodplain District is to prevent the loss of property and life, the disruption of commerce and governmental services, the extraordinary and un-necessary expenditure of public funds for flood protection, and impairment of the tax base. The Floodplain District Overlay includes those areas in the 100-year floodplain as designated by the Federal







Section 1

Table 1.27 SHALE Municipalities Zoning Districts

Leetsdale	Ambridge	Economy	Harmony	South Heights
R-1 Single Family Residential	R-Residential District	RA Agricultural/ Rural Residential District	R-1 Residential District	R-Single Family Urban Residence District
R-2 Single Family Residential	C-Commercial District	R-1 Restricted Residential District	R-2 Residential District	R-M Multi-Family Urban Residence District
R-3 Multiple-Family Residential	C2-Commercial Highway District	R-2 Suburban Residential District	Commercial District	I-General Industrial District
R-M Multiple-Family Residential & Neighborhood Commercial	M-Manufacturing/ Industrial District	R-3 Limited Residential District	Industrial District	
C-Commercial	P-Public/Civic District	C-1 General Commercial District		
I-Industrial	S-Slope District	I-Industrial District		
S-Special (public parks and essential services)	H-Historic District			
Floodplain District Overlay				

Insurance Administration. The overlay is further delineated into the Floodway District, the Flood-Fringe District, and the General Floodplain District. The Floodway district prohibits any uses that will increase the elevation of floodwaters, and the Flood-Fringe and General Floodplain Districts specify floodproofing requirements. The remaining zoning districts include a commercial district, industrial district, and special district for the use of public parks and playgrounds.

The Ambridge Zoning Ordinance was originally adopted in 1955 and has been amended since that time. The ordinance does not identify community development objectives or a comprehensive plan with which it is consistent. The Ambridge Zoning Ordinance includes the following districts: Residential, commercial (primarily Merchant Street), Highway Commercial (Route 65/Ohio River Boulevard), Industrial/Manufacturing, Public/Civic and Slope District. Ambridge has a designated Historic District (see The Regional Community Assets Map for delineation of the Historic District) in the zoning ordinance. According to the ordinance, the purpose of the Historic District is to “protect a part of the Borough which recalls the rich architectural and cultural heritage of the Borough and state, to awaken in our people an interest in our historic past and to promote the general welfare, education, and culture of the Borough.” The Historic District designates limited commercial uses and any erection, reconstruction, alteration, restoration, demolition, or razing of a building in the district requires a certificate of appropriateness granted by the Board of Historical Architectural Review. A certificate of appropriateness is granted based on the applicant’s conformity to the Design Guidelines for the Ambridge Historic District.

The Economy Zoning Ordinance was adopted in 1990, which repealed the former 1981 ordinance. Community Development Objectives are consistent with the Economic Borough Comprehensive Plan (1992) and are identified in the ordinance. The objectives address local and regional land use development trends, infrastructure needs, and growth management. Economy Borough has four different residential zoning districts as well as a commercial District and an Industrial District. According to the ordinance, the purpose of the Agricultural/Rural Residential District is to preserve productive agricultural land and provide sites for low-density residential development that will be compatible with natural features and agricultural pursuits. The other three residential districts are differentiated by permitted uses. The Restricted Residential District allows only single family dwellings and limited accessory activities, uses consistent with the development of low-density single family neighborhoods. The Suburban Residential and Limited Residential Districts, on the other hand, allow single family dwellings by right and multi-family dwellings by conditional use, as well as other public support activities and compatible accessory uses. The main difference between the latter two residential districts is that the Suburban Residential District allows neighborhood commerce and businesses as a conditional use and the Limited Residential District allows single unit mobile homes as a conditional use.

The Harmony Township Zoning Ordinance was adopted in June of 1990. The zoning ordinance states the intent to be consistent with the Harmony Township Comprehensive Plan Community Development Objectives, which are listed in ordinance. The ordinance designates two residential districts, a commercial district, and an industrial district. The purpose of the R-1 Residential District is to establish medium density residential areas (single family dwelling units and duplexes) that are compatible with existing residential development and where public sewer will be available in the future. The R-1 Residential District also allows for mixed-use developments with a range of housing types and small-scale commercial and office uses as a conditional use. According to the ordinance, the purpose of the R-2 Residential District is to provide for a variety of housing options. Permitted residential uses in this district include single family dwellings, duplexes, and mobile homes. The Harmony Township Zoning Ordinance does not designate a floodplain overlay district like Leetsdale, but the ordinance does prohibit development that will cause flood hazards in a floodplain or flood prone area.

South Heights has the most simple zoning ordinance of the SHALE municipalities, consisting of just three zoning districts. The Single Family Urban Residential District allows single family dwellings and mobile home units, while the Multi-Family Urban Residential District allows a greater range of uses including multi-family dwellings and offices. The third district is the General Industrial District. Like the Harmony Township Zoning Ordinance, South Heights specifies conditions for uses in the 100-year floodplain.

Review of Previously Completed Plans

The municipalities of Ambridge, Economy, and Harmony have completed comprehensive plans in the past. A summary of relevant information from the previous planning processes is discussed below. In addition, Table 1.28 compares the community development objectives identified in the previous planning efforts for Ambridge, Economy, and Harmony. This is done to show the similarities and differences between the objectives for the three municipalities, and to identify objectives that are relevant to this plan.

Borough of Ambridge Comprehensive Plan (1992)

The Borough of Ambridge adopted a Comprehensive Plan in 1992. The plan is largely a response to the economic conditions in Ambridge as an "economically-distressed" community. The primary purpose of the plan is to identify policies and objective to revitalize the economy and encourage economic development, thereby increasing land values. The plan predicted a longer recovery from the downturn in the regional economy and loss of jobs that took place in Ambridge and the region since the 1970's, compared to other municipalities in the area.

The 1992 plan examines the nature of the community and regional population and housing trends and projections. The Southwestern Pennsylvania Commission projected the population of Ambridge to decline by 5% from 1980 to 1990 for a total of 7,714. This was a fairly accurate projection, with an actual decline of 4.5% taking place from 1990 to 2000. The plan also presents information on projected work place employment. Two industry sectors, government/education and manufacturing/production, were expected to drive job creation and growth in Ambridge, according to the plan.

Goals, objectives, and future land uses are identified. Some of the recommendations from the plan have been implemented and other recommendations and strategies continue to be relevant to the SHALE planning effort. For instance, one of the strategies identified is to capitalize on the economic benefits of Old Economy Village. The plan states that Economy Village and the Ambridge Historic District could potentially be a regional and national tourist destination. Furthermore, the plan cites the lack of gateways and connections from the historic district and commercial district on Merchant as barriers to economic development around these two community assets. Some recommendations have been implemented, such as the building of a new Old Economy Visitor's Center, but the promotion of tourist assets and the downtown district along Merchant Street remains a challenge for the Borough.

Section 1

Form and Function of Government

Table 1.28 Community Development Objectives for Previous Planning Efforts

Topic Area	Municipality		
	Ambridge	Economy	Harmony
Agriculture		Preservation and encouragement of viable agricultural pursuits	
Infrastructure	To plan and provide for the rehabilitation of the Borough's infrastructure system	Development of accessways, utility systems, municipal services, and community facilities consistent with local needs	To develop regional and Township facilities, as required, to ensure the delivery of high quality community services, including recreation, health care, education, police and fire protection, sewer and water services, and solid waste management.
Economic	To increase property values, employment opportunities, and economic base within the Borough.	Preservation of property values and encouragement of the highest and best use of available developable land	To encourage the diversification and expansion of industrial and commercial opportunities and to stabilize the loss of people and businesses.
		Maintenance and expansion of the municipal and regional economic base	To encourage economic development within the community including the expansion and/or reuse of vacant or underutilized properties.
Housing	To provide safe, adequate, and attractive housing for the entire population of the Borough	Protection of the existing residential character of the community consistent with long-range forecasts for new growth	To assure all residents adequate housing opportunities through an ongoing program for maintaining and upgrading residential structures and neighborhoods and the implementation of programs to ensure housing to meet the needs of all age and income groups.
	To provide for the removal of dilapidated housing, the rehabilitation of deteriorating housing, the maintenance of sound housing, and the development of new housing		
Historic Preservation	To provide for the preservation and restoration of historical landmarks		To expand the cultural resources of the community by encouraging development of the Legionville historic site.
Recreation	To provide and develop open spaces for park and recreational purposes for outdoor and indoor activities to accommodate the existing and future population		To upgrade and expand recreational opportunities and to make more varied recreational facilities more accessible to Township residents.
Land Use	To encourage and facilitate orderly growth	Creation and maintenance of an orderly land use development pattern to provide for viable, distinguishable, and complimentary areas of growth	To maintain and improve, where necessary, quality of the visual and physical environment within the Township by eliminating conflicting and incompatible land uses.
	To protect individuals from buying lands and structures which are unsuited for intended purposes	Control of population density consistent with the ability of the community to expand in an orderly manner	
Quality of Life	To promote and protect the public health, safety and welfare of the residents and property owners of the Borough of Ambridge	Improvement of the overall aesthetic quality of the community	To undertake whatever measures are necessary to ensure the health, safety and well-being of the residents.
	To prevent blighting conditions due to overcrowding or improper development of land	Prevention of blight	
	To protect the ethnic, old fashioned, small-town character and maintain the stability of residential, commercial, and industrial areas within the Borough		
	To provide adequate light, air amenity and convenience of access to properties		
Environmental Quality	To minimize pollution of the environment, including noise, light, air, and water pollution	Protection of the natural environmental quality and significant open space features	To maintain an acceptable environmental quality throughout the Township by correcting existing problems and by providing mechanisms to protect the environment.
Regional Cooperation		Coordination and cooperation with area and regional development programs and trends that are consistent with the types and quality of growth necessary to achieve the community development objectives	To stimulate and formalize mechanisms for better communication and cooperation between the Quaker Valley communities and to develop wherever possible joint approaches to common problems.

Source: Ambridge Comprehensive Plan 1992, Economy Comprehensive Plan 1992, Harmony Township Zoning Ordinance

The plan also recommends the centralization and consolidation of the Borough offices and services (police and fire) into a new combined municipal and recreation facility. The Borough offices and services have been consolidated to a facility on 11th street, but improvements are still needed in the recreational facility.

The following issues are identified in the plan that are relevant to the multi-municipal planning process today:

- Recreation: The need for a central recreational facility (relocation or upgrading of Walter Panek Park) and upgrading of the existing neighborhood recreational facilities. Greater recreational use of the Ohio River such as the development of a riverfront park and buffer area that provides public access to the river.
- Economic Development and Revitalization: Encourage reuse of vacant or abandoned parcels and buildings located throughout the Borough, especially along Ohio River Boulevard and in the Ambridge/Harmony industrial corridor. Reuse options for the former industrial sites include mixed-use and residential development to improve land use relationships along Duss Ave. Designate a light industry district between Oak Street and Economy Branch Railroad.
- Residential Areas: Eliminate industrial uses adjacent to residential areas and provide adequate buffering of the two uses.
- Transportation: Implement the 19th Street extension from Duss Avenue to Ohio River Boulevard and allow better access to the Ambridge Regional Center. Encourage transportation and pedestrian connections between Old Economy Village and Merchant Street. Evaluate and adjust unsafe intersections. Creation of alleys for off street parking in the historic district.

Economy Borough Evaluation and Update of the Comprehensive Development Plan (1992)

An Evaluation and Update of the Comprehensive Development Plan for Economy Borough was completed in 1992. According to the plan, Economy Borough's first Comprehensive Development Plan was created in 1962 in response to post World War II growth pressures, with the purpose of evaluating existing development and community features and guide future growth. Likewise, the 1992 plan was prepared to evaluate changes over the thirty years between planning efforts to guide growth in Economy Borough into the next decade.

The goals identified in the 1992 Plan are still very relevant to Economy Borough today and are applicable to the Borough joint planning effort with the SHALE municipalities. The goals stated in the 1992 plan include:

- Conservation of natural resources and upgrading and maintenance of overall environmental quality
- Maintenance of an orderly land use pattern throughout all segments of the Borough
- Coordination of local growth with area and regional development patterns and trends
- Development of community facilities, services, and transportation systems on a comprehensive basis to provide for immediate and long range needs

The plan element review finds that significant population growth took place in Economy Borough since the 1950's, which was accompanied by growth in low-density suburban development. This trend in low-density residential development has continued since the 1992 plan was completed with the expansion of residential subdivisions. However, population trends from the 1992 plan show that the population of Economy declined slightly from 1980 to 1990 and projections at the time of the plan suggested an increase in Economy's population from 1990 to 2000 by 12%. However, Economy's population actually declined from 1990 to 2000. This suggests that development pressures in the 1990's were not as strong as anticipated by the previous planning effort.

The 1992 plan acknowledges the regional influences on Economy Borough with respect to growth and economic development. The plan identifies three regional influences on the future of Economy Borough with respect to economic development which are still very relevant today, especially in the context of the existing regional planning process. The first regional issue discussed is how the scope and form of economic revitalization in the area will dictate growth and the character of new development in Economy. The decline of the steel mills in Ambridge and Harmony greatly impacted the region's economic health and demographic make-up. In turn, economic revitalization

Section 1

Form and Function of Government

of the industrial and manufacturing communities surrounding Economy would spur additional growth in support industries and additional residential growth in Economy. Second, there is continued growth pressure being exerted by surrounding municipalities in Butler County that have witnessed tremendous growth over the past twenty years, specifically Cranberry Township. Cranberry's population did not grow as fast as anticipated from 1990 to 2000, with a 59.5% increase in population versus the projected 66%. Therefore, growth in Cranberry had less of an effect on Economy since the 1992 plan than perhaps was expected. However, as congestion and growth take its toll on the Cranberry area, new development will continue to expand along major transportation corridors. Therefore, growth in Cranberry may have more of an impact on Economy as land availability in Cranberry decreases and people continue to seek out a suburban lifestyle. Finally, the 1992 plan finds that major infrastructure improvements and commercial/industrial expansion at a regional level will impact Economy Borough.

There are also local factors influencing growth and development in Economy Borough, specifically the near completion of Phase II of the Big Sewickley Creek Wastewater Treatment Project, which will provide public sewer to nearly all of Economy Borough's residential communities. The 1992 plan recognized the problems associated with sewage disposal throughout the Borough, primarily that on-site systems including septic and cesspools were proving to be inadequate to support existing and future development in Economy due to on-lot sewer malfunctions, lack of maintenance, or unsuitable soils. Therefore, public sewer facilities were planned to allow for growth and development of areas in the vicinity of existing developed areas and the Act 537 Plan that identifies a phased approach for providing a public sewer system is now being implemented. The Future Land Use development plan identified in 1992 was based on the continuation of existing low-density, residential growth patterns coordinated with the expansion of public water and public sewer. The 1992 future land use development plan was based on the following key features:

- Economy Borough will continue to be a "bedroom community" with housing developments found in the north and southwest portions of the borough. single family housing is anticipated to be the main type of housing found in the Borough and new residential housing is expected to be the major development activity.
- Light to heavy commercial development will remain scattered throughout the Borough. Northern Lights Shopping Center will continue to target a regional, rather than local, market.
- Local commercial complex is appropriate for the area in close proximity to the residential neighborhoods in the northern part of the Borough near the Municipal Complex on Conway Wallrose Road. The other focal point for commercial development identified was Big Sewickley Creek Road.

To some extent the 1992 future land use development plan has been carried out in Economy with new residential development and the implementation of a public sewer system. However, commercial growth has not taken place to the extent that was perhaps anticipated in the 1992 future land use plans. Even in 1992 the Northern Lights Shopping Center was experiencing an erosion of business activity and local commercial complexes have not developed to the extent proposed on the 1992 plan.

Harmony Township Comprehensive Plan

The Harmony Township Comprehensive Plan was developed in the 1980's. The Plan consists of an overview of existing conditions in the township and a summary of findings based on the existing conditions analysis. The Existing Conditions section provides an overview of the township's environmental conditions, population and economic trends, land use, housing, community facilities and services, and transportation conditions.

Growth and development in Harmony Township occurred largely in response to a scarcity of land in Ambridge Borough. As Ambridge became more and more built-out, industrial and residential development carried over into Harmony Township. The Duss Avenue industrial corridor is a seamless stretch of industrial properties from Ambridge to Harmony. Likewise, a continuation of residential areas off Duss Avenue largely resembles development types and densities in Ambridge.

Harmony Township has several open areas (primarily in the eastern portion of the township) that may be desirable for a variety of uses. The plan states that some of the key issues facing the township include housing, parking and circulation, community aesthetics, and environment/land use conflicts.

At the time of the plan, Harmony Township contained a range of undeveloped, partially developed, and completely developed areas. Residential land uses made up approximately 26% of the land in Harmony Township. Industrial land use made up 16% of the land in the township and commercial land use made up only 1.2% of the land. Recreational land use including neighborhood parks, regional facilities, and golf courses made up 8% of the land, a high percentage compared to adjacent municipalities. At the time of the plan, Harmony had approximately one quarter of its land in forest, primarily in areas with steep slopes, and 16% of land in open space, utility right of ways, and roadways. Development has generally taken place along the valleys and ridges, with the topography a limiting factor for development. Land use problems associated with development in environmentally sensitive areas exist in the township along Valley Road.

Summary of Findings:

- Harmony Township participates in the National Flood Insurance Program (NFIP). The areas along portions of Big Sewickley Creek and the Ohio River are in flood areas covered by the NFIP, and any development must meet the requirements of the program.
- Land use conflicts exist in several areas along Duss Avenue and Big Sewickley Creek Road with a mixture of highway commercial, industrial, and residential land uses that do not complement one another. In addition, commercial properties are underutilized and inadequately maintained and the industrial corridor is largely abandoned or vacant with a blighted appearance. This pattern of land use creates a negative image for the community. The Comprehensive Plan recommends that a more detailed plan be required to revitalize the abandoned areas in the township.
- There is a need for Harmony Township to develop a joint economic program with adjacent municipalities in order to attract new and diversified employers. Stabilization of the population loss in the township is dependent on increasing job opportunities in the region. The plan also recommends that the township work in partnership with industries and employers interested in locating in the area to enable economic development and job growth in the community.
- The Township should explore all county, state, and federal grants provided for the improvement of neighborhood amenities in declining residential areas, including sidewalks, street lighting, and landscaping. In addition, the plan recommends a Neighborhood Redevelopment Program for the Duss Avenue area in cooperation with the Beaver County Redevelopment Authority. This is a priority area for improving municipal services, landscaping, and street lighting in the township.
- Consideration should be given to extensive planning to improve the sewage facilities available in the township. At the time of writing, sewage treatment plants in Baden were at capacity and unable to accommodate expansion of service areas in Harmony Township. The plan recommends that the Ambridge Municipal Authority provide additional sewer service in the township. Recommendations made to reduce water rates for the township include purchasing water in bulk from the Ambridge Water Authority or forming a joint Authority with the Ambridge Water Authority.
- There is a need for a long-range planning program to upgrade and pave all local roads. Recommended roadway projects include extending Woodland Road to Legionville Run Road to provide additional north-south access and widening Logan Lane between Route 65 and Duss Avenue in cooperation with the Borough of Baden.

Section 1

Form and Function of Government

- Zoning ordinances should be developed that preserve the Legionville site and ensure compatibility of adjacent land uses. State support is required to generate the resources needed to purchase or acquire Legionville and protect the historic significance of the site. In addition, the Plan recommends that a long-range plan identify and promote tourism opportunities in association with historic preservation.
- Harmony Township will eventually plan in partnership with adjacent communities, as they are doing now in the SHALE group, to coordinate future development and to explore areas for sharing of services.

REVIEW AND CONSISTENCY OF PLANS

This section examines county and other regional plans to assess the consistency among and between plans. It analyzes each comprehensive plan element and implementation ordinance in terms of consistency of impact on land use in the community, surrounding municipalities, and the county.

Horizons: Planning for the 21st Century, A Comprehensive Plan for Beaver County

Beaver County completed a comprehensive plan for the county in 1999. It was the second comprehensive planning process the County went through, with the first taking place in the mid-1960's. The plan is intended to be a starting point for an overall development strategy for the County and its municipalities. It lays out a general land use plan to focus future development. The land use plan identifies areas for urban development, rural development, and natural landscapes. The plan outlines land uses and densities, recommended infrastructure, and development practices that should be encouraged in urban centers, suburban centers, rural areas, and natural landscapes.

Five distinct growth areas are identified in the plan:

1. The southern part of the county at the intersection of PA Route 60 and Route 151, where growth is influenced by the Pittsburgh International Airport.
2. The Aliquippa/Hopewell exit along PA Route 60, which is influenced by a new airport terminal complex
3. Route 60 extending along PA Route 51, occupying portions of Chippewa and Brighton Townships, where current development is attributed to the new PA Route 60 toll road.
4. The portion of the county east of PA Route 989 in southeastern New Sewickley Township and Economy Borough, where growth is associated with adjacent development in Cranberry Township.
5. The northern part of the county including portions of North Sewickley Township, northwestern Franklin Township, Big Beaver, Homewood, Koppel, and Ellwood City, which are all influenced by the nearby location of the intersection of the PA Turnpike and PA Route 60.

Only one of the areas listed above is directly related to the SHALE region - the potential growth of Economy Borough in association with the expansion of Cranberry Township. Otherwise, the plan notes that urban areas located along the Beaver and Ohio Rivers, including high-density residential and heavy industrial areas, are declining in population and economic activity. This includes Ambridge, Harmony, and South Heights. The same could be said for Leetsdale, although it is not included in the Beaver County Comprehensive Plan.

The general land use plan for Beaver County designates land uses in the SHALE region according to the following categories:

- Designates urban development in Ambridge, and portions of Harmony and South Heights where residential, commercial, and industrial development currently exists. The less developed parts of Harmony and South Heights are designated rural or natural landscape.
- Designates urban development in the area of the Northern Lights Shopping Center in Economy Borough, as well as in the northern portion of the Borough where residential development has continued to expand. Also, designates Urban development around the Orchard Estates manufactured home community. This designation may be incompatible with the Cooney Hollow Biodiversity Area. Otherwise, the majority of Economy is designated for rural development.

- Parks, stream corridors, woodlands, wetlands, groundwater recharge areas, and prime agricultural lands are designated as Natural Landscape Areas.

The main objectives for these designations are described below:

1. **Urban Centers:** Should be strengthened to serve as mixed use centers including concentrated commercial activity, employment opportunities, institutions, and diverse residential areas. Urban centers should provide a sense of community. The recommended land uses include a diversity of housing types, industries, warehouses, retail centers, offices, community facilities, transportation facilities, and parks, recreation, and open space areas. Public water and sewer should be available in these areas and densities should be 4-6 dwelling units/acre for single family homes, 8-16 dwelling units/acre for townhouses, and 8-50 dwelling units/acre for apartments. Urban in-fill development should be promoted.
2. **Rural Areas:** The rural areas are designated to preserve the rural character of Beaver County and enhance existing villages located in the rural areas. Housing should consist of single family dwellings at densities of 1-5 dwelling units per acre in agricultural or cluster zones. Agriculture, agriculture-related businesses, recreation/open space, and other uses which by nature require a rural area are recommended. Mining, quarries, landfills, and power plants should be buffered. Infrastructure includes on-lot systems or central systems for public uses.
3. **Natural Landscapes:** The natural landscapes include areas where development should be restricted due to natural features including steep slopes, wetlands, stream corridors, woodland areas, groundwater recharge areas, and prime agricultural lands. The recommended land uses include single family homes, agriculture, and parks and open space. Development should be prohibited in floodplains and steep slopes over 25%. Densities should be 1 dwelling unit per 3 acres in areas with on-lot systems and 1 dwelling unit/acre in areas with public utilities. Performance zoning is recommended.

The Comprehensive Plan includes an Action Plan for land use, economic development, transportation, recreation and open space, cultural and historic resources, community facilities, and environmentally sensitive areas. A number of the goals and strategies identified in the plan are consistent with issues that have been raised in the SHALE municipalities. The following strategies are particularly relevant to the SHALE area:

Land Use Action Plan: Prepare in-depth corridor plans for Route 60 corridor and the Route 989 corridor in Economy Borough and New Sewickley

Economic Development Goals: Create sites for the expansion of existing businesses and creation of new business opportunities and re-use of brownfields and existing infrastructure

Transportation: Provide highway, bridge, pedestrian, bicycle, and trail systems with high degrees of mobility and accessibility in order to enhance the economy and support future land use. This includes completing the new Ambridge-Aliquippa Bridge, promoting the use of the river and rail systems as alternative modes of transportation, and creating livable communities - pedestrian and bicycle improvements

Recreation and Open Space: Promote the development of waterways and waterfront districts for recreational purposes, especially along the Beaver and Ohio Rivers. This includes encouraging riverfront property owners to use land for recreation, increasing access to the river, and undertaking a greenways study.

Cultural and Historic Resources: Promote the County's historic and cultural heritage in tourism and economic development programs and encourage compatible development within and adjacent to historic districts

Section 1

Form and Function of Government

Housing: Provide a broad range of housing opportunities for diverse income levels, while preserving the existing housing stock.

Community Facilities: Enhance police, fire, and EMS by supporting regional cooperative efforts and initiatives that promote consolidating local resources to maximize efficiency. Provide high-quality water supply and sewage facilities to meet county needs, protect the environment and public health, and support development consistent with the land use plan. Promote and maintain high quality educational facilities.

Environmentally Sensitive Areas: Sustain and enhance environmentally sensitive areas; protect and manage soils and natural vegetation; maintain and enhance water bodies and watersheds; encourage municipal programs for natural resource protection; preserve and properly manage prime agricultural soils.

Sewickley Valley Visioning and Economic Impact Study

Leetsdale is participating in the Sewickley Valley Visioning and Economic Impact Study along with Aleppo Township, Bell Acres Borough, Edgeworth Borough, Glenfield Borough, Haysville Borough, Leet Township, Osborne Borough, Sewickley Borough, Sewickley Heights Borough, and Sewickley Hills Borough. The planning study was initiated by the 741+ Discussion Group, a non-profit organization made up of residents, business, and community leaders. It is a multi-municipal planning study that focuses on improving the long-term economic outlook and competitiveness of the eleven participating municipalities, which are all members of the Quaker Valley School District. The study is intended to help the communities identify opportunities for inter-governmental cooperation and collaboration. The study has three phases. The first is an overview of the region's strengths and weaknesses, including regional trends in population, housing, and infrastructure and services. Phase one outlines opportunities for collaborative planning initiatives in fiscal management, infrastructure, public works and public safety, economic development and marketing, civic amenities, and planning, zoning, and land development. Opportunities that identify Leetsdale in particular include the expansion of the Sewickley Borough-Leetsdale leaf waste recycling program, and sharing of the Leetsdale street sweeper equipment.



Capital Improvements

SUMMARY OF CAPITAL IMPROVEMENTS OR ANNUAL BUDGET ALLOCATION FOR SHALE COMMUNITIES

Below is an overview of the amount of funding each community allocates to services and facilities related to the elements of a comprehensive plan. Below are the average annual allocations for each SHALE community to the following categories: transportation improvements, water and sewer infrastructure, parks and recreation facilities, economic development projects, housing projects, historic and cultural resources, and any other related services.

Leetsdale

Although Leetsdale does not use their regular "General Fund" for housing, the community obtains grants to demolish abandoned and condemned housing.

Overview of 2004 Budget

- approximately \$24,000 has been allocated for engineering services.
- approximately \$400,000 has been allocated for police safety services.
- approximately \$50,000 has been allocated for fire services.
- approximately \$3,700 has been allocated for ambulance emergency services.
- approximately \$15,600 has been allocated for planning, zoning, and code enforcement services (\$600 specifically for planning).
- approximately \$29,000 has been allocated for sanitation expenses (solid waste refuse disposal and sewage related bills).
- approximately \$285,000 has been allocated for transportation improvement projects related to highways, roads, and streets. Significant transportation projects, such as the overpass bridge over Route 65, are paid primarily by state and federal funding (approximately 95%). The amount allocated in the annual budget is the local match or contribution to the project.
- approximately \$8,500 has been allocated for park and recreation improvements.

Section 1

Capital Improvements

Economy Borough

Economy currently does not have a well-developed capital improvements program, yet they incorporate capital improvement projects into their annual budget and use bonds to help finance projects over time. The Borough is planning to develop a capital improvements program in the near future. The municipal manager is accruing reserves with the objective of creating a CIP.

Overview of 2004 Budget

- \$225,000 is allocated to the capital improvements bond issue, which also includes water and sewer infrastructure, improvements to park and recreation facilities, and to construct a new police building.
- \$215,000 is allocated for transportation improvements and road paving projects.

Ambridge

Ambridge does have a Capital Improvements Program, which is budgeted over five years. Currently, year one, year two, and year five have a budget of over 1 million. The budget varies greatly from year to year based on the receipt of grant funding for projects. Grant monies make up the majority of the budget in those three years. At this point, approximately \$300,000 has been allocated for year three. Approximately \$200,000 has been allocated for year four. The average annual allocation per category is as follows:

Year 1

Transportation Improvements-- \$100,000
Water and Sewer Infrastructure -- \$50,000
Economic Development Projects -- \$1,200,000

Year 2

Transportation Improvements -- \$50,000
Water and Sewer Infrastructure -- \$50,000
Park and Recreation Facilities -- \$40,000
Economic Development Projects -- \$1,200,000

Year 3

Transportation Improvements -- \$150,000
Water and Sewer Infrastructure -- \$200,000
Economic Development -- \$50,000

Year 4

Transportation Improvements -- \$100,000
Water and Sewer Infrastructure -- \$100,000

Year 5

Transportation Improvements -- \$100,000
Water and Sewer Infrastructure -- \$100,000
Economic Development Projects -- \$1,200,000

Harmony

Harmony's 2004 budget is \$1,147,850. A portion of the budget is allocated towards the following areas, which are related to the Comprehensive Plan elements.

Recreation - \$1,625

Road Maintenance -- \$267,933

Sewer -- \$357,000

Related fees, services, salaries -- \$357,000

Real estate -- \$678,900

Code Enforcement -- \$6,656

Zoning Hearing Board -- \$135

South Heights

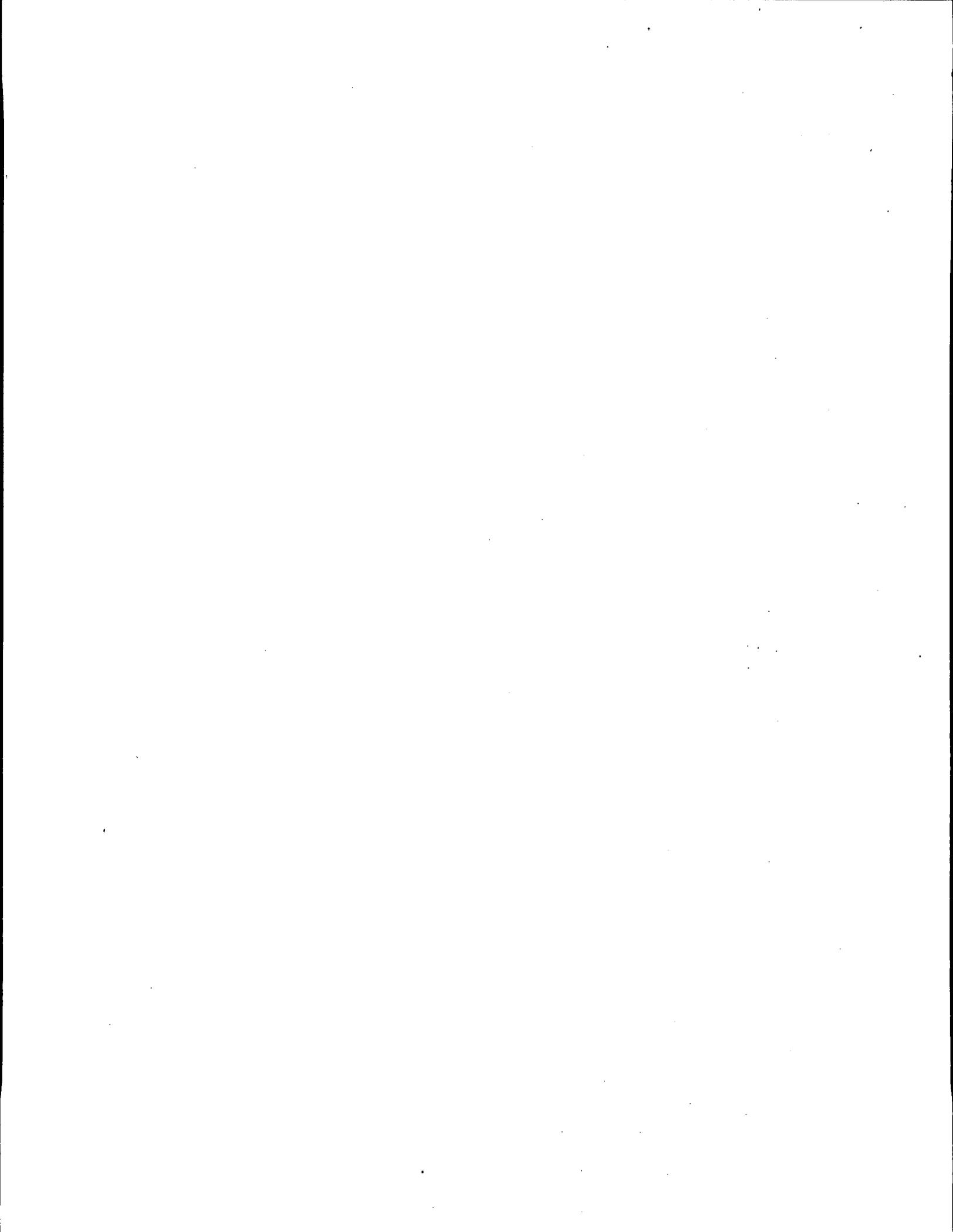
South Heights' 2004 Annual Budget is based on an income of \$157,456. The total expenses for South Heights in 2004 is expected to be \$230,934. The difference will be supplemented by grants, bonds, and loans. The allotment of dollars is planned for the following general categories.

Police -- \$35,051

Public Works -- \$31,870

Building -- \$45,964

Other Expenses (services, fees, salaries, advertising, etc.) -- \$62,450





Quality of Life

QUALITY OF LIFE IN THE MULTI-MUNICIPAL REGION: THE CITIZEN'S PERSPECTIVE

Public involvement is essential in a multi-municipal planning process for various reasons. First, it helps to foster a sense of ownership and understanding of information included in the plan, and more specifically of the vision, goals, objectives, and recommendations. The different techniques used within this planning process were defined in the introduction. Below is a summary of input received from the public input meetings, key person interviews, as well as the quality of life questionnaire. To see a list of contacts that we interviewed, refer to the Appendix.

Public Input Meetings Summary

Below are common consistent themes for improvement that emerged from the five public input meetings held in each municipality during the fall of 2003. Minutes from each of the meetings are included in the Appendix.

- Redevelop brownfields, blighted areas, and vacant sites & link redevelopment efforts with economic development
- Would like to see more economic development that creates job opportunities
- Improve coordination of community services - police, mail delivery, water, sewer, and stormwater management
- Improve communications between citizens, elected officials, and neighboring communities
- Clean-up and promote a more vital community image to those who live within the community and outsiders
- Enhance the existing mainstreets and business districts - cores of communities

Section 1

Quality of Life

- Provide more housing diversity - types, styles, and affordability
- Identify, preserve, and promote the community assets of the region: historic, cultural, rural/agricultural, and those assets that are attractive to youth and young professionals
- Create more and make improvements to recreational facilities and programs for all ages
- Transportation Issues: Make improvements to the Ambridge/Aliquippa Bridge which will provide greater access to Route 51, limit speeding on Route 51, and sustain smooth traffic flow on local roadways throughout the region

More specifically, listed in Table 1.29 are the top ten prioritized comments from each of the five municipalities. At each meeting citizen representatives were asked:

- What do you like about your community?
- What do you not like about your community?
- What would you like to see change in the future?

Ideas were written with the group of citizens that participated at each public meeting. Each person had the opportunity to prioritize his or her top five issues. At the end of the meetings the results were tallied.

Table 1.29

	South Heights	Harmony	Ambridge		Economy
1	Need better police coverage	Clean-up and redevelop brownfield sites	Less Section 8 housing with absentee landlords	Clean-up, beautify, and promote a better community image	Identify and tap into state grants and programs at the county and regional level
2	Need a small convenience store	Coordinate all community services	Redevelop the brownfields	Provide more affordable housing	Agricultural preservation is important – avoid urban sprawl
3	Consider combining South Heights with Hopewell	Each community should have at least one rep. on the Ambridge School Board	Need new housing – combination townhouse, single family, and senior housing	Need for economic development	Improve school transportation in rural areas
4	Speeding on Route 51	Need better communications between citizens and elected officials	Focus on improving blighted areas and vacant buildings	Need more riverfront development	Revitalize brownfields/industry – create more jobs
5	Maintain and fix roads on the hillside	Job creation and economic development	Maintain and grow business district (target Merchant Street)	Encourage local businesses to hire local residents	Maintain rural atmosphere
6	Maintenance of hillside terraces/coordination with PennDOT	Need better access from Route 65 to Route 51 – Ambridge/Aliquippa Bridge	Publicize and market the area within Ambridge and outside of the area	Develop a youth center and more children youth programs	Need a post office in Economy Borough to put the Borough on the map
7	Mail delivery/service on hillside	Concern about community image – would like to promote a vibrant image	Enhance business district streetscape (sidewalks, curbs, ..)	Promote quality of life aspects that are attractive to people in their 20's and 30's	Consolidate municipal services
8	Need a Recreation Center	Need to keep up with current Technology, move into the 21 st Century	Everyone needs to take care of his or her own home – improvement starts with you.	Create a SHALE website to display assets of all 5 communities	Would like to see more jobs/commercial development
9	Former Duquesne Light Yard is a Hazard (now owned by Reliant Electric)	Code Enforcement is important.	Promote awareness of historic and cultural assets	Rehab vacant and abandoned housing and blighted areas	Sustain traffic patterns – mitigate traffic impacts of 989 – concern with traffic flow through Borough when Ambridge Bridge is closed
10	Need better communications within the Borough	Clean-up properties, junk in lots.	Need more industry and local jobs	Support improvements to infrastructure	Provide recreational opportunities for all ages, need for recreation center, skate park, etc.

Summary of Key Person Interviews

Over twenty-five key person interviews were conducted with local government officials, business owners, county representatives, the school districts, economic developers, and other interest groups in the SHALE area. The following is a summary of the key issues that were raised in the interviews by topic area. The key person interviews also shed light on the strengths and weaknesses of the area, which are summarized as well. The appendix lists specific persons that were interviewed from each organization.

Land Use: The main land use issues that were identified include the need for growth management policies that avoid sprawling development patterns. Those interviewed cited the need for land use policies and tools that will properly control growth by identifying areas to target for development and areas that should be preserved. Those interviewed also discussed the need to diversify land uses by identifying mixed-use development opportunities, especially in the higher-density areas of Ambridge.

Housing: Interviewees cited the need for a diversity of housing types at a range of housing prices. In particular, those interviewed cited the need for senior citizen housing and middle-income residential housing in Leetsdale. It was also noted that new residential development in Economy is attracting people to the area.

Economic Development: A broad range of economic development issues were raised. The issues can be grouped into several broad categories, which include:

- improving the retail environment and addressing competition with nearby retailers in the region
- redeveloping industrial and brownfield sites to include a mix of uses and opening up the industrial corridor (19th street)
- identifying funding sources to support redevelopment efforts
- revitalizing the Merchant Street corridor in conjunction with improved marketing of Old Economy Village
- diversifying the economic base and bringing new businesses into the area
- providing a supportive environment for small business development

Transportation: Comments on transportation focused on taking advantage of the proximity of the SHALE area to Pittsburgh, Cranberry, and the airport and improving the transportation infrastructure to support economic development. Specific projects that were mentioned include the Leetsdale Ferry Street Overpass, the Ambridge-Aliquippa Bridge, and the 19th Street extension project (connecting Ohio River Blvd and Duss Ave.) Other issues raised include thinking more broadly about regional public transit.

Community Services: The key issues identified in the interviews include the need to improve the efficiency of public services through joint or shared services and joint purchasing of equipment on a regional level. Other specific issues cited include the need for greater police service in South Heights (potentially through cooperative agreements), the completion of the Economy sewage system, and upgrading and separation of combined stormwater and sewers in Ambridge.

Parks/Recreation: The key person interviews revealed a number potential projects. They include creating riverfront accessibility in all municipalities, developing a playground in South Heights, restoring the Ambridge community pool, preserving Economy's green space; and developing community parks.

Amenities: A number of those interviewed discussed the need to improve the aesthetics of neighborhoods with amenities such as sidewalks, street lighting, and signage that make the area more visibly attractive. Many would like to see the existing character of the communities preserved. Others would like to look at the parking situation in Ambridge and Leetsdale.

Historic Preservation: Comments on historic preservation focused on the need to enhance the Ambridge Historic District in conjunction with Merchant Street revitalization efforts. Others commented that better marketing and promotion of historic assets is required to bring people to the area. The other issue identified is the need for public education on the importance of revitalizing the historic district

The following regional assets and strengths were identified:

- Friendly people and communities that know each other
- Strong work ethic
- Family oriented
- Sense of community ("front porch communities")
- Schools - both QVSD and Ambridge school district
- Proximity to Pittsburgh
- Mix of urban and rural character
- Significant centers of private investment that have created family-sustaining jobs
- Good housing opportunities
- Ambridge Historic District
- Trinity Episcopal School
- Maintaining/Improving quality of life in Ambridge - walkability, affordability, services close at hand, sense of community

The following regional challenges and weaknesses were noted:

- People have "negative mind sets" and low opinion/image of their community. They are stuck in the past and resistant to change. They need to take more pride in their communities.
- Keeping and attracting young people to the region
- Need more of a sense of community and highlight the positive aspects of the area
- Local government politics and bickering
- Need to create jobs in the area to keep and attract people
- Older housing stock - blighted, vacant areas
- Poor connection across the Ohio River (Ambridge-Aliquippa bridge does not serve its purpose well)
- Renovation of older properties needed ("eyesores")
- There has been little growth in the high tech and smaller less intensive industrial businesses - most new business growth has been in manufacturing and light industry
- Need more forward thinking local government
- Leetsdale - lacks a sense of identity

Summary of Quality of Life Questionnaire

During Phase I of the planning process, a questionnaire was developed with the steering committee to inventory opinions, ideas, and priorities from a random sample of the SHALE population. The purpose of the questionnaire was to gain a greater understanding about what residents' perceive to be variables that affect the quality of life and the economic vitality of the region.

In December 2003, 2877 postcards were mailed to a random sample of residents in the SHALE communities. The postcard notified them that a questionnaire would be mailed to his or her home within a week. During the second week of December, a questionnaire was mailed to the same 2877 homes. Those households who did not respond to the questionnaire were mailed a second questionnaire at the beginning of January. This method of notification and follow-up resulted in a 35% response rate, a highly successful inventory of residents' opinions. The level of confidence at 95% was 1.7%. At 99%, the level of confidence was 2.3%. Therefore, there is a strong level of confidence that the answers reflect the opinions of the overall SHALE population.

Section 1

Quality of Life

This quantitative method of public involvement was helpful to supplement the key person interviews, public meetings, and steering committee meetings. Furthermore, the results of the questionnaire and public input meetings will help guide the vision, goals, recommendations, and priorities of this multi-municipal comprehensive plan. The results can be used to help justify policy decisions for future funding and development of land use tools.

Below is a summary of the key findings from the SHALE questionnaire. The questionnaire, results, and write-ups used for the steering committee meetings are included in the Appendix A.

Summary of Key findings from the Quality of Life Questionnaire

Sampling Opinions and Preferences

The top reasons citizens like living in the SHALE region include the following:

- The area is affordable
- There is a low crime rate
- The location is close to family
- The location is convenient to neighborhood amenities
- Like the open space and greenery that exists
- There is a small town appeal

The top things citizens do not like about living in the SHALE region include the following:

- There are no interesting job opportunities
- There are no interesting places to meet friends
- There are not enough cultural and educational opportunities
- There are many unkempt and vacant properties
- Area lacks a diversity of retail opportunities
- Those that responded with 20-34 year olds in their household reported, with higher percentages than the general sample, that there are no interesting job opportunities and no places to go to meet friends

A small percentage, 14%, of the SHALE population uses public transportation. The most common users are in Leetsdale and Ambridge. The most common reasons why residents do not use public transportation are listed below:

- Prefer the convenience to use his or her own car
- Their destinations do not match the public transit destinations
- The location of the public transportation stops are not easily accessible

Residents were equally divided about the idea of merging two or more of the SHALE communities. Residents listed many municipal merging options.

Most of the respondents feel that open space is important to the region.

The majority of respondents feel safe in their community.

Respondents were equally divided noting that schools are either satisfactory or need improvement.

Recommended Priorities for Marketing and Investments

The top priorities for improving economic development and the quality of life of the region include the following:

- Generate a greater diversity of job opportunities
- Increase the number of small and local businesses

- Increase cooperation among local governments
- Prepare long-range plans

Citizens feel that public financial investments would be best spent on public safety, improving roadways, and attracting new businesses.

There was strong support for sharing services related to purchasing, public works, and water and sewer infrastructure.

The majority of respondents, 88%, support the idea of providing grants and low interest loans to local businesses and residents to fix up their homes.

Citizens feel the top three things to market about the region are: housing, location, and schools.

Respondents reported that there is a need for more community centers, trails for walking or bicycling, and swimming pools in the region.

Respondents felt it is best to use mailings, newsletters, and existing bulletins to advertise programs, services, and community information.

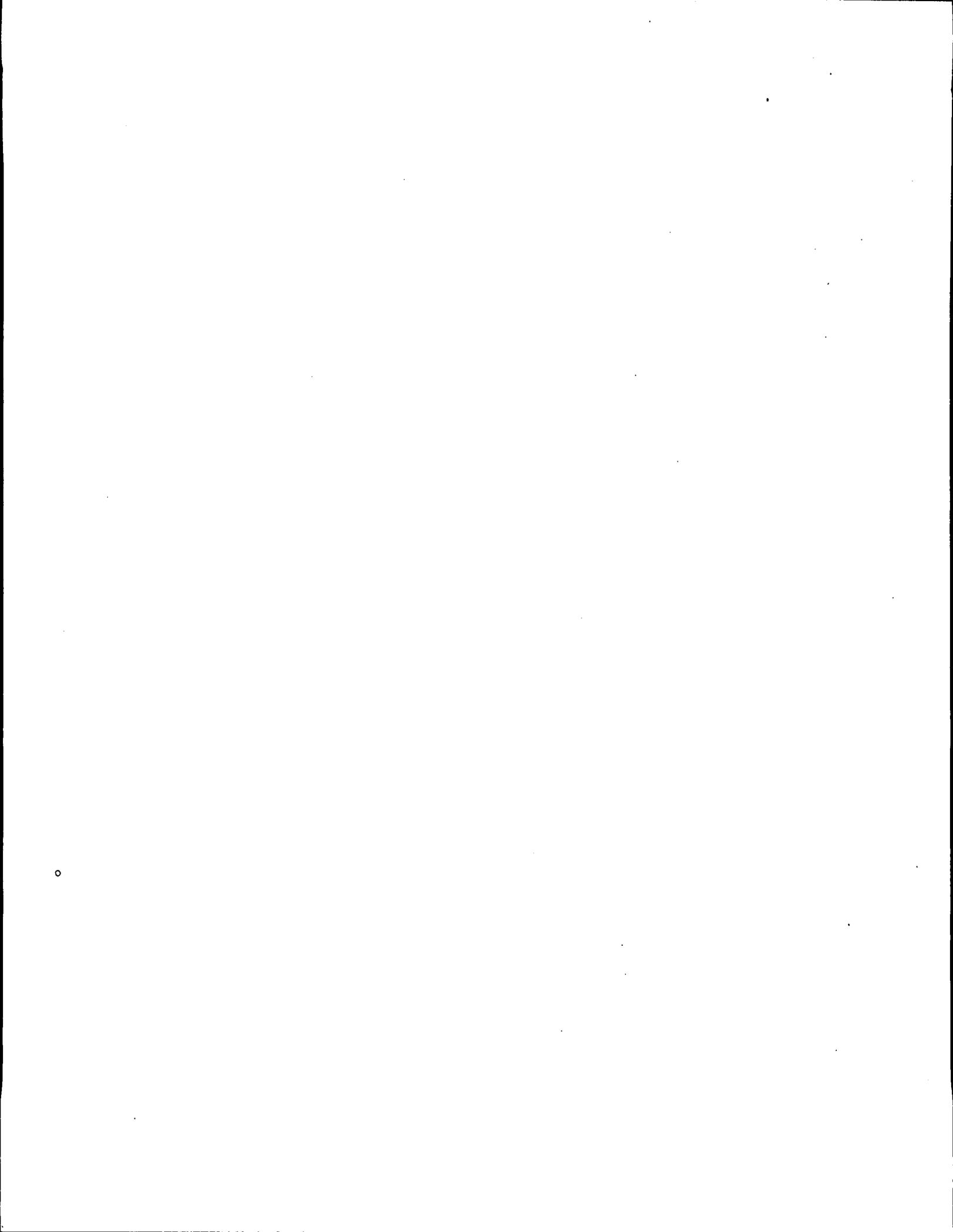
SHALE Quality of Life Questionnaire

- *What do you like about where you live?*
- *What do you not like about where you live?*
- *How would you prioritize the following?*
- *Do you use public transportation?*
- *Rank the following public investments in order of importance...*
- *If the municipalities in the region were to share services, which should they share?*
- *Should consideration be given to the possibility of merging two or more communities in the region?*
- *Should grants or low interest loans be provided to local business owners and residents as incentives to fix up their businesses and homes?*
- *How important is the preservation of open space in the region?*
- *Do you feel safe in your community?*
- *How do you feel about your School District?*
- *What positive aspects of the community should be highlighted?*
- *Are the following services adequate in your community?*
- *How long have you lived in your community?*
- *Do you own (or are you buying) your own home?*
- *Where do you live?*
- *What is the best way for you to learn about programs, services, and other information?*

Section II

“Where Do We Want to Be?”

Creating the Vision





The Vision Statement

It is the vision that inspires, motivates, and transforms desire into action.

- Unknown

What is a vision?

- A mental image that empowers communities by giving them foresight to make events happen and projects possible.
- Specific images of places and landscapes that are positive and acceptable to the community.
- A statement of what is valued in a community, formed through consensus.
- A clear and concise statement that sets the tone for future land use in a community.

The “vision” for a community answers the question, “Where do we want to be in the future?” It describes the type of place the SHALE multi-municipal region is striving to be fifteen to twenty years from now with respect to social, economic, and environmental conditions. The vision is articulated through a written statement, goals, and a conceptual map depicting future land use in the region. The vision statement and future land use map empower communities by giving them foresight to identify steps and take actions that will lead to the ideal future conditions that foster a high quality of life for all citizens.

The SHALE vision, goals, and future land use scenario build on the strengths of each municipality and outline how land use and community assets can regionally complement one another. The future land use map illustrates development concepts that are consistent across municipal boundaries, take advantage of regional assets, and reduce adjoining land use conflicts.

The process for creating the vision for the SHALE region consists of the following:

- 1) Creating a vision statement
- 2) Developing community goals
- 3) Outlining a future land use scenario
- 4) Establishing community development objectives

PUBLIC INPUT

The vision is created through community consensus. By building consensus through the visioning process, there is a clear understanding of community preferences that in turn provides direction for the future land use in the SHALE region.

Section 2

The Vision Statement

The Vision Statement and future land use map described in this section were developed with input from the public. Five focus group workshops were conducted (one in each SHALE municipality) to give residents the opportunity to provide input on the type of community they want to live in, what it will look like physically, and what type of development should be encouraged and promoted through land use tools and policies.

VISION STATEMENT

The vision statement for SHALE describes the ideal future condition for the region. The vision is written to describe the region fifteen to twenty years into the future. The vision is based on the key issues, strengths, and weaknesses identified in Section I, and through the public input process and a visioning exercise conducted with the steering committee. The vision statement for the SHALE region is included on the following page.

The vision statement reflects how the SHALE municipalities view themselves in the future as a multi-municipal region, not necessarily defined by political boundaries. The vision for the SHALE region revolves around the following themes so as to support and encourage a sustainable, high quality, region:

- Effectively managing land use to create strong neighborhoods and enable economic development
- Defining and promoting a clear sense of community identity
- Showcasing the cultural, historic, and recreational resources
- Efficiently sharing municipal and financial services

Our plan for the future begins with Our Vision ...

SHALE is a successful region with a strong economy, a good educational system, and a healthy environment. Residents enjoy a high quality of life because the SHALE region is an excellent place to live, work, play, and celebrate. The strength of the SHALE region lies in the historic, cultural, and ethnic diversity of its people and places, and the pride people take in their community. The municipalities have successfully identified their assets, commonalities, and differences, to provide a foundation for a successful economic future.

Land Use and Economic Development

The municipalities coordinate land uses effectively, resulting in a strong economic environment. The region includes thriving neighborhoods, well-developed mixed-use commercial centers, and conserved open space that is sensitive to the semi-rural character of part of the region. Vibrant town centers exist with local businesses that provide residents with goods and services. Downtown Ambridge is the regional urban focal point for shops and services.

The SHALE region serves as a local and regional employment center. The Duss Avenue corridor in Ambridge and Harmony are occupied by high tech, cutting-edge industries and live/work spaces, which offer employment opportunities for young people in the region. Similarly, former industrial and utility sites in South Heights are important economic generators in the community. Residents of the greater Pittsburgh metropolitan region seek employment within the SHALE tech and industrial parks. Economy Borough targets areas for residential and mixed-use development to preserve much of the pristine rural character of the Borough where new development complements and respects the natural landscape.

Housing opportunities within SHALE are plentiful and range in style, type, and price. Types of housing in the SHALE region includes senior care facilities, high end riverfront lofts and condominiums, affordable townhouses, quad-plexes, revitalized historic homes, rural farm estates, and new suburban cluster style developments. Mixed-use and residential areas are walkable and safe. The stewardship and maintenance of properties continues to improve resulting in aesthetically pleasing neighborhoods and a positive community image.

Community Image/Identity

The SHALE region has a strong sense of identity and all the municipalities understand how they contribute to the larger region. Effective public relations and marketing campaigns have increased the knowledge and awareness of what the region has to offer for both people living in the SHALE region and those living outside the area. Residents take ownership in the larger community, resulting in greater pride and neighborly spirit. Because of this, residents are advocates for the region, highlighting the strong sense of place, the richness and diversity of community, and the positive community image.

Implementation of design guidelines and land use tools serve to enhance the Ohio River Boulevard corridor, Merchant Street corridor, Duss Avenue corridor, the Route 51 corridor in South Heights, and existing housing stock. The design standards promote the cultural, historic, and natural assets of the SHALE region. Mainstreets are vibrant with businesses, people, and community energy. They are not only aesthetically appealing but also socially attractive to young professionals who look for places to meet with co-workers and friends.

Cultural, Historic, and Recreational Assets and the Transportation Network

Identifying and capitalizing on the historic, cultural, and recreational resources is key to the economic success of the region. Old Economy Village is a nationally recognized tourist location. The Old Economy Village Historic District is linked with Ambridge's Merchant Street, creating a larger tourism and shopping destination for visitors. Bed and breakfasts and local shops cater to the tourists and support the local economy.

The Ohio riverfront is a major recreational area for hiking, biking, marinas, and small recreation related businesses. Trails and parks along the riverfront are part of a larger greenway network linking to Old Economy Park, Walter Panek Park, downtown Ambridge, Harmony, Leetsdale, and South Heights. The greenway network not only conserves resources for a healthier environment but also provides scenic walkable trails and pedestrian linkages for residents and tourists.

Citizens and employees have easy access to the SHALE region's employment centers. Varying modes of transportation are available for commuting to and from work, including commuter trails and public transit. Ambridge utilizes historic trolleys to transport visitors and residents to Old Town, Mid Town, and Downtown. River transportation includes shuttles to downtown and to other significant sites along the Ohio River, including connections to South Heights. River transportation opportunities exist for transporting goods and services as well as providing recreational boating opportunities.

Successful Municipal Cooperation and Planning

The SHALE regional planning commission has evolved to be a multi-municipal planning model known for its effective and efficient municipal cooperation. The SHALE regional board has well respected leaders, which oversee and evaluate the progress towards SHALE goals. Residents continually interact with the SHALE board, providing feedback about services and programs through websites and newsletters. The Ambridge Area and Quaker Valley School Districts communicate and cooperate with the SHALE board regularly, which helps to promote the Districts' excellence in education. All municipalities agree that the benefits of multi-municipal planning have been highly successful.

SHALE citizens benefit greatly from coordination of government services, which include police, fire, parks and recreation, land use, purchasing, and public works. The key to SHALE's prosperity is the leaders' ability to continually balance the social, economic, and environmental needs of the community. SHALE's multi-municipal planning model exemplifies excellence in cooperation by defining standards to achieve a high quality of life for all residents.



Community Goals and Objectives

COMMUNITY GOALS

The community goal statements are broad in nature and reflect the key themes identified in the vision. Goal statements articulate what is important to the residents in the SHALE region and how they plan to make the vision a reality. The community objectives support the development of land use tools and implementation strategies to achieve the overall desired character of the SHALE region. The goals and objectives should guide local officials and decision makers in developing and implementing land use and community development policies. Community goals and objectives identified in the planning process are listed below in Figure II-1.

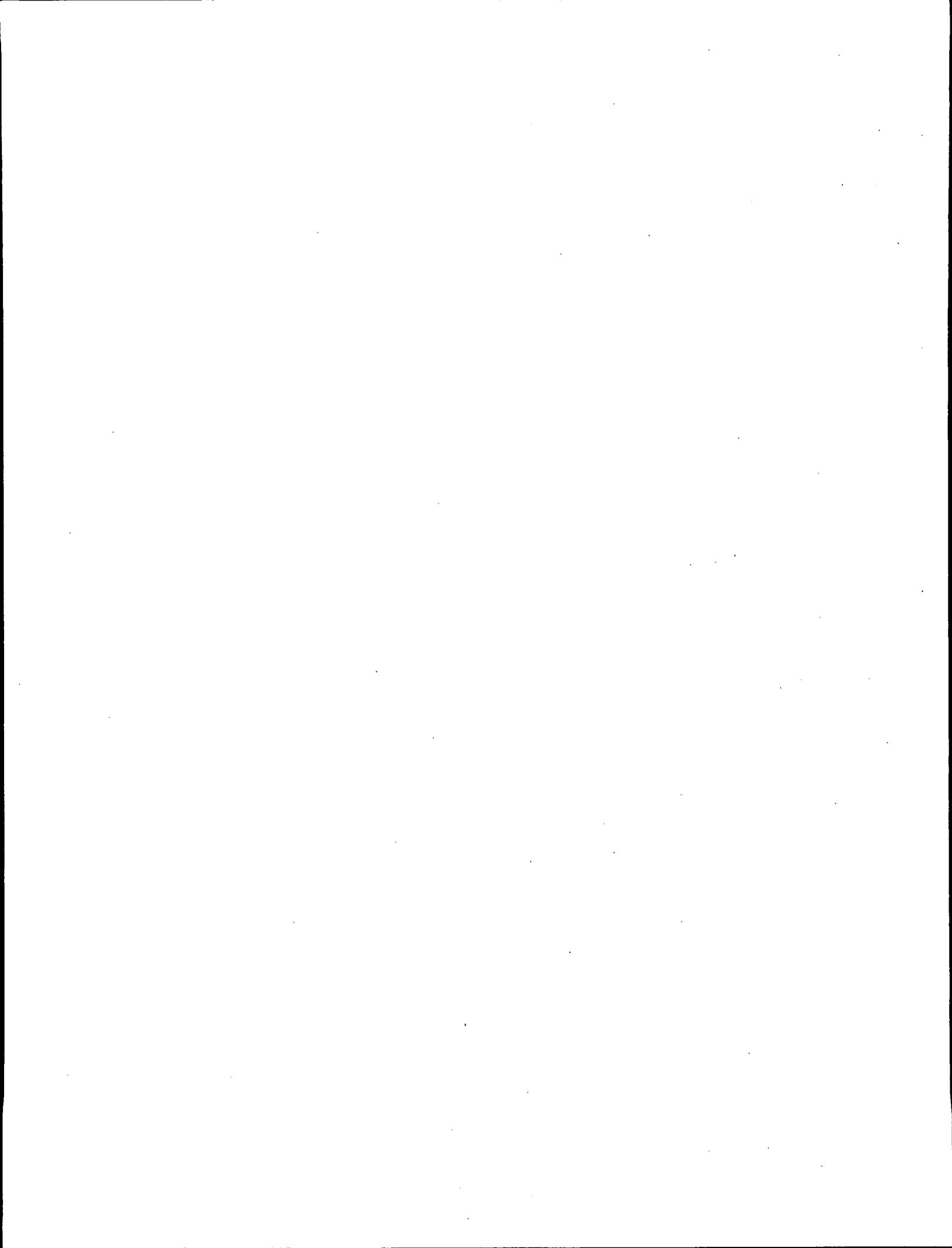
Section 2

Community Goals and Objectives

Table 2.1

Goals	Development Objectives
<p>A Strong Economy Supported by Economic Development Opportunities & Tourism</p>	<ul style="list-style-type: none"> ● Encourage partnership with economic development organizations and companies to leverage business development and create job opportunities ● Capitalize on existing historic, cultural, economic, and recreational assets to generate tourism opportunities and business development ● Revitalize existing industrial, commercial, and vacant areas (including brownfields) and identify business and land use opportunities for economic development
<p>Preserved & Enhanced Cultural and Historic Resources</p>	<ul style="list-style-type: none"> ● Preserve valued historic structures located in the SHALE region ● Increase awareness of the cultural, historic, recreational, and educational opportunities in the SHALE region through coordinated marketing and public relations effort
<p>Effective Marketing and Public Relations</p>	<ul style="list-style-type: none"> ● Support activities to market SHALE internally and externally to attract new residents and businesses to the area ● Market the positive assets of the region to young professionals and families
<p>Strong Land Use and Growth Management Planning</p>	<ul style="list-style-type: none"> ● Encourage consistent land uses across municipal boundaries and the development multi-municipal land use tools ● Target areas for revitalization and future growth as well as rural resource areas for conserving open space in Economy Borough
<p>A Positive Community Image</p>	<ul style="list-style-type: none"> ● Encourage an aesthetically pleasing community image of the SHALE region using design guidelines that reflect the overall character of the area ● Encourage private property maintenance that doesn't detract from the aesthetics of the SHALE region ● Encourage residents to be stewards of the environment
<p>High Quality Social Services & Community Education</p>	<ul style="list-style-type: none"> ● Support developing and linking social service programs provided by schools, non-profits, religious, and private institutions to provide opportunities for a high quality education and self-development
<p>A Diverse Community</p>	<ul style="list-style-type: none"> ● Encourage and celebrate socio-economic, ethnic, and cultural diversity
<p>Commitment to Intergovernmental Cooperation</p>	<ul style="list-style-type: none"> ● Promote cooperation among the local governments to protect the health, safety, and welfare of residents ● Increase awareness and acceptance of inter-governmental cooperation and the benefits of sharing services to reduce financial and administrative costs while maintaining and improving levels of service

Abundance of Parks and Recreation Opportunities	<ul style="list-style-type: none"> • Enhance the existing recreational facilities in community and neighborhood parks and provide additional active and passive recreational opportunities, programs, and events • Identify opportunities to incorporate the riverfront as a regional recreational resource, including South Heights riverfront area
Protected Open Space and Natural Resources	<ul style="list-style-type: none"> • Conserve existing primary woodlands, agricultural areas, and environmental resources • Encourage the concept of greenway linkages through urban, suburban, and rural areas that provide passive and active recreational functions and preserve natural areas
High-quality, Affordable Housing	<ul style="list-style-type: none"> • Encourage a variety of housing types, styles, and affordability levels to meet the housing needs of all people and families, including housing for persons with disabilities and seniors citizens
Good Public Services – A Safe Community	<ul style="list-style-type: none"> • Reduce crime in the SHALE region • Develop better communication and coordination efforts between all SHALE police and fire departments
Effective Transportation System	<ul style="list-style-type: none"> • Provide a variety of modal choices including river and rail transportation, public transit, pedestrian and bicycle paths, and sensible connections between modes • Maintain and upgrade existing roadway networks as needed • Identify opportunities to provide greater access to downtown Pittsburgh, Cranberry, and the airport as well as provide easier access to future employment sites in the SHALE region
Efficient Water and Sewer Infrastructure	<ul style="list-style-type: none"> • Maintain and improve water quality through maintenance and upkeep of existing infrastructure. • Target sewer and water extensions to areas projected for growth and reinvestment





Future Land Use Scenario

FUTURE LAND USE SCENARIO

The Future Land Use Scenario translates the vision for the SHALE region into a visual image through a future land use map. The basic idea behind the future land use scenario is to ensure that new development fits together in an integrated and harmonious manner, while achieving the community goals. It is intended to assist municipal officials in making policy and land use decisions to help guide future development in the next fifteen to twenty years.

The overview of the future land use scenario includes:

1. creating the future land use map
2. an overview of the future land use categories
3. using the future land use scenario
4. description of the conservation subdivision design approach
5. the relationship to existing municipal land use regulations

1. Creating the Future Land Use Map

The future land use map identifies the type of land uses that are appropriate and desired in the SHALE region and where future growth, reinvestment, and conservation areas should be targeted. Regional growth issues discussed in Section I stress the importance of identifying areas for future growth and reinvestment within the SHALE region, as well as areas to be preserved and protected from growth.

The future land use map was created based on the strengths and weaknesses presented in Section I, public input, and the region's vision and goals. A future land use workshop was held with the steering committee and in each of the five SHALE communities to get feedback from the community on the vision and future land use map. The meetings were held during the Planning Commission and Council Workshop meetings and the public was invited to attend. Participants were broken into groups to review and discuss future development types, locations, and intensity of uses. Each group was provided with a base map depicting

Section 2

Future Land Use Scenario

the municipal boundaries, roads, and major waterways. A conservation overlay map was given to each group to help them assess the location of existing environmental features including wetlands, steep slopes, hydric soils, floodplains and prime farmland. The overlay map also showed where existing and future water and sewer infrastructure is planned. The overlay map assisted the groups in identifying areas to preserve, as well as areas to target for future growth which are supported by public infrastructure. A preliminary future land use map, based on the steering committee's input, was also provided to each group. The visual preference boards on page 142 were used to provide the project steering committee and the public participants with a range of land use categories to draw from and modify in creating the future land use map. The colors are consistent with those illustrated on the future land use map. The groups were asked to think about and react to the following questions and outline their responses on the maps provided:



Ambridge Public Visioning Workshop



Ambridge Public Visioning Workshop

1. Where do you feel residential development should be targeted for growth or reinvestment?
2. What areas do you feel are most appropriate for commercial or mixed-use development?
3. Where do you feel manufacturing and industrial development would be most appropriate?
4. What natural areas and historic resources within the region do you feel should be preserved or enhanced (ex. river corridors, agricultural lands, woodlands, park lands, historic buildings and landscapes)?
5. Do you want to promote enhancements or special districts in certain areas?

Visual Preference Boards

Residents were asked if future growth is desired, what type, and where they feel it should be appropriately targeted in the SHALE region. Visual preference boards were used to assist residents in answering these questions and help them identify the appropriate type of development, styles, and densities to promote the SHALE region.

A visual preference board includes photos and drawings of different types of land uses and development styles. Using the visual preference boards, workshop participants were asked to designate areas where they preferred land uses in the region, focusing on:

- A. Revitalization Target Area (Industrial, neighborhoods, mixed-use, and commercial)
- B. Housing and neighborhood development patterns
- D. Historical, cultural, and environmental preservation
- E. Parks and recreation opportunities
- F. Transportation and infrastructure
- G. Economic development
- H. Other issues
- I. Greenway Linkages
- J. Enhancement Areas

Enhancement options for encouraging a greater sense of place in the SHALE community are depicted in the visual preference boards. The images are displayed on page 140.

2. Overview of the Future Land Use Categories

The future land use scenario includes provisions for the type, intensity, and character of differing land uses in the SHALE region. The future land uses identified on the map take into consideration the location and proposed expansion of infrastructure (roads, water, and sewer), existing development styles and densities, and the presence of environmentally sensitive areas including conservation land, open space, and parks.

Future Land Use Categories

Below is a description of each land use category illustrated on the future land use map (located on page 148). The colored icon corresponds to the key in the future land use map.

Low Density Rural Residential - Low Density Residential areas consisting of 1 unit/2 acres or more should respect the rural character and complement the agricultural and environmental areas within the region. Encourage site design concepts that preserve steep slopes, floodplains, forest lands, agricultural areas, riparian areas, and scenic views.



Medium Density Residential - The Medium Density Residential areas promote a range of single family and town house developments at approximately four to eight housing units per acre. Densities and character design should be similar in scale to adjacent neighborhoods. The area should consider pedestrian and streetscape amenities to create a neighborly environment.



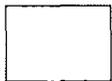
High Density Residential - High density housing may consist of loft housing, live/work spaces, senior care facilities, condominiums, apartments, and group care facilities, which are located on arterial or collector roads near community services at densities of 10 units/acre or more.



Growing Greener Residential (Conservation Subdivision Design) - This designation promotes residential development practices that are sensitive to the environment. Conservation subdivision design is an alternative to conventional subdivision design that preserves open space through the development process (implemented through local zoning and subdivision ordinances). The Growing Greener by Design approach is described in more detail later in this section.



Agricultural - Identifies areas of prime agricultural land and land in active agricultural production to target for preservation. Non-agricultural land uses located adjacent to or near farms and farmland should respect the rural character of the area. Scattered residential farm houses and related structures are also found in this area.



Open Space - This land is either public or private woodlands or open fields. Open space includes secondary conservation land such as mature woodlands, scenic views, and connected forest lands. Land use tools that preserve open space should be adopted that respect private property rights and do not fully limit use of open space land.



Mixed-Use - This designation allows for a mix of commercial, residential, and office uses, yet attempts to avoid typical strip style development. The designation promotes design features, access management, landscaping, and gateways. Considerations are given for bicycle and pedestrian movement and orientation of buildings, sidewalks, parking areas and integration with existing neighborhoods.



Industry/High Tech - This designation provides for a wide range of light industry, manufacturing, research, and high technology uses. The type of uses allowed should produce minimal externalities (light, noise, odor) and a minimal impact on traffic flow. The designation encourages green campus design, screened parking, and landscaping.



Light Industry - This designation provides for light industry uses. Such uses should observe designated standards for light, noise, and odor impacts. Buffering of adjacent land use is encouraged.



Regional Commercial - The area will be targeted for large scale regional businesses, of 50,000 square feet and larger. Common regional businesses and commercial centers include a mix of grocery stores, and pharmacies, and retail outlets. Design features, parking standards, landscaping, stormwater management, and access management should be promoted in regional commercial areas.



Small-Medium Scale Commercial - This designation includes smaller businesses ranging from 1,000 to 40,000 square feet. The designation also promotes design standards to encourage landscaping, stormwater management practices, signage standards, access management, and pedestrian linkages.

Enhancement Categories

Below are descriptions of icons included on the future land use map, which describe a variety of enhancements that are being promoted in the SHALE region.



Interpretative Signage - Icons designating interpretive signage have been developed for areas throughout SHALE that will link various historic sites, the commercial centers of downtown Ambridge and Leetsdale, the riverfront, and other tourist sites.



Gateway - Icons designating points of entry and including information about significant parts of the community. Enhancements and signage highlight key features.



Pedestrian Linkages & Trails - This classification supports the development of a network of pedestrian facilities that will connect open spaces, parks, tourist sites, town centers, residential areas, and the riverfront. Facilities may include trails and sidewalks.



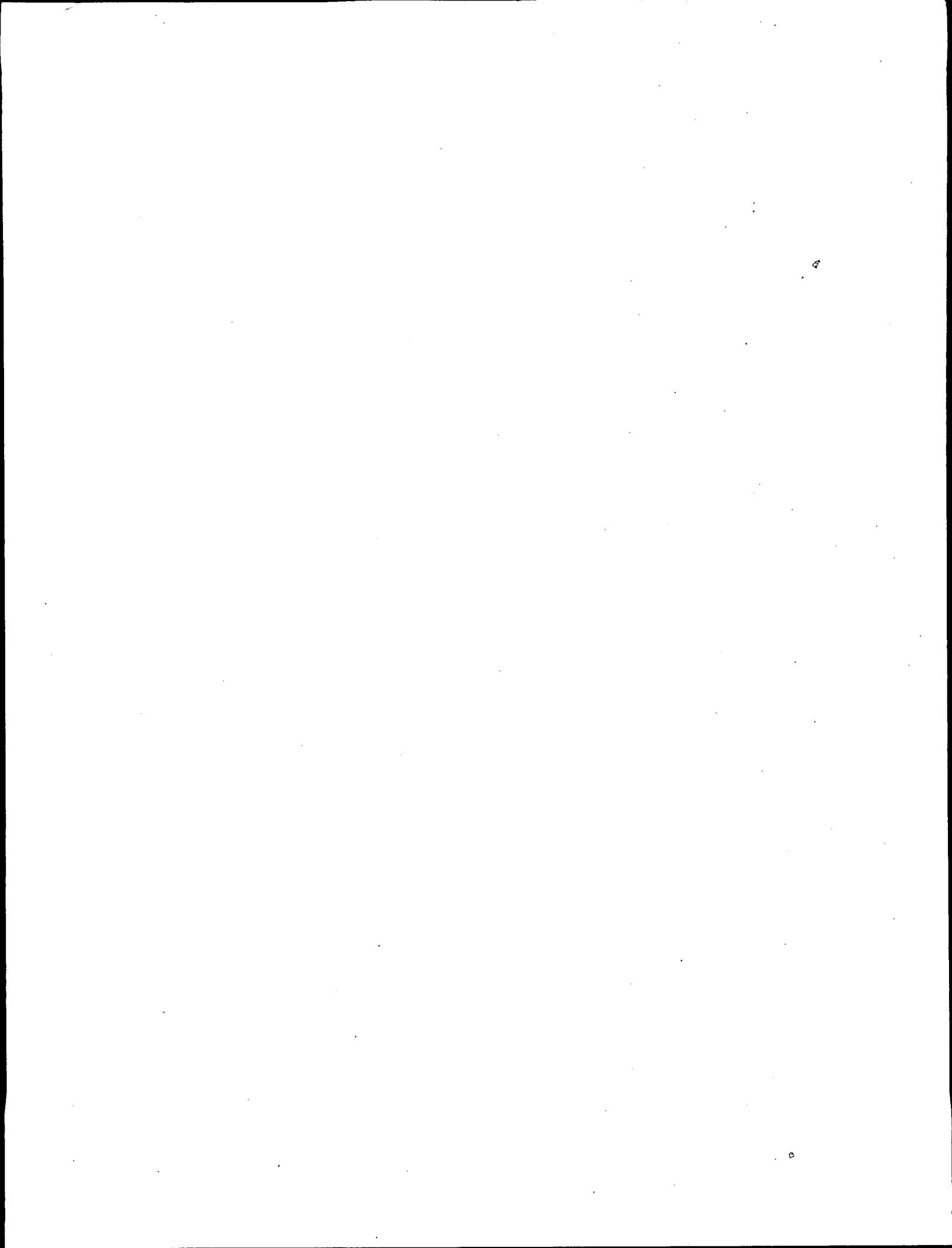
Greenway Network - This concept is only applied to designate potential greenway connections that preserve stream corridors and provide passive and/or active recreational opportunities. The greenway designation also indicates some environmental standards such as protecting stream corridors throughout the SHALE region.



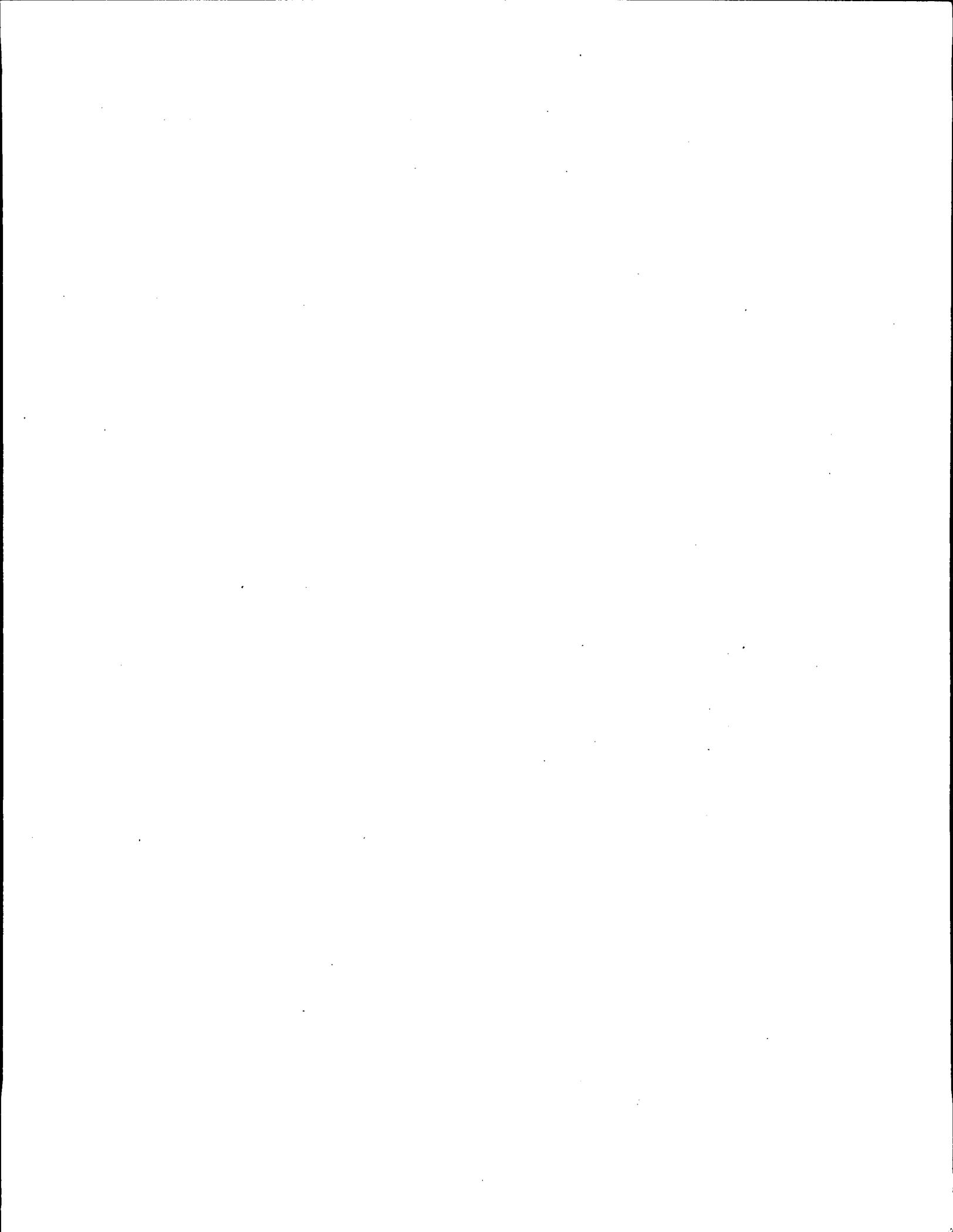
River Recreation Overlay - The river recreation overlay district is intended to preserve and enhance the Ohio riverfront as a recreational and economic amenity for the SHALE region. It also seeks to preserve and restore the natural assets along the river corridor, yet allow for low impact river recreation and business opportunities.



Corridor Enhancement Overlays - This overlay is designated along portions of Duss Avenue, Beaver Street, Merchant Street, and Route 51 in South Heights. The designation encourages development of additional design standards and incentives which encourage a stronger sense of place, build character, and provide for a safer community. Design standards may include: architectural standards, material preferences, signage standards, pedestrian orientation, parking, screening, buffering, and encouraging development of landscaping, street lighting, and street furniture. Enhancement areas should encourage controlled, sensible development for easy and safe flow of traffic along street corridors. The overlay promotes developing access roads, minimizing spacing between curb cuts, and sharing access points.



Refer to the Future Land Use map



Land Use Categories

High Density Residential



Medium Density Residential



Low Density Residential



Industrial and Manufacturing



Regional Commercial



Small - Medium Scale Commercial



Section 2

Future Land Use Scenario

Mixed Use Areas



Service, Civic and Institutional



Conservation Approach



Agricultural Areas

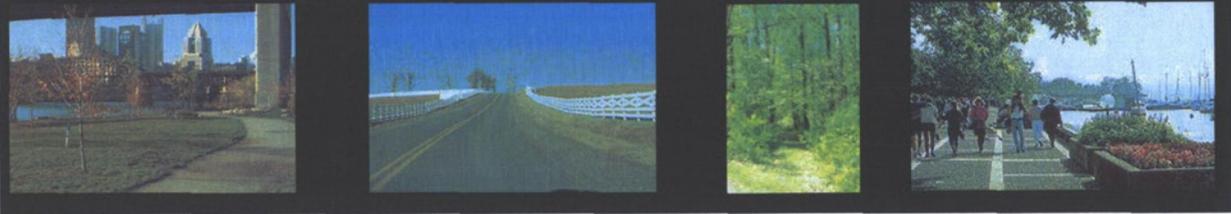


Open Space



Enhancements

Trails



Greenways



Signage

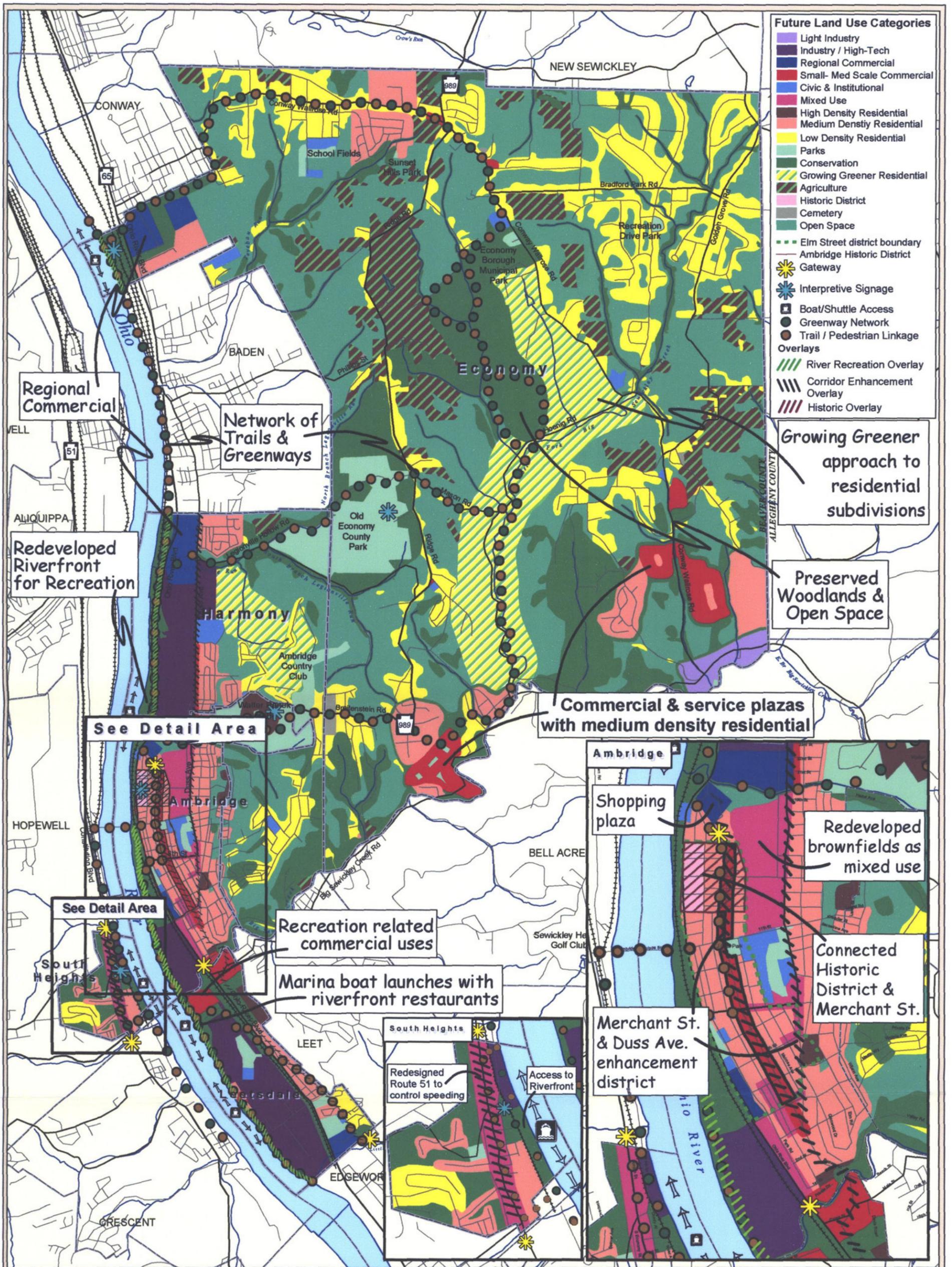


Special District



Amenities - gateways, sidewalks, screening, buffering, landscaping, street trees, lanterns, street furniture

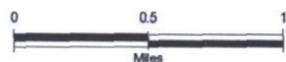




SHALE Area Regional Comprehensive Plan

Ambridge Borough, Economy Borough, Leetsdale Borough, Harmony Township & South Heights Borough

Future Land Use



Map Notes

Source: Pennsylvania Spatial Data Access & Beaver County GIS data
Map projection: State Plane NAD 1983 units = feet

The project is funded in part by the Pennsylvania Department of Community and Economic Development Land Use Planning and Technical Assistance Program and the Local Government Academy Multi-Municipal Comprehensive Planning Grant Program



Description of the Future Land Use Map

What follows is a detailed description of the future land use map indicating areas targeted for reinvestment and growth as well as areas that should be preserved and enhanced on a regional and municipal level.

Regional Highlights
- Create greenway corridor and pedestrian linkages between the river, regional assets, neighborhoods, and mainstreets
- Highlight the historic (such as Legionville and Old Economy Village), recreational, and cultural assets within the region and link them through trails, interpretative signage, and greenways
- Promote the expansion of Old Economy Park into Harmony Township and acquire additional land in Economy Borough to enhance the regional park as an asset for the SHALE communities
- Promote and enhance the Ohio River and riverfront as a regional asset with targeted areas for marinas, restaurants, trails, and a waterfront pedestrian promenade
- Reinvest in the existing industrial and manufacturing parks in Ambridge, Leetsdale, and Harmony and expand uses to include high-tech and office developments and live/work housing types, where appropriate
- Encourage corridor enhancements (including access management, design, and signage standards) along the primary arteries of Route 51, Merchant Street, and Duss Avenue
- Establish gateways that orient travelers and facilitate connections between neighborhoods, historic districts, and main streets

Municipal Highlights
SOUTH HEIGHTS
- Target Route 51 as a mixed-use corridor with consistent corridor enhancements. Encourage more medium to small-scale commercial businesses, offices, and public services along the corridor.
- Develop gateways at the north and south entrance to South Heights on Route 51 to define a mainstreet focal point for the community.
- Encourage enhancing the waterfront for greenways, trails, and a location for a small marina with boat shuttle access, and an outdoor entertainment area.
- Extend a well-marked pedestrian connection up to and across the Ambridge/Aliquippa Bridge
- Target appropriate locations for medium density residential housing (townhouses and condos) along the hillside with views and pedestrian linkages to the river. Encourage environmentally sensitive design, yet discourage ridgeline development in order to preserve scenic views.

Section 2

H A R M O N Y	
-	Designate Ambridge Country Club and surrounding area for high-end conservation subdivision design housing development
-	Target Duss Avenue as a commercial corridor with aesthetic enhancements and access management
-	Designate northern portion of land across from Logan's Lane as regional commercial, yet preserve historical significance on the site and incorporate it within the site design
-	Designate northern portion of the industrial area/brownfields site along Duss Avenue within Harmony for high-tech and office uses

A M B R I D G E	
-	Designate the Ace Hardware site and surrounding parcels as "mixed-use" to allow for a variety of businesses, offices, and residential units
-	Designate medium to high density residential development near Walter Panek Park. Incorporate and integrate the design to take advantage of green space and views.
-	Develop and reinvest in the Ambridge Duss Avenue industrial corridor as a mixed-use commercial and residential area that incorporates civic spaces. (Bridges of Ambridge Site)
-	Enhance and market Ambridge's "Old Town", "Downtown", and "Midtown" districts
-	Link Old Economy Village to Merchant Street through design and interpretive signage
-	Revitalize existing neighborhoods in the Elm Street area
-	Develop gateways/doors on the north and south sides of Ambridge
-	Designate the area along Ohio River Boulevard, between 2nd Street and 4th Street, for mixed-use development
-	Extend corridor enhancements north and south along Merchant Street and along Duss Avenue
-	Promote small to medium scale, locally-owned businesses in Ambridge's business district along Merchant Street with facade & streetscape enhancements to industrial and manufacturing facilities.
-	Redevelop Old Economy Plaza in Ambridge (where Foodland is located) as a regional commercial site

LEETSDALE

- Link archeological sites along the Ohio River to Leetsdale and other cultural and historic assets through interpretive signage, trail, and pedestrian linkages.
- Utilize the existing boat dock area for river recreation, entertainment, and related commercial uses. Incorporate riverfront housing/condos, where appropriate, yet conserve and incorporate the environmental features in the design.
- Create riverfront boating and shuttle opportunities and clearly define water zones and policies so there are no conflicts with industrial and manufacturing water modes of transport
- Promote bass fishing as a recreational amenity along the Leetsdale waterfront.
- Link the riverfront to the Leetsdale neighborhoods with clearly designated pedestrian linkages and signage
- Designate a portion of the northern hillside along Beaver Street for innovative and affordable townhouses (yet be sensitive to steep slopes, landslides, and environmental features)
- Encourage pedestrian and bicycle linkages with the Quaker Village Shopping Center
- Preserve existing green space/wetlands within the industrial park and create passive trails and seating areas with interpretive signage
- Promote corridor enhancement along Beaver Road focusing on streetscape design for residential areas

ECONOMY

- Preserve area surrounding the "Sportsman's Club" and the large wooded green space behind (southwest) of the municipal building for public open space and incorporate it into the regional greenway and trail network. The area has been designated as a Keystone Recreation Area.
- Designate additional institutional, civic, and recreational uses around the municipal building and the community park to serve as a focal point for the municipality.
- Designate mixed-use commercial and medium density residential nodes for future development along Conway Wallrose Road as well as Big Sewickley Creek Road
- Designate Northern Lights Shopping Center as a regional commercial center incorporating medium density housing, and innovative site design respecting environmental assets
- Link Northern Lights Shopping Center and medium density housing to the Waterfront through pedestrian connections and greenways.
- Designate the eastern area along Big Sewickley Creek Road as light industrial and manufacturing that is consistent with existing uses in the area yet incorporates appropriate buffers and screening in site design.
- Promote conservation subdivision design along the Harmony and Conway Wallrose Road residential developments. Opportunities exist for incorporating scenic views within subdivision design.
- Continue to extend low density residential in the northern portion of the Borough where water and sewer infrastructure can support future development.

Section 2

Future Land Use Scenario

3. How to Use the Future Land Use Scenario

The future land use scenario is a conceptual guide for establishing growth management policies. It will assist the SHALE region when making future decisions regarding growth and development and identifying the appropriate land use tools to implement the plan. Therefore, it is not meant to be a zoning map, which is a specific land use tool that delineates land uses into districts and outlines permitted uses for those districts. However, the future land use scenario can serve as a guide for incremental zoning and subdivision ordinance amendments after adoption in municipalities with zoning.

The future land use scenario provides a foundation for new development. When considering a proposed development, the important questions to ask a developer during plan review include: "How will the proposed development impact an adjacent site? Does the proposed building fit the scale and intended character of a particular streetscape and neighborhood? How will adjacent streets and sidewalk connections fit together? How much traffic will be generated? Where and what type of landscaping is proposed? How will stormwater run-off be handled? What effect will this plan have on the future development of the area? "

Many times a proposed development will be designed by examination of the site only. It is the responsibility of the municipal planners and decision makers to examine the context within which a site is proposed and determine the level of continuity and compatibility between the uses. Ultimately, municipal officials, developers, and planners should answer the question, "Does this development plan fit into the vision, goals, and desired land use pattern as stated in this scenario?"

4. Growing Greener Conservation Subdivision Design

A recent trend in residential subdivision design being promoted by the Pennsylvania Department of Conservation and Natural Resources Growing Greener Program is the concept of Conservation Subdivision Design.

The main objective of this approach is to preserve open space and environmentally sensitive lands through the land development process. It uses the zoning ordinance and subdivision and land development ordinance as the key implementing tools. This approach has been displayed as one method to preserve rural character and open space areas while allowing for residential development to meet the housing needs in the region.

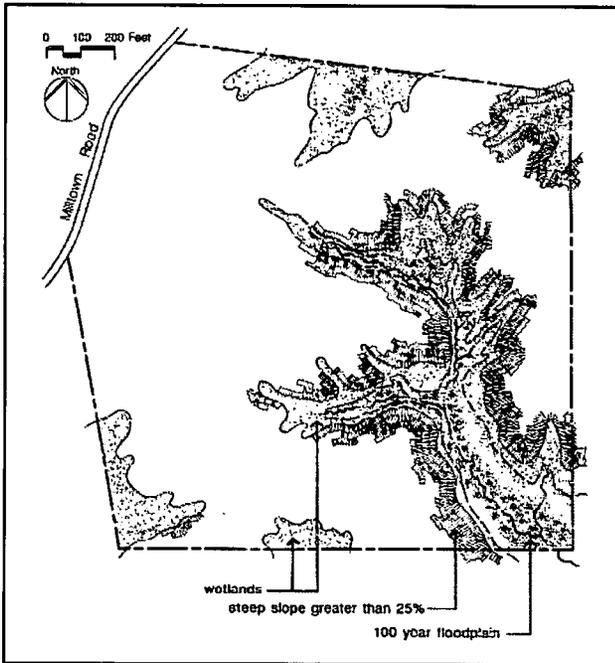
An important feature of conservation subdivision design is the separation of lot size from density. Traditionally, many municipalities have used a minimum lot size to establish the number of dwelling units permitted to be developed on a given parcel. This method, known as conventional subdivision design, promotes the covering of the total parcel with house lots and/or streets. Conservation Subdivision Design assumes a density-neutral approach that yields the same number of lots attainable under the conventional design, yet arranges the layout of each parcel so that a minimum of 50% is preserved as open space over and above those areas that are floodplain, wetlands, or steeply sloped.

Some of the benefits of conservation subdivision design include:

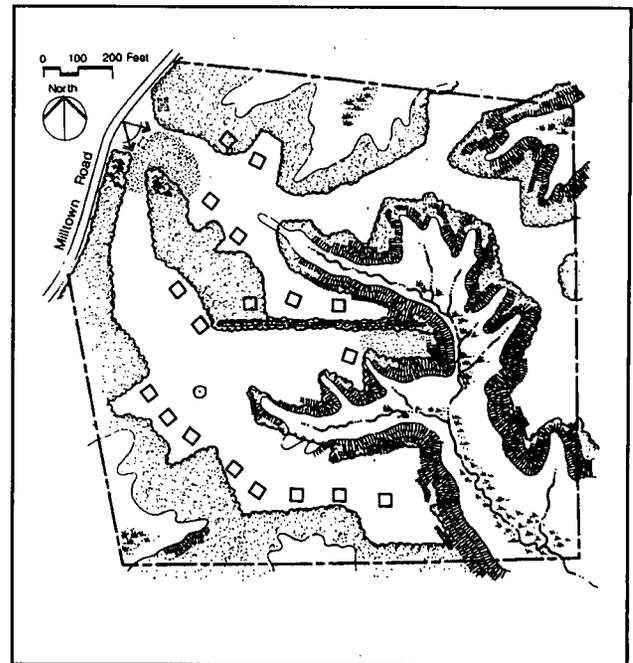
1. Lower cost of development: conservation subdivision design provides opportunities to reduce infrastructure, engineering, and construction costs. For example, conservation subdivision design will utilize less land for building roads due to the more compact layout.
2. Marketing Advantage: The homes in conservation subdivisions back natural areas and open space and can front public greens. People tend to pay more to live in park-like settings. Homebuyers value the privacy the layout provides and the scenic views.
3. Wildlife Management: Conservation subdivision design promotes preserving open space that can be connected to a green network outside the subdivision. This helps in protecting contiguous land as habitat for wildlife.
4. Protecting Water Quality: The approach protects water quality and groundwater through improved stormwater management, buffering of streams, and preserving wetlands.

Conservation subdivision design uses a four step process in lot layout that help to prevent the natural features. The process is outlined below.

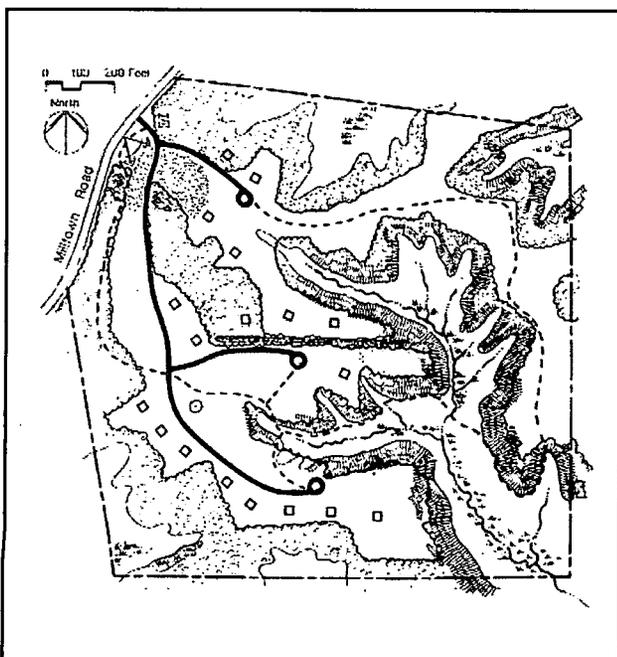
Step 1: Identifies land that should be permanently preserved, e.g., wetland, flood prone areas, steep slopes, mature woodlands, stream corridors, prime farmlands, etc.



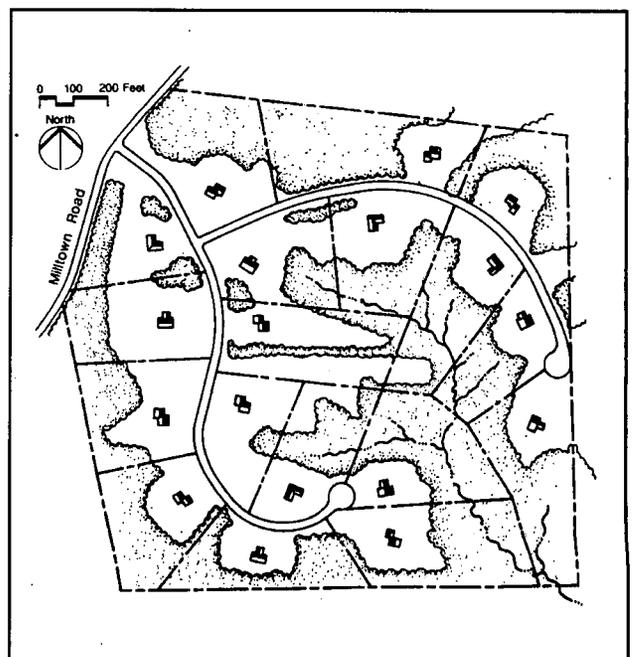
Step 2: Locates the individual home sites to maximize the open space, maintain view, and preserve the character of the area.



Step 3: Involves drawing in the potential streets and trails to connect the home sites



Step 4: Concludes with drawing of the lot lines.



5. The Relationship to Existing Land Use Regulations

Below is a description of the relationship of the future land use scenario to existing zoning regulations and districts in each of the municipalities. Section III -- the Action Program outlines more detailed strategies to update existing zoning and subdivision and land development regulations to meet the goals and vision of the SHALE plan. It also outlines opportunities to explore sharing of zoning across municipal boundaries including the steps to take for developing joint ordinances. Additional information about the existing ordinances is summarized in Section I (pages 107 - 109)

South Heights

South Heights Zoning Ordinance, written in 1978, contains the following three districts: single family urban residential district, multi-family urban residential district, and a general industrial district.

The vision and future land use map targets the following uses for South Heights: conservation, medium-density residential, low density residential, mixed-use, commercial, and industrial/high-tech. The future land use map also designates the Route 51 corridor for access management and establishing design guidelines within the heart of South Heights. Gateways are designated to define the core. The riverfront is designated for greenway and recreational enhancements. Ordinances should be updated to encourage the new uses in a cohesive, compatible manner.

Harmony

Harmony's zoning ordinance, revised in 2003, provides for the following zoning districts: R-1 residential, R-2 residential, commercial, and industrial.

The vision and future land use map for the SHALE region targets Harmony Township for the following uses: recreational conservation areas, conservation approaches to residential development such as conservation subdivision design, Planned Residential Developments, and cluster housing developments, regional commercial, industrial/high-tech/office, medium density residential, low-density residential, and civic/institutional uses. Consider developing additional districts consistent with the future land use map, updating the existing ones, or allowing for a variety of uses with more detailed performance and design standards.

Ambridge

The Ambridge zoning map was last updated in 2002 and the ordinance itself was written last in 1993. It includes the following districts: slope district, single family detached, single family residential attached, multi-family residential, mixed-use, general commercial, highway commercial, public/civic, manufacturing, industrial, historic overlay district, conservation overlay, planned residential development overlay, and a downtown mainstreet overlay.

The SHALE vision and future land use map targets the uses and design of the following areas somewhat differently. Therefore, updates should be made to Ambridge's ordinances to encourage the following designations or to incorporate the ideas within site design requirements in the subdivision and land development ordinance.

- Additional mixed-use areas are outlined around the Ace Hardware site, along Duss Avenue, and along Merchant Street.
- High density residential near the fly ash dump near Walter Panek Park.
- Designating Old Town, Mid-Town, and downtown on the zoning map and developing overlay design standards that are specific to the character of each.
- Promoting the design standards for enhancements through an overlay district further north and south along Merchant Street as well as along Duss Avenue.
- Incorporating access management and signage design standards along Route 65 and Duss Avenue.
- Redesignate the Old Economy Plaza in Ambridge as a regional commercial site.
- Provide for river recreation and conservation uses along the Ohio riverfront, where appropriate.
- Encourage the greenway linkages and multi-use trails within site development standards and districts, where appropriate.

Leetsdale

The Leetsdale zoning ordinance was last revised in 1991. It contains the following zoning districts: R-1 single family residential, R-2 single family residential, R-3 multiple family residential, R-M Multiple Family Residential and Neighborhood Commercial, R-SC Senior Citizen Multiple Family Dwelling, C-Commercial, I-Industrial, and S-Special.

The SHALE vision and future land use scenario outlines the following land uses or character and design styles, which are different from what is allowed or promoted in the existing ordinance. Updates should be considered to reflect or allow for the following:

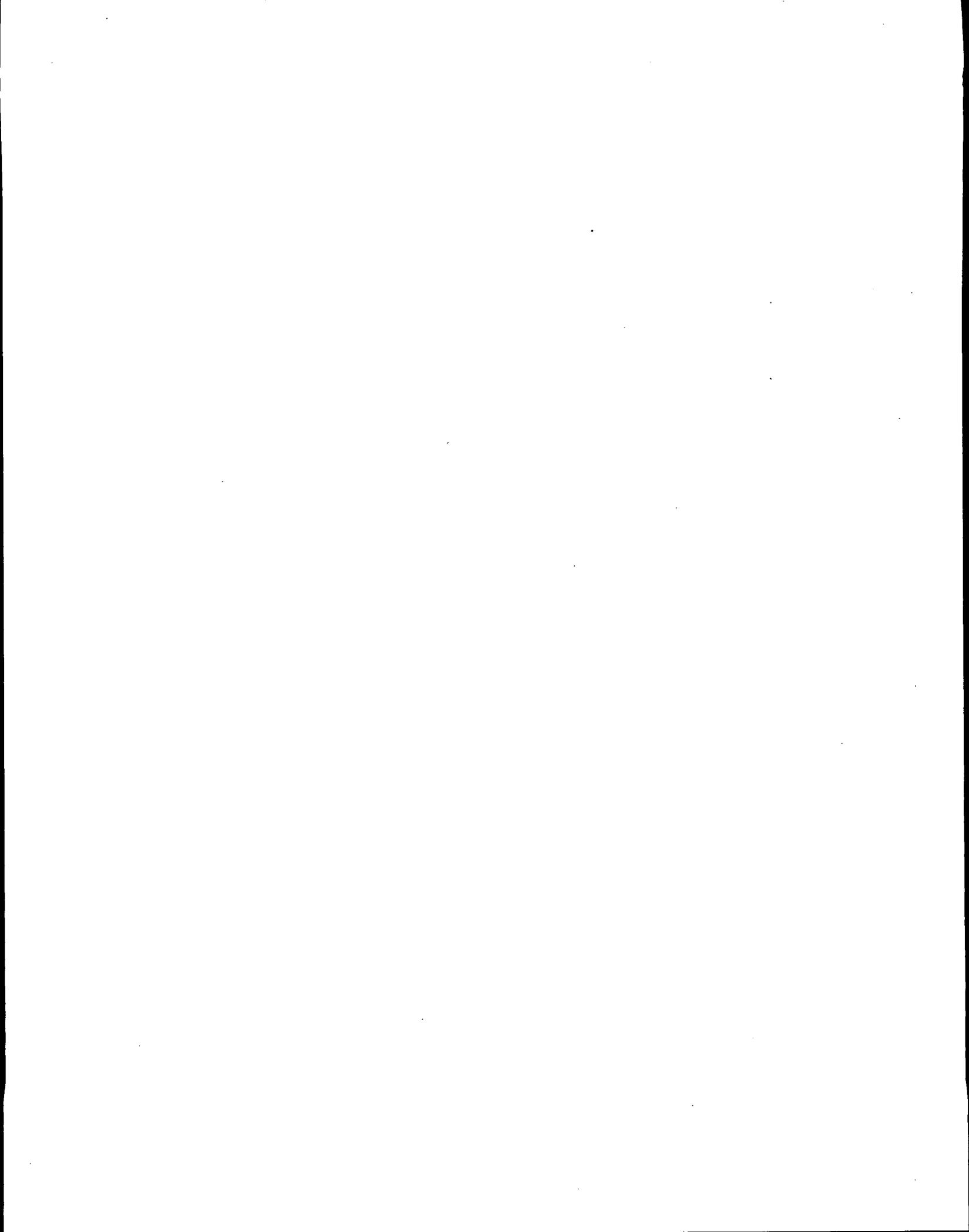
- preservation of the land surrounding the archeological dig site and wetland site
- development of a greenway and trail network through conservation zones as well as site development guidelines and easements
- historic preservation guidelines for certain areas and buildings (specifically the Leetsdale Borough building)
- provide for river recreation and conservation uses near the riverfront as well as commercial and housing opportunities along the riverfront in appropriate locations
- allow for new medium density residential along Beaver Street with environmental and slope development guidelines
- designate Beaver Street for additional streetscape enhancements, potentially through an overlay district.

Economy

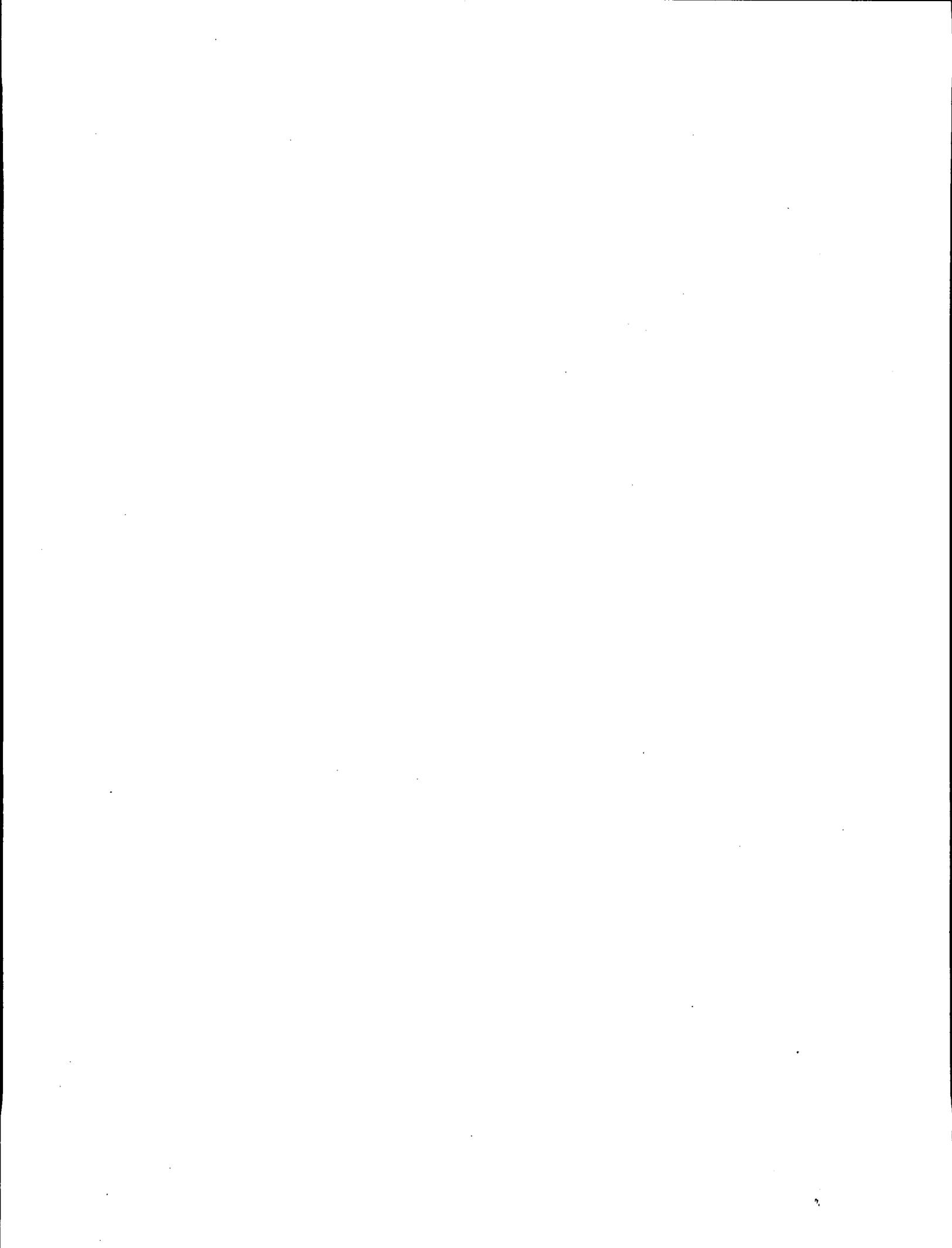
Economy Borough's ordinance was updated last in 1997. The ordinance contains the following zoning districts: RA - Agricultural/Rural Residential District, R-1 Restricted Residential District, R-2 Suburban Residential District, R-3 Limited Residential District, C-1 General Commercial District, and I- Industrial District.

The SHALE vision and future land use scenario target Economy Borough for the following uses, which differ slightly from Economy Borough's zoning ordinance or may require additional provisions and incentives.

- Conserving the wooded land and open space surrounding the "Sportsman Club", behind the municipal building for public open space and recreational opportunities
- Designate a larger area surrounding the municipal buildings for public and institutional uses such as a community and recreational center. Idea of the area is to create a focal point, gathering place, for the community
- Add additional residential districts and standards that will promote growing greener styles of residential development. Consider conservation subdivision design, Planned Residential Developments, and cluster styles of residential development.
- Consider updating residential development regulations so that they include standards for sewered areas and areas that are not sewered, to help manage growth. Consider developing a multi-use medium density residential district that will allow for a variety of housing styles and densities such as townhouses, condominiums, senior homes, and quadplexes. Several areas have been designated for a medium-density residential with the intention allowing a variety of residential uses to be permitted.
- Develop a light industrial and manufacturing district with buffering standards and impact standards for the areas designated along Big Sewickley Creek Road
- Develop a medium to small scale commercial district and medium density residential district and incorporate design standards that encourage site design principles that promote a sense of place (parking to the side or rear, signage standards, and architectural guidelines, and pedestrian orientation)
- Develop a conservation district or overlay to encourage greenways and trail development. Explore alternative standards to promote trail development such as easements and dedicated lands.
- Consider providing a river recreation overlay or applying a conservation district along the riverfront to allow for future opportunities along the Ohio River
- Consider designating the Northern Light's Shopping Center for regional commercial uses



Section III
“How Do We Get There”
The Action Plan





Components of the Action Plan

Section III answers the question "How do we get there?" by creating an action plan for implementation. It includes implementation strategies for achieving the vision and objectives of the plan with respect to the following goals:

- A Strong Economy Supported by Economic Development Opportunities and Tourism
- Preserved and Enhanced Cultural and Historic Resources
- Effective Marketing and Public Relations
- Strong Land Use and Growth Management Planning
- A Positive Community Image
- High-quality Social Services and Community Education
- A Diverse Community
- Commitment to Intergovernmental Cooperation
- Abundance of Parks and Recreation Opportunities
- Protected Open Space and Natural Resources
- High-quality, Affordable Housing
- Good Public Services - A Safe Community
- Effective Transportation System
- Efficient Water and Sewer Infrastructure

The action plan contains tables that include categories for strategies, priorities, responsible and participating parties, potential funding sources, and deliverables or measurable outcomes. The following definitions are provided to aid in interpreting the action plan:

Strategy: A plan of action intended to reach a specific goal.

Priority: Categorized based on the importance of each strategy into high (h), medium (m), and low (l).

Responsible and Participating Parties: Those agencies, organizations, or public entities responsible for implementing the strategy.

Potential Funding Sources: Local, State, or Federal sources that may be available to fund the activity.

Deliverable or Measurable Outcome: Products or milestones that can be used to assess progress on and/or attainment of the goal.

Record of Action: Intentionally left blank and used to track progress in carrying-out each strategy.

Section 3

Components of the Action Plan

The strategies presented are intended to provide guidance to decision-makers and implementers of the plan on the key planning issues that have been identified throughout the planning process. In addition, it is the responsibility of all citizens to ensure that their objectives are being met. Continued citizen participation throughout the implementation process is essential. Furthermore, successful implementation will require continued cooperation among all stakeholders from the public, private, and non-profit sector. For this reason the project steering committee should remain active participants in the implementation of the plan.

The SHALE Regional Planning Commission, consisting of one member from each municipality, will oversee the implementation of the Comprehensive Plan, such as the development of joint or separate but consistent zoning ordinances. It will operate in one of two ways. First, the SHALE municipalities may elect to supplant their individual planning commissions with the Regional Planning Commission, thereby centralizing planning functions in the region within a single body. In this case, the Regional Planning Commission would undertake all planning activities under the Municipalities Planning Code on behalf of the participating municipalities.

Alternatively, the SHALE municipalities may decide to retain their individual planning commissions. To avoid overlapping jurisdiction between the local and regional planning bodies, the Regional Planning Commission would be given authority for only those functions specified in Article XI of the Municipalities Planning Code. Such responsibilities would include assessment and approval of Developments of Regional Significance and Impact, as well as review of new or amended zoning ordinances, capital improvement plans, subdivision and land development ordinances and similar instruments for consistency with the Comprehensive Plan. Local planning officials, under this option, would retain responsibility for all other planning duties under the Municipalities Planning Code.

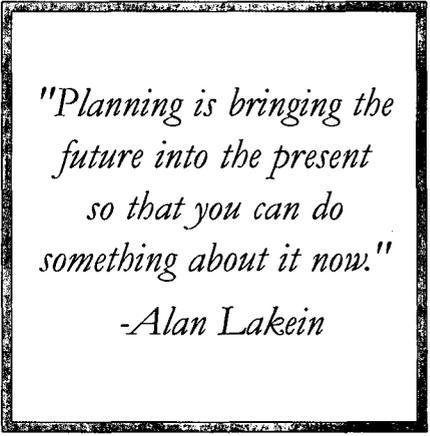
In addition, the Regional Planning Commission will act as a general facilitator of the Action Plan. It will bring together the parties designated to implement the strategies and provide them with information about resources needed to achieve them. In this role, the Regional Planning Commission will not do the work, but will set the stage for those who do.

The responsibilities of the Regional Planning Commission should be explicitly defined in an Intergovernmental Cooperation Agreement for Implementation executed by the SHALE municipalities

Several groups already exist that have the expertise to implement many of the plan's objectives. These include:

- Ambridge Revitalization Development Corporation (ARDC)
 - Industrial Council
 - Downtown Development Council
 - Residential Council
 - Historic District Economic Development Council (AHDEDC)
- Ambridge Area Brownfields Partnership (AABP)

These groups have considerable experience in the areas of economic development, brownfields revitalization, residential development and preservation and promotion of historic resources. The action plan advocates that the membership of these groups be expanded to include representation from other SHALE municipalities, where appropriate, to share information, expertise and resources. In some cases, the plan suggests that other municipalities establish similar councils to implement strategies specific to their communities.



"Planning is bringing the future into the present so that you can do something about it now."
-Alan Lakein

Where no such groups exist, the action plan recommends the formation of action committees to undertake strategies within one or more goal areas. Each action committee should seek at least one representative from every SHALE municipality. Some of their efforts will be hands-on work while other efforts will involve coordinating discussions, planning events, meeting with business owners, and writing grants. The formation of action committees is recommended in the following areas:

- Marketing
- Social Services/Education
- Greenway and Trails

The Appendix contains a detailed table of financial assistance programs for businesses and communities that are relevant to the strategies identified in this action plan. These programs should be tapped for resources to implement the plan.

Through continued coordination and cooperation in the implementation of the following action plan, the municipalities hope to make the SHALE Vision a reality and shape a brighter future for the region.

A STRONG ECONOMY SUPPORTED BY ECONOMIC DEVELOPMENT OPPORTUNITIES AND TOURISM

Creating jobs, redeveloping brownfields and harnessing the economic potential of the SHALE region's unique historic and cultural resources were prominent themes that emerged throughout the public participation process. The area is still working to recover from the collapse of the metals manufacturing industry and to recreate a stable economic base. Many citizens and local leaders see this as the region's greatest challenge and highest priority.

The Steering Committee has developed three major goals aimed at stimulating economic development, revitalizing vacant properties and brownfields, and boosting tourism in the region. They are:

- Encourage partnerships among economic development organizations and companies to leverage business development and create job opportunities;
- Capitalize on existing historic, cultural, economic, and recreational assets to generate tourism opportunities and business development; and
- Revitalize existing industrial, commercial, and vacant areas (including brownfields) and identify business and land use opportunities for economic development.

The Borough of Ambridge has been proactive in establishing organizations, obtaining funds and implementing programs aimed at economic development. Specifically, the Ambridge Revitalization Development Corporation has spearheaded a number of successful initiatives through its Industrial Council, Downtown Development Council and Historic District Economic Development Council. As members of the Ambridge Area Brownfields Partnership, Ambridge and Harmony have worked together with other agencies to pursue cleanup and redevelopment of their brownfield sites. Many of the recommendations included below expand upon and urge broader participation in these efforts.

Moreover, the SHALE region possesses historic, cultural and recreational assets that have significant economic potential for the region. Old Economy Village and the surrounding historic district have major tourism potential. The Historic District Economic Development Council, Harmonie Associates and other groups have been working to enhance and promote these assets that, in turn, will generate new jobs and investment. Links to other historic sites in Southwestern Pennsylvania should also be pursued. Promotion of local natural assets such as riverfronts and parks can also attract important recreational tourism. The actions listed below will assist the SHALE municipalities in more fully realizing the economic potential of these assets.

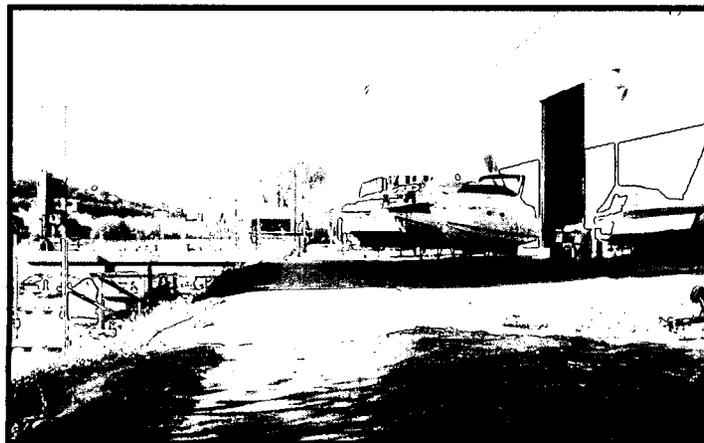


Table 3.1

Economic Development Opportunities and Tourism: Encourage partnerships among economic development organizations and companies to leverage business development and create job opportunities						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Encourage ARDC to share its experience in economic development strategies and fundraising with other SHALE municipalities.	H	ARDC, Elected Officials	Minimal Cost	Within 1 year, ARDC to hold workshop or meet with other SHALE municipalities	
2	Expand the existing Industrial Council to include all SHALE municipalities	M	Industrial Council, Elected Officials	Minimal Cost	Representatives from other municipalities appointed within six months to one year	
3	Sponsor a Regional Economic Summit similar to the Ambridge Economic Development Summit with participation from SHALE and other neighboring municipalities.	M	ARDC, Beaver Cty Department of Planning and Economic Development, Ambridge Chamber of Commerce	DCED, County and Local Funds	Within 18 months, plan and hold economic summit	

Table 3.2

<u>Economic Development Opportunities and Tourism:</u> Capitalize on existing historic, cultural, economic, and recreational assets to generate tourism opportunities and business development						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Communicate with other historic, cultural & recreational sites in the region (historic Harmony, Beaver historic district) to jointly promote tourism to the area.	H	Beaver Initiative for Growth (BIG), Beaver Cty Recreation and Tourism Dept., AHDEDC	County and Local Funds	Within two years, establish a joint marketing campaign and produce joint marketing materials	
2	Support regional effort to expand commercial investment in Ambridge Historic District.	H	SHALE Regional Planning Commission, AHDEDC	DCED Main Street, Downtown Reinvestment/Anchor Building funds, Historic Tax Credits	Within one year, jointly apply for a grant to support the marketing campaign	
3	Identify and apply for new sources of funding to market region's exceptional historic, cultural and recreational assets such as Old Economy Village, Legionville and Old Economy County Park.	H	Marketing Action Committee	DCED Heritage Tourism Cooperative Marketing Grants, First Industries Fund for Tourism, Local Funds	Within one year, jointly apply for a grant to support the marketing campaign	
4	Work with landowner to commemorate the Legionville site.	M	SHALE Regional Planning Commission	DCED Heritage Tourism Cooperative Marketing Grants, First Industries Fund for Tourism, PHMC technical assistance and grant programs	Within three years, produce a plan to commemorate the site.	

Table 3.3 (continued on next page)

<u>Economic Development Opportunities and Tourism:</u> Revitalize existing industrial, commercial, and vacant areas (including brownfields) and identify business and land use opportunities for economic development						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Support efforts to complete redevelopment projects underway such as the Northern Ambridge Redevelopment Project (Bridges of Ambridge).	H	Industrial Council, Ambridge Area Brownfields Partnership, Beaver Cty Redevelopment Authority	DCED Housing and Redevelopment Program	Within one year, secure funding for demolition and remediation; within 2 years, demolition and remediation shall be underway.	
2	Promote new business and high technology development in the existing industrial areas and other appropriate locations with access to intermodal transportation facilities.	H	Industrial Council, Ambridge Area Brownfields Partnership, Ambridge Chamber of Commerce	DCED Community Revitalization Program	Within one year, produce an inventory of sites where high tech access is available; within 18 months produce a marketing piece for these sites	
3	Expand Ambridge Area Brownfields Partnership to include South Heights.	H	Ambridge Area Brownfields Partnership, S. Hts. Elected Officials	Minimal Cost	Within 6 months, have representatives from South Hts appointed	
4	Continue to reinvest in existing developed areas by encouraging adaptive reuse of buildings and brownfield sites	M	Industrial Council, Ambridge Area Brownfields Partnership	DCED Community Revitalization Program, Urban Development Program	Within two years, complete an inventory of all developable sites.	
5	Promote infill development in existing communities	M	ARDC, Elected Officials	DCED Community Revitalization Program, Urban Development Program	Within two years, provide plans and guidance documents for narrow lot development.	

Table 3.3 continued

<u>Economic Development Opportunities and Tourism: Revitalize existing industrial, commercial, and vacant areas (including brownfields) and identify business and land use opportunities for economic development</u>						
6	Examine cleanup & reuse of former Duquesne Light plant & office building, using strategies employed by the Ambridge Area Brownfields Partnership as a model.	M	Ambridge Area Brownfields Partnership, S. Hts. Elected Officials	DEP Brownfields Inventory Grant, PENNVEST brownfields remediation loan, DCED Housing and Redevelopment Program	Within three years, conduct a feasibility study and, if feasible, engage a consultant to prepare blight certification and a redevelopment area plan	
7	Continue to pursue reuse of former American Bridge headquarters to include a national bridge museum that would focus on the history, architecture and functions of bridges.	M	AHDEDC, Ambridge Elected Officials	PHLF Preservation Loan Fund, Historic Tax Credits, PennDOT Transportation Enhancements Program, local foundations, corporate funding	Within 3 years, meet with developers that have developed similar projects to show them the facility.	

PRESERVED AND ENHANCED CULTURAL AND HISTORIC RESOURCES

Cultural and historic assets not only have economic value, but contribute to the overall quality of life in the SHALE region. Old Economy Village, the Ambridge Historic District, ethnic churches and social halls and Legionville all contribute to the rich history of the area. Several architecturally significant buildings have been designated as eligible for listing on the National Register of Historic Places and several others may be eligible. Working to enhance, connect and market these resources has been identified as a high priority by citizens and public officials.

Recognizing the tremendous value of these resources to the SHALE region, the Steering Committee has established two goals under cultural and historic resources: They are:

- Preserve valued historic structures/sites located in the SHALE region; and
- Increase awareness of the cultural, historic, recreational and educational opportunities in the SHALE region through coordinated marketing and public relations efforts.

Because the town of Ambridge grew in and around the historic structures of "Economie," a former home of the Harmonist Society, some integrity of the original village has been lost outside of the State historic site. While this cannot be reversed, Ambridge has adopted design standards that apply to any renovation or new construction within the Historic District. Enforcement of design standards and education of residents are key strategies needed to enhance the historic character of the Ambridge Historic District.

The action plan also recommends that the SHALE municipalities explore the feasibility of listing of other historic structures on the National Register. Possible candidates include Leetsdale's municipal building and the former headquarters of the American Bridge Company in Ambridge.

NATIONAL REGISTER OF HISTORIC PLACES LISTING PROCESS

- 1) Prepare a nomination to the National Register; generally nomination forms are documented by property owners, local governments, citizens or State Historic Preservation Office (PHMC) and are submitted to a State review board.
- 2) The review board will make a recommendation to PHMC either to approve the nomination if, in the board's opinion, it meets the National Register criteria, or to disapprove the nomination if it does not.
- 3) During the time the proposed nomination is being reviewed, property owners and local officials are notified of the intent to nominate and public comment is solicited. Owners of private property are given an opportunity to concur in or object to the nomination.
- 4) If the owner(s) of a private property objects to the nomination, the historic property cannot be listed in the National Register. In that case, PHMC may forward the nomination to the National Park Service only for a determination of eligibility.
- 5) If a majority of private property owners has not objected to listing, PHMC will forward the nomination to the National Park Service to be considered for registration.]

Raising awareness and effective marketing of historic assets is also needed to build local pride and to attract visitors. The action plan recommends that the municipalities jointly develop a website and undertake a marketing campaign that would disseminate information about the SHALE region's exceptional cultural and historic features.

Table 3.4

Cultural and Historic Resources: Preserve valued historic structures/sites located in the SHALE region						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Continue to enforce design standards in the Ambridge Historic District and educate property owners and prospective buyers about these standards and their benefits. Develop a summary of the design standards for realtors.	H	Historic Architectural Review Board (HARB)	National Trust Preservation Services Fund Grant, PHMC grant programs	Within 12 months, hold a workshop for realtors and produce a fact sheet	
2	Look at feasibility of listing Leetsdale's Municipal Building and the former American Bridge Company headquarters on the National Register of Historic Places.	H	Municipal Elected Officials	National Trust Preservation Services Fund Grant, PHMC grant programs	Within 18 months, reach a decision about whether to submit an application	
3	Explore opportunities to develop an interpretative center for the artifacts uncovered at the archeological dig site along the Ohio River in Leetsdale.	M	Leetsdale Elected Officials, Sewickley Valley Historical Society	National Trust Preservation Services Fund Grant, Local funds, PHMC grant programs	Within 12 months, submit a grant for a feasibility study.	
4	Link cultural and historic resources within the SHALE region through trails and pedestrian connections and interpretative signage specific to the SHALE region. Incorporate these connections within a greenway and trails plan.	M	Municipal Elected Officials	PennDOT Transportation Enhancements Program, DCNR	Within three years submit a grant for plan preparation; within five years build a segment as a demonstration project	
5	Inventory other buildings of historic significance in the SHALE municipalities.	L	Municipal Elected Officials	National Trust Preservation Services Fund Grant, PHMC grant programs	Within five years, complete a thorough inventory	

Table 3.5

Cultural and Historic Resources: Increase awareness of the cultural, historic, recreational, and educational opportunities in the SHALE region through coordinated marketing and public relations efforts						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Develop a SHALE website to include detailed information about the cultural, historic, recreational and educational opportunities in the region	H	Marketing Action Committee	Beaver Cty Tourism, Local Funds	Within one year, have website up and running	
2	Develop a joint marketing and public relations campaign that highlights the unique historic and cultural heritage of the region. Build on efforts already underway by Harmonie Associates and the AHDEDC.	H	Marketing Action Committee, Harmonie Associates, AHDEDC, Consultant	DCED Heritage Tourism Cooperative Marketing Grants, First Industries Fund for Tourism, Local Funds	Within one year, jointly apply for a grant to support the marketing campaign	

Section 3

Components of the Action Plan

EFFECTIVE MARKETING AND PUBLIC RELATIONS

Maximizing the value of SHALE Region's many assets can only be achieved through a well-packaged marketing campaign. This campaign will work hand-in-hand with other strategies to help achieve many of the SHALE plan's goals. For instance, aggressive marketing of well-situated brownfield sites can aid in redevelopment efforts. Publicizing historic and cultural sites will bring increased tourism, and savvy marketing of community benefits such as schools, housing affordability and convenient location will attract new homebuyers.

The Marketing and Public Relations goals are:

- Support activities to market SHALE internally and externally to attract new residents and businesses to the area.
- Market the positive assets of the region to young professional and families.

The action plan advocates establishing a Marketing Action Committee that will hire and work with professionals to develop a marketing campaign. The Committee will also identify potential funding sources and prepare grant applications. Where strategies relate to housing, the Residential Councils should also be involved in their implementation.

Publicity should stress the unique features of SHALE municipalities: distinct neighborhoods offering a variety of affordable housing; the predominance of small, family-owned businesses; residents' diverse cultural backgrounds; the rich history; and the many successes in attracting reinvestment to the area. A well-crafted and widely disseminated positive message can help bolster the public's perception of the SHALE Region as an up and coming place to live, work and play.

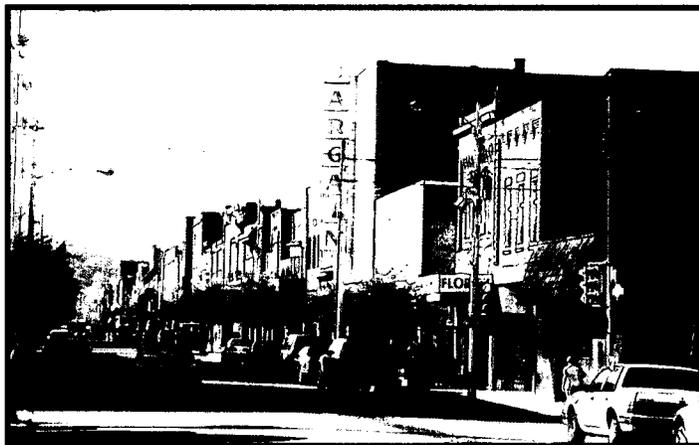


Table 3.6

Marketing and Public Relations: Support activities to market SHALE internally and externally to attract new residents and businesses to the area						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Establish a Marketing Action Committee that would coordinate implementation of strategies under Marketing and Public Relations.	H	Steering Committee, Elected Officials	Local Funds	Within six months, hold first meeting	
2	Locate sources and apply for funding for the marketing campaign	H	Marketing Action Committee	DCED Heritage Tourism Cooperative Marketing Grants, Housing and Redevelopment Assistance Program, Local Funds	Within one year, apply for one or more grants	
3	Hire and collaborate with a professional consulting firm to develop a marketing campaign for the SHALE Region that would improve internal and external perception of the area.	H	Marketing Action Committee	DCED Heritage Tourism Cooperative Marketing Grants, Housing and Redevelopment Assistance Program, Local Funds	Within two years, hire a consultant; within three years, roll out marketing campaign	

Table 3.7

Marketing and Public Relations: Market the positive assets of the region to young professionals and families						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Stress the “real” character of SHALE communities that retain genuine neighborhoods and a large proportion of small, locally owned businesses rather than chain businesses found everywhere.	H	Marketing Action Committee, Residential Council	DCED Heritage Tourism Cooperative Marketing Grants, Housing and Redevelopment Assistance Program, Local Funds	Within three years, produce a marketing strategy and roll out campaign	
2	Highlight variety of affordable housing, walkable communities, historic character, recent Main Street and Elm Street investments in Ambridge, infrastructure investments in Economy, good schools, recreational and cultural opportunities, and proximity to airport, downtown Pittsburgh, and Cranberry.	H	Marketing Action Committee, Residential Council	DCED Heritage Tourism Cooperative Marketing Grants, Housing and Redevelopment Assistance Program, Local Funds	Within three years, produce a marketing strategy and roll out campaign	

STRONG LAND USE AND GROWTH MANAGEMENT PLANNING

Many of the comprehensive plan's goals will be put into practice through land use and growth management strategies. The SHALE Region's existing land use is varied, from the dense urban and/or industrial areas of Ambridge, Harmony and Leetsdale to the more suburban and rural settings of Economy and South Heights. While growth is essential to the region's economic health, the Steering Committee recognizes that growth must be balanced to promote revitalization of existing communities, quality new development and conservation of open space. To that end, it established the following goals:

- Encourage consistent land uses across municipal boundaries and the development of multi-municipal land use tools.
- Target areas for revitalization and future growth as well as rural resource areas for conserving open space in Economy Borough.

The action plan sets forth specific strategies such as the adoption of a joint zoning ordinance among the SHALE municipalities. The ordinance would incorporate a uniformly defined set of zoning districts consistent with the uses established in the multi-municipal comprehensive plan as shown on the future land use map. A joint zoning hearing board would be established to administer the joint zoning ordinance. If joint zoning is not achievable, the plan recommends that the SHALE municipalities adopt separate but consistent ordinances. Performance zoning is another tool that could be applied in certain districts. For example, these standards can be applied in mixed-use developments to ensure that noise, light and emissions from commercial or industrial uses meet certain limits that are compatible with residential uses.

Updating subdivision and land development ordinances is also recommended. The Regional Planning Commission is encouraged to establish context sensitive design standards that would, among other things, ensure that commercial and industrial developments are attractive, functional, and consistent with the surrounding neighborhoods and communities. Design standards would address building placement and orientation, pedestrian access, signage, landscaping, buffering of incompatible land uses, and traffic calming where needed.

The action plan also recommends establishing a process for the review of Developments of Regional Significance and Impact (DRIs) within the SHALE area. The committee would establish criteria to be used to identify DRIs, review any proposed DRIs in the SHALE region for consistency with the comprehensive plan and the future land use map, and make recommendations to the host municipality regarding the development.

The use of innovative land use tools in Economy Borough and parts of Harmony Township should be explored to help preserve their rural character. These tools, which can be incorporated into local zoning and other land use ordinances, include Planned Residential Developments, Cluster Style Residential Development and Conservation Subdivision Design.

Developments of Regional Significance and Impact are "any land development that, because of its character, magnitude, or location, will have substantial effect upon the health, safety, or welfare of citizens in more than one municipality."

- Pennsylvania Municipalities Planning Code, Section 107.

Section 3

Components of the Action Plan

SAMPLE LAND USE TOOLS TO PRESERVE OPEN SPACE

- Planned Residential Developments (PRDs) - In general, PRDs permit a developer to increase density in return for reserving a certain percentage of the developable land for public open space.
- Cluster Style Residential Development - this tool allows the developer to reduce lot size and setbacks in a residential district while maintaining the overall density requirements. It results in preservation of open space for recreation or habitat (although not necessarily public) and lowers both construction and maintenance costs due to more compact layout of infrastructure (roads, water lines and sewers).
- Conservation Subdivision Design - this method allows developers to develop at full legal density while preserving at least 50% as open space including sensitive environmental features and an interconnected network of conservation land. It involves four essential steps: (i) identifying conservation areas; (ii) locating residential sites; (iii) aligning streets and trails; and (iv) drawing in the lot lines. The Natural Lands Trust provides free trainings to interested municipalities and has published an in-depth workbook outlining the necessary steps.

Finally, the action plan advocates that the SHALE municipalities explore the potential for developing a Transfer of Development Rights (TDR) program and its feasibility in the region. TDRs allow landowners in areas where conservation is desired to transfer some or all of the development rights associated with their land (sending areas) to areas where growth is desired at densities in excess of that permitted by current zoning (receiving areas). Under the MPC, TDRs can be used only by municipalities that have adopted a joint zoning ordinance.



Table 3.8

Land Use and Growth Management: Encourage consistent land uses across municipal boundaries and the development of multi-municipal land use tools						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Jointly apply for LUPTAP and other funding to implement the strategies identified in the SHALE Multi-Municipal Comprehensive Plan.	H	SHALE Regional Planning Commission	DCED, Local Government Academy	Within six months, submit an application to DCED	
2	Explore the use of performance zoning in certain districts, which requires that proposed uses meet certain criteria rather than conform to a list of permitted uses.	H	SHALE Regional Planning Commission, Municipal Planning Commissions	DCED, Local Government Academy	Within one year, produce an evaluation for Regional Planning Commission of performance zoning.	
3	Adopt a joint zoning ordinance (or separate but consistent ordinances).	H	SHALE Regional Planning Commission, Municipal Planning Commissions	DCED, Local Government Academy	Within two years, adopt joint zoning ordinance	
4	Update existing subdivision and land development regulations to be consistent with the goals of the comprehensive plan and future land use map.	H	SHALE Regional Planning Commission, Municipal Planning Commissions	DCED, Local Government Academy	Within three years, adopt updated ordinances	
5	Explore opportunities to physically link industrial parks in Ambridge and Leetsdale using the Hussey Copper site. Encourage incorporation of consistent design standards and sharing of infrastructure.	H	SHALE Regional Planning Commission, Industrial Council	Local/County Funds	Within one year, complete a feasibility study.	
6	Establish consistent design standards and guidelines along the Route 65 and Route 51 corridors, as well as Merchant Street, Duss Avenue and Beaver Street.	M	SHALE Regional Planning Commission, Municipal Planning Commissions	DCED, Local Government Academy	Within five years, adopt design standards and guidelines	
7	Review proposed Developments of Regional Significance and Impact (DRIs) within the SHALE area.	M	SHALE Regional Planning Commission	DCED, Local Government Academy	Within three years, hold first Committee meeting.	

Table 3.9

Land Use and Growth Management: Target areas for revitalization and future growth as well as rural resource areas for conserving open space in Economy Borough						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Encourage use of innovative land use tools in Economy Borough and parts of Harmony Township to help preserve their rural character.	H	Regional Planning Commission, Municipal Planning Commissions	Technical assistance - Natural Lands Trust	Within six months, hold an informational seminar with the Natural Lands Trust	
2	Remediate and reuse the fly ash dump site adjacent to Walter Panek Park.	M	Ambridge Area Brownfields Partnership, Ambridge Elected Officials	DEP Land Recycling Program, DCED Housing and Redevelopment Program	Apply for remediation funding within two years	
3	Explore the potential for developing a Transfer of Development Rights (TDR) program	M	Regional Planning Commission	Technical Assistance - Brandywine Conservancy	Within three years, participate in an educational seminar about TDRs	

A POSITIVE COMMUNITY IMAGE

Improving the communities' image in the eyes of both residents and visitors is seen as an important goal. The loss of industry has had both physical impacts (abandoned properties) and psychological effects (loss of community pride) on the region. These impacts have led to poor property maintenance, inconsistent municipal planning and lack of citizen stewardship in some SHALE municipalities.

The action plan seeks to bolster community image through attainment of three main goals:

- Encourage an aesthetically pleasing community image of the SHALE region using design guidelines that reflect the overall character of the area.
- Encourage private property maintenance that doesn't detract from the aesthetics of the SHALE region.
- Encourage residents to be stewards of the environment.

Some of the strategies will be implemented through changes to ordinances and design standards so that new construction and renovation of existing structures is of high quality and compatible with surrounding architecture. For example, the action plan recommends adoption of design standards that would ensure that commercial and industrial developments are attractive, functional, and consistent with the adjacent neighborhoods and communities. These standards should address building placement and orientation, pedestrian access, signage, landscaping, buffering of incompatible land uses, and traffic calming where needed. Multi-tenant signs should be required in multi-tenant shopping centers. The action plan also recommends that there be joint or coordinated administration of these standards among the SHALE municipalities.

The other focus of the Community Image strategies is to improve citizen stewardship. Stricter enforcement of codes, education and public relations campaigns are recommended to heighten awareness and encourage compliance and civic involvement.



Table 3.10

Community Image: Encourage an aesthetically pleasing community image of the SHALE region using design guidelines that reflect the overall character of the area						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Encourage streets with well-designed building facades, pedestrian-scale building setbacks, street trees, landscaping, street lighting, and parking to the side or rear of a building.	H	SHALE Regional Planning Commission, Municipal planning commissions	DCED Elm Street funds, Urban Development Program, PennDOT Hometown Streets Program, Private development funds	Within two years, incorporate these issues into the joint zoning ordinance	
2	Create community oriented neighborhoods and spaces through front porches, street benches, public squares, and plazas.	M	SHALE Regional Planning Commission, Municipal planning commissions	DCED Community Revitalization Program	Within 18 months, apply for funding for public space design	
3	Adopt consistent design standards and guidelines along the Route 65 and Route 51 corridors, as well as Merchant Street, Duss Avenue and Beaver Street.	M	SHALE Regional Planning Commission, Municipal Elected Officials	DCED LUPTAP, Local Government Academy	Within five years, incorporate within new design standards	
4	Preserve the historic character and industrial heritage of the area by incorporating significant landmarks into new development site designs and neighborhood plans.	M	SHALE Regional Planning Commission, Municipal planning commissions	PHMC Technical assistance, private development funds	Within next five years, at least 75% of new development plans shall incorporate historic features into their designs	
5	All SHALE communities should coordinate and communicate with the Ambridge Elm Street Coordinator to apply similar strategies for revitalizing streetscapes and housing facades.	M	SHALE Regional Planning Commission, Municipal planning commissions	Minimal Cost	On an annual basis, the coordinator will meet with other interested municipalities	

Table 3.11

Community Image: Encourage private property maintenance that doesn't detract from the aesthetics of the SHALE region						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Strengthen property maintenance codes to require stricter enforcement.	H	SHALE Regional Planning Commission, Municipal Elected Officials, Code Enforcement Officers	Minimal Cost	Within six months, Regional Planning Commission shall facilitate a meeting among code enforcement officers to brainstorm ideas.	
2	Create greater citizen stewardship by educating residents about the benefits of property maintenance as well as the consequences of failure to comply.	H	SHALE Regional Planning Commission, Residential Council	Minimal cost- local funds	Within one year, draft an educational piece for use on website, newsletters, etc.	

Table 3.12

Community Image: Encourage residents to be stewards of the environment						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Work with local service organizations and youth groups to create a volunteer corps to clean up parks and maintain trails.	M	Municipal Recreation and/or Public Works departments, PA Cleanways	PA DEP Earth Day Program, Local Funds	Within one year, make contact with PA Cleanways to identify areas and solicit volunteers	
2	Implement a public relations campaign (possibly developed as a High School Senior Project) to discourage littering and to bolster pride in the communities.	L	Marketing Committee, Local High School students	Local Funds	Within five years, produce and implement the campaign	

HIGH-QUALITY SOCIAL SERVICES AND COMMUNITY EDUCATION

Another goal that came out of the planning process was the need to deliver more and better quality educational and self-improvement opportunities to residents. The region needs not only more employment, but a local workforce with skills to fill those jobs. Therefore, the Steering Committee established the following goal:

- Support developing and linking social service programs provided by schools, non-profits, religious and private institutions to provide opportunities for a high quality education and self-development.

Most of the strategies listed in the action plan promote linking entities with knowledge and resources (local businesses, municipal governments) to those that have connections to the trainable workforce (social services, churches, schools). To achieve this, the plan recommends that these activities be coordinated by a Social Service/Education Action Committee. This action committee would draw members from the business community, local officials, social service providers and educational institutions.

Development of locally based internships, mentoring programs and other training opportunities are encouraged. Use of technology to disseminate information and enhance coordination is also recommended. The action plan also suggests that local community facilities, such as schools, recreational and cultural centers, libraries, parks, and churches, be shared among the municipalities.

Table 3.13

Social Services and Community Education: Support developing and linking social service programs provided by schools, non-profits, religious, and private institutions to provide opportunities for a high quality education and self-development						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Explore mechanisms to connect local businesses and the church and social service institutions through information sharing and technology transfer.	H	Social Services Action Committee, Beaver Cty Human Services	DCED Community Service Programs, Local funds	Within six months, establish Social Service Action Committee; within one year, produce a plan	
2	Promote better communication among school districts, the municipal governments and private businesses and explore ways in which they can work together to promote education through creation of internships, mentoring programs or other training opportunities.	H	Social Service Action Committee, School Districts, Municipal Officials, ARDC	DCED Community Service Programs, Local funds	Within nine months, Social Service Action Committee holds first coordination meeting.	
3	Encourage continued cooperation and information sharing between school districts such as periodic meetings between Ambridge Area and Quaker Valley school administrators.	M	School Districts	Minimal Cost	Within six months, school districts hold first meeting	
4	Promote shared use of community resources, such as schools, recreational and cultural centers, libraries, parks, and churches.	M	Social Services Action Committee	Minimal Cost	Within 18 months, create and distribute a directory of available resources	

A DIVERSE COMMUNITY

Residents in the SHALE Region come from diverse backgrounds. Some came from Central and Eastern Europe a century ago to work in the industry that developed along the Ohio River. Others have come more recently. This diversity is one of the region's significant strengths. Recognizing this, the Steering Committee has developed the following goal statement:

- Encourage and celebrate socio-economic, ethnic and cultural diversity.

The action plan recommends that new energy be put into local festivals, such as Nationality Days in Ambridge, to highlight the culture of new immigrant groups as well as old ones. In addition, the region is home to many beautiful ethnic churches and social clubs that are a testament to the diverse groups that have settled the area. The action plan suggests that ways be found to showcase these churches and cultural institutions, perhaps in tandem with Nationality Days or other local events. These efforts could be coordinated with Trinity Seminary and the Ambridge Ministerium to create a link to today's faith community.



Table 3.14

Diversity: Encourage and celebrate socio-economic, ethnic, and cultural diversity						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Reinvigorate local festivals by drawing upon culture of new resident groups as well as those who came to the area in previous generations.	M	Ambridge Area Chamber of Commerce, Municipal Officials	Minimal cost	Within six months, hold a coordination meeting to develop new ideas and contacts with new groups	
2	Develop and host a one-day guided tour of the area's many ethnic churches and cultural institutions	M	Ambridge Ministerium, Local churches & cultural groups	Minimal cost	Within one year, develop a tour route	

COMMITMENT TO INTERGOVERNMENTAL COOPERATION

Without continued coordination and cooperation among the SHALE municipalities, implementation of the comprehensive plan cannot succeed. The following goals have been established to promote a more regional approach to doing business:

- Promote cooperation among local governments to protect the health, safety and welfare of residents.
- Increase awareness and acceptance of intergovernmental cooperation and the benefits of sharing services to reduce financial and administrative costs while maintaining and improving levels of service.

Where feasible, the action plan recommends that existing groups with relevant expertise be used to carry out the strategies. However, the membership of those groups should be expanded to include representation from the other SHALE municipalities, as appropriate. For example, the plan proposes that South Heights become a member of the Ambridge Area Brownfields Partnership so that it can benefit from the experience of Ambridge and Harmony. However, where groups do not exist with expertise to implement particular strategies, the action plan advocates that Action Committees be established. These committees could draw members from the SHALE Regional Planning Commission and recruit new members from segments of the community that would be most affected by the specific actions. The action committees would hold regular meetings and continue soliciting citizen support and involvement in the implementation of the plan and in updating goals and policies.

The Steering Committee believes that the SHALE municipalities should make joint long-term capital improvements planning a high-priority. The plan would address water and sewer, transportation and parks & recreation upgrades. By planning together, the municipalities will be more likely to qualify for State capital improvements funding.

Several officials and citizens indicated that exploring the feasibility of shared services among municipalities should be pursued. The action plan recommends that a study be undertaken that compares the economic and social benefits of: 1) maintaining independent police and fire services in each municipality, 2) consolidating such services in two or more municipalities into a regional authority and 3) having smaller municipalities contract for such services from the larger municipalities. Depending on the results of this study, the municipalities could develop equitable policies for sharing and financing these services among two or more SHALE communities.

Tax-base sharing is another tool that some municipalities have used to decrease competition for tax-generating development and to share revenue equitably. The action plan recommends that the SHALE municipalities explore whether tax-base sharing may provide benefits to the region. If interested, information may be obtained from Sustainable Pittsburgh (contact Ray Reaves: 412-422-7877).

Section 3

Components of the Action Plan

MODEL TAX-BASE OR REVENUE SHARING PROGRAMS:

Waterfront Development (Homestead, West Homestead & Munhall) - tax revenues from the development are pooled and distributed based on the percent of the total development in each of the municipalities: 50% Homestead, 30% Munhall, 20% West Homestead. A portion of the revenue is directed to the Main Street Fund.

Twin Cities Fiscal Disparities Program (Minneapolis-St. Paul region) - pools 40% of the growth in commercial-industrial property tax in a 7-county core region since 1975 and redistributes the pool based on population and total tax base per capita.

New Jersey Meadowlands (14 communities) - pools 40% of growth in the tax base and redistributes the pool among the municipalities based on number of school children and proportion of property each municipality has in the Meadowlands District.

Finally, the action plan suggests that the SHALE municipalities develop a website and/or newsletter, create a display board and attend periodic events and conferences to get the word out about their progress and accomplishments. Building public confidence and continued support will require consistent and open communication with local residents.

Table 3.15

Intergovernmental Cooperation: Promote cooperation among the local governments to protect the health, safety, and welfare of residents						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Promote expanded, multi-municipal membership in existing groups (e.g., Industrial Council) and, where no groups currently exist, form Action Committees to carry forward the implementation of specific elements of the comprehensive plan.	H	ARDC, Ambridge Area Brownfields Partnership, SHALE Regional Planning Commission	Minimal Cost	Within one year, all expanded committees and action committees have been established and held at least one meeting	
2	Coordinate among the five municipalities on long-term capital improvement planning.	H	SHALE Regional Planning Commission, Municipal, County & State Officials	Minimal Cost	Within two years, produce a joint capital improvements plan.	
3	Establish a delegation of SHALE representatives to attend meetings of the Southwestern Pennsylvania Commission (SPC) and lobby for funds for capital projects in the SHALE region.	H	Municipal Officials, SHALE Regional Planning Commission	Minimal Cost	Within 6 months, name delegates and attend first meeting.	
4	Perform a feasibility study of some combination of Ambridge, Economy, Harmony and Leetsdale that compares the economic <i>and</i> social benefits of independent, contracted and consolidated service providers.	M	SHALE Regional Planning Commission, Private Consultant	DCED Shared Municipal Services Grant	Within three years, apply for a grant to do the study.	
5	Explore implementation of a tax base sharing structure among two or more municipalities.	M	SHALE Regional Planning Commission	Technical Assistance - Sustainable Pittsburgh	Within two years, hold a training for the Regional Planning Commission and municipal officials	
6	Explore interest among residents/officials in municipal consolidation among two or more municipalities.	L	SHALE Regional Planning Commission	Minimal Cost	Within five years, conduct a survey	

Table 3.16

<u>Intergovernmental Cooperation:</u> Increase awareness and acceptance of inter-governmental cooperation and the benefits of sharing services to reduce financial and administrative costs while maintaining and improving levels of service						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Develop a SHALE website or newsletter where the activities and accomplishments of the SHALE Planning Commission and the Action Committees are posted regularly. Integrate with the joint marketing plan.	H	SHALE Regional Planning Commission, Action Committees	DCED Heritage Tourism Cooperative Marketing Grants, Beaver Cty Tourism, Local Funds	Within one year, have website up and running	
2	Create a traveling SHALE display board that explains the multi-municipal planning process and its benefits to the region.	H	SHALE Regional Planning Commission	Minimal Cost	By May 2005, have board ready for display at Nationality Days	
3	Attend regional conferences and events to speak about the ongoing progress of the SHALE Planning Commission and the Action Committees.	M	SHALE Regional Planning Commission, Action Committees	Minimal Cost	Within 18 months, appear and speak at at least one conference such as the Regional Economic Summit	

ABUNDANCE OF PARKS AND RECREATION OPPORTUNITIES

Parks and recreational facilities provide a place for residents of the SHALE region to relax and play and can attract visitors to the region as well. These benefits led the Steering Committee to establish two important goals in the comprehensive plan:

- Enhance the existing recreational facilities in community and neighborhood parks and provide additional active and passive recreational opportunities, programs and events.
- Identify opportunities to incorporate the riverfront as a regional and recreational resource, including South Heights riverfront area.

Many parks in the SHALE municipalities are old and run down. Through parks master planning, municipalities can inventory existing facilities and plan for refurbishing and enhancing them over time. Economy Borough has already gone through this process and continued implementation of the master plan is recommended. The action plan also suggests that other municipalities develop master plans.

The expansion of Old Economy Park is another idea that emerged through the planning process. Because this proposal is not included in the Beaver County Comprehensive Recreation and Parks Plan (2/03), the SHALE municipalities will need to approach the County about the feasibility of this proposal.

The public frequently stated that creating access to and maximizing the benefits of the riverfronts was important to them. The riverfronts have traditionally been used by industry and cut off from communities by Route 65 and an active railway line. Several strategies have been proposed to reconnect residents and visitors to the rivers. Most important is the creation of a riverfront development plan for the SHALE region similar to the one drafted by the City of Pittsburgh in 1998.

RIVERFRONT DEVELOPMENT PLAN

- Develop an inventory of riverfront properties in the SHALE region including current use, ownership, access and suitability for riverfront recreation/development.
- Based on this inventory, divide riverfront properties into appropriate districts such as industrial, residential, greenway, etc. and develop goals for each district.
- Create a plan to achieve these goals using tools such as riverfront zoning, land or right-of-way acquisition and set priorities. Plan should include strategies for reducing conflicts between water modes (freight barges, recreational kayaks, water taxis, sightseeing boats, etc.) - establishing water zone policies, signage, and educational materials.
- Identify funding sources and private sector sponsors.

Another high priority for the SHALE municipalities is the creation of a greenways plan. This is discussed in more detail in the following section, "Open Space & Natural Resources."

Table 3.17

Parks and Recreation: Enhance the existing recreational facilities in community and neighborhood parks and provide additional active and passive recreational opportunities, programs, and events						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Continue to implement recommendations in the Economy Borough Parks Master Plan.	H	Economy Borough officials	DCNR grants, local funds	Within 18 months, complete first phase of Recreation Drive Park	
2	Encourage other municipalities to conduct Parks Master Planning studies to identify opportunities to refurbish and expand local parks, playgrounds and other recreational facilities.	M	Municipal officials, Parks & Recreation Depts	DCNR grants, Local funds	Within three years, apply for a joint grant	
3	Promote the creation of pedestrian and trail linkages (greenways) throughout the SHALE region.	M	Beaver County & Municipal officials, Parks & Recreation Depts	National Park Service Land and Water Conservation Fund, DCNR grants	Within three years submit a grant for plan preparation; within five years build a segment as a demonstration project	
4	Expand Old Economy County Park and market it as a regional asset.	M	Economy Borough officials, Beaver County Parks and Recreation	DCNR grants, Beaver Cty	Within one year, meet with County Parks and Recreation Dept.	
5	Work with local service organizations and youth groups to create a volunteer corps to clean up parks and maintain trails.	M	Parks & Recreation Depts, Service & Youth Organizations, PA Cleanways	PA DEP Earth Day Program, Local Funds	Within one year, make contact with PA Cleanways to identify areas and solicit volunteers	
6	Create a recreational community center in Harmony incorporating the roller rink on Duss Avenue.	M	Harmony Township Officials	DCED Community Revitalization Program, Local Funds	Within two years, Regional Planning Commission shall meet with property owner	

Table 3.18

Parks and Recreation: Identify opportunities to incorporate the riverfront as a regional recreational resource, including South Heights riverfront area						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Encourage Ambridge and Harmony to work together to develop access through French Point Creek to eight acres of riverfront along the Ohio.	H	Ambridge & Harmony Officials	DEP Growing Greener, DCNR grants, Local Funds	Within six months, apply for a grant	
2	Create a riverfront development plan for the SHALE region	H	Municipal Elected Officials, Private Consultant	National Park Service Land and Water Conservation Fund, DCNR grants	Within two years, apply for one or more grants to fund the study	
3	Explore opportunities to provide South Heights residents with riverfront access through the Duquesne Light Bridge and/or the North Street Tunnel.	M	South Heights Officials	Local Funds	Within two years, meet with property owners to explore means of access	
4	Promote bass fishing as a recreational amenity along the Leetsdale waterfront.	M	Leetsdale Officials, PA Fish & Boat Commission	Minimal Cost	Within one year, develop a flyer to distribute at bait shops and sporting goods stores	

Section 3

Components of the Action Plan

PROTECTED OPEN SPACE AND NATURAL RESOURCES

While several municipalities in the SHALE Region were intensely developed as industry grew and prospered, valuable undeveloped land still exists in parts of Economy, Harmony and South Heights. As the Region continues to grow, the Steering Committee recognizes that care must be taken to preserve the remaining open space for current and future generations. Therefore, the following goals were developed:

- Conserve existing primary woodlands, agricultural areas and environmental resources.
- Encourage the concept of greenway linkages through urban, suburban and rural areas that provide passive and active recreational functions and preserve natural areas.

Some strategies discussed in previous sections will have a positive impact on the region's environmental assets. For example, incorporation of innovative land use tools such as Conservation Subdivision Design preserves at least 50% of the open space in the parcel to be developed. TDRs can be used in appropriate cases to preserve key areas of open space by transferring their development potential to areas where the municipalities want to encourage high-density growth. And expanding Old Economy County Park would have the added benefit of permanently protecting green space in the Region from development.

Other strategies recommended in this section include amending local land use ordinances to provide for conservation districts or overlay zones, appropriate buffer zones around streams and wetlands, and limits on the percentage of impervious surfaces in any site development.

Another high priority identified during the comprehensive planning process is the creation of a continuous greenway linking major historic, cultural, and recreational assets throughout the region. Greenways provide both passive (nature appreciation) and active (walking, skating & biking) opportunities and function as important wildlife habitat. The action plan recommends that the SHALE Region establish a Greenway and Trails Action Committee to undertake a feasibility study and coordinate with Beaver County as it develops a county-wide Greenway and Trails Plan. The action committee can draw its members from local parks and recreation departments, AHDEDC, and other interested citizens and groups.



MAJOR STEPS IN DEVELOPING A GREENWAY AND TRAILS PLAN:

1) Inventory and Analysis

- Establish the significance of preserving the environment.
- Address how the communities will benefit from a greenway and trail system and how it connects to other greenway and trail efforts in Beaver County.
- Identify recreation, cultural and historical resources that should be connected.
- Identify conservation lands that should be protected from development.
- Identify and locate potential greenway and trail corridors.
- Identify opportunities and constraints for greenway and trail development.

2) Recommendations

- Provide recommendations on how greenways and trails can best compliment the existing environments.
- Identify property ownership and acquisition needs for greenway and trail corridors.
- Provide recommendations of preliminary trail alignments and greenway locations.
- Review existing subdivision and land development ordinances in each community and recommend modifications as necessary to achieve greenway and trail vision.
- Provide preliminary estimates of greenway and trail development, phasing and construction costs.
- Identify sources of funding for acquisition and construction.
- Identify management and maintenance responsibilities for the greenway and trail system.

Table 3.19

Open Space and Natural Resources: Conserve existing primary woodlands, agricultural areas, and environmental resources						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Establish conservation districts or overlay zones in land use ordinances that limit development on wetlands, steep slopes, or in the 100-year floodplain	H	Regional Planning Commission, Municipal Elected Officials	DCED LUPTAP, Local Government Academy	Within 2 years, incorporate in the joint zoning ordinance	
2	Protect wetlands and stream corridors for their ecological and hydrological benefits by designating appropriate buffer widths.	H	Regional Planning Commission, Municipal Elected Officials	DCED LUPTAP, Local Government Academy	Within 2 years, incorporate in the joint zoning ordinance	
3	Coordinate planning for land and water resources at the watershed scale.	H	Regional Planning Commission	Minimal Cost	Within 18 months, develop and present a regional watershed plan	
4	Limit the amount of impervious surfaces created by development through uniform site design standards Require site development plans to minimize site disturbance and tree removal.	H	Regional Planning Commission, Municipal Planning Commissions	Minimal Cost	Within 2 years, incorporate in the joint zoning ordinance	
5	Promote conservation of natural groundcover and trees, or the inclusion of new groundcover, in site developments to reduce and filter surface run-off.	H	Regional Planning Commission, Municipal Planning Commissions	Minimal Cost	Within five years, incorporate within the new design standards	

Table 3.20

Open Space and Natural Resources: Encourage the concept of greenway linkages through urban, suburban, and rural areas that provide passive and active recreational functions and preserve natural areas						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Develop a SHALE Regional Greenways Plan and trail feasibility study to link municipal buildings, parks, riverfronts, and town centers.	H	Greenway and Trails Action Committee, Municipal Elected Officials	DCNR Community Conservation Partnership Program, Local Funds	Within three years submit a grant for plan preparation; within five years build a segment as a demonstration project	
2	Coordinate with Beaver County on its development of a county-wide Greenways Trail Plan.	H	Greenway and Trails Action Committee, Municipal Elected Officials	Minimal Cost	Within one year, contact Beaver County Planning Commission to coordinate	

HIGH-QUALITY, AFFORDABLE HOUSING

The SHALE Region has an aging population and most of its housing stock was built prior to 1960. New housing is needed both to serve the needs of the elderly and disabled as well as to attract new families to the area. To that end, the Steering Committee established the following goal:

- Encourage a variety of housing types, styles and affordability levels to meet the housing needs of all people and families, including housing for persons with disabilities and senior citizens.

The ARDC's Residential Council has focused on developing housing in Ambridge. If possible, the other municipalities should establish similar Councils along the same model to address housing issues. These Councils would identify areas suitable for specific housing types and seek developers interested in building such units.

To attract new families to the area, the municipalities should continue to encourage that redevelopment of brownfields and vacant sites include a mix of housing and retail. Many families seek residential neighborhoods that are walkable and close to shopping, playgrounds and other amenities. Such locations could include parcels in the vicinity of Ace Hardware and Ohio River Boulevard between 2nd and 4th Streets.

In addition, several locations have been identified as possible candidates for town houses or condominiums. These include hillsides in South Heights, Leetsdale (northern side of Beaver St.) Ambridge (near Walter Panek Park) and Harmony (between country club and industrial corridor). On the higher end, the action plan encourages that new low-density development in Economy Borough incorporate land conservation principles discussed above under "Land Use and Growth Management."

To benefit elderly and disabled residents, the action plan advocates that the municipalities pursue development of transitional health care homes/facilities, assisted living facilities and nursing homes (continuing care) and proactively recruit such developers to the area. The Bridges of Ambridge site at 11th & Duss Avenue is planned as a full-service residential facility with several levels of support. Wherever possible, sites should be in close proximity to municipal centers to allow residents to have easy access to goods, services, and public transportation, and to maintain ties to their old neighborhoods.

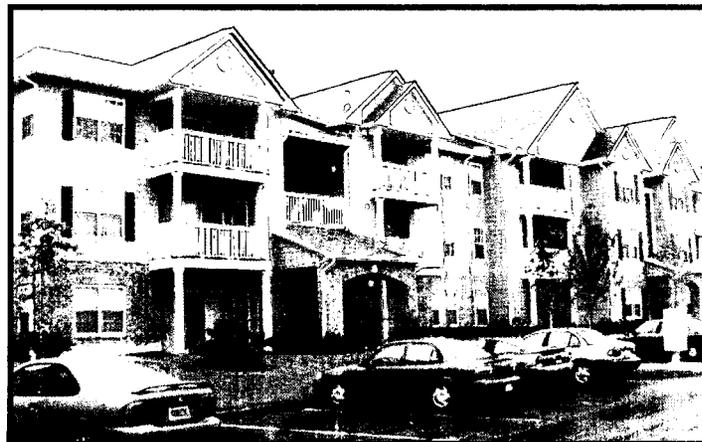


Table 3.21

Housing: Encourage a variety of housing types, styles, and affordability levels to meet the housing needs of all people and families, including housing for persons with disabilities and seniors citizens

No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Reinvest in and market the existing housing stock and neighborhoods and encourage infill development.	H	Residential Council	DCED Community Revitalization, Brownfields for Housing Funds	Within six months, develop residential councils in municipalities that don't have them; within one year, meet with Regional Planning Commission to develop a strategy	
2	Continue to encourage that brownfields/vacant site redevelopment in Ambridge and Harmony include a mix of housing and community serving businesses.	H	Ambridge Area Brownfields Partnership, Residential Council	DCED Community Revitalization, Brownfields for Housing Funds. Home Ownership Choice Program	Within six months, adopt new planned unit development ordinance; rezone target areas from industrial to commercial	
3	Target appropriate locations for new medium density housing (townhouses and condos).	H	Residential Council, Municipal Planning Commissions	Private Development Funds	Within two years, incorporate in new joint zoning ordinance	
4	Designate mixed-use commercial and medium density residential "nodes" in Economy along Conway Walrose Road and Big Sewickley Creek Road.	H	Residential Council, Economy Planning Commission	Private Development Funds	Within two years, incorporate in new joint zoning ordinance	
5	Promote development of low-density housing development in Economy that incorporates principles of Growing Greener Conservation Subdivision Design.	H	Residential Council, Economy Planning Commission	Technical assistance - Natural Lands Trust	Within two years, incorporate in new joint zoning ordinance	
6	Address need for additional senior and elderly care housing by exploring development of transitional health care homes/facilities, assisted living facilities & nursing homes (continuing care).	H	Residential Council	Private Development Funds	Within three years, at least two transitional care facilities are built or under construction	

Section 3

Components of the Action Plan

GOOD PUBLIC SERVICES - A SAFE COMMUNITY

Crime and drug use impact residents' quality of life and compromise a region's ability to attract new business, investment and homebuyers. While the SHALE Region has a comparatively low crime rate, crime and drug use have been identified as problems in certain areas. To address this, the following goals have been established:

- Reduce crime in the SHALE Region.
- Develop better communication and coordination efforts between all SHALE police and fire departments.

Strategies include combating the drug problem through use of community policing, "Drug-Free Zones," DARE Programs and adequate street lighting. Getting the police out of their cars and onto the street should be encouraged wherever possible. Providing job training and recruiting programs for the unemployed is also recommended.

Finally, the action plan suggests that the SHALE municipalities commission a study that would compare the pros and cons of independent, consolidated and contracted for police and fire services. This study would look at a variety of scenarios and not assume that one configuration would be the best fit for all SHALE municipalities. It should assess whether sharing services across county lines poses any significant obstacles. Fiscal as well as social benefits should be evaluated.

Table 3.22

Public Services - Safety, and Crime Reduction: Reduce crime in the SHALE region						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Use neighborhood policing techniques (where feasible) that get officers out of their cars and onto street corners on foot and bicycles.	H	Municipal Elected Officials, Police Departments	Local funds	Within one year, have at least one bicycle patrol in appropriate communities	
2	Reduce unemployment by connecting local businesses, schools and church and social service institutions to create job training opportunities and match local industries with local skilled & unskilled labor.	H	Social Service Action Team, Local Business Leaders, School Administrators, Social Service Providers	Local funds, local business investment	Within two years, reduce unemployment by at least 1% through new job matching programs	
3	Minimize community impacts from illegal drug use through community policing, "Drug-Free Zones," DARE Programs, and adequate street lighting.	M	Municipal Elected Officials, Police Departments	DCED Community Service Programs, Local funds	Within two years, produce a plan to minimize impacts including a review of street lighting	

Table 3.23

Public Services - Safety, and Crime Reduction: Develop better communication and coordination efforts between all SHALE police and fire departments						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Perform a feasibility study among Ambridge, Economy, Harmony and Leetsdale that compares the economic <i>and</i> social benefits of 1) maintaining independent police and fire services in each municipality, 2) consolidating such services in two or more municipalities;and 3) contracting for such services.	M	SHALE Regional Planning Commission, Private Consultant	DCED Shared Municipal Services Grant	Within three years, apply for a grant to do the study.	

EFFECTIVE TRANSPORTATION SYSTEM

Improving transportation mobility and safety were identified as priorities for the SHALE municipalities. The Steering Committee set the following goals aimed at achieving such improvements:

- Provide a variety of modal choices including river and rail transportation, public transit, pedestrian and bicycle paths, and sensible connections between modes.
- Maintain and upgrade existing roadway networks as needed.
- Identify opportunities to provide greater access to downtown Pittsburgh, Cranberry, and the airport as well as to provide easier access to future employment sites in the SHALE region.

The action plan recommends that transportation improvement planning for local roadways be incorporated into the Region's capital improvements plan and that such plan provide for a multi-year timeline for implementing such improvements. Establishing a timeline allows the municipalities to prioritize improvements and seek funding for projects that may be several years out.

Some strategies, like the construction of a new Ohio River bridge, maintenance of the existing bridge and support for rail and busway extensions into Beaver County, are designed to improve the connectivity of the Region with major destinations like downtown Pittsburgh, the airport and Cranberry. Other strategies seek to improve the flow of traffic within and among the municipalities. They include creation of turning lanes, minimization of curb cuts, better signage and signalization, traffic calming and installation of pedestrian sidewalks and bike lanes. Creating a better link between South Heights and the other municipalities is also an objective.



Table 3.24 (continued on next page)

Transportation: Provide a variety of modal choices including river and rail transportation, public transit, pedestrian and bicycle paths, and sensible connections between modes						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Update capital improvements plan to establish timelines when certain roadway maintenance, reconstruction, or enhancements will be made. This plan can also be used to establish dedicated bike paths and enhance existing roads to provide bike lanes.	H	Local Municipalities	Local funds, PennDOT Transportation Enhancements Program, Safe Routes to School Program, Infrastructure Bank Program loans	Within two years, produce a joint capital improvements plan.	
2	Establish a delegation of SHALE representatives to attend meetings of the Southwestern Pennsylvania Commission (SPC) and lobby for funds for capital projects in the SHALE region.	H	Municipal Officials, SHALE Regional Planning Commission	Minimal Cost	Within 6 months, name delegates and attend first meeting.	
3	Update municipal ordinances and standards to be more pedestrian/bike friendly. Encourage development in areas within walking distance to shopping, work, or recreation. Promote sidewalks on roadway projects and all future developments.	H	Local Municipalities	PennDOT Transportation Enhancements Program, Safe Routes to School Program, Local funds	Within two years, incorporate within joint zoning ordinance	
4	Express regional support for expansions of the commuter rail and busway into Beaver County (already on Port Authority's Long Range Plan).	M	Local Municipalities	Minimal costs	Write annual letters to BCTA supporting these projects.	

Table 3.24 continued

Transportation: Provide a variety of modal choices including river and rail transportation, public transit, pedestrian and bicycle paths, and sensible connections between modes

5	Provide public bike racks throughout community or bike lockers at transit stations.	L	Local Municipalities	Local Funds, PennDOT Transit Research and Demonstration Program grants, PennDOT Transportation Enhancements Program, Safe Routes to School Program	Within two years, bike racks shall be installed in parks in each municipality	
6	Once riverfront development is in place, investigate the feasibility of water transportation such as water taxis to neighboring communities and to downtown Pittsburgh, yet clearly define spaces/zones and times for various river modes of travel to reduce conflicts.	L	Local Municipalities	PennDOT Transit Research and Demonstration Program grants	Within ten years, apply for funding for a feasibility study	

Table 3.25 (continued on next page)

Transportation: Maintain and upgrade existing roadway networks as needed						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Develop the 19 th Street corridor and provide better truck access to industrial and manufacturing facilities along Duss Ave. Relocate Route 989 from 8 th Street to 19 th Street.	H	State/Local Municipalities	DCED Business in Our Sites Funds, Tax Increment Financing	Within 18 months, obtain funding and relocate the route.	
2	Upgrade traffic signals in Ambridge to current design standards. Some traffic signals may no longer be needed as traffic patterns have changed. Investigate potential for a traffic signal system.	H	Local Municipality	Local Funds - potential Redevelopment Grant	Complete traffic signal study in 18 months.	
3	Redesign the two-lane section of Route 51 in South Heights to more accurately reflect the desired operating speed for the protection of pedestrians and motorists. Road improvements could include traffic calming measures such as raised medians with plantings, defined parking, bike lanes and/or roadside landscaping.	H	South Heights Planning Commission, Elected Officials	State/Local Funds - PennDOT Transportation Enhancements Program	Within two years, incorporate in the regional capital improvements plan	
4	Upgrade Duss Avenue through streetscape improvements, screening of driveways and the like. Apply accepted access management techniques to improve driveway location/design.	H	State/Local Municipalities	PenDOT Transportation Enhancements Program, Local Funds	Within two years, incorporate in the regional capital improvements plan	
5	Improve the intersection of Route 989 with Conway Walrose Road to remove the operational and safety deficiencies currently present.	H	State/Local Municipalities	State/Local Funds	Within two years, incorporate in the regional capital improvements plan	

Table 3.25 continued

Transportation: Maintain and upgrade existing roadway networks as needed						
6	Apply access management techniques to reduce the number of curb cuts located on high speed and/or high volume roadways. Changes can be made over time by adopting curb cut ordinances.	M	Local Municipalities	Local Funding	Within two years, incorporate within joint zoning ordinance	
7	Replace antiquated cable barriers with modern guide rail on all roadways within the SHALE region.	M	State/Local Municipalities	State/Local Funding	Within two years, incorporate in the regional capital improvements plan	
8	Develop community-wide Destination and Wayfinding signage. Update/restore street name signs in all communities.	M	Local Municipalities	Local Funds - potential Redevelopment/Enhancement Grants	Within five years, develop a regional signage plan	
9	Maintain record of high accident locations through GIS management tools and routinely investigate for potential mitigation measures. Establish a priority system for determining improvement timelines.	M	Local Municipalities	Local Funding	Within two years, get street intersections coded within the GIS system	
10	Perform a parking occupancy and demand study for downtown Ambridge.	L	Local Municipalities	Local Funding	Within five years seek funding for the study	
11	Undertake selective widening at intersections On Route 65 throughout the SHALE area to provide auxiliary turn lanes.	L	State/Local/Development	State/Local/Developer Funds - Redevelopment Grants	Within ten years, seek State support	

Table 3.26

Transportation: Identify opportunities to provide greater access to downtown Pittsburgh, Cranberry, and the airport as well as provide easier access to future employment sites in the SHALE region						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Build a new Ohio River bridge to provide better access from Route 65 to the airport region, while maintaining existing Woodlawn bridge to provide access to downtown Ambridge. Old bridge would be reserved for car, bicycle and pedestrian uses.	H	Municipal Officials, Federal/State	State/Federal Funding	Communicate bi-annually with SPC to support funding priority for new bridge	
2	Improve connectivity between Route 65 and Freedom Crider Road via Crows Run Road	H	Municipal Officials	Local or Developer Funding	Communicate with County to support effort to improve	
3	Express regional support for expansions of the commuter rail and busway into Beaver County (already on Port Authority's Long Range Plan).	M	Local Municipalities	Minimal costs	Write annual letters to BCTA supporting these projects.	

EFFICIENT WATER AND SEWER INFRASTRUCTURE

Densely developed SHALE communities like Ambridge, Harmony and Leetsdale have aging infrastructure that is in need of upgrading. Economy, which is more sparsely developed, is in the process of expanding its water and sewer systems. In both cases, continued investment in water infrastructure is essential for growth, whether it be brownfields redevelopment or new suburban subdivisions. Knowing this, the Steering Committee established two goals:

- Maintain and improve water quality through maintenance and upkeep of existing infrastructure.
- Target sewer and water extensions to areas projected for growth and reinvestment.

The action plan recommends a variety of strategies aimed at supporting reinvestment in old systems as well as constructing new ones. It advocates that the SHALE municipalities express joint support for Ambridge Water Authority's capital improvements program to upgrade existing lines. Support for a long-range plan to expand the system is also recommended.

The municipalities are also advised to undertake a study that evaluates whether sharing of water and sewer services is both efficient and economically feasible. Coordination of Act 537 plan updates is also recommended. The State looks more favorably on applications for infrastructure improvement funding when the municipalities are engaged in joint planning. Municipal staff should also be educated about the Act 537 requirements and the need to communicate better among municipalities about proposed developments that will impact water and sewer capacity.

Table 3.27

Water and Sewer Infrastructure: Maintain and improve water quality through maintenance and upkeep of existing infrastructure.						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Reinvest in and efficiently use existing public infrastructure to help revitalize aging neighborhoods.	H	Municipal Officials, Water and Sewer Authorities	Local Funds, PENNVEST low interest loans and other State sources.	Within two years, incorporate in the regional capital improvements plan	
2	Support Ambridge Water Authority's capital improvement program to upgrade water infrastructure.	H	Municipal Officials, Water and Sewer Authorities	Local Funds, PENNVEST low interest loans and other State sources.	Within six months, meet with Authority to develop priorities for incorporation in capital improvements plan	
3	Perform a fiscal analysis that examines efficiency and economic feasibility of shared services. Arrange preliminary meeting to discuss opportunities that would highlight examples of other municipalities that have done this successfully in PA.	H	Municipal Officials, Water and Sewer Authorities	DCED Shared Municipal Services Grant	Within two years, hold meeting; within three years, apply for a grant to do the study.	

Table 3.28

Water and Sewer Infrastructure: Target sewer and water extensions to areas projected for growth and reinvestment						
No.	Strategies	Priority	Responsible & Participating Parties	Potential Funding Source	Deliverable or Measurable Outcome	Record of Action
1	Encourage Ambridge Water Authority to develop a long-range plan for the expansion of the public water system so that new and infill development will have plentiful and reliable water supplies.	H	Regional Planning Commission, Ambridge Water Authority	Local Funds, PENNVEST low interest loans and other State sources.	Within 18 months, send letter to Ambridge Water Authority identifying growth areas and requesting a meeting	
2	Coordinate Act 537 Plan updates to be consistent with the land use goals identified in the Plan.	H	Regional Planning Commission, Sewer Authorities	DEP Act 537 Sewage Facilities Planning Grants	Within 18 months, meet with local sewer authorities to discuss coordination	

