

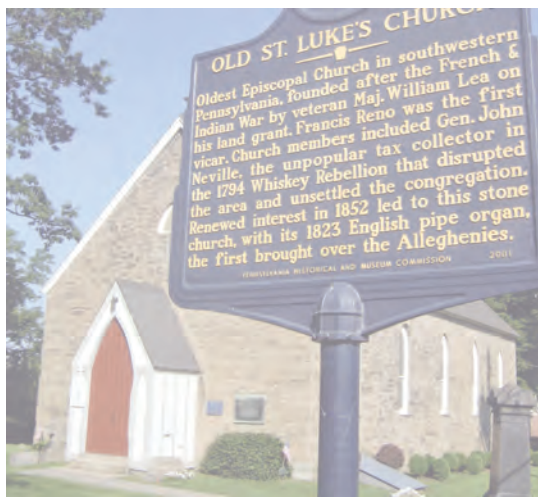
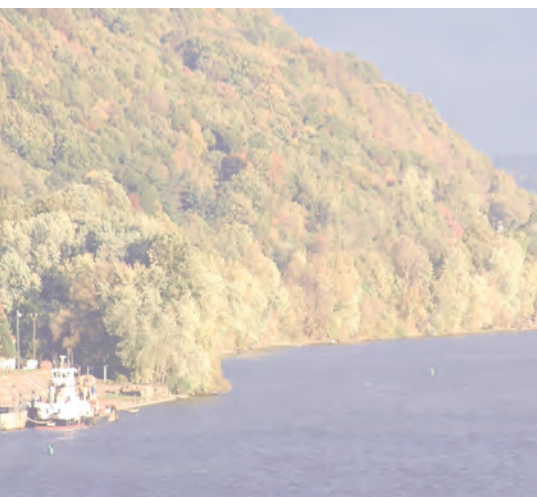
ALLEGHENY PLACES

THE ALLEGHENY COUNTY COMPREHENSIVE PLAN



DECEMBER 2008

Allegheny County, Pennsylvania



THE ALLEGHENY COUNTY COMPREHENSIVE PLAN

ALLEGHENY COUNTY, PENNSYLVANIA

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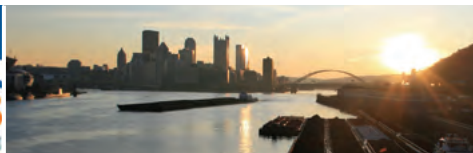
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TABLE OF CONTENTS

ABOUT THIS DOCUMENT	i
CHAPTER 1: DEVELOPING A VISION	1-1
Introduction	1-1
Seeing the Future	1-2
What's Your Favorite Place?	1-2
The Concept of Places	1-3
The Need for a Plan	1-4
Planning to be Great	1-4
The Need for Planning Consistency	1-5
<i>Allegheny Places</i> has Widespread Support	1-6
How to Use this Plan	1-7
CHAPTER 2: PLANNING FOR OUR PLACES	2-1
The Principles That Guided This Plan	2-1
Promoting Equity and Diversity	2-2
Four Phases of Plan Development	2-3
Forecasting Trends	2-4
– Residential Growth Forecasts	2-4
– Employment Growth Forecasts	2-4
– Development Patterns	2-4
– Pending and Proposed Development	2-5
– The 2025 Trend Scenario Map	2-5
Considering Alternative Futures	2-6
Developing the Preferred Future	2-7
Performance of the 2025 Composite Scenario	2-7
Directing Growth to Places	2-8
Implementing Places	2-9



TABLE OF CONTENTS *(CONT'D)*

CHAPTER 3: OVERVIEW OF TODAY'S PLACES 3-1

Introduction 3-1

A Snapshot of Allegheny County 3-2

A Demographic Profile 3-4

– Age Trends 3-5

– Disabled Populations 3-5

– A Redistribution of Population 3-6

– Minority Populations 3-6

– Racial Equity 3-7

– International Immigration 3-7

Land Use and Local Government 3-9

– Historic Settlement Patterns 3-9

– Today's Land Use Pattern 3-11

– A Welcome Trend 3-11

– Political Fragmentation 3-12

CHAPTER 4: RECOMMENDATIONS FOR TOMORROW'S PLACES 4-1

Introduction 4-1

Future Land Use Plan 4A-1

Historic and Cultural Resource Plan 4B-1

Economic Development Plan 4C-1

Housing Plan 4D-1

Parks, Open Space and Greenways Plan 4E-1

Resource Extraction Plan 4F-1

Agricultural Resource Plan 4G-1

Community Facilities Plan 4H-1

Transportation Plan 4I-1

Utilities Plan 4J-1

Environmental Resource Plan 4K-1

Energy Conservation Plan 4L-1



TABLE OF CONTENTS *(CONT'D)*

CHAPTER 5: PUTTING IT IN PLACES

5-1

Benefits of the Plan

5-1

The County Role

5-1

County Commitment and Leadership

5-2

County Planning Resources

5-2

County Outreach to Municipalities

5-2

County Outreach to Other Groups

5-4

Yearly Activities and Plan Updates

5-4

Action Plan for Implementation

5-5

The *Allegheny Places* Fund

5-5

Model Zoning Provisions – Access Management

5-9

– Article X: Controlled-Access Roadway Corridor Overlay District

Model Zoning Provisions – Transit-Oriented Development

5-15

– Model Zoning Provisions for Allegheny TOD Places –

Article Y: Transit-Oriented Development Districts

Criteria for Consistency Review – A Checklist for ACED Staff Use

5-31

GLOSSARY

A-1



LIST OF FIGURES

Figure 3.1	Allegheny County	3-2
Figure 3.2	Comparative Population Growth by Decade	3-4
Figure 3.3	Natural Population Change	3-5
Figure 3.4	Population Change: Allegheny County vs. Remainder of Pittsburgh MSA	3-5
Figure 3.5	Population Age 65 and Over	3-6
Figure 3.6	Population Change, 1990 – 2000	3-7
Figure 3.7	African American Population	3-8
Figure 4C.1	Labor Force Participation Rates by Gender	4C-2
Figure 4C.2	Distribution of Workers by Annual Earnings and Gender	4C-3
Figure 4C.3	Median Household Income	4C-3
Figure 4C.4	Median Household Income Relative to Allegheny County	4C-4
Figure 4C.5	Labor Force Participation by Race	4C-4
Figure 4C.6	Commuting into Allegheny County	4C-5
Figure 4C.7	Allegheny County Exports	4C-6
Figure 4C.8	Location of KOZ Sites	4C-8
Figure 4D.1	Owner Occupied Housing Units by Municipality	4D-1
Figure 4D.2	Homeownership Rates by Race and Ethnicity	4D-2
Figure 4D.3	Housing Unit Changes by Municipality, 1980 – 1990	4D-2
Figure 4D.4	Housing Unit Changes by Municipality, 1990 – 2000	4D-3
Figure 4D.5	Housing Unit Vacancy Rates by Municipality, 2000	4D-3
Figure 4D.6	Housing Units Built Before 1940, by Municipality	4D-4
Figure 4D.7	Housing Units Built Between 1950 - 1979, by Municipality	4D-4
Figure 4D.8	Housing Units Built Between 1990 - 2000, by Municipality	4D-5
Figure 4D.9	Allegheny County Building Permits	4D-5
Figure 4E.1	The Great Allegheny Passage	4E-7
Figure 4E.2	Pittsburgh-to-Harrisburg Mainline Canal Greenway	4E-8
Figure 4E.3	Allegheny Land Trust GREENPRINT – Concept and Strategy	4E-16
Figure 4E.4	Implementation Matrix	4E-17



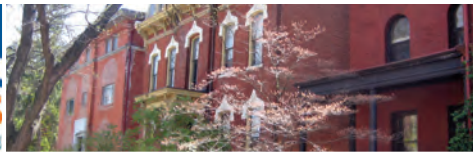
LIST OF FIGURES *(CONT'D)*

Figure 4H.1	Hazardous Material Units Response Areas	4H-7
Figure 4I.1	Total Daily Miles Traveled in Allegheny County	4I-4
Figure 4I.2	Road Ownership in Allegheny County by Lane Mile	4I-6
Figure 4I.3	Sufficiency Rating of All Bridges in Allegheny County over 20 Feet in Length	4I-7
Figure 4I.4	Transit Ridership by Area	4I-27
Figure 4I.5	Airport Locations	4I-44
Figure 5.1	The Cross-Acceptance and Consistency Process	5-3
Figure 5.2	The Annual Review Process	5-4



LIST OF TABLES

Table 2.1	Growth Allocated to Places	2-8
Table 4D.1	Distribution of Publicly Subsidized Rental Housing	4D-9
Table 4D.2	Recommended Housing by Type of Place	4D-13
Table 4E.1	Park Definitions and Classification Standards	4E-2
Table 4E.2	County Park Facilities	4E-4
Table 4E.3	Appropriate Park Prototypes for Places	4E-20
Table 4I.1	Highway Functional Classes	4I-3
Table 4I.2	Functional Classification of Highways in Allegheny County by Linear Mile	4I-3
Table 4I.3	Congested Corridors	4I-5
Table 4I.4	Number of Crashes and Traffic-Related Deaths	4I-5
Table 4I.5	Bridges in Allegheny County with a Sufficiency Rating <10	4I-8
Table 4I.6	2025 Traffic Projections for PennDOT Congested Corridors	4I-10
Table 4I.7	2030 Transportation and Development Plan, Allegheny County Projects	4I-16
Table 4I.8	Demand Management Strategies	4I-21
Table 4I.9	CMAQ Eligible Project Categories	4I-23
Table 4I.10	Public Transit Ridership, 2006	4I-25
Table 4I.11	Transit Funding	4I-29
Table 4I.12	Pittsburgh International Airport Operations	4I-43
Table 4I.13	Location of River Terminals in Allegheny County	4I-52
Table 4I.14	Three Rivers Locks and Dams	4I-53
Table 4J.1	Public Water Suppliers	4J-2
Table 4J.2	Designated Act 167 Watersheds	4J-12
Table 4K.1	Pittsburgh-Beaver Valley AQCR Attainment Status	4K-2
Table 4L.1	Demand Management Strategies	4L-9
Table 5.1	Action Plan for Implementation	5-6
Table 5.2	Implementation Strategy for <i>Allegheny Places</i>	5-37
Table 5.3	Implementation Strategy for <i>Allegheny Places</i> Transportation Plan	5-61



LIST OF MAPS *(BOUND IN SEPARATE DOCUMENT)*

Map 2.1	Major Land Development
Map 2.2	Pending and Proposed Land Development, 1993 - 2006
Map 2.3	2025 Trend Scenario
Map 2.4	2025 Composite Scenario
Map 3.1	Existing Land Use
Map 4A.1	Future Land Use Plan
Map 4A.2	Brownfields and Redevelopment Sites
Map 4B.1	Historic Resources
Map 4E.1a	Parks (Northwest Quadrant)
Map 4E.1b	Parks (Northeast Quadrant)
Map 4E.1c	Parks (Southwest Quadrant)
Map 4E.1d	Parks (Southeast Quadrant)
Map 4E.2	Greenways
Map 4E.3	Trails
Map 4F.1	Abandoned Mines and Affected Streams
Map 4G.1	Agriculture
Map 4H.1	Community Facilities
Map 4I.1	Transportation System
Map 4I.2	Proposed Transportation Projects
Map 4I.3	Roads by Functional Classification
Map 4I.4	Park-and-Ride Lots
Map 4J.1	Public Water Supply Service Areas
Map 4J.2	Wastewater Collection and Treatment Service
Map 4J.3	PA Stormwater Management Act 167 Designated Watersheds and Plan Status
Map 4K.1	Hydrology
Map 4K.2	Slopes
Map 4K.3	Natural Heritage Inventory
Map 4K.4	Landslide-Prone Areas





ABOUT THIS DOCUMENT

Allegheny Places is organized into five chapters:

Chapter 1, Developing a Vision, describes how thousands came together to develop *Allegheny Places*, a comprehensive plan for future growth, conservation and economic development in Allegheny County.

Chapter 2, Planning for Our Places, provides an overview of guiding principles and measures to promote equity and diversity, along with a summary of how the comprehensive plan was prepared and the types of places it supports.

Chapter 3, Overview of Today's Places, describes the existing character of the County through an examination of current demographics and emerging land use trends.

Chapter 4, Recommendations for Tomorrow's Places, is organized into 12 elements of the comprehensive plan, along with a compilation of equity and diversity issues. Each of the plan elements examines data collected on current conditions and trends, provides an analysis of issues and opportunities, establishes goals and objectives, and provides recommendations.

Chapter 5, Putting it in Places, outlines the steps necessary to implement the Plan. The roles and responsibilities of the key 'actors' involved in the implementation of the Plan's recommendations are identified and an action plan to get the Plan off to a quick start toward realization is described.



Photo credit: Kevin Smay





CHAPTER 1: DEVELOPING A VISION

INTRODUCTION

Allegheny Places is Allegheny County's first comprehensive plan. It establishes an overall vision for our future and a roadmap to get there. The comprehensive plan sets policies for development, redevelopment, conservation and economic initiatives. The plan provides us with a framework for the strategic use of public resources to improve the quality of life for all of our residents. *Allegheny Places* represents our commitment to a bright future.

Over the period of the plan's development, thousands came together to participate in its progress. Residents, civic and business leaders, academics and many others chose to discuss, consider and ultimately agree on a collective vision for Allegheny County's future.



Photo credit: Kevin Smay



SEEING THE FUTURE

Allegheny Places is our vision. Together, we have thought about who we are, how we have developed, where we want to be and how we intend to get there. We see a future where:



Photo credit: McCormick Taylor

- All residents have equitable access to opportunities and benefits of our ongoing economic revitalization
- Former brownfields are transformed into attractive destinations for residents, businesses and visitors

- Transit-oriented development stimulates economic activity and relieves congestion on area roadways
- A highly efficient transportation system links Oakland, Downtown and Pittsburgh International Airport, our major economic centers
- Extensive greenways connect our communities with parks, trails, riverfronts and other natural amenities
- Good, stable, well-paying jobs are available in a diversified economy
- High quality housing choices exist for all residents at every income level

We have the means and the desire to achieve this future. But we can't do it alone. Many more people are needed to take up the cause, to take action to carry out the recommendations of this plan. You can help by getting and staying involved. Recruit others. Lead where you can; work with others where effective leadership already exists. When political will falters, strengthen it.

Let's roll up our sleeves and work together to secure a more prosperous future for our communities. *Allegheny Places* is the guide that we can rely on to get us there.

WHAT'S YOUR FAVORITE PLACE?

There's a lot to like about Allegheny County. We have an abundance of special places, places that are our favorite places to be. That's why 'Favorite Places' is the unifying theme of this comprehensive plan – it celebrates the established places that we value and imagines new places that build on the unique character of our County.

We used an awareness campaign that asked: "What's Your Favorite Place?" to solicit participation in the plan's development. In all, more than 3,500 of you responded to the question. There were no surprises in the most popular answers:

- South Park and North Park
- PNC Park and Heinz Field



Photo credit: McCormick Taylor

- The Waterfront
- Kennywood
- The Montour Trail

These are treasured places to be sure. But there's even more that you treasure about life in Allegheny County. You mentioned friends and family, as well as the culture and lifestyle of the area. You value the number of housing choices and their affordability, and the choices of life in the city, small town or suburb. Many of you said that you like the magnificent views and natural beauty of the area. The educational opportunities found here are attractive to people within the region and across the country. Residents and visitors alike also enjoy the major league sports teams, museums, and many other entertainment and recreational choices.

In developing *Allegheny Places*, we came together to discuss our concerns, point out opportunities and develop strategies for making Allegheny County a better place. The result is a countywide plan to help us to maintain and enhance our sense of place and provide for the creation of more special places.

What do you see in Allegheny County's future? Where do you see yourself? What's in store for your favorite place? Where will that next special place be? How can you help to preserve and enhance our treasured places? You can find the answers to these questions and more in the pages of this plan.

THE CONCEPT OF PLACES

Our favorite locations in the County have a 'sense of place'. It seems simple enough, doesn't it? But it can be difficult to define exactly what this term means. Consider this: Certain places have special meaning to particular people. Settings with a strong sense of place have an identity and character that is deeply felt and appreciated by people, whether they are local residents or visitors.

So sense of place refers to the unique, authentic, distinctive or cherished aspects of a specific setting or location.

Somewhere that lacks a sense of place may be referred to as 'placeless' or 'inauthentic'. It is generic; it is ordinary. These kinds of locations don't have a unique or authentic quality – they could be anywhere. It's also possible for unique or authentic places to lose their special qualities due to neglect, decay or the intrusion of detrimental elements.

Allegheny County has a variety of identifiable places that, together, give our region its distinctiveness. 'Places', as described in the comprehensive plan, are settings where people can live, learn, work, invest and play in the same location. These Places will provide opportunities for development and redevelopment, new investment and businesses, and support for diverse housing and employment options. Places will be a foundation for our County's ongoing economic revitalization.

A primary goal of *Allegheny Places* is to integrate new development into our established communities, while maintaining their character and respecting their history.

Our comprehensive plan will help to maintain and enhance our existing Places. *Allegheny Places* will also help us to create new Places. Our planning partners, including local governments and the private sector, will work together to make and strengthen Places that conserve valuable historic, cultural and natural resources, and provide abundant recreational opportunities for all to enjoy.

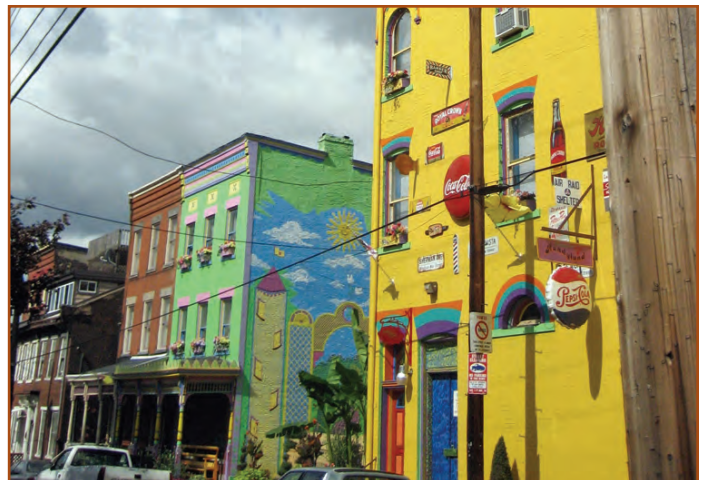


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THE NEED FOR A PLAN

Why do we need a comprehensive plan for the County?
Furthermore, why do we need one now?

Allegheny Places represents the many distinctive places we value in our County. But, the character of these places is being threatened. Allegheny County has been changing over the years. While some of these changes were desirable, others were not.

Consider the pattern of recent growth, for instance. The County's low rate of growth has not slowed the rate of land consumption. According to Sustainable Pittsburgh's 2002 *Sustainability Indicators Report*, the amount of land developed between 1982 and 1997 increased by nearly 43% even though population declined by 8% during that time. Over the past two decades, much of the development in Allegheny County has taken the shape of suburban sprawl. Sprawl is low-density development that spreads and even 'leapfrogs' into outlying areas, which means the development randomly dots the countryside with no connection to urban infrastructure. This growth pattern separates where people live from where they shop, work, recreate and learn.

Low density sprawl is costly, inefficient and inequitable. Sprawl uses more resources than traditional city and town development.

An inefficient land use pattern can lead to higher taxes for utilities and services, an erosion of the urban core tax base, a decline in downtown commercial centers and a concentration of poverty in older urban centers.

Unlike historical forms of development in Allegheny County, the typical suburban land use pattern does not have the density to support transit use. In 1947, more than one million people – about 70% of the Allegheny County population – resided in 19 of the County's 116 municipalities. All were in or close to urban population centers accessible by trolley lines. Public transit ridership hit a peak of 280 million.

After 1950, most of the core communities experienced substantial population losses, while newer municipalities in outlying areas gained residents. Public transit ridership dropped dramatically – in 2006 it was slightly more than 70 million.

Transportation is about opportunity and equity. A good transit system provides the opportunity to access goods, services and activities. Higher income households and individuals use cars more than those lower-income groups, who have a higher dependence on public transportation. Because sprawl is moving jobs further out of our urban cores, equitable employment opportunity is not easily accessible to those who must rely on public transit.

We have many groups in Allegheny County working toward smarter growth. Some are currently cleaning up and redeveloping vacant industrial land. Brownfield reclamation is smart growth since it channels development to areas with existing utilities and access, reusing this previous investment. Similarly, rehabilitating and creatively reusing older buildings is smart growth. Mixed-use developments at densities that support public transit use are also smart growth.

Change is welcome only when the outcome is desired. *Allegheny Places* will provide us with the means to manage the changes shaping the County so that we may achieve a brighter future for all our residents.

PLANNING TO BE GREAT

Planning is a means of managing change. Perhaps if there had been more awareness of the negative effects of sprawling development we could have avoided undesirable growth in the past. Without comprehensive planning and land use regulations, communities can find themselves in a position where they are forced to accept development that

may not be in their best interests. These places don't often have the special character of the communities that we value.

Allegheny County is a wonderful place to live, work, learn and play. We plan to make it better.

Our comprehensive plan is an expression of how we see ourselves in the future. It documents the goals that we share. It reflects the interests of local communities and the wishes of our residents. *Allegheny Places* additionally provides a framework for action by establishing goals, objectives and policies to guide future growth and development.

Plans can have a strong and long-lasting influence. Pittsburgh's first Renaissance is associated with the 1950s, but actually began with a planning study in 1939, which outlined new arterial roads and called for a park at the Point. Reducing air pollution was the top priority, not just because it was a health hazard, but also because it discouraged outside investment and new business and threatened to drive established businesses out of the area. Government leaders recognized the need for a strong plan to guide them to a more desirable future.

Today, every county in Pennsylvania is required to develop a plan. The authority of counties and municipalities to plan for and control land use is provided by the *Pennsylvania Municipalities Planning Code* (MPC). The MPC defines a county comprehensive plan as:

"a land use and growth management plan....[that] establishes broad goals and criteria for municipalities to use in preparation of their comprehensive plan and land use regulation."

We should not leave our future to chance. We can manage change to our common benefit.

The components of a comprehensive plan are similar to building blocks. A plan starts with a community vision and carries out that vision through the application of goals, policies and implementation strategies.

At the core of *Allegheny Places* is a Future Land Use Plan that provides a framework for development, redevelopment and conservation in the County. The Future Land Use Plan is a picture of what we believe Allegheny County can become if we work together.

We want to take the initiative in managing and guiding our future, not simply accept what happens. We want to guide decisions about where and how to build, so that we all may benefit. Better choices make better communities. *Allegheny Places* will provide the tools we need to make better choices.

THE NEED FOR PLANNING CONSISTENCY

Increased interest in coordinated planning at the state level – accompanied by funding assistance – helped to initiate the development of this Plan.

In 2003, Pennsylvania Governor Ed Rendell convened a statewide conference to begin coordination among state, County and local agencies for the purpose of linking land use, transportation and economic development at all levels. The summit included 250 leaders from across the state, including Commonwealth of Pennsylvania Secretaries from the departments of transportation, economic development, natural resources and environmental protection.

Counties without plans will be at a disadvantage in the future.

The clear message of the conference was that when state agencies evaluate grant and permit applications, priority will

be given to state, County and local municipal projects that are consistent with county comprehensive plans.

The Governor's Conference resulted in the establishment of the

KEYSTONE PRINCIPLES

- Plan regionally, implement locally
- Redevelop first
- Provide efficient infrastructure
- Concentrate development
- Increase job opportunities
- Foster sustainable businesses
- Restore and enhance the environment
- Enhance recreational and heritage resources
- Expand housing opportunities
- Be fair



We were in strong agreement with these principles and were ready to develop a countywide plan consistent with them. Funding became available following the conference. Various state agencies, foundations and County agencies provided fourteen different grants totaling \$2.5 million. As the County

planning agency, the Department of Economic Development, through its Planning Division, was responsible for preparing the comprehensive plan. The County Planning Division has provided over a half a million dollars of in-kind services during development of *Allegheny Places*.

ALLEGHENY PLACES HAS WIDESPREAD SUPPORT

On March 30, 2005, Allegheny County Chief Executive Dan Onorato publicly kicked-off *Allegheny Places*. Those opening remarks led to a long, extensive public outreach initiative. *Allegheny Places* was developed through a level of public participation that was unprecedented in the County. Thousands of people shared their knowledge and vision for the County to help set us on a course for the future. Allegheny County has a wealth of talented, energetic and diverse people who were engaged at every phase of plan development.

It was important that *Allegheny Places* reflect the desires of the people of Allegheny County so that they would embrace the plan. Therefore we reached out across the County. Our public outreach sought diversity in gender, race, ethnicity, age, income and disability and in public, private and civic sector involvement. We also sought to strike a balance between the interests of the City of Pittsburgh and growing and declining urban, suburban and rural municipalities.

Three committees were assembled to provide input and guidance:

- A Steering Committee had over 100 members representing business and industry; environmental, civic, and social organizations; human service agencies and government bodies, and the Executive Directors of each of the eight Councils of Government.
- An Advisory Committee had over 40 members and included Allegheny County directors and staff, and our funding partners.
- A Sounding Board was comprised of local nonprofit, foundation, business, planning, infrastructure and governmental leaders.

Ten Resource Panels that served as technical workgroups for targeted subjects provided equally critical guidance. Hundreds of local experts served on these panels.



The participation of diverse stakeholders resulted in the creation of a technically sound plan with well-supported goals and recommendations.

A number of public outreach tools were used to involve and engage Allegheny County residents. Since the *Allegheny Places* website was launched in May 2005, there have been more than 150,000 visits to the website. Our mailing list totaled more than 2,600 people, another clear indication of the level of public interest and involvement in the Plan. Frequent communications were sent to more than 1,300 e-mail addresses in our database.

A two-part survey was conducted. One part was administered by the Allegheny County Department of Economic Development. The other part was conducted specifically as part of *Allegheny Places*. Both were similar

Photo credit: McCormick Taylor

in format and content and were intended to gauge residents' priorities for the future of Allegheny County. Specifically, the surveys covered the following subjects:

- What makes our communities desirable places in which to live
- Priorities for making Allegheny County better
- Housing preferences
- Support for municipal mergers
- Adequacy of job training

Extensive participation in the Plan's development was essential to gain support for its implementation.

Between the two parts of the survey, we received nearly 6,400 completed surveys, which provided valuable perspectives used in the development of alternative visions of the future.

Special outreach was geared toward the county's youth. The website featured a Future Faces page for students with a link to an online youth survey. In fall of 2005, an art contest was held to challenge high school students to create artwork representing their favorite places in the County. We received 95 contest submissions from the seven school districts that elected to participate, and selected winners from each grade. The website features a gallery of their work.

Through attendance at 65 community meetings, more than 3,000 people from local community and interest groups participated in Plan development. Public workshops were equally well attended. The first was held in May 2006 to present the Trend Scenario along with the four Alternative Scenarios. A second round of public workshops in November 2006 enabled us to receive public feedback on the Composite Scenario. During this round, there were seven meetings held at strategic locations throughout the County.

A final public meeting was held on July 29, 2008 to gather input on the final draft plan. The meeting was followed by a formal public comment period, followed by a public hearing on October 23, 2008. The Allegheny County Council adopted *Allegheny Places* on November 5, 2008.

Since this is the County's first comprehensive plan, there's a greater responsibility to 'get it right'. Working with county residents and stakeholders – who are often our toughest critics – to develop the plan, we are confident that we have gotten it right. Of course, an undertaking with a scope as large as *Allegheny Places* is not likely to please every citizen of the County with each specific recommendation. However, the widespread participation of citizens from all reaches of the County assures us that we have thoroughly considered the needs of residents to develop a fair and equitable plan.

HOW TO USE THIS PLAN

County and municipal leaders can consult *Allegheny Places* when making important decisions that could affect the quality of life in Allegheny County.

Allegheny Places is intended to guide the municipalities of the County through future changes. Half of Allegheny County's municipalities do not have current local comprehensive plans. Furthermore, since *Allegheny Places* is the County's first ever comprehensive plan, Allegheny County's 130 self-governing municipalities have never had a countywide plan as a guide for making land use decisions.

Since the County's role in planning is largely advisory, *Allegheny Places* will help the communities of Allegheny County to:

- Make important decisions concerning land use
- Set policies that will influence future development and conservation initiatives
- Ensure that decision-making is coordinated at local, County and regional levels

Allegheny Places will also enable and encourage consistency between County and municipal plans. Local municipalities will continue to be responsible for regulating land use.

Again, we would like to emphasize that State agencies are required by law to consider county comprehensive plans in evaluating local grant and permit applications and to give priority to projects that are consistent with county plans.



Log onto the web and in a couple of clicks you can have access to a vast clearinghouse of planning information specific to Allegheny County. In developing *Allegheny Places*, we compiled over 200 planning-related documents and studies into one e-library. You can access the extensive data collected from our planning partners and other agencies on www.alleghenyplaces.com, in addition to reports and mapping that we prepared for the comprehensive plan. More than 40 maps of existing conditions including transportation, utilities, community facilities, environmental conditions, etc. can be found there, along with maps for each municipality and Council of Government. There's also a database of

over 600 parks, recreation and open space facilities. The e-library even includes an extensive number of current local comprehensive plans. This information can be accessed from 'The Plan' page of the website.

Allegheny Places was developed with a vision of a prosperous future for all residents. The next chapter describes how this comprehensive plan was developed.



CHAPTER 2: PLANNING FOR OUR PLACES

THE PRINCIPLES THAT GUIDED THIS PLAN

Allegheny Places is a plan for the people of Allegheny County. We repeatedly heard from a diverse range of stakeholders that several key factors would be critical to the successful development of the plan. From these key factors we established the Guiding Principles, which directed and formulated the plan:



Photo credit: McCormick Taylor

- Provide options and choices
- Promote equitable and diverse development
- Help all people benefit from equal access to opportunity
- Protect environmental resources
- Coordinate consistency with local municipalities
- Plan for greenway connectivity throughout the County
- Optimize access to rivers
- Enhance recreational and cultural resources
- Preserve quality existing places, our historical legacy and community character
- Guide public investment to targeted areas through County development policies:

- Airport Area (including Future I-376 and I-79)
- Mon Valley Hubs (at Mon/Fayette Expressway Interchanges)
- Brownfields
- Downtown Pittsburgh
- Oakland with University and Hospital Initiatives
- Major Corridor Development (including Routes 8, 19, 28, 30, 50, 51, 65, 88, 837, and 910)
- Transit-Oriented Development

- Direct development to existing urban areas
- Encourage mixed-use and concentrated development
- Target investments for maximum return
- Maximize use of existing highways, transit and utilities
- Respond quickly and appropriately to the market

Allegheny Places was developed with a vision, one that recognizes and promotes Allegheny County as a vibrant community of places providing equitable opportunities for a diverse population. From the beginning, this comprehensive plan embraced equity and diversity as a cornerstone for our future.

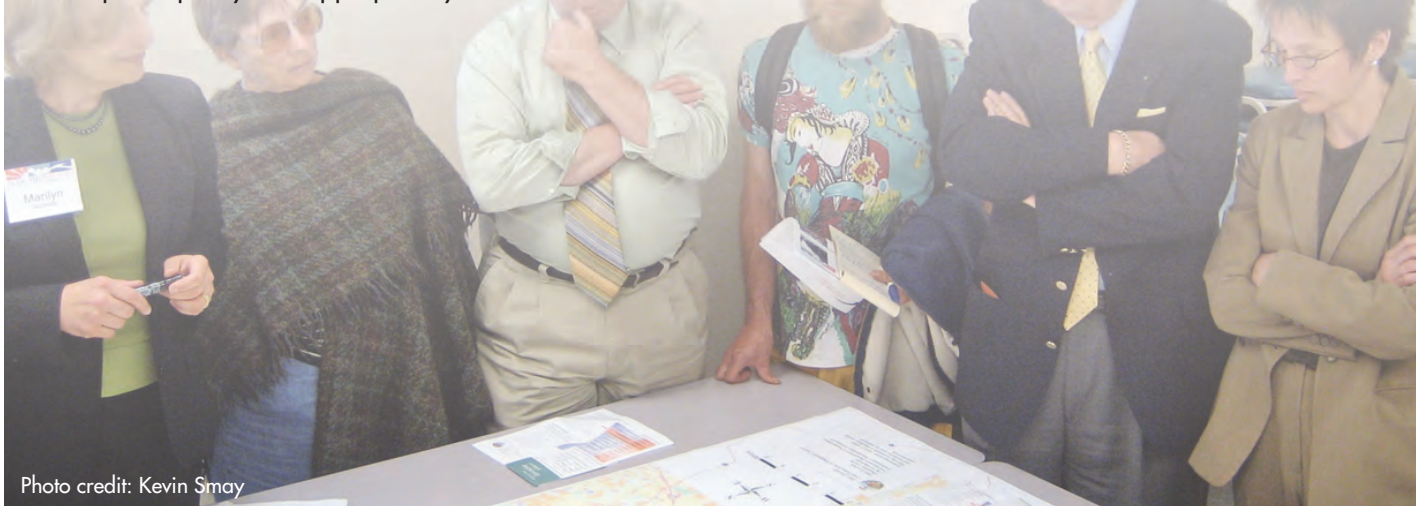


Photo credit: Kevin Smay



PROMOTING EQUITY AND DIVERSITY

Equity is the principle that every person deserves fair and ethical treatment. It is the foundation of American democracy. Diversity is the variety of ethnic and cultural groups in an area.



Photo credit: McCormick Taylor

Many residents struggle with social and economic disadvantages. The Equitable Development Principles were established to help address these problems and guide plan development. Through *Allegheny Places*, we will strive to achieve a future where all residents benefit from

Equal access to:

- Decent, affordable housing
- Attractive neighborhoods
- Good paying jobs
- Public transit
- Amenities such as parks and trails, and
- High-performing schools.

To achieve our full economic potential, all residents must contribute to and benefit from our growth and development.

In addition, an Equity and Diversity Resource Panel, comprised of recognized experts from the region, convened at critical points during the development of *Allegheny Places*. Each Equity and Diversity Resource Panel member also served on the other plan element resource panels to ensure related issues were addressed comprehensively.

The panel provided technical and strategic guidance on potential issues and creative approaches to resolving equity and diversity issues. The panel also reviewed the goals and objectives of the twelve plan elements of *Allegheny Places* and provided insight into how each element could better address equity and diversity.

A national expert on equity and diversity additionally influenced the Plan's development. John A. Powell, the Director of Ohio State University's Kirwan Institute for the Study of Race and Ethnicity, provided the keynote address at a regional equity conference sponsored by Sustainable Pittsburgh. He explained how isolation from opportunity creates inequality. In turn, this inequality results in a region that is unhealthy, inefficient and unsustainable, since it is unable to increase its population. He additionally advised how resources could be strategically targeted to key areas to reach diverse populations and provide an equitable benefit and return on that investment.

Allegheny Places supports sharing the benefits and burdens of development among all the communities in the County.



Photo credit: McCormick Taylor

Allegheny Places followed Mr. Powell's recommendations by targeting areas in the Future Land Use Plan for future development. These areas were chosen to direct resources to key areas rather than trying to spread limited funds throughout the entire County.

Allegheny Places promotes healthy, sustainable communities by:

- Recognizing, respecting and valuing cultural and social diversity
- Recognizing that social and cultural inequities create environmental and economic instability
- Recognizing that a healthy, adaptable local economy is vital to the County's ability to provide a highly desirable quality of life, high levels of services and amenities
- Promoting a diverse and sustainable economy that supports the needs of all residents
- Targeting infrastructure that will encourage culturally and socially diverse communities to both prosper within and connect to the larger community

During development of *Allegheny Places*, a number of disparities concerning race, income, gender, the elderly and the disabled have become better understood. According to the National Association of Realtors, "growth planning in many communities can reduce the choices people have about where they live." Therefore, County resources will be targeted to key areas to provide opportunities to diverse populations and provide an equitable return on that investment.

Measurable progress will be achieved in the Plan's equity and diversity objectives through the Plan's implementation strategies and resulting actions. While no one initiative will resolve all of today's inequities, *Allegheny Places* provides a way for all residents to contribute to and benefit from Allegheny County's growth and development.

FOUR PHASES OF PLAN DEVELOPMENT

The development of *Allegheny Places* progressed through four phases:

■ Phase 1 – Analysis of Existing Conditions

During the first phase, we determined what the future would look like if recent development trends continued. We did this by projecting population and job growth in the County for the year 2025. This future growth was then mapped in terms of where development would occur if the same development trends continued. This map became our baseline for the Future Land Use Plan and was named the 2025 Trend Scenario.

■ Phase 2 – Development of Alternative Scenarios

Next we engaged in deciding between options and visioning different futures for the year 2025. Four alternatives to the 2025 Trend Scenario were identified, mapped and tested.

■ Phase 3 – Identification of Preferred Scenario

During the third phase of plan development a preferred scenario was chosen. The 2025 Trend Scenario and the four Alternative Scenarios were reviewed by the public, the resource panels and planning team members. Based on feedback we received, the preferred qualities of the alternatives were blended to create the 2025 Composite Scenario.

■ Phase 4 – Development of Implementation Strategies

During the fourth phase of plan development, the 2025 Composite Scenario was refined to become the *Allegheny Places* Future Land Use Plan. Goals and objectives and recommended implementation strategies were also finalized.

More details about the work that took place in each phase of plan development follow.



FORECASTING TRENDS

Plan development began by engaging the public and panels of experts and by evaluating existing studies; assessing environmental conditions; completing field views and examining aerial photography of the County. We also commissioned new reports to further our understanding of demographic characteristics and trends.

The 2025 Trend Scenario was developed using:

- Census data for municipal population and housing characteristics
- Population and employment projections generated by the University of Pittsburgh
- Data from the City of Pittsburgh Planning Department
- Data derived from recent land development activity in the County

The data was used to estimate the amount of new development that the County could reasonably expect over the next twenty years. By analyzing recent development patterns, we were then able to forecast where future development was most likely to occur if the recent development trends continued.

RESIDENTIAL GROWTH FORECASTS

Over the next 20 years only a modest increase in the number of residents is expected; the County's population is projected to be 1.3 million in the year 2025, a 4% increase over the 2000 population. If development trends of the last ten years continued over the next twenty, Allegheny County would see construction of 50,000 new residences. This corresponds to a medium rate of growth, or 2,500 new residences per year. Recent residential construction in the County has on average been at a density of about two dwelling units per acre of land. Therefore, new residential development could equate to 25,000 acres over the twenty-year period.

The forecast of 2,500 new dwelling units per year closely correlates with recent building permits issued: from 1994 to 2004, there were 2,700 permits per year issued for new residential units in Allegheny County.

EMPLOYMENT GROWTH FORECASTS

Employment forecasts developed by the University of Pittsburgh's University Center for Social and Urban Research (UCSUR) formed the basis of our estimate of land needed to accommodate new non-residential development over the twenty-year planning period. The number of jobs in the County is expected to increase by 190,000 during that time.

We adjusted the acreage figures derived from the employment forecasts to reflect pending and proposed non-residential development. From these exercises and an analysis of local topography, we developed a forecast that shows Allegheny County will need the equivalent of 10,000 acres of land for new retail, office and industrial development over the next twenty years.

DEVELOPMENT PATTERNS

Existing land uses were mapped to assess the current pattern and intensity of development in the County. Maps 2.1 and 2.2 show the extent of land consumption and the extent and location of land potentially available for future development and redevelopment.

These patterns and trends helped to identify areas that may need infrastructure improvements to support an appropriate type and scale of development.

Today's land use pattern reflects the County's growth and development through history.

Significant development projects constructed between 1993 and 2005 were documented through the Major Land Development Map (see Map 2.1). This map was created using aerial photography from 1993 and 2004, in conjunction with the Southwestern Pennsylvania Commission's Major Land Development Database. A survey sent to all of the county's municipalities was also used to verify major developments as well as to collect information on projects built after 2004. The Allegheny County Department of Economic Development staff, local municipalities, the public and other stakeholders reviewed the map for accuracy.

From 1993 to 2005 more than 14,000 acres were developed in the county. Most was residential development totaling 9,000 acres, or about 67% of the total land area developed during that time period. Most new home construction was single-family dwellings constructed on lots approximately averaging one-half acre in size. It occurred in typical suburban developments in the northwestern and western portions of the County, primarily in Marshall, Pine, Moon, Collier, North Fayette, South Fayette and Robinson Townships. The north-central and eastern portions of the County also experienced an increase in residential development.

Commercial land uses (including retail and office space) were the second most significant land use between 1993 and 2005. Commercial development took place on 1,400 acres, or 11% of the total acreage developed during that time period.

Industrial development and redevelopment took place on 1,000 acres throughout the County, including former brownfields.

The remainder of development was a variety of uses – office, community facilities, mixed use – scattered on 2,000 acres throughout the County.

If recent development patterns continue, growth would mostly occur as low-density development in the northern and western parts of the County, while core areas and older boroughs would continue to decline.

PENDING AND PROPOSED DEVELOPMENT

To further understand current development trends, we examined where pending and proposed development is planned to occur. These are development projects that have been approved, but not yet built. We sent a survey requesting information about such developments to each municipality. The Pending and Proposed Development Map that was developed reflects municipal responses to the survey (see Map 2.2).

The pattern for development in the near future, as reflected in the Pending and Proposed Development Map, follows a pattern similar to the Major Land Development Map. Most of the development is proposed in the outer perimeter of the County, with the exception of a limited number of projects within Pittsburgh.

THE 2025 TREND SCENARIO MAP

The 2025 Trend Scenario map (see Map 2.3) was created from forecasts and analysis of development patterns and trends discussed above. It is a graphic representation of the total amount of land required to accommodate future housing and non-residential development. The future development has been placed in areas of the County that are supported by actual development activity in the recent past. Through the use of available data, an estimated 50,000 residential units and 10,000 acres of non-residential development is what the county can expect to experience over the next 20 years. The map uses “chips” of residential (yellow), retail (red) and employment centers (pink), which includes industrial and office development, to graphically depict the expected future development. The yellow chips represent 200 residential units, the red and pink chips represent 100 acres of development or 1,000 and 2,500 jobs respectively.

In addition to the new growth expected in the County, the 2025 Trend Scenario also depicts areas that are losing residential units. The blue “chips” represent 200 residential units and total 16,000 units to be lost or demolished during the 20 year time frame (based on US Census Bureau data). In terms of the City of Pittsburgh and other areas, these blue “chips” are also viewed as areas of opportunity for new development to take the place of older vacant or dilapidated structures.

The resulting pattern shows development spreading out in the northern and western portions of the County, while the core communities are experiencing decline. The 2025 Trend Scenario is by no means a recommended plan or set of policies for the county. The 2025 Trend Scenario is merely an informed assumption as to what the county could be like in 20 years assuming a continuation of recent land development trends.



CONSIDERING ALTERNATIVE FUTURES

Throughout plan development through surveys and public meetings, we learned that the most important factors that people wanted to see reflected in *Allegheny Places* were:

- Affordable and quality housing
- Cultural activities
- Preservation of open space
- Entertainment options
- Efficient access to employment
- Recreational facilities
- Proximity to transit
- Better access to the rivers

Based on key themes that were important to participants, four alternative scenarios for the future emerged:



Photo credit: McCormick Taylor

- **Good Old Places** – growth directed to older, established communities and existing neighborhood hubs (including those listed in the Mon Valley Economic Development Strategy) through revitalization of brownfields, infill construction and the rehabilitation and reuse of existing structures, roads and utilities. Commercial development would be directed to established downtowns and central business districts to assist with the revitalization of older communities.

- **Hot New Places** – growth is directed to two types of centers. The first type is adjacent to selected highway interchanges. Over the planning period, these locations are targeted for relatively high-density, mixed-use development, as well as relatively compact moderate-intensity residential development. The second kind of center responds to where the market is showing interest in areas around the County's perimeter, especially in the southwest and northwest.

- **River Places** – growth redirected toward the riverfronts of the Allegheny, Monongahela, Ohio and Youghiogheny Rivers. The main thrust is to revitalize these communities on the rivers, which include many brownfields and established boroughs and villages. The River Places Theme also aims to provide improved visual and physical access to the rivers, which are one of the County's most important assets.

- **Transit Places** – growth directed to existing and future transit stations in the form of walkable clusters of mixed-use, high density development. The existing transit stations include the 'T' and the East, South and West busways. The Transit Places Theme also designates a significant number of new transit-oriented developments along proposed transit lines through the Allegheny Valley, Mon Valley and the Airport Corridor.

Using the same assumptions for growth as the 2025 Trend Scenario, the four Alternative Scenarios explored different and more positive alternatives for future development patterns.

DEVELOPING THE PREFERRED FUTURE

In reviewing the five initial scenarios in public meetings and other venues, the public expressed overwhelming support for:

- Revitalizing existing neighborhoods
- Walkable, mixed-use development
- Responding to market demands
- Riverfront development
- Concentrating development in areas with existing infrastructure

The four alternative scenarios and the Trend Scenario were blended together to incorporate these qualities. A shared vision for Allegheny County, the 2025 Composite Scenario, took shape.

The Composite Scenario (see Map 2.4) has the same amount of development as the Trend Scenario, but with a more clustered, mixed-use development pattern directed to existing communities and areas with access to existing infrastructure. To provide additional housing choices and respect the market, some development is located around the perimeter of the County where there are clear opportunities for growth.

The Composite Scenario is the basis for the Future Land Use Plan. It focuses on future development and redevelopment at key locations. The Future Land Use Plan is a further development of this concept, describing all future land use across all parts of the County.

PERFORMANCE OF THE 2025 COMPOSITE SCENARIO

The 2025 Composite Scenario combines the best characteristics of the alternatives examined and is the basis of the Future Land Use Plan. Using computer software called CommunityViz, we found that the 2025 Composite Scenario offers significant benefits over the 2025 Trend Scenario. The 2025 Composite Scenario would:

- Use a third less land (or 12,000 acres) than would be developed by the 2025 Trend Scenario by clustering development.
- Target substantially more opportunities for our neediest residents to live and work in the same community by allocating 150% more acres of development in low income communities.
- Target more housing and jobs in low performing school districts, which translates to a higher tax base. By increasing the tax base, more resources will be available to assist struggling school districts. The issue of whether or not development can realistically be expected to invest in areas with low-performing schools must be aggressively addressed.
- Use existing infrastructure more efficiently, including roads and utilities.
- Direct almost 50% more acreage to brownfield sites.
- Locate more housing units closer to regional parks and trails.
- Increase transit ridership by 25,000 passengers a day by locating more work and housing options within a quarter mile of transit stations.
- Result in 3 million fewer vehicle miles traveled on the roadway network per average weekday.



DIRECTING GROWTH TO PLACES

Allegheny Places is comprised of twelve planning elements. The Future Land Use Plan ties all the other elements together and illustrates the plan’s vision. It provides an efficient and economical way to accommodate new growth and revitalization and protects open space and environmentally sensitive resources.

The Future Land Use Plan presents the recommended distribution and desired character of future land uses consistent with the Composite Scenario. It describes types of ‘Places’ that are strategic locations for development and redevelopment to occur over the next 20 years.

- Most Places are generally close to major road and transit corridors, existing infrastructure, and community facilities and services.
- Most Places are mixed-use and mixed-income centers that include residences, shopping, employment, community facilities and open space.
- Most Places are located primarily in existing communities, although some are in new locations or ‘greenfields’.

Future development has been allocated to designated Places as shown in Table 2.1.

The Future Land Use Plan directs major development and redevelopment to the Places to maximize the value of current and prospective investments. Areas outside the designated Places are intended primarily for infill developments or for resource conservation. The Plan responds to a housing market that is increasingly demanding more options and choices for Allegheny County residents.

The Future Land Use Plan is flexible. Rather than being a strict representation of the 20-year ‘build-out’, it illustrates where particular land uses can be supported with public funds as recommended in *Allegheny Places*. The Future Land Use Plan strategically targets funds so that the highest result can be achieved with limited resources. You can read more about the Future Land Use Plan in Chapter 4.

TABLE 2.1 – Growth Allocated to Places		
Place	Residential Development (Units)	Non-Residential Development (Sq. Ft.)
Airport	0	17,500,000
Core	1,800	2,625,000
Corridors	10,600	19,250,000
Neighborhoods	9,400	12,375,000
Community Downtowns	17,600	23,125,000
Villages	7,400	5,125,000
Rural Places	3,200	0
Total	50,000	80,000,000

IMPLEMENTING PLACES

We envision that the Future Land Use Plan will be implemented through independent and collaborative actions – not through coercion – and through a desire to see its Places come to life for the benefit of all. The Plan will be implemented cooperatively through regulations crafted and adopted by local municipalities; through the actions of State agencies in awarding grants and permits; and through strategic targeting of resources by the County and others. Developers and property owners are important partners in this future collaboration. As they work to develop, redevelop,

and conserve their land in consistency with the Plan, they will be supported by and benefit from municipal, State and County involvement.

Allegheny Places is more than just a document disclosing past and present land use trends and recommending a proposed course of action. It is an organized way of thinking about our future, a blueprint for the land use patterns of tomorrow. Understanding the past helps us plan for the future.





CHAPTER 3: OVERVIEW OF *TODAY'S PLACES*

INTRODUCTION

While life is good in Allegheny County, it is not without its challenges.

In this chapter, we examine the conditions affecting our quality of life today along with the changes and trends that will shape tomorrow's places. Understanding how today's settings came to be is important in predicting how they may change in the future. This analysis is central to *Allegheny Places* and its vision for the County's future. We are planning now so that we may direct and manage these changes, ensuring that today's places will continue to enrich the lives of residents and visitors tomorrow.

Not only should our places prosper, but so should the people that make these the treasured places that they are. We will continue to work to ensure that everyone is afforded equal opportunity to our future prosperity. We address important diversity and equity issues throughout *Allegheny Places*.

Additional supporting documents, including maps and tables, are found in the compact disc that accompanies this report. This material is based on information compiled and maintained by state, regional and County government agencies, as well as analyses produced specifically for *Allegheny Places*.



Photo credit: McCormick Taylor



A SNAPSHOT OF ALLEGHENY COUNTY

Allegheny County encompasses the City of Pittsburgh and its suburbs, in addition to the river towns and rural villages outside of the urbanized area. Located in southwestern Pennsylvania, Allegheny County is 730 square miles, or roughly half a million acres in size. The County is bordered by Butler, Armstrong, Westmoreland, Washington and Beaver counties (see Figure 3.1).

The County retains a strong ethnic character. Its first significant wave of immigration was from Great Britain, Ireland and Germany. Later Poles, Hungarians, Serbs, Croats, Italians and Russian Jews settled here. African-Americans came to the area in large numbers in the first half of the 20th century, largely through migration from the South.

Within our borders may be found world class architecture, medical centers, educational institutions, parks, museums, a zoo, aviary and major league sports facilities. More than 10 million people visit our attractions annually. Travel is a \$3 billion industry that provides more than 50,000 full-time equivalent jobs in Allegheny County. In 2007, *American Style* magazine ranked Pittsburgh the number one arts destination nationally among mid-sized cities. *ShermansTravel.com* named the region one of its ten most underrated travel destinations in the U.S.

We have an extensive transportation network of air, water, highway, railroad and transit systems. The Port Authority of Allegheny County operates one of the nation's largest public transportation service networks.

Allegheny County is the region's employment center and attracts a significant number of workers from adjacent counties and states to fill jobs within its borders. The County is home to the headquarters of several Fortune 500 companies.



Figure 3.1 – Allegheny County

Source: McCormick Taylor

One of Allegheny County's greatest assets is Pittsburgh, our County seat and economic and cultural center. Once the city was the center of the nation's steel industry; today it embraces both high-tech corporations and charming old world neighborhoods. But certainly Allegheny County is more than just Pittsburgh. In fact, there are 130 municipalities within the County.

The County's population in 2006 totaled 1.22 million, making it the second most populous county in Pennsylvania. The population of the County's municipalities ranges from 335,000 in the City of Pittsburgh, to 75 in Haysville Borough.

No longer reliant on heavy industry for jobs, Allegheny County has developed a more diversified, agile economy. Manufacturing remains an important sector of our economy, but it is no longer the most significant generator of regional income.

Today, our economy is led by the 'meds and eds'; that is, the prominent and prestigious medical and educational institutions located here. The University of Pittsburgh Medical Center (UPMC) is a leading American health care provider and institution for medical research. Much important medical research takes place within our borders; the region ranked seventh in National Institutes of Health funding. A lot of high-tech research and development also happens here. Research at Carnegie Mellon and the University of Pittsburgh has spurred a number of high-tech start-up companies. Over the

last year, we've experienced the largest growth in venture capital investment of any area in the country.



Photo credit: McCormick Taylor

In 2007, Pittsburgh was named one of "America's 50 Hottest Cities" for expanding and relocating companies by *Expansion Management* magazine. The designation was based on such factors as business environment, work force quality, operating costs, incentive programs, work force training programs and the ease of working with the local political and economic development community.

Workers are attracted to our County by career opportunities within various job sectors such as health care, finance, manufacturing, primary metals and educational services. Our largest employer is the University of Pittsburgh, primarily because of the University of Pittsburgh Medical Center.

Education is vitally important to Allegheny County for many reasons. We have a highly-educated working age population. According to the 2000 census, over 28% of those over 25 years old have at least a Bachelor's Degree, higher than the national average of 24%. This number rose to nearly 33% in 2005, as reported by the American Community Survey.

Allegheny County consistently ranks high on lists of the nation's most livable areas.

One of our greatest competitive advantages is our livability, which is a combination of our many strengths. *Places Rated Almanac* ranked Pittsburgh as "America's Most Livable City" in 2007. The region was ranked one of the smartest places to live in the nation by Kiplinger's *Personal Finance* magazine.

In 2006, *Reader's Digest* named the region one of the best places to raise a family. These assessments were based on factors such as our affordability, employment opportunity, quality of health care, cultural and leisure activities, education options, crime rates, commuting times and quality and cost of housing.

The cost of housing in the region ranks as the most affordable in the nation, according to the U.S. Census, and is well below the national median. Pittsburgh is also one of the safest cities of its size. According to recent Uniform Crime Reports, the City enjoys the seventh-lowest crime rate among 44 major U.S. cities.

Our County is stunningly beautiful. The area is known for scenic vistas created by steep-sided hills and winding river valleys. We have a number of sizable County parks that offer a variety of activities and extensive greenways and trail systems. Not to pile it on, but Pittsburgh was also named one of the best places to live by National Geographic *Adventure* magazine, which described our area as an "action-packed locale" for outdoor adventure.



Photo credit: Bernadette E. Kazmarski

The secret is out. The nation is learning now what so many of us have long known: Allegheny County has special places in which to live, learn, work, invest and play.



A DEMOGRAPHIC PROFILE

Slow decline has been a defining trend in Allegheny County for decades. For more than 75 years the County has lagged behind the nation's and state's growth rate. In 2000, Allegheny County had a population of approximately 1.28 million. The population in 2006 was estimated to be 1.22 million. In each decade from 1970 to 2000, the County's population has decreased.

The population drain continues in the region, according to U.S. Census Bureau figures released in June 2007. Estimates of 2006 population show about 70% of the region's communities lost two percent or more of their residents since the 2000 estimate. Allegheny County, the urban core of Southwestern Pennsylvania, lost 4.3% of its population during that time.

In each decade from 1960 to 2000, the County's population has decreased. However, the rate of population loss is lessening, as shown in Figure 3.2. According to the University of Pittsburgh's Center for Social and Urban Research, this trend is projected to continue to 2010, with a slight increase through 2025 to 1.35 million.

over 100,000 steel-related jobs were lost. This resulted in many young and working age people leaving the County in search of jobs.

There are further explanations for the County's population decline:

- Increased suburbanization has allowed people to live farther from their jobs. This means that while Allegheny County remains the job center for the region, many workers are living in counties surrounding Allegheny.
- The County has had more people leaving than moving in. The largest exodus was during the 1970s and 1980s, a trend that abated in the 1990s. Today, the Pittsburgh region has one of the lowest rates of domestic out-migration of any major metropolitan region in the country. But unfortunately, the Pittsburgh region also has one of the lowest rates of domestic in-migration in the country.
- Since the mid-1990s, Allegheny County has seen more deaths than births, an unusual occurrence in an urban county. Figure 3.3 shows recent trends in natural change, the difference between births and deaths.

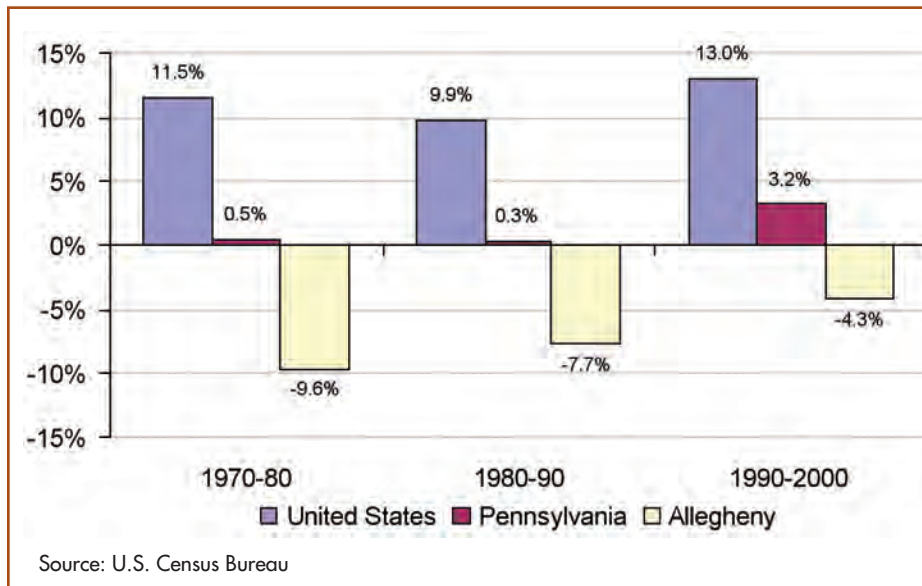


Figure 3.2 – Comparative Population Growth by Decade, 1970-2000

The population decline stems from the continued economic restructuring of the region. Between 1978 and 1983 alone,

In short, the Pittsburgh region's population remains stagnant largely because of low birth rate and low international immigration and not because of a continuing out-migration of young people. The low birth rate today is due to the out-migration of young people 20 years ago following the collapse of the steel industry – when they left the region, they took their future children and grandchildren with them.

Additionally, many local officials believe that high taxes are causing people to leave the County. The thinking is that working families are abandoning core communities for lower taxes in outlying counties (as evidenced by the increasing number of commuters from these counties), while retirees are heading to regions of the country with lower taxes (as evidenced by the declining elderly population). Certainly, local income and property

taxes are an important consideration for people when choosing where to live.

While Allegheny County's population has declined over the past several decades, the six surrounding counties have remained fairly stable (see Figure 3.4).

AGE TRENDS

An examination of population by age cohort can better provide an understanding of County demographics. With about 22% of the population comprised of individuals under the age of 18, the County can be described as having a medium-low percent of children. People 65 and older make

up nearly 18% of the total population base. Compared to other counties throughout the nation, this represents a medium-high elderly proportion of the population.

Due to out-migration in the past three decades, people 65 and older increased as a proportion of the County's total population, as shown in Figure 3.5. This trend is reversing, however, with the elderly population peaking in 1994 and decreasing through 2000. For over a decade, the elderly population has been decreasing at rates higher than the rest of the County's population.

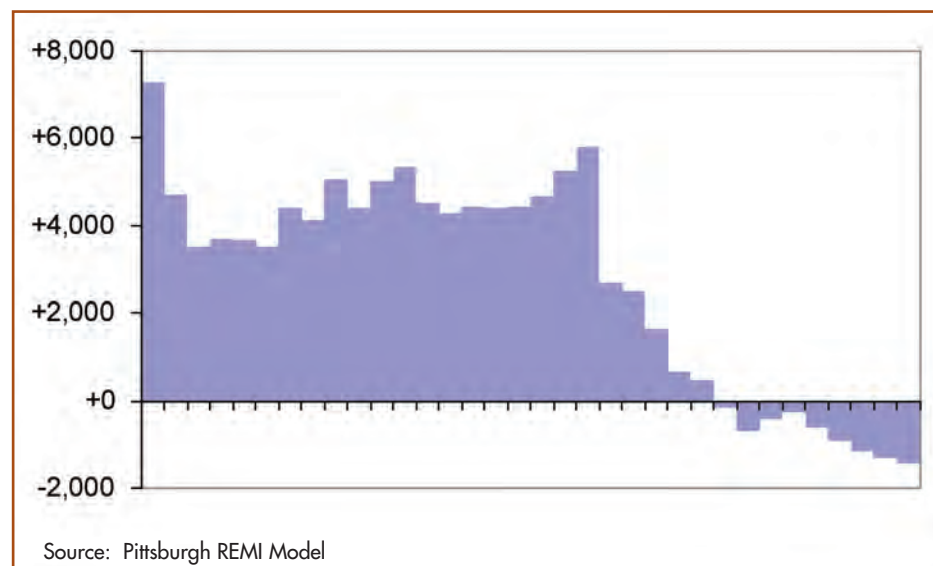


Figure 3.3 – Natural Population Change (Annual Births minus Deaths)

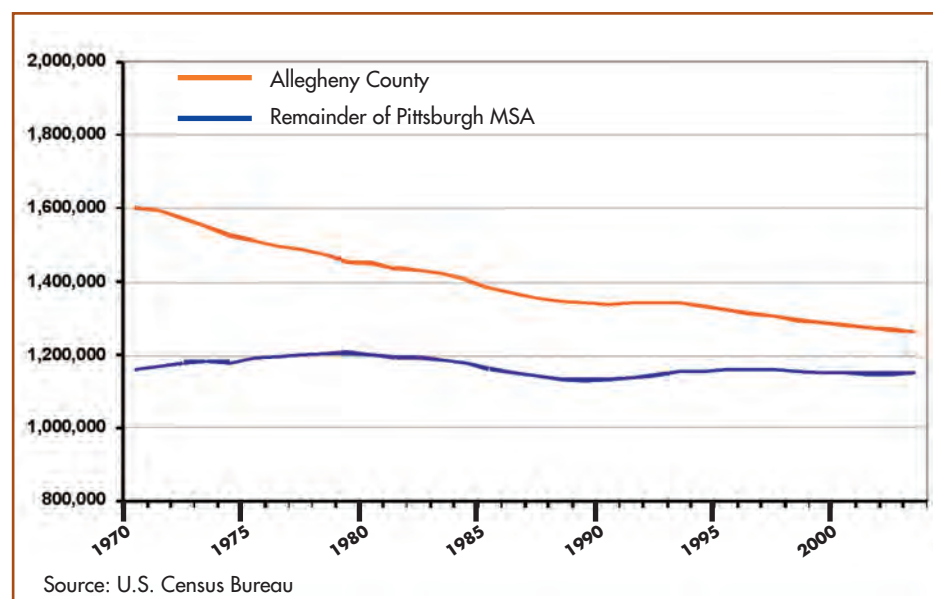


Figure 3.4 – Population Change: 1970-2004 Allegheny County vs. Remainder of Pittsburgh MSA

The County's disabled population totaled 387,000 persons, according to the 2000 Census. This is approximately 30%

DISABLED POPULATIONS

The 2000 Census categorized six types of disabilities:

- **Sensory disability** – blindness, deafness, or a severe vision or hearing impairment
- **Physical disability** – limited in one or more basic physical activities, such as walking, climbing stairs, reaching, lifting, or carrying
- **Mental disability** – learning, remembering, or concentrating
- **Self-care disability** – dressing, bathing, or getting around inside the home
- **Going outside the home disability** – going out alone to shop or visit a doctor's office
- **Employment disability** – working at a job or business



of the County's population, a rate similar to the rates of the nation (32%) and state (31%). The elderly (65 and over) comprise 42% of the County's disabled population.

southwest. The result is that the County is 'hollowing out', with more residents moving from the core communities to the outer perimeter. Figure 3.6 shows the municipalities in the outer areas of the County that are growing and those within the core that are losing residents.

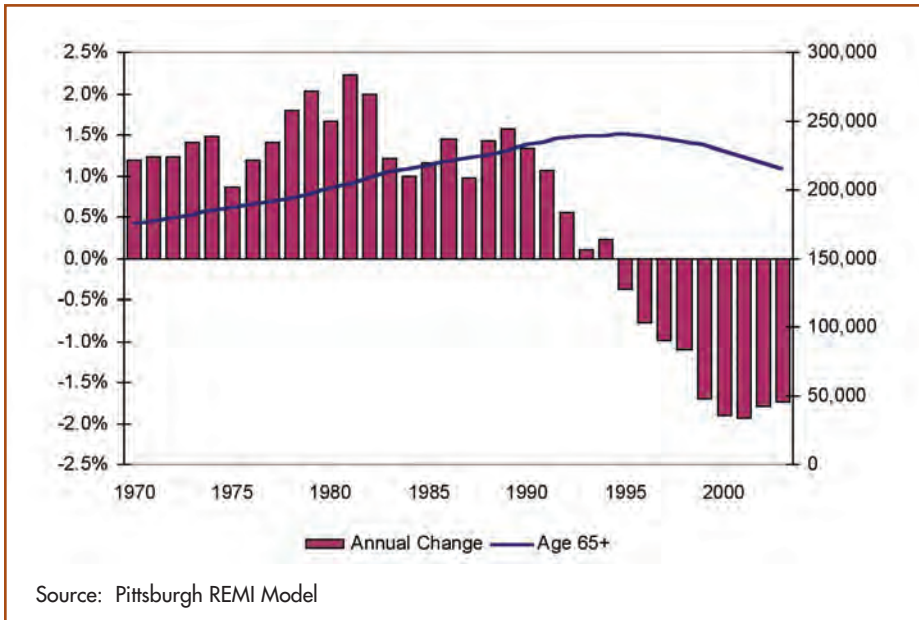


Figure 3.5 – Population Age 65 and Over, Allegheny County, 1970-2000

A REDISTRIBUTION OF POPULATION

Within Allegheny County, 97 of 130 municipalities lost population in the 1990s. Population decline was concentrated in the urban core and extended outward along the County's Three Rivers. The City of Pittsburgh suffered the largest population decline, with a loss of over 35,000 residents in the 1990s. The largest percentage of population decline in the 1990s occurred in Braddock Borough, which lost nearly 38% of its population.

Relatively high proportions of elderly residents, coupled with little population growth projected over the next 20 years, means even greater population loss for many municipalities.

Population grew in just 33 municipalities during the 1990s. Only 16 municipalities increased their population by 5% or more during that time. Most of the growing communities are along the County's outer borders on the north, west and

Without population growth to replace natural population loss, older communities face increased tax burdens that threaten the provision of services and residents' quality of life, sending those areas into further decline.

With the decline of population also comes a decline in population density. In 1960, Allegheny County had 2,200 people per square mile. This figure dropped to 1,750 persons by 2000. Population density by municipality differs significantly across the County.

MINORITY POPULATIONS

Allegheny County's minority population was 15.5% in 2000. African Americans make up nearly 12.5% of the population, while Asians are less than 2% and Hispanics less than 1% of the County's residents. African Americans and other minorities were concentrated in relatively few municipalities (see Figure 3.7). Seventy-five percent of the County's African American population lives in just four communities: the City of Pittsburgh, Wilkinsburg Borough, the Municipality of Penn Hills and the City of McKeesport.

Seventy-five municipalities in the County have a median age over 40. In nine communities, over one quarter of the population is age 65 and over. Many of these municipalities, along with neighborhoods in other communities, have become what are sometimes referred to as 'naturally occurring retirement communities'. In these communities, the elderly are not newly situated, as in traditional retirement communities. Instead, they have 'aged in place'.

As residents move out of the core, the neediest people are left behind to bear the burden of increased costs for providing services.

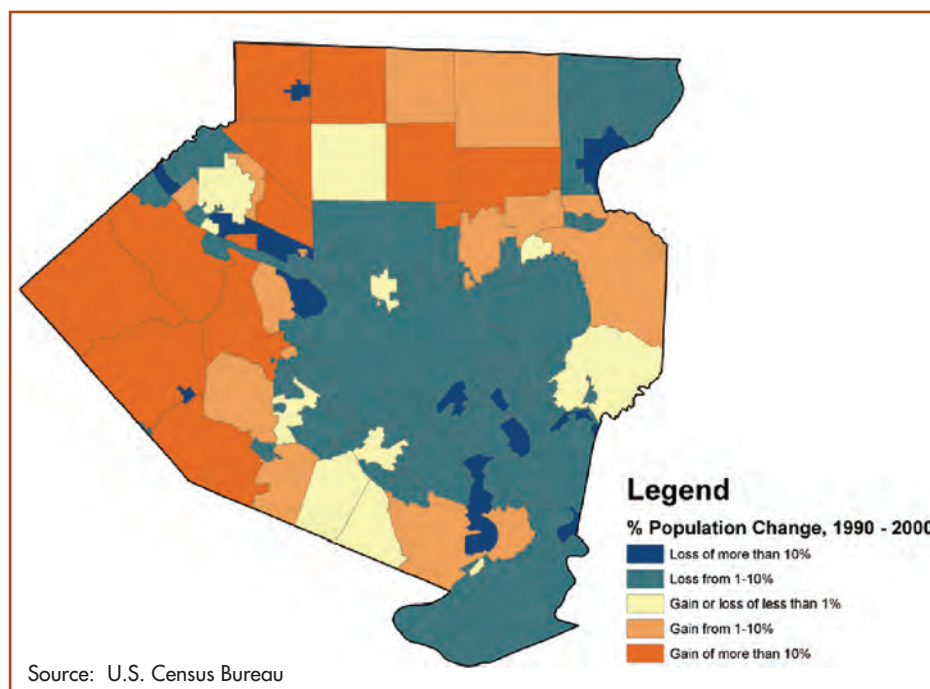


Figure 3.6 – Population Change 1990-2000

RACIAL EQUITY

A June 2007 report of the University of Pittsburgh's Center on Race and Social Problems found that African Americans are highly segregated from Whites in the City of Pittsburgh and the Pittsburgh region while Asians and Hispanics are only moderately segregated from Whites.

The report, *Pittsburgh's Racial Demographics: Differences and Disparities* further revealed that in the City, County and region, less than a third of African American children are being raised in families with both of their parents, compared to more than half of Hispanic children, two-thirds of White children, and more than four out of five Asian children. Further, the percentage of African American two-parent families among African American families with children is much lower in the Pittsburgh area than in the nation.

In terms of education, the average African American student attends a school with a poverty rate of 65%, while this figure is only 28% for Whites. Additionally, 73% of the region's African American students would have to change schools in order to desegregate the region's elementary schools.

There is a strong correlation between poverty and race in Allegheny County. This leads to a disparity with tax rates that

falls along racial lines. On average, African Americans in the County pay a local income tax rate that is 49% higher than what Whites pay, a 2004 Pittsburgh Post-Gazette computer analysis determined. African American homeowners also pay higher millage rates than their White counterparts. This is due to the high tax rates in poor urban communities, as impoverished municipalities and school districts try to squeeze what revenue they can out of their meager tax base. The vast majority of African Americans have the burden of high tax rates in distressed municipalities, while most higher income Whites living in the suburbs on average pay taxes at a lower rate.

INTERNATIONAL IMMIGRATION

Immigrant population is very low in Allegheny County. Most immigration to the area halted at the outbreak of World War I. Since then, relatively few people have come here from other countries, even though the nation as a whole has seen large increases in Hispanic and Asian immigration. In 2000 the foreign-born population was less than 4%, compared to 11% nationally. The 16,000 foreign-born residents represent the fewest number among the 25 largest American metropolitan regions. However, the County did experience a 15% increase in immigrant population between 1990 and 2000.

During the 1990s, more immigrants came to Allegheny County from Asia than from any other continent, according to the Allegheny Institute for Public Policy. The top two countries represented in the County's 2000 foreign-born population are Italy and India.

The population of the Pittsburgh region is far less diverse than that of the nation primarily because the region has small Asian and Hispanic populations.

There are various reasons why Pittsburgh has not been a part of the recent wave of Latino immigration. One reason may be that, contrary to popular perception, Pittsburgh is now one of the least 'blue-collar' regions in the country. Furthermore, there are not a lot of growth-related jobs in the County. Recent



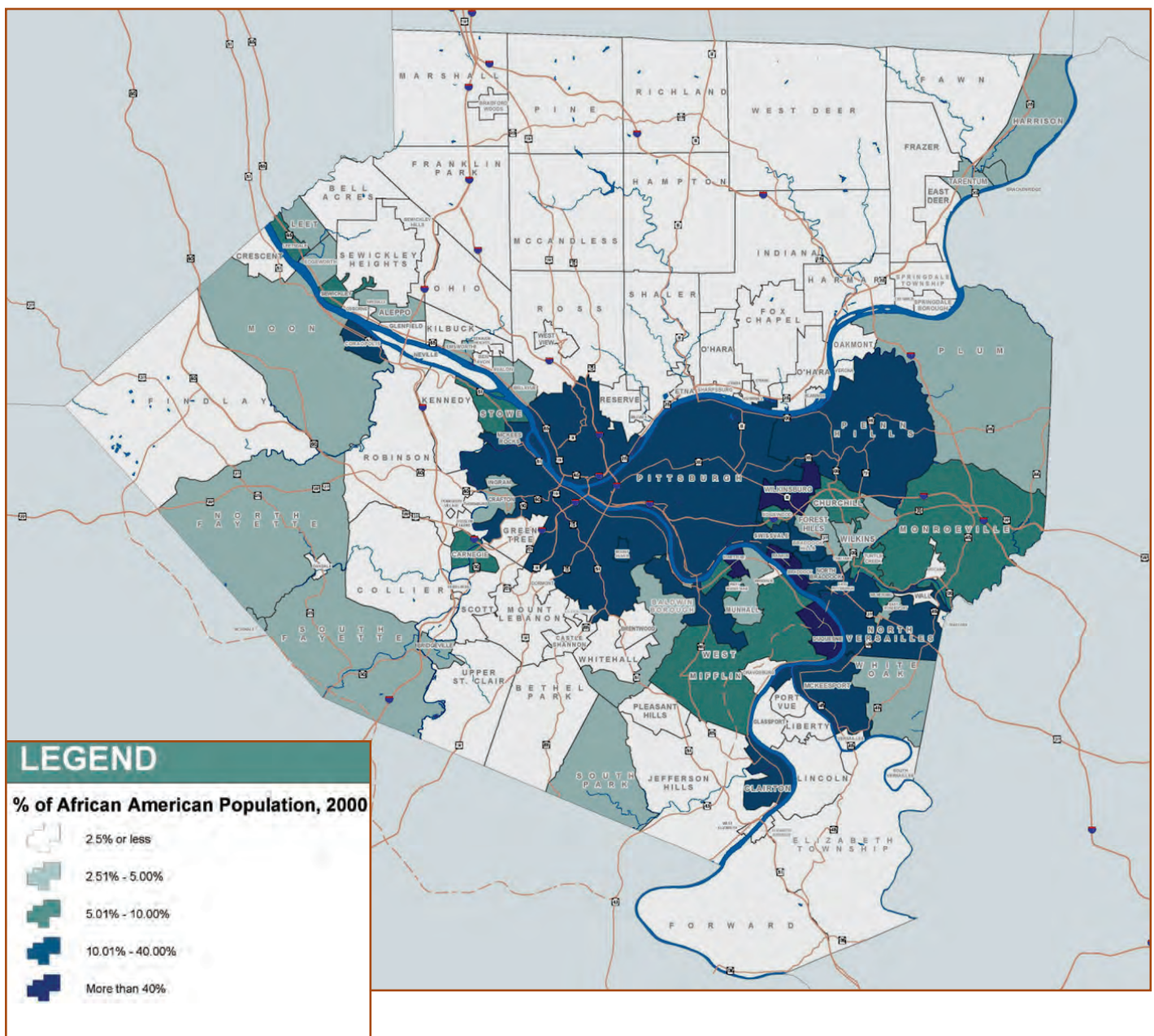
immigrants from Mexico or Central America tend to work in construction and other blue-collar jobs that depend on growth.

Immigrants are very sensitive to labor conditions and are more likely to move to those areas that offer the most economic opportunities. Skilled workers have come here from Europe, India, Asia and other regions to work at Pittsburgh's

hospitals, universities and high-tech companies. Consequently, the region's population of immigrants is highly educated.

Growth will bring prosperity. By keeping the best and brightest here – and enticing others to come – the County can ensure continued innovation and revitalization of the economy.

Figure 3.7 – African American Population, 2000



LAND USE AND LOCAL GOVERNMENT

Perhaps no Pennsylvania county has had its land use shaped more by geologic and natural features than Allegheny County. The flow of four major rivers – the Ohio, Allegheny, Monongahela, and Youghiogheny – created flat uplands and steep, V-shaped valleys that characterize the County. Flowing east to west, the Monongahela and Allegheny Rivers merged to form the Ohio River in the center of the County, which today is the City of Pittsburgh.

Pittsburgh's downtown core is clustered on a wedge of level ground framed by the rivers. The County lies on hills surrounding this historic river junction.

HISTORIC SETTLEMENT PATTERNS

Through the centuries, transportation gave shape to Allegheny County's growth. As new transportation routes were laid, development moved outward from Pittsburgh. Settlement patterns were influenced by the predominant transportation mode of the time.

Pedestrian Villages

Walking was the only form of transportation for most people until the early 1800s. Therefore, Allegheny County's 19th-century neighborhoods and villages were fairly small, generally no larger than a person could walk in a half-hour. Most people lived their entire lives within such an area.

Industrial Towns

From the mid-1800s through the mid-1900s, new towns sprung up outside of Pittsburgh, largely due to a transformation of industry. Small, craft-organized factories were being replaced by large industrial complexes in which mass production took place. Steel and coke productions were being integrated within a single mill. Manufacturers were building on extensive sites along the rivers with access to railroads.

Often, housing was built nearby for the workers who labored within those factories.

In the early 20th century, small cities, mill towns and hundreds of mining towns were scattered in the region

surrounding Pittsburgh. This pattern of old river towns is still very much in evidence today, despite the urbanization and suburbanization that has taken place around them.

Inclined Plane Neighborhoods

The County's neighborhoods were confined by hills, valleys and rivers. Industry occupied most of the flat land along the rivers and in the valleys. Only the hillsides and hilltops provided sufficient land for housing. Stairs up the steep slope led to the neighborhoods of Duquesne Heights and Mount Washington. Inclined planes were built in the latter half of the 19th century to make commuting easier.



Photo credit: McCormick Taylor

The first inclines were built to hoist coal down Coal Hill, later renamed Mount Washington. The passenger inclines, the rapid transit of their era, were built to move not only foot passengers, but freight and even horse and wagons. At one time, Pittsburgh had at least 17 inclines in operation.

The many inclines opened up the South Hills to early development. The Monongahela Incline led to the establishment of the Pittsburgh and Castle Shannon Railroad, which it tied into.

Railroad Suburbs

While the rivers influenced early land use patterns, the railroads and transit lines affected latter development. The railroad allowed the upper and upper-middle class to move out of the city and ride the train to work.



Homewood, Shadyside and Oakland were railroad suburbs for wealthy factory owners and bankers.

Early railroad suburbs generally followed the Pennsylvania Railroad to the east of Pittsburgh: Shadyside, East Liberty and Wilkinsburg. Several other railroad lines were built and converged in Downtown Pittsburgh. Stations became the focal points of villages that developed along the lines, including Avalon, Ben Avon, Crafton, Homewood, Rosslyn Farms, Sewickly, Shadyside and Thornburg.

Trolley Suburbs

In the 1890s, the electric trolley, or streetcar, provided the region's first extensive public transportation. The trolley provided cheap, reliable short-distance transportation, allowing people to travel in 10 minutes what would otherwise take 30 minutes to walk. The trolley enabled middle-class people to live outside the city and commute to their jobs in the city.

Unlike much larger trains, trolleys were seemingly everywhere and took you wherever you wanted to go. Thus, the electric trolley made modern urban growth possible. Development occurred in outlying rural villages and along new residential and commercial corridors created along the routes. This growth took place in a predominantly fingerlike settlement pattern.

Through the latter part of the 19th century, the City of Pittsburgh grew rapidly to the east, the north and on the South Side. The County's trolley suburbs include Aspinwall, Bellevue, Brentwood, Brookline, Castle Shannon, Dormont, East Liberty, Mt. Lebanon, Oakmont, Whitehall and Wilkinsburg. Construction of a trolley tunnel through the base of Mount Washington in the early 1900s led to further development in the South Hills.

Trolley lines were built primarily to handle the rush hour crowds of workers going to and from their jobs. So that cars would not be idle on evenings and weekends, trolley owners developed attractions at the end of many lines. Kennywood was founded by the Monongahela Street Railway Company as a trolley park.

During its peak, Pittsburgh Railways, the dominant transit agency, had over 600 miles of track on nearly 100 trolley routes.

Automobile Suburbs

In the early 1900s, new roads for automobiles led to development over a wider area than was stimulated by the trolley. The automobile was new, affordable and convenient. As their economic circumstances improved, people opted for private, rather than public transportation. Trolley ridership began to decline.

Development became more dispersed as workers were able to commute longer distances to work and as businesses moved away from the urban core. With commuters no longer needing to live within walking distance of a trolley line, residential suburbs could be built at lower densities that afforded more privacy. The car influenced both the physical layout of developments and the daily lives of residents.

Mount Washington presented a formidable barrier to southern expansion. However, once the Liberty Tunnels were constructed, the automobile accelerated suburbanization in the South Hills and neighborhoods filled in the areas between trolley suburbs.

The Lincoln Highway, the nation's first coast-to-coast highway, was constructed through Pittsburgh in the 1930s.

The Great Depression and World War II slowed housing construction, resulting in a severe housing shortage. When prosperity returned after the war, a strong housing demand, along with favorable public policies, helped create the suburban explosions of the late 1950s-1970s. Suburban housing developments spread across the landscape on a scale never before imagined.

Large residential subdivisions were connected to the city by arterials and freeways. Allison Park, Bethel Park, Churchill, Monroeville, Mount Lebanon, North Hills, Penn Hills, Pleasant Hills, West Mifflin, West View and Upper St. Clair are among the communities that developed as automobile suburbs.

In the 1950s and 60s, drive-in restaurants and strip shopping centers developed along major roadways. In the 1980s, suburbanization extended further outward to Cranberry and Moon townships. Generally, residents of the outer suburbs don't commute into Pittsburgh at all, but rather to a suburban office or industrial park.

Today, regional shopping centers, particularly the mega-retail complexes that have been newly built, are located along the County's major roadways, such as the parkways, Route 28, and Interstates 79 and 279. Some are part of mixed-use

developments occupying lands once used by steel mills. Business parks and large industrial districts are located throughout the County along the major roadways as well.

TODAY'S LAND USE PATTERN

Over the last two decades, development patterns in Allegheny County have taken the form of low-density sprawl (see Map 3.1). According to the Brookings Institution Center on Urban and Metropolitan Policy, metropolitan Pittsburgh converted nearly 202,000 acres of land to urban uses from 1982 to 1997, an increase of almost 43%. However, the number of households grew by less than 24,000 during that time, an increase of only 2.5%. This means the region developed an astonishing 8.5 acres of land for every added household. The national average for that same period of time was about 1.3 acres.

There has not been enough growth in Allegheny County to sustain growth in both core and outer communities.

Low-density suburban sprawl has led to a declining urban core. A decline in core areas depresses property values and reduces older communities' ability to raise tax revenues. Reinvestment in older areas is needed to prevent further declines.

A WELCOME TREND

A number of prominent projects have been completed in recent years that typify another important development trend taking place in Allegheny County.



Photo credit: Allegheny County

New mixed-use developments are being created that incorporate residential, commercial, light industrial, and research and development uses into attractively landscaped settings. Vacant, underutilized industrial properties are being redeveloped, and riverfronts are being revitalized. Notable examples include:

- **Carrie Furnace** – Allegheny County has purchased the former Carrie Furnace site on the banks of the Monongahela in Swissvale, Rankin and Braddock and is proceeding with plans to redevelop the site. The development is expected to include housing, a hotel, a conference center, offices and light industry, a transportation center and, possibly, a steel industry heritage park and museum.
- **Duquesne City Center** – The former U.S. Steel Duquesne Works is a 150-acre brownfield being redeveloped into an industrial business park. The construction of the Duquesne/McKeesport fly-over ramps will provide needed transportation access to this site.
- **Leetsdale Industrial Park** – a 40-acre brownfield site along PA Route 65 has been redeveloped into a business park.
- **McKeesport** – the site of the old U.S. Steel National Tube Works in a 25-acre brownfield that is being redeveloped into an industrial park. The construction of the Duquesne/McKeesport fly-over ramps will also provide improved transportation access to this site.
- **Pittsburgh Technology Center** – originally the site was occupied by the Pittsburgh and Boston Copper Smelting works. The last company to have operations on the site was the Pittsburgh Works of the Jones & Laughlin Steel Corporation, which closed in 1979. The site now incorporates high-tech buildings and generous open spaces, representing Pittsburgh's evolution from a town founded on heavy industry to a city on the cutting edge of innovative research and technology.
- **South Side Works** – a mixed-use development encompassing office space, a sports medicine complex and practice fields, housing and retail at the former LTV Steel South Side Works in Pittsburgh.
- **Summerset at Frick Park** – a former riverside slag dump is being transformed into Pittsburgh's largest residential development since World War II. The



238-acre site will include 336 single-family homes, 121 townhouses and 256 apartment units.



Photo credit: McCormick Taylor

- **The Waterfront** – built on the site of the former Homestead Steel Mill, the development provides 260 acres of shopping, entertainment and dining. A towering line of smoke stacks remains, the legacy of the former steel mill, where the Homestead Steel Strike of 1892 took place, a labor riot between the military and the steelworkers of Andrew Carnegie.



Photo credit: McCormick Taylor

- **Washington's Landing** – a mixed-use development on the 42-acre Herr's Island in the Allegheny River. The once blighted area now encompasses a full service marina, market-rate housing, office/research and development/light industrial uses, a rowing center and a public park.

But not all notable developments are on former brownfields, nor are they mixed-use:

- **Airside Business Park** – a state-of-the-art office and flex park located in Moon Township along Route 60. The business park is made up of five buildings on 20 acres of land that used to be the Greater Pittsburgh International Airport's parking lot.
- **Tech 21 Research Park** – Allegheny County established this \$200 million complex in Marshall Township to be a magnet for technology firms. Tech 21 can accommodate 16 building parcels averaging 800,000 square feet. The research park will provide pad-ready sites as well as a number of 'green' features – conservation areas, forested and landscaped buffer zones and open spaces. Long-term plans for Tech 21 include development of a hotel, two restaurants and a 120-unit multifamily residential community. At full development, Tech 21 is expected to create more than 4,000 jobs.
- **Crawford Square** – an 18-acre residential development providing mixed-income housing to residents in a pedestrian-oriented neighborhood. Crawford Square has 426 rental units, half of which are subsidized, as well as for-sale housing in a neotraditional neighborhood.

New residential developments are beginning to offer a variety of housing options for all incomes.

POLITICAL FRAGMENTATION

The land use pattern seen in Allegheny County today is, in large part, the result of the mosaic of municipalities that comprise the County. Historically, municipalities have had a large degree of autonomy, especially in land use planning and the approval of land development.

When Allegheny County was established in 1788, it had only seven townships. Today, the County has 130 municipalities. These municipalities derive their right of government from

the state and do not come under the jurisdiction of County government.

According to the Pittsburgh Post-Gazette, more than one-third of the County's municipalities – or 46 – have less than one square mile of land and 14 have a population less than 1,000 people.

Through the centuries, communities developed and new local governments were established. Many were company towns. In 1857, a change in state law made it easier to form new municipalities, prompting citizen action. One hundred new governments were established in Allegheny County since that time. These municipalities were typically formed because people living in more densely settled communities wanted improved services, such as quality schools, better road maintenance and sanitary sewer systems. The new governments gave residents more local control over the future of their communities. Allegheny government is rooted in this parochialism, which remains strong today.

Many local government experts believe that Allegheny County has too many municipalities, and that taxes could be reduced and services improved if some of them merged. However, the Commonwealth's constitution currently requires a majority of voters in each municipality to approve the merger of two or more municipalities. This is unlikely, considering the deep-seated loyalties that residents and officials have for their local identity.

Yet, the realities are such that the County's large number of municipalities cannot continue to exist independently. Many local governments simply can't afford to provide services by themselves and keep tax rates down. As a result, municipalities are looking for ways to cooperate with their neighbors to save money. Some smaller municipalities are contracting with the larger townships that surround them for police services. It is becoming increasingly common, according to the Pittsburgh Tribune-Review, for municipalities to coordinate purchasing departments and rely on intermunicipal bodies, especially Councils of Government, to administer billing and personnel management in order to create economies of scale that result in cost savings.

New levels of cooperation among governments, multi-municipal planning and public-private partnerships are leading to exciting developments in our future, ensuring that Allegheny County will remain a great place to live, work, invest, learn and play.

This chapter gave you a general understanding of Allegheny County. In the next chapter, we examine conditions, analyze issues, discuss goals, objectives and policies, and provide recommendations for each of the twelve elements of the comprehensive plan.





CHAPTER 4:

RECOMMENDATIONS FOR *TOMORROW'S PLACES*

INTRODUCTION

With a strong understanding of the County's foundations, *Allegheny Places* presents a desired future and describes the way to get there. This chapter conveys twelve plan elements, which collectively serve as a guide for public and private sector actions related to future growth, development and preservation in Allegheny County.

- Future Land Use Plan
- Historic and Cultural Resource Plan
- Economic Development Plan
- Housing Plan
- Parks, Open Space and Greenways Plan
- Resource Extraction Plan
- Agricultural Resource Plan
- Community Facilities Plan
- Transportation Plan
- Utilities Plan
- Environmental Resource Plan
- Energy Conservation Plan

These plan elements incorporate a comprehensive set of goals, objectives and actions developed to embody the needs and aspirations of the diverse communities that comprise Allegheny County.

The Future Land Use Plan is the keystone of *Allegheny Places* – all the other elements of the comprehensive plan support its implementation.

The Future Land Use Plan ties together all the other elements that make up *Allegheny Places*. It describes the recommended distribution and desired character of future land uses. In particular, the Future Land Use Plan proposes that major development be largely directed to specific Places in the form of mixed-use communities, providing opportunities for people to live, work and play in the same place.

The actions recommended in this chapter build on our strengths and address our weaknesses, and so provide opportunities for all of the County's places to prosper.

Photo credit: Kevin Smay



INTERRELATIONSHIPS AMONG PLAN ELEMENTS

The Pennsylvania Municipalities Planning Code, Article III, Section 301.a(4.1), requires that comprehensive plans establish interrelationships between the various Plan elements. In *Allegheny Places*, the principal expression of the interrelationship between the many plan elements is the Future Land Use Plan. Interrelationships are also established between the individual plan elements. For example:

- **Equity and diversity:** for all plan elements, challenges and opportunities are identified that are consistent with the Plan’s Equity and Diversity Principles.
- **Housing and Economic Development:** recommendations for future housing are intended to provide more County residents with better access to employment opportunities.
- **Transportation:** the recommendations for mass transit are a key element of the Future Land Use Plan. A number of Places on the Future Land Use map are “TOD” Places, which will provide County residents with better access to employment and other opportunities.
- **Environmental Resources and Utilities:** many of the recommendations in the Environmental Resources plan address challenges identified in the Utilities plan.
- **Future Land Use Plan:** recommendations from all of the elements are tied together in the concept of ‘Places’, including housing, economic development, infrastructure improvements, transportation and energy conservation.

FUTURE LAND USE PLAN

■ A PLAN TO GUIDE GROWTH

The Future Land Use Plan is a guide for development and redevelopment in Allegheny County through the year 2025. It is based on the modest rate of growth projected to occur over the planning period: a future population of approximately 1.3 million people, with a net gain of 32,000 housing units and 190,000 new jobs.



Photo credit: McCormick Taylor

The Future Land Use Plan is built around the concept of ‘Places’. There are eight different types of Places, each of which has a unique identity. Most Places include a mix of land uses and build on existing infrastructure. The intent of Places is to provide an efficient and economical way to allow for both new growth and revitalization, meet a diversity of needs, support transit, reduce consumption of open space, and protect environmentally sensitive resources.

The Future Land Use map (see Map 4A.1) shows the locations of Places, transportation and transit improvements, areas for infill development and for conservation, and a greenways network that links Places, parks, trails, waterways, and conservation areas.

The Future Land Use Plan supports the revitalization of the County’s existing neighborhoods and riverfronts – top priorities for County residents. Many designated Places build on the existing business districts, downtowns, and main streets of many communities.

County residents also expressed overwhelming support for utilizing existing infrastructure. Targeting future growth and development to areas where there is reliable existing infrastructure is a sound economic policy. Where infrastructure improvements are needed, targeting future growth and development to those areas will help to fund the improvements.

Places will provide a density of population to help support new retail and other uses, and attract employment. Concentrating jobs and residences in designated Places will increase transit ridership potential. As the demand for transit emerges, the Port Authority can offer new routes or to extend existing ones.

While designated Places are where the County will focus major development and redevelopment initiatives, there are many other areas of the County identified for infill development. Infill Areas will accommodate future growth and development in all municipalities of the County. It is important for municipalities to plan the use of their Infill Areas to meet the specific needs of the community and to be consistent with the goals of *Allegheny Places*.

In addition, as per the Pennsylvania Municipalities Planning Code Article III Section 301 (a) (5), a thorough review of contiguous counties’ comprehensive plans was completed. The Future Land Use Plan is consistent with the existing and proposed development as well as objectives of these plans. See Supporting Documents for this element for a review of these comprehensive plans.

DESCRIPTION OF THE PLAN

The following major features are identified on the Future Land Use map:

- **Places** – Locations targeted for major development.
- **Infill Areas** – Locations for smaller-scale development.
- **Conservation Areas** – Areas where resources are protected and development is discouraged.
- **Greenway Network** – An interconnected, county-wide network of natural resources and recreational amenities.
- **River Network** – Made up of the County’s major water features.
- **Transportation Network** – Major roadways, transit, rail, air and water transportation corridors.



The Future Land Use map illustrates where particular land uses are supported by the recommended actions of *Allegheny Places*. It is flexible, rather than being a strict representation of a 20-year 'build-out'. The map will be periodically revisited by the County to ensure its continued relevance and accuracy.

DESCRIPTION OF THE PLACES

Following are the eight Place types designated on the Future Land Use map:

1. Airport-Industry

Airport-Industry Places are located in close proximity to Pittsburgh International Airport, and mainly include sites that have been targeted by the County and developers for office and light industrial development. Businesses that need to be close to a good ground and air transportation network will be expected to locate here.



Photo credit: McCormick Taylor

2. The Core

Core Places are located in downtown Pittsburgh and Oakland. These urban core areas are the County's major centers for office employment, government, cultural venues, higher education, finance, health care, research, and startup ventures. Residential development is generally very dense. Ongoing revitalization and development in Core Places is vital to the economy of Allegheny County and the region. Improved transit, linking Core Places and the Airport, is a key element. Much new development in Core Places will be infill development, rehabilitation and reuse of existing buildings, and adaptive reuse of former industrial or warehouse sites and structures.

3. Corridors

Corridor Places are located along the following major highways:

- | | |
|----------------------------------|-----------------------------|
| ■ Interstate 79 | ■ Route 8 |
| ■ Route 28 | ■ Route 51 |
| ■ Interstate 279 | ■ Route 19 |
| ■ Route 48 | ■ Route 65 |
| ■ Future I-376
(Parkway West) | ■ Route 22 |
| ■ Route 50 | ■ Mon/Fayette
Expressway |

Corridor Places have good access to major transportation corridors and highway interchanges. They are relatively intense, mixed-use hubs of office, industrial, commercial and residential uses. Corridor Places can accommodate high-intensity land uses that require large amounts of land such as regional shopping centers, industrial parks, and business parks.

The intent of Corridor Places is to break away from the old pattern of strip development. They will be planned instead as nodes or hubs, with a gridded street network that interconnects uses and has limited access points on existing major roadways.

4. Urban Neighborhoods

Urban Neighborhoods are located within the cities of Pittsburgh and McKeesport. They build on existing business districts and mixed-used areas in older, densely developed neighborhoods, and include more regionally-oriented services with a mix of housing types in a walkable setting. Revitalization of Urban Neighborhood Places will include infill development, rehabilitation of existing buildings and improved transit connections, and will take advantage of nearby cultural and recreational amenities.

5. Community Downtowns

Community Downtowns are similar in character to Urban Neighborhoods, but are less densely developed and include other municipalities. Most, but not all, Community Downtowns build on the existing business districts and downtowns in older communities. They will be Places where additional business development can occur in a mixed-use setting that includes residential, office, retail, and other compatible uses.

A number of the Community Downtowns include business districts targeted by Allegheny Together,

including Oakmont, Swissvale, Castle Shannon, McKees Rocks, Wexford and Coraopolis. Allegheny Together is a new Allegheny County Economic Development program that assists in the revitalization of the County's "Main Streets".



Photo credit: McCormick Taylor

6. Villages

Village Places are located in suburban communities throughout the County, in places such as Oakdale, Rennerdale and Indianola. Village Places are characterized by a mix of residences and small-scale, low-intensity businesses and services that primarily serve neighborhood needs. Non-residential development in Village Places should neither generate, nor depend on, large volumes of vehicular traffic. Streets should be laid out on grids or modified grids to promote walkability.



Photo credit: McCormick Taylor

7. Rural Places

Rural Places are located along the "edges" of the County in municipalities that are less developed such as South Fayette, West Deer and Elizabeth Townships. Rural Places are the least densely developed of all the types of Places. They will be primarily residential in nature, with a focus on single-family detached housing. Non-residential development will be limited mainly to recreation and essential supporting services.

8. Transit-Oriented Developments (TODs)

Transit-oriented development, or TOD, is a mix of relatively dense residential, office and retail uses at transit stations or transit stops, to maximize pedestrian access to transit. TOD is an overlay on selected Places that are located along the existing 'T' line and busways, and on proposed new transit lines. TOD Places will incorporate both infill development, and substantial new development on large parcels when available.

TOD Places will create opportunities for people to live, learn, work, invest and play in the same Place. TOD Places will also enable people to connect to other Places in the County via transit. Examples of TOD Places include Mt. Lebanon, Wilkinsburg, Oakland, the North Shore and Carnegie.



TOD Places are a key element of the County's Equity and Diversity plan. Many people do not have cars; and many others, such as the disabled, elderly, and young, depend on walking and transit. TOD Places will support transit use and make it more accessible to more people.



OTHER FUTURE LAND USE ELEMENTS

In addition to the eight types of Places, there are several other elements on the Future Land Use map.

Infill Areas

Infill areas will provide opportunities for new development and redevelopment on properties that are vacant, abandoned, or under-used. Infill development can occur on a single lot or on groups of lots. Infill development areas are located throughout the County, although they tend to be the most concentrated in older communities.



Photo credit: McCormick Taylor

Many communities – especially inner-ring suburbs and former industrial towns – have thousands of vacant and abandoned properties. They can be a great opportunity for community revitalization.

When blighted and vacant buildings are demolished in older communities, the lots can be reclaimed and infill development used to bring new housing, businesses and recreation into the community.

Conservation Areas

Conservation Areas include sensitive environmental features, scenic landscapes, and cultural resources. The Future Land

Use Plan targets development to Places and Infill Areas, with the intent of limiting development in designated Conservation Areas.

Future development in Conservation Areas must be consistent with the goal of conserving environmentally-sensitive features. Except for agricultural, recreational and resource-based enterprises, there should be no new commercial or industrial uses in these areas. New infrastructure will be discouraged in conservation areas.

The Greenway Network

The Greenway Network is a linked system of greenways and nodes that includes parks, State Game Lands, trails, and land preserved through land trusts and agricultural easements. The Greenway Network also includes areas of environmentally-sensitive lands and resources, such as rivers, wetlands, floodplains, streams, steep slopes, landslide-prone areas, and open space buffers.



Photo credit: McCormick Taylor

An essential role for the Greenway Network is to create more livable communities, protect natural resources, showcase cultural resources, and connect people to the outdoors. The emphasis is on connections both within the County and outside the County to regional and state greenway networks, also known as mega-greenways. Additionally, the County's Greenway Network should connect to Places identified in the Future Land Use Plan. Development within the Greenway Network is discouraged.

The River Network

The River Network includes the County's four rivers: the Monongahela, the Allegheny, the Ohio, and the Youghiogheny. Rivers are Allegheny County's most defining feature. They are important to the County and the region environmentally, economically, historically, and culturally. They are an important component of both the Greenways and Transportation Networks.



Photo credit: McCormick Taylor

Places adjacent to rivers will incorporate scenic river views and provide public access to riverfronts. Additionally, they will support and provide for water and trail corridors that are complementary to the Allegheny County Riverfronts Project established by the County in collaboration with two primary partners, the Pennsylvania Environmental Council and Friends of the Riverfront.

The Transportation Network

The County's extensive multi-modal Transportation Network includes the two major systems for linking Places to one another: roadways and transit corridors. Most of the major roadway corridors identified on the Future Land Use map have Places along them that are targeted for development and redevelopment.

Transit corridors primarily link TOD Places to each other, as well as to centers of employment, population and recreation. Currently, existing transit corridors within the County include the 'T' and the East, West and South busways. Potential future transit corridors along the



Photo credit: McCormick Taylor

Allegheny and Monongahela rivers, and along the future I-376 corridor connecting the Pittsburgh International Airport to Downtown, Oakland and Monroeville, are identified on the Future Land Use map as well.

ISSUES AND ANALYSIS

This section examines what can be done to direct and accommodate the types and forms of development and redevelopment depicted in the Future Land Use Plan.

KEY CHALLENGES

In developing the Future Land Use Plan, all of the Resource Panels helped to identify these key challenges:

- Sprawl in the northern and western portions of the County
- Declining population, especially in core areas
- Disinvestment in older communities
- Brownfields that have high clean-up costs and hinder river access
- A large number of local governments
- Poor condition of housing stock in older communities and the need for demolition

The following provides an understanding of these issues.



SPRAWL IN THE NORTHERN AND WESTERN PORTIONS OF THE COUNTY

The County's slow rate of growth has not slowed the rate of land consumption. Between 1982 and 1997, the amount of land developed increased by nearly 43% even though the population declined by 8%, according to Sustainable Pittsburgh's 2002 *Sustainability Indicators Report*.

Over the past two decades, much new development in Allegheny County has been in the form of suburban sprawl. Sprawl is a term used to describe a classic pattern of land development where different types of uses are separated – often widely – by zoning, and development is at a much lower density compared to urbanized areas. Suburban sprawl typically consumes greenfields and requires the extension of infrastructure such as water and sanitary sewer lines, and roads. Sprawl tends to foster dependence on automobiles because where people live is located far from where they work, shop, and attend school.

In Allegheny County more than 14,000 acres were developed between 1993 and 2005. About 9,000 acres, or 67% of the total land area developed, was residential development. Single-family was the predominant dwelling type, and the average lot size was ½ acre. Most of the development was in the northwestern and southern parts of the County (primarily Marshall, Pine, Moon, Collier, North Fayette, South Fayette, and Robinson Townships), but the north-central and eastern portions of the County also experienced increases.

Inefficient land use patterns can lead to higher costs for utilities and services, an erosion of the urban core tax base, a decline in downtown commercial centers and a concentration of poverty in older urban centers.

According to a 1998 study by the Natural Resources Defense Council, sprawl is more inefficient, costly, and inequitable, and uses more resources than traditional city and town development.

Unlike modern sprawl, historical patterns of development in Allegheny County were highly supportive of transit use. In 1947, more than one million persons – about 70% of the County's population – resided in 19 of the County's 130 municipalities. All were in, or close to, urban population

centers accessible by trolley lines. Public transit ridership hit a peak of 280 million per year in 1947.

The typical suburban land use pattern does not have the density to support transit use. After 1950, when individual ownership of automobiles became more common, many of the core communities experienced substantial population losses, while the municipalities in outlying areas gained. Public transit ridership dropped dramatically. In 2006, it was slightly more than 70 million per year.

DECLINING POPULATION, ESPECIALLY IN CORE AREAS

In each decade from 1960 to 2000, the County's population has decreased. From 2000 to 2006, Allegheny County is estimated to have lost 4.3% of its population, falling from approximately 1.28 million to 1.22 million.

Of Allegheny County's 130 municipalities, 97 lost population in the 1990s. Population losses were concentrated in the urban core and in former industrial communities along the rivers. The City of Pittsburgh lost the largest number of people in the 1990s – over 35,000 residents – while Braddock Borough suffered the largest percentage of population loss – nearly 38% of its population.

More than one-third of the County's municipalities, or 46, have less than one square mile of land, and 14 have fewer than 1,000 people.

DISINVESTMENT IN OLDER COMMUNITIES

Over the past twenty years, the County has been 'hollowing out', as people moved from the urban core and older river communities to the outlying suburban municipalities. With no population growth to offset outmigration and natural population loss, many older communities became increasingly tax burdened. As the lack of revenue impacted the provision of services, it led to further decline.

When property values decline, local taxing bodies are often forced to increase millage rates in an attempt to meet the demand for services. When higher tax rates are coupled with lowered property values and an eroding quality of life, it is difficult to retain existing residents and businesses or to attract new ones. It is a cycle of decline that is hard to break.

In declining communities the neediest people are often left behind to bear the burden of increased costs for providing services.

Over the years, various economic development incentives have been used to attract new development to greenfields in outlying municipalities. A balanced, geographic targeting of incentives consistent with the preferred development scenarios outlined in *Allegheny Places* is critical to the revitalization of the urban core and older communities.

BROWNFIELDS THAT HAVE HIGH CLEAN-UP COSTS AND HINDER RIVER ACCESS

Allegheny County was once an industrial powerhouse, with many factories and mills lining the rivers. Riverfront locations were common because the rivers were essential for the transportation of raw materials and finished products. Today, most of the old industrial operations have closed down, leaving behind large tracts of vacant or abandoned land, commonly referred to as brownfields (see Map 4A.2).

Many brownfield sites have environmental problems that require expensive remediation. In addition, the extent of environmental contamination is often unknown, which can further complicate and delay remediation. Despite the challenges, brownfields have tremendous potential for redevelopment and for reclaiming the riverfront. As providing public access is not always a developer priority, however, it needs to be encouraged.

Brownfields in the County that have been reclaimed include the Southside Works, the Pittsburgh Technology Center, and the Waterfront. They are notable examples of what can be accomplished.

A LARGE NUMBER OF LOCAL GOVERNMENTS

When Allegheny County was established in 1788, it had only seven townships. Today the County has 130 municipalities, which include boroughs, first and second class townships, cities, and home rule municipalities. Municipalities have been largely responsible for providing their citizens with public services and community facilities, and managing their own land use planning.

Most municipalities in Allegheny County have their own land use ordinances. How the land use approval process is managed can vary greatly from municipality to municipality, however. And when a proposed development spans multiple jurisdictions, the decision-making process can be fragmented, slow, and inconsistent.

Declining municipalities face increasing difficulties in meeting the demand for services and facilities. As costs continue to rise, even the stable and growing municipalities may be faced with the decision of whether to increase millage rates in order maintain the same level of services, or provide additional services.

Greater sharing and consolidation of services, and more multi-municipal cooperation and planning are essential to the future growth and prosperity of the County.

POOR CONDITION OF HOUSING STOCK IN OLDER COMMUNITIES AND THE NEED FOR DEMOLITION

The County's housing stock was built to accommodate a much larger population. As the population declined, the number of housing vacancies increased, particularly in and around the urban core and in former industrial communities along the rivers. In 2000, twenty-three municipalities in Allegheny County had vacancy rates of over 10%. Some municipalities in Allegheny County have vacancy rates that are among the highest in the state.

Vacant, blighted buildings can have a destabilizing effect on a neighborhood. They project an image of despair, contributing to negative perceptions of the neighborhood, and provide places for criminal activity. Demolition is often the simplest solution. When the land has been cleared and reclaimed, it can open the door for reinvestment and revitalization.

Funding for demolition is not always available, however, nor is there always an immediate use for the reclaimed properties. Demolition needs must be prioritized, therefore, and cleared properties may need to be land-banked for future use.



■ RECOMMENDATIONS

GOAL OF THE PLAN

Land use, development and conservation are compatible with and enhanced by Allegheny County's unique physical characteristics, rich cultural and social heritage, and distinctive communities.

OBJECTIVES OF THE PLAN

The objectives of the Future Land Use Plan are to:

- A.** Create Places that emphasize community.
- B.** Direct development, redevelopment and conservation to Places identified on the Future Land Use map.
- C.** Ensure that new development occurring outside of designated Places and Infill Areas is beneficial and necessary.
- D.** Encourage transit-oriented development.
- E.** Promote municipal consistency with *Allegheny Places*, the County Comprehensive Plan.

The following provides an understanding of the objectives.

A. Create Places that Emphasize Community

The Places envisioned by the Future Land Use Plan are compact, walkable communities that are transit-supportive. They offer a variety of housing options to meet a diversity of needs and respect market trends. Housing, shopping, employment, community facilities and public spaces are all integrated into a lively and human-scale environment.

Places are envisioned as mixed-use so that people can commute from their home to their job, to shopping, to recreation and to other destinations without the use of a car. Reducing automobile use has many environmental benefits, and walkability also encourages social interaction and better health.

To promote walkability, Places should include sidewalks, pathways, and crosswalks. Street systems should be based on grids or modified grids that promote safe and efficient pedestrian, bicycle, and vehicular movement. Street systems should also be designed to maximize connectivity between uses and create a hierarchy of spaces.

Public spaces of different types and scales should be provided to encourage people to socialize, accommodate community events, integrate open space into the fabric of the community, and create community identity. For some Places, uses such as restaurants and cafes with outdoor seating areas are also encouraged.

Establishing Places as compact, relatively dense and truly mixed-use settings will be a challenge. Appropriate development regulations to guide and permit development patterns in the desired configuration and mix will be needed.

B. Direct Development, Redevelopment and Conservation to Places Identified on the Future Land Use Map

The Future Land Use Plan (Figure 4A.1) is the vision for future growth and development in Allegheny County that emerged from an extensive public outreach effort. The Future Land Use Plan shows the desired character of future land uses and their recommended distribution, consistent with the Composite Scenario (see Map 2.4).

The County will strategically target the use of public funds and support the use of economic development incentives to implement projects that are consistent with the Future Land Use Plan. Additionally, State agencies are required to prioritize grants awards and permit approvals to projects that are consistent with *Allegheny Places*. Therefore, municipalities and developers will greatly benefit by consulting the Future Land Use Plan when preparing development plans and proposals.

Projects in one community can greatly affect neighboring communities. Municipalities are encouraged to work together, especially when major projects cross municipal boundaries or are located adjacent to other municipalities.

Recognizing that some development will occur outside the designated Places, the County will support smaller redevelopment projects, through technical assistance and funding, in the Infill Areas identified on the Future Land Use map.

C. Ensure that New Development Occurring Outside of Designated Places and Infill Areas is Beneficial and Necessary

Some development is expected to occur outside of the designated Places and Infill Areas identified on the Future Land Use map. It is important that appropriate land development controls be in place to ensure that such development is appropriate and consistent with the conservation goals of *Allegheny Places*.

Various strategies can be used to support and encourage appropriate development in Conservation Areas, including the following techniques:

- **Agricultural easements** – The permanent protection of agricultural lands is best achieved through easements. Such easements, which are written into property deeds, prohibit land development. The most common way to acquire conservation easements is through the sale of non-agricultural development rights by the property owner. In return for keeping a property in agricultural use in perpetuity, owners are compensated for a portion of the development potential. The Western Pennsylvania Conservancy is a local organization that acquires agricultural easements.
- **Agricultural zoning** – Local governments can implement agricultural zoning to retain lands for agricultural use. Recent amendments to the *Municipalities Planning Code* require municipalities to zone to preserve “prime agriculture and farmland”. To be effective, agricultural zoning must restrict the land to agricultural and agricultural-related uses. It must also strongly limit how much residential density is allowed (for example, one dwelling unit per 20-50 acres).
- **Cluster residential development** – When residential development is appropriate in a Conservation Area, it should be clustered. Cluster development permits units to be constructed on a smaller portion of a property, leaving the rest undeveloped in perpetuity for open space or other resource conservation purposes.
- **Conservation easements** – A conservation easement is a tool that can be used to permanently protect important natural resources while the original landowner retains ownership and some use of the land. These easements are legally binding agreements between a landowner and a qualified conservation organization, such as a land trust. The easement permanently limits a property’s use and binds all present and future owners of the land.
- **Special Purpose Zoning Districts** – Special purpose zoning districts, such as ‘overlay districts’, allow a municipality to provide greater protection for environmentally-sensitive areas, like landslide-prone areas, steep slopes and floodplains. Municipalities are encouraged to identify environmentally-sensitive areas in their community and adopt appropriate zoning. The Future Land Use map shows the location of sensitive areas within the Greenway Network and Conservation Areas.
- **Transferable Development Rights** – The transfer of development rights (TDR) allows property owners to send their land development rights to another developer in a receiving area that is targeted for development (for example, a designated Place). Development rights received by a developer can allow the developer to increase the density of land use. The sender receives money for their development rights, and retains the use of their property for agricultural or open space uses.

Development must be strictly prohibited within the Greenway Network, other than compatible, appropriate recreation, open space, limited agriculture and forest management uses.

Proposals to serve new Conservation Areas with public water and sewer service should be denied. Exceptions can be made where necessary to protect public health and safety.



D. Encourage Transit-Oriented Development

Transit-oriented development (TOD) is an important national land development trend that promotes:

- Compact, relatively dense development within walking distance of a transit station
- A '24/7' mix of uses – transit origins (housing) and destinations (jobs, retail, schools, medical, civic)
- A safe, interconnected and inviting pedestrian environment – sidewalks, plazas, lighting, signage, and building transparency at the street level
- A new approach to parking – less of it, shared wherever possible, and (except for curbside spaces) out of view

TODs can reduce traffic congestion by providing expanded transportation options, and significantly increase ridership for the Port Authority.

The existing 'T' line and busways, and the future rapid transit lines envisioned for Allegheny County represent an ideal opportunity for TOD in communities such as Castle Shannon, Dormont, Eastside (in East Liberty), Mt. Lebanon and Wexford. Future opportunities also exist if light rail or rapid transit is developed from Oakland and Downtown Pittsburgh to the Airport.

A new state program, Transit Revitalization Investment District (TRID), has been established to help implement TODs. TRID is designed to:

- Integrate transit planning with other infrastructure, public facilities and private development
- Encourage intergovernmental collaboration
- Add legal powers and flexibility to create the best development on public land near the stations
- Provide opportunities for Tax Increment Financing and state funding and financial assistance

Allegheny County is one of the first areas in Pennsylvania to take advantage of the program, and is currently completing TRID studies for areas adjacent to light rail stations in the South Hills. The County has developed recommendations for three TRID strategic areas: leave-alone territory, infill and investment zones, and strategic opportunity sites.

The TRID program will be pursued for future TOD opportunities as well. The County will continue to work closely with the Port Authority to develop TOD

Places, and target funding where it will have the greatest benefit. The Port Authority should conduct TOD market, planning and urban design studies for key transit stations, publicize the findings and solicit developers to build on TOD sites.

E. Promote Municipal Consistency with Allegheny Places

Implementing the goals and objectives of *Allegheny Places*, Allegheny County's first comprehensive land use plan, will require consistency between the County comprehensive plan and municipal comprehensive plans.

Municipalities should use *Allegheny Places* when updating their comprehensive plans and land use ordinances. The County, in turn, will revisit and update *Allegheny Places* on a regular basis to ensure that it stays current and remains consistent with municipal and other plans.

The County's role in planning is largely advisory, as most municipalities in Allegheny County have the authority for local land use planning. However, *Allegheny Places* will provide many benefits. The plan:

- Opens the door to state and other grants
- Facilitates permit processing
- Provides land use planning tools and mapping
- Provides context for making major land use decisions
- Highlights best land use practices

Elected officials, planners, and others should consult *Allegheny Places* when making decisions about development and redevelopment in the community. The County also encourages developers and property owners to consider the development and redevelopment of their property in a manner consistent with the Future Land Use Plan.

HISTORIC AND CULTURAL RESOURCE PLAN

■ HISTORICAL DEVELOPMENT

As discussed earlier in Chapter Three, the growth of Allegheny County and its communities has been strongly influenced by the Three Rivers, abundant natural resources – especially high quality bituminous coal deposits – and proximity to major transportation routes.

Hundreds of millions of years ago, the land that would become Allegheny County was covered by a shallow ocean. The flat sea floor was uplifted and altered by erosion, resulting in a landscape characterized by steep hills with relatively narrow ridge tops and steep-sided valleys. The Allegheny and Monongahela rivers converged to form the Ohio River. Through geologic time these rivers carved the Allegheny Plateau into the rugged terrain of today.

The land is underlain by limestone, sandstone, shale and coal, which helped to fuel the emergence of our County's industry in the late 19th century.

NATIVE AMERICANS

Evidence from Meadowcroft Rockshelter in neighboring Washington County suggests that American Indians inhabited the area as early as 16,000 to 17,000 years ago, raising new theories about when people first inhabited North America.



Photo credit: Kevin Smay

The region was inhabited by the Delaware, Seneca, Shawnee and Mingo peoples when European traders and trappers arrived to work along the County's rivers. Native Americans were largely nomadic, hunting and gathering food for survival. However, a few permanent settlements were established along the rivers, notably Shannopin's Town (a Delaware village near present-day Lawrenceville), Logstown (present-day Ambridge), and Chartier's Old Town (a Shawnee village in present-day Tarentum). Their homes were built of log huts and bark. The Native Americans bartered with fur traders from England and France, trading beaver pelts for goods such as salt, blankets, guns and gunpowder. The French took care to befriend the Indians, a friendship that would become very important.

THE FRENCH AND INDIAN WAR

"As I got down before the Canoe, I spent some Time in viewing the Rivers, & the Land in the Fork, which I think extremely well situated for a Fort; as it has the absolute Command of both Rivers..." – George Washington, 1753

The French and Indian War had a significant impact on Allegheny County. Both the French and the British considered Allegheny County to be their territory, and tension between the two countries would eventually begin the French and Indian War.

In 1749, the French occupied and officially claimed land that would become Allegheny County. The British realized there was militarily-strategic importance to the site at the confluence of the Monongahela and Allegheny Rivers. In 1753, George Washington left Williamsburg, Virginia to deliver a note ordering the French to leave the Ohio Valley region. Washington arrived at Ft. LeBoeuf in Erie County to deliver his message to the French. The French refused to vacate the region.

To intimidate the French, British colonists began the construction of Fort Prince George at the site of present-day Pittsburgh. In 1754, the French overtook the fort before its construction was complete and finished building it themselves, renaming it Fort Duquesne. In 1755, the defeat of General Braddock at Turtle Creek opened the Pennsylvania frontier to widespread attack by French allied Native Americans. In 1756, Britain declared war on France.



As the war progressed, the British led two marches to capture Fort Duquesne. The first march failed. But in 1758, General John Forbes and his troops successfully seized Fort Duquesne, which the French had set on fire and abandoned.

The British built Fort Pitt, named after William Pitt, the Prime Minister of England, on the site of Fort Duquesne. At the time of construction, Fort Pitt was the biggest, most expensive and most secure fort in the New World. Fort Pitt's strength would be tested following the war. Native Americans, realizing the takeover of their lands was imminent, rebelled against the colonists. After the Battle of Bushy Run, the Native Americans fled the area. It was a shaky peace. Hannastown was attacked and destroyed in 1782. It wasn't until after the Battle of Fallen Timbers in 1794 that western Pennsylvania was secure from attack.

The small village of Pittsburgh, also named after Pitt by General Forbes, soon grew around the fort and was later renamed "Pittsburgh". The area developed because of its location west of the Allegheny Mountains and excellent river transportation at the headwaters of the Ohio River. Pittsburgh soon became known as the 'Gateway to the West'.

THE WHISKEY REBELLION

In the 1790s, agriculture was Allegheny County's main economic activity. At first, farmers were limited to subsistence farming. Gradually, they began to produce a surplus, especially in grains. Farmers found they could make better profits by turning their surplus grain into alcohol and bartering or selling it. One out of every six farmers operated a still.

After the American Revolution, the newly formed United States government assumed the debts accumulated by the colonies during the war. In 1791, the federal government imposed an excise tax on whiskey to help pay off the debt.

Angry, farmers in Western Pennsylvania refused to pay the tax and engaged in a series of attacks on excise agents. In 1794, General John Neville was appointed tax collector and he traveled to the home of Oliver Miller. Miller was served a notice to appear in federal court for failure to pay the tax. Neighboring farmers arrived and the first shots of the insurrection were fired. Oliver Miller was shot and died. His homestead, now restored, is preserved in Allegheny County's South Park.

The uprising was known as the Whiskey Rebellion and became the lightning rod for a wide variety of grievances by local settlers against the federal government. President Washington called in the militia to restore order. This marked the first time under the new United States Constitution that the federal government used military force to exert authority over the nation's citizens.

Allegheny County was part of the western frontier, considered crucial to the survival of the young nation. This was one reason why Washington raised more troops to put down the Whiskey Rebellion than were ever raised to fight Native Americans and more than any force he had commanded during the Revolution. The tax was repealed in 1803.

EARLY SETTLEMENTS

As the population grew, small settlements formed. Many formed at crossroads to provide supplies and services to farmers and as stopovers for travelers.

Due to pressure from settlers living in the area, Allegheny County was formed in 1788 from parts of Washington and Westmoreland counties. Pittsburgh became the County seat in 1791. Following the township system of municipal government set up by William Penn, seven original townships were established: Elizabeth, Mifflin, Moon, Pitt, Plum, St. Clair, and Versailles townships.



Photo credit: McCormick Taylor

EARLY MINING

By the mid-1700s, a coal mine was already operating for the use of the military garrison at Fort Pitt. The first British settlers quickly realized the financial worth of the region's mineral assets. The coal was extracted from drift mines in a coal seam and transported by canoe to the nearby garrison. This, the first coal mine in Pennsylvania, was located at "Coal Hill" (Mount Washington), just across the Monongahela River from the City of Pittsburgh. While the location of Pittsburgh was initially determined by the confluence of three rivers, it was coal that drove its subsequent development.

The ready availability of energy from the burning of coal was important for glass-making and later the creation of the coke needed to turn the iron into steel. This fuel also powered other industries which developed in the area.

EARLY INDUSTRY

The industrial era began in earnest in the early 1800s when many workers turned from farming, with exports including wheat, rye, and whiskey, to industries such as iron, glass, and wood production. Boatbuilding was important as well because after an arduous journey over the mountains, travelers could continue westward more easily on the Ohio River.

An early settlement known as Shousetown (present-day Glenwillard, Crescent Township) was an important location for boatbuilding. The first boats produced were wooden flatboats and keelboats. In 1803, Meriwether Lewis purchased a 55-foot keelboat – that he and William Clark would later use on their expedition – from a boatbuilder in Elizabeth, on the Monongahela. In 1811, the first steamboat, the New Orleans, was built in Pittsburgh. As shipbuilding technology improved, Allegheny County shipyards, including the large shipyard on Neville Island, produced freight barges and military landing craft.

Iron deposits in Allegheny County date to prehistoric times. Iron was used to make a variety of useful products, such as nails, train rails, and steel. In 1792, the first iron foundry opened in Shadyside, a Pittsburgh neighborhood. A blockade placed on American exports and imports by England during the War of 1812 stimulated the need for increased manufacturing inside the United States, and the subsequent growth of United States industry. Manufacturing in Allegheny County grew significantly. In the mid-1800s, Pittsburgh was the iron manufacturing center of the entire

United States. The need for iron products during the Civil War fueled the growth of Allegheny County's iron industry. For a time, Pittsburgh was known as "Iron City".

The first glass factory opened in Pittsburgh in 1797. To supply the area's growing glassmaking industry, sand was collected from bars and shoals along area riverbanks. Large amounts of sand and gravel were deposited by glacial runoff during the last ice age. This material is found in river beds and on the bottoms of valleys left stranded above the rivers. The sand of the Allegheny and Ohio valleys comes from the igneous rocks to the north. It is, therefore, hard, sharp, and clean with a high silica content, desirable for both building purposes and glassmaking.

In low water, teams of horses drew wagons out onto the river and sand was shoveled into them. By 1852, the first steam-powered sand digger raised sand from the bottom of the river and placed it into flatboats. With the introduction of concrete in the 1870s, the demand for both sand and gravel went up, and commercial extraction became a viable business.

The Pittsburgh Plate Glass Company (PPG) was founded in 1883. The company's first plant, at Creighton, was the first commercially successful plate glass factory in the United States. In the late 1800s and early 1900s, Allegheny County produced half of the glass in the United States.

IMPROVED TRANSPORTATION

The early growth of the industry in southwestern Pennsylvania was stunted by a lack of transportation to the east and the lack of population and markets to the west. River transportation was the primary mode of transportation from the County to the west and south. Mountainous terrain to the east made shipping goods to population centers more challenging. New and improved transportation routes were needed.

Pittsburgh's status as the Gateway to the West was being threatened. Trade and travel were bypassing Pittsburgh, using the National Road from Baltimore to Wheeling or the Erie Canal across New York state. Pittsburgh's prominence as a center of commerce was being diminished.

To link Pittsburgh to its eastern industrial and domestic markets, eastbound canals were built. The most important of these was the Pennsylvania Canal, built in 1835, which extended from Philadelphia to Pittsburgh. The canal basins



became thriving centers of commercial activity. Once the canal was built, goods and travelers crowded the city again. The population exploded. Warehouses clustered around the canal basin at 11th Street between Penn and Liberty, creating the Strip District.

The depth of the rivers in Allegheny County was unpredictable and not always suitable for shipping goods. In order to solve this problem, from approximately 1885 to the present, the Army Corps of Engineers constructed a system of locks and dams on the rivers. The lock and dam system on the rivers resulted in pools of water at least 9 feet deep year round, a depth suitable for shipping goods. Pittsburgh was then able to become a major inland port, which it remains to this day.

In the mid-19th century, several railroads built trade and passenger routes throughout the County. Many industries were able to flourish from access to expanded transportation routes. The line from Philadelphia to Pittsburgh was not completed until 1854 when the Horse Shoe Curve section was completed. Soon, the railroads had replaced the canal. They were faster and didn't freeze in wintertime. The canal was abandoned. Locks were dismantled. In our region, the canal was filled in so that the land around it could be developed. The last known remnant of the canal, Lock No. 4, was dug up on the North Side in 1987 during construction of I-279 North.

THE EMERGENCE OF 'STEEL CITY'

To supply iron needs for the War of 1812, foundries, rolling mills, machine shops and forges sprang up on flat land along the rivers. With the growth of these factories and improved transportation, the population grew to allow Pittsburgh to incorporate as a city in 1816.

When the coke-fueled blast furnace was invented, factory owners consolidated and moved their operations to the riversides, where coal and its purified byproduct coke could be conveniently delivered. During the Civil War, Pittsburgh became a major supplier of ordnance to the Union, and its iron industry and its shipyards benefited.

Iron is used to make steel. In 1873, Andrew Carnegie opened his first steel mill in present day Carnegie Borough. A former executive with the Pennsylvania Railroad, he left to produce steel rails for the company. Two years later he opened the Edgar Thomson Works in Braddock and brought inexpensive, mass-produced steel to the Pittsburgh area.

Carnegie hired engineers to develop the most efficient system of steel production possible without a skilled work force. This ensured that Carnegie's mills would return the maximum amount of profit – mass quantities of steel could be quickly produced by lower paid, unskilled laborers. Carnegie also partnered his company with Henry Frick's coal mining and coke processing operation for further efficiency. With the merger Carnegie introduced the concept of the corporation, with control over a product from start to finish.

Allegheny County quickly became one of the most important steel producing areas in the world. Between 1875 and 1900, area steel mills produced more steel than anywhere else in the nation.

In 1901, several companies in the United States, including Carnegie's, consolidated into one large steel corporation, creating the United States Steel Corporation. At the time, it was the largest business enterprise ever created.

COMPANY TOWNS

Commercial, industrial and residential development continued to flourish in Allegheny County throughout the late 19th and early 20th centuries. During this time, communities rose around mills and industrial sites along the rivers. The owners of the larger industrial plants built neighborhoods to house their large work forces. They rented the houses to their employees, believing that an employee was less likely to quit if it meant losing his home. Supplies were sold in company-owned stores, often at prices that kept employees in debt to the company. Many of the County's boroughs came from these communities.

Self-sustaining river towns thrived as places where people could live, learn, work, invest and play.

EUROPEAN IMMIGRATION

The steel industry brought an influx of both domestic and foreign immigrants to the County for employment. In 1875, an influx of thousands of immigrants arrived from Germany and Ireland to forge not only steel, but a better life as well. In the second wave of immigration, millions of people from eastern and southern European countries came to work the mills. By 1920, 66% of the population in Allegheny County was of foreign descent. The trend of heavy European immigration ceased when World War I began. Many

neighborhoods throughout the County retain a strong ethnic identity even today.

THE RISE OF LABOR UNIONS

The great number of manufacturing enterprises in Allegheny County served as the impetus for the rise of the labor unions. Several of the nation's largest unions had their beginnings here: the American Federation of Labor, the Amalgamated Association of Iron and Steel Workers, and the Steelworkers Organizing Committee. The latter two merged into one union in 1942, forming the United Steelworkers of America, which is still headquartered in Pittsburgh.

Employees at the steel mills worked 12 hours per day in dangerous manual labor positions for low wages. Injured employees were not compensated. Strife between workers and industrialists led to several major strikes in the second half of the 19th century. The most severe of these were the 1877 railroad strike and the violent 1892 Homestead Strike.

The Homestead Strike began when Carnegie cut workers' wages. Dissatisfied workers demanded their wages be restored. In 1892, 3,800 union steel workers were locked out of the Carnegie Homestead Works, beginning a four month, violent standoff between workers and police. Pinkerton Agency guards were hired by the steel mill to allow non-union workers to break through, but the union workers forced the guards to retreat in a 12-hour battle that also involved the Pennsylvania State Militia. Late in the year the union ended the strike, conceding to the steel mill.

As a result of the Battle of Homestead, the labor unionization movement across the nation suffered major setbacks until the 1930s.

THE DISCOVERY OF OIL AND NATURAL GAS

While the existence of oil in western Pennsylvania was well known, it was not until 1859 and the success of Edwin Drake's well at Titusville, Pennsylvania that the petroleum industry was established. The first refinery in the United States, the Brilliant Oil Refinery, was opened in Pittsburgh's East Liberty neighborhood in 1861. During the 1860s, the Pittsburgh was the world's largest refiner of petroleum. Oil from the north was shipped down the Allegheny River to Pittsburgh's refineries. However, in 1874 the Brilliant Oil Refinery was merged into John D. Rockefeller's Standard Oil

Company, which was based in Cleveland, Ohio, resulting in the relocation of many area refineries. Gulf Oil Company, the eighth largest American manufacturing company in 1941 and one of the Seven Sisters oil magnates, had its headquarters in downtown Pittsburgh for many years. In 1984, Gulf Oil merged with Standard Oil of California and moved its headquarters out of the County.

Another major source of energy that played a key part in the growth of Allegheny County industry was natural gas. In the late 19th century, natural gas was discovered in the area. The widespread use of natural gas for homes meant that there was a major drop in the cost of living in the County.

AFRICAN AMERICAN HERITAGE

Before the practice of slavery was abolished in 1865, Allegheny County played an important role in leading slaves to freedom. It has been estimated that approximately 10,000 escaped slaves reached freedom by passing through the County's Underground Railroad. Some settled in Arthursville, which was located in the present day Hill District of Pittsburgh.

Many African Americans arrived in Allegheny County after the Civil War. Free to leave the south, they chose to migrate north to work in Allegheny County steel mills. The labor force in the steel mills was unskilled and had no pre-requisites for employment. Steel mill owners were often willing to hire freed slaves.

The beginning of World War I demanded large quantities of steel from Allegheny County. When European immigration declined, owners hired African Americans in large numbers.

African Americans contributed greatly to the music culture of Allegheny County. Pittsburgh was home to many jazz greats over the years, including George Benson, Art Blakey, Ray Brown, Kenny Clarke, Billie Eckstein, Earl 'Fatha' Hines, Ahmad Jamal, Billy Strayhorn, Al Jarreau and Stanley Turrentine. The Crawford Grill, which opened in 1931 in Pittsburgh's Hill District, was world-renowned for its jazz scene. In 1941, the nation's first African American opera company, the National Negro Opera Company, was founded here.

Local African Americans have played key roles in the history of sports. The Homestead Grays and the Pittsburgh Crawfords were legendary baseball teams in the Negro League in the early 20th century. Josh Gibson, the Babe Ruth



of the Negro Leagues, played for each of the local teams in the 1930s and 40s.

AVAILABLE VENTURE CAPITAL

At the turn of the 20th century, steel was the major industry, but it certainly wasn't the only one contributing to the city's financial success. Pittsburgh was a major center for financial activity during the late 19th and early 20th centuries. Fourth Avenue was known as "Pittsburgh's Wall Street", and was the location of many of the financial institutions responsible for fueling the County's heavy industrial economy. More than 40 private banks, public banks and trust companies were located on Fourth Avenue. Several prominent banks, including Mellon Bank and Pittsburgh National Bank, were established in Pittsburgh.

In 1888, the Pittsburgh Reduction Company, with venture capital from the City's banks, was established in Pittsburgh's Strip District. As it is today, venture capital was the key to commercializing inventions back then. Charles Martin Hall discovered an inexpensive way to smelt aluminum and sought financial backing. He found it in Pittsburgh, along with a partner in Alfred Hunt. Pittsburgh banks were willing to fund the start up of the company and continued to provide capital for expansion. In 1907, the Pittsburgh Reduction Company changed its name to the Aluminum Company of America (Alcoa). In the early 1950s, Alcoa built the world's first aluminum skyscraper for their headquarters.

A number of other new companies were similarly established: Koppers Chemical Company, Gulf Oil Company, Pittsburgh Plate Glass Company (PPG), Union Switch and Signal, and many smaller ventures. Pittsburgh's industrial expansion produced vast fortunes for entrepreneurs such as Andrew Mellon, Henry Clay Frick and George Westinghouse.

The result of this explosive economic growth was a tremendous population boom. By 1910 the region's population exceeded a million people, twice as many as it had in 1890 and nearly three times as many as in 1880.

A CITY IN GROWTH

For decades, the City of Pittsburgh pushed to grow beyond its boundaries between the Monongahela and Allegheny rivers. Between 1868 and 1900, the city increased its land area nearly 16 fold to 28 square miles through annexation. At the beginning of the 20th century, the state's second-

largest city after Philadelphia saw a chance to expand into a metropolis near the top rung of great American cities. Allegheny City, the third-largest municipality in the state, was situated north of Pittsburgh on the banks of the Allegheny and Ohio rivers. Square in the sights of Pittsburgh, Allegheny found itself in an outright struggle for survival. Its identity and autonomy, after nearly a century of growth and development on its own, was at stake.

In 1907, Pittsburgh annexed Allegheny City, one of the most controversial annexations in U.S. history. When it was over, Pittsburgh's national ranking among cities jumped from 12th to the 7th largest.

In the 1920s there were 13 companies making brick and ceramic pipe in Allegheny County. Many of the houses in older communities were built of brick because it was widely and cheaply made from local clay and shale. Equally important was the production of special firebricks needed to line the furnaces, which made coke, steel, and glass.

The sandstone in the area was also useful for building material. Many houses in the area are built from the Morgantown sandstone. This particular bed of sandstone is uniform in texture and even grained, which makes it strong and easy to cut into uniform blocks. This is the buff to gray building stone seen on many of the public buildings in downtown Pittsburgh.

THE RISE OF THE SUBURBS

While the rivers influenced early land use patterns, the railroads and transit lines affected latter development. The railroad allowed the wealthy to move out of the city and ride the train to work. Residential suburbs developed around stations along railroad lines and allowed employees to commute to work and live away from the congestion of the city.

When the electric trolley developed as a cheap, reliable short-distance form of transportation in the 1890s, it began a revolution in urban life: the era of the suburbs and the commute. Unlike much larger trains, streetcars could go almost anywhere. Just at the time the large steel firms raised up a prosperous class of white collar middle management workers, the trolley made it possible for them to escape the city and commute to downtown.

Through the latter part of the 19th century, the City of Pittsburgh grew rapidly to the east, the north, and on the

South Side. Once the Liberty Tunnels were constructed in 1926, the South Hills were opened to even more development and the areas between trolley suburbs started to fill in with houses.

The Great Depression and World War II interrupted new house construction, but when it was over, a new building boom was on. Veterans returned with the GI Bill to help them make the move to brand-new suburbs that were completely car-dependent.

THE FIRST RENAISSANCE

“Our grand design in Pittsburgh has been the acceptance of a belief that a city is worth saving; that a successful organism in the plan of nature must have a head and nerve center; that the people of a city can take pride and glory in it....” – Mayor David L. Lawrence, 1956

By the end of World War II, conditions in the city were grim, with heavy air pollution, poor services and deteriorating housing. The smoke was so heavy that street lights and car headlights would frequently be turned on during midday. Conditions were so bad that the region was once referred to as “Hell with the Lid Off”.

In 1945, business and political leaders, led by banker Richard King Mellon and Mayor David Lawrence, launched what became known as the Pittsburgh Renaissance. This was a unique attempt to renew a major industrial city through a public/private partnership. It was directed by the Allegheny Conference on Community Development, a nonprofit committee with the city's most powerful business leaders and politicians as members.

The goals of the Renaissance were environmental improvement (reducing smoke pollution, flooding and treating sewage), downtown renewal and transportation revitalization. The first public/private partnership project, Gateway Center, was completed during the Renaissance. Remnants of industry were cleared from ‘the Point’, located at the confluence of the Three Rivers, and Point State Park was created. The city undertook urban renewal projects in the Lower Hill District, the North Side and East Liberty. Major social dislocations were caused. The Hill District is today the focus of another, more sensitive urban renewal effort.

The first Pittsburgh Renaissance lasted until 1969.

EMERGENCE OF PRESERVATION MOVEMENT

In the late 1950s, Urban Renewal efforts of Renaissance I for Allegheny City, now Pittsburgh's North Side, included complete demolition of all homes, buildings, market houses, and other structures from and including East Street to the Ohio River Boulevard, which encompassed the historic and culturally important neighborhoods of Allegheny Center, Central Northside/Mexican War Streets, Chateau, Manchester, North Shore, and Deutschtown.

In 1964, at a time when vast sums of public money were spent to replace some of Pittsburgh's most historic neighborhoods and commercial areas with characterless architecture, parking lots and roadways, and in reaction to the massive demolition campaigns and the imminent threat to Pittsburgh's North Side, Arthur P. Ziegler, Jr. and James Van Trump co-founded the Pittsburgh History and Landmarks Foundation. PHLF advocated community development and revitalization through preservation instead of dislocation and demolition. This marked the birth of the preservation movement that continues to this day.

The neighborhoods of Chateau and Allegheny City Center suffered significant damage from the wrecking ball. Most of the former Allegheny City Center was demolished, with the exception of a few buildings saved by PHLF: The Old Post Office, Buhl Planetarium, now both part of the Children's Museum of Pittsburgh, and the Carnegie Free Library of Allegheny.

Preservation efforts by the Pittsburgh History and Landmarks Foundation, along with community neighborhood groups and the Urban Redevelopment Authority, arrested this wholesale demolition scheme. The neighborhoods containing rich architectural heritage, including Central Northside/Mexican War Streets, Manchester, North Shore and Deutschtown, were spared.

RENAISSANCE II

Richard Caliguiri became mayor in 1976 and restored the public-private partnership with the beginning of Renaissance II in 1980. A number of development projects downtown restored the luster of the city. As a result, Pittsburgh's downtown remained viable and service jobs grew, despite a severe downturn in the steel industry.

Renaissance II gave the city Three Rivers Stadium, the U.S. Steel Tower, Oxford Center, PPG Place and Mellon Bank



Tower. But it also hid the fact that Pittsburgh's reliance on heavy industry for its livelihood was coming to an end. A combination of high labor costs, cheap competition from foreign producers and costly environmental protection measures made heavy manufacturing – of all products, not just steel – unprofitable in the region by the end of the 1970s.

Factory after factory closed down, leaving thousands of people unemployed and thousands of acres of riverfront unused. By the late 1970s to the early 1980s, the region's reign as one of the titans of the world of Big Steel had neared its end. The decline of the steel industry reverberated throughout the region, causing economic instability and a mass exodus of residents. In 1950, Pittsburgh was the twelfth largest city in the nation. Since then, the City has lost over half of its population. Today, Pittsburgh is the 57th largest city in the United States, with 311,000 residents.

IRONY IN THE STEEL CITY

Looking to the future, Allegheny County has worked to reinvent itself and become a national center for innovation. As a result, the region's technology sector has grown tremendously. Today, more than 800 firms and 100,000 employees are involved in the region's advanced technology industries. The key to growing these companies is, once again, readily available venture capital. State and regional officials have worked to ensure that technology invented here can be capitalized and commercialized here.

The decline of Big Steel came, in large part, because of a lack of willingness to invest in new state-of-the-art technology. Yet today, medicine and technology, not steel, define Allegheny County.

Today's economy is led by the 'meds and eds'; that is, the prominent and prestigious medical and educational institutions located here. The University of Pittsburgh Medical Center (UPMC) is a leading American health care provider and institution for medical research. One of the largest research and development centers in the country is located here. The Pittsburgh Technology Center, also mentioned in Chapter Three, is a hub of innovation, application and production, where emerging technologies are shepherd from creation to implementation. The University of Pittsburgh and Carnegie Mellon University along with several private research and development companies are tenants there.

Carnegie Mellon University is recognized as one of the best technical universities in the world. It has one of the top programs in the United States for software engineering, robotics and artificial intelligence. The University is the only location in the world where the offices of Microsoft, Intel and Google are housed under one roof. Carnegie Mellon's new Commercialization Center for Nano-Enabled Technologies will generate new research and help to spin off new companies.

The University of Pittsburgh and Medical Center is the largest employer in Pittsburgh. Allegheny County is also home to the Pittsburgh Tissue Engineering Initiative, a network of researchers, engineers and business professionals involved in research to restore or replace human tissue and organs.

At the NASA Robotics Engineering Consortium, researchers and engineers have developed prototypes for the Mars rover and the first totally automated harvester. Pittsburgh is becoming known as the "Knowledge City".

By changing perceptions around the nation, people today see us as we see ourselves. Allegheny County is now known for its distinguished hospitals, universities and advanced technological research centers. Our economy is based on service, especially medical, financial, corporate and educational services, and advanced (specialty metal) manufacturing. Through the centuries, the people of Allegheny County have persevered and adapted to difficult economic changes. At each turn, we have achieved a brighter future.

The story of the Renaissance in the Rust Belt is not complete. There's more to be written. But that's in the future and this piece is history.

■ TODAY'S CONDITIONS

The heritage of Allegheny County is reflected in its historic buildings, neighborhoods and landscapes. These resources connect us, physically and emotionally, to the past and attract and educate residents and visitors alike. Historic and cultural resources give us our identity and give our communities their authenticity.

In this section, we describe the historic and cultural resources found throughout the County (see Map 4B.1). We additionally describe the roles of the agencies, local governments and organizations that actively preserve and manage these resources.

NATIONAL REGISTER RESOURCES

Due to our rich history, we have many historic and cultural resources that are recognized nationally. The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate and protect our historic and archaeological resources. The register is maintained by the National Park Service and is administered in Pennsylvania by the Pennsylvania Historical and Museum Commission (PHMC).

Properties listed in the Register include districts, sites, buildings, structures and objects that are significant in American history, architecture, archaeology, engineering and culture. Some diverse examples may include a historic farmstead, an early 20th-century diner, an 18th-century

mill, or a turnpike milestone. They can be significant to a local community, a state, a Native American tribe, or the nation as a whole. Properties in the county that are listed on the National Register can be found at www.state.pa.us.

A property is considered eligible for the National Register of Historic Places when it meets specific criteria established by the National Park Service. Allegheny County has over 220 properties listed in and nearly 500 additional properties currently eligible for the National Register. The National Historic Preservation Act of 1966 requires government agencies to take into account the effect any state- or federally-funded project may have on historic properties.

If a proposed project may impact a Pennsylvania historic property, the state or federal agency consults with the Pennsylvania Historical and Museum Commission (PHMC) to determine whether the impacts can be avoided or mitigated. Also, National Register listing makes the property eligible for Historic Preservation Tax Incentives administered by the National Park Service.

The County's National Register properties include government buildings, schools, churches, theaters, retail buildings, locks and dams, tunnels and bridges, railroad stations, retail buildings, an experimental mine and industrial facilities. The names are familiar to you. Among them are:

- Allegheny Cemetery
- Allegheny County Courthouse and Jail
- Carnegie Institute and Library
- Forks of the Ohio (Point State Park)
- H.J. Heinz Company
- Homestead Battle Site (Bost Building)
- Kennywood Park
- Monongahela Incline
- Rachel Carson House
- Schenley Park
- Smithfield Street Bridge
- Soldiers and Sailors Memorial Hall
- Union Trust Building
- Woodville Plantation



Photo credit: McCormick Taylor

OTHER SIGNIFICANT HISTORIC RESOURCES

In addition to the State and national recognition of National Register properties, the Pittsburgh Historic Review Commission (HRC) protects and maintains historically and architecturally significant buildings and neighborhoods in the City. When a building is designated as a historic landmark,



the HRC has jurisdiction over all proposed new construction, demolition and exterior work to the building. The review process begins only when an owner decides to do work to the exterior of their building.

The HRC has currently designated 12 City Historic Districts, one City Historic Site, two City Historic Objects and 75 City Historic Landmarks.

PHMC administers a program of historical markers to capture the memory of people, places and events that have affected the lives of Pennsylvanians over the centuries. There are currently about 130 historical markers at Allegheny County sites. The Young Preservationists Association of Pittsburgh (YPA) updated this inventory in April 2008. For a map of these historic markers, visit www.youngpreservationists.org.



Photo credit: McCormick Taylor

In 1968, the Pittsburgh History & Landmarks Foundation began a Historic Landmark Plaque program to identify architecturally significant structures and designate historic landscapes throughout Allegheny County.

In 1984, Pittsburgh History & Landmarks Foundation was the first historic preservation group in the nation to complete a county-wide survey of architectural landmarks. Cofounders Arthur P. Ziegler, Jr. and James D. Van Trump began that survey in 1965. As a result of a second, more comprehensive survey completed by Landmarks' staff in 1984, more than 6,000 architecturally and historically significant sites in Allegheny County have been documented.

Over 525 of those sites are distinguished by one of Landmarks' "Historic Landmark" plaques. Landmarks also has surveyed steel industry sites, African-American historic sites, and historic parks and gardens, and has prepared thematic National Register nominations on Pittsburgh public schools and bridges.

AFRICAN AMERICAN HERITAGE SITES

In September 1992, PH&LF and Landmarks Design Associates completed the **African American Historic Sites Survey of Allegheny County**. It was the first survey of African American historic resources sponsored by PHMC. The survey identified more than 300 sites that had been important to African Americans between 1760 and 1960.

Currently, there are only three City-designated Historic Landmarks dedicated to African Americans in the entire City of Pittsburgh:

- Centre Avenue YMCA
- John Wesley A.M.E. Zion Church
- New Granada Theater

All are located in the Hill District. The Greater Faith Tabernacle Baptist Church in Homewood was a designated Historic Landmark, but it was demolished a few years ago due to severe structural problems.

The City of Pittsburgh is in the process of listing the August Wilson House as a Historic Landmark. In 2008, the August Wilson Center for African American Culture, currently under construction in downtown Pittsburgh, will open.

CRITICAL SITES

Threats to historic sites come from various sources, including increasing pressure due to development and neglect by owners. Advocacy groups on the statewide and local levels have been organized to promote and support efforts to preserve historic sites, including Young Preservationist Association of Pittsburgh, Pittsburgh History & Landmarks Foundation, Preservation Pittsburgh, and Preservation Pennsylvania.

The National Register, discussed above, is only one way to identify historic significance. There are places with unique historic character in every community throughout

Allegheny County that may not meet the criteria for listing on the Register.

The Young Preservationists Association of Pittsburgh (YPA) is a regional advocacy organization that encourages young people to become involved in preservation. YPA was founded in Pittsburgh in 2002 and is now active in 19 states with over 350 members. YPA operates under the following objectives to raise awareness, educate diverse constituencies and provide opportunities for participation in preservation activities.

The YPA is the only organization of its kind in the United States.

Public input is very important when determining priorities for historic preservation and defining community character. Members of the general public often define sense of place much differently than what is used by professional planners and historic preservation advocates. Each year the YPA solicits public input regarding the region's top historic sites, which are then screened through a list of five criteria to create the Top Ten Best Historic Preservation Opportunities. The full report can be found in the Supporting Documents for this element. The following Allegheny County sites have been listed for the past four years:

2008

- Wilkinsburg Main Street
- McKees Rocks Main Street
- Dormont Pool
- Garden Theater in Pittsburgh's North Side

2007

- Glenshaw Glass Company (1900)
- Morningside School (1897)
- Crawford Grill in the Hill District (1917)
- Blairsville High School in Morningside (1930)

2006

- Eagles Club in McKeesport (1910)
- East Liberty Town Square
- First Presbyterian Church in Braddock (1887)
- Mooncrest in Moon Township (1943)
- McCook Mansion in Shadyside (1906)

2005

- Main Street Braddock (1875-1915)
- John Woods House in Hazelwood (1792)

- Andy Warhol Residence in Oakland (1915)
- Bryce-Mesta Mansion in West Homestead (1880)
- Hollywood Theater in Dormont (c. 1920s)
- Denis Theater in Mt. Lebanon (c. 1920s)
- Cinema 4 Theater in Dormont (c. 1920s)
- John Wesley AME Zion Church in the Hill District (1894-95)
- Hays Woods in Southside
- Otto Milk Plant in Strip District (1865)

In addition to the Top Ten list, YPA launched the "New Frontiers in Preservation" project in 2004. This project was designed to help educate people about the importance of historic preservation, and how the choices we make can shape our communities. Ten focus groups were held to gather public input on what was historically important in each of the nine counties and the City of Pittsburgh, which make up the Southwestern Pennsylvania region. This effort marked the first time that the region has had a list of historic preservation priorities.

The full list and report can be found in the Supporting Documents for this element. The top priorities for Allegheny County and the City of Pittsburgh are as follows:

Allegheny County

1. Preservation of Pittsburgh's Steel Heritage particularly the Carrie Furnace Site in Rankin
2. Main Street Revitalization including, but not limited to, the following communities:
 - a. East Eighth Avenue in Homestead
 - b. Main Street Braddock
 - c. Tarentum
 - d. Bellevue
 - e. West View
 - f. Coraopolis
 - g. Carnegie
3. Housing Development (affordability and accessibility)
4. Green space protection / Scenic Byways
5. Crestas Terrace in North Versailles
6. Brownfield Redevelopment
7. Preservation and Reuse of Rail Transportation
8. Dixmont Hospital in Kilbuck
9. Ethnic Churches
10. PA Train Station in Wilkinsburg



City of Pittsburgh

1. Historic Commercial Corridors like Centre Avenue in the Hill District, Penn Avenue in East Liberty and Fifth/Forbes in Uptown
2. Preservation of historic details and decorative elements
3. Neighborhood surveys of historic properties particularly in distressed communities
4. Preservation of sites that tell a story of Pittsburgh's past
5. Preservation of Pittsburgh's parks and trails
6. New World Bank (Downtown)
7. South Hills High School (Mount Washington)
8. Preservation of homes and history related to famous Pittsburgh Women
9. Preservation and reuse of vacant schools
10. Streamlined vacant property disposition process.

HISTORIC LANDSCAPE FEATURES

Historic landscapes, as defined by the National Park Service, include both designed and vernacular landscapes. The designed landscape was consciously laid out by a landscape professional according to design principles, or an amateur working in a recognized style or tradition. The landscape may be associated with a significant person, trend, or event in landscape architecture; or illustrate an important development in the theory and practice of landscape architecture. Examples include parks, campuses, and estates. The vernacular landscape evolved through use by the people whose activities or occupancy shaped it. The landscape reflects the physical, biological, and cultural character of everyday lives. Function plays a significant role in vernacular landscapes. Examples include rural historic districts and agricultural landscapes.

There are a number of important historic landscape features within the County. These are the historic landscapes that contribute to the 'Area of Significance' or 'Historic Function' of sites listed on the National Register:

- Allegheny Cemetery
- Chatham Village Historic District
- Evergreen Hamlet
- Longue Vue Club and Golf Course
- Oakmont Country Club Historic District
- Sauer Buildings Historic District
- Schenley Farms Historic District
- Schenley Park

OTHER AREAS OF LOCAL HISTORIC SIGNIFICANCE

The National Register is only one way to identify historic significance. There are places with unique historic character in every community throughout Allegheny County that may not meet the criteria for listing on the Register. Alternatively, locally important properties with identifiable characteristics provide a sense of place that has specific economic and cultural value. The visual historic character of a place can establish a sense of authenticity sometimes lacking in newer residential and commercial areas. This authenticity is often sought by discerning consumers, homebuyers and businesses and of course tourists and is an essential component in the consideration of development within the county.

ARCHAEOLOGICAL SITES

Allegheny County is rich in archaeological sites, including many from the French and Indian War and the early industrial revolution. Professional archaeological excavations have been conducted at numerous sites within the county, including Fort Pitt, McKees Rocks burial mound, Blawnox Indian village site and a prehistoric rockshelter located in North Park. The specific locations of archaeological sites are not publicly identified, in order to protect the integrity and contents of the resources. As with historic properties, the National Historic Preservation Act of 1966 requires government agencies to take into account the effects that state- and federally-funded projects may have on archaeological sites. More specific information regarding planning for archaeological sites can be found in the Supporting Documents for this plan.

EXISTING REGULATIONS

The National Historic Preservation Act (NHPA) of 1966 was enacted to prevent unnecessary impacts to historic resources by federally funded actions. In the NHPA, Congress established a comprehensive program to preserve historical and cultural foundations as part of community life. Section 106 of NHPA is crucial to that program and requires Federal agencies to consider an action's effects on historic resources and to avoid or minimize impacts. Section 106 also affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. Sometimes there is no way for a needed project to proceed without harming historic properties; however, this process ensures that preservation values are factored into Federal agency planning and decisions.

Municipalities can protect historic resources under the authority of three enabling laws:

1. **The Historic District Act of 1961** (Act 167) authorizes counties, cities, boroughs, incorporated towns and townships to create historic districts within their jurisdiction through use of an ordinance to protect the distinctive historical character of such districts and to regulate redevelopment and new development.

The following municipalities in Allegheny County have adopted Historic Preservation Ordinances under the Historic District Act of 1961:

- Homestead, W. Homestead, and Munhall – multi-municipal ordinance
- Moon Twp
- Sewickley
- Sewickley Borough
- Sewickley Heights

2. **The Municipalities Planning Code** (MPC) gives municipalities the power to plan and govern development within their jurisdiction through the use of zoning and land development ordinances. Neville Township and Mount Oliver have included historic districts in their zoning ordinances.

3. **The Home Rule Charter** – the authority to act in municipal affairs is transferred from state law, as set forth by the General Assembly, to a local charter, adopted and amended by the voters. A county, borough or township choosing home rule can tailor its government organization and powers to suit its special needs. Under the Home Rule Charter, Pittsburgh adopted a historic preservation ordinance in 1979, giving full police powers to the Pittsburgh Historic Review Commission to approve or disapprove work to building exteriors.

OTHER LOCAL ORGANIZATIONS INVOLVED IN HISTORIC PRESERVATION

The Historical Society of Western Pennsylvania, the region's oldest cultural organization, operates both the Senator John Heinz History Center and Meadowcroft Rockshelter and Museum of Rural Life. With the opening of the History Center's Smithsonian wing in 2004, the Center has become the largest history museum in the Commonwealth of Pennsylvania. The new wing allows the organization to

better realize the opportunities found in its affiliation with the Smithsonian Institution, as well as adding a new Education Center, the Western Pennsylvania Sports Museum, the Special Collections Gallery and the McGuinn Gallery.

Preservation Pittsburgh is a non-profit advocacy group dedicated to preserving our region's historic, architectural, cultural and environmental heritage. Its purpose is to assist individuals and organizations in preserving the integrity of the architecture and physical surroundings they value. The organization's primary goal is to promote the importance of preservation issues in the deliberations and decisions of public officials, private groups, developers and the general public.

Numerous regional and national foundations support preservation efforts in the County. Additionally, many neighborhood and municipal historical groups, such as the Allegheny Historic Preservation Society, promote heritage education and preservation in communities across the County.

HERITAGE TOURISM

Pennsylvania has a Heritage Areas Program, administered by the Department of Conservation and Natural Resources (DCNR), to keep the Commonwealth's historical legacy alive and thriving. The program is guided by five interrelated goals:

- Economic development
- Recreation and open space
- Partnerships
- Education and interpretation
- Cultural conservation

State Heritage Areas are large geographic regions or corridors of the Commonwealth that span two or more counties. These areas contain a multitude of historic, recreational, natural and scenic resources of state and national significance that collectively exemplify the heritage of Pennsylvania. Through regional partnerships and public grassroots planning strategies, these resources are identified, protected, enhanced and promoted to strengthen regional economies through increased tourism, creation of new jobs and stimulation of public and private partnerships for new investment opportunities.

Allegheny County is within a Heritage Area. The Rivers of Steel National Heritage Area identifies, conserves, interprets,



promotes and manages the historic, cultural, natural and recreational resources of steel and its related industries in Southwestern Pennsylvania. Its mission is to use these resources to encourage community revitalization through cultural tourism and related economic development. The Heritage Area encompasses 3,000 square miles in seven counties. Rivers of Steel is working to preserve our region's rich industrial heritage for generations to come by preserving historic buildings, locations and artifacts that help to interpret the story of 'Big Steel'.

■ ISSUES AND ANALYSIS

This section examines what can be done to better preserve the rich historic and cultural heritage of Allegheny County.

KEY CHALLENGES

In developing the Historic and Cultural Resource Plan, the Historic and Cultural Resource Panel helped to identify these key challenges:

- Disinvestment in historic areas
- Threats to historic properties and lack of an up-to-date county-wide historic resource survey
- Loss of African American heritage sites
- Misperceptions regarding rehabilitating historic buildings
- Lack of understanding of the economic value of historic properties and resources

The following provides an understanding of these issues.

DISINVESTMENT IN HISTORIC AREAS

Across the County, support for economic development in the outer suburbs has led to a declining investment in the core communities. Economic development subsidies from three of the state's major economic programs – the Pennsylvania Industrial Development Authority, Opportunity Grant Program and Infrastructure Development Program – allocated about \$68 per capita to projects in established municipalities in the region and about \$70 per capita to developments in outer suburban areas, according to the Brookings Institution Center on Urban and Metropolitan Policy. This high level of financial assistance to outlying

developments contributes to decentralization and represents a lost opportunity to focus resources on revitalizing older communities.

THREATS TO HISTORIC PROPERTIES AND LACK OF AN UP-TO-DATE COUNTY-WIDE SURVEY

Many historic properties sit neglected in declining urban neighborhoods, subject to vandalism and arson. Windows are broken or boarded up and water damage from leaking roofs leads to structural problems. Nearby buildings crumble and fall, leading to a loss of the property's historic context. In growing areas, rampant suburbanization is leading to the same result – a loss of resources. Historic buildings are being demolished to make way for new development. Even those properties that are being tended to by public or private interests may be suffering from deferred maintenance.

Historic properties or buildings are not the only historically significant assets that are being threatened. Archaeological sites are also extremely important in preserving our history. According to PHMC's document titled *Planning Guidance for Archaeological Sites*, humans first arrived in present day Pennsylvania over 16,000 years ago. There has been a substantial amount of material that humans left behind over this time frame as a record of their existence. Archaeological sites, similar to historic buildings, are considered cultural resources. They are also historic properties if they meet the requirements in the National Historic Preservation Act (NHPA). "...Unlike historic buildings, however, archaeological sites are not always evident to the untrained eye. While some archaeological sites have obvious above ground indicators such as earth mounds, or chimney remnants, most consist of artifacts (objects made or modified by humans such as stone tools, pottery, bottle glass) and features (post holes, trash pits, stone hearths, human burials, etc.) that are underground. There are two types of archaeological sites: prehistoric sites and historic period sites. These different types of sites require different techniques for discovery and treatment."

An up-to-date county-wide inventory of historic and cultural resources is a necessary tool for identifying threats to historic properties and sites. The last county-wide survey was done between 1979 -1984. In 1992, the African American Historic Sites Survey of Allegheny County was completed. Additionally, many municipalities do their own surveys – the ones funded by PHMC are in the state database, but other surveys may not be included. There are many groups working to preserve historic sites and properties throughout

the county, but there needs to be one location in the county where all of this information can be housed.

LOSS OF AFRICAN AMERICAN HERITAGE SITES

When the Pittsburgh History & Landmarks Foundation completed the **African American Historic Sites Survey of Allegheny County (the Survey)** in 1992, many of the sites identified faced a significant threat from neglect, lack of investment, loss of context, incompatible use or a combination of threats. Since that time, little has been done in the way of practical preservation and reuse. Therefore, many of these threats still persist today. For some sites, it's a matter of time before they are demolished.

Many of the neglected sites are within the Hill District of the City of Pittsburgh, the historic heart of the region's African American community. However, sites in Hazelwood, Homewood, Wilksburg and communities outside of Pittsburgh are also at risk.

Many local preservation groups are interested in preserving notable African American heritage sites that have contributed to our rich history:

- The Crawford Grill, which was the center of African American social life where musicians such as Art Blakey, Mary Lou Williams and John Coltrane drew a racially mixed, international clientele.
- Ammons Field, the ballpark of the Pittsburgh Crawfords and the personal playpen of the all-time greatest Negro Leagues Baseball home run hitter, Josh Gibson.
- The childhood home of August Wilson, the Pulitzer Prize-winning playwright, who grew up in the Hill District. Of his 10 plays about 20th-century life of African Americans, nine were based in Pittsburgh.

According to University of Pittsburgh history Professor Laurence Glasco, author of "A History of Black Pittsburgh" and a co-author of **the Survey**, African American historic sites in Allegheny County suffer from a "double burden": the sites are often located in isolated neighborhoods in dire need of private investment and they lack a comprehensive plan that incorporates African American historic sites into the neighborhood's redevelopment. Community awareness as to the significance of these sites would assist in their restoration and reuse.

In 1995, Pittsburgh History & Landmarks Foundation published "A Legacy in Bricks and Mortar: African-American Landmarks in Allegheny County", that tells the story of African-Americans in Allegheny County from the mid-1700s to the present day and shows 62 surviving buildings and places where black citizens have lived, studied, played, worked, and worshiped.

MISPERCEPTIONS REGARDING REHABILITATING HISTORIC BUILDINGS

In recent years, many former industrial buildings have found a new purpose. Finding new uses for old buildings and revitalizing entire districts can provide an economic spark to a community. But one frequently encountered obstacle to adaptive reuse is the misconception that it costs more to bring old buildings up to current codes.

Pittsburgh is a leader in sustainable or 'green' architecture. Rehabilitation is inherently sustainable – thus less expensive. Numerous studies have been conducted across the nation that prove that preservation is environmentally sound as well as economically feasible.

Pennsylvania's Act 45, the Uniform Construction Code of 1999, excludes existing non-residential structures classified as historic by local, State or federal authorities from the new building requirements.

LACK OF UNDERSTANDING OF THE ECONOMIC VALUE OF HISTORIC PROPERTIES AND RESOURCES

Preservation is not always a concern to the majority of community members. Preservation activities do not always receive positive press or support from local governments either. If local leaders do not see preservation as a priority, then advocacy groups will have a tough time selling preservation to the community.

For over 40 years, the Pittsburgh History & Landmarks Foundation has published PHLF News, a quarterly membership newsletter that is sent to over 4,000 people, including feature articles on current preservation issues and major programs throughout Pittsburgh and Allegheny County. Landmarks has provided leadership assistance to numerous local preservation and civic groups that have been organized to manage the day-to-day business of caring for historic neighborhoods. These include the Manchester Citizens Corporation, the Mexican War Streets Society, South Side



Local Development Corporation, and the Pittsburgh Community Reinvestment Group (PCRG), among others. The PCRG now includes more than 30 neighborhood groups that work with every major financial institution in Pittsburgh; these banks have committed some \$2.4 billion dollars to inner-city neighborhoods in compliance with federal regulations.

In addition, each year the staff and docents of PHLF introduce more than 10,000 people – teachers, students, adults and visitors – to the architectural heritage of the Pittsburgh region and to the value of historic preservation.

In 2007, Allegheny County launched Allegheny Together, a program that focuses on Main Street revitalization and selected PHLF as the lead consultant. Allegheny Together is discussed in detail in the Economic Development element.

A 2006 report by Preserve America, *Building a Preservation Ethic & Public Appreciation for History*, determined that people do not know what historic preservation is, people do not factor historic lessons into future decisions and people do not feel as connected to a place, which hampers preservation efforts. The report suggests that the combined efforts of educators, historic preservationists, media, all levels of government and local commerce leaders are necessary to instill an appreciation for history and the value of historic preservation into the public consciousness.

■ RECOMMENDATIONS

GOAL OF THE PLAN

The County's unique historic and cultural heritage is preserved, enhanced and celebrated by residents, communities and visitors.

OBJECTIVES OF THE PLAN

The objectives of the Historic and Cultural Resource Plan are to:

- A.** Promote and protect the County's historic and cultural resources
- B.** Utilize cultural resources as a tool to stimulate economic development

- C.** Encourage cooperation between historical and cultural organizations throughout the County
- D.** Protect historic landscapes including viewsheds and corridors

The following provides an understanding of the objectives.

A. Promote and Protect the County's Historic and Cultural Resources

Many of the County's historic resources are neglected and deteriorating. Because outright acquisition is not always viable, practical or reasonable; and funding is limited, other methods for protecting historic resources from development are used.

Property owners can permanently protect their properties through easements, typically façade, development rights, or open-space easements. Organizations like the Western Pennsylvania Conservancy, the Allegheny Land Trust, and the Pittsburgh History & Landmarks Foundation accept these easements. There are significant economic tax incentives for property owners. Additionally, municipalities can enact local ordinances to protect cultural, historic and landscape resources. This can be undertaken through Act 167, The Historic District Act and the Municipalities Planning Code.

Even as we seek our future, we continue to honor our past.

The preservation of historic and cultural resources is a foundation for our future economic prosperity and livability. *Allegheny Places* seeks to direct investment to selected locations in order to protect, preserve and enhance these valuable resources. Development and redevelopment anywhere in the County should be done in a manner that respects the existing character of a community.

Identify Historic Resources

New information about our past is always being discovered. As information becomes available it can help us to better understand the remnants of the

past. While Allegheny County currently has over 200 sites listed on – and nearly 500 properties determined eligible for – the National Register of Historic Places, many more significant sites are known to exist in the County. So too, many structures may have achieved their significance within the last 50 years and so can be newly evaluated for the Register.

In order to preserve historic resources, they must first be identified and then strategies can be developed for their protection. This can be accomplished countywide by establishing a voluntary Historic Resource Committee. The committee would be comprised of County staff (at least one planning division employee), local preservation organizations (with perhaps the Young Preservationists Association of Pittsburgh playing a key role), Council of Government (COG) representatives and several municipal planning commission representatives. The Historic and Cultural Resource Panel that was established for *Allegheny Places* can be used as a beginning source for committee members.

The Historic Resource Committee can be tasked with conducting a comprehensive county survey of historic sites and creating one database for all County historic resources. This comprehensive survey should include the following steps:

1. Investigate all historic and cultural surveys being done by municipalities, organizations, universities, etc. within Allegheny County to develop a master database
2. Compare this master database with the PHMC's database
3. Update the county-wide historic survey that was completed from 1979 to 1984 using current PHMC criteria
4. Provide the results to the general public and encourage all historic and cultural organizations to use it as a basis for their work as well as to provide updates

The Committee can also identify additional resources that are not currently listed on or eligible for the National Register of Historic Places, and inform property owners on the benefits of inclusion on the

National Register. The Committee could work with PHMC to include these resources on the National Register. The Committee could also be responsible for promoting the Historic and Cultural Resources Plan and ensuring that its implementation is moving forward.

The designation of Historic Districts can be an important preservation tool for municipalities. There are three forms of state enabling legislation that empower local governments to establish historic districts – they include the Historic District Act, the Municipalities Planning Code, and Home Rule Charters. A guidebook to determine which is best suited for a municipality can be found in the Supporting Documents – *Historic District Designation in Pennsylvania*. There are two model Historic Overlay Districts available to municipalities – one developed for use with the Historic District Act by PHMC, and one developed for the MPC by Allegheny County. Both are available on the elibrary at www.alleghenyplaces.com.

Preserve Minority Heritage

Minority history is very important to the development of Allegheny County and these resources need to be preserved so future generations can learn about and experience this heritage. Support is needed for local preservation organizations like the Young Preservationist Association of Pittsburgh to protect significant sites from neglect and demolition as well as identify additional sites that may be in danger.

The rehabilitation of historic minority properties can be the centerpiece of revitalization efforts in disadvantaged neighborhoods.

Promotion and Education

Preserving our heritage is important to the region's economic well-being and identity. An important step to protecting these resources is increasing public awareness so residents join in and support preservation efforts. A news campaign promoting the county's historic resources in addition to brochures, additional historic tour opportunities and the county website would be helpful to spread the word about the importance of these preservation efforts.



This campaign could be one of the tasks undertaken by the Historic Resources Committee discussed earlier. There are a number of other local preservation groups operating in the County that can assist with this as well, some of which are listed below:

- **Allegheny City Society** (<http://youngpreservationists.org/resources.php?a=go&id=11>)
Preserves, promotes and interprets the history of Allegheny City and Pittsburgh's North Side.
- **Crafton Historical Society** (<http://youngpreservationists.org/resources.php?a=go&id=13>)
Established to collect and preserve properties that relate to the history of Crafton, conduct research, and act as a collective voice in the community on matters relating to the historic integrity of Crafton's buildings, residences, streets and parks.
- **Green Tree Historical Society** (<http://youngpreservationists.org/resources.php?a=go&id=15>)
Organized in September 1985 as a direct result of Green Tree's Centennial, the group maintains cataloged archives, distribute newsletters, and displays artifacts at the library and in the historical society office.
- **Pittsburgh History & Landmarks Foundation** (<http://www.phlf.org>)
Founded in 1964 to bring awareness to the importance of architectural landmarks and historic neighborhoods and the value of historic preservation as a catalyst for urban renewal.

Each year the staff and docents of Pittsburgh History & Landmarks Foundation introduce more than 10,000 people — teachers, students, adults and visitors — to the architectural heritage of the Pittsburgh region and to the value of historic preservation.

Through student/teacher workshops, tours, exhibits and a variety of educational programs, Landmarks encourages people to notice and appreciate historic buildings, parks, public spaces, bridges, streets, etc. that make up the city and its neighborhoods and compose the special character of the Pittsburgh region. By exploring and discovering something

about local history and architecture, people are more likely to preserve old buildings and thoughtfully consider the impact of new building proposals.

- **Squirrel Hill Historical Society**
An organization committed to gathering, preserving, and celebrating the historical memories of the Squirrel Hill neighborhood.
- **Young Preservationists Association (YPA) of Pittsburgh** (<http://www.youngpreservationists.org>)
An advocacy organization created to encourage young people to become involved with preservation activities. YPA offers events and training, just to name a few, to help educate the next generation of the importance of historic preservation as an economic development tool and to promote regional revitalization. YPA also has compiled a list of Resources for Historic Preservation programs and funding sources. The full list can be found in the Supporting Documents for this element.
- **Zelienople Historical Society** (<http://youngpreservationists.org/resources.php?a=go&id=21>)
Offers a unique collection of genealogical resources which include family records and documents; church and cemetery records; municipal records; census lists; historical publications; and an advanced computer system linking nearly 30,000 descendants of the Zelienople area's early settlers. The Zelienople Historical Society maintains a museum in Passavant House.

Currently, Allegheny County (through the Allegheny Together Staff) is interested in applying to become a Preserve America Community. This would greatly help to provide education at both the community and governing body levels on the importance of Historic and Cultural Resources with the county. In addition, this could help the County to work with municipalities to establish historic districts and appoint Historic and Architectural Review Boards.

More information on the program can be found at www.preserveamerica.com. The general criteria for the program are:

- Recently supported a historic or cultural preservation project

- Governing body adopt a resolution indicating the commitment to preserving historical assets
- Meet at least five criteria specified within three broad categories of: Discovering heritage through historic places, protecting historic resources, and promoting historic assets

B. Utilize Cultural Resources as a Tool to Stimulate Economic Development

Future economic development in the County should take place within the context of historic preservation. This can be done through the rebuilding of traditional commercial districts based on their unique assets (distinctive architecture, pedestrian-friendly environment, personal service, local ownership and a sense of community) and through the preservation and development of historical attractions and destinations throughout the County.

Studies have shown that property values increase more in designated historic areas than in non-historic areas.

There are many incentives for protecting historic resources, including increased property values. Additionally, reuse of existing historic buildings supports the existing tax base, stabilizes downtowns and neighborhoods, and maintains the fabric and scale of communities.

Promote Adaptive Reuse

We encourage developers and property owners to rehabilitate and reuse historic structures whenever possible, especially within historic districts and downtown areas. Any income-producing National Register listed properties should consider participating in the Rehabilitation Investment Tax Credit (RITC) program. The RITC program provides tax credits to individuals that rehabilitate buildings to the *Secretary of the Interior's Standards*. The buildings must be income-producing and either individually listed in the National Register or within a historic district. Additionally, certain rehabilitation expenses are eligible for this credit.

The county can also receive funding from the Redevelopment Assistance Capital Program (RACP). The Redevelopment Assistance Capital Program (RACP) funds up to 50% of civic construction and rehabilitation projects through State legislation as a set-aside from the State Capital Budget. The County serves as the applicant and the administrator of the project. This is a reimbursement program, so the funding has to be available up front.

Another way to encourage reuse of old buildings is through Preservation Pennsylvania's revolving fund, which is a part loan/part grant program. Preservation Pennsylvania also has low-interest loans available for the restoration or rehabilitation of specific historic properties.

Pittsburgh History & Landmarks Foundation's subsidiary, Landmarks Community Capital Corporation, is a nonprofit corporation that draws upon its extensive knowledge, experience, partner competency and determination to serve as a major catalytic force in revitalizing distressed communities within its target market.

LCCC's Revolving Loan Fund offers two types of loans, the Urban Economic Loan and the Preservation Loan. They both provide equity, debt, and short and intermediate term financing to 501(c)3 nonprofit organizations and community development corporations for housing, preservation and economic development activities. LCCC offers below market interest rates on its loans, which permits flexibility in the financial structuring of loan requests to allow greater cash flow sufficient to complete developments. It may also consider loans to for-profit organizations at market interest rates.

LCCC also offers an array of financial services to assist nonprofit and for-profit organizations with real estate development projects. These services include, but are not limited to, historic and low-income housing tax credit consulting, technical assistance on a variety of building issues, market research, feasibility studies for municipalities, private agencies and preservation easements.

In addition to its products and services, LCCC has the capacity to engage in real estate development and has the capital and experience to act as a developer or co-developer. By pursuing high impact development



projects, LCCC's goal is to spur additional private investment that will result in comprehensive neighborhood revitalization.

LCCC also facilitates public policy initiatives and research. It has formed the first regional Minority Research Policy Group, which is composed solely of minorities who each hold doctoral level degrees. The Minority Research Policy Group focuses on unique public policy issues that impact the communities in LCCC's target market and will publish White Papers from the research conducted to help effectuate public policy change regionally and nationally.

Pittsburgh History & Landmarks Foundation began its loan activities in 1984. Through its three funds, the Preservation Loan Fund, the Eighth Avenue Loan Fund and Landmarks Community Capital Corporation's Urban Economic Loan Fund, more than \$7,967,305.00 has been loaned to date, which has significantly contributed to the region's historic preservation and community revitalization efforts.

Promote Heritage Tourism

Heritage tourism is important to Pennsylvania and Allegheny County. According to the Pennsylvania Heritage Tourism Study, visitors whose primary purpose for travel to Pennsylvania in 1997 was heritage tourism accounted for:

- 12 % of all state leisure travel
- \$2.99 billion in direct tourism spending

The 1999 study was published by the State Department of Conservation and Natural Resources.

Through its work, Pittsburgh History & Landmarks Foundation is improving the quality of life for Pittsburghers and attracting tourists to the region. Today, homes in neighborhoods such as Manchester, stores on main streets such as East Carson, and the historic buildings housing shops and restaurants at Station Square survive and flourish and attract people by their architectural uniqueness, human scale and urban feel. Over 6,000 people take part in Pittsburgh History & Landmarks tours and over 3,500,000 people annually visit Station Square, Pittsburgh's premier historic tourist destination.

Historic preservation is a powerful tool for economic revitalization that attracts tourists and investors and generates jobs.

Lancaster County has developed a tourism program focusing on its heritage through funding received from the Pennsylvania Heritage Tourism Initiative. Through this funding, Lancaster County has developed a very good model for promoting heritage tourism in a county. The Historic Resource Committee can review this program to determine any applicability for Allegheny County. An example of heritage tourism is the Joliet Iron Works Historic Site in Joliet, IL which features a 1 mile interpretive trail of exhibits explaining the iron making process and the men who worked there (<http://www.fpdwc.org/ironworks.cfm>). Using interpretive signing similar to what was done in Joliet to explain the history of the site would be an excellent addition to the work being done by the Rivers of Steel explained below.

The work of the Rivers of Steel National Heritage Area is coordinated by the nonprofit Steel Industry Heritage Corporation. This organization has been lobbying Congress in recent years to create Homestead Works National Park. Legislation currently in the House of Representatives would establish the Steel Heritage National Historic Site at the former U.S. Steel Homestead Works. Specific aspects would include the location of the Battle of the Homestead, the Carrie Furnace Complex (which was the top historic preservation priority in Allegheny County from the Young Preservationists Association's 2004 initiative) and the Hot Metal Bridge. The legislation recognizes that these sites and structures are nationally significant historic resources that symbolize in physical form the heritage of the steel industry of the United States. The bill, which has yet to be enacted, also acknowledges that these buildings and other structures may be lost without the assistance of the Federal Government. The County will continue to support the efforts of the Steel Industry Heritage Corporation.

C. Encourage Cooperation Between Historical and Cultural Organizations Throughout the County

There are many organizations currently working to preserve historic and cultural resources in Allegheny

County. Each has forged a specific role for themselves. Undoubtedly, all will acknowledge that more can and must be done to protect sites important to our heritage. These organizations will have a sustaining and, in some cases perhaps, an expanded role in implementing the Historic and Cultural Resource Plan.

The County's role in historic preservation has been small compared to many of these organizations. One role that the County can assume is that of facilitator, developing partnerships between agencies, institutions, foundations and municipalities. That's the role expected of the proposed Historic Resource Committee.

Public planning efforts that manage historic or cultural resources need to attract private funding to accomplish preservation. In fact, most historical projects are realized through public/private partnerships. The partnerships of the preservation community will be vital in the coming years.

D. Protect Historic Landscapes including Viewsheds and Corridors

The preservation of farmland can protect historic structures and the adjacent landscapes. Thus the Historic and Cultural Resource Plan shares an objective with the Agricultural Resource Plan. The Pittsburgh History & Landmarks Foundation's Historic Rural Preservation Program can be used to preserve farms.

Pennsylvania's Heritage Parks Program can also help to protect landscape resources. This program is geared toward industrial heritage, which is well suited to Allegheny County's history and development. The Historic Resource Committee can work with DCNR, other State agencies and adjacent counties to identify possible new Heritage Areas and secure funding for their protection through this DCNR program.

Preservation of the aesthetic character of the landscape should be the primary focus along scenic byways. Designating such routes would support heritage tourism by connecting sites together and encouraging exploration of new areas.

The National Scenic Byways Program is administered by the U.S. Department of Transportation, Federal Highway Administration. The program is a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the country. Since 1992, the National Scenic Byways Program has provided funding for almost 1,500 state- and nationally-designated byway projects in 48 states. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archaeological, cultural, historical, natural, recreational and scenic qualities.

Scenic routes would be linear resources that would require effective management in order to preserve what is unique. Any improvement – whether roadway or new development – within these corridors should be sensitive to the context of the area, that is, the rural landscape, scenic viewshed or village character.

The Historic Resource Committee can explore the possibility of developing a countywide Scenic Roads Program.



ECONOMIC DEVELOPMENT PLAN

■ TODAY'S CONDITIONS

The County's businesses and institutions form the core of southwestern Pennsylvania's economy and have driven economic growth trends throughout the region. For nearly 150 years, the region had the luxury of a sizable core of well-paying manufacturing jobs. The concentration of heavy industries was such that it displaced the development of other industries. That lack of diversification did not serve the region well, as the industries long relied upon for economic stability declined rapidly.



Photo credit: McCormick Taylor

Within a short period of time in the early 1980s, the long-term slow decline in the region's manufacturing industries became a massive freefall. Over 142,000 manufacturing jobs were lost in the region from 1978 to 1998, and all but 11,000 were in durable goods industries, mainly primary metals. The concentrated job loss that the region experienced forced significant changes to all aspects of the regional economy.

Over the past two decades, the County's economy has shifted away from heavy manufacturing to other industries. This transformation has resulted in a much more diversified economic base for the County that more closely matches national trends. Manufacturing remains an important sector of the County's economy, but it is no longer the only significant generator of income.

The restructuring of Allegheny County's economy is seen by examining industry shares of earnings and changes

over time. In 1980, over 25% of all County earnings were generated from durable goods manufacturing industries, specifically steel and related sectors. By 2000, durable goods manufacturing had declined to less than 9% of County earnings. Over the same time frame, the services sector share of County earnings increased from 21% to 35%. The contribution of other major sectors stayed relatively the same.

Small businesses represent 99% of the County's economic enterprises and employ more than 265,000 people.

According to the Pennsylvania Department of Labor, there were nearly 35,000 business establishments in Allegheny County in 2004, more than any other county in the state. Allegheny County's business establishments comprise nearly 11% of the state's total.

EMPLOYMENT GROWTH

In 2003, employment within Allegheny County reached almost 881,000, the highest employment in the County's history. Still, employment growth continues to be slow. Recent job losses have occurred in sectors that depend on population growth – government, retail, construction, and transportation and warehousing.

The County's population is projected to experience relatively modest growth over the next two decades. Employment and labor force projections mirror that trend.

Total employment today exceeds levels comparable to the period before the decline of manufacturing employment in the 1980s.

GENDER AND THE WORKFORCE

Historically, women in the region have had unusually low rates of participation in the workforce. But as the regional economy shifted away from heavy manufacturing industries, new job opportunities opened for women. The primary reason that employment and workforce participation levels



have been increasing in the County over the last 30 years – despite continuing population declines – is because more women have entered the workforce. This has been one of the most significant transformations in the regional and County workforce in recent decades.

Figure 4C.2 shows that women in Allegheny County are concentrated in the lower income brackets while men outnumbered women in all of the higher income levels.

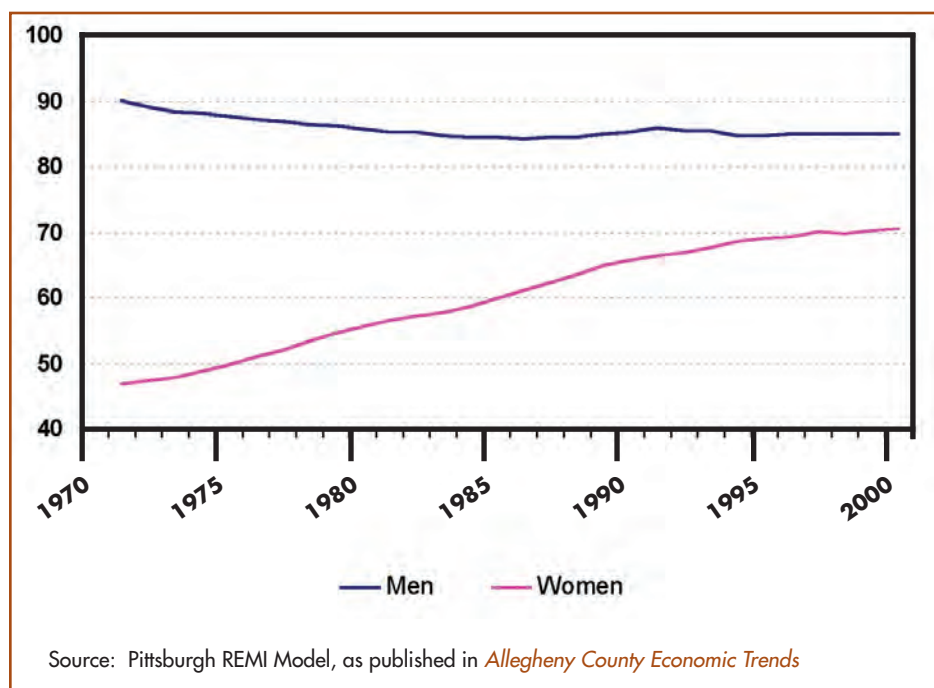


Figure 4C.1 – Labor Force Participation Rates by Gender, Population Ages 25 - 64, 1970 - 2000

It has only been recently that the County's rate of female workforce participation has matched national levels.

Between 1971 and 2000, the number of men in the Allegheny County workforce decreased by nearly 18%, while the number of women in the workforce increased by almost 14% (see Figure 4C.1). By 2000, women had become 48% of Allegheny County's total workforce, a rate is slightly higher than the national average of 46%.

Increased female labor force participation has not eliminated persistent wage disparities between genders. Women were concentrated in lower income earning levels in 2000.

Despite the increase of women in the workforce over the past several decades, men are still the higher wage earners.

HOUSEHOLD INCOME

The restructuring of the Pittsburgh regional economy has also had a profound effect on household income levels (see Figure 4C.3). In 1970 and 1980, Allegheny County had a higher median household income than both the U.S. and Pennsylvania. In 1990 and 2000, median household income in the County fell below the median for both nation and state.

Within the County, the lowest household incomes are found in Pittsburgh, the Mon Valley and nearby river communities. The highest median household incomes are found in Fox Chapel, Sewickley Heights, Ben Avon Heights and Marshall (See Figure 4C.4).

For over 30 years, Allegheny County has lost ground in personal income growth in comparison to the region, Pennsylvania and the nation. Average wages in the County were 95% of U.S. average wages in 2003. On the other hand, Allegheny County maintains a concentration of relatively well-paying jobs and a moderately low poverty rate (11%), which contributes to it having a higher per capita income than the region, state or nation.

The lowest household incomes in the County are generally found in the older industrial communities.

RACIAL DISPARITIES

As 84% of the region's African American population lives in Allegheny County, issues of racial disparity are concentrated within its borders.

One disparity that has not lessened over time is the workforce participation of African American men. African American men in Allegheny County have a significantly lower workforce participation rate than the rates for the White alone

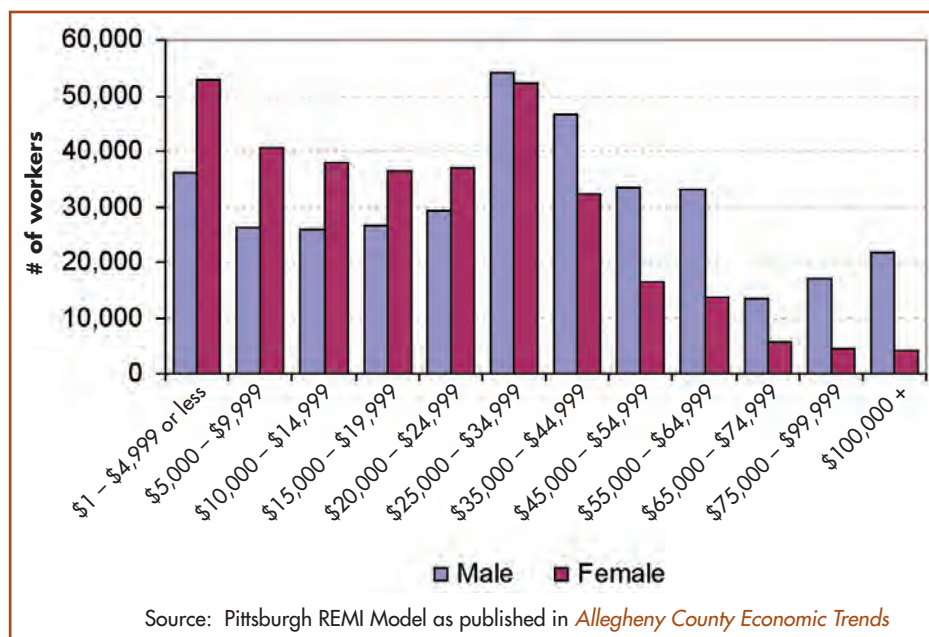


Figure 4C.2 – Distribution of Workers by Annual Earnings and Gender, 2000

population or any other major race and ethnic group represented in the County. African American men age 16 and over had a workforce participation rate of 59% in 2000, compared to 70% for White males.

Low workforce participation rates for African American men are one component leading to the low household income level for African Americans (see Figure 4C.5). Median household income for African Americans was just over \$22,000, or just 54% of the comparable median household income of nearly \$41,000 for the White alone population. (Nationally, the median household income for African American men is 66% of that of Whites.)

African American poverty rates greatly impact their diet, health care, housing and child care options.

While the Pittsburgh region experienced a slight increase in the unemployment rate since 2000, the increase was greater for African American females compared to any other group. Among those adults able to work, the rise in unemployment for African American females was nearly 5% (versus 3% for African American males), whereas for White males and females unemployment rose less than 1% between 2001 and 2005, according to the University of Pittsburgh's Center for Social and Urban Research.

A June 2007 report of the University of Pittsburgh's Center on Race and Social Problems revealed that the quality of

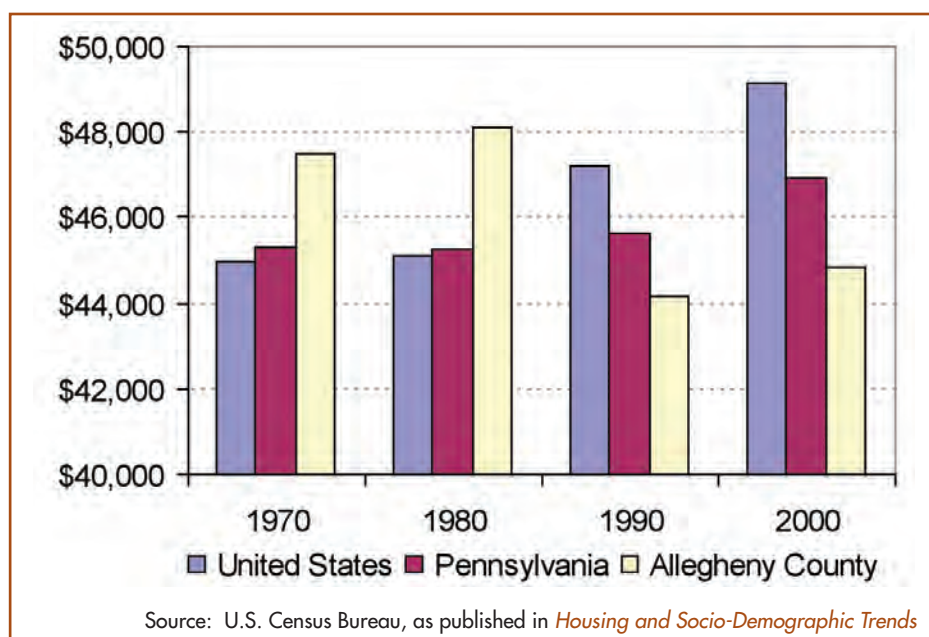


Figure 4C.3 – Median Household Income, 1970 - 2000 (2005 Dollars)

life of African Americans in the region is more difficult and disadvantaged when compared to national averages. The report, *Pittsburgh's Racial Demographics: Differences and Disparities*, provides indicators of quality of life by race and ethnicity in the region. Data are provided for four groups

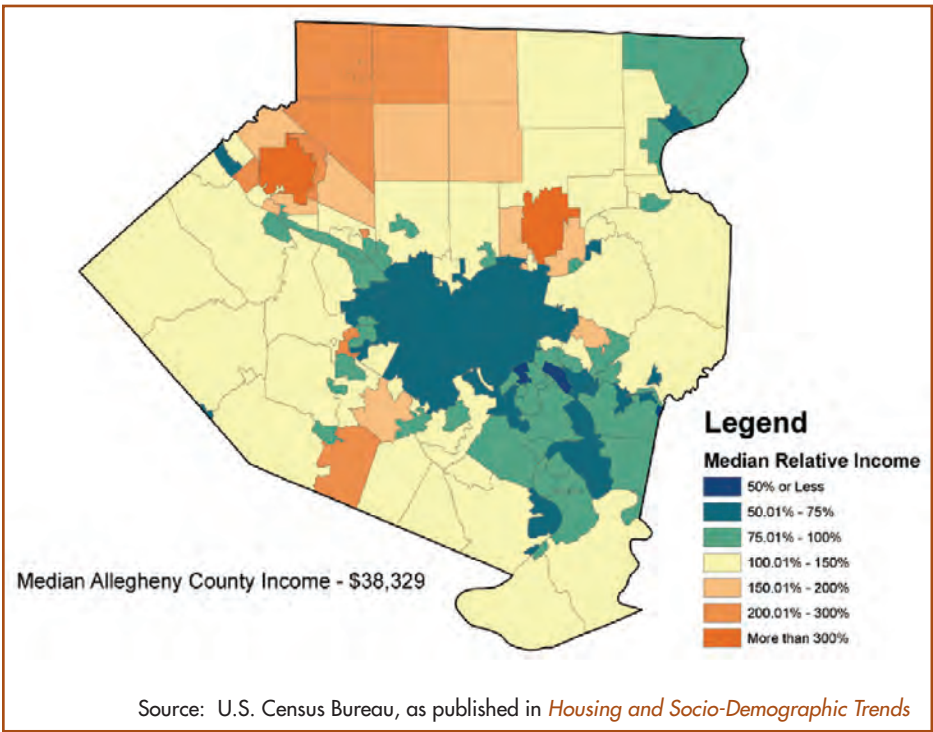


Figure 4C.4 – Median Household Income by Municipality Relative to Allegheny County, 2000

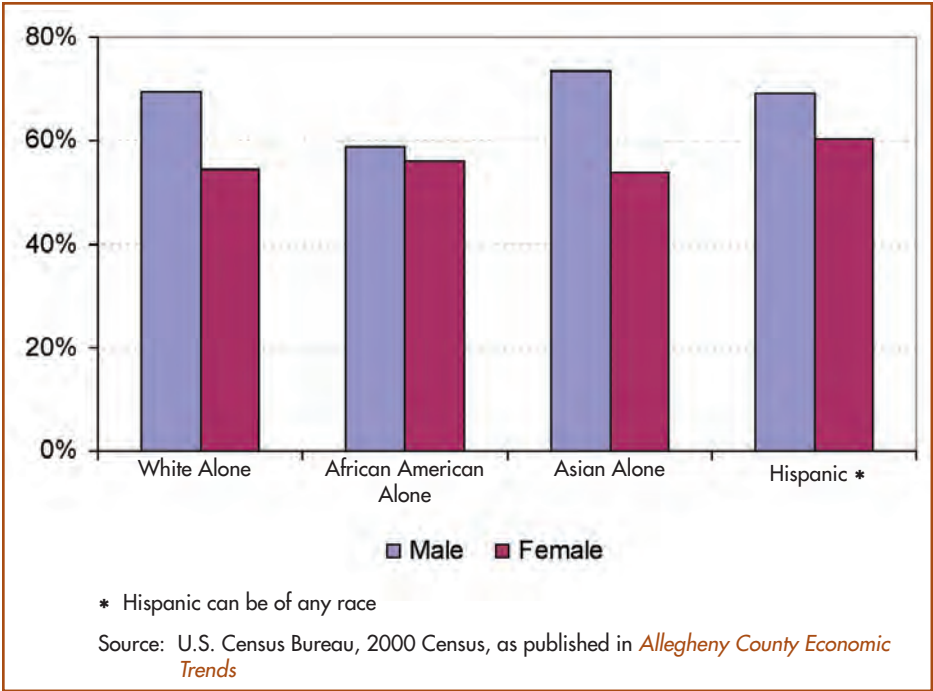


Figure 4C.5 – Labor Force Participation by Race, Population Age 16 and Over, 2000

(Whites, African Americans, Asians and Hispanics) and for four geographic areas (City of Pittsburgh, Allegheny County, Pittsburgh Metropolitan Statistical Area and the U.S.).

The report found that:

- African Americans are four times more likely to be poor than Whites in Allegheny County
- Poverty rates for African Americans are three times higher than rates for Whites in the Pittsburgh MSA and the nation; and 2.5 times higher than rates for Whites in the City of Pittsburgh
- African Americans in Allegheny County have unemployment rates that are two or three times higher than that of Whites
- Nearly 60% of working African Americans are employed in low-paying service or sales positions

The report also found that Asian Americans have the highest median household income in the County, as they do in the region and nation.

ECONOMIC SECTORS

As the region's employment center, Allegheny County attracts significant numbers of workers from not only Pennsylvania, but also Ohio and West Virginia (see Figure 4C.6). Commuting workers total over 143,000 in 2000, which is more than double the 60,000 commuters that traveled into the County for work in 1970. Commuters are attracted to career opportunities within health care, manufacturing, primary metals and educational services.

Health care and social assistance is the largest job sector in Allegheny County. In 2003, over 120,000 workers in Allegheny County were employed in this sector, which comprised 14% of



Photo credit: McCormick Taylor

The County has diversified dramatically over the last two decades and now boasts industry clusters such as Environmental Technology, Advanced Manufacturing and Life Sciences, along with emerging clusters such as Cybersecurity, Specialty Metals and Robotics.

As is true in many areas of the country, computer specialists are the fastest growing occupation in the County, growing by nearly 17,000 jobs between 1971 and 2000. The relative increase of almost 730% in computer specialists between those years was second only to personal and home care

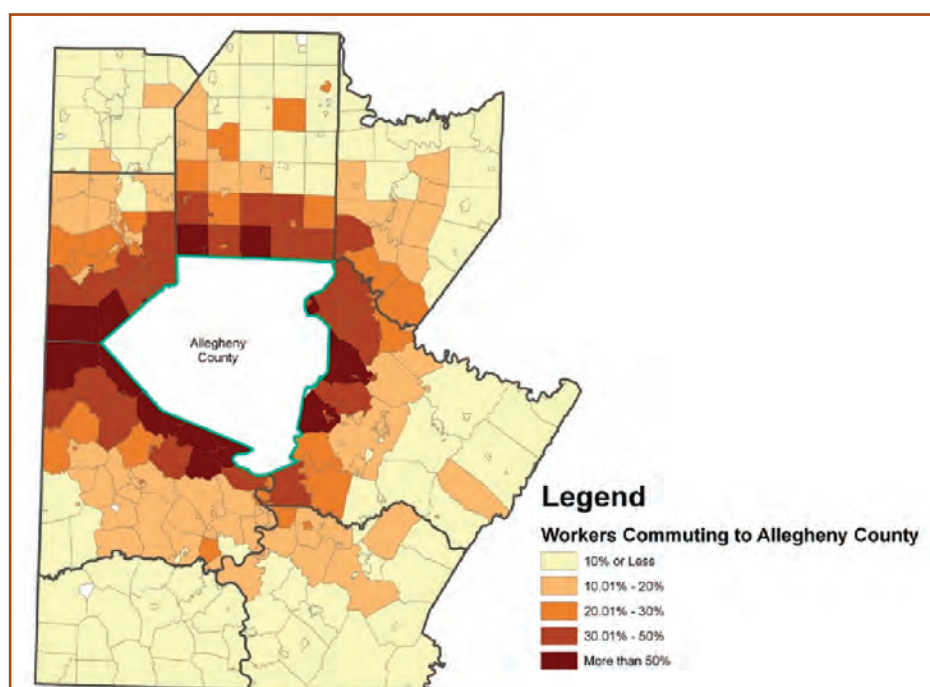
aides, which increased by over 910% during that period. Other fast growing occupations in the County include health care support, health diagnostics, lawyers and other health professionals and technicians.

Between 1999 and 2004, the rate of growth for science and engineering jobs in the Pittsburgh region¹ exceeded most other major metropolitan regions in the country. The 6,000 new jobs in this sector pay an average of 50% more than the overall average wage for the region.

In 2004, the average annual wage for those employed in education, training, and library occupations in the region exceeded the U.S. average by 12%.

ECONOMIC COMPETITIVENESS

Economic competitiveness in a regional sense is broadly defined by an ability to attract new investment and other resources into a particular region. That new investment produces economic activity, which can then produce growth in jobs and wages. The competitiveness of the regional economy is reflected in many ways by its ability to export goods and services. Exports do not refer to foreign sales, but to sales to customers outside of the Pittsburgh region and would include other regions within the U.S.



Source: U.S. Census Bureau as published in *Allegheny County Economic Trends*

Figure 4C.6 – Commuting into Allegheny County, 2000

the County's employment. The County's largest employer is UPMC Health Systems – over 26,000 work for the company.

Occupational trends in the County now match many national trends.

Nearly 11% of the County's employment is in the retail trade, the second largest job sector. Over 9% of County residents work for government, 8% work in professional and technical services, and nearly 7% work in finance and insurance.

¹ Throughout the Economic Development Plan, the term 'region' refers to the Pittsburgh Metropolitan Statistical Area, the U.S. Census-defined seven county region: Allegheny, Armstrong, Beaver, Butler, Fayette, Washington and Westmoreland counties.



Export industries and the promotion of firms that produce for the regional export market are often the focus of economic development strategies, as net exports from the region increase regional income and employment. The traded sector (or export sector) includes most manufacturing and some service sector activities, such as education and research. The non-traded sector includes locally serving industries, such as construction, retail trade, real estate and food services.

Transportation and finance were the next largest generators of regional export earnings. Some sectors produce largely for the local market and have only a small portion of regional exports. Included are retail trade, local administration, and real estate activities. Other sectors generate more regional export dollars than local self-supply, including manufacturing, transportation and warehousing, and educational services.

ECONOMIC DEVELOPMENT ZONES

A number of tax-exempt districts have been specifically established to attract new business and new jobs. Significant investment within these districts may also generate additional development and reinvestment beyond their boundaries.

Keystone Innovation Zones

Keystone Innovation Zones (KIZs) are intended to foster innovation and create entrepreneurial opportunities to keep young, talented graduates in Pennsylvania. KIZs create 'knowledge neighborhoods' close to colleges, universities and research institutions that focus talent and resources in clusters, transforming communities into technology and business incubators. Entrepreneurs can find an

unbroken chain of ready resources, including research and peer groups, entrepreneurial support, venture capital, and workforce and financial assistance. KIZs also create partnerships between educational institutions, local leaders, banks, businesses, investors and foundations that already exist in the community.

There are two KIZ areas in Allegheny County, both within the City of Pittsburgh:

- **Greater Oakland KIZ (GO KIZ)** – a partnership between the University of Pittsburgh and Carnegie Mellon University, concentrating in software engineering, computer-related technologies and medicine.

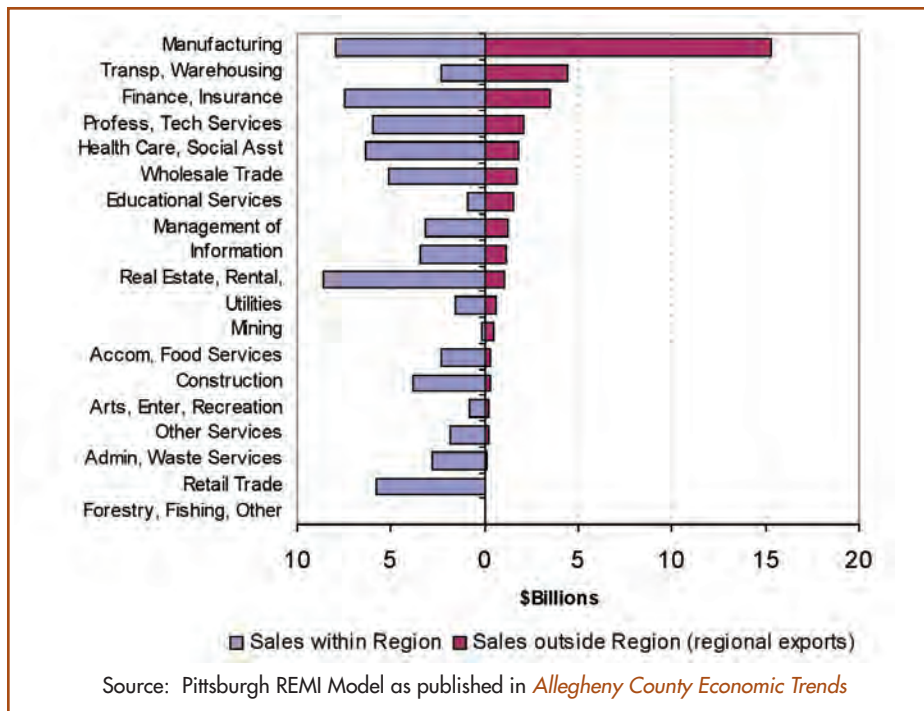


Figure 4C.7 – Allegheny County Exports and Self-Supply by Industry, 2005

Despite absolute losses in employment relative to other parts of the economy, manufacturing industries remain a significant part of the local economy and continue as the largest sources of regional export earnings. In 2005, the County's manufacturing industries had an estimated product valued at over \$23 billion. Of this, an estimated \$15 billion of these products are sold outside the region (see Figure 4C.7). The primary metals industry remains the County's largest generator of export sales – among manufacturing sub-sectors – at \$2.1 billion in export sales in 2005.

- **Pittsburgh Central KIZ (PC KIZ)** – a partnership between Duquesne University and Robert Morris University, concentrating in digital media, cyber security, nanotechnology, pharmaceuticals and compliance engineering.



Photo credit: McCormick Taylor

KIZ status will allow eligible companies located within an innovation zone to apply for a pool of \$25 million in tax credits.

Keystone Opportunity Zones

Keystone Opportunity Zones (KOZs) are economic development districts, created under the terms of Pennsylvania's KOZ legislation, to revitalize depressed areas. These zones are defined, parcel-specific areas with tax-free or tax-abated provisions for property owners, residents and businesses. KOZs are partnerships between municipalities, state and local taxing bodies, school districts, economic development agencies and community-based organizations.

Allegheny County has 26 KOZ sites, 17 of which are in the City of Pittsburgh. The location of these KOZ sites can be found on Figure 4C.8:

- Allentown – Beltzhoover
- California – Kirkbride
- Central Northside
- Duquesne-Cochrandale Redevelopment Site
- East Liberty (2 Sites)
- Garfield
- Glassport Recycled Resources
- Hazelwood (2 Sites)
- Hill District (2 Sites)
- Homewood (2 Sites)
- Larimer
- McKeesport Firth Sterling Redevelopment Site
- McKeesport Steel Foundry Redevelopment Site
- Mount Washington (South Hills High School)
- Neville Island Development Site
- Perrysville and Charles Streets (Perry South)
- RIDC Riverplace / Duquesne City Center
- RIDC Riverplace / McKeesport Industrial Center
- Rockpointe Business Airpark (West Deer)
- Tarentum-Bakerstown Redevelopment Site
- Uptown (2 sites)

Many Keystone Opportunity Zones are located in areas that are accessible to low-income populations.

RESEARCH AND TECHNOLOGY DEVELOPMENT

Allegheny County's growing technology sector is a new and robust source of economic vitality. The County has been growing into one of the greatest research and development hubs in the country because it has the essential ingredients that make it possible: prestigious universities, prominent medical centers, companies in a number of technology clusters, national banking providing capital and highly educated employees.

According to the Pittsburgh Technology Council's *State of the Industry Report 2007*, there were about 7,300 technology firms in 2005, representing nearly 11% of all companies in the 13-county region. These firms employed more than 207,000 people, accounting for 17.5% of the area's overall workforce. The \$10.8 billion total annual payroll of technology and related companies represents more than 24% of the region's wages.

Many organizations are working to promote, develop and expand high-tech industry in the region.



New start-ups, especially the proliferation of university-developed technologies, are attracting local and national investors.

Commonwealth of Pennsylvania tax support. It also represents the hub of Carnegie Mellon's engagement in the KIZ program. The facility promotes regional economic development as Carnegie Mellon researchers work with industry to develop new technologies, business ventures, and jobs.

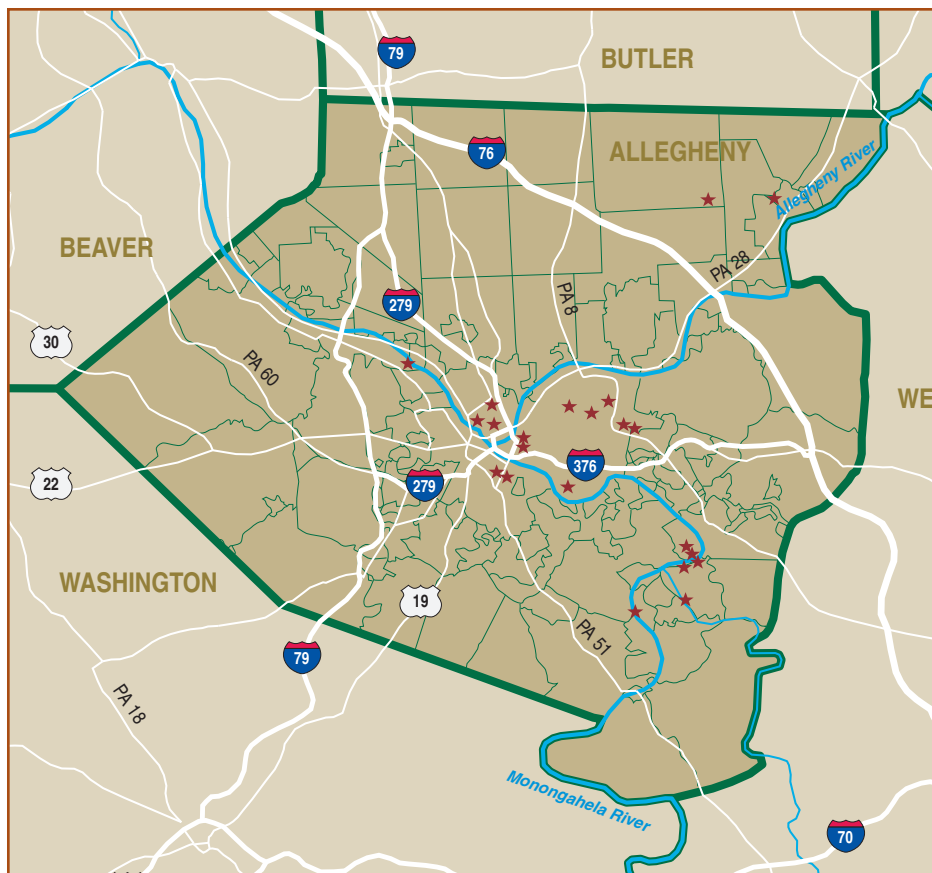


Figure 4C.8 – Location of KOZ Sites

Source: McCormick Taylor

Supporting Research

- **The Collaborative Innovation Center** – was developed to create the optimal environment to serve the next generation of university-industry collaboration. The CIC is a four-story, 136,000-square-foot, dry-lab research facility built in 2005 to provide office and lab space for technology companies wishing to collaborate with Carnegie Mellon to create innovative new concepts and products for the marketplace.

The CIC is a partnership between Carnegie Mellon, the Carnegie Museums and local economic development organizations, and is funded with \$8 million in

■ The Pittsburgh Regional Alliance

– globally markets southwestern Pennsylvania and targets cluster-specific industries to grow the regional economy.

■ The University Partnership of Pittsburgh

– is a joint economic development initiative between the University of Pittsburgh and Carnegie Mellon University that actively collaborates with and serves as a university liaison to a variety of economic development agencies in the region. The University Partnership actively targets and helps attract businesses focused in specific R&D areas that align with the research strengths at the universities.

Technology Incubators

The Pittsburgh region does have cluster-specific incubators providing support to young businesses trying to expand locally. Research facilities close to campus, like the Collaborative Innovation Center, provide space and access for corporate labs to interact with cutting edge university research.

There are more than 170 research laboratories located here, and the County has more doctoral scientists and engineers per capita than Boston, Los Angeles or San Francisco.

- **Pittsburgh Life Sciences Greenhouse** – is a focused facility designed to support very early-stage life science companies, as well as provide temporary space for life sciences companies relocating to southwestern Pennsylvania. The 17,000-square-foot space is on the

fourth floor of the Bridgeside Point building located in the Pittsburgh Technology Center. Other tenants of the building include Cellomics, the University of Pittsburgh McGowan Institute for Regenerative Medicine and UPMC Health Systems.

- **The Technology Collaborative** – offers business incubation facilities, technical and managerial recruiting support and business assistance support. It is a newly formed economic development organization that is the direct result of merging the Pittsburgh Digital Green house and the Robotics Foundry. Its mission is to help increase Pennsylvania's technology-based economy by developing collaborating industry clusters that leverage the region's world-class assets in Advanced Electronics, Cyber Security and Robotics.

Tech 21

The County has nurtured the technology sector by spearheading the development of Tech 21 Research Park in Marshall Township, a \$200 million complex envisioned as a magnet for technology firms – and the high-salaried jobs they bring. Tech 21 can accommodate 16 building parcels averaging 80,000 square feet each. The park will provide pad-ready sites as well as a number of 'green' features, including conservation areas, forested and landscaped buffer zones and open spaces.

Medrad Inc., a leading global provider of medical devices and services with annual revenue exceeding \$300 million and over 1,400 employees worldwide, signed on as the initial tenant. In 2007 Medrad completed a 125,000-square-foot corporate headquarters building.

Long-term plans for Tech 21 include development of a hotel, two restaurants and a 120-unit multifamily residential community. At full development, Tech 21 is expected to create more than 4,000 jobs.

In the past 30 years, more than 25,000 patents have been awarded to inventors in the region, according to the Pittsburgh Technology Council. That's an average of more than three a day.

Economic Development Organizations

Allegheny County Economic Development (ACED) is the lead economic and residential development agency for Allegheny County. ACED provides a variety of services such as loan programs and site selection services in addition to sponsoring a variety of State and Federal funding programs. Detailed information about ACED programs is available at <http://economic.alleghenycounty.us/>.

Other local economic development organizations in Allegheny County that provide training, funding, technical assistance, and general support for attracting and nurturing new businesses include the following entities:

- **Idea Foundry** – a nonprofit organization that supplies the critical ingredients to transform an entrepreneur's business idea into a Pennsylvania-based, fundable start-up.
- **Innovation Works** – a state-sponsored organization working to seed technology companies in southwestern Pennsylvania and grow them to the point of being self-sustaining. Innovation Works provides risk capital, business expertise and other resources to high-potential companies with the greatest likelihood for regional economic impact.
- **Pennsylvania NanoMaterials Commercialization Center** – the goal of the Center is to establish southwestern Pennsylvania as an industry innovator/leader. As an industry and university collaboration, this new center will seek to award research funding to organizations that advance projects with strong commercial potential in NanoMaterials.
- **Pittsburgh Gateways Corporation** – a business accelerator with the mission of generating new business growth. Utilizing a proven process, Gateways partners with leading academic and research institutions to establish and develop centers of Technology and to effectively connect these institutions and Centers with industry. Its team also helps to commercialize technologies related to these centers and industry in various ways, including the creation of new businesses and the transfer and application of technology to existing companies.
- **Pittsburgh Technology Council** – a trade organization that advocates for issues affecting technology companies in the Pittsburgh region.



- **Pittsburgh Tissue Engineering Initiative** – the mission of PTEI is to improve the health of individuals by establishing the Pittsburgh region as an internationally recognized center of excellence in research, education and commercial development for the advancement of tissue-related medical therapies. PTEI recognizes that the best way to ensure regional success is to promote tissue engineering – and the broader field of regenerative medicine on a global scale.
- **The Electro-Optics Center** – created in 1999 under a cooperative agreement with the Office of Naval Research and managed by Penn State University, The EOC promotes the development of electro-optic materials, components and systems needed to advance electro-optic science and technology for defense forces. EOC-sponsored programs include research and development, manufacturing process development and improvement and the active transfer of new and/or improved technology to its commercial partners.
- **Urban Redevelopment Authority of Pittsburgh** – URA's business-assistance efforts are coordinated by its Business Development Center, which provides an appealing variety of services for qualified city and neighborhood business organizations. These services include business financing programs, such as the Pittsburgh Business Growth Fund and the Urban Development Fund, tax-exempt financing for manufacturers and staff support for the Pittsburgh Economic and Industrial Development Corporation, which can provide Pennsylvania Industrial Development Authority (PIDA) loans.

Venture Capital

Seed, start-up, or early-stage venture capital is typically sought by new or small firms that have an innovative product with high earnings potential to develop and/or market. More than half of all venture capital investments are made within high technology-related industries.

The County has three venture or risk capital programs:

- **3 Rivers Venture Fair** – provides a forum for the region's technology companies to interface with investors and financiers from throughout the northeastern U.S.

- **Southwestern Pennsylvania Angel Network** – Angel Investors are high-net worth individuals who have a demonstrated interest in early stage, private investments. Over the last 30 years nationwide, the cumulative investments made by angels have been double that of venture capitalists. The Southwest Pennsylvania Angel Network (SPAN) was created in November 2002 as a quarterly forum for angel investors to view a select number of Innovation Works' highest-potential portfolio companies. In addition to providing a source of follow-on funding, the mission of SPAN is to keep the angel community invigorated and involved on an ongoing basis.
- **Pittsburgh Angel Venture Fair** – Now in its second year, the Fair provides angel investors an occasion to explore the region's most exciting and promising technology start-ups in one room, in one day. It provides a forum to give angel investors and financial advisors an opportunity to meet and evaluate select and highly qualified entrepreneurs and candidate start-up companies for pre-seed or early-stage investment.

The results of all these efforts are yielding big dividends. In 2006 alone, new companies attracted \$230 million in investment dollars, giving the region the largest growth in venture capital investment of any area in the country.

■ ISSUES AND ANALYSIS

This section examines issues that affect the County's plans for economic revitalization and growth.

KEY CHALLENGES

In developing the Economic Development Plan, the Economic Development Resource Panel helped to identify these key challenges:

- Slow employment growth
- Increased tax burden in older communities
- Need for better access to jobs
- Lack of jobs to retain graduating students
- Complex development approval process
- Targeting subsidies

The following provides an understanding of these issues.

SLOW EMPLOYMENT GROWTH

Employment growth in Allegheny County has been and is projected to remain at a slow pace over the next few years. However, the County's economy is expected to expand in the coming decades. Pittsburgh Regional Economic Model (REM) projects the total Gross Regional Product (GRP) will grow from \$68 billion in 2005 to \$127 billion by 2030, a growth of 87%. Total Regional Output, the equivalent of total sales, will increase by 83% to over \$200 billion by 2030.

According to the University of Pittsburgh's Center for Social and Urban Research, over the coming decade employment growth is projected to be relatively flat and then is expected to experience moderate growth after 2015. Specifically, employment in the County is projected to increase by 15% between 2005 and 2030, or 0.6% per year. By 2030, County employment is expected to exceed 1 million.

The employment forecast shows that the gains in employment over the next decades will be concentrated in service sectors. The largest employment gains to 2025 are projected to occur in the health care and social assistance sector, continuing the longer term trend of growth in that sector. Similarly, most of the employment gains to 2025 will occur in other service sectors, including educational services, administrative and waste services, and professional and technical services. In nonservice sectors, construction, as well as transportation and warehousing, are projected to add jobs through 2025.

On the other hand, several sectors are projected to lose jobs over the next two decades, including wholesale and retail trade, and manufacturing. The largest employment losses are expected in the retail trade sector, due to productivity gains (such as through automation) over the next two decades, coupled with slow population growth.

Continuing demographic shifts in the region will prolong a dampening of overall employment growth. This is due to two factors, which together impact labor demand in local service and retail industries:

- The elderly population is declining, lessening the demand for social and medical services
- Low or negative natural population change

Health care, which is projected to reach nearly 195,000 workers by 2025 and 215,000 workers by 2030, will

remain the largest job sector. Education will grow to nearly 66,000 jobs in the County by 2025. Manufacturing employment in the County is projected to total just over 43,000 by 2025.

The County's economy will continue its transition as local industries shift away from heavy manufacturing with growth in multiple industries. This economic transition may become a perpetual state as local industries continue to adapt to changing market conditions. In recent years, a number of economic specializations have emerged, a mark of resilience and recovery.

As long ago as 1960, a regional economist at the University of Pittsburgh, Ben Chinitz, suggested that the massively specialized nature of the Pittsburgh economy, not only in terms of the small numbers of industries represented in the region, but also the large size and narrow ownership structure of local firms, set Pittsburgh apart from other places.

Eventually, the lack of diversity hampered the development of entrepreneurial activity in the region. Without a wide range of industries to form the initial markets for potentially new products, it was difficult for an entrepreneur to succeed. Today, the issue of making the region competitive in terms of its ability to foster entrepreneurial activity is at the forefront of economic development.

INCREASED TAX BURDEN IN OLDER COMMUNITIES

One legacy of the County's industrial past is the many communities that were financially devastated by its collapse. During the 1980s, when no less than six large steel mills in the region were closed or downsized, communities that were essentially company towns lost their main source of employment and income. Many have never fully recovered.

There has not been enough growth in Allegheny County to sustain all 130 of its municipalities equally.

The 20-year trend of people moving away from the urban core and out to suburban communities has taken a toll as well. As the older communities lost both residents and businesses, local municipal governments and school districts faced increased difficulties in providing services. Declines in property values forced local taxing bodies to increase millage rates in an attempt to meet the demand for services. When



higher tax rates are coupled with lowered property values and an eroding quality of life, it is difficult to retain existing residents and businesses or to attract new ones. It is a cycle of decline that is hard to break.

NEED FOR BETTER ACCESS TO JOBS

Pittsburgh and Oakland have long been the major employment centers in Allegheny County. In the past, public transportation served primarily to bring suburban workers into and out of the urban core where the majority of jobs were located. Today, employment centers are more widely dispersed. Although Pittsburgh and Oakland are still major employment centers, there are others located in outer ring suburbs and along major highway corridors.

According to the Brookings Institution Center on Urban and Metropolitan Policy, between 1994 and 2001 almost 57% of new private sector jobs created in the Pittsburgh region were located 10 miles outside of traditional urban centers. In 2000, 71% of Pittsburgh-area residents commuted to jobs located in the suburbs.

In Allegheny County, a number of outlying municipalities show concentrated employment compared to the number of residents of the municipality. The municipalities with the largest employment-to-residents ratios include Neville Township, Leetsdale Borough and Findlay Township, all of which had over four times the number of jobs than resident workers.

Dispersed work sites often are not readily accessible via public transit. People who are dependent on transit either face difficulties reaching, or are completely unable to reach, jobs that are located far from the urban core. Examples include the Robinson Town Center and the Mall at Robinson in Robinson Township and the Pittsburgh Mills in Frazer Township.

Decentralized employment patterns isolate unskilled workers from job opportunities.

Carnegie Mellon University's Center for Economic Development (CED) analyzed the issue of access to jobs in the Airport Corridor in 2004. According to the CED, most unemployed people in the Pittsburgh region live in places that are not "well connected" to the Airport Corridor. Many workers who do live in the Airport Corridor are professionals or

skilled labor, and do not help to meet the demand for unskilled labor.

Development patterns in the Airport Corridor are currently not supportive of transit. As a result, public transit is significantly underutilized, falling far below national averages. CED concluded in its 2004 study that one reason may be the disproportionately higher commuting time for transit, as compared to privately-owned vehicles. Furthermore, public transit may not be an option for workers with more than one job, or who work 'off-peak' hours.

LACK OF JOBS TO RETAIN GRADUATING STUDENTS

The County's educational institutions are a tremendous attractor of people. Today, over 91,000 students are enrolled in Allegheny County colleges and universities. Many graduating students want to stay in the area to live and work, but are unable to find adequate employment. State and regional organizations are working to retain more students after graduation and prevent what is known as the 'brain drain'.

Collegia Inc. recently ranked Pittsburgh the second best college town of its size in the nation.

Although many see brain drain as a problem, a high proportion of Allegheny County residents are college educated relative to other regions. According to the 2000 census, over 28% of County residents over 25 years of age have at least a Bachelors Degree, which is higher than the national average of 24%. The American Community Survey indicated that the number rose to nearly 33% in 2005. This is strong evidence that the County is retaining more graduating students.

According to economist Richard Florida, lively downtowns, charming traditional neighborhoods and a vibrant cultural scene are essential to attract innovative companies that are seeking young educated workers. It seems clear that Allegheny County needs to offer such settings, and several of them, in order to be competitive with other metropolitan areas that are magnets for this demographic. Oakland has made a good start, with its concentration of universities, cultural amenities, and medical and technology research facilities, along with unique shops, cafés and restaurants, but it needs to be supplemented with more housing and

retail. And other mixed-use, vibrant places need to come into being if Allegheny County is to achieve the ‘vibe’ it needs to attract and retain young, educated people.

COMPLEX DEVELOPMENT APPROVAL PROCESS

Allegheny County’s 130 local governments present challenges for development. Although the PA Municipalities Planning Code establishes minimum requirements and procedures for land use planning, there is still considerable variation in municipal land use regulations and in how municipalities apply them. Developers therefore must understand the regulations and processes of each municipality that they work in. Some municipalities have the capacity and resources to manage development well and assist developers; however, others do not. Developments that span multiple jurisdictions can be a challenge, as there is no system in place to coordinate the timing of multiple approvals.

The development approval process requires a considerable investment of time and money on the part of both municipalities and developers. Builders and developers, for example, pay interest every month on money borrowed to purchase property and hold it until approvals are obtained. Multiple, continued, and uncoordinated approval processes increase administrative, engineering and legal costs for the municipality.

Lengthy design and review processes can hinder affordable housing development.

A transparent, predictable, and coordinated development process benefits everyone including consumers, to whom the final cost of development is often passed.

TARGETING SUBSIDIES

Grants, loans, tax credits, and real estate tax abatements are commonly used tools of economic development. Although many argue a stable tax system does more to ensure economic vitality than the availability of incentives, their use remains popular in the continued attempt to encourage new private investment and employment opportunities. It is critical that these programs are utilized to create growth and avoid the shifting of resources from one area to another. Further, incentives should not be offered to relocate businesses at the expense of existing businesses.

As municipalities face budgetary pressures, capital funding for economic development has become scarce. Tax Increment Financing (TIF) has become one of the most effective tools for municipalities to encourage private investment and the revitalization of blighted properties. TIF utilizes a portion of future real estate tax revenues to finance public improvements necessary to facilitate new development in these areas. Controversy surrounds the use of TIF given to past projects where TIF provided an incentive to develop greenfield sites for retail use. These projects not only promote further sprawling development patterns but often provided an unfair advantage over existing businesses.

Projects must be closely evaluated and prioritized accordingly to allow for the most efficient allocation of limited resources. Public investment should not provide an incentive to develop greenfield sites or shift economic activity.

RECOMMENDATIONS

GOAL OF THE PLAN

The economy of the County and region is strong, stable, equitable and diversified.

OBJECTIVES OF THE PLAN

The objectives of the Economic Development Plan are to:

- A.** Prioritize development and redevelopment in accordance with the County development policies established in the Guiding Principles.
- B.** Target investment to increase job opportunities where low- and moderate-income people live.
- C.** Match development types to Places identified in the Future Land Use Plan.
- D.** Support and recruit industry targets identified in the Future Land Use Plan.
- E.** Work with the educational system to produce and attract skilled workers.



- F. Advance a uniform, streamlined development process throughout the County.
- G. Require that new developments provide for pedestrians and are completely accessible to individuals with disabilities.
- H. Promote an efficient transit system to provide access to jobs.
- I. Target Incentives in accordance with Preferred Development Scenarios.
- J. Attract investment and tourism by enhancing our cultural, environmental, educational and historic resources.

The following provides an understanding of the objectives.

A. Prioritize Development and Redevelopment in Accordance with the County Development Policies

The Economic Development Plan supports ongoing economic development initiatives in existing towns, urban centers, brownfields, and major transportation corridors, including:

- The Airport area (including Future I-376 and I-79)
- Downtown Pittsburgh and the Pittsburgh Central Keystone Innovation Zone (PC KIZ)
- Oakland (Oakland and Universities Initiatives) and the Greater Oakland Keystone Innovation Zone (GO KIZ)
- The river valley places along the Monongahela River (the Mon Valley Economic Development Strategy Hubs), particularly the Carrie Furnace site
- Other river valley places along the Ohio and Allegheny Rivers
- Brownfields
- Major corridor development (including Routes 8, 19, 28, 30, 50, 51, 65, 88, 837, and 910)
- Transit-oriented development
- Allegheny Together central business district revitalization

The County also identified the following projects as key to the economic growth needed to sustain Allegheny County:

- Carrie Furnace Development
- Edgewater Steel Brownfield Redevelopment
- Imperial Business Park
- Leetsdale Industrial Park
- Imperial Land Company Sites/ Chapman Commerce Center
- Nichol Avenue Site Redevelopment
- Industrial Center of McKeesport
- City Center of Duquesne
- Tech One Business Park
- Jefferson Technology Center
- Tech 21 Research Park
- Newbury Market
- Northfield Site
- Clinton Commerce Park
- McClaren Business Park
- Route 30 Development Site
- Cherrington Business Park
- Imperial Business Park
- Chapman Commerce Center
- Imperial Land Corporation Sites

The projects are compatible with the *Allegheny Places* initiatives identified above.

Allegheny Places supports sharing the benefits and burdens of development among all the communities in the County.

The goal of *Allegheny Places* is to proactively guide redevelopment and direct growth to the identified target areas in order to make better use of limited resources.

Some older communities targeted for redevelopment have disproportionately higher levels of crime, lower performing schools, distressed housing, and commercial areas greatly in need of revitalization. Nonetheless, many also have good existing or potential access to transportation and transit, and proximity to current and future employment opportunities within the greater Pittsburgh area.

While local municipalities have control over land use within their boundaries, County funding and support will be directed to those projects that are consistent with the Future Land Use Plan. To be consistent with *Allegheny Places*, major developments should be located in the Places identified on the Future Land Use map. The County will not support (through financial or

other assistance) locating major projects in areas outside of designated Places. However, smaller infill development is encouraged in the Infill Areas designated on the Future Land Use map.

State agencies are also required to prioritize grant awards and permit approvals for projects that are consistent with *Allegheny Places*. Therefore, municipalities and developers will greatly benefit by consulting the Future Land Use Plan when preparing development plans and proposals.

B. Target Investment to Increase Job Opportunities where Low- and Moderate-Income People Live

Often new jobs aren't really accessible to low- and moderate-income residents, since the costs of transportation to and from work would consume a disproportionate percentage of earnings from that work. As well, commuting may consume a disproportionate percentage of time compared to other income groups, since low- and moderate-income workers rely on public transit. Low- and moderate-income residents in particular will benefit from jobs close to where they live, which will help improve their financial stability and quality of life.

The goal of the Economic Development Plan is to provide better access to jobs for all County residents by decreasing the 'spatial mismatch' that exists today.

'Spatial mismatch' refers to employment opportunities for low- income workers being located far from areas where low-income people live.

A number of the designated Places correspond with existing centers for commerce in communities that have concentrations of low- and moderate-income residents. The Economic Development Plan supports the revitalization of these centers through reinvestment. Reliable existing infrastructure can provide a sound economic basis for rehabilitating older buildings into new housing and business establishments, and adding new 'infill' development on vacant and underutilized sites.

Concentrations of residents in an area provide built-in market support for new retail uses and transit which, in turn, makes the area more attractive as an employment center. In many urban areas of the country, demographic and lifestyle changes have increased consumer preferences for traditional neighborhoods, loft residences, live-work space and other creative housing. Meeting these preferences will increase the marketability of existing neighborhoods and business districts over the next twenty years.

Policies to promote economic inclusion help residents in need, as well as improve the economic viability of the region.

To help provide job opportunities for low- and moderate-income residents, the County will continue to explore Community Benefit Agreements (CBAs). CBAs are agreements made between a community-based organization and a developer to provide benefits to a community in which a major development or development of regional impact will be located. CBAs can help to gain community support for projects and bring economic, social, and environmental benefits to the community.

C. Match Development Types to Places Identified in the Future Land Use Plan

The locations that have been recommended for employment centers and concentrations of commercial and industrial uses will, to a large extent, guide where people work and shop in the future. The location of employment and business centers and the characteristics of these centers will work in tandem with:

- Job creation
- Infrastructure rehabilitation
- Low- and moderate-income housing
- Workforce training
- Brownfield cleanup
- Capital improvement programs

The Future Land Use Plan will reinforce and revitalize targeted existing centers and create new, tightly-knit, walkable, and transit-supportive centers. These mixed-use developments will offer mixed-income housing,



shopping, employment, community facilities and open space.

Recommendations by Type of Place

Recommended development types for the different Places are described below.

Airport-Industrial – The Airport-Industrial Places have been a focus of Allegheny County’s economic development efforts for many years. The County has established ‘shovel ready’ sites and been successful in attracting major employment centers which include office, business park and light industrial uses, and specific warehousing and transportation uses. The trend is expected to continue over the planning period, bringing even more development to the area. Businesses that need to be close to a good ground and air transportation network will be expected to locate here.



Source: Allegheny County

Projected transportation impacts include increased, heavy commuting on I-376 and on I-79, and are a concern. The provision of mass transit will be critical to relieving highway congestion and to ensuring that jobs are more readily accessible to the labor force.

Housing, mostly single-family, is widely available in nearby communities. Additional housing, including mixed-income housing, is recommended for infill areas around Airport-Industrial Places. Diversifying the housing stock to bring it within reach of more people

will enable more workers to live near their places of employment, and help reduce congestion on major roadways.

Core – Downtown Pittsburgh remains the office, commercial, and cultural hub of Allegheny County. However, its historical role as a retail center is continually challenged by suburban commercial development. A key to the economic revitalization of many urban centers has been increasing their residential sectors.

Urban resident populations provide a market for shops and restaurants, help support cultural activities, and complement the office environment. To help create and nurture a vital, 24-hour Downtown, the continued development of housing in and around Downtown, North Shore, and the Strip District is essential.

Oakland has a balance of uses, in what is now an exemplary mixed-use district. Accommodating expanding employment centers, maintaining a mix of uses, and increasing residential and retail components is essential for the continued success of this Core Place. ‘Branding’ the Oakland District through grand entrance features, destination signage, landscaping, public art, and pedestrian amenities is recommended.



Photo credit: McCormick Taylor

A fixed transit system connecting Downtown, Oakland and the airport is planned. It is critical to the success of the Core Places, and to the future of the Region as whole.

In Core Places it is generally expected that much new development will be through infill development and the rehabilitation and reuse of existing buildings, including the adaptive reuse of former industrial or warehouse sites and structures.

Corridor – Corridor Places have access to major highways and interchanges, and are relatively intense, mixed-use hubs of development. A range of office, industrial, commercial, and residential uses are provided for, as well as uses that require larger amounts of land, such as regional shopping centers and business parks.

Topographic and other natural features will favor certain types of uses over others at some locations, but there are a sufficient number of designated Corridor Places to ensure there is choice in the marketplace.

A Corridor Place is not a strip-type development with multiple access points along a major roadway. Rather, a Corridor Place is built around either a street grid or modified street grid that has limited access points and promotes clustered, mixed-use development.

Urban Neighborhood and Community Downtown

– Urban Neighborhoods are located primarily in established business districts and mixed-used areas in older, densely developed neighborhoods in the Cities of Pittsburgh and McKeesport. Community Downtowns are similarly sited but include other municipalities, and are in areas that may or may not be as densely developed.

Urban Neighborhoods offer more regionally-oriented businesses and services, and a mix of housing types in a walkable setting. Urban Neighborhoods will build on infill development opportunities and take advantage of existing transit and the ability to connect with nearby cultural and recreational amenities.

Several Community Downtowns include Business Districts targeted by Allegheny Together, an Allegheny County Economic Development program created to help revitalize established urban commercial districts. Allegheny Together encourages property owners and businesses to reinvest in traditional business districts,

and assists them by providing matching grants and low-cost financing for interior and exterior improvements.



Photo credit: McCormick Taylor

Both Places include a number of hubs identified in the *Mon Valley Economic Development Strategy*: the City of Pittsburgh, Carrie Furnace, McKeesport/ Duquesne, and Clairton.

Access conditions vary widely. Some Places, for example, are suitable for uses that rely on trucking while others are not. Many Places currently have excellent transit service. For the Mon Valley Places, completion of the Mon Fayette Expressway will improve access and further support their revitalization.

Village and Rural – Village and Rural Places are the least intensively developed Places of the Future Land Use Plan.

Village Places are lower-density, walkable communities characterized by a mix of businesses and residences on streets laid out on grids or modified grids. Non-residential uses will be small-scale, low-intensity businesses and services that primarily serve neighborhood needs. Non-residential development



in Village Places should neither generate, nor depend on, large volumes of vehicular traffic.

In Rural Places, new development will be primarily single-family residential. Non-residential development will be limited mainly to recreation and essential, supporting services.

D. Support and Recruit Industry Targets Identified in the Future Land Use Plan

During the development of *Allegheny Places*, the Center for Economic Development at Carnegie Mellon University (CED) identified several industry targets for the County (see Supporting Documents). They are acknowledged industry targets or 'driver industries' because they represent growing specialties. Some of the driver industries identified include:

- Management of Companies
- Health Care Services
- Educational Services

The work completed by CED was intended to only provide a starting point for identifying the appropriate industries for the County to pursue. The County will work with local economic development agencies to carry out the report's recommendations in order to provide the entire picture for attracting and retaining industry targets. The primary recommendations from the report are to:

- Examine and compare industries to identify targets for business expansion and retention services.
- Conduct a supply chain analysis to identify desired business supplier and customer industries for growing firms in order to identify business attraction targets.
- Supplement the numbers with targeted interviews of relevant local employers. This should be done to validate trends in growth and decline and to confirm employer needs for business services (retention and expansion). Interviews to assess the relative fit of community assets vs. industry needs should also be conducted with officials in relevant public services, real estate professionals, training providers (including post-secondary institutions) and university faculty/staff in industry-relevant fields.

In addition to the industry targets, the County has identified economic initiatives and areas targeted for investment and reinvestment (listed in Objective A of the Economic Development Plan). The County will retain professional experts to work with the identified initiatives and programs, and to recruit industries to locate in the appropriate Places designated on the Future Land Use map.

E. Work with the Educational System to Produce and Attract Skilled Workers

With a changing economy, there is a need to provide training and retraining opportunities to ensure the availability of a workforce ready to meet the demands of the County's businesses. Computer specialists are the fastest growing occupation sector in the County, as it is in many other areas of the country. Other fast growing occupations include health care support, health diagnostics, lawyers, and other health professionals and technicians.

The Community College of Allegheny County (CCAC) is the largest provider of educational services and the largest workforce training provider in western Pennsylvania. To maximize the institution's impact on the regional workforce, CCAC has launched three initiatives:

- **The Frieda G. Shapira Center for Learning** – designed to support CCAC's remedial educational programs, partner with public high schools, and develop programs to help disenfranchised populations.
- **The Center for Health Careers** – developing new models for delivering health care education with improved student outcomes to a more diverse population.
- **The Center for Professional Development** – transforming the college's current workforce training division into a quality-driven, sales-oriented enterprise.

The Workforce Investment Board will continue to monitor the changing job market and suggest suitable training for an expanding County workforce. The CCAC is committed to support the economic development of the region with responsive, solution-driven workforce

training programs. In order to produce and sustain a skilled workforce, the CCAC will develop a high quality market-driven community enrichment and workforce training enterprise that will be integrated with CCAC programs and services.

Additionally, the CCAC will align workforce development with the identified Industry Targets. Skilled workforce development is most effective when it is customized to meet specific industry needs. This approach encourages business participation because businesses can anticipate a better, on-target service for their current and potential employees.

By cross-marketing between workforce development and economic development, training programs can be marketed to businesses, and businesses can be marketed to students and other potential employees. Workforce providers should partner to develop coordinated marketing materials that can be delivered by economic development professionals.

F. Advance a Uniform, Streamlined Development Process throughout the County

Competition is stiff across the country in terms of attracting businesses. The County will work with its municipalities to create a more receptive environment for business development.

Allegheny County's large number of municipalities, each with their land use regulations and approval processes, can be an obstacle to business development in the County. Municipalities cannot be required to change their development review and approval processes, and must remain in compliance with the *Pennsylvania Municipalities Planning Code*. However, the County can help to educate municipalities on the benefits of developing more effective development processes, and ways in which it can be accomplished.

Municipal officials have access to hands-on training and education about the responsibilities of local planning through a number of organizations, and are encouraged to take advantage of them. For example, the Pennsylvania Municipal Planning Education Institute (PMPEI) provides courses in community planning and administering land use regulations for elected officials, planning commissions, zoning hearing boards, zoning

administrators and others. PMPEI is a cooperative effort of Penn State Cooperative Extension and the Pennsylvania Planning Association, with support from other agencies.

The Local Government Academy (LGA) also provides training for local municipal officials. LGA also offers educational workshops on a range of topics, including attracting businesses and developers to the area. Workshops on partnering with adjacent communities will be provided in the future, as an important part of implementing *Allegheny Places*.

The County supports the State Planning Board's initiative to require minimum training for local municipal officials. The County supports and encourages multimunicipal partnerships through multimunicipal planning.

G. Require that New Developments Provide for Pedestrians and are Completely Accessible to Individuals with Disabilities

Walkability is the cornerstone of efficient ground transportation in urban areas, as all trips begin and end with walking. A walkable community is the most affordable transportation system to design, build and maintain. Communities that are designed to be walkable contribute to sustainability through increased conservation of natural and economic resources; lead to more social interaction; improve community health; and diminish crime and other social problems.

According to the Center For Community Economic Development, University of Wisconsin-Extension, walkable communities provide many significant economic benefits:

■ Housing Values are Higher where it's Walkable

A 1999 Urban Land Institute study of four new pedestrian communities found that homebuyers were willing to pay \$20,000 more for homes in walkable areas, compared to similar homes in surrounding areas. New Urbanism (walkable) communities enjoy significantly higher housing values than traditional suburban developments. In a growing number of small and medium sized cities, downtown condominium and townhouse prices and apartment rents are commanding a premium price compared to comparable suburban, auto-dependent real estate.



■ Walkable Communities Attract "New Economy" Workers

In a 1998 report, Collaborative Economics, a Silicon Valley think tank, studied the relationship between the physical design of communities and the dynamic elements of the new knowledge-driven, service-oriented economy. The new economy, with its smaller, decentralized firms, thrives on land use patterns that mirror the towns of early industrial years. Walkable downtowns have a similar mix of restaurants, shops, offices, and housing that promotes interaction. Interaction is key, since the new economy thrives on accessibility, networking and creativity.

■ Walkable Communities are Becoming a Business Relocation Alternative

The automobile has defined mobility and convenience for many decades. However, Atlanta and Silicon Valley have become prime examples of how dependence on automobiles can also gridlock economic development. Some major firms around the country are advocating pedestrian and transit-friendly development as a result, according to a 1999 report by the National Association of Local Government Environmental Professionals.

■ Walkable Communities Cost Taxpayers Less

Regional and national business leaders say that low-density, discontinuous, and automobile-dependent land use patterns can cause higher direct business costs and taxes. The federal Office of Technology Assessment estimates that a single house built on the urban fringe requires \$10,000 more in public services than one built in the urban core.

■ Walkability Attracts Tourists

Communities with active, walkable, friendly downtowns are capturing a greater share of tourist dollars. Vermont has become a major draw for tourists who want experience the State's pedestrian and bicycle friendly scenic, human-scale towns. It has proved to be an economic boon for the state.

■ Walkable Communities Capture the Emerging 'Lifestyle'; Retail Market

Developers have recognized the appeal of walkable shopping centers with a 'sense of place', and are building more lifestyle centers and New Town Centers that replicate traditional community downtowns and neighborhood shopping districts.

The economic potential of the lifestyle segment can be captured in existing walkable downtowns through business expansion and recruitment to create an appropriate mix of retail, entertainment and service businesses.

Most Places in the Future Land Use Plan will have mixed-use centers with a variety of housing types and affordability options, shopping, employment, community facilities and public open space. The ability to move within the community without the use of a car is a key feature. Places with existing or planned transit access will also provide the ability to travel to and from the community without the use of a car.

Street systems in new Places should be grids or modified grids that maximize connectivity, convenience, safety and efficiency for pedestrians and bicyclists. Bicycle lanes, sidewalks, pathways and crosswalks should be incorporated to promote accessibility and allow pedestrians to travel safely.

The Americans with Disabilities Act (ADA) provides a solid foundation for providing accessibility to jobs for individuals with disabilities, both in terms of a legal mandate and the technical support to supply the physical conditions to allow access to occur. While ADA has been successful in making new developments accessible, the retrofit of older establishments, buildings, and neighborhoods has lagged. As the development of Places proceeds in accordance with the Future Land Use Plan, the upgrade of conditions of access for individuals with disabilities needs to be a central part of the effort, so that Places provide tangible benefits to all residents of Allegheny County, including access to jobs and businesses.

H. Promote an Efficient Transit System to Provide Access to Jobs

More efficient transit service to outlying job centers will provide better access to more jobs for more workers. The concentrated, mixed-use development patterns envisioned by *Allegheny Places* are intended to support transit use and improve access to jobs and other opportunities.

The County has several objectives with respect to providing more efficient service to major employment centers:

- Oakland Circulator (in and around Oakland)
- Rapid Transit linking Downtown, Oakland, and the Airport
- West Busway Extension to Robinson Town Center
- East Busway extension to Rankin/East Pittsburgh

Linking Downtown Pittsburgh, Oakland and the Airport via rapid transit is a priority, as Oakland is one of the largest employment centers in the region. Providing additional transit in and around Oakland is also a priority. While many students and employees live in and around Oakland, many more commute. Shuttles operated by a consortium of business owners or a public-private transportation management association can help to link transit stops and provide additional services.

The Airport Corridor is an important employment center, but current development patterns are not supportive of transit. The re-envisioned growth for this corridor includes concentrated development that will support transportation alternatives to facilitate travel between the Airport and other Places in the County. Improving transit access may include partnerships, such as shuttle service provided by the Airport Corridor Transportation Association between transit stops and major destinations.

Convenient transit to the Airport Corridor is needed so that workers needed to fill low wage jobs can reach them without incurring high commuting costs.

Allegheny Places promotes the use of TOD, or transit-oriented development, to help connect people and employment. Transit-oriented, mixed-use Places are strategically located around existing transit facilities such as the 'T' line and busways, and around future transit facilities such as the East and West Busways extensions and proposed rapid transit lines.

TOD has not been used much in the County, despite the potential benefits. TOD can boost transit ridership, reduce traffic congestion, improve air quality, and generate new economic activity. To support TOD, the County will partner with the PAAC to increase coordination among County departments, enhance relationships with municipalities, and promote walkable communities and mixed-use development along transit-development corridors.

It is important that the County communicate a clear vision of its priority transit stations for TOD. A shifting focus can cause uncertainty for developers and discourage interest. The County will adopt a systematic method for evaluating development potential of transit station areas with strong market potential, its list of priority transit stations, and where and how it intends to target incentives. The County will target economic development funds to TOD places identified in the Future Land Use Plan.

A new program, Transit Revitalization Investment District (TRID), provides grants to study the feasibility of developing TOD in an area. Allegheny County is currently completing TRID studies for areas adjacent to the light rail stations in the South Hills.

I. Target Incentives in Accordance with Preferred Development Scenarios

Grants, loans, tax credits, and real estate tax abatements are commonly used tools of economic development. All such incentives, including TIF, will be utilized to facilitate sustainable development patterns throughout Allegheny County.

Of critical importance is the geographic targeting of incentives consistent with the preferred development scenarios outlined in *Allegheny Places*. Public investment must be guided to projects located within areas identified on the Future Land Use map. Projects should be prioritized with approval of incentive packages contingent upon development type and location.

J. Attract Investment and Tourism by Enhancing our Cultural, Environmental, Educational and Historic Resources

A strong, vital and innovative regional tourism industry can make a major contribution to the economic, social, and environmental well being of all citizens of the County. Tourism is a powerful economic development tool. It creates jobs, provides new business opportunities and strengthens local economies. The County's spectacular natural setting, renowned cultural institutions, rich history, and myriad of distinctive neighborhoods and communities are attractive to visitors. The County will support the work of local and



state tourism promotion agencies to attract more visitors to Allegheny County and the City of Pittsburgh.

Primary tourism destinations in the County include Downtown Pittsburgh, the North Shore attractions and the County's rivers and trails systems.

There is great potential for a boom in the region's tourism industry. Pennsylvania is the fifth most visited state in the nation. It is a 'drive-in' state, meaning that most visitors travel to Pennsylvania from neighboring states. The Pittsburgh region is within driving distance of at least three states. The region needs to do all it can to draw people from those states, and from other parts of the country. Marketing the area as a regional tourism destination would help achieve this goal.

Marketing the area regionally would also encourage tourists to make multi-day visits, instead of an occasional day trip. A well-designed, regional wayfinding signage program would help to promote the area as a regional tourism destination, make it more tourist-friendly, and increase patronization of attractions and establishments.

Allegheny County is well-situated for heritage tourism. The National Trust defines heritage tourism as "traveling to experience the places and activities that authentically represent the stories and people of the past and present. It includes historic, cultural and natural resources." Allegheny County and the surrounding area is rich in historic resources.

Studies have consistently shown that cultural heritage travelers stay longer and spend more money than other kinds of travelers. Perhaps the biggest benefit of heritage tourism is that it provides economic opportunities, while preserving the very qualities that have made a place unique.

The County will continue to support the work of the Greater Pittsburgh Convention and Visitors Bureau and its *Pittsburgh and its Countryside* and *VisitPittsburgh* campaigns. They are the key to a regional marketing consortium including Allegheny and surrounding counties.



Photo credit: Kevin Smay

HOUSING PLAN

■ TODAY'S CONDITIONS

Allegheny County's housing stock is greatly diverse in style, type, age and condition.

Single-family housing is the most common form of new residential construction in Allegheny County, and remains the most widely available housing type overall.

Housing is relatively affordable in Allegheny County. In 2000 the median value of homes in the County was \$84,200. This is considerably less than the median home values in Pennsylvania (\$97,000) and the nation (\$119,600).

HOMEOWNERSHIP RATES

Homeownership rates in many of Allegheny County's municipalities are relatively high compared to the nation:

- Allegheny County (excluding the City of Pittsburgh) – 72%
- Allegheny County (including the City of Pittsburgh) – 67%
- United States – 66%

Many municipalities in the County have homeownership rates greater than 80% (see Figure 4D.1). From 1990 to 2000, the rates of homeownership rose in nearly every municipality in the County.

However, here as in the nation, the relatively high homeownership rates in Allegheny County have been impacted by a high number of mortgage foreclosures. In April of 2007, *Realtytrac.com* reported that over 10,000 homes in Allegheny County were in the process of foreclosure.

A June 2007 report of the University of Pittsburgh's Center on Race and Social Problems found that Whites and Hispanics have higher homeownership rates in the Pittsburgh region than those groups do in the nation, while African Americans and Asians in the region have lower rates than in the nation (see Figure 4D.2).

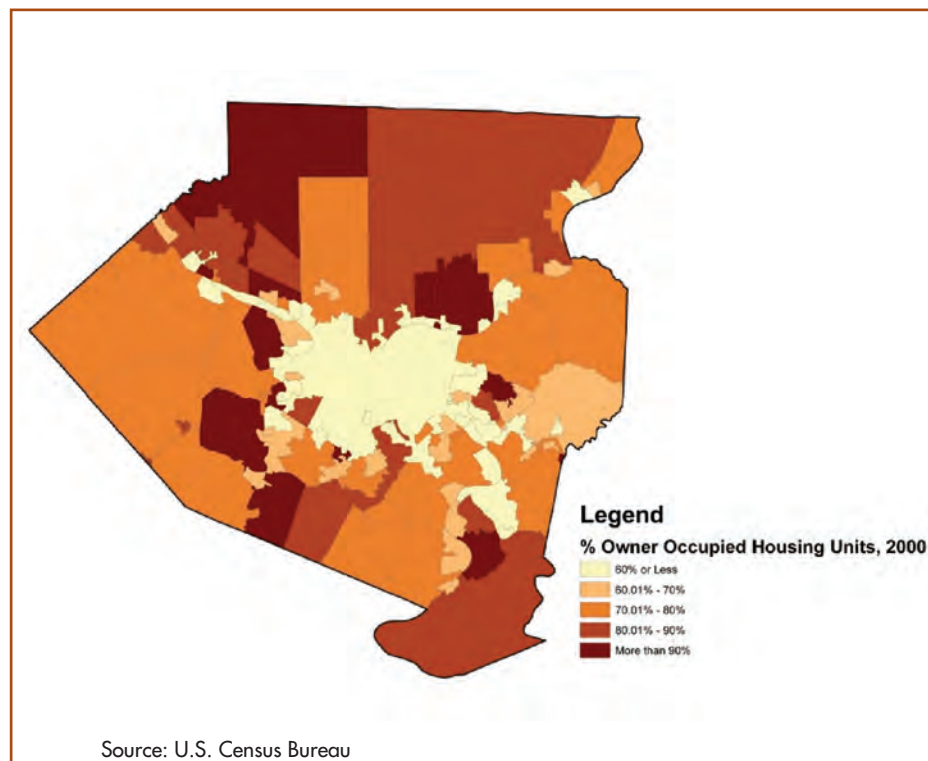


Figure 4D.1 – Percentage of Owner Occupied Housing Units by Municipality, 2000

HOUSEHOLD SIZE

Despite a declining population, the number of households in Allegheny County remained relatively stable between 1970 and 2000. The primary reason is the decrease in the number of persons per household over this period, which follows the national trend. From 1990 to 2000, the average household size decreased from 2.5 to 2.3 persons per household. The number of one person households in the County increased by almost 10% during that period.

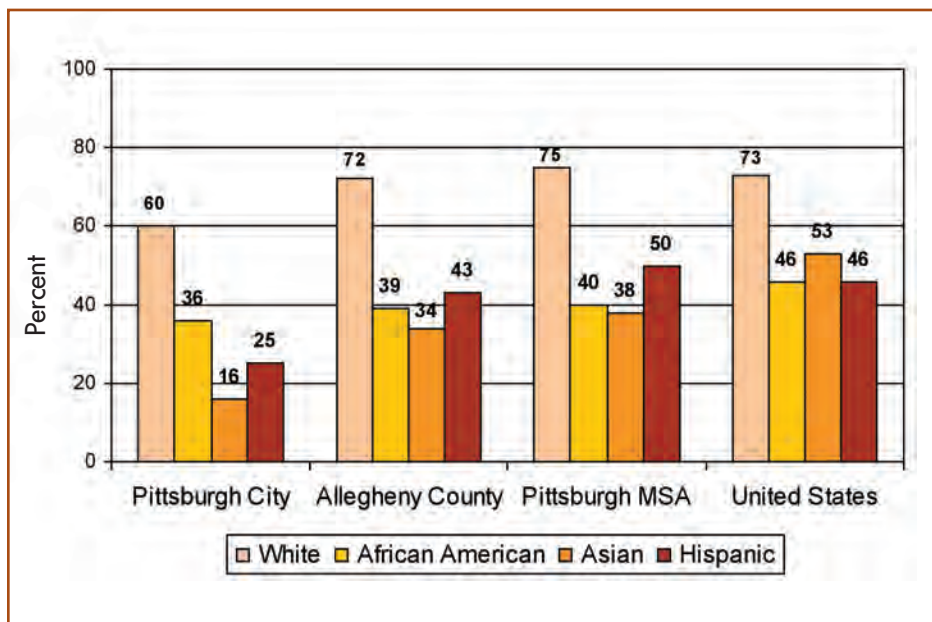


Figure 4D.2 – Homeownership Rates by Race and Ethnicity, 2000

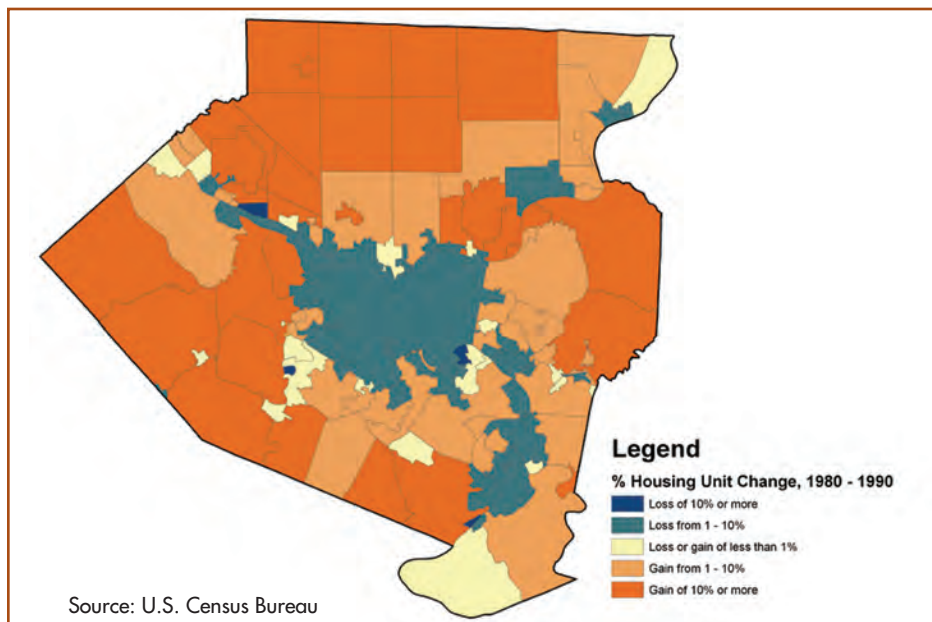


Figure 4D.3 – Percentage of Housing Unit Changes by Municipality, 1980-1990

HOUSING UNIT CHANGE

In the 1990s, the number of housing units in the County remained almost unchanged, increasing by less than 1% over the decade. In 2000, there were nearly 584,000 housing units in Allegheny County. Between 1990 and 2000, only single-family detached units increased in number, growing by slightly over 3%. All other housing types declined during the 1990s.

Many municipalities lost housing units between 1980 and 2000 (see Figures 4D.3 and 4D.4). Nearly half the County's municipalities (66) lost housing units; however, slightly less than half (64) gained housing units. Decreases in housing stock mirrored population changes, with the greatest losses in the urban core, Mon Valley, and river communities. The greatest increases in housing units and population were concentrated in the northern and western suburbs.

In general, the number of housing units increased in the 1990s in the outer ring suburbs and decreased elsewhere.

HOUSING VACANCIES

The vacancy rate is an indicator of local economic conditions. A low housing unit vacancy rate typically signifies a strong housing market. The overall rate of housing unit vacancy for Allegheny County in 2000 was 8%. This compares favorably with vacancy rates for Pennsylvania and the nation, which were both 9% in 2000.

Despite the County's relatively high homeownership rate, Mon Valley municipalities – and especially

Braddock, Homestead, Clairton and Wilmerding – continue to have some of the highest vacancy rates not only in the County, but also in the region and state (see Figure 4D.5). Braddock has the state's second highest housing unit vacancy

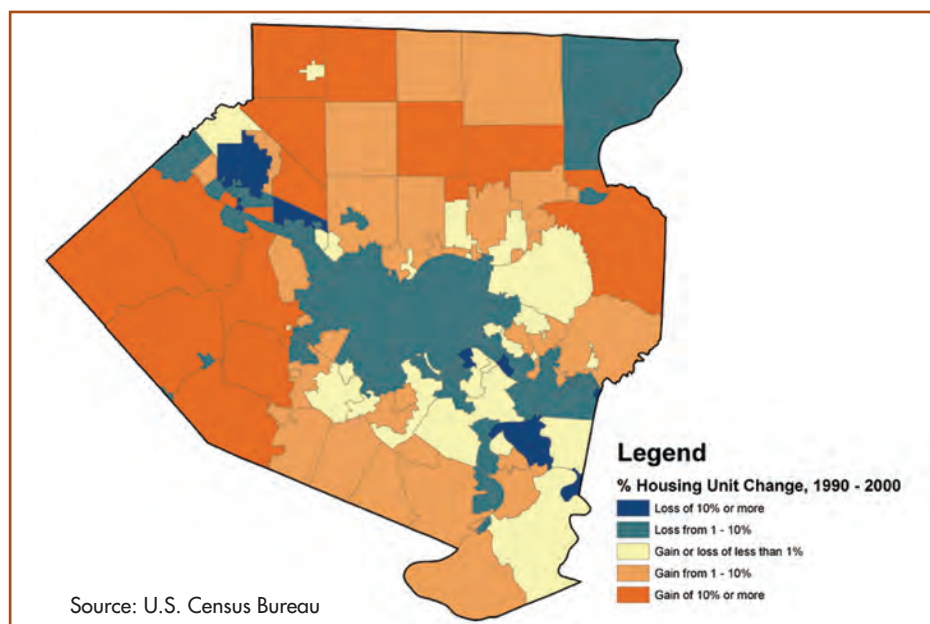


Figure 4D.4 – Percentage of Housing Unit Changes by Municipality, 1990-2000

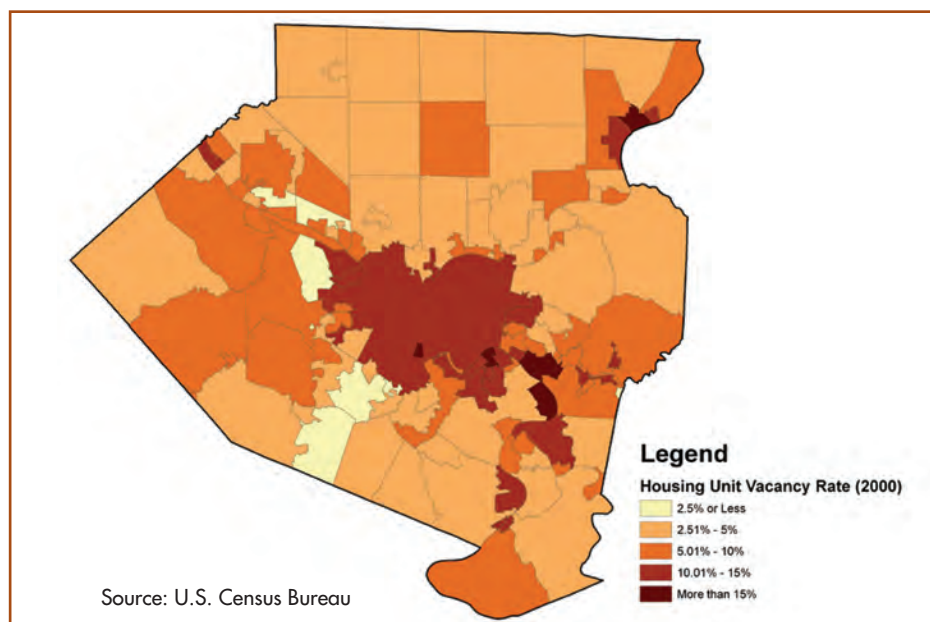


Figure 4D.5 – Percentage of Housing Unit Vacancy Rates by Municipality, 2000

rate (28.5%), after accounting for seasonal housing units. Only Centralia Borough in Columbia County has a higher vacancy rate than Braddock. (Centralia's vacancy rate is due to an evacuation that occurred over two decades ago because of uncontrolled mine fires.)

Municipalities with the highest vacancy rates are typically also those with the greatest decreases in population and lowest household incomes.

Baldwin (1.3%), Upper St. Clair (1.8%) and Kennedy (2.1%) Townships have the lowest housing unit vacancy rates in the County.

AGE OF HOUSING STOCK

Identifying housing in the County by age of construction is another way to examine patterns of growth and decline. Figure 4D.6 shows those municipalities where a majority or significant part of the housing stock was built before 1940. Concentrations of houses built before 1940 are generally considered to signify some of the oldest settlement areas in the County. They are typically found in the urban core and in municipalities along the rivers.

Figure 4D.7 shows housing stock built between 1950 and 1979. Many of the municipalities with significant concentrations of housing built during this time period are the County's "inner ring" suburbs, and are largely built out today.

Figure 4D.8 shows housing stock built between 1990 and 2000. The municipalities that have the highest concentrations of newer housing are typically the County's "second tier" suburbs, and are located primarily northwest and southwest of the urban core.

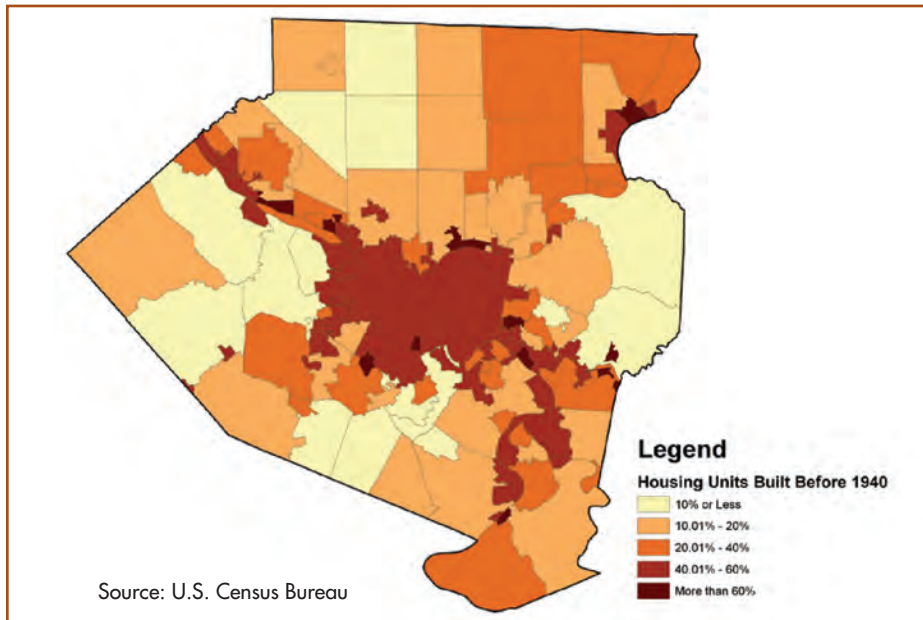


Figure 4D.6 – Percentage of Housing Units Built Before 1940, by Municipality

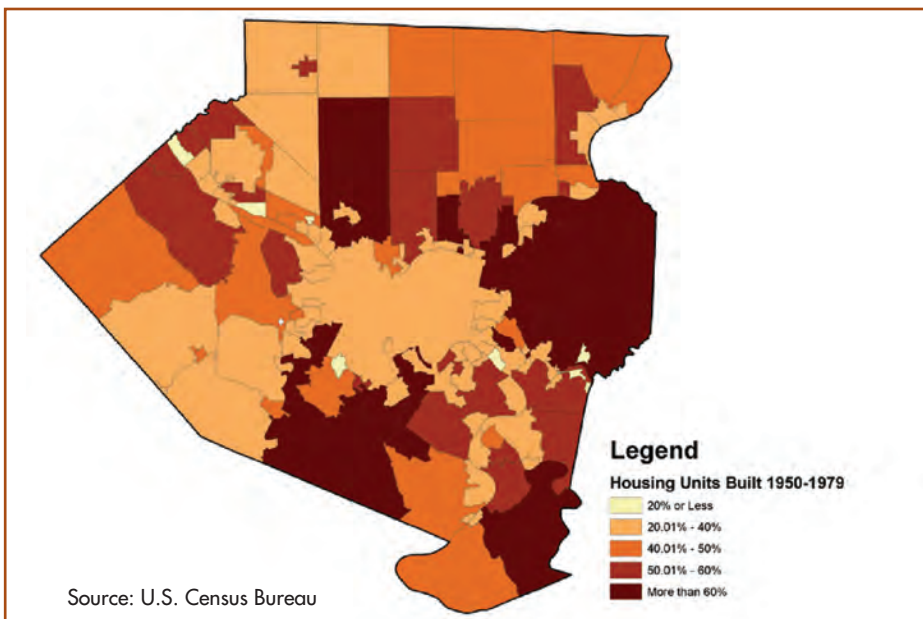


Figure 4D.7 – Percentage of Housing Units Built Between 1950-1979, by Municipality

As the series of maps illustrates, older housing stock is concentrated in older communities along the rivers, and in and around the urban core. Newer housing stock is more common in the outer ring municipalities, and especially to the north and southwest. The communities with the older housing stock tend to have the highest vacancy rates. An analysis done for the Plan showed that these are the same communities that are losing a large amount of their housing stock through demolition and neglect.

BUILDING PERMITS

Over the past two decades, a relatively stable number of building permits were issued each year in the County (see Figure 4D.9). The outer ring municipalities have shown the greatest permit activity in the most recent years. Single-family units remain the most common form of new residential construction.

AFFORDABLE HOUSING

The U.S. Department of Housing and Urban Development (HUD) subsidizes rental housing programs for low-income families, the elderly and special populations primarily through three federally subsidized rental housing programs.

Three public housing authorities in Allegheny County are responsible for the programs:

- Allegheny County Housing Authority
- Housing Authority of the City of Pittsburgh
- McKeesport Housing Authority

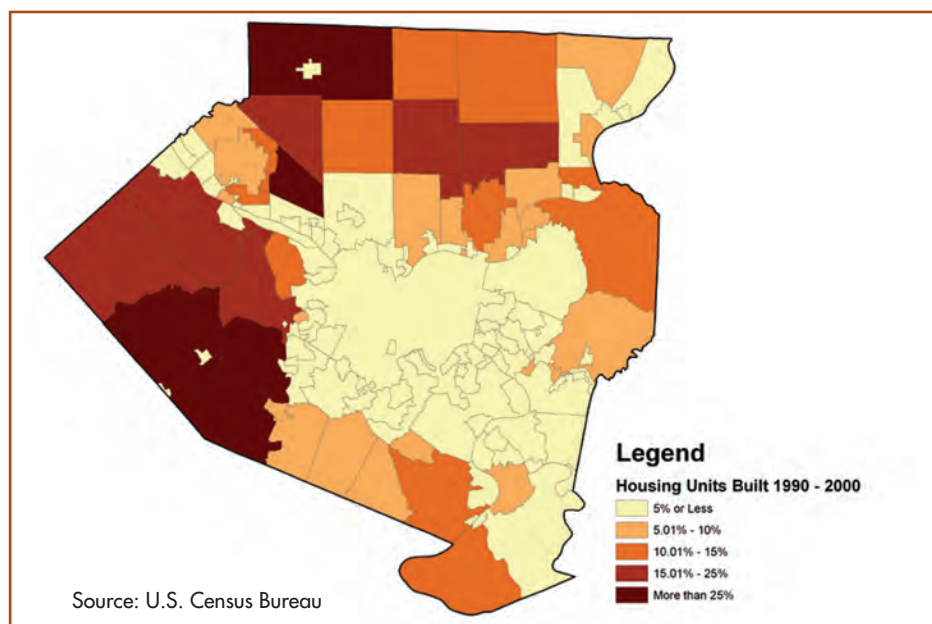


Figure 4D.8 – Percentage of Housing Units Built Between 1990-2000, by Municipality

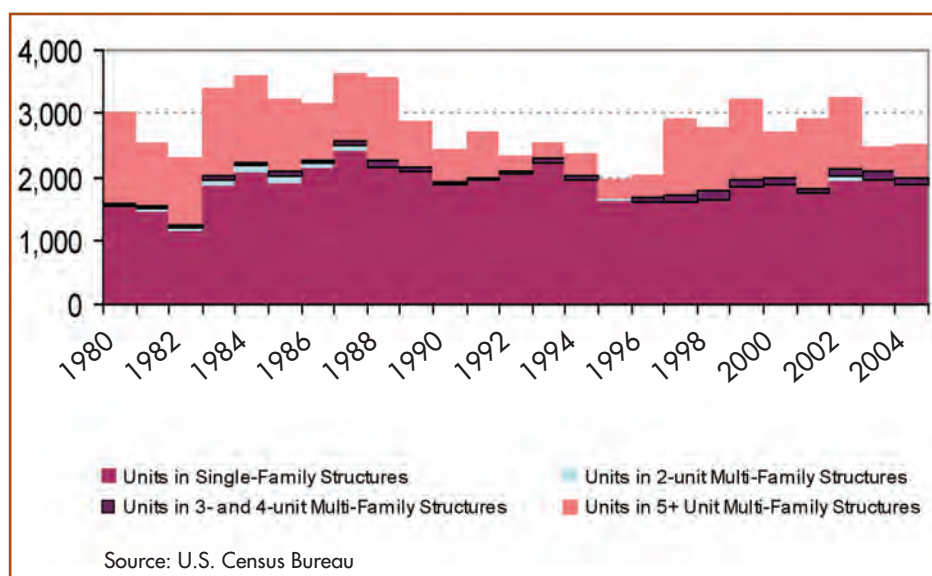


Figure 4D.9 – Allegheny County Building Permits, 1980-2004

Public Housing

Public housing units are owned and operated by the three local public housing authorities. The units are leased to low-income and very low-income persons and families. Utilities are included in the rent.

The Allegheny County Housing Authority (ACHA) owns and manages approximately 3,200 low-income public housing units throughout the County.

The Housing Authority of the City of Pittsburgh (HACP) provides publicly assisted housing for more than 20,000 Pittsburghers and manages more than 7,000 public housing units. HACP facilities are located throughout the City, with public and senior housing communities located in each region. HACP also provides funding for a number of privately managed housing communities.

The McKeesport Housing Authority (MHA) owns and manages eight properties with over 1,000 federally assisted units consisting of senior living communities, handicapped accessible housing and neighborhood sites consisting of town homes and single family homes. Admission into these housing units is not limited to income. Applicants may choose between rental rates based on income or flat rental rates.

Housing Choice Vouchers

Housing Choice or Section 8 vouchers are a form of rental assistance that is tenant-based. The rental subsidy is given to a household or an individual, who may carry it with them from one unit to another, even to a different county or state. The goal of the program is to increase the mobility of individuals and households, and thereby avoid concentrations of low-income populations in the same building or area.



Section 8 vouchers are administered by the three public housing authorities in the County:

- ACHA administers approximately 5,000 privately-owned housing units through the Housing Choice Voucher Program.
- HACP has more than 10,000 people living in Section 8 housing located throughout the City.
- MHA assists over 400 families/individuals through its Section 8 voucher program.

Project-Based Section 8 Program

Project-Based Section 8 Program is subsidized housing that consists of privately owned apartment complexes or other multi-family housing on scattered sites. Rents are subsidized through the *Project-Based Section 8 Program*. HUD administers the program through its local office in Pittsburgh. Private companies manage the properties. There are over 200 such complexes in Allegheny County. The Pennsylvania Housing Finance Agency also administers HUD assisted multifamily housing.

The subsidy for Project-Based Section 8 is assigned to the unit. An individual or family cannot take the rental subsidy with them if they move. Once a household moves from the unit, the Project-Based Section 8 assistance is discontinued for that family. When a property owner forecloses on a mortgage or HUD terminates the Project-Based Section 8 assistance for a property, the tenant will be provided a Tenant-Based Section 8 Voucher that can be used in the rental market.

Eligibility

Income eligibility for federally assisted housing programs is based on the median income of an area, which is established by HUD every year. The 2007 median income for the Pittsburgh MSA (Allegheny, Armstrong, Beaver, Butler, Fayette, Washington and Westmoreland Counties) is \$44,600 for a family of four. There are different income limits for each subsidy program, ranging from 80% of median and below, to 30% of median and below for a family of four.

HOUSING AFFORDABILITY

The County's relatively high homeownership rates can be attributed to the affordability of housing. HUD's definition of "affordability", which is widely accepted, is that a household spends no more than 30% of its annual income on housing. Families who spend more are considered cost burdened and may have difficulty affording other necessities such as food, clothing, transportation, and medical care.

A 2003 University of Pittsburgh study on housing affordability, titled, *A Study of Affordable Housing: Supply and Demand in Allegheny County*, revealed that for a family of four:

- The housing market can generally meet the affordability demand for low-income households – those with incomes at or below 80% of the area median income, or at or below an annual income of \$35,700.
- A shortage of affordable housing units exists for one of the most vulnerable segments of the County's population – those with incomes at or below 30% of the area median income, or at or below an annual income of \$13,400.
- This shortage of affordable housing primarily results from housing units that are moderately and severely inadequate, particularly in the lowest rental categories. Moderately or severely inadequate housing units are those with major plumbing, heating or upkeep deficiencies including peeling paint, leaks or rats.

Households whose median income is at or below 30% of the area median income face hardships finding adequate affordable housing.

HOUSING ASSISTANCE TO HOMEOWNERS

The Housing & Human Services Division of Allegheny County Economic Development (ACED) works to expand the County's affordable housing stock and assists residents with the acquisition and rehabilitation of homes.

ACED's programs to assist individual homeowners include:

- **Allegheny First-time Homebuyers Program** – This program offers low-interest mortgages to eligible

first-time homebuyers. Applicants may also apply for closing cost and down payment assistance.

■ **Allegheny Targeted Area Homebuyer Program** –

This program provides low-interest mortgages to qualified homebuyers in targeted census tracts to help increase homeownership.

■ **Allegheny Home Improvement Loan Program**

(AHILP) – This program provides funding assistance that enables low-income homeowners to improve their homes.

HOUSING ASSISTANCE TO DEVELOPERS OF AFFORDABLE HOUSING

The Housing & Human Services Division provides support for development which incorporates a variety of housing choices to promote diversity within a community – diversity of race, ethnicity, income level and disability status. The Division provides financial support to developers for the construction or rehabilitation of for-sale and rental housing developments that provide affordable options for residents.

Funding assistance is available from the Allegheny County Housing Development Fund (AHDF), which provides gap-financing support for affordable housing developments. It is the most flexible housing program available to nonprofit and for-profit housing developers through the County. There are two forms of assistance available: ‘front-end’ construction subsidies (for rental projects), where developers agree to rent project units to qualified low/moderate-income tenants for a period of up to 30 years; and ‘back-end’ deferred second mortgages (targeted to for-sale housing projects), where developers agree to sell the units to qualified low/moderate-income households.

Developers can also leverage private mortgage and equity funds, Pennsylvania Department of Community and Economic Development programs, and Pennsylvania Housing Finance Agency programs, such as Low-Income Housing Tax Credits.

Projects submitted for AHDF financing include the following:

- New construction of low/moderate-income, multifamily or elderly rental housing
- Conversion of existing properties, such as old schools, warehouses and municipal buildings, into low/moderate-income, multifamily or elderly rental housing
- Rehabilitation of vacant, existing multifamily rental housing developments (of four units or more) for rent to low/moderate-income tenants
- New construction of single-family residences or townhomes for purchase by low/moderate-income buyers
- Rehabilitation for resale of existing single-family residences or townhomes for purchase by low/moderate-income buyers

AHDF financing is available in most areas of the County except opt-out municipalities, of which there are currently six. However, developments in two of the communities, McKeesport and Penn Hills, are eligible for HOME-funded projects.

The Housing & Human Services Division administers the Allegheny County Vacant Property Recovery Program (VPRP). VPRP provides a mechanism for taking properties that are blighted and tax delinquent, and clearing the titles so that the properties can be made available for re-use and re-development.

Applications to VPRP must come through the municipality in which the property is located, and the municipality must be a participating member of the program. Because the costs of recovering blighted properties are not inconsiderable and funding for VPRC is limited, the program currently operates primarily in distressed communities. However, VPRC can assist with property acquisitions in other communities, depending on the circumstances.



■ ISSUES AND ANALYSIS

This section examines the challenges to improving the quality of existing housing stock, and to ensuring that new and existing housing meets the needs of all County residents.

KEY CHALLENGES

The Housing Resource Panel helped to identify these key challenges:

- Impact of high vacancy rates in core communities
- Lack of affordable, good quality housing for very low-income residents
- Lack of geographically-distributed mixed-income housing
- Impact of foreclosures and predatory lending practices
- Impact of deteriorating housing stock in core communities
- Increasing energy efficiency for new and existing housing
- Improving and promoting visitability

The following provides an understanding of these issues.

IMPACT OF HIGH VACANCY RATES IN CORE COMMUNITIES

Suburban sprawl and population decline have resulted in a housing surplus, especially in and around the urban core, and in municipalities along the rivers. Housing vacancy rates have increased significantly over the past several decades. In 2000, 23 municipalities in Allegheny County had vacancy rates over 10%, compared to nine in 1990. Some communities in Allegheny County have vacancy rates that are among the highest in the state.

Vacant structures can have a destabilizing effect on an entire neighborhood and accelerate its decline. Neglected, vacant buildings often are health and safety hazards, provide places for criminal activity, and generally foster a negative perception of the area. When the owners are absent or untraceable, abandonment of the property often results. A cycle of disinvestment is created. Property values decline and tax revenues decrease, while the need for municipal intervention increases.

The lack of resources and difficulty of attracting reinvestment often forces municipalities to cope with problem structures by demolishing them. Removal of hazardous structures and reclamation of abandoned lots presents opportunities for reinvestment and revitalization. However, opportunities to reclaim structures that are unique, locally or historically significant, and still recoverable may also be lost.

LACK OF AFFORDABLE, GOOD QUALITY HOUSING FOR VERY LOW-INCOME RESIDENTS

The lack of affordable housing is a significant hardship for very low-income households. Very low-income households are defined by the U.S. Department of Housing and Urban Development (HUD) as households making less than or equal to 50% of area median income (note that the actual figure is a determination made every year by HUD). Although housing in Allegheny County is generally more affordable than in other regions, very low-income households still have difficulty finding safe, adequate, and affordable housing. These households are likely to become cost-burdened and have difficulty meeting other basic needs such as nutrition, health care, and transportation.

One factor which affects the lack of affordable housing is the limited distribution of units with three or more bedrooms, and higher rental prices for larger units. 'Renting down' is another factor reported to contribute to the shortage. It is a term used to describe households that occupy units with rents below the HUD-defined affordability threshold for their particular income level.

Economically depressed urban neighborhoods are usually lacking in opportunity for their residents.

LACK OF GEOGRAPHICALLY-DISTRIBUTED MIXED-INCOME HOUSING

Where you live is more important than what you live in, according to the Kirwan Institute for the Study of Race and Ethnicity. Where someone lives determines their ease of access to essential services, good schools, and a safer and healthier environment.

Affordable housing is available throughout the County. However, there are geographic disparities. First, in the City of Pittsburgh, eligible households are mixed between public housing units and complexes and Section 8 subsidies, which

help tenants in the private market. The Section 8 programs include private market developments, called Project-Based Section 8, or tenant-based subsidies, with Housing Choice Vouchers. The goal of the Housing Choice Vouchers is to disperse subsidized residents throughout a geographic area.

In the City of Pittsburgh, tenant-based Section 8 housing tends to be concentrated in a few neighborhoods, according to a preliminary study conducted by the Fair Housing Partnership of Greater Pittsburgh. The uneven distribution defeats the goal of the federal Housing Choice Voucher Program, which is to break up the concentration of poverty commonplace in conventional housing projects. The study, released in June 2007, determined that three city neighborhoods – Homewood, Larimer and Perry North – have nearly a fifth of their rental units filled by Section 8 tenants. Citywide, only two percent of occupied rental units in the city are taken up by Housing Choice voucher holders.

In the County outside of the City of Pittsburgh, eligible tenants are more likely to be in a Section 8 program for their housing needs rather than living in public housing units or complexes. Of households in subsidized housing, 52% are in a Section 8 program. Nonetheless, whether Section 8 or public housing, tenants in subsidized rental units are geographically concentrated in the County (see Table 4D.1). Forty percent of all subsidized households or units are in the eastern part of the County. Nearly 70% are in the East and Southeast combined.

IMPACT OF FORECLOSURES AND PREDATORY LENDING PRACTICES

Here as in the nation, foreclosures have affected homeownership in Allegheny County. While foreclosure rates increased statewide, Allegheny County had one of the highest rates of any county, according to a report by The Reinvestment Fund (TRF), *Mortgage Foreclosure Filings in Pennsylvania*. Between 2000 and 2003, foreclosure filings in Allegheny County increased by over 60%. In 2003, there were over 11 foreclosures in Allegheny County for every 1,000 owner-occupied housing units.

The report concluded that, “Areas with more highly clustered foreclosures tend to be areas with lower than average housing values, lower than average family incomes, higher than average percentage Black or African American, and higher than average percentage Hispanic” populations. While the largest percentages of foreclosures are in these demographic categories, there has also been an increase in the number of foreclosures in moderate income and predominantly white communities as well.

Nor have numbers improved. The Pittsburgh Community Reinvestment Group (PCRG) reported that in 2006, nearly 4,800 Allegheny County properties went into foreclosure. In April 2007, *Realtytrac.com* reported to the Pennsylvania House of Commerce Committee an estimated 10,080 foreclosed properties in Allegheny County.

Table 4D.1 – Distribution of Publicly Subsidized Rental Housing within Allegheny County, Outside the City of Pittsburgh, 2000

PUBLICLY SUBSIDIZED RENTAL HOUSING			
Subregion *	Public Housing (3902)	Private Housing (4310)	Total (8212)
NORTH	8%	5%	7%
EAST	27%	51%	40%
SOUTHEAST	30%	27%	29%
SOUTH	9%	9%	9%
WEST	25%	7%	16%
TOTAL **	100%	100%	100%
Source: U.S. Census Bureau			
* Subregions are the 1990 U.S. Census Bureau PUMA regions			
** Due to rounding, percentages may not add up to 100			



Foreclosures on sub-prime loans are a particular problem in Allegheny County. According to PCRG, between 1996 and 2002 over 32% of all mortgage applications in the County were for sub-prime loans. In 2003, sub-prime loans represented the majority (71%) of loans in foreclosure in Allegheny County.

Sub-prime loans are often associated with predatory lending practices. Predatory lending practices include aggressively marketing to vulnerable populations loans with irresponsible terms, such as excessively high fees and higher interest rates based on inaccurate appraisal values.

Several organizations within Allegheny County such as PCRG, Urban League, Action Housing, ACORN, Mon Valley Initiative, and Neighborhood Housing Services are working to educate the public about predatory lending and help those who have been victimized.

IMPACT OF DETERIORATING HOUSING STOCK IN CORE COMMUNITIES

Many of the County's core communities have older housing stock. An analysis done for *Allegheny Places* showed some of these communities are losing their housing stock at significant rates, mostly through neglect and demolition. As with higher vacancy rates in core communities, contributing factors are an overall decline in population growth, a shift in population away from core communities, and an increase in new housing construction in suburban communities.

When structures are severely deteriorated, demolition may be necessary to protect public health and safety. Demolition and clearing of lots can also open the door for reinvestment and redevelopment. However, public funds available for demolition do not nearly meet demand. Identifying and prioritizing demolition needs would help public agencies to target assistance where the need is greatest, and to better coordinate demolition and redevelopment activities.

Housing stock that is potentially recoverable also should be identified and prioritized based on its condition and potential for reuse. Rehabilitation and reuse of housing stock that represents the unique character and history of a community should be made a high priority.

INCREASING ENERGY EFFICIENCY FOR NEW AND EXISTING HOUSING

Rising energy costs are affecting the cost of living for all County residents. Energy efficient housing can lower the cost of living by using energy more efficiently and reducing utility bills.

Increasing energy efficiency in new and existing housing has environmental benefits as well. 'Green building' design practices, which include use of new, environmentally-friendly building materials, recycled building materials, energy efficient appliances, and integrated site and building planning, make better use of natural resources and create less waste and pollution.

For new, private-sector housing construction, educated consumers are the key to increasing energy efficiency through increased use of green building practices. For new housing funded wholly or in part with public monies, use of appropriate green building technologies should be required by the funding agencies to protect public investment and make the cost of owning and operating a home more affordable.

Increasing energy efficiency in existing housing is a more complex issue, given the great diversity of the County's housing stock in type, age, and condition. Many homeowners may lack the means to make improvements to increase energy efficiency. Both homeowners and landlords may lack knowledge of existing programs that could help them with weatherization and other improvement projects.

IMPROVING AND PROMOTING VISITABILITY

'Visitability' is a term used to describe housing that does not have the kinds of physical barriers that prevent or make visits by people with mobility impairments difficult. The three main barriers to visitability are building entrances that cannot be reached without steps or that are otherwise not accessible, narrow interior doors, and lack of a first-floor bathroom.

Without visitability, people who are mobility-impaired can become isolated from family, friends, and neighbors. They may even have problems with mobility in their own homes. Of Allegheny County's disabled population, persons 65 and older constitute a substantial proportion. Physical and go-outside-the-home type disabilities are the most common disability in this age group. Clearly, lack of visibility is an issue for senior citizens.

In Allegheny County there is a need for more dwellings, both to rent and to buy, designed to visitability standards. However, Allegheny County's hilly terrain makes the provision of fully visitable housing especially challenging. Steep streets, steep sidewalks, sidewalks with multiple flights of stairs, existing houses that sit well above or below the abutting street, and sloped building sites are the norm in Allegheny County.

■ RECOMMENDATIONS

GOAL OF THE PLAN

Good quality existing, renovated and new housing meets the needs of diverse people.

OBJECTIVES OF THE PLAN

The objectives of the Housing Plan are to:

- A.** Support existing fair housing policies that protect the right to housing regardless of race, disability and other federally and locally protected classes.
- B.** Provide a variety of mixed-income and affordable housing in mixed-use Places as identified on the Future Land Use Plan.
- C.** Target infill housing where needed.
- D.** Promote accessible and visitable housing in communities with desirable amenities.
- E.** Promote the use of green building techniques and energy efficient housing design.
- F.** Support measures to reduce foreclosures, especially those that are the result of predatory lending.

The following provides an understanding of the objectives.

A. Support Existing Fair Housing Practices

In order to meet the needs of the County's diverse population, *Allegheny Places* supports and promotes

actions and policies that ensure equitable access to safe, decent, and affordable housing.

Allegheny Places recognizes that every resident of the County has a right to fair housing and supports existing federal fair housing laws that prohibit housing discrimination on the basis of age, race, color, religion, sex, national origin, disability and familial status. The Plan further supports additional protections in State (ethnicity) and local (sexual orientation in the City of Pittsburgh) fair housing laws.

B. Provide a Variety of Mixed-Income and Affordable Housing

Designated mixed-use Places in the Future Land Use Plan have been strategically located throughout the County. They are targeted for mixed-income housing, including affordable housing, to ensure that any County resident who desires to live in a mixed-use Place will have an opportunity to do so.

The Kirwan Institute for the Study of Race and Ethnicity points out that "There is a critical connection between affordable housing and opportunity-rich neighborhoods in improving the lives of low-income residents."



Photo credit: McCormick Taylor

Recommended housing types for mixed-use Places include mixed-use structures containing both non-residential and residential uses; live/work housing; adaptive reuse of existing structures for housing; rehabilitation of existing, good quality housing stock;



and new, primarily high-density housing on reclaimed vacant/abandoned properties. Affordable housing in some Places may take the form of ‘workforce housing’ for low- and moderate-income working households. The inclusion of affordable units in multi-unit housing developments and structures will be promoted.

Inclusionary zoning increases opportunities for low-income residents by requiring or providing incentives to developers to provide more affordable housing choices.

Recommendations for Type of Place

The provision of housing in Places designated on the Future Land Use map will provide a variety of housing options for a diversity of people. In all Places, innovative design to create energy efficient, accessible, visitable and affordable housing is strongly encouraged.

The Housing Plan further encourages, in both new and rehabilitated housing, the provision of live/work units and units for aging in place. Live/work units enable the occupants to live and work in the same place. An apartment above a store on Main Street and an artist’s loft are examples of live/work units. Units that enable ‘aging in place’ are designed so that as the occupants age, they can continue to live in the same place. Designing units to meet visitability standards is one way to facilitate aging in place.

Specific housing descriptions for each type of Place can be found in Table 4D.2.

C. Target Infill Housing Where Needed

Over the last two decades, the County has been ‘hollowing out’ as its population shifts from the urban core and older river communities to municipalities nearer the edges of the County.

When their population declines, older communities often face increased tax burdens that threaten the provision of services. If the quality of life for residents suffers as a result, it can send the community into further decline.

To help revitalize declining communities, *Allegheny Places* supports future growth and redevelopment of existing infill areas. Infill development is the redevelopment and/or reuse of vacant, abandoned, and under-utilized properties and structures in areas where surrounding lands are largely developed.

Infill housing (and other infill development) should be planned to meet community needs, and to be compatible with existing neighborhood context. Cooperative partnerships between government agencies, developers, financial institutions, nonprofit organizations, neighborhood organizations and others help create infill development projects.

To better identify infill opportunities, inventories are needed of vacant and abandoned properties, available infrastructure and its condition, and the condition of any structures that are present. This will help to coordinate demolition, clearing of properties, and the provision of any infrastructure improvements that will be needed to support redevelopment efforts.

In communities with many vacant and abandoned properties, land banking can provide a way to assemble and hold the land for future development. The County will explore land banking for areas where revitalization through infill development is not likely to be achieved in the foreseeable future.

D. Promote Accessible and Visitable Housing in Communities with Desirable Amenities

More accessible and visitable housing choices are needed in Allegheny County. Although universal accessibility is covered in the building code, visitability standards are not as clearly addressed.

The rapid increase of ‘visitability’ legislation in the United States in recent years demonstrates a growing awareness of the need for housing with specific features that allow easy, safe and convenient access by any individual with a mobility impairment. Access to visitable homes is limited to the main floor or habitable grade level of new single-family homes, duplexes or triplexes. ‘Visitability’ focuses on accommodations that a guest would utilize, such as the entrance to a home and first-floor hallways, rather than on features used by residents of the dwelling.

According to the U.S. Department of Housing and Urban Development, “Housing that is ‘visitable’ has a very basic level of accessibility that enables persons with disabilities to visit friends, relatives, and neighbors in their homes...”

The County will develop policies to address visitability issues in future County-assisted affordable housing projects. Municipalities can similarly require, through an ordinance, that developers provide a percentage of visitable units in residential projects.

E. Promote the Use of Green Building Techniques and Energy Efficient Housing Design

The U.S. Green Building Council (USGBC) is developing a program, LEED (Leadership in Energy

and Environmental Design) for Homes, which will have a rating system for environmentally friendly homes. The benefits of a LEED-certified home include lower energy and water bills, reduced greenhouse gas emissions, and less exposure to mold, mildew and other indoor toxins. While the upfront cost of construction may be slightly higher than for a conventional home, the net cost of owning a LEED home is comparable or even lower.

For housing in which Allegheny County has involvement, developers and contractors are currently encouraged to apply for Energy Star certification. The County will encourage use of the LEED for Homes guidelines as well.

The County supports energy and resource efficiency, waste reduction and pollution prevention practices, indoor air quality standards, and other environmental initiatives for both new construction and existing

Table 4D.2 – Recommended Housing by Type of Place

DESCRIPTION OF HOUSING		
PLACES	Airport-Industry	Not planned in these Places. Infill housing in nearby residential areas can help meet workforce needs. Zoning to ensure that infill housing is within reach of all potential future workers is encouraged.
	Core	Downtown Pittsburgh and Oakland are targeted for housing to foster a ‘24-hour’ downtown environment, and support retail and commercial development. High-density housing is expected. Adaptive reuse of existing structures is encouraged.
	Corridor	Targeted for mixed-income housing to provide more housing choices close to employment centers. Zoning to ensure that housing is within reach of all potential future workers is encouraged.
	Neighborhood	Primarily infill housing. The unique character and history of the community will guide community revitalization efforts. Demolition of unsound structures will provide opportunities for new and redevelopment in some areas. The overall density of development will be high.
	Community Downtown	Similar to Urban Neighborhoods, but not as dense and with more housing located in mixed-use buildings.
	Village	Similar to Community Downtowns, but at a much lower density.
	Rural	Housing in these Places will be predominately lower density, new single family housing.



buildings. The County will continue to work with local groups, such as Sustainable Pittsburgh and the Green Building Alliance, to market the importance of green building to area residents, business owners and developers.

F. Support Measures to Reduce Foreclosures

Predatory lending practices are an obstacle to home ownership, especially in low-income areas. The County supports outreach efforts to educate consumers about predatory loans and mortgages. The County will also continue to educate consumers about its and other public agencies’ home ownership programs for low- and moderate-income persons.

PARKS, OPEN SPACE AND GREENWAYS PLAN

■ TODAY'S CONDITIONS

Across the nation, easy access to parks and open space has become a new measure of community wealth – an important way to attract businesses and residents by guaranteeing both healthy communities and economic health. Recent research indicates that the health outcomes of individuals are determined to a large degree by the environments in which they live. According to the Center for Healthy Communities, environmental factors unrelated to the health care delivery system – like air and water quality and access to parks and recreation – are vital to a healthy life. Businesses are free to shop for an appealing location and today, according to the Trust for Public Land, prefer communities with a high quality of life, including an abundance of open space, nearby recreation and pedestrian-friendly neighborhoods.

Parks, open space and greenways provide a variety of benefits that contribute to livable communities including economic, environmental, recreational, educational and health benefits.

THE BENEFITS OF OPEN SPACE

According to the *1995 Allegheny County Greenways Plan*, parks, open space and greenways provide a variety of benefits that contribute to livable communities. Some of these benefits include:

- **Economic benefits** – attracting and retaining businesses, increasing property values by making communities more desirable, enhancing place identity, and reducing public costs through better management of natural events such as flooding.
- **Environmental benefits** – protecting natural areas, protecting and improving water quality, improving air quality, reducing flooding and related stormwater damage, and protecting wildlife corridors that link habitats.
- **Recreational and transportation benefits** – providing opportunities for rails-to-trails, commuter bikeways, and riverfront development, and enhancing road and highway corridors.

- **Educational benefits** – providing outdoor classrooms for children and adults.
- **Health benefits** – increasing opportunities for exercise and reducing stress.

DEFINITIONS

The following definitions are provided for the purposes of this Plan. Some types of facilities, such as trails, may fit more than one definition.

Conservation Areas: open spaces, primarily undeveloped land, that have the specific purpose of protecting natural resources.

DCNR: the Pennsylvania Department of Conservation and Natural Resources.

Greenways: corridors of open space that serve to link natural resource-based or manmade features. Greenways may incorporate both public and private property and be either land- or water-based. Greenway corridors often follow abandoned railways, canals, ridge tops, rivers and stream valleys. Greenways can have many functions:

- **Conservation Greenways:** unimproved corridors primarily intended for natural resource protection.
- **Major Greenway Corridors:** long-distance corridors (at least 50 miles long) that pass through two or more counties and are recognized in official planning documents by counties. They represent the major “arteries” of the developing statewide greenway system.
- **Mega Greenways:** greenways of one hundred miles or more, with a completed plan.
- **Recreational Greenways:** corridors that accommodate hiking trails or bikeways, water trails and multi-use trails.

Greenways Network: a linked system of greenways and hubs of specifically identified natural resources or open space and manmade features or destinations that influence the development of the linear greenway corridor.



Heritage Park Regions: specifically-designated portions of the state that implement a regional strategy for promoting Pennsylvania's rich industrial and cultural heritage to stimulate community revitalization and economic development.

"Livable" Communities: communities that offer a wide range of recreation and transportation alternatives, including bicycling and walking, and have a unique character defined by natural and/or cultural features. Places are intended to be livable communities.

Open Spaces: areas of natural quality, either publicly- or privately-owned, designated for the protection of natural resources, nature-oriented outdoor recreation or trail-related activities.

Parks: areas, usually publicly-owned, set aside for recreation and relaxation.

- **Regional:** a "destination" recreation facility, usually large in size, that people will drive long distances to get to because of the amenities or the events located there. These parks are usually 200 acres or more in size, but can be less if it has state or national significance.
- **Community:** a destination facility on a smaller scale than a regional park that contains at least 1 'Community Significant Feature' (see page 4E-6 for complete list).
- **Special Use:** a destination facility that has a unique feature or attraction.
- **Linear:** usually a greenway or trail that follows a waterway, abandoned railroad corridor, or ridge line, and is longer than it is wide.
- **Municipal:** parks owned by municipalities that do not include a Community-Significant Feature.
- **Park Node:** a small pocket park that primarily serves one residential, commercial, or office development.

Trails:

- **Bikeways:** off-road bicycle trails and dedicated bike lanes along roads.

■ **Millennium Trails:** a national initiative of the White House Millennium Council, in partnership with the *Department of Transportation, Rail-to-Trails Conservancy*, the *American Hiking Society*, and the *National Endowment for the Arts*, that recognize, promote and stimulate the creation of trails to "Honor the Past and Imagine the Future" as part of America's legacy for the year 2000. There are three levels of Millennium Trails:

- (1) 16 National Millennium Trails;
- (2) 52 Millennium Legacy Trails (State Level); and
- (3) 2,000 Community Millennium Trails.

■ **Multi-use Trails:** greenways designed for recreational purposes that accommodate more than one type of use (e.g. horseback riding, hiking, bicycling, etc.)

■ **Rail-Trails:** former railroad corridors converted to trails.

■ **Water Trails:** a recreational waterway on a lake, river, or ocean between specific points, containing access points, and day use and/or camping sites for the boating public (North American Water Trail Association).

Allegheny County is fortunate to have an extensive network of parks, open spaces, conservation areas, trails and greenways, as shown on Maps 4E.1a through 4E.1d.

Table 4E.1 establishes classification standards for each type of park. The standards were developed for Allegheny County because the National Recreation and Parks Association (NRPA) standards do not fit this topographically complex and primarily urban county with 130 municipalities very well. Allegheny County has 718 municipal parks, 125 community parks, and 16 regional parks, for a total of 859 parks encompassing approximately 26,900 acres. According to NRPA standards, Allegheny County as a whole has more than 3 times the recommended park acreage per capita. Yet when the NRPA standard is applied to an individual municipality, it may show a much higher or lower ratio of park acres per capita.

The distance between population centers and parks, usually measured as a radius centered on the park, is also often used as a way to assess the need for new or additional park and recreation facilities. However, in Allegheny County, the effect of geography on road systems means there is often a major difference between "crow-fly" miles and miles traveled. The

Table 4E.1 – Park Definitions and Classification Standards for Allegheny County

PARK STANDARDS				
Classification	Definition	Minimum Size Criteria	Service Radius/Area	Examples
REGIONAL PARK	A destination facility, usually large in size, that people will drive long distances to get to because of the amenities or events located there.	Usually 200 acres, but can be less if it has state or national significance	20 Miles/Allegheny County and surrounding areas	Point State Park, Hartwood Acres Park
COMMUNITY PARK	A destination facility on a smaller scale than a regional park that contains at least 1 significant feature. *	NA	3 miles/Multi-municipal	Boyce/Mayview Park
SPECIAL USE PARK	A destination facility that has a unique feature or attraction.	NA	15 miles/County-wide	Renziehausen Park, Round Hill Park, Allegheny Islands State Park
LINEAR PARK	Usually a greenway or trail that follows a waterway, abandoned railroad corridor, or ridge line, and is longer than it is wide.	NA	Dependent on length and presence of trails	Three Rivers Park
MUNICIPAL PARK	Parks owned by municipalities that do not include a Community-Significant Feature.	NA	1 mile/Primarily local residents	Twin Hills Park
PARK NODE	A small pocket park that primarily serves one residential, office or commercial development.	NA	0.5 mile/Occupants of the development	Tot Lots, Plazas, Open Space

* A list of Community Significant Features can be found on page 4E-6.

Please note some exceptions may apply to the standards above.

park standards developed for Allegheny County therefore consider service areas as more significant than distances. The more facilities a park contains or the more unique it is, the larger its service area is likely to be.

Service areas also provide a rationale for multi-municipal park and recreation planning. Multi-municipal park and recreation planning is especially important, as there are many municipalities, including the County itself, that struggle to afford basic maintenance and upkeep of existing parks.

REGIONAL PARKS

Allegheny County's regional parks are described below. All are considered to be destination parks. Most of the County's regional parks are at least 200 acres in size. One exception to the above size criteria for Regional Parks is Point State Park. It is considered a Regional Park due to the events held at the park, its location in downtown Pittsburgh, and the fact that it is owned by the State.

State Owned

There are two regional, State-owned parks in the County:

- Point State Park is located at the tip of Pittsburgh's "Golden Triangle". This 36-acre park is a National Historic Landmark that commemorates and preserves the strategic and historic heritage of the area during the French and Indian War. The Fort Pitt Museum, the Fort Pitt Blockhouse and many plaques interpret the history and significance of the area. The park is managed and maintained by the City of Pittsburgh and is the annual site of several regional special events. Point State Park is undergoing significant renovations in honor of Pittsburgh's 250th birthday. The phased construction began in 2006 and is expected to continue through 2009. For more information see <http://www.pointstatepark.com/about/>.
- State Game Land, # 203 is located in Marshall Township and Franklin Park Borough. It preserves some 1,246 acres of open space in the northwest corner of the County. State Game Lands were established to manage and preserve wildlife habitats in Pennsylvania. Game lands permit lawful hunting and trapping during open seasons. Compatible recreation, such as hiking, is also permitted.



Photo credit: McCormick Taylor

County Parks

The Allegheny County Park system consists of nine parks comprising over 12,000 acres. The parks are enjoyed by more than 11 million visitors annually. Each County Park has evolved around a signature feature, as described in Table 4E.2.

The County's Park System is managed by the Allegheny County Parks Department, with a full-time staff of 24 and a seasonal workforce of nearly 340. Park maintenance and capital projects are performed by the Public Works Department, with an additional full-time staff of nearly 120 dedicated to these purposes.

City of Pittsburgh Parks

In addition to numerous neighborhood and community parks, the City of Pittsburgh has five regional parks:

- **Frick Park** – The largest of the City's four parks, Frick Park's 600 acres encompasses steep valleys and wooded slopes. In addition to an extensive trail system, park amenities include the Frick Art & Historical Center, educational programming by the Frick Environmental Center, Blue Slide Playground, the Frick Gatehouse, red clay tennis courts and a bowling green.
- **Highland Park** – The walkway encircling a historic reservoir is one of many popular features of this East End park, which also includes the City's only long-course swimming pool and the Washington Boulevard

Cycling Track. Other highlights of the 380-acre park are the Pittsburgh Zoo and PPG Aquarium, Lake Carnegie, sand volleyball courts, a 'super playground', trails, picnic shelters and tennis courts.



Photo credit: McCormick Taylor

- **Riverview Park** – This 287-acre park is nestled between several neighborhoods just north of Downtown Pittsburgh. The park's extensive network of trails serves as a popular destination for hikers, joggers and horseback riders. Other highlights include the landmark Allegheny Observatory, swimming pool, ball fields and picnic shelters, and a 'space age' playground located near the observatory.
- **Schenley Park** – Situated in the heart of Oakland, the 420-acre park has a visitor center, swimming pool, ice skating rink, and plenty of open space for playing sports. Schenley Plaza is a recently renovated addition between the Carnegie Library and the University of Pittsburgh's Hillman Library. The plaza includes a carousel and a large music tent. Phipps Conservatory, a newly-expanded, world class, LEED-certified conservatory, is also located here. The Vintage Grand Prix is an annual event that draws car enthusiasts from all over the world.
- **The Grand View Scenic Byway Park (GVSBP)** – Created in December 2005 by a unanimous vote of the Pittsburgh City Council, and declared Pittsburgh's Fifth Regional Park in April 2007. The u-shaped Park includes a Pennsylvania State Scenic Byway, as well as nearly 240 acres of open space, playing fields, trails, and other recreational amenities that wrap across three Pittsburgh neighborhoods – Allentown, Mount

Table 4E.2 – County Park Facilities

PARK	ACRES	LOCATION	THEMES AND MAIN FEATURES
Boyce	1,096	Municipality of Monroeville, Plum Borough	The County's first regional park, named for founder of the Boy Scouts, William D. Boyce. Only location for downhill skiing in County. Ski lodge; wave pool; action park (bikes, blades & boards).
Deer Lakes	1,180	Frazier & West Deer townships	Fishing in 3 spring-fed, man-made lakes stocked by state fisheries; observatory, disc golf.
Harrison Hills	500	Harrison Township	Watts Memorial Overlook of the Allegheny River Valley, birding area (mid-Atlantic flyway).
Hartwood	629	Hampton & Indiana townships	Stately Tudor mansion (circa 1929), cottage, stable complex and gate lodge, outdoor amphitheater.
North Park	3,075	Hampton, McCandless & Pine townships	Largest of County Parks, it includes 114 picnic shelters, 8 rental buildings, 18-hole golf course, 75-acre lake with boathouse, ice skating rink, big swimming pool.
Round Hill	1,101	Elizabeth Township	Exhibit Farm, where visitors can experience a 'day on the farm'.
Settler's Cabin	1,610	Collier, North Fayette & Robinson townships	Along with namesake log cabin, park has both wave and diving pools. A 452-acre botanical garden is planned.
South Park	2,013	Municipality of Bethel Park & South Park Township	The most developed of the County Parks. Oliver Miller Homestead; 9- and 18-hole golf courses; horse show ring; buffalo herd; BMX track; indoor theater; outdoor amphitheater; wave pool; ice skating rink.
White Oak	810	White Oak Borough	Gardens abound at this park, including the Angora Gardens, Allegheny County Gardens and the Wedding Garden.
Total Park Acreage	12,014		

Washington and Duquesne Heights. The GVSBP includes one of the top tourist destinations in the region with over 1 million people coming each year to enjoy the views from the Park's northern face. The GVSBP is

a model for urban sustainable development, protecting fragile hillsides and urban wildlife habitats, and providing efficient storm water management and air quality protection.



COMMUNITY AND MUNICIPAL PARKS

Allegheny County's 130 municipalities provide local residents with a variety of recreational opportunities. Municipal parks range from larger parks that have both active and passive recreation and hold community events to small "tot lots" that act as the neighborhood back yard. Amenities offered through the municipal park and recreation system cover a broad spectrum of activities and serve a diversity of needs.

The level of need differs from municipality to municipality as does the current condition of municipal parks, which ranges from excellent to substandard. While some municipalities have a healthy tax base and are proactive in addressing recreational needs, others are struggling and have fallen behind, even on the routine maintenance of existing facilities.

In 2006, a municipal survey of parks was done for *Allegheny Places* to inventory and classify parks by size and their facilities, and to map their locations.

Parks were classified in three broad categories: community, municipal, and regional. Community parks were identified as those that had at least one special feature, as defined below.

Community Significant Features:

- Amphitheater Present
- Baseball/Softball Fields (with 4 or more fields)
- Small Stadium – Open to Public
- Boating Access
- Campground
- Recreation Center (Minimum of 30,000 sq. feet; could include one or more: pool, classroom, fitness center.)
- Disc Golf Course
- Fenced Dog Park
- Golf Course
- Ice Rink
- Picnic Pavilion (4 or more)
- Pavilion with Amenities (All-weather, kitchen, etc.)
- Pond/Lake
- Skate Park
- Soccer/Hockey Facility (4 or more)
- Designated Swimming Beach
- Swimming Pool
- Tennis Courts (6 or more)
- Nature/Environmental Centers

- Trails (Multi-municipal, 10 miles +, or part of existing trail)
- Motorized Access
- Equestrian Facility
- Mountain Bike/Hiking (Greater than 5 miles/not to include Rail Trails)
- Hunting/Fishing Access

The 125 municipalities that responded to the survey reported 125 community parks, 718 municipal parks and 16 regional parks, for a total of 859 parks encompassing approximately 26,900 acres. Park information is missing from those municipalities that did not respond to the survey.

The survey also asked for the following information:

- Number of Municipalities with Recreation Department Staff 25
- Total Number of Recreation Department Staff 65
- Number of Municipalities with Commission/Advisory Board 73
- Number of Municipalities with Recreation Comprehensive Plans 39

More survey results are included in the Supporting Documents.

Special Use Parks

Special Use Parks are considered to be destination parks because they have a unique feature or attraction. Special Use Parks can be owned by municipalities, the County, or the State. For example:

- **Renziehausen Park** in the City of McKeesport contains the **Arboretum Rose Garden**, the second largest rose garden in Pennsylvania (the garden at Hershey being the largest). There are currently more than 1,200 varieties of roses grown in the 3.5 acre park.
- **Round Hill Park**, one of the County's 9 Regional Parks, is an 'Exhibit Farm' where visitors can experience a sense of farm life. Located in Elizabeth Township, the Farm is open year-round and includes 17 picnic shelters.
- **Allegheny Islands State Park** is in the Allegheny River, offshore of Harmar Township in northeastern Pittsburgh. It consists of three islands totaling 43 acres.

The park is undeveloped and there are no public facilities. Group camping is permitted.

Linear Parks

Linear Parks are usually a greenway or trail that follows a waterway, abandoned railroad corridor, or ridge line, and is longer than it is wide. Existing and proposed Linear Parks are described in the Greenways Section below – see Mega Greenways, Allegheny County Riverfront Project, and Three Rivers Heritage Trail and Park.

GREENWAYS

Greenways are extremely important to Pennsylvania residents as well as to state agencies, such as the Department of Conservation and Natural Resources (DCNR). In 2001 Pennsylvania published *Pennsylvania Greenways: An Action Plan for Creating Connections*. This document established a vision for the creation of a greenway network throughout Pennsylvania, which would enhance recreation and tourism opportunities.

An interconnected network of open space along streams, rivers and ridge lines will form the backbone of the *Allegheny Places* Greenways Network. The network is working to connect municipalities and Places designated on the Future Land Use map to parks, recreation, cultural and economic centers.

The Parks, Open Space and Greenways Resource Panel established the following guidelines for the Greenways Network:

- Linear systems that connect people, places and parks, and focus on one or more of these characteristics:
 - **Environmental** – largely undisturbed; typically along riparian ways; and primarily for the benefit of wildlife, plant life and natural systems
 - **Cultural** – more developed; may be as narrow as a trail or as large as a regional park
 - **Viewsheets** – largely undisturbed; typically vegetated hillsides or ridge tops

- Located along both sides of the Ohio, Monongahela, Allegheny and Youghiogheny Rivers, and their major tributaries
- Lands meeting certain environmental criteria (such as steep slopes, woodlands, landslide-prone soils, wetlands and floodplains)
- Connect to the many municipalities and communities, providing access to the greenways systems
- Connect to the greenways of surrounding counties
- Connect to Places identified on the Future Land Use map
- Connect to the PA Greenways Network, which includes systems that are regional

To further define the guidelines, the County used GIS technology to identify the following:

- 40% steep slopes
- 25% steep slopes within woodlands of 10 acres or more
- 15% steep slopes within both landslide-prone soils and woodlands of 10 acres or more
- Conservation stream corridors* with a minimum 50-ft. buffer (updated from the 1995 Conservation Corridor Plan)
- Forested floodplains
- Wetlands of 1 acre or more with a 50-ft. buffer
- River frontage (buffered by a minimum of 100 ft.)
- Protected land – land trust properties and agricultural easement areas
- Parks – regional, state, community, and municipal parks (12+ acres)
- Pittsburgh Greenways
- Public golf courses

* Revised Conservation Stream corridors include “high” and “medium” priority corridors identified in the 1995 *Conservation Corridor Plan*, as well as streams that are adjacent to forested floodplains and steep slopes, as defined above.

Connections to ‘Places’ are made through conservation stream corridors and trails, if not already connected through the criteria listed above.

Additional work was done by the Allegheny Land Trust (ALT) to develop a GREENPRINT of the County. The GREENPRINT used the technology of GIS to specifically identify priority conservation areas, including biological diversity, water



management, and landscape character (See page 4E-17 for more detail). The ALT GREENPRINT is incorporated into the Greenways Network.

MEGA GREENWAYS

DCNR has identified 34 major or mega greenway corridors that are at least 50 miles, pass through two or more counties, and are recognized in an official planning document. Five of these mega greenways have been targeted by DCNR for increased funding and staff assistance. Two of the five pass through Allegheny County: the Great Allegheny Passage and the Pittsburgh to Harrisburg Mainline Canal. The Erie to Pittsburgh Greenway also has a good chance of being

included in this group due to its strategic location and the number of residents and communities it can join together.

The Great Allegheny Passage

The Great Allegheny Passage (GAP), Figure 4E.1, is a 152-mile bicycle and walking trail connecting Cumberland, Maryland with Pittsburgh, Pennsylvania. In Cumberland, the trail links with the C & O Canal Towpath, creating a continuous trail from Pittsburgh to Washington, DC. The GAP is designated as a National Recreation Trail and is a segment of the Potomac Heritage National Scenic Trail. For a map of the entire trail see www.atatrail.org.



Figure 4E.1 – The Great Allegheny Passage

Source: Allegheny Trail Alliance

DCNR's highest priority for greenways funding in western Pennsylvania is the completion of a nine-mile section of the GAP from McKeesport to the City of Pittsburgh, which will complete the GAP from Pittsburgh to Cumberland, MD. Within the nine-mile section, there are 28 different properties involved. As of August 2008, easements and acquisitions of 27 properties are underway, but there is one property that does not have a resolution. In addition to acquiring easements and ownership of property, the Allegheny Trail Alliance is constructing two new bridges to cross over active railroad tracks. The retrofitting of the Riverton Bridge, connecting McKeesport to Duquesne, is also underway. The Riverton Bridge was donated to the County by the US Steel Corporation. The nine-mile section, with the exception of one property gap, is expected to be completed by late 2009.

The GAP is being built by the Allegheny Trail Alliance (ATA), a coalition of seven rails-to-trails organizations. The ATA member trail organizations are:

- Allegheny Highlands Trail of Maryland (from Cumberland to the Mason-Dixon Line)
- Allegheny Highlands Trail of Pennsylvania (from the Mason-Dixon Line to Confluence)
- Youghiogheny River Trail South (from Confluence to Connellsville)
- Youghiogheny River Trail North (from Connellsville to McKeesport)
- Steel Valley Trail (from Clairton to Homestead)
- Three Rivers Heritage Trail (from Homestead to Pittsburgh)
- Montour Trail Council – this trail is not part of the GAP, but the organization is a member of the Allegheny Trail Alliance

Pittsburgh-to-Harrisburg Mainline Canal Greenway™

The Pittsburgh-to-Harrisburg Mainline Canal Greenway™, Figure 4E.2, is a 320-mile long corridor that follows the path of the historic Pennsylvania Mainline Canal. The section of the greenway in Allegheny County runs from Pittsburgh to Freeport, along the Allegheny River. This greenway has been designated Pennsylvania's Millennium Legacy Trail – one of 52 state significant trails that link heritage, culture and recreation. The Pittsburgh-to-Harrisburg Mainline Canal Greenway™ will encompass both land and river trails to complete the corridor connections. For a map of the entire trail see www.alleghenyridge.org.

Erie to Pittsburgh Mega Greenway

DCNR's second priority for greenways funding in western Pennsylvania is the Erie to Pittsburgh Greenway, a recently designated greenway in the PA Greenways Program. The Erie to Pittsburgh Greenway incorporates trail systems both built and planned along the Allegheny River, and overlaps the Pittsburgh to Harrisburg Mainline Canal Greenway™ within Allegheny County's borders. Trail organizations from Pittsburgh to Erie are working to connect a number of land trails to it.

The concept for the Erie to Pittsburgh Greenway emerged from local communities and trail organizations. The success of other community and regional trails built in the western part of the Commonwealth over the years provided good models for the Erie to Pittsburgh Greenway. With trails such as the Three Rivers Heritage Trail, Armstrong Trail, Allegheny River Trail, McClintock Trail, Oil Creek Gorge Trail, Ernst Trail, Pymatuning Spillway Trail, and many others, the Erie to Pittsburgh Greenway can unify the Western Pennsylvania Trail Network. This potential mega greenway will enhance the existing trail system, give it a regional identity, make additional connections, raise the visibility of individual trail projects in the region and elevate the value of recreational resources in local communities. Once the Erie to Pittsburgh regional trail system is completed, it can then connect to The Great Allegheny Passage, linking Erie to Washington, DC.

Adjacent County Greenways

Three adjacent counties have current Greenway Plans: Beaver, Washington and Westmoreland. The *Allegheny Places* greenways plan includes and proposes connections to the following trails and greenways:

- **Beaver County** – Bike Route A and the Proposed Raccoon Park Trail
- **Washington County** – Arrowhead Trail, Bike Route A, Monongahela River Trail, Montour Trail and the Panhandle Trail
- **Westmoreland County** – The proposed Allegheny River Trail, Plum Creek Trail, the proposed Westmoreland Heritage Trail and the Youghiogheny River Trail

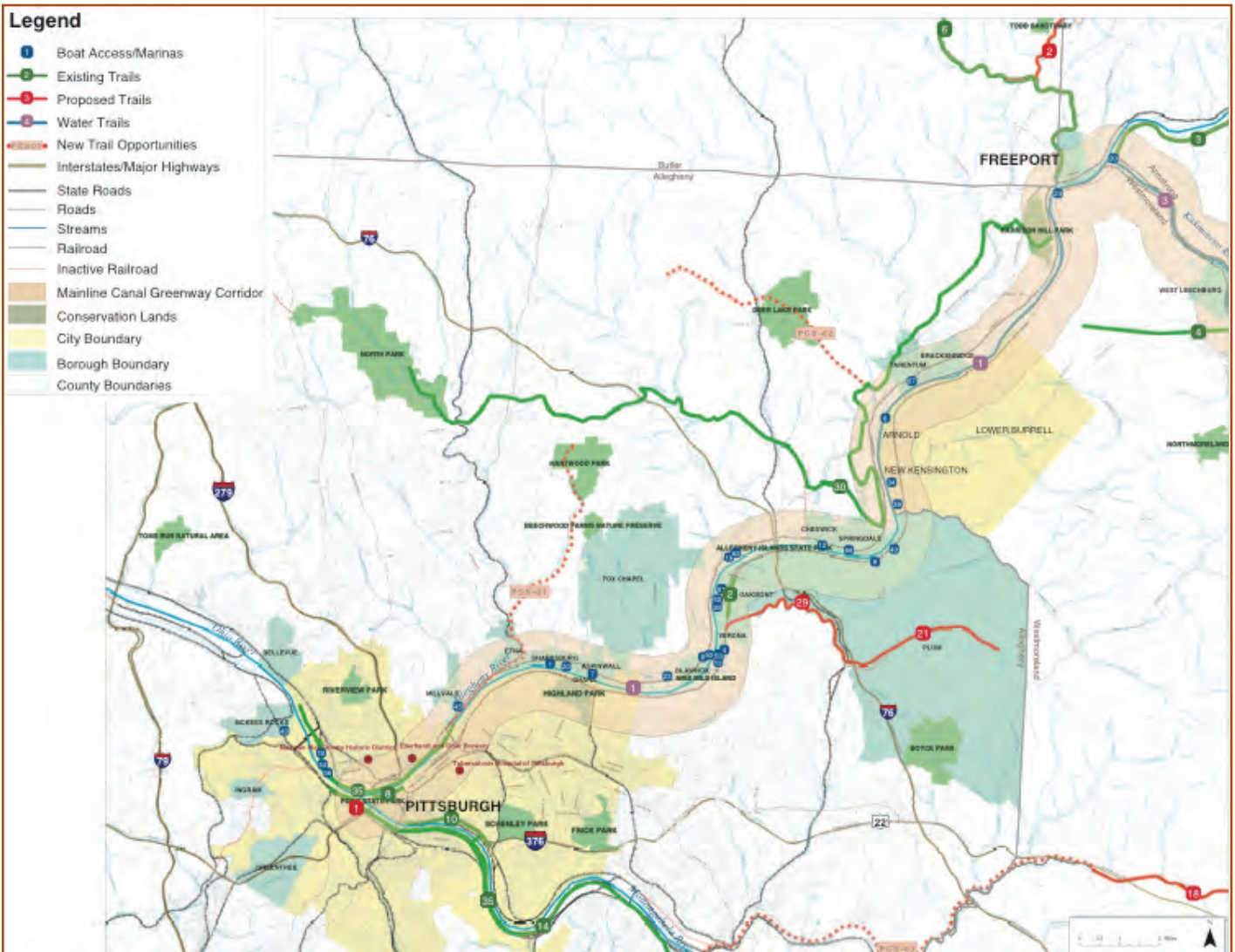


Figure 4E.2 – Pittsburgh-to-Harrisburg Mainline Canal Greenway

Source: Allegheny Ridge Corporation

LOCAL RECREATIONAL AND CONSERVATION GREENWAYS

Other notable greenways in Allegheny County, with a renewed emphasis on riverfront projects, are in various stages of development.

Allegheny County Riverfronts Project

The Allegheny County Riverfronts Projects is a collaboration between Allegheny County, Friends of the Riverfront, and the



Photo credit: McCormick Taylor

Pennsylvania Environmental Council. The Riverfronts Project's mission is to provide overall planning and coordination for the development of on-land greenways and trails along the County's four major rivers. The Riverfronts Project builds on the work of the region's many trail organizations, and coordinates the implementation of recreation, conservation, and access components of new trail and greenway segments. Through the Riverfronts Project, multi-municipal collaboration is taking place with local governments, nonprofit organizations, residents and other stakeholders to implement specific trail projects along the riverfronts.

Three Rivers Heritage Trail

The Three Rivers Heritage Trail is a bicycle and pedestrian trail and greenway system along the riverfronts around the City of Pittsburgh. Currently, 22 miles of a planned 37-mile route have been completed. This trail system includes the trails throughout Three Rivers Park within the City, and extends into County communities that follow the Allegheny, Monongahela and Ohio Rivers. It provides a route for cyclists, walkers, runners and, in some places, in-line skaters.



Photo credit: McCormick Taylor

Three Rivers Park follows the route of the Three Rivers Heritage Trail. It is a system of trails, walkways, bridges and green spaces that together will comprise a single, grand public space known as Three Rivers Park. The designated Park area is between the West End Bridge on the Ohio River, the 31st Street Bridge on the Allegheny River and the Hot Metal Bridge on the Monongahela River. It will link more than ten miles of public and private riverfront property including bridges, shorelines and adjacent development in a continuous, accessible waterfront park system.

TRAILS AND BIKEWAYS

There are a number of active trail organizations within Allegheny County, and trail systems are continually growing (see Map 4E.3). These are the main organizations:

- Allegheny Trail Alliance – a coalition of seven trails-to-trails organizations dedicated to completing the Great Allegheny Passage (GAP)
- Friends of the Riverfront
- Pennsylvania Environmental Council
- Allegheny County
- Community Trails Initiative – a coalition of 17 riverfront municipalities from Millvale through Natrona, the Friends of the Riverfront, Pennsylvania Environmental Council and Allegheny County.

Other County Trails

Other notable recreation trails in Allegheny County in various stages of development are:

- **Rachel Carson Trail** – a 35.7-mile long hiking trail that extends from Harrison Hills County Park to North Park. Although the physical trail exists, it is not protected by public easements or rights-of-way.



Photo credit: McCormick Taylor



- **Panhandle Trail** – formerly the Panhandle Railroad Line, it spans 29 miles from Walkers Mill in Collier Township to Weirton, West Virginia. Nearly seven miles of the trail are located in Allegheny County. The Panhandle Trail connects to the Montour Trail in Washington County at McDonald.
- **Montour Trail** – The Montour Trail is a multi-use rail-trail that will extend 52 miles from Coraopolis to Clairton, with a segment to Allegheny County Airport. Multiple sections of the trail totaling over 40 miles have been completed to date. Construction of a 2.5-mile trail section is scheduled to be completed in the fall of 2008. Remaining sections of the trail all require bridges.

Bikeways

Bikeways are routes designated for bicycle use. These may be exclusive bike lanes on roads or shared pathways, with pedestrians and other users, on trails.

- Bike Route A
- Coraopolis Bikeway
- Monroeville Bikeway
- North Hills Bikeway
- Ohio River Bikeway
- Proposed Pittsburgh Bikeway System

Some bikeways and trails include an 'active transportation' component, where a bicyclist/pedestrian/kayaker/etc. can travel from one destination to another. This differs from recreation trails that do not link two or more destinations. Pittsburgh's Bikeway Plan identifies proposed "complete streets" that can safely accommodate both bicycles and cars with improvements and/or signage. See the Bicycle and Pedestrian Section of the Transportation Element for more information (page 4I-41).

Water Trails

Water trails are another mode of travel and recreation in our region. Water trails are designed to provide safe non-motorized boat launches and easy shore access, maintain and respect the environment's natural character, and promote responsible use of our rivers. Water trails also:

- Improve docking facilities for both motorized and non-motorized boaters
- Provide opportunities for short-term access to communities and neighborhoods
- Connect communities
- Allow boaters a brief or long respite – an escape from the urban to natural environment, a renewal of body and mind

Water trails encourage low-impact use of the region's waterways and foster a strong sense of stewardship of the riverine environment.

- **Three Rivers Water Trail** – Just as the Allegheny County Riverfronts Project involves on-land trails and greenways along the four rivers in Allegheny County, the Three Rivers Water Trail involves all four rivers. The project is being coordinated by Friends of the Riverfront in conjunction with the Pennsylvania Fish and Boat Commission, which has the authority to designate Official Pennsylvania Water Trails. The Allegheny and Youghiogheny Rivers have an official water trail designation. Water trails planned along the Ohio and Monongahela Rivers are in the process of being officially designated. A challenge to small watercraft travel on these two rivers is the amount of barge traffic.

RIVERFRONT ACCESS

Allegheny County has an abundance of river frontage – approximately 185 miles, including island frontage. Of Allegheny County's 130 municipalities, 73 border on one of the four rivers. Because of the region's steel industry heritage, over 45% of all river frontage is currently zoned for industrial use. In addition, Allegheny County has the second largest inland port in the country and relies heavily on river barge transportation. Planning for the redevelopment and development of the riverfront for greenways, trails, parks and other recreation and conservation uses must take into consideration other active uses of the four rivers.

■ ISSUES AND ANALYSIS

This section examines what can be done to ensure that all residents can enjoy the many natural and recreational amenities that the County has to offer.

KEY CHALLENGES

In developing the Parks, Open Space and Greenways Plan, the Parks, Recreation, Open Space and Greenways Resource Panel helped to identify these key challenges:

- Lack of access to regional parks for people dependent on public transportation
- Lack of connectivity between the County's parks, trails, and greenways
- Lack of funding to maintain and improve the County Park system
- Inequities between municipal parks and the need for multi-municipal planning
- Lack of funding to expand the Greenways Network
- Lack of public access to riverfronts

The following provides an understanding of these issues.

LACK OF ACCESS TO REGIONAL PARKS FOR PEOPLE DEPENDENT ON PUBLIC TRANSPORTATION

Some people face barriers that prevent access to recreation opportunities. For some it's a lack of awareness of facilities and programs available in the regional parks. For others who depend on public transportation, transit service to County Parks is currently limited. Students, the elderly and low-income residents, therefore, may not be able to take advantage of the recreational and social opportunities that the parks offer.

To equitably provide for the recreation needs of all residents, convenient access to regional recreation resources should be provided. Access in this context has two distinct meanings:

- The ability to get to and around in regional parks using public transportation
- Wheelchair accessibility to the facilities found within regional parks

Currently, there is limited public transportation to only three County Parks: North Park, Settlers Cabin, and South Park during the summer season, with a bus stop at each swimming pool.

The four regional parks in the City of Pittsburgh are all accessible by public transit. However, neither the Pittsburgh Parks and Recreation website (www.city.pittsburgh.pa.us/parks) nor the Pittsburgh Parks Conservancy website (www.pittsburghparks.org) provides information on how to access the parks by public transit. As with the County Parks website, the Pittsburgh Parks Conservancy's website provides only driving directions to the parks.

Inconvenient transportation is a hurdle that some residents must overcome to enjoy many regional park facilities. Physical barriers to participation also exist for people with disabilities. The 2002 Parks Comprehensive Master Plan stated that "close to three-quarters of county park facilities lack adequate access to persons with disabilities....In many cases, relatively low-cost measures, such as installation of a stable, firm, and slip resistant surface from the point of access (parking lot) to the facility (e.g. picnic shelter), would make the facility accessible."



Photo credit: Bernadette E. Kazmarski

LACK OF CONNECTIVITY BETWEEN THE COUNTY'S PARKS, TRAILS, AND GREENWAYS

The goal of the PA Greenways Program is to establish an interconnected network of greenways. The greenways network in Allegheny County incorporates a number of County and regional parks, regional trail systems and



conservation corridors. These systems are not well connected, however. A number of notable gaps in the County's trail system have been identified that, when connected, would enhance the overall greenways network. A specific list of gaps in trails can be found in the Implementation Matrix on Page 5-48.

LACK OF FUNDING TO MAINTAIN AND IMPROVE THE COUNTY PARK SYSTEM

During the development of *Allegheny Places*, residents spoke of the importance of the County Parks system. All nine of the Allegheny County parks were cited as 'Favorite Places' by County residents. Both North Park and South Park made the top five Favorite Places. This underscores the need to maintain and improve park facilities so they may continue to provide the opportunities and services that County residents value.

Allegheny County operates nine public parks that span 12,000 acres and offer a wide array of sporting, leisure, cultural and entertainment opportunities. The parks are a tremendous asset, but also a very large maintenance responsibility for the County. The sub-standard conditions found in some of the parks and recreation facilities in the County Park System are the result of two primary issues: lack of available resources and the aging of physical facilities and other infrastructure.

Many park facilities and features in the County Park system have been in place for decades. Deferred maintenance has taken its toll. Many are now beyond repair and must be replaced. Also, much of the playground equipment installed in County Parks does not meet current safety standards. It is estimated in the Parks Master Plan (2002) that over \$50 million is needed for repairs in the parks and an additional \$50 million is needed for proposed new facilities.

Raising maintenance standards and addressing deferred maintenance needs will require the investment of additional resources, as will any of the new initiatives recommended in the *Comprehensive Parks Master Plan* and *Allegheny Places*. The Allegheny County Parks Action Plan was developed in 2007 to make recommendations to address the financial issues of the County Park System as outlined in the January 2002 Park Comprehensive Master Plan and the October 2002 Parks Transition Committee Report. The 2007 Parks Action Plan establishes a strategy for addressing the financial

crisis "...by utilizing private sector assistance programs, updating the fee and charge schedule every 3 to 5 years, establishing a foundation, and pursuing private and public grant funding.

INEQUITIES BETWEEN MUNICIPAL PARKS AND THE NEED FOR MULTI-MUNICIPAL PLANNING

A significant number of municipal parks and playgrounds, particularly in older communities, have deferred maintenance issues. Some municipal playgrounds have old equipment that needs to be replaced with equipment that meets current playground safety standards. Other municipalities have in their inventory facilities that have become functionally obsolete, as recreational interests have evolved over the years. Many municipalities have been replacing their play equipment and rehabilitating their underutilized facilities, such as old tennis courts, by converting them to more currently popular facilities such as skate parks, hockey courts or multi-use courts. However, there remains a considerable inventory of facilities and equipment that need to be improved or replaced and the funding available to do so is often inadequate.

Before creating a new municipal park or recreation area, it should be determined that the municipality involved has the capacity to sustain the facility financially and has the work force necessary to provide routine maintenance. If not, the municipality should partner with a neighboring community.

Multi-municipal planning and cooperation is a viable way that municipalities can expand, refurbish, or build new parks. Multi-Municipal Cooperation for Recreation and Parks (2006) is a DCNR publication that cites three primary reasons for multi-municipal cooperation:

- Interdependence
- Effectiveness
- Economies of Scale

The publication provides step-by-step guidelines for creating multi-municipal (regional) recreation agencies.

In addition to the reasons for multi-municipal cooperation already mentioned, communities can share resources such as funding, and more options can be provided, especially in smaller communities.

LACK OF FUNDING TO EXPAND THE GREENWAYS NETWORK

Just as there is a lack of local funding to maintain existing park facilities, so too is there a lack of available capital to expand the County's greenway network. Acquiring land for trails and conservation can be especially difficult because of patterns of ownership, costs and the need to negotiate easements.

The completion of the Great Allegheny Passage is the top priority for expanding the greenways network. The remaining gaps in the trail are all within Allegheny County. Funding is available to enable the completion of the remaining portions by 2009. Completion of the other two Mega Greenways, the Erie to Pittsburgh Greenway and the Pittsburgh-to-Harrisburg Mainline Canal Greenway™, will require significant financial resources.

LACK OF PUBLIC ACCESS TO RIVERFRONTS

Allegheny County has approximately 185 linear miles of riverfront, encompassing 73 municipalities. A comprehensive, multi-municipal approach is needed to manage, protect, and provide for recreational opportunities along the County's riverfronts that are currently subject to 73 different municipalities and zoning ordinances.

The Allegheny County Riverfronts Project is one approach to implementing a series of plans for a regional collaborative project. It has established an ongoing partnership between Allegheny County, Friends of the Riverfront and the Pennsylvania Environmental Council.

RECOMMENDATIONS

GOAL OF THE PLAN

A green network that provides a range of recreational opportunities, conserves sensitive and unique natural features, and is connected through parks, greenways and trails.

OBJECTIVES OF THE PLAN

The objectives of the Parks, Open Space and Greenways Plan are to:

- A.** Implement a strategy to establish greenways that provide connections between people, recreational facilities, cultural facilities, and other significant public areas.
- B.** Implement a strategy to establish greenways that encourage protection of bio-diverse areas, floodplains, steep slopes, forested areas, landslide-prone areas, riparian corridors and wildlife corridors.
- C.** Expand the parks and trails system to serve future populations.
- D.** Facilitate public access to riverfronts.
- E.** Ensure that regionally significant parks and trails are ADA compliant and transit accessible.
- F.** Raise public awareness of the benefits of greenways and open space.

The following provides an understanding of the objectives.

A. Implement a Strategy to Establish Greenways that Provide Connections between People, Recreational Facilities, Cultural Facilities and other Significant Public Areas

The Greenways Network will support the preservation of significant natural, cultural and landscape features across the County as well as provide necessary connections between people and recreational facilities. To expand the Greenways Network the County is exploring the following:

■ Establishing a Countywide Greenways Committee

The County will create a Greenways Committee to work closely with the County Parks and Recreation Department, the Allegheny County Parks Foundation (discussed later in this section under Objective C) and the County Planning Staff. This committee will coordinate County policy – established by the Chief Executive and County Council – and have



responsibility for County programs related to the protection of and enhancement to the countywide Greenways Network. The Greenways Committee can also coordinate the development of a comprehensive list of conservation priorities.

The Chief Executive, with input from the Parks Director, will appoint the members of this committee as they will report directly to the Parks Director. This committee should also coordinate, whenever possible, with the numerous other groups undertaking parks, recreation, trails and greenway projects in the County. Once the Greenways Committee is established and underway, the County will explore funding options through DCNR to hire a Greenways Coordinator.

■ **Implementing the Greenways Network**

A primary responsibility of the Greenways Committee will be to oversee the implementation of the Greenways Network. Implementation of the network will mean follow-up work, including analyzing the existing and proposed trail network in the County, identifying additional areas for preservation, developing an open space network based upon these areas and making specific recommendations for preservation of areas, both by the County and by municipalities. Additionally, the Committee will work with County officials to obtain funding from County, State and federal sources to assist with implementation.

■ **Engaging in Partnerships**

The Greenways Committee will continue to work with the Pennsylvania DCNR in their efforts to collect information for their statewide network of greenways. The County will continue to engage local and regional partners involved in land preservation, conservation and acquisition, as well as those involved in the promotion of recreation and tourism. The Greenways Committee will work with adjacent counties and regional planning commissions in order to plan and promote efforts at developing a regional open space network.

In order to establish a connected Greenways network, the County and the Greenways Committee will work with nonprofit partners and adjacent municipalities to acquire land and/or easements. The following mega-greenway connections have been identified as priorities:

- Complete the Great Allegheny Passage, connecting Pittsburgh to Washington DC (highest priority)
- Complete the Pittsburgh to Erie Greenway
- Complete the Pittsburgh to Harrisburg Mainline Canal Greenway

A complete list of greenway connections is provided in the Implementation Matrix on Page 5-48.

The County supports efforts by public and private agencies to expand and enhance the Greenways Network. County support may include such actions as funding open space and greenway planning efforts, working with land trusts and other conservation associations to purchase conservation easements, and providing financial assistance to municipalities for local parks and open space development.

Multi-municipal planning and cooperation to establish greenways is strongly recommended. DCNR's 2006 *Multi-Municipal Cooperation for Recreation and Parks* (2006) can be used to implement cooperative greenways planning as well as municipal park planning.



Photo credit: McCormick Taylor

B. Implement a Strategy to Establish Greenways that Encourage Protection of Bio-diverse Areas, Floodplains, Steep Slopes, Forested Areas, Landslide-Prone Areas, Riparian Corridors and Wildlife Corridors

Acquisition of Land and Conservation Easements

The most effective way to preserve open space is through acquisition. According to *A Guide to Pennsylvania's New Conservation and Preservation Easements*, fee simple land acquisition is sometimes the best alternative, but conservation and preservation easements pursuant to the state's Conservation and Preservation Easement Act, Act 20 of 2001, are less costly and easier to acquire. Conservation easements are agreements between a landowner and a governmental body or a land trust. A landowner voluntarily agrees to refrain from exercising certain property rights and to bind all future owners by the negotiated restrictions. The easements can be either donated or sold. The holder of the easement agrees to enforce the restrictions in court if necessary.

While county and local governments can use land or easement acquisition, they may not have the funds or expertise. Entities such as land trusts are set up to do this.

Land trusts play an important role in protecting natural areas. Land trusts are nonprofit, charitable organizations that have as one of their core activities the acquisition of land or interests in land (like conservation easements) for the purpose of conservation. Land trusts acquire land or conservation easements through donation by the landowner, through land being willed to them, or by purchasing the land or easement.

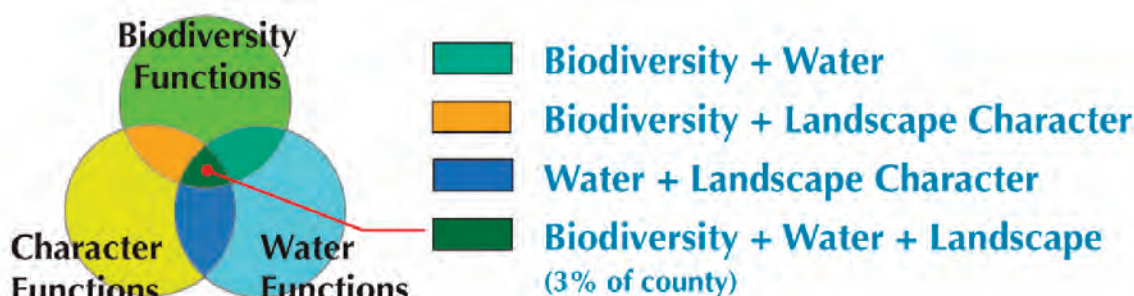
Land trusts hold the lands or conservation easements in trust for future generations. Most land trusts focus on conserving the biological values of land, but they are also established to protect scenic, historical, agricultural and recreational lands.

Allegheny County has eight land trusts operating within its boundaries:

- Allegheny Land Trust
 - Bradford Woods Conservancy (This is not an incorporated entity. They operate under the umbrella of the Allegheny Land Trust)
- Chartiers Nature Conservancy
- Fox Chapel Area Land Trust
- Hollow Oak Land Trust
- Pine Creek Land Conservation Trust
- Rachel Carson Trails Conservancy
- The Scott Conservancy
- Western PA Conservancy

The eight land trusts manage over 125 separate parcels in the County, totaling approximately 2,700 acres.

In 2007, Allegheny Land Trust (ALT) developed the **GREENPRINT** of Allegheny County with the intent to "...promote strategic land conservation by identifying highly functional landscapes that harbor biological diversity, manage water resources, and maintain the region's scenic landscape character." Figure 4E.3 shows the datasets used to identify lands worthy of



This Venn Diagram illustrates the concept and strategy of the ALT **GREENPRINT**

Figure 4E.3 – Allegheny Land Trust GREENPRINT – Concept and Strategy



conservation. The areas of overlap have the highest capacity to perform all three conservation functions.

The **GREENPRINT** map representing the lands that meet all three criteria has been incorporated into the County's Greenway Network.

The **GREENPRINT** recommends the following:

- Conserve large tracts of woodlands in the upper reaches of watersheds to intercept rain water before it becomes stormwater.
- Conserve large tracts of woodlands on steep slopes along the rivers to maintain their ecological services and maintain the County's unique visual appeal.
- Landbank developable lands in watersheds that suffer from frequent flooding and sewer overflows until degraded infrastructure is repaired or upgraded to prevent sewage overflow problems from worsening.
- Dedicate more public resources toward flood prevention.
- Measure and document the economic benefits of ecological services to supplement the science behind the **GREENPRINT**.

Figure 4E.4 illustrates the potential role various public and private entities can play to conserve the lands that provide the greatest public benefit.

Private Conservation Techniques

There are many ways for individual property owners to conserve identified environmentally-sensitive lands or desired open space. These are some of the most commonly used conservation techniques that property owners are encouraged to consider:




- **Outright Donation of Land and Endowment** – Full title and ownership are transferred to a nonprofit conservation organization or qualified government agency.

- **Donation with Life Estate** – Allows the property owner to retain the right to live on the property for the rest of their life.
- **Bequest** – A donation of land through will or living trust allows the property owner to maintain complete control of the land while alive.
- **Conservation Easement** – Places permanent restrictions on the development of land while the property owner retains ownership. The easement binds all present and future owners of the eased land.
- **Bargain Sale** – Protects land by selling it to a conservation group for less than market value. The difference between the bargain sale price and fair market value is considered a charitable donation.
- **Limited Development and Conservation Subdivision** – An alternative to traditional development where a portion of land is developed while the rest remains open space. This technique balances the need for higher financial gain with the desire to preserve land. Careful planning ensures that the most critical ecological features are preserved.
- **Donation of an Asset Property** – A property owner contributes land or home to allow the organization to sell it and use the funds to support conservation.
- **Purchase of the property** – A fair market appraisal is done and a purchase offer is made to the landowner.

Planning and Regulatory Techniques

The County will publish advisory guidelines to promote general consistency with the objective of conserving identified open space. The County will also provide guidelines to promote uniformity with respect to common types of municipal land use regulations. There are a number of regulatory techniques that can be used including zoning, subdivision and land development and an official map to implement the objective of conserving identified open space. The

Figure 4E.4 – Allegheny Land Trust GREENPRINT Implementation Matrix

	Scale	Benefits	Protection Strategy	Implementation Partners	Funding Sources
 BIOLOGICAL DIVERSITY	Parcel	Protection of the region's unique biodiversity	<ul style="list-style-type: none"> • Direct conservation of land & easements • PA Natural Diversity Inventory 	Land trusts DCNR DEP	DCNR Private foundation, corporate and individual sources
 WATER MANAGEMENT	Watershed	<ul style="list-style-type: none"> • Stormwater & Flood controls • Water quality improvements • Property value enhancement • Managed growth 	<ul style="list-style-type: none"> • County Comprehensive Plan • Municipal land planning, ordinances, and code enforcement • Landbanking 	Municipalities Municipal authorities Watershed organizations Land trusts 3 Rivers Wet Weather County, DCED, PaDEP, USACOE, EPA, FEMA	Municipalities County, state and federal agencies Bonds Private Sources
 LANDSCAPE CHARACTER	Landscape	Protection of region's scenic character and air quality	<ul style="list-style-type: none"> • County Comprehensive Plan • Municipal planning, ordinances, code enforcement 	Municipalities County Land trusts	DCNR PennDOT via (Enhancement Funding) Private Sources

DCED=Pa. Dept. of Community and Economic Development; PaDEP=Pa. Dept. of Environmental Protection; PennDOT=Pa. Dept. of Transportation; USACOE=U.S. Army Corps of Engineers; EPA=US Environmental Protection Agency; FEMA=Federal Emergency Management Agency

KEY ROLES

LAND TRUSTS	Direct conservation of land; planning assistance; site assessment; policy development and advocacy; education; research; land banking; and ongoing land stewardship
MUNICIPALITIES	Planning and land use management; integrate GREENPRINT into Comprehensive Plans; adopt and enforce conservation-oriented zoning and land development codes; create Transfer Development Rights programs
COUNTY GOVERNMENT	Integrate GREENPRINT into Comprehensive Plan to advocate conservation of highly functional green infrastructure; create incentives for conserving GREENPRINT areas; promote awareness and share GREENPRINT mapping; funding
STATE AGENCIES	Restrict new sources of stormwater and sewage inputs into failing systems; regulate geologically hazardous areas; funding
FEDERAL AGENCIES	Promote and fund flood prevention strategies; evaluate performance of outdated flood control facilities

following are regulatory techniques that should be applied by municipalities where appropriate:

- **Zoning and Subdivision and Land Development: Conservation Subdivision** – Provisions in a zoning ordinance to encourage or require a variety of density options that protect identified natural features from development and reward increased conservation area with increased net density on the remaining land, and provisions in

a subdivision and land development ordinance for designing conservation subdivisions using a four-step process where conservation areas are identified first and development is designed around it. Open space may be either dedicated to the public or owned and maintained privately. Source: *Growing Greener, A Conservation Planning Workbook for Municipal Officials in Pennsylvania* (model ordinances included).



■ **Zoning: Planned Residential Development** – Provisions in a zoning ordinance to provide for “the conservation and more efficient use of open space ancillary to ...dwellings and uses so that greater opportunities for better housing and recreation may extend to all ...” (MPC §701)

■ **Zoning: Overlay Districts** – A second layer zoning district superimposed over underlying or base zoning districts intended to protect resources or special interests such as floodplains and riparian areas, steep slopes, landslide-prone areas, subsidence areas, scenic corridors or riverfront corridors.

■ **Zoning: Site Capacity Analysis** – Provisions to establish the density of residential development or the intensity of nonresidential development based on an analysis of the site where protected areas are subtracted out before calculating the maximum number of dwelling units or square feet of non-residential space permitted. This can reduce the density or intensity of development, rather than holding density or intensity constant and shifting development within a site to protect identified areas.

■ **Subdivision and Land Development: Mandatory Dedication** – Provisions requiring the public dedication of land suitable for park, greenway, trails and recreation purposes as a condition precedent to final plan approval, or – if the developer agrees – the construction of recreational facilities, the payment of fees in lieu thereof, the private reservation of the land or a combination. The governing body must have formally adopted a recreation plan. There should be standards for open space and recreation area that meet the objectives of the plan.

In growing communities, the preservation and protection of green space as development takes place is critical. The passing of a Subdivision and Land Development ordinance requiring the public dedication of land for recreation before a development plan is approved is one way a municipality can control the preservation of land and limit overdevelopment.

■ **Reservation of Land on an Official Map** – A map adopted by a governing body pursuant to Article IV of the MPC by which proposed public

parks, playgrounds, greenways, trails and open space identified in an adopted comprehensive plan are reserved from development for future acquisition for public use.

More information on these regulatory techniques and others with model regulations can be found in *Improving Local Development Regulations: A Handbook for Municipal Officials*.

C. Expand the Parks and Trails System to Serve Future Populations

County Parks

Allegheny County adopted a *Comprehensive Parks Master Plan* in 2002. The master plan made 297 park-specific recommendations for the nine County Parks and 42 system-wide recommendations. Over the past four years, the County, through its Public Works and the Parks Department, has made significant progress in addressing the numerous recommendations made in this study. Of all the plan’s recommendations, 13% are completed, 11% are underway, 24% are being addressed through ongoing efforts and 19% are in the discussion/planning stages.



Photo credit: Allegheny County

Allegheny County will continue to complete the recommendations of the *Comprehensive Parks Master Plan*, particularly the following projects that are fundamental to other implementation strategies:

- Develop and formally adopt a fees and charges policy
- Develop and implement a marketing plan for County parks and recreation
- Expand the County Parks system by purchasing properties adjacent to the existing parks

In January 2007, County Council passed an ordinance to finalize the creation of an entity with tax-exempt [501(c)(3)] status “with a mission to secure and administer financial resources to support and enhance objectives of the Department of Parks, as well as to assist the County in meeting the planning goals for parks and to administer any funds voluntarily contributed by the public for assisting in the improvement and/or maintenance of the County's parks”.

The American Institute for Leisure Resources conducted a study of the Allegheny County Park System in the summer of 2007. The result of their study defines system-wide revenue recommendations as well as individual park recommendations for each of the nine regional parks. The *Allegheny County Parks Action Plan* will transform and enhance recreational opportunities at the County's nine regional parks, the County riverfront trail system and other greenway initiatives.

In the fall of 2007, Allegheny County Chief Executive Dan Onorato announced the establishment of the Allegheny County Parks Foundation. The new Board will raise private funds to help maintain the County's nine parks and will explore new revenue sources, such as the creation of public-private partnerships to operate some of the parks' major attractions. With an initial funding of \$1 million, the Chief Executive vowed to match dollar for dollar any private funds raised, up to \$10 million. This pledge indicates the County's commitment to raising the funds necessary to continue to maintain one of its most valuable assets, the County Park system.

Park Planning and Implementation Prototypes

Park planning and implementation prototypes were developed to assist local municipalities of various types in making decisions about the types of park facilities

that will be needed in the future. These prototypes were designed for the different types of communities found in the County today and for the types of Places that have been designated in the Future Land Use Plan. These prototypes should not be confused with the park standards discussed at the beginning of this element. The park standards describe types of parks in Allegheny County today. The prototypes discussed here describe types of recreation facilities that could be needed in the future, and how to implement them.

The County's Councils of Government (COGs) will receive training to use the Park Prototypes developed for *Allegheny Places* to help educate their member municipalities about parks and recreation standards. The COGs should also help municipalities to identify and obtain funding to create and maintain these park assets, such as the funding available from DCNR.

The prototypes can be applied by the County and local municipalities to guide the development or redevelopment of parks and recreation facilities in the kinds of locales described below:

- **Multi-Municipal Community Prototype:** older, not-growing, population small (5,000 residents); one square mile in size. This prototype could share services with other older, small communities or with one of the mature or growing communities as well. This would depend on location and willingness to work together.
 - Priority 1: Identify and address repair needs of existing community's facilities.
 - Priority 2: Establish or participate in an existing multi-municipal Recreation and Park Agency.
 - Priority 3: Complete a multi-municipal Comprehensive Recreation, Park and Open Space Plan.
 - Priority 4: Initiate programs and services to address community needs.
 - Priority 5: Develop a funding strategy and development timeline.
- **Mature Suburban Community Prototype:** stable community, population medium (30,000 residents); nine square miles in size.



- Priority 1: Complete a Comprehensive Recreation, Park and Open Space Plan for the municipality and a Master Site Improvement Plan for each municipal park.
- Priority 2: Complete design development phase for each municipal park.
- Priority 3: Develop a funding strategy and development timeline.
- Priority 4: Initiate phased construction of identified park improvements.

■ **Rapidly Growing (Edge) Community Prototype:** many young families, population low to medium (10,000 residents); 21 square miles in size.

- Priority 1: Complete a Comprehensive Land Use Plan and Comprehensive Recreation, Park and Open Space Plan.
- Priority 2: Enact a mandatory dedication (recreation impact) amendment to the subdivision and land development ordinance.
- Priority 3: Enact an official map to reserve land from development.
- Priority 4: Enact zoning and subdivision and land development provisions for conservation of identified open space.
- Priority 5: Develop a funding strategy and development timeline.
- Priority 6: Initiate acquisition and phased construction of parks.

■ **Urban Community Prototype:** often financially distressed, population medium to large (20,000+ residents); four square miles or more in size.

- Priority 1: Complete a Comprehensive Recreation, Park and Open Space Plan.
- Priority 2: Develop a funding strategy and development timeline.
- Priority 3: Seek additional funding sources.
- Priority 4: Initiate phased park and trail construction.

■ **Riverfront Community Linear Greenway Prototype:** municipality that borders any of the four rivers in Allegheny County.

- Priority 1: Establish a partnership with Friends of the Riverfront, PEC, and Allegheny County to coordinate with the Allegheny County Riverfronts Project.
- Priority 2: Adopt the County Comprehensive Plan as to Riverfront recommendations as part of a multi-municipal or municipal comprehensive plan.
- Priority 3: Adopt the County's Riverfront Overlay District into the municipal zoning ordinance. (The Riverfront Overlay District is in *Improving Local Development Regulations: A Handbook for Municipal Officials*, which is available in the eLibrary at www.alleghenyplaces.com).
- Priority 4: Adopt an Official Map to reserve land for Riverfront Park.
- Priority 5: Develop a funding strategy and development timeline.
- Priority 6: Seek additional funding.
- Priority 7: Initiate linear park and trail construction.

This approach for prototype communities can be applied across the County. However, there will be some locations – particularly the Airport Corridor that will primarily have industrial or office uses – where the prototypes will be less applicable. For these areas, a separate model is suggested: **Park Nodes** or **Micro Parks**. These small park-like settings will provide visual relief from the surrounding hardscape and contribute to the 'greening' and overall attractiveness of the area.

Park Nodes should have landscaping, public art, and/or pedestrian seating and can vary greatly in size. Some may be intensively developed. Basketball courts, softball fields, or open lawn areas, while requiring significantly more space, could provide employees at these locations the opportunity for physical exercise, healthy competition and a chance to further develop friendships or teamwork.

Recommendations by Type of Place

Each of the Places, along with the Park Prototype that would be most appropriate, are listed in Table 4E.3.

CDBG Priority Projects

Allegheny County uses Community Development Block Grant (CDBG) funding to assist municipalities with areas of low/moderate-income persons. A portion of that funding is used exclusively for parks, recreation, open space and greenways:

- Rehabilitation of existing facilities
- Replacement of substandard play equipment
- Adaptive reuse of functionally obsolete facilities
- Expansion of green space in developed municipalities
- Protection of green space in growing municipalities

Multi-municipal Cooperation

In Allegheny County, it is not possible to provide every type of recreational opportunity within each municipality due to the small size of many municipalities, the physical limitations posed by the type of terrain that exists, and fiscal constraints. In some cases, the sharing of facilities across municipal boundaries can be a viable solution. This has already been accomplished in some locations that already have a common bond such as belonging to the same school district. Some communities have been sharing facilities that require a significant amount of level land, such as community ball fields. In another example, several adjacent municipalities avoided a costly duplication

of services by sharing the expenses of one multi-municipal community pool.

Allegheny Places encourages intergovernmental cooperation and multi-municipal planning efforts (as discussed in the prototypes above). In addition to the cost benefits, the use of proper planning tools affords the opportunity to improve quality of life issues as communities evolve. For example, former commercial and industrial sites often extend across several municipal boundaries. As these sites are redeveloped, the reclamation of green space as part of the redevelopment effort benefits all the municipalities involved. In addition to making a more attractive visual environment, providing adequate green space helps mitigate water, air and noise pollution and – in some cases – helps control flooding.

D. Facilitate Public Access to Riverfronts

The Allegheny County Riverfronts Project

Allegheny County has made a significant commitment to reclaiming, rejuvenating and conserving its riverfronts. The County is teaming together with the Friends of the Riverfront and the Pennsylvania Environmental Council to implement a strategic plan for the Allegheny County Riverfronts Project. Working with a variety of other partners, including local

TABLE 4E.3 – Appropriate Park Prototypes for Places

PLACES	MULTI-MUNICIPAL	MATURE SUBURBAN	RAPIDLY GROWING	URBAN COMMUNITY	RIVERFRONT COMMUNITY	PARK NODE/MICRO PARK
Airport						X
Core				X	X	X
Corridor		X	X		X	
Urban Neighborhood				X	X	
Community Downtown	X			X	X	X
Village	X					
Rural	X					



governments and other nonprofits, this partnership will accomplish the specific tasks that will lead to the acquisition, restoration and development of riverfront areas.

A number of riverfront plans are being used to implement the Allegheny County Riverfronts Project, such as:

- Three Rivers Heritage Trail Plan
- Three Rivers Second Nature Reports
- Three Rivers River Conservation Plan
- Monongahela River Conservation Plan
- Middle Allegheny River Conservation Plan
- Allegheny County Riverfront Plan
- Three Rivers Park Plan
- Riverlife Task Force Landscaping Guidelines
- Report of the Riverlife Task Force Quality and Corridors Committee

Development of the linear greenway with trails, picnic areas and non-motorized boat launches will make the County's riverfronts more attractive and accessible. Once completed, the riverfront is expected to become a draw for tourists and business and will enhance the quality of life in Allegheny County.

The goals of the Project are to:

- Provide continuous access along the four rivers in Allegheny County (the Youghiogheny, the Monongahela, the Allegheny and the Ohio)
- Conserve biologically, environmentally and scenically important lands and islands along and in the rivers
- Help municipalities maintain and/or improve the quality of riverfront development and consider impacts on water quality
- Restore certain lands to a more environmentally sustainable state
- Provide for a positive non-motorized recreational experience on and along the rivers

Overarching all of these goals is the understanding that each community has its own character and will need to be approached with that character in mind. There will also be instances where achieving the vision is complicated or currently impossible due to current conditions (e.g. railroads, industrial facilities, highways). In these situations, the Project will work to seek alternatives to achieving the vision and be

vigilant as to changes in use that may later allow full implementation.

For more information on this project, go to <http://www.friendsoftheriverfront.org/>.



Photo credit: McCormick Taylor

Riverfront Redevelopment

Access to riverfronts can be provided through redevelopment of the large number of brownfields located along the Three Rivers. Local governments can contribute to the success of riverfront redevelopment by mandating such items as development setbacks from the river. The County has a model Riverfront Overlay District, which municipalities with riverfront land are encouraged to adopt into their zoning ordinances. With much of the riverfront lying under former steel mills and other industrial uses, these actions are urgent and must be taken before sites are redeveloped and the opportunity is lost.

The County recently purchased the Carrie Furnace Site, a 137-acre brownfield that spans portions of Braddock, Munhall, Rankin, Swissvale and Whitaker boroughs. The plan to redevelop this site into a mixed-use development will provide the public with access to the river.

The Pittsburgh Riverfront

The City of Pittsburgh published its *Riverfront Development Plan* in 1998. The plan for recreation, access and tourism along the rivers called for

municipalities to work together, to establish the riverfronts as one entity (not separate parcels), to spark tourism and to implement proper zoning. It stresses the importance of a Riverfront Overlay District, which is “to maintain an open space area with the potential for public access along the banks and to impose additional requirements on structures or uses within the district.” The City intends to acquire all of the 35 miles of riverfront property within its borders. For more information, go to <http://www.riverlifetaskforce.org/>.

E. Ensure that Regionally Significant Parks are ADA Compliant and Transit Accessible

The Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA) guarantee equal opportunity for individuals with disabilities. The County will conform to ADA and ABA Guidelines on all new construction and all rehabilitation projects for recreational facilities. These guidelines cover many outdoor recreation facilities and related access items, such as parking and pathways. Trails, however, cannot always be built to ADA standards and there are allowances for this in the guidelines.

Recommendations from the 2002 *Parks and Recreation Master Plan* for bringing existing park facilities up to ADA standards will be used as a guideline to establish priorities.

Transit access to County Parks is limited. This hinders the ability of residents who do not own a car or do not drive to enjoy an important County amenity. In response to this, one of the system-wide recommendations in the County’s *Comprehensive Parks Master Plan* was to work with the Port Authority to improve public transit service to the County Parks. Currently, transit funding is limited and the Port Authority has been forced to eliminate routes throughout the County. However, *Allegheny Places* is a plan for the next 20 years and beyond. The County Park staff will continue to work with the Port Authority on ways to increase transit access to the parks. By continuing the coordination, the County will be able to take advantage of funding and resources as they become available in the future. One interim solution is for the county and city websites to list the bus routes to the parks and provide a link to Port Authority’s website.

F. Raise Public Awareness of the Benefits of Greenways and Open Space

Implementation of this plan will require a solid base of community support that understands the benefits of trails and greenways. Local officials and citizens will need to know the details of what is being proposed. Tours of proposed routes, maps published in local papers, displays at local events, local speaking engagements and local school activities are all ways which can be used to communicate the value of a trail system and gain support for acquisition and development.

Pilot projects are an effective public awareness tool. Specific projects to enhance the usability of a greenway, such as trailhead parking or a commercial establishment selling refreshments or fishing bait, will help to generate public interest. Obtaining land use agreements for private lands within the system can also be newsworthy to attract attention to the growing greenways network.

In June of 2001, the Commonwealth of *Pennsylvania released Pennsylvania Greenways: An Action Plan for Creating Connections* to provide a coordinated and strategic approach to creating connections through the establishment of greenways in the State. Chapter 11, Greenways Promotional Campaign, identifies four action steps leading to the development of promotional materials and increasing public awareness of the benefits of greenways. One action calls for the development of appropriate promotional materials on greenways for targeted groups; the materials should be produced in many formats, including hard copy and digital.

The greenways message will be incorporated into all of the County’s existing marketing outlets to raise awareness of greenway opportunities among residents and into national media to reach potential out-of-state visitors.

The County and its greenway planning partners encourage the long-term involvement and participation of citizens in the planning, design, implementation and management of the greenway system. The County, through the Greenways Committee, will use the resources developed by DCNR and DCED to promote greenways. Pennsylvania’s existing marketing outlets include the website www.experiencePA.com, interactive kiosks, media kits, event guides, visitor guides and



special events. The County will work with media outlets and local tourism agencies to make them aware of the benefits of promoting local greenways to tourists.

In addition, the Greenways map will be on the [Allegheny Places](http://www.alleghenyplaces.com) website and will be a tool for the public as well as for municipal officials to coordinate with their own parks, recreation and open space plans.



Photo credit: McCormick Taylor

RESOURCE EXTRACTION PLAN

■ TODAY'S CONDITIONS

Allegheny County has a history of economic and social reliance on resource extraction. The natural resources of the rivers and surrounding lands endowed Pittsburgh with everything necessary for the establishment of a robust center of commerce and industry. Furthermore, the region's natural resources were remarkably easy to obtain – a virgin forest awaiting harvest, abundant seams of coal close to the surface, sand from the rivers for glass, and oil seeping into creeks and up from the ground.

Today, resource extraction is no longer the economic mainstay it once was, and Allegheny County has grown into a densely populated and largely urbanized county. The challenge for Allegheny County is to balance public health and safety and environmental concerns with the rights of mining, drilling, quarrying, energy recovery and timbering industries.



Photo credit: McCormick Taylor

COAL MINING

Allegheny County is within the Main Bituminous Field of Pennsylvania, specifically within the area of high volatile bituminous coal. Coal is found in numerous beds underlying much of the County. The Pittsburgh Coal bed has been extensively mined. Other important coal beds are the Redstone Coal, Upper Freeport Coal, Middle Kittanning Coal and the Lower Kittanning Coal.

The Pittsburgh Coal bed underlies 50 square miles of southern Allegheny County in the Waynesburg Hills physiographic province. This easily accessible coal bed was the foundation of the County's industrial development and resulting prosperity and, economically, remains an important mineral resource in the County. The Pittsburgh coal bed has an average thickness of about eight feet and each square mile contains eight million tons of coal.

There are no underground mines currently operating in Allegheny County. However, there are two active strip mines, one in Findlay Township and the other in South Park Township.

MINING HAZARDS

Allegheny County, particularly south of the Allegheny and Ohio Rivers, has been extensively deep and surface mined. The majority of the surface operations and all deep mine operations have been abandoned leaving dangerous pits, shafts, cropfalls (or areas of subsidence) and mine fires, which pose serious environmental and public safety hazards.

Abandoned mines in the County have also contributed to the pollution of area streams, subsidence and underground mine fires.

Within Allegheny County there are seven underground mine fires burning in:

- Plum Borough (at the Renton Mine)
- Two in Findlay Township (one near Clinton and one near Route 60)
- Jefferson/West Elizabeth (at the Tepe Pump Station Mine)
- Baldwin Borough (near Churchview Avenue)
- Kennedy Township (along Moon Run near Chartiers Creek)
- Hays neighborhood in the City of Pittsburgh

Many previously mined areas remain hazardous and are impediments to development. There are dangerous highwalls, impoundments, embankments, slides, gob piles, hazardous or explosive gas build-ups, and hazardous equipment or facilities remaining (see Map 4F.1). There have been fatalities at abandoned mines and quarries in the County.



Abandoned mine drainage (AMD) is a serious problem in the County, as evidenced by the large number of orange-colored streams. AMD occurs when water from abandoned coal mines seeps into streams, disrupting the ecology and water quality of the stream. AMD poisons aquatic life and renders the stream lifeless. Map 4F.1 shows the locations of streams in Allegheny County affected by AMD.

AMD results from the oxidation of metal sulfides (often pyrite) within rock and overburden after it is exposed to air and water. It is most often due to mining operations, both deep and surface. However, AMD can also occur where sulfide-bearing rock outcrops are naturally exposed or where sulfide-bearing rock is exposed in roadway cuts and excavations.

OTHER MINING

Industrial mineral mining in Allegheny County is limited to four sites:

- McShane Quarry (sandstone) in Collier Township
- Brown Reserve Site (slag) in West Mifflin Borough
- Redland Brick Inc. (shale/clay) in Harmar Township
- Gascola Pit (slag) in the Municipality of Penn Hills

Additionally 4.5 million tons of river aggregate is dredged annually from a 100-mile stretch of the Allegheny and Ohio Rivers. The actual size of the dredged area totals only about 40 acres. Still, it provides a majority of the sand and aggregate needs for industries in Allegheny County.

OIL & GAS

Oil fields are predominantly located in the western portion of the County and gas fields in the east. Pennsylvania Department of Environmental Protection's (PADEP) eMapPA website shows nearly 100 oil and gas well locations in the County. The map can be found at <http://www.emappa.dep.state.pa.us/emappa/viewer.htm>.

RESOURCE RECOVERY

Commercial development of Coalbed Methane (CBM) is a growing industry in the Commonwealth. Currently there are 75 CBM wells in commercial production in Pennsylvania. At this time, there are no known active CBM facilities in Allegheny County. Based on available information, recovery

of coal bed methane is not expected to become an active industry in Allegheny County in the near future, although the potential exists. There are active CBM wells in Cambria, Fayette, Green, Indiana, Washington and Westmoreland Counties, and in nearby northwestern West Virginia.

Throughout Allegheny County there are numerous gob or spoil piles from past mining operations. Some are being re-mined, and the material taken to the Scrubgrass Cogeneration Plant in Butler County. A cogeneration plant burns fuel to produce both electricity and heat, a thermodynamically efficient use of fuel.

According to PADEP, many old spoil piles across the Commonwealth are mined as part of the Government Financed Construction Contract (GFCC) program. There is one such reclamation project in Allegheny County, the ACV Power Corporation, Russelton South Site.

TIMBER

Over 35% of Allegheny County's land (166,400 acres) remains forested, and nearly all of it is in private ownership. The annual timber harvest has an estimated revenue value of \$1.47 million. Timbering is therefore not a major contributor to the Allegheny County economy. However, as the majority of woodlands are also located on the steeply sloped hills and ridges of the County's stream and river valleys, timbering is still a potential significant industry.

The timber industry is regulated by PADEP through permits, and by Pennsylvania Department of Conservation and Natural Resources (PA DCNR) Bureau of Forestry through guidance and training.

■ ISSUES AND ANALYSIS

This section examines what can be done to protect the people and places of Allegheny County from the adverse effects of past mining operations, and to encourage more sustainable timber harvesting and other resource extraction practices.

KEY CHALLENGES

In developing the Resource Extraction Plan, the Environmental Quality Resource Panel helped to identify these key challenges:

- Impacts of resource extraction on water quality
- Subsidence prone areas due to previous mining operations
- Mine fires

The following provides an understanding of these issues.



Photo credit: Bernadette E. Kazmarski

WATER QUALITY

Mine drainage from past mining operations is a serious and persistent problem in the County, degrading both water quality and stream ecology. Properties on AMD streams also have reduced potential for economic development and reduced property values.

PADEP's eMapPA shows numerous known points of AMD in Allegheny County. The following streams experience AMD problems:

- | | |
|-------------------|---------------------|
| ■ Chartiers Creek | ■ Dolphin Run |
| ■ Half Crown Run | ■ Little Plum Creek |
| ■ Long Run | ■ Montour Run |
| ■ Raccoon Creek | ■ Thompson Run |

The eMapPA can be found at: <http://www.emappa.dep.state.pa.us/emappa/viewer.htm>.

Land that has been surface mined, quarried, or heavily timbered can also degrade water quality and seriously impact the ecology of streams, wetlands and rivers. Stripping away vegetation, especially on steep slope areas, can cause increases in the volume and velocity of stormwater

runoff, causing accelerated and increased sediment loads to receiving waterways. Extreme changes to the land surface can also alter the hydrological characteristics of watersheds.

SUBSIDENCE PRONE AREAS

The extraction of coal removes support from the overlying rock and soil layers, causing them to sag into the void space that is created. The sag spreads upward to the ground surface, causing it to sink or subside. The ground surface area affected by subsidence can be much larger than the mine that causes the subsidence.

Significant subsidence usually only occurs when the depth of the overburden (soil and rock remaining above the mine void) is less than 100 feet and more than 50% of the coal has been removed. According to the study, *Mining and Physiography, Allegheny County, Pennsylvania*, many mined areas in Allegheny County have less than 100 feet of overburden.

Subsidence hazard zones are areas where ground subsidence may occur as a result of past mining activities. The term 'mining activities' includes open pit mining as well as underground mining, since the subsidence hazards that arise from open pits, while not so obvious, can be equally as dangerous as those associated with underground mines.

PADEP's Bureau of Abandoned Mine Reclamation has completed several subsidence control projects in Allegheny County, including one in Plum Borough that protected 193 homes from potential damage from abandoned mine subsidence. Subsidence control projects have also been completed in:

- | | |
|----------------|--------------|
| ■ Baldwin | ■ Carnegie |
| ■ Monroeville | ■ Munhall |
| ■ Penn Hills | ■ Pittsburgh |
| ■ West Mifflin | |

MINE FIRES

Mining operations can expose coal seams to fire, causing the coal seam to burn underground. Underground mine fires are hazardous because they strip away remaining coal layers and pillars, causing the ground surface and structures to subside. Mines fires also pose threats to underground utilities, and expose people to hazardous fumes and toxic gases.



The problem with mine fires is that they are very expensive and difficult to extinguish. Generally, massive excavation is required to remove the overburden – in at least a portion of the area that is burning – to gain access to the fire. Mine fires are very easily restarted, too, often by just a spark in the remaining coal seam. Mine fires have been started in the past by camp fires burning in previously mined areas.

PADEP tracks active mine fires and past fires. Currently, PADEP is taking actions to extinguish the mine fires in the County. Allegheny County receives a larger portion of reclamation funds for extinguishing mine fires (and for activities such as spoil pile removal) than other counties, due to the extent of the mining and the density of population in the County.

■ RECOMMENDATIONS

GOAL OF THE PLAN

The negative effects of resource extraction are mitigated.

OBJECTIVES OF THE PLAN

The objectives of the Resource Extraction Plan are to:

- A.** Mitigate the negative effects of resource extraction.
- B.** Identify areas of potential mine subsidence.

The following provides an understanding of the objectives.

A. Mitigate the Negative Effects of Resource Extraction

Local decision-makers generally have little authority to regulate extractive industries. However, it is still important to understand the potential advantages and problems associated with resource extraction. Information available through PADEP can be invaluable in this regard:

- PADEP maintains a GIS database of mined areas, which is accessible at <http://www.emappa.dep.state.pa.us/emappa/viewer.htm>.

- To check for risk of mine subsidence, PADEP's website (<http://www.dep.state.pa.us/MSIHomeowners/checkrisk.html>) provides mapping by county and municipality. Municipalities, developers and residents can get information here on the location of subsidence prone areas.
- Information on planned areas of resource extraction can be found on DEP's eFACTS web page (<http://www.dep.state.pa.us/efacts/>), which allows for a search of submitted and ongoing permit applications. At the present, no additional areas are proposed for resource extraction.

The County's role in mitigating the negative effects of mining activities is minimal. The greater responsibility lies with State and federal agencies and the mining industry. PADEP and the U.S. Department of the Interior's Office of Surface Mining (OSM) will continue their efforts to remediate existing problems associated with resource extraction (including containing and extinguishing mine fires). PADEP will continue to ensure that active mining operations remediate any pollution they have caused.

There are significant AMD areas in Findlay, North Fayette, Collier, South Fayette, Upper St. Clair Townships, and in the Penn Hills/Churchill/Plum area. The Future Land Use map (Map 4A.1) has targeted future development in these municipalities. The municipalities should continue to support the DEP, nonprofits and others who are working on AMD remediation projects, and coordinate with PADEP to establish additional AMD remediation priorities.

B. Identify Areas of Potential Mine Subsidence

PADEP's website (<http://www.dep.state.pa.us/MSIHomeowners/checkrisk.html>) provides mapping by county and municipality that shows where mining has occurred. Landowners in municipalities where subsurface mining has occurred in the past should determine whether they need mine subsidence insurance. Municipalities should require mine subsidence information to be provided as part of the development approval process, and review the zoning of land in severely undermined or subsidence-prone areas.

AGRICULTURAL RESOURCE PLAN

■ TODAY'S CONDITIONS

Agriculture is a minor economic activity in Allegheny County, employing only 0.1% of the total workforce. Agricultural uses comprise 5% of the County's total land area, making farming a more significant land use than economic activity.



Photo credit: McCormick Taylor

Allegheny County still retains a significant amount of farmland, despite being heavily urbanized. In the northeastern and southeastern areas of the County, and scattered throughout the southwestern part as well, there are concentrations of:

- Livestock farms (cows, pigs, sheep and chickens)
- Crop land (corn, wheat, oats and soybeans are the predominant crops)
- Nurseries (including greenhouses, floriculture, sod, and Christmas trees)
- Orchards

In 2002, there were 464 farms in the County:

- 250 livestock farms
- 105 crop farms
- 82 nurseries
- 27 orchards

Over 56% of the 33,800 total acres in agricultural production was used for growing crops. Interest in organic gardening and farming is growing and more farms in the County are turning to organic practices.

AGRICULTURAL SECURITY AREAS

Almost a quarter of Allegheny County's farmland, or over 8,100 acres, is within an Agricultural Security Area (ASA). There are currently four ASAs in the County (see Map 4G.1):

- Frazer ASA – 254 acres
- Forward ASA – 2,397 acres
- North Hills ASA – 3,267 acres
- Fayette ASA – 2,186 acres.

While ASAs provide some protection to farming, they do not keep lands permanently in agriculture.

CONSERVATION EASEMENTS

The permanent protection of agricultural lands is best achieved through conservation easements. Such easements, which are written into property deeds, prohibit land development. The most common way to acquire conservation easements is through the sale of non-agricultural development rights by the property owner. In return for keeping a property in agricultural use in perpetuity, owners are compensated for a portion of the development potential.

From 2001 (the first year an easement was acquired in Allegheny County under this program) to the end of 2007, 1,695 acres of the County's farmland had been permanently protected by conservation easements through the Pennsylvania Agricultural Conservation Easement (PACE) program. The Allegheny County Conservation District provides administrative support to the Allegheny County Agricultural Land Preservation Board by processing applications, working with appraisers and other vendors, and coordinating efforts with foundations and community groups.

The PACE program is the best-known program for acquiring easements, but nonprofit conservancies or land trusts also acquire or accept the donation of conservation easements.

EXISTING REGULATIONS

Several state and federal laws have been enacted to protect farmland from conversion to non-agricultural use:



- Section 658 of Title 7 of the Code of Federal Regulations is the federal Farmland Protection Policy Act (FPPA). The purpose of this act is to "...minimize the extent to which federal actions contribute to the unnecessary and irreversible conversion of farmland to nonagricultural use." The act requires federal agencies to consider alternatives that could lessen adverse effects on farmland and to ensure federal actions are compatible with state and local government farmland protection programs and policies.

- The Pennsylvania Farmland and Forest Land Assessment Act, Act 319 of 1974 (commonly known as the 'Clean and Green Act'), is designed to preserve farmland, forestland, and open space by taxing according to its use value rather than the prevailing market value. The program is voluntary and generally requires a minimum of ten acres that will remain in the designated use (agricultural use, agricultural reserve, forest reserve). Act 319 is administered by the County Assessment Office.

While it is a good program and should be continued, there are loopholes within the Act that allow for its misuse. Many properties within the County's Clean and Green program are large tracts of land belonging to wealthy landowners, and are not the types of property that the Act was created to protect. In 2006, a local television news station exposed big property tax breaks going to estates, country clubs, and other properties.

- Pennsylvania Act 100 of 1979 established the Agricultural Lands Condemnation Approval Board (ALCAB). This is an independent administrative board with approval authority over the condemnation of productive agricultural land for certain types of transportation projects.
- Pennsylvania Act 43 of 1981, the Agricultural Area Security Law, allows landowners to petition local governments to create ASAs. The law provides incentives to encourage farming and disincentives to discourage development in these areas. An ASA must contain 250 acres of viable agricultural land, which may comprise non-contiguous tracts of at least ten acres in size. In addition, Act 43 has established a Commonwealth program to acquire perpetual agricultural conservation easements within an ASA.

Another benefit of ASAs is that they provide some protection from eminent domain in projects using State and federal funding. Farm owners should join together to establish ASAs where there are none.

- Pennsylvania Act 515 of 1996 enables Pennsylvania counties to covenant with landowners to voluntarily preserve land in farm, forest, water supply or open space by taxing land according to its use value rather than the prevailing market value.
- Pennsylvania's Agricultural Land Preservation Policy, enacted in 2003, is intended to protect and preserve the Commonwealth's "prime agricultural land" from irreversible conversion to uses that result in its loss as an environmental and essential food and fiber resource.

GROUPS INVOLVED IN FARMLAND PRESERVATION

The Allegheny County Farm Preservation Board is the primary group engaged in farm preservation in Allegheny County. Several other organizations and agencies are working to achieve sustainable agriculture in the Commonwealth and the County, including the Pennsylvania Association of Sustainable Agriculture and the PennState Cooperative in Allegheny County. One particular program of the Cooperative Extension in Allegheny County is Grow Pittsburgh, which supports the sustainability of urban farms in the highly urbanized areas of the County. Further, there are programs to support efforts of individuals interested in farming on vacant lots for the purpose of producing food, ornamentals and biofuels.

Pittsburgh History & Landmarks Foundation (Landmarks), through its Historic Rural Preservation Program, protects the County's historic and/or architecturally significant rural buildings and properties threatened by commercial and residential development. Landmarks does this primarily by placing easements on these properties that help to maintain the agricultural focus of the property or permit an appropriate adaptive reuse of the property. The organization has purchased easements on farm building façades as well as entire farms. Landmarks has played a significant role in the protection of five historic farm complexes in the County and over 850 acres of adjoining woods and farmlands.

■ ISSUES AND ANALYSIS

In this section, we examine what can be done to better preserve the agricultural heritage of Allegheny County.

KEY CHALLENGES

In developing the Agricultural Resource Plan, the Environmental Quality Resource Panel helped to identify these key challenges:

- Loss of active productive farmland to development
- Loss of prime farm soils
- Decreasing number of farm workers
- The economic and sustainable aspects of farming in an urban county

The following provides an understanding of these issues.

LOSS OF ACTIVE, PRODUCTIVE FARMLAND TO DEVELOPMENT

In 1997 there were 522 farms in the County, while in 2002 there were 464 farms, an 11% decrease. Yet the average size of farms increased during that time from 68 acres to 73, indicating that the County lost its smaller farms. The number of acres farmed in the County decreased by 5% between 1997 and 2002.

There are several reasons for the loss of farms and farm acreage. One is the increased demand for land for residential and commercial development that has driven up land values to the point where it is more profitable to sell than to farm the land. Another reason is the increased productivity of agriculture due to technology; farms are becoming more productive and need less land to produce the same yield.

Between 1997 and 2002, the market value of agricultural production in Allegheny County dropped 20%, from \$11.7 million to \$9.4 million a year.

Due to the net loss in farm land and the fact that many of the lost farms were architecturally significant as well as more than a century old, the Pittsburgh History and Landmarks Foundation (PHLF) and the Richard King Mellon Foundation created the Landmarks' Historic Rural Preservation Program.

The program involves the protection of Allegheny County's historic and/or architecturally significant rural buildings

and properties threatened by commercial and residential development. The primary form of protection is done by placing easements on these properties that help to maintain the agricultural focus or permit an appropriate adaptive reuse of the property.

The program also informs farmers about ways they can realize the value of their historic farms without having to sell their property. Options include:

- The sale or donation of their farm development rights
- Donating the property to PHLF in return for a life-income arrangement
- Employing creative development strategies that allow the historic property to be integrated into a "rural-friendly" environment.

The Historic Farm Preservation Program has played a significant role in the protection of five historic farm complexes and more than 1,000 acres of adjoining farmland.

LOSS OF PRIME FARM SOILS

There are approximately 36,000 acres of prime agricultural soils in Allegheny County, a figure that exceeds the acreage of land in productive agricultural use. As farmland – and land that could be farmed – is developed, prime farm soils – an irreplaceable resource – may be lost forever.

DECREASING NUMBER OF FARM WORKERS

In recent years, the number of farm workers has been steadily decreasing. According to a PennState report, *Agricultural Impacts: The Role of Production Agriculture in the Allegheny County Economy*, Allegheny County has seen a 40% decrease in the number of farm workers between 1969 and 2000. Much of this decrease is believed to be due to agriculture technological efficiencies. Some of this loss of workers may also be due to the decrease in the numbers and sizes of farms. It should be noted that the workforce data is from the Bureau of Economic Analysis (BEA). The BEA considers forestry employment as part of agriculture.

Agencies that currently work with local farmers (such as the Farm Service Bureau, the Natural Resource Conservation Service and the County Conservation District) will work with Allegheny County farmers to determine if there is a shortage of farm workers. If so, then an action plan will be developed



by one or a combination of these agencies to address the problem.



Photo credit: Kevin Smay

THE ECONOMIC AND SUSTAINABLE ASPECTS OF FARMING IN AN URBAN COUNTY

Agricultural trends in Allegheny County echo national trends in the loss of farmland acreage and decreases in the number of farms in operation.

Still, maintaining land in agricultural use is important for Allegheny County's future. Agriculture provides a viable economic activity, a local source for food and other goods derived from agricultural production, and open space. Additionally, locally-grown food is more sustainable and energy-efficient. Purchasing locally-grown food:

- Keeps money in the community
- Strengthens the local economy
- Increases the profitability of farming
- Makes the selling of farmland for non-agricultural uses less attractive
- Reduces energy and transportation costs

Locally-grown food does not need to be shipped as far or stored as long, and therefore requires less fuel and electricity. This has the added benefit of reducing pollution through less carbon dioxide emissions, due to decreased travel and less packaging needed.

■ RECOMMENDATIONS

GOAL OF THE PLAN

Agriculture is a viable industry and sustainable land use in Allegheny County.

OBJECTIVES OF THE PLAN

The objectives of the Agricultural Resource Plan are to:

- A. Support agriculture as a viable industry.
- B. Locate new infrastructure outside of identified agriculture areas.
- C. Promote the use of the County's Agricultural Land Preservation Program.
- D. Promote sustainable agricultural practices.

The following provides an understanding of the objectives.

A. Support Agriculture as a Viable Industry

The challenges to continued agricultural production in Allegheny County include many market factors outside the purview of local governments. Nonetheless, conservation of agricultural lands can be addressed using a multi-faceted approach including local, county and State actions.

Easements acquired through the PACE program, the Allegheny County Agricultural Land Preservation Program and through private conservancy actions can only preserve a portion of the County's farmland. A number of land preservation techniques must be used if most of the remaining farmland in the County is to continue in agricultural use.

Local governments can implement agricultural zoning to retain lands for agricultural use. The Municipalities Planning Code, in fact, requires municipalities to zone to preserve prime agriculture land, which is defined as “land used for agricultural purposes that contains soils of the first, second or third class as defined by the United States Department of Agriculture Natural Resource And Conservation Services county soil survey”.

Additionally, the Pennsylvania Agricultural Security Areas Law prohibits municipal governments from passing ordinances that restrict “normal farming operations or practices”.

Effective agricultural zoning must take into account all legal requirements, and restrict the land to agricultural and agricultural-related uses. It must also strongly limit the density of residential development (for example, to one dwelling unit per 20-50 acres).

B. Locate New Infrastructure Outside of Identified Agriculture Areas

Although infrastructure is not the only factor that makes an area desirable for development, it does play an important role in the decision to develop a particular property. State agencies need to be aware of the areas planned for conservation and preservation so that they can make informed decisions regarding proposed permits for infrastructure extensions and additions. Relevant agencies include:

- Pennsylvania Department of Transportation (roadways)
- Pennsylvania Department of Environmental Protection (water and wastewater systems)
- Pennsylvania Public Utilities Commission (utilities extensions)

State agencies are now required by law to consider a proposed action’s consistency with local and County plans before granting permits, and have pledged to issue permits only if they are consistent.

Local municipalities and water/sewer authorities should make efforts to limit the expansion of utility services into agricultural areas. Municipalities and authorities should identify agriculturally significant areas in their communities and use the information when reviewing

plans for utility expansions. Utility expansions into agriculturally significant areas should be limited to only those absolutely necessary for reasons such as public health and safety.



Photo credit: Kevin Smay

C. Promote the Use of the County’s Agricultural Land Preservation Program

The Allegheny County Agricultural Land Preservation Program enables the acquisition of conservation easements on farmland. Through the program several municipalities – Fawn, Frazer, Forward, North Fayette, Plum, South Fayette and West Deer – have been identified as important agricultural areas. Although the Future Land Use map (see Map 4A.1) has identified Places within these municipalities to be targeted for future development, the agricultural areas have been avoided.

Other municipalities within Allegheny County that have substantial agricultural areas are encouraged to apply for protection under the County’s Agricultural Land Preservation Program.

D. Promote Sustainable Agricultural Practices

Several organizations are working toward the promotion of sustainable agricultural practices. To support and spread the word about the efforts of these



groups, the County will provide links from its website to the websites of these organizations:

Buy Fresh, Buy Local: <http://www.buylocalpa.org/splash.html>

Food Routes: <http://www.foodroutes.org/>

Pennsylvania Association for Sustainable Agriculture (PASA): <http://www.pasafarming.org/>

Additional links to other agencies that can help with sustainable agriculture efforts are located on PASA's website at: <http://www.pasafarming.org/links.html>.

One particular program of the Cooperative Extension in Allegheny County is Grow Pittsburgh, which supports the sustainability of urban farms in the highly urbanized areas of the County. Further, there are programs to support efforts of individuals interested in farming on vacant lots for the purpose of producing food, ornamentals and biofuels.

The transfer of development rights (TDR) could be a key strategy for preserving farmland and other conservation areas in the County. TDR programs allow landowners to transfer the right to develop one parcel of land to a different parcel of land.

TDR programs are established by local zoning ordinances. In the context of farmland protection, TDR is used to shift development from agricultural areas to designated growth zones closer to municipal services. The parcel of land where the rights originate is called the 'sending' parcel. When the rights are transferred from a sending parcel, the land is restricted with a permanent conservation easement. The parcel of land to which the rights are transferred is called the 'receiving' parcel. Buying these rights generally allows the owner to build at a higher density than ordinarily permitted by the base zoning.

COMMUNITY FACILITIES PLAN

■ TODAY'S CONDITIONS

Community facilities provide basic services to ensure the health, safety, welfare and enrichment of residents. The number, type and adequacy of the facilities influence the quality and general livability of communities. Additionally, these facilities increase the County's ability to retain and attract new residents and businesses.

Few facilities are under the ownership or direct control of Allegheny County. Most are owned and operated by local municipalities, authorities, nonprofit organizations or private corporations (see Map 4H.1). It is important, however, to discuss these facilities in the County Comprehensive Plan in order to encourage cooperation among municipalities and organizations whenever possible. This will lead to a more equitable provision of these services and facilities, which contributes to a higher quality of life for all Allegheny County citizens.

ENTERTAINMENT AND CULTURAL ATTRACTIONS

Botanical Gardens

The Phipps Conservatory and Botanical Gardens is one of the nation's oldest and largest Victorian 'glass houses'.



Photo credit: Kevin Smay

Silvered domes of glass enclose 13 garden rooms brimming with thousands of exotic plants and flowers. The 2.5-acre botanical garden is filled with lush landscaping, ponds and fountains. In 2006, Phipps completed the largest expansion project in its 113-year history. The new Phipps Welcome Center is the first 'green' certified visitor's center in a public garden in the nation.

In 1998 the County began working with the Horticultural Society of Western Pennsylvania on the creation of a Botanical Garden in Settler's Cabin Park. This garden will transform a former brownfield site into a regional attraction and is expected to be open in 2009 or 2010.

Convention Center

One of Allegheny County's most important civic buildings was completed in 2003. The David L. Lawrence Convention Center is a landmark building overlooking the Allegheny River in downtown Pittsburgh. Its striking architecture resulted from an international design competition. It is the nation's first certified 'green' convention center and the world's largest 'green' building. The Center capitalized on its environmentally smart structure by utilizing natural daylight and natural ventilation to light and heat the building, and incorporating a water reclamation system that reduces potable water use. The Convention Center also provides visual connections to the Allegheny River as well as physical connections through a planned marina and riverwalk.



Source: Horticultural Society of Western Pennsylvania



Museums, Theaters and Galleries

The Pittsburgh Cultural District in Downtown Pittsburgh is a center for the performing arts. The Pittsburgh Ballet Theatre, Pittsburgh Civic Light Opera, Pittsburgh Dance Council, Pittsburgh Opera, Pittsburgh Public Theater and the Pittsburgh Symphony Orchestra are all based here. Heinz Hall for the Performing Arts, the Benedum Center, Byham Theater, Harris Theater, O'Reilly Theater and numerous art galleries are also located within the District. The Cultural District is the home of the Pittsburgh High School for the Creative and Performing Arts (CAPA), one of the Pittsburgh School District's magnet schools. In 2008 the Cultural District will be home to the new August Wilson Center for African American Culture.

The Oakland neighborhood of Pittsburgh is home to the Carnegie cultural complex, which consists of the Carnegie Museum of Art, the Carnegie Museum of Natural History and Carnegie Music Hall.



Photo credit: McCormick Taylor

The North Side of Pittsburgh has become a tourist destination revolving around major sports venues. The Carnegie Science Center is located on the North Shore. Special features include a WWII submarine, an OMNIMAX® theater and a world-class planetarium. UPMC SportsWorks, a permanent exhibit located adjacent to the Science Center, explores the science of sports. It is the largest science and sport exhibition in the world.

RiverQuest is also located on the North Shore. RiverQuest is a nonprofit educational organization that operates a river learning center for students, teachers and the community of Southwestern Pennsylvania. All of RiverQuest's programs are adventure-based, discovery programs that engage students, young and senior, in hands-on learning while exploring Pittsburgh's Three Rivers.

The Andy Warhol Museum, the Pittsburgh Children's Museum and the Mattress Factory, which exhibits contemporary art, are located on the North Side of Pittsburgh.

Throughout the country the Manchester Craftsmen's Guild has been a model for building healthier urban communities through culture and enterprise.

Also located on the North Side is the Manchester Craftsmen's Guild (MCG). Founded in 1968 by Bill Strickland, it began in a rowhouse as an informal arts program and exhibition hall for inner-city minority youth. The program was so successful that by 1987 it had moved to a new 62,000 square foot vocational training and arts center. In addition to classrooms and exhibit space, the MCG has a high quality audio and video recording studio and performance hall, in which world-renown musicians perform and record.

The Senator John Heinz History Center is located in the Strip District neighborhood in the City of Pittsburgh. The History Center is an affiliate of the Smithsonian Institute and is the largest history museum in Pennsylvania. The History Center also operates the Meadowcroft Rockshelter and Museum of Rural Life, as noted in the Historic and Cultural Resource Plan.

Professional Sports Facilities

Pittsburgh has three major league professional sport teams.

Heinz Field is a state-of-the-art, 65,000-seat football stadium that is home to the National Football League Pittsburgh Steelers and the University of Pittsburgh Panthers. The venue also hosts other events such as high school football and soccer playoffs, festivals, and concerts.

PNC Park is the home of the Pittsburgh Pirates Major League Baseball team. This classically-styled, 38,000-seat facility offers a dramatic view of Pittsburgh's downtown skyline. It is easily accessed from Downtown by pedestrians

via the Roberto Clemente Bridge, which is closed to vehicular traffic before and after games.



Photo credit: Kevin Smay

Mellon Arena has been home to the Pittsburgh Penguins National Hockey League team and is located in the Hill District. The "Igloo" also hosts a variety of other events. An agreement announced in March 2007 between the Penguins, the City of Pittsburgh, Allegheny County and the Commonwealth of Pennsylvania will allow for a new arena. The new arena will also be located in the Hill District and is scheduled to be open at the start of the 2009-10 NHL season.



Photo credit: Pittsburgh Zoo

Zoos

The 77-acre Pittsburgh Zoo has thousands of animals in naturalistic habitats. Actively involved in wildlife conservation and species survival, the zoo exhibits dozens of threatened or endangered species. It is one of only six zoos in the country to house a major aquarium, a state-of-the-art facility with salt and fresh water aquatic exhibits.

The National Aviary is the Nation's only indoor nonprofit bird park, where over 600 birds from around the world are displayed in naturalistic exhibits and walk-through habitats.

PUBLIC SERVICES AND FACILITIES

Schools

There are 43 public school districts in Allegheny County. As of 2006, there were 195 private and non-public primary and secondary schools in Allegheny County.

There are four regional technical training schools in the County: A.W. Beattie in the north, Forbes Road in Monroeville, Steel Center in the south and Parkway West in the western suburbs. Penn Hills, McKeesport and the Pittsburgh Public Schools operate their own vocational training programs.



Photo credit: McCormick Taylor

The Allegheny Intermediate Unit (AIU), which is funded by federal, state, county and private grants, serves the needs of 42 suburban school districts and five technical schools in Allegheny County. AIU coordinates programs for infants,



young children, students and adults; and operates the PA Learners Online (PALO) Cyber Charter School, eleven family centers, and three schools for exceptional children.

The Pittsburgh-Mt. Oliver Intermediate Unit provides similar services and operates the Pittsburgh Area Vocational-Technical School.

Colleges and Universities

There are 35 post-secondary educational institutions in Allegheny County. The two most nationally prominent institutions are:

- Carnegie-Mellon University, a private research university with nearly 10,000 students
- University of Pittsburgh, a state-related public university with over 27,000 students.

The County is home to many other colleges and universities, including:

- Carlow College
- Chatham College
- Duquesne University
- LaRoche College
- Penn State – Greater Allegheny Branch
- Pittsburgh Theological Seminary
- Point Park University
- Robert Morris University

CCAC is the nation's third largest provider of health care graduates.



Photo credit: McCormick Taylor

The Community College of Allegheny County has four campuses and seven centers within the County. CCAC has nearly 70,000 enrolled students, making it the largest provider of educational services and the largest workforce training provider in western Pennsylvania.

Libraries

The residents of Allegheny County are served by 43 independent public libraries (some with branches) plus the Carnegie Library and its 18 branches. The libraries are federated into a system under the umbrella of the Allegheny County Library Association, which also operates a bookmobile that visits nine communities. A senior service bookmobile, designed with the physical capability of older adults in mind, visits 44 senior citizen centers, assisted living facilities and residential facilities throughout the County on a monthly basis.



Photo credit: McCormick Taylor

Municipal Buildings

Most, but not all, of Allegheny County's 130 municipalities have a municipal building that is the center of local government. Some municipal buildings are primarily single-use facilities with offices for a municipal official such as the municipal secretary, and a public meeting room. Others are multi-purpose facilities that may include a community center, library, day care and senior services, for example. Local police and fire operations are sometimes housed with the municipal offices.

Community Centers

There are over one hundred County-supported community centers scattered throughout Allegheny County. Various community organizations have entered into agreements with the County to operate the facilities and provide a range of services to qualified residents. Each center is different but may offer a library, community rooms and recreation facilities.

In 2006, Allegheny County completed construction on six new community centers. Four additional community centers are in the design and planning stages of development.

Family Support Centers – There are many family support centers whose purpose is to nurture, protect and strengthen families. Family support centers are community-based and are governed by participants. They provide parents and neighborhoods with the resources and support they need to raise healthy and happy children. Of the 33 family support centers in Allegheny County, 27 receive funding from the County's Department of Human Services. Each of the centers primarily serve families with children (birth to five years old) and provide a core of services including childcare programs, Head Start, after-school and weekend activities, a food pantry and a variety of educational programs. Six locations have Knowledge Connection Centers, which are library and resource centers for children.

Senior Centers – Over 60 Senior Centers are located throughout the County. The centers are managed by nonprofit and municipal agencies that are funded, in part, by the Allegheny County Area Agency on Aging (AAA). Senior Center activities are geared to the social, intellectual, cultural, economic, emotional, and physical needs and interests of adults 60 years of age or older. A shared lunch program is also available Monday through Friday at the centers.

Technology Centers – Low-income, adult residents can access computers and technology at four locations.

There are many other community resources available throughout the County. They are funded and operated by a variety of public and private organizations and nonprofits including the YMCA and YWCA, religious institutions, and foundations.

MEDICAL AND EMERGENCY SERVICES

Medical Services

The County is served by three major hospital networks with a combined total of 35 major facilities and branch medical facilities. The hospitals serve the County, the region, and the nation. Services offered range from general care to transplantation and rehabilitation.



Source: City of Pittsburgh

The most prominent among the networks is the University of Pittsburgh Medical Center (UPMC), a leading American health care provider and institution for medical research. It consistently ranks in *US News and World Report's* "Honor Roll" of "America's Best Hospitals". UPMC currently operates 19 hospitals in western Pennsylvania, all of varying sizes and specialties. Not only is UPMC the County's largest employer, they are Pennsylvania's second largest employer behind Wal-Mart.

UPMC Presbyterian is UPMC's flagship hospital and is located in the Oakland neighborhood of Pittsburgh. The emergency department has a Level I Trauma Center. Specialties include organ transplantation, cardiology, trauma and neurosurgery. The University of Pittsburgh's School of Medicine partners with UPMC Presbyterian for research and graduate programs.

UPMC Shadyside is another one of UPMC's main hospitals and home to the Hillman Cancer Center, a state-of-the-art facility that is one of the largest and most advanced cancer research and patient care facilities in the nation.

UPMC has a number of specialty hospitals, including Magee-Women's Hospital of PMC. Located in the Oakland section of Pittsburgh, Magee is one of the



original six National Centers of Excellence in Women's Health as designated by the U.S. Department of Health.

Children's Hospital of Pittsburgh, another specialty hospital of UPMC, is located in Oakland. It is the only hospital in western Pennsylvania devoted solely to the care of infants, children and young adults. Children's Hospital is one of only two hospitals in the state to have a Level I Pediatric Trauma Center. A new Children's Hospital of Pittsburgh campus, located in the Lawrenceville neighborhood of Pittsburgh, is expected to open in mid-2009. The campus will include a ten-story research center.

Other major hospitals in the County include Allegheny-West Penn, Ohio Valley, St. Clair and Kindred.

Elder Care

Allegheny County has a large population of older residents. In order to care for them, there are various agencies and facilities operating within the County, a few of which are listed below.

The County operates the John J. Kane Regional Centers, which provide residential skilled nursing care and rehabilitation for short-term and long-term needs. The four centers can accommodate approximately 1,100 residents.

UPMC operates a number of retirement and long-term care facilities in Allegheny County. There are countless other independent living, assisted living, and nursing and rehabilitative facilities scattered throughout the County. Adult day services are provided by several agencies.

Emergency Services

The Allegheny County Department of Emergency Services provides training, investigation services and emergency management response to disasters, catastrophes and municipal needs. It also operates the 9-1-1 Emergency Communications Center in Pittsburgh, which provides emergency communications services for all but five municipalities that utilize centers outside of the County.

There are 66 emergency medical service responders in operation in the County. Helicopter emergency air transport services are provided by LifeFlight, operating out of Allegheny General Hospital, and STAT MedEvac, operating out of the Allegheny County Airport.

The Allegheny County Emergency Management Division has five Hazardous Materials Response (Hazmat) units in strategic locations throughout Allegheny County.

Fire Service

There are 246 fire stations serving Allegheny County. Thirty-nine of the stations are staffed by paid firefighters, 204 are staffed by volunteers, and three have a combination of paid and volunteer staff.

The Allegheny County Department of Emergency Services operates the Allegheny County Fire Academy in North Park. The Fire Academy delivers a wide variety of services to the fire fighting community:

- Industrial training to meet OSHA standards
- Hazmat training to meet various standards and regulations
- On-site fire department station training
- Outreach State Fire Academy training programs
- Certification testing
- Public education



Photo credit: McCormick Taylor

Police Service

There are 126 municipal police departments in the County. The City of Pittsburgh's Bureau of Police has five police zones, each with a station and a special deployment division. The Pennsylvania State Police, the Allegheny County Police and the Allegheny County Sheriff's Office also provide policing functions in the County.

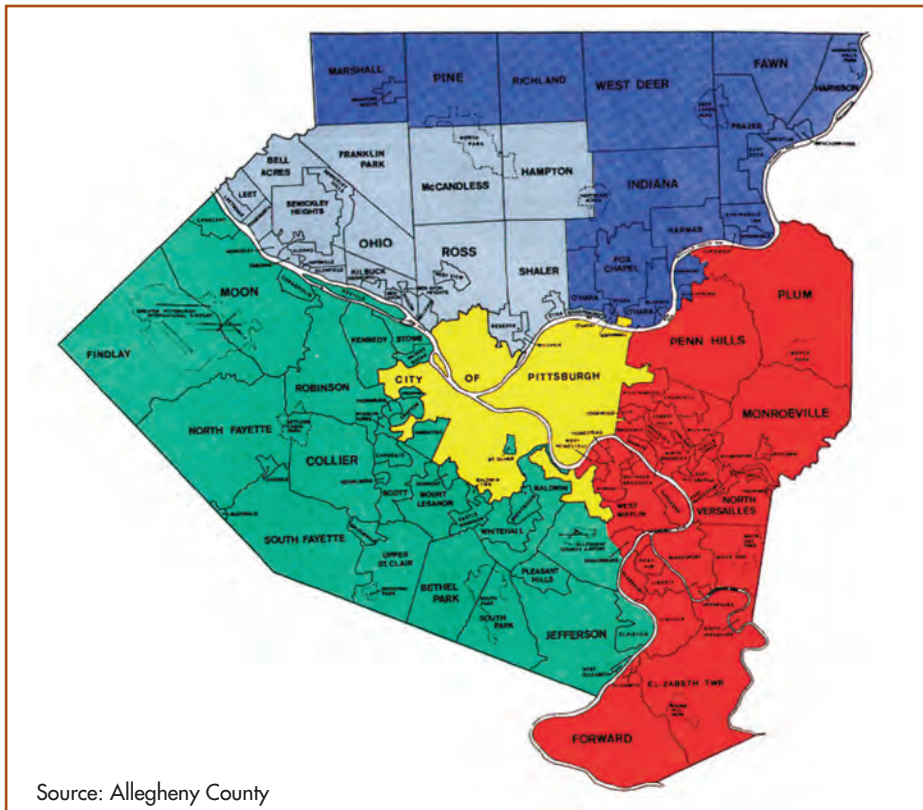


Figure 4H.1 – Allegheny County Hazardous Material Units Response Areas

The Allegheny County Department of Emergency Services operates the Allegheny County Police Academy. The Police Academy provides training for new officers and personnel in accordance with the Municipal Police Officers Training Academy (Act 120), as well as mandatory in-service training for active duty police officers. The Police Academy also provides continuing education classes for officers throughout the year.

Hazard Vulnerability

Through the efforts of the Allegheny County Emergency Management Division, five Hazmat units have been placed in strategic locations throughout the County (Figure 4H.1 illustrates the team boundaries):

- The Blue Team (N.E.A.R.A.) serves the Northeast and Northwest areas
- The Red Team (East Borough Response Organization) serves the eastern areas

- The Green Team (Specialized Intervention Team) serves the entire Southern and Western portions of the county south of the Ohio and west of the Monongahela
- The Silver Team (North Hills Response Team) serves 25 municipalities north of the Ohio and Allegheny Rivers
- The City of Pittsburgh Gold Team responds to emergencies within Pittsburgh and to any other area in the County, upon request of Allegheny County Emergency Management

The teams are dispatched through the Allegheny County Emergency Management Division and Enhanced 9-1-1 Centers.

The teams are equipped with encapsulated suits, the latest in monitoring equipment and fire frequency radios that enable communications to every fire

department in the County. All five Hazardous Materials Teams are fully certified by the Pennsylvania Emergency Management Agency (PEMA) and the Commonwealth of Pennsylvania.

Additionally, in response to the Disaster Mitigation Act of 2000, *Allegheny County developed the Allegheny County Hazard Vulnerability Assessment and Mitigation Plan* in 2004. Endorsed by the Federal Emergency Management Agency (FEMA), the plan:

- Identifies hazards that are most likely to impact Allegheny County
- Defines hazards in terms of their previous events, likelihood of occurrence, physical characteristics, and potential severity
- Identifies the effects of a natural or manmade hazard event
- Presents goals and objectives to guide mitigation activities
- Identifies and evaluates alternative actions to achieve the goals and objectives
- Prioritizes the actions



As of March 2007, 84 municipalities had passed resolutions to adopt the *Hazard Vulnerability Assessment and Mitigation Plan*. The resolution enables the municipality to authorize its government staff to carry out the actions detailed in the plan.

■ ISSUES AND ANALYSIS

This section examines issues that affect the provision of community facilities and services.

KEY CHALLENGES

In developing the Community Facilities Plan, these key challenges were identified:

- Need for increased intergovernmental cooperation to eliminate cost-ineffective duplication of services and facilities
- Providing adequate police and fire services
- Lack of equal resources in all school districts

The following provides an understanding of these issues.

NEED FOR INCREASED INTERGOVERNMENTAL COOPERATION TO ELIMINATE COST-INEFFECTIVE DUPLICATION OF SERVICES AND FACILITIES

Each of Allegheny County's 130 municipalities has traditionally been responsible for providing its citizens with basic public services and facilities. As municipalities experience growth or decline, and demands for services and facilities change, meeting the needs of citizens has become more and more challenging for many municipalities.

Over time, the combination of 130 municipalities and tradition of municipal self-sufficiency has produced much duplication of services and facilities. Greater intergovernmental cooperation is needed so that services and facilities can be provided more efficiently and economically. The eight COGs, or Councils of Government, are an example of the benefits of intergovernmental cooperation. Through the COGs, member municipalities participate in money-saving joint purchasing programs and other joint services.

Long-range land use planning, multi-municipal comprehensive plans, capital improvement plans, and municipal budgets are other tools that can help municipal decision-makers identify opportunities and strategies for increased intergovernmental cooperation.

PROVIDING ADEQUATE POLICE AND FIRE SERVICES

Police stations throughout Pennsylvania compete for the same funds. As demand outpaces available funds, many municipalities in Allegheny County are finding it increasingly difficult to provide adequate police services. Some local stations are beginning to rely more heavily on State and County protection, especially if they are unable to provide 24-hour service.

Consolidation of police forces could achieve an economy of scale that would reduce municipal expenses. According to the *Regional Police Services in Pennsylvania* manual, consolidation requires the abolishment of political subdivision boundaries for police services, and the unification of existing police departments into one regional police department.

The distinctive characteristic of this method of policing is that the operation of the police department is outside the direct control of any one single municipality. The consolidated police department is responsible to a policy board or police commission consisting of primarily elected officials from each participating municipality. The board appoints the chief, evaluates the chief's performance, sets policies and adopts a budget. The service areas would be bigger than one municipality, but a well-operated department will provide the same high quality of service generally associated with community police forces.

As development or redevelopment occurs, fire protection may become strained. As with the police services, fire departments compete for limited funds. Growing areas are often in need of new infrastructure systems to sustain development as well. In addition, the County's older communities are faced with antiquated water supply systems prone to distribution and main supply breaks. Most of the county's fire departments are volunteer, which also raises the concern of adequate manpower. These conditions can tax a fire department's ability to provide sufficient service. These issues raise the need for coordination between fire departments to ensure adequate equipment, staffing and other resources.

LACK OF EQUAL RESOURCES IN ALL SCHOOL DISTRICTS

While Allegheny County has a number of excellent school districts, there are many others that are struggling and/or low-performing. The Upper St. Clair School District tops the list of the best-performing of the state's public school districts, according to research conducted by the *Pittsburgh Business Times* in 2007. The *Times* uses a formula to rank nearly 500 districts based on three years of Pennsylvania System of Student Assessment test scores. Four County school districts were ranked in the State's top ten:

1. Upper St. Clair
3. Mount Lebanon
4. Hampton Township
9. North Allegheny

Four other County school districts were ranked in the bottom ten in the state:

496. Wilkesburg Borough
495. Clairton City
493. Duquesne City
492. Sto-Rox

Many school districts are financially distressed because of declining enrollments and lack of resources. Maintenance has also been deferred and many districts have buildings that no longer serve their needs today. Several have consolidated elementary schools or relocated grades to other facilities to reduce the number of facilities needed.

Many of the County's public school districts are cutting staff, benefits, programs and activities in order to trim annual budgets. With steadily declining participation in technical education programs, some districts are deciding whether they can continue to offer career training. Other districts are cutting arts and other enrichment programs as well.

Consolidation of small, rural school districts across the state could help trim annual budgets and per-pupil spending, according to a Standard & Poor's report released in June 2007. The report was prepared for the Legislative Budget and Finance Committee of Pennsylvania's General Assembly to estimate how much could be saved by consolidating school districts. The study found that smaller school districts tend to spend more money per student than medium to large districts and so mergers would result in significant savings.

Of the 88 school districts evaluated in the study, seven are in Allegheny County.

In the early 1970s, many school districts in the County were forced to merge as part of a massive reorganization of the state's education model. Today, as was the case then, local school district officials and residents have not been receptive to school consolidation. School districts surrounding struggling districts are especially unwilling to absorb these schools. Any merger of school districts needs specific legislation signed by the Governor and is a lengthy and contentious process.

As an alternative to consolidation, some districts are well poised to save money by sharing services with other districts.

According to the Mon Valley Economic Development Strategy there are issues other than funding facing many school districts in Allegheny County. These include high school drop-out rates that are higher than the state averages, low performance on standardized testing and lack of general career guidance. Another huge issue is that low performing school districts are often an impediment to attracting businesses and residents to an area. Many people are unwilling to locate to a community that does not have quality schools for their children.

RECOMMENDATIONS

GOAL OF THE PLAN

Essential community facilities and public services are cost effective, adequate and accessible to all County citizens.

OBJECTIVES OF THE PLAN

The objectives of the Community Facilities Plan are to:

- A. Encourage multi-municipal cooperation in the provision of municipal services.
- B. Provide efficient emergency response services.
- C. Support and promote high quality educational opportunities for all County citizens.



- D. Support and promote equal access to the public library system throughout the County.
- E. Promote coordination among hospitals to ensure the quality of health care.
- F. Encourage the development of public and private adult day care centers, senior centers, licensed personal care facilities and any other age-related facilities to care for the County's aging population.
- G. Provide equal access to public facilities.

The following provides an understanding of the objectives.

A. Encourage Multi-Municipal Cooperation in the Provision of Municipal Services

With so many municipalities, governance in Allegheny County is fragmented. In metropolitan areas across the country, it has been shown how fragmented local government impedes cooperation, hurts economic competitiveness, worsens unbalanced growth patterns, contributes to the pattern of segregation and leads to higher costs for services through operational inefficiencies. Fragmented governments can also be considered a public safety issue. When municipalities do share or consolidate services and facilities, a stronger public safety net is in place.

Using public investments to improve community facilities and promote regional equity is a key strategy in making a region successful.

In 2006, Allegheny County established a committee, chaired by the University of Pittsburgh Chancellor Mark Nordenberg, to identify ways to enhance the efficiency and effectiveness of government in the County. *Allegheny Places* further encourages local governments to work together to improve the equity, vitality and dynamism of the County through the sharing of municipal services.

B. Provide Efficient Emergency Response Services

Historically, emergency response services in the County have been provided at the municipal level, and service areas have generally corresponded to municipal boundaries. To ensure that emergency response services are the most efficient, adequate, and cost-effective, future service areas need to be based not on political boundaries, but on boundaries determined by physical features such as road systems, rivers and topography that affect the ability of emergency responders to reach destinations quickly.

Police

Municipal leaders need to measure the cost of providing an individual police service against a more affordable service delivery by way of regionalized services, or contracting with an adjacent municipality. Municipalities can investigate shared police protection services through their COG, which provides a means for municipalities to work together in collaboration with the County. The Pennsylvania Department of Community and Economic Development has published a manual titled *Regional Police Services in Pennsylvania* as a resource for local municipalities interested in alternative ways to provide policing services.

The issue needs much more thought and study, but one option that municipalities and COGs could investigate is having eight main police departments for each COG region, plus a department for the City of Pittsburgh.

Fire

Many municipalities have more than one fire house, since they were originally established to serve larger populations. The population of Allegheny County is much smaller than it used to be and, in many instances, the amount of services that were needed in the past is not necessary today. Where possible, fire departments should consider coordination of local houses in order to more effectively manage costs, share equipment and staff, and achieve more efficient ways of providing service.

EMS

Community-based emergency medical service providers, such as fire companies and ambulance corps, must compete with a variety of other private operators seeking support from residents. Municipalities should work together to consider which new or growing Places may need additional or modernized EMS stations.

Hazard Mitigation

The County's aging infrastructure, underground natural gas and oil transmission lines, and many creeks and rivers vulnerable to flooding are all of major concern to public safety personnel. The County's Hazard Mitigation Plan, released in 2004, provides a guide to assist the County and municipalities in dealing with various natural and manmade disasters. The County will continue to work with the COG directors to get the municipalities that have not yet done so to adopt the plan. The plan, once adopted and operational, should be reviewed annually and used by participating municipalities to test its effectiveness and identify response gaps, and updated as needed.

C. Support and Promote High Quality Educational Opportunities for all County Citizens

The quality of schools has a strong influence on the health of communities in terms of attracting business and residents. It is evident that school districts in Allegheny County do not provide the same quality of opportunities for students. Furthermore, all high school graduates need opportunities for advanced education in order to compete in the workplace. In today's economy, driven by high productivity and increasingly skilled processes, an unskilled workforce is no resource at all. It is only a 'potential' resource, and that potential can only be realized through workforce education and skills development. A large 'unskilled' population is a detriment to the County's economic growth and to a high standard of living.

The County supports the work of the Mon Valley Economic Development Strategy and the recommendation of that study, which highlights the

need for an expanding 'hub' model for education and workforce development. This model is geared toward providing students in previously low performance schools the vocational and technical skills they need to be qualified for high paying jobs that need a skilled workforce.

According to the Strategy, while the majority of America's high school graduates are being packed-up to go off to college (with a good chance of failing on the four-year degree path and incurring considerable debt along the way), a large volume of good paying technical jobs requiring only a postsecondary education are going unfilled. Throughout the 1990s, industries in information technology, precision manufacturing, electronics production, building construction (indeed, virtually all industries employing technical workers) – workers who used math and science principles in their work – faced workforce shortages. Economic trends point to a need for a more highly occupationally skilled workforce at a time when vocational education and training is experiencing enrollment decline. Multiple research reports show that workers in the future will need higher levels of skills, particularly in mathematics, science, and reading comprehension, as well as new decision-making and teamwork skills.

The Strategy calls for action in steering public opinion to better value technical careers and to raise awareness of the substantial family-sustaining wages available through alternative skill development pathways.

D. Support and Promote Equal Access to the Public Library System throughout the County

The County and the County Library Administrator have provided leadership and encouraged the coordination of services among the 46 independent public libraries, and will continue to do so. Their efforts have focused on the following strategic initiatives:

- Providing public library services to educationally disadvantaged communities through the establishment of Knowledge Connections in public housing communities, and the rescheduling of stops made by the Allegheny County Bookmobiles
- Initiating intermunicipal public library development



■ Electronically linking municipal libraries to the Carnegie Library of Pittsburgh

In an effort to expand library services beyond their walls, public, university and corporate libraries have been linked together by providing high speed access between personal computers and businesses, schools, municipal facilities, community centers and other locations. This service, known as eiNetwork, allows residents to access the online collection of all eiNetwork public libraries in Allegheny County. There are about 3.5 million items listed in the catalog, and they include books, videos, DVDs, CDs, CD-ROMs, eBooks, audiotapes, magazines and more. Additionally, access to library websites will allow linkages to research and data not otherwise available to residents. The eiNetwork is a collaboration of the Allegheny County Library Association and the Carnegie Library of Pittsburgh.

The County's growing number of Technology Centers provides low-income, adult residents with access to computers and the internet.

E. Promote Coordination among Hospitals to Ensure the Quality of Health Care

In 2006, the County's Health and Human Services Department began use of a data-sharing technology that will enable the sharing of data to better coordinate care services in Allegheny County. Use of the technology has wide application. Regional organizations can share health care data among health care organizations using a wide array of information technologies. The technology also gives residents receiving services the ability to look for information themselves.

As new health care facilities are planned, efforts must be taken to ensure that they will provide equitable access for all residents. New or expanded health care services should be located in Places with easy access via transit, automobile and walking. The Allegheny County Human Services Department could be charged with the mission to advocate and encourage equitable access to medical service for underserved County residents.

F. Encourage the Development of Public and Private Facilities to Care for the County's Aging Population

The Allegheny County Department of Human Services provides services to elderly residents through their Area Agency on Aging. The County will continue to operate and maintain publicly offered centers, as well as work with private companies to continue to offer the highest and best quality services for the County's senior population. See the Housing Element (Chapter 4, Section D) for more information on elder housing.

G. Provide Equal Access to Public Facilities

One objective for *Allegheny Places* is for people with disabilities from all cultural backgrounds to have equal access to the options and choices that are available to people without disabilities.

Organizations throughout the County provide a range of public facilities for residents. A user fee for service on a sliding scale could be developed to permit for fairness and access to residents at all income levels, and as a means to augment funds to operate the facility. (If a facility receives money from the state lottery, it cannot charge fees.) New facilities should be located along public transit routes to enable access to those who do not own or operate an automobile. Such facilities are ideally located in mixed-use communities with accommodations for pedestrians.

Municipalities that need new or updated facilities are encouraged to either create or construct multi-purpose or multi-municipal facilities that have a one-stop shop environment for all types of municipal and service needs, in a central location and on a transit corridor. When feasible and where the need exists, municipalities should provide these facilities with their neighbors.

All facilities should be brought into compliance with the Americans with Disabilities Act Standards for Accessible Design.

TRANSPORTATION PLAN

■ OVERVIEW OF THE TRANSPORTATION PLAN

According to *Bridges and Tunnels of Allegheny County* (www.pghbridges.com), geology has exerted a strong influence on the development of transportation in Allegheny County. The County is located on the Allegheny Plateau. Our three rivers, together with their many tributaries, formed bluffs and steep slopes as they cut their way through layers of rock for millions of years. Long ago, Native Americans traveled on trails through the area, often following the tops of the ridges to avoid river and stream crossings.

Today, Pittsburgh and its suburbs are known for steep hillsides and streets requiring steps for sidewalks. Other metropolitan locations may have similar topography, but generally they are not as heavily urbanized as Allegheny County. Not surprisingly, our topographic features require that we have thousands of bridges and numerous tunnels. It is virtually impossible to travel any notable distance without crossing a bridge or passing through a tunnel here. Pittsburgh is known as the “City of Bridges” for the number and variety of structures spanning our watercourses.

Transportation has been instrumental to Allegheny County’s development and remains vital to its economic health. The County’s transportation system is comprised of six basic modes that combine to create the network of infrastructure which moves people, goods and services. The transportation network is depicted on Map 4I.1.

The *Allegheny Places* Transportation Element is organized into sections featuring these transportation modes:

- **ROADWAYS AND BRIDGES**
- **PUBLIC TRANSIT**
- **BICYCLE AND PEDESTRIAN**
- **AIRPORTS**
- **RAIL FREIGHT**
- **WATERWAYS**

For each mode covered in the Plan, you will find Today’s Conditions, Issues and Analysis, and Recommendations.

RELATIONSHIP TO THE FUTURE LAND USE PLAN

The purpose of the Transportation Plan is to maximize utilization of the existing transportation network, target new investment in the system for maximum return and provide all people equal access to growth opportunities, especially those associated with ‘Places’ designated on the Future Land Use Plan (see Map 4A.1).

The Future Land Use Plan focuses development in designated ‘Places’. Most ‘Places’ are along existing transportation corridors and all are highly accessible to each other, as well as to the region. One of the key benefits of concentrating development, investment and activities in ‘Places’ is that transportation alternatives can be developed that provide choices and options for movement between ‘Places’. This mobility will ensure a high level of access to jobs, shopping, schools, and other destinations. We have made choices resulting in the ability to concentrate investments for maximum effectiveness. Visible, usable, quantifiable and dramatic results can occur in a much quicker time frame by targeting funds to ‘Places’.

The County’s economic development policies for attracting new business as well as retaining existing businesses are dependent on efficiently moving people, goods and services. Therefore, it is critical that actions and recommendations promote a safe and dependable transportation infrastructure with maximized inter-connectivity for people as well as all types of freight movements. We want the best functioning system we can achieve, which requires careful, thoughtful planning and investment.

Provide all people equal access to growth opportunities, especially in defined Plan ‘Places’.



TRANSPORTATION PLANNING FOR THE REGION

The Region

Allegheny County's transportation system is part of the regional transportation network. Efficiently managing this network requires regional cooperation and coordination with all counties who are members of the Metropolitan Planning Organization (MPO). The MPO is the Southwestern Pennsylvania Commission (SPC). SPC is comprised of ten counties and the City of Pittsburgh. Regional coordination is critical to ensure that transportation systems are maintained, congestion is managed, and the safe and efficient movement of people and freight is attained. SPC's website contains extensive related information and can be accessed at:

www.spcregion.org.

The Planning Partners

Transportation planning in Allegheny County is a cooperative effort between the County, PennDOT, the City of Pittsburgh and the Port Authority of Allegheny County (PAAC); all together they comprise the transportation Planning Partners. SPC is the regional organization where the 10-county MPO's Planning Partners come together to produce the official, funded Transportation Improvement Program (TIP), and the Long Range Transportation and Development Plan (LRP). The most recent LRP is the 2035 LRP. The LRP is a strictly fiscally-constrained plan. The most recent LRP was developed through participation in SPC's "Project Region". The resulting document is named "2035 Transportation and Development Plan for Southwestern Pennsylvania". Chapter 6 of the 2035 Plan contains the most recent listings of programmed transportation projects the Planning Partners expect to construct through 2035 (see Supporting Documents). "Project Region" and the resulting plan integrated transportation planning and economic development into a coordinated vision, with associated actions. Included is the identification of needs and resources, development of a range of potential alternatives, and recommendations for implementing specific solutions on a regional level. The regional plan is consistent with County Plans. Major proposed transportation projects are shown on Map 4I.2.

Public Involvement

Public involvement is critical to transportation planning. SPC utilizes public participation panels (PPPs) appointed by each County. Together, they elicit the input and active involvement of individual stakeholders, groups and entire communities from the earliest planning stages of transportation projects and processes through completion.

Councils of Government

There are eight Councils of Government (COGs) in Allegheny County. The COGs are voluntary coalitions of municipalities organized by geographic area. Most of our 130 municipalities belong to a COG. The COGs act to:

- Discuss and bring into focus regional challenges and opportunities
- Collect and maintain data of a regional interest
- Facilitate improved communication, coordination and intergovernmental cooperation between all levels of government
- Facilitate cooperative agreements
- Seek technical assistance
- Coordinate Federal, State and Local programs of regional importance

The COGs hold regular meetings to discuss issues, including transportation needs.

The Pennsylvania Turnpike Commission

The existing, and planned, Pennsylvania Turnpike Commission roadway system also plays a vital role in both our transportation system and future land use in Allegheny County. The main PA Turnpike issue in the future will be obtaining funds for the completion of the Mon/Fayette Expressway and Southern Beltway Projects in Allegheny and Washington Counties. Programming for the Turnpike Commission's projects requires coordination through the SPC's Transportation Improvement Program and Long Range Plan. Funds to program new construction for the Turnpike are expected to come from non-traditional sources including partnerships and other creative finance methods.

ROADWAYS AND BRIDGES

■ TODAY'S CONDITIONS

FUNCTIONAL CLASSIFICATION

Highways are classified according to their function and the type of service they provide. The functional classification system serves as both a guideline for planning as well as means for determining funding for maintenance and upgrades. Table 4I.1 details the functional class breakdown and the definition of each class.

Table 4I.2 provides the total linear lane miles for each functional class within Allegheny County and Map 4I.3

shows the Allegheny County highway network by functional classification.

VEHICLE MILES TRAVELED

Figure 4I.1 shows that in recent years, average vehicle miles traveled (VMT) in the County increased. As development patterns spread out, people drive more frequently and drive longer distances to reach destinations. While the general trend for VMT is increasing, fluctuations do occur and are a response to shifts in the economy. The number of trips also increases due to changes in household patterns and locations of activities.

TABLE 4I.1 – Highway Functional Classes

FUNCTIONAL SYSTEM	SERVICES PROVIDED
Arterial	Provides the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control. Includes interstates, expressways and freeways.
Collector	Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
Local	Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement.

Source: AASHTO Green Book



Photo credit: McCormick Taylor

TABLE 4I.2 – Functional Classification of Highways in Allegheny County by Linear Mile

FEDERAL AID					SUB TOTAL	NON FEDERAL AID		SUB TOTAL	TOTAL
Interstate	Other Freeway/ Expressway	Other Principal Arterial	Minor Arterial	Major Collector		Minor Collector	Local Roads		
94	69	359	596	468	1,586	21	4,132	4,153	5,739

Source: PennDOT Bureau of Planning and Research, 2005 Highway Statistics



ROADWAYS AND BRIDGES

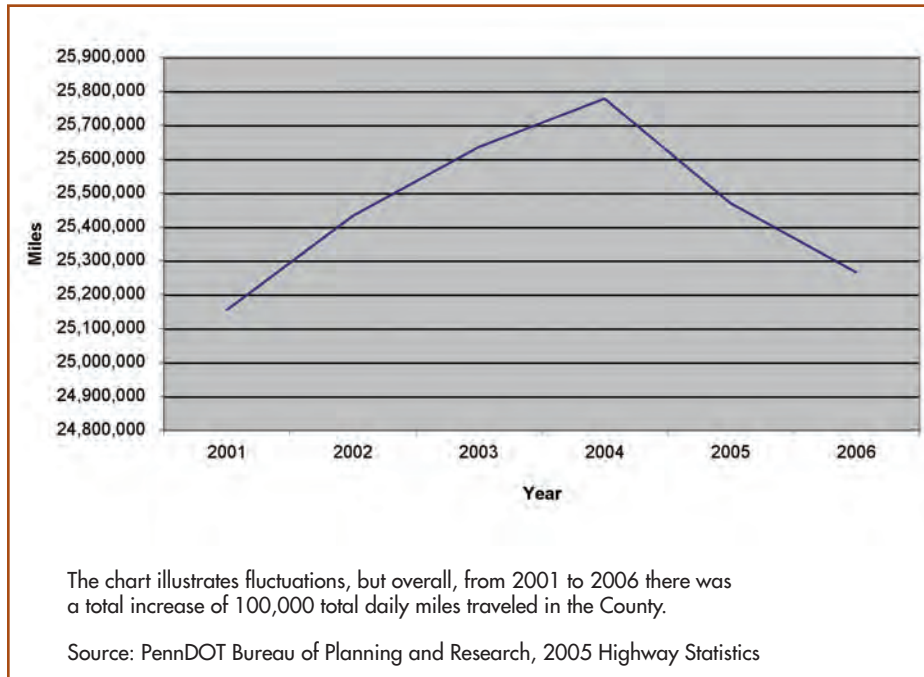


Figure 4I.1 – Total Daily Miles Traveled in Allegheny County

Annual vehicle miles traveled in Allegheny County are expected to increase in the next few decades, unless changes in development patterns occur that result in people needing to travel fewer miles. Figure 4I.1 shows that between 2001 and 2004 there was an increase of 600,000 total daily miles traveled. Between 2004 and 2006 there was a decrease of 500,000 total daily miles traveled in Allegheny County. At the highest fluctuation there was an increase of just over 2% of daily miles traveled, and there has been an overall increase of 100,000 daily miles traveled during the entire period.

CONGESTION

The Southwestern Pennsylvania Commission (SPC) manages the federally mandated Congestion Management Process (CMP) for the 10-county region that includes Allegheny County. Within the County, there are approximately 64 corridors that are included in the program. Table 4I.3 lists the 19 congested corridors that were chosen to be analyzed for *Allegheny Places* with their corresponding average weekday

traffic. Average Daily Traffic (ADT) for 2005 was used to determine the effects of the *Allegheny Places* land use scenarios, by comparing the base year traffic (2005) with projected traffic in 2025. *Allegheny Places'* future plan year is 2025.

In May 2007 SPC's Congestion Management Process ranked the Parkway West Corridor (I-376 between Downtown Pittsburgh and Pittsburgh International Airport) as experiencing the highest traffic delay in the region.

TRAFFIC SIGNALS

Allegheny County has over 1,600 signalized intersections. The City of Pittsburgh has 583 signalized intersections. A total of 106 municipalities in the County maintain signals. In Pennsylvania, traffic signals are generally maintained and operated by the municipality, whether the intersection is owned by the state, county or local municipality, and regardless of which entity maintains the roadways.

CRASH STATISTICS IN ALLEGHENY COUNTY

Of Pennsylvania's 67 counties, Allegheny County had the second highest number of reported crashes as well as the second highest number of traffic-related deaths in 2004. The number of crashes declined slightly every year from 1999-2004, but the number of traffic deaths fluctuated, as shown in Table 4I.4. Approximately 20% of these deaths were pedestrians. This information is tracked over time to determine which locations require additional safety measures.

ROADWAY OWNERSHIP

Of all the counties in Pennsylvania, Allegheny County has the highest number of roads owned by local municipalities. Local roads are maintained by approximately 130 public works

ROADWAYS AND BRIDGES

TABLE 4I.3 – Congested Corridors

CORRIDOR	LOCATION	2005 Daily Volume
Parkway West (Future I-376)	Fort Pitt Tunnels	118,900
Parkway East (I-376)	Squirrel Hill Tunnels	109,000
I-79	Wexford	102,200
Parkway North (I-279)	McKnight Rd	76,200
PA 60	Pittsburgh International Airport	72,100
I-79	Neville Island Bridge	60,300
Liberty Bridge	PJ McArdle Roadway, Pittsburgh	56,500
PA 28	31st St Bridge	44,600
PA 51 (Saw Mill Run Blvd)	Liberty Tunnels	40,800
PA 8	Etna	40,500
US 19 Truck (West Liberty Ave)	Liberty Tunnels	35,500
PA 65	McKees Rocks Bridge	34,500
US 19 (Banksville Rd)	Parkway West	33,900
PA 885 (Lebanon Church Rd)	PA 51	30,000
PA 121 (Greentree Rd/Cochran Rd)	Parkway West	27,600
Business US 22	Monroeville Mall/Thompson Run Bridge	23,700
US 30	Westinghouse Bridge	20,300
PA 88 (Library Rd)	PA 51	19,300
PA 837 (Duquesne Blvd/8th Ave/Carson St)	Kennywood	17,700

Source: SPC Cycle 7 Model

TABLE 4I.4 – Number of Crashes and Traffic-Related Deaths in Allegheny County

YEAR	2000	2001	2002	2003	2004	2005
Total Crashes	13,798	13,850	12,625	12,785	12,415	12,105
Number of Deaths	73	81	110	79	77	104
Number of Pedestrian Deaths	16	15	23	21	16	14

Source: PennDOT 2005 Crash Facts and Statistics



ROADWAYS AND BRIDGES

departments, except in cases where municipalities have voluntarily joined together with their Council of Government (COG) to share the responsibility of road maintenance, among other services.

Allegheny County owns more lane miles of road than all other counties in the Commonwealth combined.

Allegheny County is responsible for maintaining 800 lane miles of road. The ownership pattern of those lane miles is fragmented and lacks continuity. Figure 4I.2 illustrates road ownership in the County.

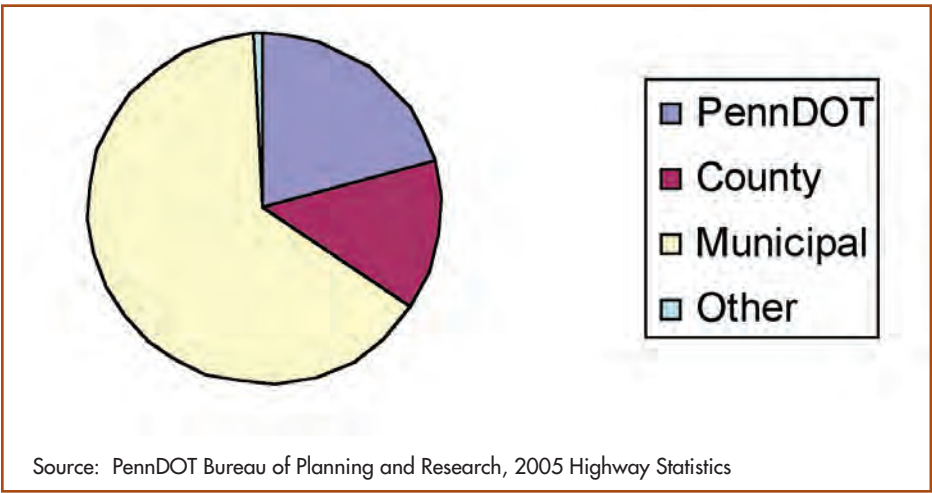


Figure 4I.2 – Road Ownership in Allegheny County by Lane Mile

BRIDGE OWNERSHIP

Within Allegheny County boundaries, there are 1,197 bridges which are 20 feet or greater in length, of which PennDOT owns 804, the County owns 174, municipalities own 186, and 33 are owned by other entities. Allegheny County also owns and maintains another 346 bridges which are less than 20 feet in length for a total of 520 bridges owned by the County. Inside the borders of Allegheny County, PennDOT owns another 349 bridges less than 20 feet in length for a total of 1,153 bridges, according to the

March 2008 Allegheny County Road and Bridge Ownership Evaluation report (see Supporting Documents).

The following major bridges are owned by Allegheny County:

- Mansfield Bridge
- Homestead Grays Bridge
- Rankin Bridge
- Glenwood Bridge*
- Rachel Carson Bridge
- Andy Warhol Bridge
- Roberto Clemente Bridge
- Sixteenth Street Bridge
- South Tenth Street Bridge

* The Glenwood Bridge is jointly-owned. The structure, deck and sidewalks are each owned by different entities. The County owns the superstructure, the city owns the sidewalks and PennDOT owns the pavement.

BRIDGE CONDITION

The condition of bridges is determined by inspections and summarized in a Sufficiency Rating. A Sufficiency Rating is a rating from 0 to 100, where 0 is entirely insufficient or deficient and 100 is entirely sufficient. The calculated rating indicates the bridge's sufficiency

or capability based on the following factors:

- The structure's adequacy and safety (accounts for 55% and based on inspection data)
- The structure's serviceability and functional obsolescence (accounts for 30% and based on ability of bridge to meet current traffic conditions)
- How essential the bridge is for public use (accounts for 15%)

The Sufficiency Rating is considered by the federal government when a state or county requests federal bridge dollars to improve the condition of the bridge. Bridges with low sufficiency ratings are eligible for more funds:

ROADWAYS AND BRIDGES

Sufficiency Rating	Funding Eligibility
80 – 100	Not eligible
50 – 79	Eligible for costs to rehabilitate bridge
0 – 49	Eligible for costs to replace bridge

As of August 2007, of the 1,153 State-owned bridges in Allegheny County on state routes, 229 or 20% have a sufficiency rating that qualifies them for funding for repair or replacement. Ten of these bridges have the lowest sufficiency rating, which places them in serious need of repair.



Photo credit: Kevin Smay

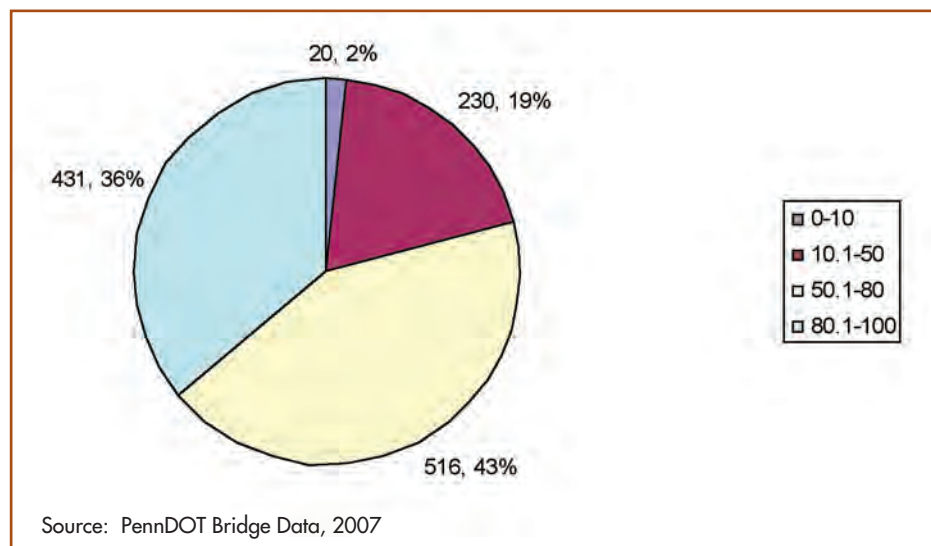


Figure 4I.3 – Sufficiency Rating of All Bridges in Allegheny County over 20 feet in Length

As all bridges in the County get older, more will fall into the category of being in disrepair or as having substandard conditions. This will increasingly require substantial funding be targeted toward their upgrade, maintenance and replacement. Regular maintenance activities may extend the life of a bridge. But, with heavy dependency upon bridges to maintain connectivity countywide, bridges will get precedence over roads for funding as they deteriorate. The bridge projects do compete with other types projects on the TIP. Therefore, the poor condition of bridges in Allegheny County will negatively impact the amount of funds available for highway, road and other transportation projects for the foreseeable future.

Figure 4I.3 indicates that in 2007, 2% or 20 of the bridges in Allegheny County over 20 feet in length have a sufficiency rating of 10 or below. Those 20 bridges are listed in Table 4I.5. In addition, there are another 230 bridges that are eligible for replacement and 516 that are eligible to rehab or refurbish. In total there are 766, or almost 64% of bridges located in the county, eligible for some type of repair. This is an incredible number of bridges that will need work over the next decade. These numbers do not account for the numerous bridges providing critical connectivity which are under 20 feet in length.

With insufficient funds to cover the costs for the large number of bridges falling into disrepair, an increase in transportation funding is necessary to complete just the required maintenance projects, not to mention any new capacity projects. Even though PA Act 44 was passed in 2007, and provided funding for bridge maintenance and rehabilitation, additional funds will still be needed. Recently the Governor's proposed budget for 2009 included a request for even more bridge funding. The outcome of the final budget will not be known until the 2009 budget is passed this year.

In Allegheny County, 766 – or almost 64% of all bridges over 20 feet in length – are eligible for some type of repair.



ROADWAYS AND BRIDGES

CURRENT FUNDING AND PROJECT PROGRAMMING

Almost all major transportation projects, whether maintenance or new capacity projects, involve the use of Federal funds. Federal regulations require the SPC, as the designated Metropolitan Planning Organization (MPO) for

the Pittsburgh Transportation Management Area, to develop and maintain a TIP and a Transportation Long Range Plan (LRP). The TIP identifies the region's highest priority transportation projects, develops a multi-year program of implementation, and identifies available federal and non-federal funding for the identified projects. The TIP covers a four-year period of investment and is updated every two

TABLE 4I.5 – Bridges in Allegheny County with a Sufficiency Rating < 10 as of August 2007

NAME	OWNER	TYPE	SUFFICIENCY RATING	STATUS
@ INT.W/SYGAN-BLYTHE RD	State	Steel, Girder riv/thru	2	Posted
GREENSBURG PIKE OVER RT 30	State	Steel, Girder riv/thru	2	Posted
BLVD ALLIES OVER FORBES AV	State	Steel, Girder riv/thru	2	Posted
GR01 GEORGE'S RUN NO. 1	County	Concr. encased steel, I beams	2	Open
HV04 HOMEVILLE CR # 4	County	P/S, Box beam - adj	2	Posted
301118 AT WEST PARK	Railroad	Steel, Truss - thru	2	Posted
1 MI.EAST OF SR 2045	Railroad	Steel, Girder riv/thru	2	Posted
HULTON BRIDGE	State	Steel, Truss - thru	3	Open
BETHEL PARK O/N&W RR	Railroad	Steel, Girder riv/thru	3	Posted
P09202 KENMAWR BRIDGE	Railroad	Steel, Girder riv/thru	4	Posted
DL06 LIT DEER CRK NO. 6	County	P/S, Box beam - adj	4	Posted
MT05 MONTOUR RUN NO. 5	County	P/S, Box beam - adj	4	Open
NORTH AVE-BRIGHTON RD	Railroad	Steel, Girder riv/thru	4	Posted
P09203 WALL BOROUGH	Railroad	Steel, Girder riv/thru	4	Posted
22'N.E. LINC-ELIZ LINE	State	Concr. encased steel, I beams	6	Posted
PI37 PINE CREEK TRIB#37	County	Steel, I beams	7	Open
449001 OVERLAND ST (XI01)	Municipal	Steel, Girder riv/thru	7	Posted
SQ02 SQUAW RUN NO. 2	County	P/S, Box beam - adj	9	Open
1/2 MI. S.E. OF SR 0050	State	Steel, Girder riv/thru	9.8	Open
1/2 MI.N.W.CORLISS TUNNEL	State	Concrete(in place), Slab (solid)	9.8	Open

ROADWAYS AND BRIDGES

years through a cooperative effort of local, county, state and federal agencies, including participation by the general public. The LRP is similar in nature and covers a 20-years time frame. Transportation projects with any amount of federal funding must be included in both the fiscally-constrained SPC TIP and LRP.

Allegheny, Armstrong, Beaver, Butler, Fayette, Lawrence, Indiana, Greene, Washington, and Westmoreland Counties, and the City of Pittsburgh, are the ten counties and the city that comprise our region. Together they comprise the membership and geographic coverage of SPC, our MPO. Major transportation projects being pursued in Allegheny County must be part of official SPC transportation plans and programs to receive federal funding.

SPC's current TIP (Years 2007-2010) contains the following funding plan for highway and bridge projects in Allegheny County and the City of Pittsburgh. Highways and bridges receive funding from the "Title 1" Federal category, and bridges also receive state bridge bill funds.

SPC TIP Year 2007-2010 highway funding levels, including TIP funds for City, County and PennDOT projects in Allegheny County, total \$185,400,000 average annual funding per year, and \$741,900,000 total for this four-year TIP period.

For updated information, you can view the TIP on SPC's website at www.spcregion.org. The TIP is adjusted frequently; checking SPC's website will update information included in this plan on the date the plan went to print. Once on SPC's website, click on Transportation, then on the TIP, then scroll down and choose the Allegheny County TIP.

The significance of SPC funding levels is twofold. First, the SPC program is under limitations of fiscal constraint. Regional funding levels are a budgeted portion of the Commonwealth's overall transportation program. Therefore, the amount of federal and matching state funding is capped. Second, the amount of funding for Allegheny County including the City of Pittsburgh is also a function of the transportation needs of all the counties comprising the SPC Region. Within SPC's region, there are three PennDOT districts. Allegheny County is located in District 11-0 with Beaver and Lawrence Counties. PennDOT has established a set of criteria to ensure equitable distribution of anticipated Title I (or highway and bridge) funding. Criteria considered are data such as roadway lane miles, vehicle travel data,

bridge condition, air quality attainment status, percent of urban population and accidents at rail-highway crossings. However, once the block of funds are received by a PennDOT district, the funds may not be targeted to specific counties based on those formulas. There are many reasons for this discussed in other sections of the Transportation Element and supplemental materials.

FUTURE TRAFFIC VOLUMES

For this plan, future highway use was projected to year 2025 by a traffic modeling methodology established to work in conjunction with SPC's transportation model. SPC provided its current highway network files and associated Cycle 7 data to be used as a base from which traffic produced by the proposed land use scenarios could be projected. The model assumes that the PA Turnpike's Mon Fayette Expressway and Southern Beltway are constructed.

Base year traffic volumes on key routes in Allegheny County were compared between the proposed land use scenarios. These volumes are shown in Table 4I.6. The largest increase in traffic volumes are near the Pittsburgh International Airport along PA 60 (I-376) due to targeted development in that area of the County, illustrated in the Future Land Use Plan. These volumes are expected to grow by 160%. Other corridors that grow significantly are Parkway West/I-376 near I-79, Route 28 and Route 65. Negative growth in the volumes is a result of the Mon Fayette Expressway being included in the model, as it takes some of the pressure off existing routes. Additional evaluation measures were also developed such as total vehicle miles traveled and total delay times among others. Further documentation on the methodology, as well as the complete set of results, can be found in the Supporting Documents.

In 2008 the full length of the Parkway West Corridor/I-376 is currently congested and backing-up during the AM and PM peak hours. By 2025 the Parkway West Corridor/I-376 is expected to be backed-up continuously for the entire day. It is obvious that we must plan to mitigate this prediction. The Parkway West (I-376), from Pittsburgh International Airport to Downtown Pittsburgh and on to Oakland, is the main spine highway of the County and the region. It is the lifeline for economic development opportunities, and it is the most heavily traveled highway in Southwestern Pennsylvania.



ROADWAYS AND BRIDGES

TABLE 4I.6 – 2025 Traffic Projections for PennDOT Congested Corridors

CORRIDOR	LOCATION	2005	2025	% CHANGE
PA 60	Pittsburgh International Airport	72,100	187,700	160%
Parkway West (Future I-376)	West of I-79	95,195	176,259	85%
I-79	Neville Island Bridge	60,300	104,700	74%
PA 28	31st St Bridge	44,600	72,200	62%
PA 65	McKees Rocks Bridge	34,500	54,200	57%
I-79	Wexford	102,200	144,700	42%
Parkway North (I-279)	McKnight Rd	76,200	101,300	33%
US 19 Truck (West Liberty Ave)	Liberty Tunnels	35,500	45,800	29%
PA 88 (Library Rd)	PA 51	19,300	24,800	28%
Parkway West (I-279, SR 22, US 30)	Fort Pitt Tunnels	118,900	148,100	25%
Liberty Bridge	PJ McArdle Roadway, Pittsburgh	56,500	70,500	25%
PA 8	Etna	40,500	49,300	22%
PA 51 (Saw Mill Run Blvd)	Liberty Tunnels	40,800	48,400	19%
US 19 (Banksville Rd)	Parkway West	33,900	38,900	15%
PA 885 (Lebanon Church Rd)	PA 51	30,000	32,700	9%
Parkway East (I-376)	Squirrel Hill Tunnels	109,000	106,500	-2%
PA 837 (Duquesne Blvd/8th Ave/Carson St)	Kennywood	17,700	17,100	-3%
PA 121 (Greentree Rd/Cochran Rd)	Parkway West	27,600	26,100	-5%
US 30	Westinghouse Bridge	20,300	18,600	-8%
Business US 22	Monroeville Mall/Thompson Run Bridge	23,700	15,600	-34%

Source: SPC Cycle 7 Model, URS

ROADWAYS AND BRIDGES

■ ISSUES AND ANALYSIS

This section examines ways to improve mobility on the County's roadways and bridges and to provide for effective maintenance.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- There is an overall transportation funding shortfall to adequately address needed maintenance. And, there is very little opportunity for new capacity additions to the roadway system in Allegheny County. That situation was not fully addressed by recent legislation (PA Act 44) which provided some new funding statewide, but did not cover the entire shortfall, and Act 44 may not receive needed final federal enabling approvals for full implementation.
- Increasing congestion levels on corridors of concern such as I-376 (Parkways West and East), I-79 and Route 28 will limit opportunities and plans for economic development, and will result in more time spent in vehicles for freight operators and all citizens.
- Core areas such as Downtown Pittsburgh and Oakland have internal mobility problems that restrict movement and connectivity with other areas. Lack of a 'Transit First' (bus priority) traffic management policy negatively affects Downtown bus operations.
- Cost-effective congestion reduction strategies, such as traffic signal retiming projects, are underutilized. Other alternatives such as restricting transit traveling on core city streets may present viable options to congestion in Pittsburgh and Oakland.
- There is a lack of options for intermodal and multi-modal connectivity. These types of connectivity would create more options and modes for efficient travel.
- There is a lack of access management strategies on poorly functioning corridors. This situation can create unsafe conditions and high congestion levels.
- Disjointed or fragmented local municipal, County and State roadway ownership creates obstacles to effective road program strategies.

- There is a lack of attention to funding for 'Complete Streets', which have multi-modal functionality.

The following provides an understanding of these issues.

TRANSPORTATION FUNDING SHORTFALL

The Commonwealth's dedicated roadway funding sources have not kept pace with inflationary roadway/bridge construction cost increases. Additionally, federal funds have not increased to the Commonwealth of Pennsylvania, relative to many other states, and the nationwide federal allocation fund is predicted to become insolvent by 2009.

Inadequate Transportation Funding does not meet state, county and municipal maintenance cycles due to:

- The Commonwealth sponsored "liquid fuels allocation system for counties" is based solely on the ratio of each County's average gas consumption in the years 1927, 1928 and 1929. Allegheny County has 54% of the County-owned roads in Pennsylvania and gets 13% of the liquid fuels allocation. In comparison Philadelphia has no county roads, but receives 15% of the statewide county funds and receives additional funds that only cities and local municipalities are eligible for; those other local municipal allocations are based upon road miles and population.
- The statewide allocation to the Commonwealth's MPOs does not directly consider a county's roadway and bridge systems in their allocation process. Only State owned/maintained systems are considered. Therefore Allegheny County's situation, with more ownership of roads than all the rest of the counties in Pennsylvania combined, and more and bigger bridges owned by Allegheny County, by far, than any other county, is not adequately addressed in the State funding process.
- Additionally, the allocation formula also does not consider the severe impact of topography and geologic conditions on the cost of transportation systems, and difficulty of connectivity and maintenance, in regions of the State such as Allegheny County that have these more challenging conditions.



ROADWAYS AND BRIDGES

INCREASING CONGESTION LEVELS ON CORRIDORS OF CONCERN

Congestion results when traffic demand approaches or exceeds the available capacity of the roadway network. Demand for vehicular travel in Allegheny County continues to rise as development expands to outlying areas. Road capacity changes throughout the day based on weather, work zones, traffic incidents or other non-recurring events. Building new capacity has not kept pace with travel demand due to lack of funds. The need for new capacity must be carefully weighed with many other factors because as more capacity is created, more vehicles miles are traveled, until the roadway system is congested again. Additionally, we are at the point where we cannot afford to maintain the system we already have. This cycle will continue until policies are put in place to help reduce congestion. There is a delicate balance between gridlock and acceptable levels of congestion. This plan points to pathways that can result in mitigation for this situation. But, the path will be long, and the needed changes will require open minds with a new way of looking at and solving issues. The new path will not be a business-as-usual approach.

CORE AREAS HAVE INTERNAL MOBILITY PROBLEMS

Congestion is present throughout Allegheny County, and that can be especially true in the core areas of Downtown Pittsburgh and Oakland. These locations are the major economic generators of the region, and are key locations for corporations and businesses as well as institutions of higher education, cultural facilities and medical facilities. Naturally these areas also experience a great deal of freight traffic. They are accessible via major highways, but also have an internal grid system that is served well by transit. The sheer volume of automobiles, buses, trucks, pedestrians and other service vehicles can cause severe mobility issues within the core areas. The congestion restricts movements and connectivity with other areas. Conflicts arise between modes and that can also limit movements, cause delays and create unsafe situations for transportation system users. In addition, accessing available parking locations can be an issue.

COST-EFFECTIVE CONGESTION REDUCTION STRATEGIES ARE UNDERUTILIZED

Roadway congestion can be temporarily reduced by increasing capacity. Increased capacity on a permanent basis is usually a time-consuming and costly endeavor. There are a number of cost-effective congestion reduction strategies that are underutilized. Examples of these are signal retiming projects, access management strategies, traffic incident management and road/weather management. These strategies can all be cost-effective means to improve service on existing roadways.

LACK OF OPTIONS FOR INTERMODAL AND MULTI-MODAL CONNECTIVITY

Multi-modal and intermodal facilities are connection points where someone can access or link with another mode of travel. They can be facilities such as park-and-ride lots with transit service or parking lots with sidewalks and/or clearly marked bike routes or bikeways. While Allegheny County's vehicle miles traveled and hours of delay are increasing, multi-modal and intermodal connections can make a difference and provide a choice of mode to the user. Overall, our transportation system lacks sufficient amounts of important connections between modes. Getting people out of their cars and traveling via another mode can reduce or slow the growth of congestion and the amount of delay.

LACK OF ACCESS MANAGEMENT STRATEGIES

Access Management is the proactive management of vehicular access points to land adjacent to all types of roadways. Good access management promotes safe and efficient use of the transportation network. US 19, 22 and 30 and SR 8, 28, 48, 50, 51, 60, 65 and 88 are highway corridors lacking good access management strategies. These roadways and the types of development along them, which tend to be strip development, are not designed for the high speeds of vehicles that travel these roads. Driveways and curb cuts are spaced very close together in some instances. This can cause safety issues due to poor sight distances and lack of turning lanes or controlled access points. In addition to these major roads coupled with strip development patterns,

ROADWAYS AND BRIDGES

access management strategies could also benefit many local roads. Lack of good access management negates the investment made in highways and reduces their function.

Access Management encompasses a set of techniques that state and local governments can use to control access to highways, major arterials and other roadways. These techniques include Access Spacing, Driveway Spacing, Service Roads, Safe Turning Lanes, Median Treatments and Right-of-Way Management.

DISJOINTED ROADWAY OWNERSHIP

The pattern of roadway ownership throughout the County is very fragmented. PennDOT, the County and a local municipality can each own portions of the same roads as they wind throughout our County. Ownership is not necessarily based on functional class or volume of traffic. Allegheny County owns major roadways that have a higher classification and would typically be owned by the State. This situation results in the County maintaining roads that would be usually be paid for with State maintenance dollars. The County can wait in a long line and compete with State roads for those dollars, or spend County tax dollars to maintain roads. That type of spending makes our County taxes relatively higher than those of other counties and reduces the competitiveness of our County when attracting new population or business here. The current ownership pattern makes maintenance difficult and can result in uncoordinated and therefore more costly maintenance. The situation frequently increases the cost to perform basic functions such as snow removal and salting roadways during the winter months. County or State trucks must pass over roads they do not own to get to their area of responsibility. There are some cooperative agreements in place that result in entities trading snow removal duties with each other to rationalize the process, but sensible, rational road ownership patterns would be a big step toward making positive “good government” change (see Allegheny County Road and Bridge Evaluation Report in Supporting Documents).

Because Allegheny County owns more roads than all the other counties in the state combined, proportionately the County spends more County tax dollars on roads than other counties.

Of all the counties in Pennsylvania, Allegheny County has the highest number of roads owned by the County. But the largest percentage of all roads here are owned by local municipalities. These roads are maintained by approximately 130 public works departments, except in cases where municipalities have voluntarily joined together with their Councils of Government to share the responsibility of road maintenance, among other services. This large number of public works departments further complicates the coordination of maintenance activities within the County and naturally keeps costs high.

In some cases, some local municipalities cannot handle their responsibilities for the roads they own, due to limited budgets. There are also duplicative capital costs for municipalities in maintaining their roadways because they each must own and maintain service and maintenance equipment, and staff the departments. Discontinuous sections of roadway requiring county, municipal and PennDOT personnel attention leads to inefficiencies, compared to a situation where continuous ownership would be more efficient.

LACK OF FUNDING FOR ‘COMPLETE STREETS’

The term ‘Complete Streets’ refers to the concept of making streets comfortable, safe and convenient for travel by auto, foot, bicycle and transit. This policy ensures that the entire right-of-way is routinely designed and operated to enable safe access for all users. Many of the streets within Allegheny County do not provide for users other than motor vehicles and buses. With the lack of funds available for routine maintenance activities, adding additional amenities for bicyclists and pedestrians can be difficult to require local municipalities to include in their operating and roadway design budgets.



ROADWAYS AND BRIDGES

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Efficiently connects all people to jobs, schools and activities
- Supports mobility of existing communities
- Provides efficient access to proposed development
- Facilitates the movement of people, services and freight
- Is well maintained in a cost effective and rational manner, and
- Utilizes smart techniques and strategies to achieve goals while stretching available road and bridge funds.

OBJECTIVES OF THE PLAN

The objectives of the Roadways and Bridges portion of the Transportation Plan are to:

- A.** Support the Future Land Use Plan through strategic prioritization of transportation system maintenance and operations. Funds for new road capacity will be scarce, and those types of projects must be considered very judiciously within the framework of the guiding principles of the Plan.
- B.** Target transportation investments to support job and housing growth as shown on the Future Land Use map.
- C.** Use demand management strategies to reduce highway congestion. Encourage options of telecommuting, ridesharing, staggered work weeks, flex-time, intelligent transportation systems and many other related techniques.
- D.** Coordinate transportation systems, modes and facilities to increase connectivity and mobility for all, including car, truck, barge, pedestrian, transit, rail, air, roads and bridges, bicycle, etc.

- E.** Protect and enhance the environment by promoting energy conservation, emissions reduction and use of alternative fuels.
- F.** Review County road and bridge ownership to identify ways to improve operation and maintenance efficiencies.
- G.** Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.

The following provides an understanding of the objectives.

A. Support the Future Land Use Plan through Strategic Prioritization of Transportation System Maintenance and Operations

The 'Places' designated in the Future Land Use Plan will be accessible via the traditional County system of circumferential belt roadways. Roadways will provide vital linkages between Places to facilitate commuting to jobs and schools, and for shopping, entertainment, and cultural and recreational trips. This will be accomplished by utilizing as many mode options as are practical.

To provide good mobility and connectivity from Place to Place and to further connect these Places to the region, we need to maintain our existing roadway system and provide intermodal and multi-modal connections where feasible. New capacity projects would be generally limited to transit and private development of access roadways to new development. Similarly, upgrades to the system of limited-access highways should be undertaken. In general, these roadway projects should:

- Identify and promote improvements on congested corridors that are consistent with *Allegheny Places*.
- Identify projects to improve the capacity of existing roadways consistent with *Allegheny Places*. Make sure complete streets are incorporated with accommodations for ADA, walkers, bikers, transit users, etc.

ROADWAYS AND BRIDGES

- Perform access management studies for corridors (see full list in next paragraph) designated in the Future Land Use Plan, and adopt access management ordinances.
- Develop modified grid street systems for best circulation in designated Places where they are feasible within topographic constraints; and once again, provide for complete streets.
- Ensure that Places can be accessed by existing roadway systems and other transportation modes.

In addition, a key recommendation of the Plan is the completion of access management plans and their implementation for U.S. Routes 19, 22 and 30, and PA Routes 8, 28, 48, 50, 51 60, 65 and 88. Access management measures will allow these arterial roadways to function effectively as thoroughfares and provide a high level of accessibility for Places, as well as for current and future development along each of the identified roadway corridors.

Places themselves need to have effective systems of roadways and complete streets to allow circulation within each Place (by various modes) and to connect to external systems of roads, transit and trails. The Future Land Use Plan shows a number of locations for new Places where a modified street grid would work, but most are existing centers, to be reinforced and revitalized. For existing centers, the challenge will be to optimize the existing roadway system so that a balance is achieved between the movement of motorized vehicles and the establishment of transit, pedestrian and bicycle-friendly streetscapes, which are key to retaining current residents and attracting new residents, employment and activity.

Most Places are to be closely-knit, mixed-use centers of residences, shopping, employment, community facilities and open space. For new Places, a hierarchy of roads should be planned to provide for the intended walkable and transit-supportive character for these locations. Arterial, collector, boulevard, commercial, residential and alley types of roadways should be in the mix, with appropriate functions, design speeds, rights-of-way and

cross-sections. A grid or modified grid of streets with small blocks is widely recognized as the most supportive for pedestrian and bicycle mobility and creates the most flexible kind of network for cars, trucks and buses as well.

Master plans, design guidelines and development codes should be completed for new Places in particular, to ensure that roadways are constructed as 'complete streets', with sidewalks, crosswalks, landscaping, pedestrian-oriented lighting, provisions for transit stops and bicycle movement and, in most cases, on-street parking.

B. Target Transportation Investments to Support Job and Housing Growth

Transportation investments should be targeted to support the job and housing growth identified on the Future Land Use map. SPC has set up the following investment categories that can help guide where transportation funding is spent, based on desired development patterns and need for improvements within the County.

Capital Maintenance

- Roadway Preservation or Reconstruction
- Bridge Preservation and Reconstruction/Replacement

Traffic Operations and Safety

- **Efficiency/Operations** – Projects that improve traffic flow, reduce congestion, and improve the operational characteristics of the existing transportation system.
- **Travel Demand Management** – Projects such as carpooling, vanpooling, emergency ride-home programs, telecommuting, commuter benefit strategies, parking incentives, park-n-ride lots, job access reverse commute programs, and other nontraditional types of projects that work to affect the demand side of transportation systems.



ROADWAYS AND BRIDGES

- **Safety** – While virtually every transportation project improves safety by bringing the transportation network up to current design standards, these are stand-alone projects to address specific safety issues.

Several major roadway improvement projects are recommended for Allegheny County, although the effects of these projects will be felt on a regional level. Table 4I.7 shows the projects from the TIP and SPC's 2030 Transportation and Development Plan which will assist in the advancement of the Future Land Use Plan in Allegheny County.

The PA Turnpike Commission's Mon Fayette Expressway, currently under development, will stretch 70 miles southward from Allegheny County through the

Monongahela River Valley to Interstate 68 near Morgantown, West Virginia. The highway will improve access to economically depressed Mon River towns, and support brownfield reclamation and redevelopment efforts in these communities. Additional funding to complete the project sections in Allegheny County is being sought through innovative means by the PA Turnpike Commission. Privatization or public/private partnership arrangements are being explored. The funding source for PA Turnpike projects is separate from the sources for municipalities, the County and PennDOT, although Turnpike projects must appear on the TIP.

TABLE 4I.7 – 2030 Long Range Transportation and Development Plan, Allegheny County Projects

PROJECT / CORRIDOR	DESCRIPTION	LIMITS	MUNICIPALITY
PARKWAY WEST			
Interstate 376 designation	Upgrade I-279, US 22/30 and SR 60 to interstate standards <i>PennDOT</i>	Fort Pitt Bridge to Beaver County Line	Various
Campbells Run Road	Widening and reconstruction Parkway West reliever <i>Allegheny County</i>	I-79- to SR 60	Robinson
Parkway West Widening and Tunnel Upgrades	Upgrade and widen corridor <i>PennDOT</i>	Fort Pitt Bridge to Robinson Town Center	Various
I-79/I-376 Interchange	Missing Ramps now under construction <i>PennDOT</i>		Robinson Township
PARKWAY NORTH			
Parkway North HOV	Lane Extension <i>PennDOT</i>	Perrysville to I-79	Various
I-79			
Complete Warrendale Interchange	Upgrade and Reconstruction <i>PennDOT</i>	I-79 Interchange	Marshall Township
Southern Beltway	Design and Construction of Tolled, Limited Access Facility <i>PA Turnpike Commission</i>	Connection between the Findlay Connector to the Mon Fayette Expressway	Various



ROADWAYS AND BRIDGES

PROJECT / CORRIDOR	DESCRIPTION	LIMITS	MUNICIPALITY
PARKWAY EAST			
Mon Fayette Expressway	Design and Construction of Tolled, Limited Access Facility <i>PA Turnpike Commission</i>	from Route 51 to I-376 in Monroeville (Squirrel Hill Bypass, and then to Bates Street)	Various
S.R. 286	Widening <i>PennDOT</i>	SR 22 to SR 380	Plum, Monroeville
ROUTE 28			
I-279 Connector with Route 28	Direct connection <i>PennDOT</i>	SR 28 to I-279 near Veteran's Bridge	City of Pittsburgh
Troy Hill to Millvale	Upgrade and Reconstruction of SR 28 <i>PennDOT</i>	Troy Hill to Millvale	City of Pittsburgh, Millvale
Etna Interchanges	Upgrade and Reconstruction of SR 28 <i>PennDOT</i>	SR 28 interchanges at Etna and with SR 8	City of Pittsburgh, Etna
Highland Park Bridge Interchange	Upgrade and Reconstruction of SR 28 <i>PennDOT</i>	At Highland Park Bridge	City of Pittsburgh, O'Hara Township
Fox Chapel Interchange	Upgrade and Reconstruction of SR 28 <i>PennDOT</i>	At Fox Chapel Road	Fox Chapel Borough, O'Hara Township
Route 28 Third Lane Widening north of Harmarville	Widening <i>PennDOT</i>	Harmarville to East Deer	Various
ROUTE 22			
Route 48 Interchange	Upgrade and Reconstruction <i>PennDOT</i>	At Route 22	Monroeville
ROUTE 50			
Painters Run Road	Reconstruction and Widening <i>Allegheny County</i>	Gilkeson to Bower Hill Road	Upper Saint Clair
ROUTE 51			
West End Bridge Direct Connection to Route 51	Construct Direct Connection- now underway <i>PennDOT</i>	West End Bridge to Route 51	City of Pittsburgh
S.R. 51/88	Interchange Improvement <i>PennDOT</i>		City of Pittsburgh



ROADWAYS AND BRIDGES

PROJECT / CORRIDOR	DESCRIPTION	LIMITS	MUNICIPALITY
ROUTE 51 (cont'd)			
Brownsville and Broughton Rd	Intersection Improvement <i>Allegheny County</i>		South Park
Baptist at Broughton	Intersection Improvement <i>Bethel Park with PennDOT</i>		Bethel Park
ROUTE 837			
McKeesport/Duquesne Bridge Ramps	Construction Duquesne ramp now underway <i>McKeesport and Duquesne with PennDOT and Allegheny County</i>		McKeesport and Duquesne RIDC Sites
MAJOR BRIDGE MAINTENANCE/UPGRADE PROJECTS			
Hulton Bridge	Replacement <i>PennDOT</i>		Oakmont/O'Hara
Rankin Bridge	Replacement and Reinforcement <i>Allegheny County</i>		Rankin/Whitaker
Mansfield Bridge	Replacement and Reinforcement <i>Allegheny County</i>		
30/Greensburg Pike Bridge	Replacement <i>Allegheny County</i>		North Versailles
Roberto Clemente/Andy Warhol/Rachel Carson Bridges	Rehabilitation <i>Allegheny County</i>		City of Pittsburgh
10th Street Bridge	Rehabilitation <i>Allegheny County</i>		City of Pittsburgh
Fleming Park Bridge on Neville Island	Rehabilitation <i>Allegheny County</i>		Neville Twp
Dookers Hollow Bridge	Replacement and Reinforcement <i>Allegheny County</i>		North Braddock
Homeville Viaduct	Replacement and Reinforcement <i>Allegheny County</i>		West Mifflin
Glenwood Bridge Interchange Ramps	Reconstruction <i>PennDOT, Allegheny County, City of Pittsburgh</i>		City of Pittsburgh

ROADWAYS AND BRIDGES

PROJECT / CORRIDOR	DESCRIPTION	LIMITS	MUNICIPALITY
CITY OF PITTSBURGH / MISC. ROADWAY PROJECTS			
Forbes/Market	Reconstruction <i>City of Pittsburgh</i>		City of Pittsburgh
Penn Circle	Rehabilitation/Conversion to 2-way <i>City of Pittsburgh</i>		City of Pittsburgh
East Carson Street/ Southside Works	Upgrades underway now <i>City of Pittsburgh</i>		City of Pittsburgh
Wenzell Avenue/ Carnahan Rd	Reconstruction <i>City of Pittsburgh</i>		City of Pittsburgh
Brookline Boulevard – Reconstruction	Reconstruction <i>City of Pittsburgh</i>		City of Pittsburgh
Bates Street/2nd Ave	Improvements <i>City of Pittsburgh</i>		City of Pittsburgh
Reedsdale Street	HOV Modification <i>City of Pittsburgh</i>		City of Pittsburgh
Browns Hill Road	Improvements underway now <i>City of Pittsburgh and Allegheny County</i>		City of Pittsburgh
Route 51	Signal Enhancements <i>City of Pittsburgh</i>		City of Pittsburgh
SR 88/McNeilly	Intersection Widening <i>City of Pittsburgh</i>		City of Pittsburgh
Brighton Road Extension	Roadway Extension <i>City of Pittsburgh</i>		City of Pittsburgh
CITY OF PITTSBURGH / MISC. RAMPS, BRIDGES AND TUNNELS			
West Carson Street Bridge	Rehabilitation <i>City of Pittsburgh</i>		City of Pittsburgh
Liberty Tunnel	Rehabilitation <i>PennDOT and City of Pittsburgh</i>		City of Pittsburgh
McArdle Viaduct #1	Rehabilitation <i>City of Pittsburgh</i>		City of Pittsburgh



ROADWAYS AND BRIDGES

PROJECT / CORRIDOR	DESCRIPTION	LIMITS	MUNICIPALITY
CITY OF PITTSBURGH / MISC. RAMPS, BRIDGES AND TUNNELS (cont'd)			
South Highland Ave Bridge	Reconstruction <i>City of Pittsburgh</i>		City of Pittsburgh
Ohio River Road Bridge	Rehabilitation <i>City of Pittsburgh</i>		City of Pittsburgh
Ridge Avenue Bridge	Replacement <i>City of Pittsburgh</i>		City of Pittsburgh
Forbes/Blvd of Allies Ramps & Blvd of Allies Bridge	Replacement underway now <i>PennDOT and City of Pittsburgh</i>		City of Pittsburgh
South Main Street Bridges	Rehabilitation <i>City of Pittsburgh</i>		City of Pittsburgh
McKees Rocks Bridge	Painting <i>City of Pittsburgh</i>		City of Pittsburgh
Note: The 2035 plan is now available on the SPC website, www.spcregion.org . There are updates to the region's long range plan (LRP) every two years. Once adopted, <i>Allegheny Places</i> will be a continually updated plan, and will incorporate changes at regular intervals, but those changes may appear on the SPC website earlier.			

C. Use Demand Management Strategies to Reduce Highway Congestion

Demand Management Strategies can result in a more efficient use of the County's transportation system and resources. Table 4I.8 lists several possible strategies to employ throughout the County to assist in reducing congestion as well as unsafe travel conditions.

Numerous Federal Highway Administration (FHWA) studies have shown how a dedicated traffic signal coordination program can yield consistent benefits in terms of reduced travel time and increased fuel savings. On average the retiming of one signalized intersection can result in an annual fuel saving of 4,000 gallons of fuel. At current fuel prices, this translates into a savings of \$12,000 per year assuming \$3.00 per gallon. This savings is likely to increase with rising fuel prices.

D. Coordinate Transportation Systems, Modes and Facilities to Increase Connectivity and Mobility

A common roadway attribute for all the Future Land Use Plan Places are signalized intersections. Upgrading signalized intersections, along with an ongoing retiming and coordination program, will yield the most cost-effective results of any other type of transportation improvement.

SPC has hired a full time staff person to assist municipalities with signal retiming projects. Effective use of this available resource is important and can be requested by contacting SPC (www.spcregion.org)

ROADWAYS AND BRIDGES

E. Protect and Enhance the Environment by Promoting Energy Conservation, Emissions Reduction and Use of Alternative Fuels

Clean air is an important part of a healthy environment. Unfortunately, many industrial and transportation activities that sustain our economy can also produce air pollutant emissions which degrade our air quality and threaten our environment. Safeguarding our air

from such contamination is an important priority of PennDOT and Allegheny County.

The Congestion Mitigation and Air Quality (CMAQ) Improvement Program is a funding mechanism that provides funds for congestion mitigation transportation projects that provide air quality benefits by reducing emissions. This program currently is valued at approximately \$100 million for each TIP period.

TABLE 4I.8 – Demand Management Strategies

Alternative Work Schedules	Flextime, Compressed Work Week (CWW), and staggered shifts
Bike/Transit Integration	Ways to integrate bicycling and public transit
Bus Rapid Transit	Bus Rapid Transit (BRT) systems provide high quality bus service on busy urban corridors
Carsharing	Vehicle rental services that substitute for private vehicle ownership
Cycling Improvements	Strategies for improving bicycle transport
Flextime	Flexible daily work schedules
Guaranteed Ride Home	An occasional subsidized ride home for commuters who use alternative modes
Individual Actions for Efficient Transport	Actions that individuals can take to increase transport system efficiency
Nonmotorized Facility Management	Best practices for managing nonmotorized facilities such as walkways, sidewalks and paths
Nonmotorized Planning	Planning for walking, cycling, and their variants
Park & Ride	Providing convenient parking at transit and rideshare stations
Pedestrian Improvements	Strategies for improving walking conditions
Ridesharing	Encouraging carpooling and vanpooling
Shuttle Services	Shuttle buses, jitneys and free transit zones
Taxi Service Improvements	Strategies for improving taxi services
Telework (Telecommuting, Distance-Learning, etc.)	Use of telecommunications as a substitute for physical travel
Traffic Calming	Roadway designs that reduce vehicle traffic speeds and volumes

Source: Victoria Transport Institute



ROADWAYS AND BRIDGES

Criteria have been developed to determine eligible TIP projects (see Table 41.9 for CMAQ Eligible Project Categories). SPC performs Air Quality conformity analysis for projects on the TIP and in the LRP to assist in determining project eligibility. These projects include the following:

- Diesel Engine Retrofit
- Signal Upgrades
- Traffic Flow Improvements
- Travel Demand Management Strategies
- Ride Sharing Programs
- Pedestrian and Bicycle Programs
- Education and Outreach
- Transit and Public Transportation Programs
- Inspection and Maintenance Programs
- Extreme Cold Start Programs
- Alternative "Clean" Fuels
- Flex-Time and Telecommuting

The County can inform and educate the public on ways to protect the environment. Allegheny County can lead by example and, for instance, use alternative fuels in its vehicle fleet and continue to advance CMAQ projects in the process described above.

F. Review County Road and Bridge Ownership to Identify Ways to Improve Operation and Maintenance Efficiencies

The County owns and maintains 800 linear lane miles of roadways. In addition, there are 130 municipalities that own and maintain roadways. This large number of public works departments complicates the coordination of maintenance activities in the county.

The ownership patterns are disjointed and should be reviewed to determine the best way to rationalize the system. One option for defining road ownership within the County is to use the Federal Functional Classification System as a guide. If this classification system is used, the State would maintain, at a minimum, all Interstate Highways, other Freeways and Expressways, other Principal Arterial Highways and Minor Arterials outside the boundaries of the City of Pittsburgh. In addition, it assumes the State will maintain all of the major highway/bridge river crossings within these functional

classifications, whether inside or outside of the City of Pittsburgh limits. Under the current road ownership situation in Allegheny County, the State owns highways in all functional classifications including local roads.

Under this proposal, Allegheny County Public Works road ownership would consist of a combination of Urban Collectors or Rural Major Collectors, Rural Minor Collectors and Local Roads. These same roadway classifications could also be owned by the City of Pittsburgh or local municipalities.

In addition to the roadways mentioned above, the following bridges should also be owned by PennDOT, based on their functional classification and traffic volumes:

- Mansfield Bridge
- Homestead Grays Bridge
- Rankin Bridge
- Glenwood Bridge
- Rachel Carson Bridge
- Andy Warhol Bridge
- Roberto Clemente Bridge
- Sixteenth Street Bridge
- South Tenth Street Bridge
- Windgap Bridge

(See the full report, Allegheny County Road and Bridge Ownership valuation Report – March 2008, in the Supporting Documents.)

G. Use Efficient and Creative Funding Strategies

Construction of new roadways for Places is likely to be completed by a number of different means. Roadways for new Places may be built by private developers in accordance with locally-adopted master plans, design guidelines and development codes, and then dedicated to a municipality. Some major roadways may be constructed or upgraded as part of public-private partnerships. For instance, the Squirrel Hill Tunnel Bypass section of the Mon Fayette Expressway (that is the section from Monroeville to Oakland that parallels Parkway East) is considered by many to be the most important roadway section in our region in terms of

ROADWAYS AND BRIDGES

TABLE 4I.9 – CMAQ Eligible Project Categories

Transit and Public Transportation Programs	CMAQ funds may be used to support the use of public transportation: service or system expansion; provision of new transit service; and financial incentives to use existing transit services.
Traffic Flow Improvements	This strategy reduces emissions by promoting efficient traffic movement, thereby reducing unproductive travel delays and emissions resulting from engine idling. There are many ways to reduce and improve air quality by improving traffic flow.
Travel Demand Management Strategies	The demand for transportation can be moderated by adopting policy incentives that minimize the aggregate number of single occupancy vehicle trips and miles traveled.
Ride Sharing Programs	Ride sharing programs are designed to increase vehicle occupancy in an attempt to reduce emissions. This can be achieved by minimizing the total number of vehicles on the road and these programs are most effective for commuting purposes.
Pedestrian and Bicycle Programs	No mobile source emissions are produced by travelers using bicycles or walking; therefore, programs that promote these options are eligible for CMAQ funds.
Education and Outreach	CMAQ funding may be used to increase public knowledge of transportation-related emissions and opportunities to reduce them through mitigation strategies and improved transportation choices.
Inspection and Maintenance Programs	Poor engine maintenance and malfunctioning of pollution control equipment can significantly increase the amount of emissions released per vehicle. Consequently, CMAQ funds may be used to introduce, conduct and provide start-up costs for automobile inspection and maintenance programs.
Extreme Cold Start Programs	CMAQ funds may be directed towards the development and implementation of programs that are designed to reduce or mitigate excessive cold start emissions.
Alternative ‘Clean’ Fuels	For CMAQ purposes, an ‘alternative’ fuel must reduce emissions to be eligible. These fuels can include natural gas, ethanol, methanol, electricity and liquefied propane gas.
Public/Private Partnerships	Partnerships between public and private enterprises can leverage scarce funding resources by allowing private firms to own or operate a service developed with public funds.
Experimental Pilot Projects	Experimental pilot projects are innovative initiatives that are designed to provide a funding mechanism for well thought out strategies that extend beyond current experience and are not explicitly eligible under the law.

Source: Federal Highway Administration



ROADWAYS AND BRIDGES

reducing congestion. This Mon Fayette section also has multi-modal potential as a Monroeville link with the East Busway. Viewing this section from the standpoint of multiple partnership opportunities can provide funding opportunities for its construction. See illustrative example below.*

Currently there is no legislation in place to govern the use of Public/Private Partnerships (P3s) to fund public improvements. The Commonwealth of Pennsylvania must enact P3 enabling legislation for this to occur. The County needs to encourage the appropriate legislation through its legislative delegation.

*** One example of a potential creative public-private partnership: Squirrel Hill Tunnel Bypass section of Mon Fayette Expressway:**

The Squirrel Hill Tunnel Bypass section of the Mon Fayette Expressway has many attributes that could make a P3 advantageous. These attributes can fall into three categories:

- 1) potential public matching dollars
- 2) revenue potential
- 3) private development potential

Potential public matching dollars could come from several sources for this Mon Fayette section. One source is the Pennsylvania Turnpike Commission. The PTC is currently completing final design for the project. Other sources include federal transit discretionary funding for capital projects. This would not be a traditional source for a toll road. However, if the potential for increased transit service and efficiency was explored and documented (for example, utilizing the facility to, in essence, expand the East Busway to Monroeville), this funding avenue may be possible. Other possible sources could include Homeland Security funding, and Commonwealth Economic Development grants.

The potential revenue generated by the tolling of this PTC facility could have private sector interest if the facility is viewed as a possible private leasing project. The private operator generally makes its money through the collection

of tolls. These transactions involve a private operator assuming control of the asset-including responsibility for maintenance and operations and collection of toll revenues for a fixed period of time in exchange for a concession fee provided to the public sector. The concession fee could be in the form of an up-front payment at the start of the concession, or an agreement for all or part of the construction cost, or could be provided over time through a revenue sharing arrangement, or a combination of all three. The key to this arrangement would be the potential revenue generated, the construction and maintenance costs and matching public sector funding.

Economic development potential comes from the number of potentially redeveloped brownfield sites and other economic development activity potential that could be spurred along this corridor. This could include, but not be limited to, the Carrie Furnace site, future development plans at the former LTV site in Hazelwood (ALMONO), the Pittsburgh Technology Center, and other development opportunities in the Oakland area and South Side. Possible development near the Hays/Glenwood Bridge area and expansions of Kennywood and Sandcastle entertainment venues, located along the Monongahela River, could also be generators. These developments could take advantages of programs like the Commonwealth Keystone Opportunity Zone legislation, Tax Increment Financing, or other similar programs.

PUBLIC TRANSIT

■ TODAY'S CONDITIONS

Despite slow population growth and increasing suburbanization, mass transit remains a vital public service to residents and businesses in Allegheny County. We have higher percentage of people who commute to work in downtown by transit than most other places. About 50% of the workers commuting to Downtown Pittsburgh use public transit, a greater percentage than most other urban areas.

PORT AUTHORITY

The Port Authority of Allegheny County provides public transportation services throughout the County, plus minor portions of Armstrong, Beaver, Butler, Washington, and Westmoreland Counties – a 775 square-mile service area. In Fiscal Year 2006, the Port Authority provided 70,036,244 passenger trips (see Table 4I.10).

The following is a summary of Port Authority operations as of December 2007:

- Utilizing a fleet of nearly 900 transit buses, the Port Authority operates more than 183 local and express fixed bus routes; service is provided seven days a week with many routes operating between 6am and 1pm.
- An extensive network of local buses serving nearly all City of Pittsburgh neighborhoods and municipalities of Allegheny County. While service connects these communities to downtown Pittsburgh, several routes

also provide direct access to Oakland. Some routes provide circulator service within communities with linkages to mainline routes to Pittsburgh. Other routes provide crosstown service, the most notable of which is 54C route linking the South Side, Oakland, Strip District and North Side without passing through downtown Pittsburgh.

- The Martin Luther, King Jr. East Busway is a 9.1-mile bus rapid transit guideway linking downtown Pittsburgh and Oakland and the City of Pittsburgh's East End neighborhoods as well as many of Allegheny County's eastern suburbs. Most of its nine stations interface with local bus routes and many of the East Busway routes provide convenient transfers to Port Authority's light rail transit (LRT) system in downtown Pittsburgh. At Penn Station, riders can transfer to other regional operators serving Pittsburgh as well as to Amtrak and Greyhound.



Photo credit: McCormick Taylor

TABLE 4I.10 – Public Transit Ridership, 2006

TRANSIT MODE	PASSENGERS
BUS	60,115,303
LRT	7,466,749
MONONGAHELA INCLINE	699,375
ACCESS	1,754,817
TOTAL	70,036,244



PUBLIC TRANSIT

- The West Busway is a five-mile fixed-guideway facility for buses that connects communities in western Allegheny County with downtown Pittsburgh. Routes operating on the West Busway also link these areas with the Pittsburgh International Airport and Oakland. It has great potential for a large park and ride, intercept garage at Carnegie utilizing existing busway ramps to ease congestion on Parkway West.
- The South Busway is a 4.3-mile bus facility that connects downtown Pittsburgh and the South Hills; it interfaces with the South Hills and Library 'T' lines.
- The 25-mile South Hills LRT system, also known as the 'T', links downtown Pittsburgh with Station Square and southern communities in the City of Pittsburgh and Allegheny County. The downtown portion of the system is a subway. In addition to several park-and-ride lots in the South Hills, it provides intermodal connectivity to the South Busway, South Side Trail south of downtown Pittsburgh and to East Busway and West Busway routes in downtown Pittsburgh. Intermodal connections to a parking garage and the Eliza Furnace Trail are possible at the First Avenue Station. An extension to the North Shore is currently under construction.
- A 1.1-mile High Occupancy Vehicle facility through the Wabash Tunnel connects Route 51 (at Woodruff Street) and West Carson Street (at Station Square). It is intended as a reliever for Route 51 and Parkway West traffic to South Side and Downtown.
- The Monongahela Incline linking Station Square with Mount Washington provides connections to the LRT system and the South Busway. The privately-operated Duquesne Incline also serves Mt. Washington and connects to bus routes, some of which operate on the West Busway.
- ACCESS is a shared ride transportation service for senior citizens and persons with disabilities.
- The Port Authority owns or leases 14,747 park-and-ride spaces at 63 locations in Allegheny County (plus one location in Beaver County). The locations of the park-and-ride facilities are shown on Map 4I.4.

RIDERSHIP TRENDS

Each weekday, transit provides approximately 235,000 passenger trips. While the share of workers that use public transportation to commute, as a percentage of all workers in the County, has decreased from 24% in 1960 to 10% in 2000 overall (based upon US Census journey to work estimates), the percentage of workers that commute to the County's urban core is between 25% (Oakland) and 50% (downtown) of all commuting trips. This high rate of transit commuting has been facilitated by major capital improvements such as the East Busway, the South Busway, the West Busway, and the rehabilitation of the South Hills light rail system as well as an extensive network of local buses linking most parts of Allegheny County with downtown Pittsburgh.

Figure 4I.4 shows that use of transit is highly dependent on what area is being traveled to. The Central Business District (CBD) captures 49% of the trips via transit, whereas in the County as a whole, only 13% of the trips are made via transit (based upon SPC's 24-hour trip estimates).

50% of commuters coming to downtown Pittsburgh to work everyday use transit.

Changes to service levels occurred in 2007 due to funding constraints. In June 2007, Port Authority implemented a 15% reduction in service that resulted in an approximate 3% reduction in ridership. In July 2007, the state passed Act 44, which established additional future operational funding mechanisms for the state's transit agencies. Act 44 also required Allegheny County to establish local dedicated funding. This will affect future service levels. This type of measure will help to ensure that the Port Authority will be able to maintain existing levels of service. Aspects of Act 44 are still in a period of adjustment. Final regulations and outcomes will become evident over time.

In Allegheny County, there is a greater diversity of income groups using transit than in other similarly-sized metropolitan areas due to the reasons listed below.

PUBLIC TRANSIT

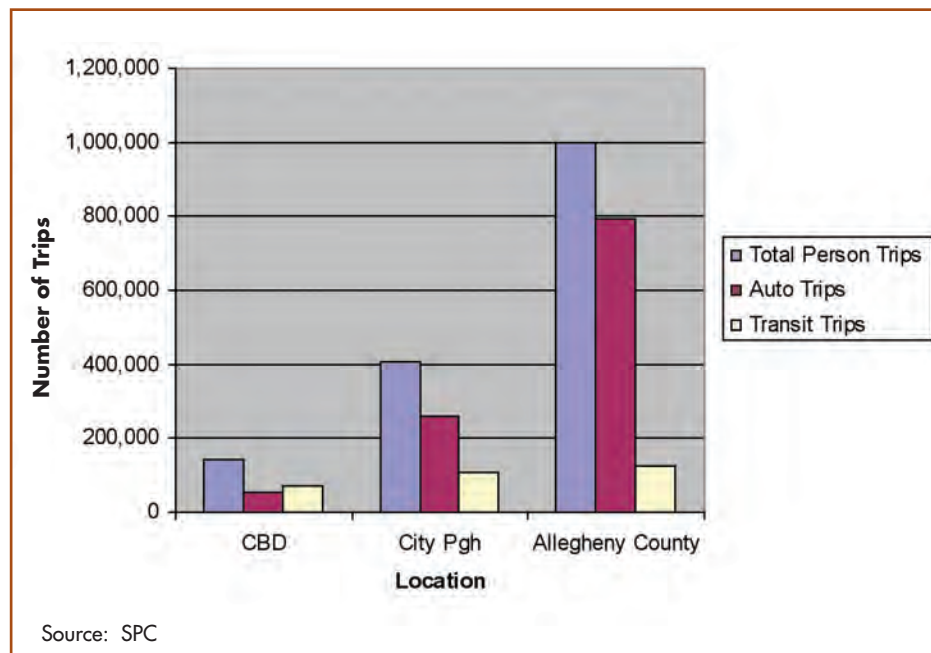


Figure 4I.4 – Transit Ridership by Area

- Port Authority's LRT and busway systems provide service which is time competitive with automobile travel
- The relatively high cost of parking in Downtown and Oakland makes transit, even with its current fares, an economic alternative to automobiles
- The relatively limited highway network results in severe congestion on key arterials leading to Downtown and Oakland, thus reducing the convenience of commuting by automobiles
- The continued prominence of Oakland and Downtown as a share of regional employment makes them also the locations where transit is most effective
- The many universities and colleges generate significant ridership from students and staff associated with these institutions

Nevertheless, there are a high number of transit dependents in Allegheny County. According to the 2000 Census, there were 87,279 households (16.2%) in Allegheny County who did not have vehicles. In 2000, Allegheny County accounted for 11.2% of the households in the Commonwealth. This and the following data indicate that Allegheny County's residents are more dependent on transit than the region as a whole,

the state, the nation and most metro areas.

Here are some other percentages of 0-vehicle households:

City of Pittsburgh	29.4%
10-County SPC Region	12.5%
Philadelphia County	35.6%
5-County SEPTA Service Area	18.6%
Pennsylvania	12.8%
United States	3.0%

Other Benchmark Metro Area Counties:

Atlanta (Fulton County)	15.2%
Cleveland (Cuyahoga County)	13.7%
Denver County	13.9%
Detroit (Wayne County)	13.8%
Houston (Harris County)	8.7%
Milwaukee County	16.3%
Minneapolis (Hennepin County)	10.7%
St. Louis	6.4%
Seattle (King County)	9.3%

OTHER PUBLIC TRANSIT PROVIDERS

Public transportation providers in six surrounding counties offer routes that serve destinations in Allegheny County, primarily downtown Pittsburgh. These operators have routes converging at Penn Station on the Martin Luther King, Jr. East Busway, facilitating transfers with the Port Authority's routes



PUBLIC TRANSIT

and with other regional services. Mountain Line Transit, taking over a route discontinued by Greyhound in 2005, operates a route between Morgantown and Pittsburgh. Additionally, there are numerous other agencies, organizations and schools that directly or indirectly provide transportation for their clients and customers.

SPC, through the Regional Strategic Vision for Public Transportation Serving Southwestern Pennsylvania, has provided several recommendations for improving the regional transit operation. These include a seamless fare box collection system, which would allow passengers to travel between modes and operators, Transit-Oriented Developments, and Intelligent Transportation Systems, which improve management and operations of transportation systems through the use of computers and communication technology.

Downtown Pittsburgh is an intermodal hub where County residents can access both rail and bus intercity transportation services as well as Port Authority transit vehicles at Penn Station on the East Busway.



Source: City of Pittsburgh

Greyhound

A new intermodal facility includes access to Greyhound buses, parking, transit and the Amtrak train station and is adjacent to the PAAC East Busway. The Greyhound Terminal is in the new Grant Street Transportation Center

located between Liberty and Penn Avenues at 11th Street in downtown Pittsburgh. Greyhound's routes serving Pittsburgh include direct service to New York City, Philadelphia, Washington, D.C., Harrisburg, State College, Wheeling, Erie, Indianapolis, Columbus, St. Louis, Cleveland and Chicago.

Amtrak

From its station at Liberty and Grant Avenues in downtown Pittsburgh, Amtrak serves Allegheny County with two intercity train routes. The Pennsylvanian Route provides daily service between Pittsburgh and Harrisburg, and onward to Philadelphia and New York City. The Capitol Limited provides daily service linking Chicago, Toledo, Cleveland, Pittsburgh, and Washington, D.C. The Amtrak station is adjacent to the Penn Station of the East Busway where intermodal connections can be made to transit service provided by the Port Authority and the region's other transit operators. Across Liberty Avenue from the Amtrak station is the Grant Street Transportation Center.

Other Private Bus Companies

Several other private carriers operate scheduled bus service to and within Allegheny County. Fullington Trailways provides service between Pittsburgh and central Pennsylvania. Myers Coach Lines operates commuter service from Butler County to downtown Pittsburgh. The Pittsburgh Transportation Group's Express Shuttle provides service from the Pittsburgh International Airport to hotels in downtown Pittsburgh and other locations in the City of Pittsburgh. Numerous shuttles are operated by the University of Pittsburgh, UPMC, Station Square and others.

CURRENT TRANSIT FUNDING

The Pennsylvania legislature passed Act 44 of 2007, which is intended to address some shortfalls in the state transportation budget. It authorizes a fifty-year partnership between the PA Turnpike Commission and PennDOT which will provide \$83.3 billion for investment in transportation. A majority of this funding will be used statewide to repair roads and bridges; in addition, all of the state's urban and rural transit agencies will receive increased, stable and performance-driven

PUBLIC TRANSIT

funding annually. Table 4I.11 shows the funding over the next four years and beyond.

Act 44 also authorized second class counties (Allegheny) to implement two separate taxes to generate the County's local match for the State funding. The taxes, in effect now, include a tax on poured drinks and a tax on rental vehicles.

The operating budget of the Port Authority transit system is funded by passenger fares, marketing revenues, Allegheny County, the Commonwealth of Pennsylvania and the Federal government (use of Federal funds for operating expenses is limited to a few very specific types of expenses). For the past several years, these funding sources have become inadequate to cover the agency's operating expenses due to a wide variety of factors. Stopgap measures have been taken to address the deficits.

Escalating operating costs coupled with revenue shortfalls remain a challenge for the Port Authority. Plans are currently being developed to adjust to conditions. The new Act 44 Funds are helpful but there are pending legal challenges to the Act. And County matching funds and other aid to PAAC are conditioned on new agreements with represented employees.

One reason that funding does not cover operating expenses is that the Port Authority has been facing increasing costs. Costs for fuel, health care, and retirement benefits have grown rapidly in recent years. In addition, the agency has been not been as agile as necessary to be able to respond to changes in the transit market (population shifts and

suburbanization) by modifying the level of services that it provides. And, while costs have been escalating, revenues have not kept pace with inflation. Substantial changes need to be made to maintain a high level of public transportation in the county. The county and region have flexed over \$100 million in highway funds to transit in the past decade.

Transit is a large portion of the County's budget and provision of additional matching funds is not easy to achieve. The City, as is the case with all local municipalities in Allegheny County, does not contribute to transit or the transit match. Most transit agencies of similar size do receive a higher percentage of needed funding from local governments, which is why new taxes were enacted.

The Port Authority, under new leadership, is responding to these challenges by curtailing underutilized services, eliminating staff (sharply reducing retirement obligations) and requiring employee health care contributions. In addition to these immediate actions, the agency is currently undertaking a comprehensive service development plan. The plan results will further improve the efficiency and effectiveness of the transit network within a two-to-five year timeframe.

FUNDING SOURCES

SPC, as the designated MPO for the Pittsburgh Transportation Management Area, works with member counties to develop and maintain a Transportation Improvement Program (TIP). In addition to highway funding, transit funding involving federal grant programs (such as Title III Programs) and state, county and local match are also included on SPC's TIP. On the

TABLE 4I.11 – Transit Funding

Year	Total	Transit	Highway/Bridges
FY 2008	\$750M	\$300M	\$450M
FY 2009	\$850M	\$350M	\$500M
FY 2010	\$900M	\$400M	\$500M
FY 2011 and beyond	Increase by 2.5% per year		



PUBLIC TRANSIT

current 2007-2010 TIP, the Port Authority is budgeted for \$489.2 million total Title III Program funds (average annual funding = \$122.3 M). This amount is not typical because of the inclusion of funds specifically designated for the North Shore Connector project, which is currently under construction.

Funding for transit improvements in Pennsylvania is a combination of federal, state and local monies. Federal funding is provided through SAFETEA-LU Title III. State funding is provided through formulas established in Act 26 of 1991 and amended in Act 3 of 1997. In addition, state capital budget funding is released annually for capital improvements.

Major capital transportation projects are a part of the programs developed by the member counties of SPC. The TIP identifies the region's highest priority transportation projects, develops a multi-year program of implementation, and identifies available federal and non-federal funding for the identified projects. The TIP covers a four-year period of investment and is updated every two years by designated planning partners in a collaborative effort of county, local, state and federal agencies, including participation by the general public.

Federal transit funding for the planning, construction and operation of transit projects is primarily accessed through two major Federal Transit Administration (FTA) Programs. Brief descriptions of these two programs follow.

Section 5309 - Federal Capital Program

A portion of the funding authorized through this program is provided on a formula basis to individual urbanized areas to modernize and rehabilitate public transportation fixed-guideway facilities (Fixed-Guideway Modernization Program). The remainder of the Capital Program funding is distributed on a discretionary basis to provide capital assistance for:

1. Fixed guideway systems
2. Introduction of new technology
3. Projects that enhance the effectiveness of mass transportation
4. Acquisition, construction and improvement of bus and rail facilities and equipment

The source of all federal Capital Program funding is the Mass Transit Account of the Highway Trust Fund. Historically, federal funding for new busway and rail transit systems has been provided at 80%, but the FTA's current policy is to limit the federal share to the 50-60% range due to the great number of projects and limited amount of "New Starts" funding. The "New Starts Program" now requires a 50% match as the norm. SAFETEA-LU specifies a new category of projects to be funded separately out of the Section 5309 New Starts program. This new category encompasses smaller scale projects, referred to as "Small Starts", beginning in FY 2007. Projects requesting less than \$75 million in Section 5309 New Starts funds with a total project cost less than \$250 million will be eligible to receive funds under the new Small Starts provision. Other areas have increased their state and local share through specific taxes. Unless FTA changes its policy, Pennsylvania and/or the Southwestern Pennsylvania region will have to do the same, in order to submit projects which are competitive with other New Starts projects.

Section 5307 - Urbanized Area Formula Program

This program provides funds for planning, acquisition, construction, preventive maintenance, improvement, operating costs and associated capital maintenance items. Distribution of Urbanized Area Formula funds is by statutory formula to individual urbanized areas. A portion of the Urbanized Area Formula funding is derived from the Federal General Fund. The remainder is from the Mass Transit Account of the Highway Trust Fund. Urbanized Area Formula funds apportioned to urbanized areas with populations of 200,000 and over cannot be used for operating assistance.

Urbanized Area Formula assistance is available on an 80% federal/20% local matching ratio. Projects that address requirements of the Clean Air Act Amendments of 1990 (CAAA 90) or of the Americans with Disabilities Act (ADA) may be funded at a 90% federal/10% local (or, in some instances, 95% federal/5% local) matching ratio. Elements defined under the Urbanized Area Formula Program as "transit enhancements" may be funded 80/20 match. Currently, in 2008, the enhancements program is on hold until the backlog of projects in progress are completed.

PUBLIC TRANSIT

Flexed Funding

As part of an agreement between the Commonwealth and the transit community during the enactment of Act 3 of 1997, a total of \$25 million per year in federal highway funding was flexed to transit agencies for their projects. During the last five years, the state and SPC counties transferred or “flexed” an additional \$100M to transit projects from traditional federal highway funding grant programs. Highway and bridge funds are also fiscally constrained and stretched to their limits, so moving funds between modes has not been a satisfactory solution.

■ ISSUES AND ANALYSIS

This section examines ways to provide more efficient and effective public transit service in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Difficult circulation in and around Oakland
- Lack of direct fixed guideway connection between Downtown and Oakland
- Lack of direct fixed guideway transit connection between Downtown Pittsburgh and the Airport
- Insufficient transit funding
- Critical need for transit expansion and maintenance in the urban core
- Public attitude toward transit
- Missing intermodal connections
- Lack of efficient system to meet current county needs and population levels
- Transit farebox doesn’t pay for operating expenses

The following provides an understanding of these issues.

DIFFICULT CIRCULATION IN AND AROUND OAKLAND

Oakland is the economic wellspring for future growth of the region due to its concentration of research facilities, universities, hospitals and the potential and current realization of related spin-off companies. Circulation in and around Oakland does not meet the needs of current travelers. This is in spite of the fact that PAAC’s transit routes serving Oakland are among the most heavily used in the system with a 25% mode share. There is a very high level of bus service on Fifth and Forbes Avenues which are the two key travel arteries through Oakland. Bus service is available in other areas of Oakland, too. There are also effective connections between Oakland and Downtown, Shadyside, East Liberty and other East End and South Side communities. Improvements to these services are needed for existing and future Oakland transit users. Transit plays a key role in connecting development to the institutions that are driving the growth in Oakland, but an expansion of the transit system is needed to help solve the circulation issues. There are internal mobility problems within the Oakland area that can be addressed by construction of an area circulator system which connects Oakland to Southside, Second Avenue, Bloomfield, Lawrenceville, Shadyside and CMU, bringing together greater Oakland’s many assets and allowing the parts to function as a whole. Attracting new technology development, and retaining graduating students to enter the workforce here, is highly dependent on public transportation that is readily available, and easy to navigate. Transit development efforts should be coordinated with the plans of the major institutions in and near Oakland. For more information see the Transit Action Team Report and Oakland Investment Committee Transit Report in the Supporting Documents.

LACK OF DIRECT FIXED GUIDEWAY CONNECTION BETWEEN DOWNTOWN AND OAKLAND

Transit from Downtown to Oakland will connect the two largest economic generation centers in the region – Pittsburgh and Oakland. A frequent, rapid and efficient fixed guideway rapid transit connection between the two centers is critical as the County grows the education, medical and technology sectors at the core of regional prosperity. The corridor between town and Oakland is congested, and heavily served by bus transit. Facilitating growth downtown, in Oakland and in between, with excellent infrastructure, is



PUBLIC TRANSIT

a key component needed to assure future prosperity. The Oakland Design Advisory Team worked extensively on this issue. The final DAT Transit Coordination Recommendations report is located in the Supporting Documents.

LACK OF DIRECT FIXED GUIDEWAY TRANSIT CONNECTION BETWEEN DOWNTOWN PITTSBURGH AND THE AIRPORT

Congestion along Parkway West makes travel to the airport difficult. Planned and recently completed infrastructure improvements offer the promise of a brighter future for the airport corridor. The proposed Southern Beltway will improve access and east-west mobility between the mid-Mon Valley and the Airport, and will assist in transforming the area around the Airport into a major warehouse and distribution center that will create thousands of jobs. The recently completed Findlay Connector, a new highway linking the Airport to Route 22, is spurring the development of more than 1,500 acres of nearby land. This additional development, and the jobs that will result, will better support conditions conducive the provision of direct transit service to the airport. The West Busway/28X serves this route, but not frequently and not holistically. Some 28X service was reduced in June, but there should be consideration of the extent to which improvements in existing bus service would address the needs of the Airport Corridor in the short term. A new fixed guideway investment is likely years away in this case.

Several studies have investigated various alternatives for providing improved transit service from Downtown to Pittsburgh International Airport. Light Rail Transit from Downtown to the Airport utilizing a "Parkway" alignment, or a more direct new route, and establishing a major intermodal hub at a midway point for the West area will provide the best alternative for these reasons:

- Provides opportunities for travelers to our area to rapidly connect to Oakland and other essential corridors
- Directly serves Pittsburgh International Airport hub, and a midpoint "western" intermodal hub that will distribute commuters to employment centers, educational facilities and other points of interest in West Allegheny County

- Supports economic development, land use priorities and redevelopment opportunities along the corridor
- Connections from the intermodal hub to Robert Morris University, CCAC West, and many other higher education facilities should be accommodated
- Provides most direct and fastest route to Pittsburgh International Airport
- Provides a link connecting the downtown subway, North Shore and South Hills LRT and the East Busway

Bus Rapid Transit could be an alternative and serve some of the purposes in the interim before an LRT system is funded.

A fixed guideway transit connection would provide improved access to the region for travelers, support economic development and land use priorities along the corridor, and provide access to other transit facilities. Furthermore, without convenient and frequent transit, lower-wage workers will continue to face difficulty accessing jobs along the airport corridor. To serve concentrations of jobs in the sprawling environment in the airport corridor, a feeder system of buses connecting to a multi-modal transit hub is needed.

INSUFFICIENT TRANSIT FUNDING

Mass transit ridership in Allegheny County and across the nation has been declining for the last 40 years. Generally, this occurred due to the decline of cities and rapid suburbanization. The share of commuters using public transportation, as a percentage of all workers in the County, has decreased from 24% in 1960 to just 10% in 2000 (data from U.S. Census). This happened despite construction of a light rail system and busways that were might have reversed this long term decrease in usage. Investments in those facilities did help the Port Authority to maintain its market share in these corridors. In other areas several factors have contributed to the decrease in Port Authority ridership:

- Increased dispersion of residences and employment centers
- Increasing affluence
- The 1992 transit strike
- Service reductions and fare increases
- Economic and population decline in some areas which previously had high levels of transit service (i.e. Mon Valley)

PUBLIC TRANSIT

- Relatively low gasoline prices until 2005, which had not significantly increased for over a decade, especially when inflation is considered.

For the past several years, Port Authority funding sources have become inadequate to cover the agency's operating expenses. Recently Act 44 of 2007 has provided significant but not enough funds for PAAC transit.

As a result, Port Authority operations continue to have revenue shortfalls, increased operating costs and insufficient government funding. This is true for all transit operators around the country. Substantial changes are being made to preserve public transportation in our County through Act 44 but additional funds are still needed.

CRITICAL NEED FOR TRANSIT EXPANSION AND MAINTENANCE IN THE URBAN CORE

A large number of commuters to the urban core use public transit on a regular basis. Therefore, it is vital to extend and maintain transit service to Downtown Pittsburgh and to Oakland. The routes that serve the urban core are the heart of the transit system and the revenues from these routes support services in other parts of the County.

PUBLIC ATTITUDE TOWARD TRANSIT

It is a common misconception among non-transit users, and the public in general, that transit is viewed as an expense rather than an investment in the local economy and a key to Allegheny County's livability. Transit provides vital service to employment centers, shopping, education and medical destinations among others. Port Authority investments in light rail and busways have helped generate new residential and commercial development, such as the Mellon Client Service Center at the Steel Plaza 'T' Station in Downtown Pittsburgh, PNC service center at the First Avenue 'T' station condominiums above Giant Eagle and Central Medical Commons in Shadyside, and the Eastside development in East Liberty. Additionally, Allegheny County is conducting the South Hills TRID planning study for Transit Revitalization Investment Districts in Dormont and Mount Lebanon, to create the conditions for development and redevelopment at and near Port Authority's 'T' stations in those communities (see Supporting Documents for the full TRID study).

Another dimension of the attitude issue is the pressure to re-route buses in downtown and other locations in response to a negative perception of buses and bus riders. This increases transit operating costs and reduces convenience for transit patrons. PAAC's Transit Development Plan will evaluate the existing network of downtown bus routes and determine if there are changes which can result in operational efficiencies, improve service to riders and enhance the downtown environment. It is anticipated that this evaluation, just underway, will assess whether existing stops are optimally located.

MISSING INTERMODAL CONNECTIONS

The Port Authority's network of park-and-ride facilities supports connections with automobiles. Many of these lots are located on or near major thoroughfares, or adjacent to limited-access highways. Transit's connection with bicycles is incomplete and in suburban areas direct pedestrian connections are often difficult. In order for the multi-modal connections to work, they need to be seamless to the user. Since 2000 the Port Authority has undertaken several initiatives to improve the interface for bicycles and transit. The First Avenue Station provides convenient access to the Eliza Furnace Trail and a bike and blade rental facility. Port Authority's Rack 'n Roll program of racks mounted on buses, and permitting, during off-peak periods, bicycles on the 'T' and Mon Incline, lets bicyclists use transit for part of their journeys. Bike racks have been installed at some transit stations. A map has been developed showing the relationship of bus routes to trails. The Port Authority will continue to pursue other opportunities for enhancing bike/transit linkages within available financial resources.

The multi-modal connections mentioned above with transit, bicycles, automobiles, pedestrians, etc. are very important to implementing the Places identified in the Future Land Use Plan (see Map 4A.1). These Places were envisioned to be mixed use and utilize a variety of transportation modes.

LACK OF EFFICIENT SYSTEM TO MEET CURRENT COUNTY NEEDS AND POPULATION LEVELS

Over the past few decades, the County has experienced population decreases in many of transit's traditional markets. Consequently, the Port Authority has had to modify its route



PUBLIC TRANSIT

structure or level of service to match the changing markets. However, some of the areas with the greatest population decline are also the communities with the greatest reliance on public transportation (i.e. the Mon Valley). The Port Authority has reduced service to the Mon Valley communities over the past 15 years even though it is considered a depressed area. Conversely, since 1997, the Port Authority has added service in the Airport Corridor, Waterfront (MV), South Side Works and other areas of new development.

There are three challenges to providing transit routes to changing markets:

- 1) Many of the new growth areas are characterized by low-density development and are more costly to serve than older densely developed communities in the City of Pittsburgh and older suburbs.
- 2) Port Authority's financial crisis limits its ability to add service to new areas while maintaining service to older (although declining) communities.
- 3) While there are some developments which prefer not to accommodate Port Authority buses, service and patrons, other developments are very interested in new or increased transit service.

The PAAC Transit Development Plan, a part of Connect 09, will evaluate the Port Authority's existing route structure to determine how best to serve existing and new markets within available financial resources. At the same time, PAAC will also be exploring a new fare system.

TRANSIT FAREBOX DOESN'T PAY FOR OPERATING EXPENSES

As with all transit systems, fare revenues do not pay for operating the transit system. Operating expenses are primarily subsidized with state and local funds. Lottery revenues enable senior citizens to ride public transit for free. This is true of every transit system, and by the way, it is not unique to transit. The road and highway network, airlines, railroads etc., are all heavily subsidized. All modes require subsidy, especially the private automobile!

One reason that fares do not cover operating expenses is that Port Authority has been facing increasing costs. Expenditures

for fuel, health care, and retirement benefits have grown rapidly in recent years. At the same time costs have been escalating, revenues have not kept pace with inflation.

RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Facilitates the movement of goods and freight.

OBJECTIVES OF THE PLAN

The objectives of the Public Transit portion of the Transportation Plan are to:

- A. Target transportation investments to support job and housing growth as shown on the Future Land Use map.
- B. Prioritize the maintenance of existing transportation infrastructure within and across all modes.
- C. Provide integrated transportation alternatives and coordinated transportation systems to increase mobility.
- D. Promote transit-oriented development sites at key transit stations and along major transit corridors.
- E. Connect Pittsburgh International Airport to Downtown, Oakland and major population centers via a rapid transit system.
- F. Improve transit into and around Oakland.
- G. Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.

PUBLIC TRANSIT

The following provides an understanding of the objectives.

A. Target Transportation Investments to Support Job and Housing Growth

Transit is critical to the economic health of the region and the well-being of the public. It is a sustainable mode of transportation that will help to reduce traffic congestion. Transit is clearly a focus of future investment, and while funds are now tight, plans should be made to prioritize and accommodate future transit improvements.

Transit service to appropriate Places designated in the Future Land Use Plan would be by way of either a rapid transit mode (light rail or busway) or bus service. Transit circulation within Places can be by transit, but must be carefully planned. Smaller shuttle vehicles operated by a consortium of business owners or a public-private transportation management entity may be viable as these Places establish themselves as true mixed-use centers of housing, shopping and employment, and as a market for very localized and/or demand-responsive transit emerges.

Transit will play a significant role in Allegheny County's future.

B. Prioritize the Maintenance of Existing Transportation Infrastructure Within and Across All Modes

Upgrading our existing, aging transit infrastructure, along with the importance of regular maintenance of newer transit facilities, is key to ensuring a dependable, attractive and efficient system. Fixing our valuable investments first is a top priority for transit. This is especially important during a time when increasing numbers of commuters are likely to be attracted to the transit option to save money, help the environment and to be more physically active in their daily lives. We cannot afford to waste the valuable assets we currently have, but need to preserve them and maximize their use.



Photo credit: Port Authority of Allegheny County

C. Provide Integrated Transportation Alternatives to Increase Mobility

Multi-modal transportation alternatives consider the full range of approaches to solving the transportation problems plaguing Allegheny County's roadways. Solutions can range from new rail lines, automated fixed-guideway transit and more bus routes to those that reduce demand by integrating modes and making it easier to use the system. Integrating park-and-ride facilities with transit stops, developing HOV lanes and ridesharing opportunities, providing sidewalks and bikeways to transit stops are all ways that can increase mobility. Designing and building 'Complete Streets' can also assist greatly in increased mobility and transit accessibility.

There are several studies such as the Eastern Corridor Transit Study and the Allegheny Valley Railroad Feasibility Study that have suggested using existing rail corridors for future rapid transit, since the infrastructure and right-of-way costs can be lower when compared to a new alignment. Additional alignments will be developed and assessed. Upgrades to track systems as well as agreements with railroad companies will be needed to allow commuter use of these lines, since freight and commuter operations are not necessarily compatible with each other. Freight trains and



PUBLIC TRANSIT

commuter rail equipment co-existed in Pittsburgh up to 1989 when the PATrain was discontinued and continue to co-exist in Baltimore, Washington, Chicago, Seattle and Los Angeles, among other cities. Nearly all commuter rail operations in the United States use Federal Railroad Administration compliant vehicles. Agreements are needed with railroad companies in order to gain access to rail lines, make track and signal improvements and ensure that commuter rail and freight operations do not interfere with each other. Exploration of feasibility of creative rail use like the “Colorado Rail Car” could be utilized for passenger rail service in Allegheny County. Future conflicts in rail use will increase along with the trend of vastly increased volumes of freight moving by rail. There has been an increase in rail traffic in recent years and it is expected to continue to rise exponentially as highways become more congested and moving freight via the highway system becomes less feasible and far more costly than by rail.

The Westmoreland County Transit Authority has initiated an interim study of commuter rail on the Allegheny Valley Railroad between Arnold/New Kensington and Pittsburgh and on the Norfolk Southern rail line between Greensburg and Pittsburgh. This effort will build upon previous studies of these corridors. This analysis includes an assessment of integrating passenger trains into lines with increasing freight train operations.

The Port Authority identified proposed alignments for new rapid transit lines through a public process, in the Airport Multi-modal Corridor, Eastern Corridor and Regional Transit Visioning studies. These studies have been conducted in partnership with SPC, Allegheny County and all the region’s transit providers. An important next step is selection of priority corridor(s) in consultation with the public, elected officials, local governments, Allegheny County, SPC and the Commonwealth of Pennsylvania. Private funding can help, but major transit capital investments will still require significant local and/or state public funding. Las Vegas is the only place in the United States where a new transit project was implemented with major private funding. More typical are Charlotte, Denver, Portland, Salt Lake City, San Francisco and Seattle which fund transit projects with significant local and state funding to match federal funding, and then,

complete appropriate engineering studies for selected alignments, secure rights-of-way and construct new rapid transit lines. While the funds for these types of projects are limited, additional and creative funding mechanisms need to be explored. Public-private partnerships are one option that can help fund public improvement projects once the enabling legislation is put in place.

D. Promote Transit-Oriented Development Sites at Key Transit Stations

Transit-oriented development (TOD) is an important national land development trend. TOD can be accomplished by targeting mixed-use development around existing and proposed transit stations. The existing ‘T’ line and busways and the new rapid transit lines envisioned for Allegheny County represent an ideal opportunity for TOD such as Eastside in the City of Pittsburgh’s East Liberty and Shadyside neighborhoods and Dormont, Castle Shannon and Mt. Lebanon. TOD is consistent with the principles of the Future Land Use Plan and can provide significant additional ridership for the Port Authority’s transit lines.



Photo credit: Port Authority of Allegheny County

A new grant, Transit Revitalization Investment District (TRID), has been established to study the feasibility of developing a TOD in certain areas. Allegheny County is currently completing TRID studies for areas adjacent to the light rail stations in the South Hills (see Supporting Documents for the full TRID study).

PUBLIC TRANSIT

The Port Authority should conduct TOD market, planning and urban design studies for key transit stations, publicize the findings and solicit developers to build on TOD sites. Many of the PAAC stations along the 'T' line have functioned as TODs for the past century and could be enhanced by future development on PAAC-owned property or on adjacent or nearby privately-owned sites. Private developers are increasingly interested in development opportunities near transit stations. Public-Private Partnerships are an option to assist with site development.

E. Connect Pittsburgh International Airport to Downtown, Oakland and Major Population Centers via a Rapid Transit System

The main recommended transportation feature for *Allegheny Places* is transit from downtown Pittsburgh "to and around the Oakland Area", including a major intermodal hub in central Oakland and transit from Downtown Pittsburgh, via the new transit connection on the North Shore, to Pittsburgh International Airport. There have been several studies completed to date (mentioned in the integrated multi-modal section above) that suggest alternatives to complete the rapid transit connection between the Airport, Downtown and Oakland.

Along the entire route there will be opportunities for revitalized or new transit-oriented developments, intermodal hubs and other connection points, including intercept parking garages and park-and-ride facilities, trail interconnectivity, pedestrian-friendly improvements, feeder bus lines, bus-rapid-transit (BRT) connections (with potential to connect to hubs via shared high-speed right-of-ways) and many other-related and focused development and redevelopment opportunities. There is vast potential for additional transit connections to this suggested route.

The key connection is envisioned to take advantage of major transit-oriented development potential along the West Busway, between Pittsburgh and Oakland, on the North Shore and at other identified Places along the route.

New rail transit facilities are very costly and take time. Creative financing must be a component of all future rail transit construction, but there will be opportunities for interim measures as Allegheny County proceeds to implement this plan; for instance, the potential of proceeding with Bus Rapid Transit initially for service between Pittsburgh via the West Busway and Parkway West to the proposed Robinson Town Centre "mixed-use development/intermodal hub", and on to the Airport. This BRT route would eventually be replaced with LRT.

In the of Fall 2007, The Chief Executive's Transportation Action Team made recommendations for priority transit projects. He appointed a Transportation Action Partnership to implement those recommendations.

F. Improve Transit Into and Around Oakland

The County has had several objectives with respect to transit. A priority has been to connect Downtown Pittsburgh with Oakland via rapid transit. Additional transit within the Oakland area is also a priority, since the hospitals and universities in Oakland comprise one of the largest employment and educational centers in the region and, while a number of students and employees live in the vicinity, many more commute.

In the Fall of 2007, The Chief Executive's Transportation Action Team made recommendations for priority transit projects into and around Oakland. He appointed a Transportation Action Partnership to implement those and other recommendations.

G. Use Efficient and Creative Funding Strategies such as Public/Private Partnerships, Privatization, and Leveraging Current and Future Assets

The new State Transportation Funding Act 44 2007, which was signed into law in 2007, should help to alleviate some of the current operations funding burden in public transit, but the required match will remain a challenge. The Act will provide a dedicated source of funds for transit, highways and bridges but it still is insufficient. *Allegheny Places* recognizes that transit is a critical service on which many residents rely. In order



PUBLIC TRANSIT

to construct and operate many of the proposed transit projects, new funding mechanisms, such as public-private partnerships, need to be pursued.

The Port Authority, in partnership with SPC, Allegheny County and local governments, should explore options to address funding shortfalls and generate new revenues, including transportation to serve areas of new economic development (e.g. the North Shore, Eastside, South Side Works, Dormont and Mt. Lebanon TOD, etc). This may include, for example, TOD, TRID or public-private partnerships.

Furthermore, the Port Authority should identify Public-Private Partnerships which use creative financing strategies, such as permitting commercial use of Busways*.

The Commonwealth of Pennsylvania must enact P3 enabling legislation, since there is no current legislation which allows for the formation of P3s and for the funds collected to be used to fund public improvements.

* While introduction of private vehicles on the busways can generate new revenues for the Port Authority, a number of issues would need to be, and should be, resolved including:

- Regulation of operations
- Operational impacts on peak period bus operations
- Capacity impacts
- Federal planning and environmental regulations
- Community acceptance
- Liability and insurance

BICYCLE AND PEDESTRIAN

■ TODAY'S CONDITIONS

In Allegheny County, roadway-based amenities for bicycles and pedestrians consist primarily of sidewalks for pedestrians, and for bicyclists, bike lanes, on-street bike routes, bicycle parking, and bike racks on transit buses. Most of these are located in Pittsburgh and the older suburbs. (For information on Bike Trails see the Parks, Open Space and Greenways Plan – Chapter 4, Section E.)

BICYCLE LANES

There are currently bike lanes along six roads in the City of Pittsburgh. These roads include Beechwood Boulevard, Schenley Drive, the Riverview Park Loop, the Highland Park Reservoir Loop, Birmingham Bridge and Liberty Avenue in the Bloomfield area. In addition, the City is identifying and evaluating other roadways that would be candidates for bike lanes and on-street bike routes. Bike trails such as the Eliza Furnace Trail and the South Side Trail are used by residents to travel to places of employment, thereby providing alternative ways to travel.



Photo credit: Kevin Smay

BicyclePA ROUTES

BicyclePA routes were designed by experienced bicyclists to provide bicycling members of the traveling public who wish to traverse the state with a guide to some of the Commonwealth's highways and rail-trails. Few of these routes contain bike lanes or other facilities designed specifically for bicyclists traveling within the four corners of the Commonwealth. Pennsylvania Bicycle Route 'A' passes through the western portion of Allegheny County as it extends from Erie to West Virginia. Pennsylvania Bike Route 'S' passes through the southern portion of Allegheny County along Route 136.

BICYCLE RACKS

The Pittsburgh Downtown Partnership and Bike-Pittsburgh joined forces to install 130 artistic bike racks throughout the City. Through its "Rack 'n Roll" program, the Port Authority provides bike racks on buses on 12 of its bus routes. In addition, transit passengers are allowed to take their bicycles on the light rail system and the Monongahela Incline during off-peak hours.

FUNDING

Bicycle and pedestrian improvement projects are typically funded by three programs administered by the Southwestern Pennsylvania Commission (SPC):

- Transportation Enhancements
- Hometown Streets
- Safe Routes to School

Transportation Enhancements funds projects that aim to integrate the transportation system with the surrounding community. Transportation Enhancements projects can include trails, bike parking and bike racks on buses. Safe Routes to School and Hometown Streets are offshoots of the Transportation Enhancements program. The latter two programs provide assistance for projects that enable the safe passage for children to walk or bicycle to school. This includes constructing new facilities or improving existing facilities to make them more usable for pedestrians and bicyclists.



BICYCLE AND PEDESTRIAN

Between 2007 and 2010, more than \$19 million of funding from these three funding sources is programmed for projects in Allegheny County (\$8.9 million) and the City of Pittsburgh (\$9.7 million). Bicycle and pedestrian projects such as sidewalks and paved shoulders can also sometimes be programmed into roadway projects.

■ ISSUES AND ANALYSIS

This section examines ways to facilitate increased bicycle and pedestrian travel in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Lack of comprehensive and predictable “Rack and Roll” system
- Unsafe and unattractive places to wait for transit
- Lack of available, safe bicycle parking facilities
- Lack of a bicycle route signage program
- Lack of continuous sidewalk network in new developments
- Consistently incorporating bicycle and pedestrian facilities into roadway projects

The following provides an understanding of these issues.

LACK OF COMPREHENSIVE AND PREDICTABLE “RACK AND ROLL” SYSTEM

Only 12 Port Authority bus routes offer bike racks, leaving vast portions of the County unserved. At the time of this plan, approximately 170 transit routes do not have dedicated bike rack transit vehicles. An increase in dedicated “Rack and Roll” bus routes would be desirable. Predictability on the routes with racks is the most critical issue for there must be a guaranteed way back.

UNSAFE AND UNATTRACTIVE PLACES TO WAIT FOR TRANSIT

There are approximately 16,174 transit stops in Allegheny County. The majority of passengers access transit by walking to a stop. The conditions at transit stops vary throughout the County. Providing amenities such as good lighting at transit stops and stations increases passenger comfort and safety and can increase transit ridership. Other amenities such as landscaping improve the visibility of the transit stop and enhance transit’s appeal to the community. Bus shelters are key to comfort and encourage ridership in inclement weather. Pre-college students use PAAC to get to schools, and safety and dependability are critical for those children.

LACK OF AVAILABLE, SAFE BICYCLE PARKING FACILITIES

In order to encourage higher levels of bicycle usage in the County, bicyclists need a safe place to secure their bicycles when they reach their destination. With the exception of bike parking available at public parking garages and other strategic locations in Downtown Pittsburgh, PAAC stations as well as at numerous locations in Pittsburgh neighborhoods, bike racks are not available in most areas of the County. Bike racks/facilities can encourage multi-modal activity.

LACK OF A BICYCLE ROUTE SIGNAGE PROGRAM

Many residents of the County do not bicycle using the local roadway system due to real or perceived threats to bicycling such as traffic volumes, roadway width and traffic speed. While many roadways in the County are suitable for bicycling, residents do not have information that would help them decide which roads to use.

LACK OF CONTINUOUS SIDEWALK NETWORK IN NEW DEVELOPMENTS

In Allegheny County, different patterns of land use development affect pedestrian access to transit, employment, education, and shopping, among other destinations. The County’s older communities often have a well-established sidewalk network that allows residents to easily walk to many destinations. Newer residential and employment centers

BICYCLE AND PEDESTRIAN

often present difficulties for pedestrians due to the scale of development or because the construction of sidewalks was not required by local municipal ordinances. Even when there are requirements, they are frequently waived. Frequently developers ask for exemptions because their sidewalks will not connect to a system of existing sidewalks. Sidewalks in the suburbs will only occur when all developments must install sidewalks and eventually there will be connectivity.

CONSISTENTLY INCORPORATING BICYCLE AND PEDESTRIAN FACILITIES INTO ROADWAY PROJECTS

An efficient and cost-effective means of improving bicycle and pedestrian conditions is to integrate these facilities into the planning, design and construction of roadway projects. Bicycle and pedestrian needs should be considered at the earliest stages of transportation project development to ensure the appropriate accommodation of those needs. This modal integration requires coordination among several entities including PennDOT, Allegheny County, SPC and local communities.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs and schools
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Encourages multi-modal connectivity.

OBJECTIVES OF THE PLAN

The objectives of the Bicycle and Pedestrian portion of the Transportation Plan are to:

- A. Provide Integrated, ‘Active’ Transportation Alternatives Including Bikeways, Sidewalks and Transit.**
- B. Coordinate transportation systems and modes to increase mobility.**

The following provides an understanding of the objectives.

A. Provide Integrated, ‘Active’ Transportation Alternatives Including Bikeways, Sidewalks and Transit

Bicyclists and pedestrians should be encouraged through incorporating bicycle lanes and sidewalks into both roadway and transit projects. Utilizing and expanding bike trails can also serve to connect people to jobs, schools and shopping.

The Future Land Use Plan promotes compact mixed-use development and so it is imperative that sidewalks, pathways and crosswalks are included to accommodate the safe passage of pedestrians within Places.

The Future Land Use Plan further encourages linking Places to amenities such as parks, riverfronts, and greenways. Multi-modal transportation systems designed for Places therefore need to be coordinated with the trails and greenways network in the Parks, Open Space and Greenway Plan.

Integrating bikeways and sidewalks into new roadway projects, designating bike routes on existing streets, transit, trails and greenways should ultimately create an interconnected alternative ‘Active Transportation’ network throughout Allegheny County.

B. Coordinate Transportation Systems and Modes to Increase Mobility

Increasingly, the need to integrate walking and bicycling with transit usage is being recognized. As transit routes are being planned or improved, there is a need to ensure that there are:



BICYCLE AND PEDESTRIAN

- Safe ways to access transit stops
- Secure and convenient places to park bicycles
- Dependable ways for a transit passenger to transport a bicycle
- Desirable places to wait for transit vehicles

Transportation provides access to many key opportunities such as jobs, quality schools, entertainment and recreation. An equitable and efficient transportation system includes multiple modes and ensures mobility for all residents.

Another need of the transportation network is to provide ways to commute by bicycle. Roadway shoulders should be paved, routes suitable for bicycling should be identified and the routes signed accordingly.

AIRPORTS

■ TODAY'S CONDITIONS

PITTSBURGH INTERNATIONAL AIRPORT

Pittsburgh International Airport (PIT) has the potential to be an economic generator for Southwestern Pennsylvania. Located 16 miles west of Pittsburgh, the airport is served by 13 air carriers and in 2006 accommodated 10 million travelers in nearly 270,000 aircraft operations. The airport encompasses almost 10,000 acres with four runways, five terminals with 100 gates, and has 13,000 parking spaces. More than 2,000 acres of PIT land are available for non-aviation and aviation-related development. This includes about 400 acres of pad-ready sites available and fully ready-to-go for users, as of 2007.

In addition to the traveling public, Pittsburgh International Airport also serves the freight community, processing about 200 million pounds of freight each year.

Pittsburgh International Airport is undergoing a period of transition in the wake of the dominant carrier, US Airways, significantly reducing its connecting hub operations at the facility. Table 4I.12 shows airport operations in recent years.

Although US Airways still maintains a significant presence at PIT, several low-cost carriers such as Southwest have entered the market, and help to make PIT more competitive in terms of lower fares. In addition to reduced fares, new carriers have increased passenger volumes and trips originating from the airport by airlines other than US Airways. The following carriers serve the Pittsburgh International Airport:

TABLE 4I.12 – Pittsburgh International Airport Operations, 1996-2006

Year	Passenger Enplanements	% Change	Cargo Volume	% Change
1996	20,533,660	2.6%	345,355,262	3.2%
1997	20,759,723	1.1%	361,395,069	4.6%
1998	20,556,075	-1.0%	346,791,556	-4.0%
1999	18,785,728	-8.6%	323,601,747	-6.7%
2000	19,816,511	5.5%	624,175,994	92.9%
2001	19,945,246	0.6%	306,625,155	-50.9%
2002	18,027,165	-9.6%	309,072,448	0.8%
2003	14,266,984	-20.9%	267,985,028	-13.3%
2004	13,271,709	-7.0%	265,750,936	-0.8%
2005	10,478,605	-21.0%	190,152,587	-28.4%
2006	9,987,310	-4.7%	186,727,316	-1.8%

Source: FAA



AIRPORTS



Photo credit: McCormick Taylor

- Air Canada
- Air Tran Airways
- American Airlines
- Continental
- Delta Airlines
- JetBlue
- Midwest Airlines
- Myrtle Beach Direct
- Northwest Airlines
- Southwest Airlines
- United Airlines
- US Airways
- USA 3000 Airlines

The following air cargo carriers serve Pittsburgh International Airport:

- Airborne Express
- DHL
- FedEx
- UPS

There are intermodal facilities at PIT that connect passengers with private vehicles, limousines, taxis and transit, as well as freight facilities to support the air cargo.



Figure 4I.5 – Airport Locations

Source: McCormick Taylor

ALLEGHENY COUNTY AIRPORT

The Allegheny County Airport, located in West Mifflin, is the fifth busiest airport in the state and the largest general aviation airport in western Pennsylvania. It is classified as a business service airport with 160 fixed based aircraft (FBO) and approximately 139,000 annual operations. It is served by two lighted runways. The airport has a continuously staffed air traffic control tower. It serves as the primary FAA designated reliever airport for Pittsburgh International Airport. In this role, the airport supports a high volume of business, corporate and pleasure-related flying activity.

PRIVATE AIRPORTS

The County has two private airports, Pittsburgh-Monroeville Airport and Rock Airport. The locations of the

County's airports are shown on Figure 4I.5.

AIRPORTS

■ ISSUES AND ANALYSIS

This section examines ways to support air travel in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Underutilized passenger and cargo facilities at Pittsburgh International Airport
- No direct fixed guideway transit connection between Pittsburgh International Airport and Downtown Pittsburgh and Oakland
- No transcontinental international flights
- Need to increase air cargo activities

Additional challenges of concern for the Allegheny County Airport Authority include:

- Increasing congestion levels and travel times between Pittsburgh International Airport, Downtown Pittsburgh, and Oakland that limit opportunities for growth at PIT and throughout the County
- The same issues apply for Allegheny County Airport in West Mifflin; it also suffers from increased congestion levels and travel times between it and Downtown Pittsburgh and Oakland.
- More than two thousand acres of PIT land available for development that can assist in providing jobs for the community and lease revenues for the airport. (This is addressed in the Economic Development Plan – Chapter 4, Section C.)

The following provides an understanding of these issues.

UNDERUTILIZED PASSENGER AND CARGO FACILITIES AT PIT

There are underutilized gates and terminals due to the removal by US Airways of their hub at PIT and the resulting reduction in flights. Efforts are underway to attract more carriers and additional flights to and from PIT.

PIT has underutilized cargo buildings and 235,000 sq. ft. of cargo buildings with a vacancy rate of 32% in late 2007. A new development area at Northfield with a national developer will help to attract users and provide more facilities.

NO DIRECT FIXED GUIDEWAY TRANSIT CONNECTION BETWEEN PIT AND DOWNTOWN PITTSBURGH AND OAKLAND

Congestion along Parkway West makes travel to PIT difficult. Planned and recently completed infrastructure improvements offer the promise of a brighter future for the airport corridor. The proposed Southern Beltway will improve access and east-west mobility between the mid-Mon Valley and the Airport, helping to transform the area around the Airport into a major warehouse and distribution center that will create thousands of jobs. The recently completed Findlay Connector, a new highway linking the Airport to Route 22, will facilitate the development of more than 1,500 acres of nearby land.

Currently, public transit is significantly underutilized in the Airport Corridor, falling far below national averages. In its 2004 study of the corridor, Carnegie Mellon University's Center for Economic Development concluded that one reason for this may be the disproportionately high commuting times via transit. Therefore, most commuters are using privately owned vehicles instead. Furthermore, public transit may not be an option available to workers working more than one job or working during 'off-hours'.

A fixed guideway transit connection would provide improved access to the region for travelers, support economic development and land use priorities along the corridor, and provide access to other transit facilities. Furthermore, without convenient transit, low-wage workers will continue to face difficulty accessing jobs in the airport corridor.



AIRPORTS

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed airport development, and
- Facilitates the movement of passengers and freight.

OBJECTIVES OF THE PLAN

The objectives of the Airports portion of the Transportation Plan are to:

- A. Support Pittsburgh International Airport efforts to retain and increase passenger and air cargo connectivity to national and international destinations.
- B. Support freight movements through safe and efficient air shipping practices.
- C. Increase connectivity to and from Pittsburgh International Airport to Downtown Pittsburgh, Oakland and major population centers via a rapid transit system, and other modes and system improvements.

The following provides an understanding of the objectives.

A. Support PIT Efforts to Retain and Increase Passenger and Air Cargo Connectivity to National and International Destinations

The Airport area is very important to the County in terms of the economic development opportunities it has to offer. If Allegheny County wants to compete with other cities in attracting national and international companies to locate in our region, it is very important to have non-stop flights to Europe and West Coast destinations. This is a key selling point in getting people to come to the region for business or tourism.

Recent restructuring and the merger of US Airways with America West has resulted in fewer flights and direct connections for US Airways passengers at PIT. The reduction in US Airways activity at PIT has made the airport more attractive to other airlines, and lowered travel cost to passengers.

B. Support Freight Movements Through Safe and Efficient Air Shipping Practices

Pittsburgh International Airport is one of the County's major transportation assets. This facility has the capacity to handle over hundreds of thousands of enplanements per year. While air traffic is currently down, the Airport Authority has been marketing the airport to multiple airlines, as well as the all air cargo market. The airport's goal is to attract additional freight carriers, or combination passenger and freight carriers. The County and its planning partners should continue to support the full utilization of the airport and its facilities, including cargo, and the goal of increasing connectivity to national and international destinations.

- In an effort to expand air cargo business and to increase the region's international air service, PIT has committed to working with community leaders to support the area's cargo agencies.
- The Air Cargo Task Force meets regularly. Its message is to increase cargo commitment via PIT. The goal is to attract freight carriers offering competitive direct lift for all types of international air freight imports and exports.

AIRPORTS

C. Connectivity to and from PIT to Downtown Pittsburgh, Oakland, and Major Population Centers via a Rapid Transit System

The Airport area is very important to the County in terms of the economic development opportunities it offers. Projected development in the airport corridor requires support in terms of transportation investments for intermodal connections between the network of roadway, transit and freight facilities and other congestion reduction measures.

A future that includes rapid transit between the airport and Downtown is vital to the County. A direct connection from PIT to Downtown Pittsburgh, and on to Oakland, supports economic development plans, land use priorities and redevelopment opportunities along the corridor. The light rail transit will provide opportunities to rapidly connect to Oakland, North Shore and South Hills destinations. Please refer to the major Transit Recommendations found earlier in this section and the Future Land Use Plan (Chapter 4, Section A) for more information.

Several studies have recommended using existing rail corridors for future rapid transit, because construction and right-of-way costs can be lower when compared to a new alignment, but many other factors add into the final mix of factors for decision-making. Alternatives will be developed and assessed as the project moves forward.

One intriguing possibility, full of potential, is that Robinson Town Center can serve as a “western” intermodal and multi-modal hub to distribute commuters to employment centers, educational facilities and other destinations in western Allegheny County, at the midway point of the LRT that is envisioned to eventually serve PIT.



RAIL FREIGHT

■ TODAY'S CONDITIONS

More than 350 miles of rail lines cross Allegheny County. Historically, rail lines were built along the rivers and transported resources and finished products to and from the manufacturing facilities located there. Today, several railroads, such as the Union Railroad that serves the U.S. Steel Edgar Thompson Works in Braddock, still provide this type of service.

The major freight railroad routes in the County are owned by Norfolk Southern and CSX, which utilize the lines for their regional, national and international operations. The Norfolk Southern main line through the County is a link in its east-west line between Chicago and Baltimore, while CSX's line connects Chicago, Philadelphia and New York.

The following lists the class and name of railroads located in Allegheny County.



Photo credit: Kevin Smay

Class I Railroads

- CSX Transportation, Inc.
- Norfolk Southern

Class II Railroads

- Bessemer & Lake Erie Railroad Company (Great Lakes Transportation)
- Buffalo & Pittsburgh Railroad, Inc.
- Kiski Junction Railroad
- Mountain Laurel Railroad Company
- The Pittsburg [sic] & Shawmut Railroad
- The Wheeling & Lake Erie Railway Company

Switching Lines

- Aliquippa & Ohio Central Railroad Company
- Allegheny Valley Railroad
- McKeesport Connecting Railroad Company
- Monongahela Connecting Railway
- Pittsburgh Industrial Railroad
- Pittsburgh Allegheny & McKees Rocks Railroad Company
- Union Railroad Company

Over the past 20 years, rail activity has increased significantly in the U.S. and regionally due to the increased use of containers (COFC) and trailers (TOFC) on flat freight cars. Rail companies are feeling pressure to increase capacity on rail lines and ensure maintenance in order to meet the continuously increasing demand. In many cases, the "last mile" of roadways connecting to rail freight terminals are in disrepair or deficient in ways that make them insufficient to handle the freight traffic traveling on them to be loaded onto rail cars.

FUNDING

The Southwestern Pennsylvania Commission's Freight Forum is working with railroads in the region to plan and fund infrastructure improvements. The Commonwealth of Pennsylvania's PA Rail Freight Assistance Program provides matching grants to railroads for projects which preserve essential rail freight service and stimulate economic development through new or expanded freight service. For 2009, the Governor's proposed budget plans include increased assistance to improve rail freight infrastructure.

RAIL FREIGHT

■ ISSUES AND ANALYSIS

This section examines ways to facilitate improved rail freight operations in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Lack of double-stack capacity
- Port Perry Rail Bridge capacity issues
- How the increased volume of rail freight traffic impacts long-term transit expansion plans, such as potential for commuter rail on the Allegheny Valley Railroad right-of-way

The following provides an understanding of these issues.

LACK OF DOUBLE-STACK CAPACITY

Due to steadily increasing volume of rail shipping, additional double-stack rail corridors are needed.

PORT PERRY RAIL BRIDGE CAPACITY ISSUES

The Port Perry Rail Bridge is a key connection crossing the Monongahela River. It carries Norfolk Southern rail traffic into and out of the Pitcairn Intermodal Facility. The bridge connection is single track rail, which significantly impacts the volume of goods that can travel through the area and increases travel time for the railroads. Trains must wait substantial amounts of time for opposing rail traffic to clear the bridge. The bridge at Port Perry is a “pinch point” which slows traffic and negatively affects productivity.

INCREASED VOLUME OF RAIL FREIGHT TRAFFIC IMPACTS LONG-TERM TRANSIT EXPANSION PLANS

Many proposed new transit investments and plans for expansion of existing fixed guideway facilities involve the

idea of using existing railroad rights-of-way. It will be critical to coordinate with the railroads to determine where joint use may be possible and what rail expansion or reduction plans are being discussed, as transit plans progress. Railroads will want to maintain access to rail line facilities and capacity as moving freight via rail becomes an increasingly viable and cost-effective option for freight movement. In an era of exploding oil and gas prices, and with ever-decreasing highway capacity due to increased traffic, rail becomes more and more desirable.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Facilitates the movement of goods and freight.

OBJECTIVES OF THE PLAN

The objectives of the Rail portion of the Transportation Plan are to:

- A.** Support freight movements through safe and efficient truck and rail intermodal connectivity and systems as well as with multi-modal facilities.
- B.** Increase rail safety at interfaces with people and with other transportation modes.
- C.** Support increased movement of goods by rail to free road capacity, and increase road capacity by supporting rail freight initiatives.

The following provides an understanding of the objectives.



RAIL FREIGHT

A. Support Freight Movements Through Safe and Efficient Intermodal Connectivity

The preservation of existing and future rail corridors in Allegheny County is a critical need for the region. As congestion on the region's highways continues to increase, freight movement by rail can be a viable alternative to trucking. Improving existing intermodal centers and developing others in key locations are fundamental to efficient future freight movement. Road access to the Pitcairn Intermodal Center should be improved to allow efficient transfer of freight to and from the trains. In addition, the elimination of the pinch point at Port Perry should be investigated and supported.

B. Increase Rail Safety

The interface between rail and other modes of travel is a source of accidents. Elimination of at-grade crossings should be pursued by railroad companies throughout the County. Eliminating at-grade crossings will result not only in improved safety but assist with making rail movements more efficient. Increasing pedestrian safety at rail crossings is also very important.

C. Support Increased Movement of Goods by Rail

Shipping via our rail infrastructure can provide shippers with cost-effective and efficient transportation, especially for heavy and bulky commodities. In terms of cost-effective energy use, rail engines are more fuel efficient than trucks. In terms of time savings, rail can also provide a more efficient travel time for freight companies as well as the added benefit of increasing capacity on the roadways by reducing the number of trucks using the roadway network. This is of particular importance in light of the projected increase in freight traffic over the next 10-15 years.

WATERWAYS

■ TODAY'S CONDITIONS

Allegheny County has significant water transportation resources for personal, commercial and recreational travel, and for freight shipment.

PORT OF PITTSBURGH

The Port of Pittsburgh continues to be one of the busiest ports in the nation. It's a vital element in an expansive and expanding transportation network that provides Allegheny County businesses with access to regional and global markets.



Photo credit: McCormick Taylor

Each year the Port of Pittsburgh moves approximately \$8 billion worth of goods and contributes more than 34,000 jobs in southwestern Pennsylvania. The primary commodities moving through the Port include coal, sand and gravel, limestone, scrap, chemicals and primary manufactured goods (such as alloys, fabricated metal products, lime, cement and glass). The Port encompasses a number of terminals, as shown in Table 4I.13.

The Port of Pittsburgh is the second busiest inland port in the United States.

The Port of Pittsburgh website lists Pittsburgh as "The Second Largest Inland Port in the Nation." Based on 2005 data from the US Army Corps of Engineers, "Pittsburgh is the second busiest inland port in the nation and the 19th busiest port, of any kind, in the nation. Pittsburgh handles more tonnage than Philadelphia and St. Louis. The more than 40 million tons of cargo the Port of Pittsburgh ships and receives each year equates to an annual benefit to the region of more than \$873 million."

LOCKS AND DAMS

Within Allegheny County, there are seven locks and dams that facilitate the movement of raw materials and goods to end users and there are intermodal facilities for transfer to other modes of transportation. Table 4I.14 shows the existing system of locks and dams.

If one of the locks or dams in Allegheny County became inoperable, it would take 700 trucks per day seven days a week to move the freight that would have otherwise been carried on the rivers over the same period of time.

PASSENGER SERVICE

The Gateway Clipper is a private company offering excursion cruises on the Three Rivers, and has what is believed to be the largest inland riverboat fleet in the country. The Gateway Clipper also offers a passenger river shuttle that operates in a loop from Station Square to the North Shore's Heinz Field, PNC Park and Carnegie Science Center and back, stopping at the Point along the way.

MARINAS

Throughout the County there are numerous marinas and boat docks for private boat owners. In recent years, there has been an increase in locations for kayak rentals and launches along the rivers and on local park lakes.



WATERWAYS

TABLE 4I.13 – Location of River Terminals in Allegheny County

COMPANY NAME	RIVER	MILEPOST
Aliquippa Terminals, Inc.	Ohio	16.8 LDB
Allegheny River Dock Company (inactive)	Allegheny	21.6 RDB
Allegheny River Terminals, Inc.	Allegheny	18.6 LDB
Armstrong Terminal	Allegheny	30.8 LDB
Azcon Corporation	Allegheny	7.0 RDB
Port of Leetsdale BeeMac Transloading	Ohio	14.5 RDB
C.S.I.	Monongahela	23.5 LDB
Colona Transfer, L.P.	Ohio	23.5-23.7 LDB
Dillner Storage and Transfer Company	Monongahela	24.1 LDB
Freeport Terminals	Allegheny	29.6 RDB
General Materials Terminals	Ohio	20.7 RDB
Gordon Terminal Services (Coraopolis)	Ohio	Milepost 21.1 LDB
Gordon Terminal Services (McKees Rocks)	Ohio	3.2 LDB
Gulf Materials Dock (GTC)	Monongahela	10.2 RDB
Industry Terminal and Salvage Company	Ohio	33.2 RDB
Josh Steel	Monongahela	10.1 RDB
Kinder Morgan	Monongahela	16.1 LDB
Kinder Morgan (KM Ferro Group)	Ohio	33.5 RDB
Matt Canestrone Contracting, Inc.	Monongahela	63.5 RDB
McGrew Welding	Monongahela	38.4 LDB
McKees Rocks Industrial Enterprises, Inc.	Ohio	4.0 LDB
Mol-Dok Company, Inc.	Ohio	14.1 RDB
Mon Valley Intermodal, Inc. (closed)	Monongahela	34.5 LDB
Mon Valley Transportation Center (inactive)	Monongahela	19.5 RDB
Pittsburgh Intermodal Terminals	Ohio	16.5 RDB
S.H. Bell Company (Braddock Terminal)	Monongahela	9.9 RDB
S.H. Bell Company (East Liverpool Terminal)	Ohio	40.1 RDB
Three Rivers Aggregates, Inc.	Ohio	14.4 LDB
Three Rivers Marine & Rail Terminal	Monongahela	43.2 RDB
Transtar/Union Railroad	Monongahela	12.1 LDB

WATERWAYS

TABLE 4I.14 – Three Rivers Locks and Dams

RIVER	FACILITY	YEAR OF CONSTRUCTION/ RECONSTRUCTION
OHIO RIVER		
	Emsworth Locks and Dam	1921/1938
	Dashields Locks and Dam	1929
MONONGAHELA RIVER		
	Braddock (Locks and Dam 2)	1905/2004
	Elizabeth (Locks and Dam 3)	1907
ALLEGHENY RIVER		
	Pittsburgh (Lock and Dam 2)	1934
	CW Bill Young – Barking (Lock and Dam 3)	1934
	Natrona (Lock and Dam 4)	1927

■ ISSUES AND ANALYSIS

This section examines ways to ensure the continued viability of waterway transportation in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Condition of existing Lock and Dam system
- ‘Last Mile’ of local roadways in freight corridors
- Underutilized river system for water taxis and transit
- Need more marinas boat launches to facilitate access to rivers

The following provides an understanding of these issues.



Photo credit: McCormick Taylor



WATERWAYS

CONDITION OF EXISTING LOCK AND DAM SYSTEM

While freight traffic has been increasing on the Three Rivers, the condition of the lock and dam system is deteriorating quickly due to its age. A failure of any one of the locks and dams could cause severe impacts to the local and regional economy and to the regional transportation system. If a shut down of the lock and dam system occurs, it will be difficult to accommodate freight on the roadway system. To put it in perspective, if one of the locks or dams became inoperable, it would take 700 trucks a day seven days a week to move the freight that would have otherwise been carried on the rivers over the same period of time.

'LAST MILE' OF LOCAL ROADWAYS IN FREIGHT CORRIDORS

Local roadways in the freight corridors often do not have the capacity to handle the type and amount of vehicles accessing river ports, such as large trucks that have wide turning radii. 'Last mile' of roadways refers to the local roadways that connect the river ports with the interstate and arterial roadways system. These routes should be signed to assist drivers to efficiently move freight.

UNDERUTILIZED RIVER SYSTEM FOR WATER TAXIS AND TRANSIT

Due to recent riverfront developments, an opportunity exists to develop a river taxi system as an alternative to commute to Downtown Pittsburgh and to link key attractions in Station Square, North Shore, the Strip District and Downtown. An assessment should be completed to see if river transit is a viable option now that there is more of a concentration of development.

NEED MORE MARINAS AND BOAT LAUNCHES

The rivers are a wonderful resource for the residents of Allegheny County. Additional marinas and boat launches should be developed in appropriate places to provide more people the opportunity to enjoy the rivers as well as to handle more cargo loading and multi-modal connectivity.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Facilitates the movement of goods and freight.

OBJECTIVES OF THE PLAN

The objectives of the Waterways portion of the Transportation Plan are to:

- A. Support freight movements through safe and efficient water systems.
- B. Provide access to the rivers for commercial and recreation uses.

The following provides an understanding of the objectives.

A. Support Freight Movements Through Safe and Efficient Water Systems

The Three Rivers provide a major means of freight movement. The preservation of the rivers' system of locks and dams that are managed by the Army Corps of Engineers is critical to keep freight moving. The age and condition of the system is a major maintenance concern. Funding is available at the federal level, but has not been appropriated. To alleviate concerns and to ensure freight continues to move along the rivers, local representatives need to urge Congress to appropriate sufficient funding for the maintenance and rehabilitation of southwestern Pennsylvania's system of locks and dams.

WATERWAYS

B. Access to the Rivers for Commercial and Recreational Uses

The Three Rivers and adjacent brownfields also provide a source of developable land and recreation. These areas are being opened up for uses that include mixed-use centers, office parks, retail centers, recreational centers and trails. Allegheny County and the organizations such as Riverlife Task Force and Friends of the Riverfront are using the rivers to revitalize areas of the County that have been neglected and have historically been industrial uses in the past.

Homestead's Waterfront development and the City of Pittsburgh's South Side Works are two examples of developments that utilize brownfields and their proximity to the river to their advantage. Trails have been incorporated into the developments to encourage alternative modes of travel as well as recreation. Additional development of marinas and public boat launches will provide the residents of Allegheny County with access to the rivers.



UTILITIES PLAN

■ TODAY'S CONDITIONS

As has been seen throughout the County's history, the quality and adequacy of utility infrastructure can help or hinder growth.

WATER SUPPLY

In Allegheny County, water supplies for drinking water are obtained primarily from surface water sources; only 10% comes from groundwater. Water suppliers in the County use the Three Rivers as water sources, as well as the Youghiogheny River, Indian Creek and Beaver Run in Westmoreland County. As per the Pennsylvania Municipalities Planning Code Article III Section 301(b), *Allegheny Places* strives to be consistent with the State Water Plan and any applicable water resources plan adopted by any river basin commissions. *Allegheny Places* also recognizes that:

- Lawful activities such as extraction of minerals impact water supply sources and such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities.

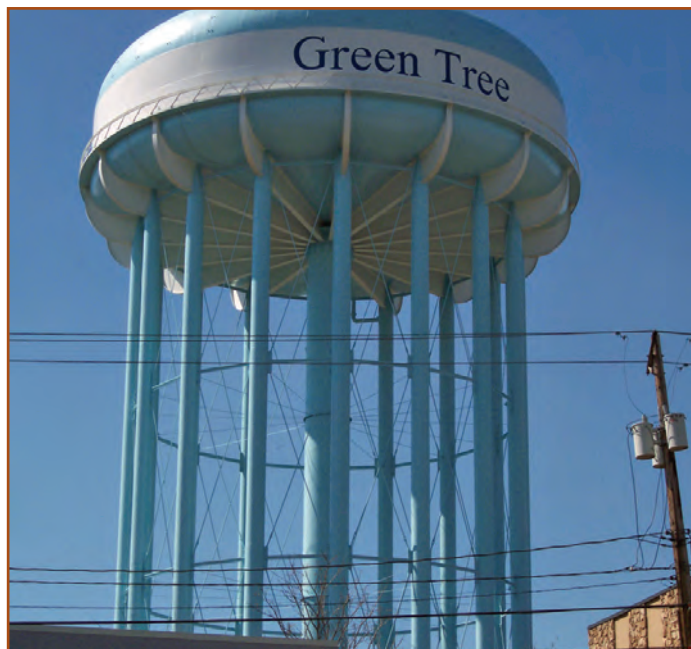


Photo credit: McCormick Taylor

- Commercial agriculture production may impact water supply sources.

PUBLIC WATER

Allegheny County prepared its *Comprehensive Water Supply Plan* in 1996. The plan inventories public water suppliers active in the County along with the technical and financial details of each. The inventory was supplemented for *Allegheny Places* by mapping service areas and collecting recent water demand and capacity data.

Public water service is provided to approximately 97% of County residents by 41 public water suppliers, as listed in Table 4J.1. Twenty-two of the water suppliers are municipal authorities, 18 are municipalities, and one is an investor-owned utility. Private wells provide water in areas that are not served by public water systems. Currently, all of the water suppliers are operating within established water allocations.

The water suppliers currently distribute approximately 270 million gallons of water per day (mgd) to approximately 620,000 residential, commercial, industrial, institutional and bulk sales customers in the County.

Twenty of the water suppliers are considered primary water suppliers since they operate both sources of supply and treatment facilities. They supply water directly to their customers and to other public water systems for distribution and sale.

The approximate service areas of these systems within Allegheny County are illustrated on Map 4J.1.

In general, the water distribution systems operating within Allegheny County function acceptably under current demand conditions. No significant areas of chronically unacceptable low flow and pressure conditions have been identified.

A total of 23 water treatment facilities are currently being operated by the water suppliers serving Allegheny County. The total rated capacity of the treatment facilities is 457 mgd. Total treatment capacity well exceeds current average day and maximum day water demands. The total treatment capacity represents approximately 131% of the current maximum day water demand.



TABLE 4J.1 – Allegheny County Public Water Suppliers

SUPPLIER	TYPE OF OWNERSHIP	PRIMARY SOURCE OF WATER
Aleppo Township Authority	Authority	Purchased
Aspinwall Borough Water Department	Municipal	Ground
Brackenridge Borough Water	Municipal	Surface
Blawnox Municipal Waterworks	Municipal	Purchased
Braddock Borough Water Authority	Authority	Purchased
Cheswick Borough Water Department	Municipal	Ground
Coraopolis Water & Sewer Authority	Municipal	Ground
Creswell Heights Joint Authority	Authority	Ground
City of Duquesne	Municipal	Purchased
East Deer Township Waterworks	Municipal	Purchased
Edgeworth Borough Municipal Authority	Authority	Purchased
Etna Borough	Municipal	Purchased
Fawn Frazier Joint Water Authority	Authority	Purchased
Findlay Township Water Authority	Authority	Purchased
Fox Chapel Authority	Authority	Purchased
Glenfield Borough	Municipal	Purchased
Hampton Township Municipal Authority	Authority	Purchased
Harmar Township Municipal Authority	Authority	Ground
Harrison Township Water Authority	Authority	Surface
Millvale Borough	Municipal	Purchased
Monroeville Municipal Authority	Authority	Purchased
Moon Township Water Authority	Authority	Surface
Neville Township	Municipal	Purchased
Oakdale Borough	Municipal	Purchased
Oakmont Borough Municipal Authority	Authority	Surface
Pennsylvania American Water Company	Investor PUC	Surface
Pittsburgh Water & Sewer Authority	Authority	Surface
Plum Borough Municipal Authority	Authority	Purchased
Richland Township Municipal Authority	Authority	Purchased
Reserve Township	Municipal	Purchased
Robinson Township Municipal Authority	Authority	Surface
Sewickley Borough Water Authority	Authority	Ground
Shaler Township Water Department	Municipal	Ground
Borough of Sharpsburg	Municipal	Ground
Sprindgale Township	Municipal	Purchased
Springdale Borough Water Department Borough	Municipal	Ground
Tarentum Borough	Municipal	Surface
Western Allegheny County Municipal Authority	Authority	Purchased
Westmoreland County Municipal Authority	Authority	Surface
West View Borough Municipal Authority	Authority	Surface
Wilkinsburg-Penn Joint Water Authority	Authority	Surface

PUBLIC SEWER SYSTEMS

Allegheny County prepared the *Comprehensive Sewage Management Plan* in 1999. The plan delineates public sewer system service areas throughout the County and provides an overview of current conditions and treatment capacities.

There are three basic types of public sewer systems:

- **Collection Sewers:** Pipes used to collect and carry wastewater from individual sources to an interceptor sewer that will carry it to a treatment facility.
- **Treatment Facilities:** A structure built to treat wastewater before discharging it into the environment.
- **Collection and Treatment:** Facilities that collect and carry the wastewater as well as treat it before it is discharged.



Photo credit: McCormick Taylor

The information from the 1999 plan was supplemented for *Allegheny Places* by updating service area delineations, loading rates and treatment capacities.

Wastewater Treatment Facilities

Thirty-five wastewater management agencies provide public sewage treatment service to approximately 1.3 million people throughout Allegheny County and parts of adjacent counties. All or portions of 127 municipalities within Allegheny County are served by one or more sewage treatment agencies, as shown on Map 4J.2.

There are 46 publicly owned treatment facilities serving Allegheny County, ranging in capacity from less than ten thousand gallons per day to 200 mgd. Twenty-six of the treatment plants have capacities of one mgd or more and are considered to be “major” plants. The Allegheny County Sanitary Authority (ALCOSAN) is the largest sewage treatment agency in Allegheny County, serving all or parts of 82 municipalities in Allegheny County and one community in Westmoreland County. ALCOSAN serves approximately 70% of County residents.

The topography of Allegheny County is one of the main reasons why there are so many relatively small, localized wastewater treatment plants today.

Countywide, the total sewage treatment plant loading averages 243 mgd daily.

Wastewater Collection Systems

Wastewater collection services are provided by a number of different municipalities and authorities that operate collection systems, which eventually discharge to one or more wastewater treatment facilities. The Pittsburgh Water and Sewer Authority (PWSA) is the largest collection-only system.

There are 84 municipalities within Allegheny County that have sanitary sewer (collection) systems. Forty-three municipalities are predominantly served by combined (wastewater and stormwater) sewer systems.

Unsewered Areas

Although most of Allegheny County is served by public sewers, there are scattered unsewered areas throughout the County. Three municipalities are served entirely by on-lot wastewater systems. Because of the County’s soils and underlying geology, which are not conducive to in-ground filtration, elevated sand mounds are currently the only type of conventional on-lot system permitted for residential use. Currently, about 100 permits for residential on-lot septic systems are issued per year.

Sixty on-lot wastewater system problem areas are identified in the *Comprehensive Sewage Management Plan*. There are others that have not been identified. Problem areas are defined as concentrations of homes that are operating malfunctioning on-lot septic systems. Progress has been made in addressing some problem areas, but others persist.



Stormwater Management

The regulatory basis for stormwater management in Pennsylvania is Act 167 of 1978, known as the Storm Water Management Act. Act 167 requires counties to prepare stormwater management plans for the designated watersheds in the county. When there is an approved stormwater management plan for a watershed, local municipalities within the watershed must adopt regulations to manage stormwater runoff from new development in accordance with the approved plan. When a watershed does not have an approved plan, stormwater runoff from new development may or may not be controlled.

To date, Act 167 plans have been completed for 8 of the County's 25 designated watersheds (see Map 4J.3):



Photo credit: Roy Kraynyk

- | | |
|---------------------|----------------|
| ■ Deer Creek | ■ Montour Run |
| ■ Flaugherty Run | ■ Pine Creek |
| ■ Girty's Run | ■ Squaw Run |
| ■ Monongahela River | ■ Turtle Creek |

In December 2007, Allegheny County Council approved an update to the County's 1985 Stormwater Management Plan for the Girty's Run, Pine Creek, Squaw Run and Deer Creek watersheds.

Problems associated with inadequate and improper management of stormwater include flooding, soil erosion, and sedimentation of streams and other waterways.

SOLID WASTE DISPOSAL

Municipal landfills are located in Monroeville, South Park, Findlay and Forward townships. A private landfill is located in North Fayette Township. There are methane recovery projects in place at two of the municipal landfill sites. Landfills are operated by the private sector and regulated by the Allegheny County Health Department.

ELECTRIC, NATURAL GAS AND TELECOMMUNICATION SERVICES

Allegheny County is served by an extensive network of gas, electric and telephone services. These services are provided by investor owned utilities, which are regulated by the Pennsylvania Public Utility Commission (PUC).

Natural Gas Providers – Retail natural gas distribution system services in Allegheny County are provided by:

- Columbia Gas of Pennsylvania
- Dominion Peoples
- Equitable Gas
- T.W. Philips

Electric Power Providers – Three electric power distribution companies operate within Allegheny County:

- Allegheny Power
- Duquesne Light Company
- Pennsylvania Power and Light Company

Telephone Service Providers – Residential and commercial telephone service within Allegheny County is provided by 28 companies.

Internet Service Providers – Internet service within Allegheny County is offered by a number of providers.

Utility Choice – Through the Utility Choice program, consumers in some areas of the County may choose among companies that generate electricity, supply natural gas, or provide local telephone service.

Low-Income Programs – Pennsylvania requires electric distribution companies, natural gas distribution companies and local telephone companies to provide protections and services to low-income residents. There are two energy assistance programs for electric and natural gas utilities: Budget Billing and LIHEAP.

■ ISSUES AND ANALYSIS

This section examines what can be done to maximize the use of existing infrastructure in order to efficiently provide for future growth.

KEY CHALLENGES

In developing the Utilities Plan, the Community-Utilities Resource Panel helped to identify these key challenges:

- Difficulty of attaining compliance with regulations
- Protecting source water supplies
- Lack of funding for infrastructure improvements
- Inefficient and inequitable extension of infrastructure
- Lack of regional watershed management

The following provides an understanding of these issues.

DIFFICULTY OF ATTAINING COMPLIANCE WITH REGULATIONS

Sanitary Sewer System Related

The region's deteriorated sewage infrastructure is polluting the County's streams and rivers. As little as one-tenth of an inch of rain – the average area rainfall is one-quarter inch – can cause raw sewage to overflow into the County's rivers and streams. Melting snow can have the same effect.

Sanitary sewage collection systems that transport wastewater to treatment plants usually operate effectively in dry weather. However, when it rains or snows, stormwater gets in the sanitary sewage system through direct connections or through infiltrating leaky, cracked pipes. The added volume of stormwater overloads the system, causing raw sewage to overflow at hundreds of locations. The untreated sewage runs into waterways, overflows from manholes and backs up into basements.

Sewage overflows are a public health risk. While exposure to some disease-causing organisms, such as giardia or cryptosporidium, is not considered fatal for a healthy adult, it can be deadly for people with weakened immune systems, small children and the elderly. It is becoming more and more difficult to treat drinking water because of these and other, ever-increasing contaminants in raw water sources.

Nearly a third of the County's municipalities are served by combined sewer systems. Combined sewers carry both wastewater (used water and raw sewage) and stormwater (rain and snowmelt) in the same pipes, and convey it to a sewage treatment plant. During wet weather conditions, many combined sewers experience hydraulic overloading, causing overflows. Overflows can occur at any point along the conveyancing system and at the treatment facility.

Sewer overflows violate the Clean Water Act. The U.S. Environmental Protection Agency has required 83 municipalities to sign consent decrees outlining how they will attain compliance with Clean Water Act regulations. The plans must consider wastewater loads from future development and wet weather flow requirements, and identify capital projects required to attain regulatory compliance. The costs of addressing these issues are very high.

Current restrictions on new sewer system connections limit the construction of new homes and businesses in many communities throughout the County.

The ALCOSAN service area has at least 450 combined and separate sanitary sewer overflow structures from which untreated sewage is discharged into local streams during wet weather, more than any other authority in the country. The municipalities involved in the group of consent orders are the ones that use ALCOSAN's Woods Run sewage treatment plant, located on Pittsburgh's North Side. ALCOSAN is currently negotiating a consent order and agreement to increase capacity at Woods Run.

Eleven wastewater treatment agencies operating in the County have permits that include requirements for addressing combined sewer overflow. Forty-one of the 126 sewer municipalities within the County have been operating under the requirements of corrective action plans. The municipalities of Edgewood, Penn Hills, Pittsburgh, and Swissvale are all under consent orders as well.

The wet weather issue is a top priority for the region's state and federal legislators. Federal funding totals \$17 million to date. The Commonwealth of Pennsylvania recently awarded a \$2 million grant to the 3 Rivers Wet Weather Program (3RWW) to help municipalities address the issue. 3RWW has awarded more than \$6.8 million to communities over the last four years to help fund 33 innovative sewer projects that can become models for other municipalities and



regions. Many of the projects involve multiple communities collaborating to solve the wet weather issue.

Stormwater Related

Polluted stormwater runoff that often infiltrates into municipal storm sewer systems is also an issue. The polluted water is transported from municipal separate storm sewer systems (MS4s) into local rivers and streams without treatment. When deposited into nearby waterways the pollutants can seriously impair water quality, discouraging recreational use of the resource, contaminating drinking water supplies, and degrading fish and wildlife habitat.

National Pollutant Discharge Elimination System (NPDES) permits require owners of MS4s to develop, implement and enforce a stormwater management program designed to reduce the discharge of pollutants to the “maximum extent practicable”. Ninety-seven municipalities are currently developing the stormwater management programs required by the NPDES permits.

Pennsylvania’s Act 167 and the federal MS4 programs are complementary in that they both require local storm management regulations that control runoff water volumes and peak rates of stormwater runoff from development sites.

PROTECTING SOURCE WATER SUPPLIES

In order to protect the quality of water supplies, the Federal Safe Drinking Water Act requires states to develop Source Water Assessment and Protection (SWAP) Programs to assess all drinking water sources that serve public and private water systems for their susceptibility to pollution. The regulations require groundwater suppliers not already doing so to develop wellhead protection plans and implement watershed protection plans that focus on potential pollutant sources.

In response, the Pennsylvania Department of Environmental Protection (PADEP) has defined groundwater and surface water assessment areas that represent areas where pollutants could enter raw water supplies used by public water suppliers. To date, source water assessment areas have been delineated for all but ten of the County’s municipalities. PADEP has completed 18 SWAP reports that not only delineate water supply protection areas, but also inventory existing and

potential sources of contamination in each protection area and analyze the susceptibility of the sources to contamination.

The reports generally find that existing state and federal regulations should provide adequate protection of water supplies. The reports recommend that an early warning system for spills and accidental discharges into the rivers be established.

LACK OF FUNDING FOR INFRASTRUCTURE IMPROVEMENTS

Achieving compliance with Clean Water Act and Safe Drinking Water Act regulations and addressing stormwater issues within the County will require major capital investments. The costs of maintaining, repairing and replacing aging infrastructure, and expanding the capacities of existing systems, are significant. Preliminary estimates place the cost of achieving compliance with the current consent decree just for ALCOSAN and its tributary systems at three billion dollars.

Older core communities are faced with more complex and severe infrastructure problems and have fewer resources available to address them.

The financial capabilities of the various authorities, and municipal and private entities within the County, vary greatly. Funding necessary improvements to the treated water, wastewater and stormwater infrastructure will be a major challenge for the region.

INEFFICIENT AND INEQUITABLE EXTENSION OF INFRASTRUCTURE

Maintaining and improving utility systems can be difficult for any municipality because of the costs; it is especially difficult for municipalities with limited financial resources. Municipalities with the most limited resources are often also those with the oldest infrastructure. In addition, they are usually faced with other problems and lack resources to address those as well. It reinforces the need for intermunicipal cooperation and regional watershed-based solutions to ensure that infrastructure problems are addressed more efficiently and equitably.

Equitable public infrastructure policies lead to both social and economic equity.

LACK OF REGIONAL WATERSHED MANAGEMENT

Lack of Intermunicipal Cooperation/Coordination

Many of southwestern Pennsylvania's current and most pressing water quality problems, such as those attributable to sewer overflows and stormwater, can be traced to historical water supply and wastewater infrastructure decisions made by individual municipalities at a time when today's population and economic and industrial climate were not foreseen. Other problems, such as acid mine drainage, are a legacy of the region's past heavy mining and manufacturing economy.

A 2005 report, *Regional Cooperation for Water Quality Improvement in Southwestern Pennsylvania*, prepared by the Committee on Water Quality Improvement for the Pittsburgh Region, National Research Council, reported that water quality problems in southwestern Pennsylvania are complex and region-wide. Many sources of pollution that affect local water quality lie outside of the immediate Allegheny County area. Ongoing local remediation activities and those planned to address wet weather-related problems represent patchwork solutions and are not comprehensive enough to address the larger problem. The report further found that a comprehensive, watershed-based approach is needed to effectively meet water quality standards throughout the region in the most cost-effective manner.

The University of Pittsburgh's Institute of Politics' Environment Policy Committee recently released a framing paper describing southwestern Pennsylvania's most pressing problems with stormwater, sewage, water quality and flooding. The Committee established, with the endorsement of the Southwestern Pennsylvania Commission, an independent Regional Water Management Task Force, with the charge of finding and implementing practical, regionally relevant solutions.

In 2006, the Regional Water Management Task Force issued its Phase I Report. Phase I consisted of completing research necessary to fill information gaps in knowledge about water management in southwestern Pennsylvania. In 2007, the Regional Water Management Task Force held a number of public meetings throughout the region, established a Technical Advisory Committee, and consulted with municipalities, authorities and associations. The Task

Force Board is currently working toward producing recommendations concerning new institutional or cooperative arrangements, as well as a plan for implementation.

■ RECOMMENDATIONS

GOAL OF THE PLAN

Water, energy, communications, sewage and stormwater services systems are adequate, well-maintained, affordable and secure.

OBJECTIVES OF THE PLAN

The objectives of the Utilities Plan are to:

- A.** Protect and enhance the quality and quantity of water resources.
- B.** Support planning and funding for utility extensions and improvements that are consistent with the Future Land Use Plan.
- C.** Support regionalization and the shared use of utility assets.

The following provides an understanding of the objectives.

A. Protect and Enhance the Quality and Quantity of Water Resources

Water is an important resource for the economic development of the region.

Conserving Water Supplies

Activities associated with the Future Land Use Plan are expected to increase total water consumption within Allegheny County by less than 5%, which would not exceed current allocations. However, water supplies should still be conserved. The County will periodically review its plumbing code, new in 2004, and update it as necessary to ensure that it reflects current industry standards concerning the use of water conservation



devices. Local water suppliers are required to monitor and annually report unaccounted water losses in their systems to the Allegheny County Health Department.

The Commonwealth of Pennsylvania is currently preparing a State Water Plan that will inventory groundwater and surface water resources and quantify their yields, project future water demands, identify problems and critical planning areas, and provide information, objectives, practices and recommendations to help the private sector and government make informed decisions concerning water use. The County will continue its involvement in developing the State Water Plan and, when complete, consider the implications of the Plan's findings on land use in Allegheny County.

Protecting Water Supplies

One hundred twenty of Allegheny County's 130 municipalities have delineated source water assessment areas. To date, five communities have been involved in SWAP program development. Source Water Protection Grants are offered by PADEP to help establish local SWAP programs that can include:

- Public education
- Program promotion
- Support of pollution prevention methods
- Integration with land use planning
- Restoration and/or conservation of source water protection areas

Water supply distribution systems are vulnerable because they are extensive, relatively unprotected, accessible and yet often isolated. An intense effort is currently underway to improve analytical monitoring and detection of biological, chemical and radiological contaminants in drinking water systems as part of the overall effort to secure drinking water supplies. Federal agencies, academic communities and private companies across the country are working together to develop practical and effective early warning systems. The SWAP reports prepared for Allegheny County recommend the implementation of an early warning system on the Three Rivers.

Establishing an Early Warning System

The goal of an early warning system is to reliably identify contamination in source or treated water in time to permit an effective local response that reduces or avoids the adverse impacts that may result from such an event. There was a cooperative early warning system in operation in Allegheny County. However, several years ago funding for the project withered and the system has been languishing and is essentially out of commission. The Allegheny County Health Department, along with local water suppliers, local universities, PADEP, U.S. Environmental Protection Agency and the Ohio River Sanitation Commission, will explore opportunities for re-establishing and improving the pollutant early warning system on the Three Rivers.

Avoiding Future Stormwater Problems

Land development will continue to impact stormwater management throughout the County. [Allegheny Places](#) supports increased use of best management practices (BMPs) to control stormwater. BMPs include site design techniques that reduce the amount of impervious surfaces on a development site and increase retention of natural vegetation, and structural and non-structural stormwater controls designed to manage runoff on-site. More BMPs designed specifically for use in western Pennsylvania, and stormwater management regulations that require their use, are needed.

Approximately 31,000 acres of land within designated Places in the Future Land Use Plan lie within watersheds of a priority stream. Priority streams were identified by the Allegheny County Emergency Service Department based on a history of flash flooding and resultant damages. Furthermore, approximately 26,000 acres of land within designated Places lie within watersheds for which no Act 167 planning has been completed. Stormwater runoff from these areas must be adequately controlled so that it does not exacerbate water quality and flooding problems.

More recommendations for avoiding future stormwater problems can be found in the Environmental Resource Plan.

B. Support Planning and Funding for Utility Extensions and Improvements that are Consistent with the Future Land Use Plan

Allegheny Places anticipates the development of approximately 50,000 dwelling units and roughly 10,000 acres of non-residential land use by the year 2025. New development will place demands upon water, wastewater and stormwater utility systems in the County. Sewer authorities in the County are in particular financially burdened by the need to fund major capital projects for compliance with the Clean Water Act wet weather regulations. Until the improvements are made, much of the anticipated future development will not be possible.

Future Development Needs

The intent of the Future Land Use Plan in regard to utility infrastructure is two-fold: to make use of the extensive infrastructure system that is already in place; and to help fund needed infrastructure improvements by targeting future development to areas with existing infrastructure. Therefore, most Places have been located within existing public water and sewage service areas. However, some water and sewer line extensions will be needed for a few of the Places identified on the Future Land Use map.

When planning future capital improvement programs, water and sewer agencies should use *Allegheny Places* to project future development activities.

Using public investments to improve community facilities and promote regional equity is a key strategy to make the region successful.

Serving Future Public Water Needs

Twenty-six out of the 41 water suppliers in the County will be affected by development activities associated with the Future Land Use Plan. An analysis of the Plan has determined that existing water supply and treatment systems will have sufficient capacity to meet the water demands associated with future land development. Furthermore, all of the targeted development areas are either within or in close proximity to existing public water service areas.

Water consumption associated with new development areas identified on the Future Land Use Plan is estimated to average 10.7 mgd. The future demand is expected to increase total water consumption by less than 5%, which would not exceed current allocations.

The configuration and timing of water system improvements will depend upon when and where new development takes place. However, affected utility service providers are encouraged to consult the Future Land Use map as they develop long range capital improvement plans. Affected water suppliers, municipalities and developers should cooperate from the earliest stages of development to coordinate the timing of improvements, assist in the efficient provision of water services and fund necessary improvements.

Serving Future Wastewater Treatment Needs

The new development envisioned by the Future Land Use Plan is estimated to result in an increase of approximately 14.5 mgd in the average daily sewage treatment plant load. Twenty-one wastewater treatment providers and 67 municipalities will be affected by this planned development.

Most of the targeted development areas are either within or in close proximity to existing sewage service areas and associated collection systems. However, significant sewer system construction will be required for 23 Places delineated on the Future Land Use map.

Sewer construction will be required to extend trunk sewers to and/or construct collector sewers within these development areas.

Current sewage collection and treatment systems – along with operation and maintenance systems – will need to evolve in order to accommodate the Future Land Use Plan. Additional wastewater treatment capacity – along with sewage collection and conveyance facilities – will be needed by at least four facilities (listed below) in order to serve new development areas.

- Elizabeth Borough Municipal Authority Wastewater Treatment Plant
- Findlay Township Wastewater Treatment Plant
- Leetsdale Borough Municipal Authority Wastewater Treatment Plant



■ Robinson Township Municipal Authority Moon Run Wastewater Treatment Plant

Hydraulic loadings associated with future development activities will exceed the current capacities of four wastewater treatment facilities during average flow conditions.

The Pennsylvania Sewage Facilities Act (Act 537) requires municipalities to prepare and adopt a comprehensive sewage facilities plan to provide for the future sewage disposal needs of the municipality. As municipalities update their Act 537 Official Plans, they should update their comprehensive land use plans as well to ensure that there is consistency between the comprehensive plan, Act 537 Official Plan, and *Allegheny Places*.

On-Lot Sewage Systems

The use of on-lot sewage disposal systems is limited in Allegheny County because of soil conditions, topography and costs. The Allegheny County Health Department monitors indicators of performance of on-lot sewage disposal systems, and requires effective responses to identified problems through the enforcement of existing regulations.

In areas of the County that are less densely populated, the use of decentralized, small cluster sewage systems may be a cost-effective alternative to extending public sewers to address problems.

Serving Future Solid Waste Disposal Needs

Under the current permit and loading conditions, the average estimated remaining life of County landfills is 12 years. Increased solid waste loads associated with the Future Land Use Plan will not significantly affect the available capacity of the landfills.

To help keep solid waste streams to minimum, municipalities should continue existing recycling programs or start programs where none exist, and increase the types of materials collected for recycling. Municipalities are encouraged to participate in multi-municipal recycling programs for increased service and cost-efficiency.

Internet and Cellular Communication Services

Telecommunications technology such as cellular telephones, digital television and wireless broadband services continues to expand. Municipalities should be aware of opportunities for including telecommunications equipment such as cellular towers and high-speed cable lines in development and redevelopment projects.

Municipalities should implement appropriate design standards and development controls for siting wireless communication antennas and similar devices. These devices should be located so as to minimize visual impacts and should be placed where topography and existing vegetation, buildings or other structures will provide effective visual screening. Strategies may include placing antennas on existing structures such as buildings and water towers.

The *eCOMMonwealth Broadband Assessment Study* identified two priority areas in Indiana and Fawn townships that are underserved with respect to internet access. The Study provides suggestions for improving internet services, particularly broadband service. The County will cooperate with the Southwestern Pennsylvania Commission as strategic plans are developed to improve service.

C. Support Regionalization and the Shared Use of Utility Assets

The ability of Allegheny County's water and sewer authorities to achieve regulatory compliance, fund capital improvements and operation and maintenance activities, and maintain system security depends upon the technical capabilities and financial condition of the individual authority. Substantial long-term investments are needed. Some estimates for the cost of rehabilitating the sewage collection and treatment system total up to \$3 billion.

The complexity and cost associated with developing and implementing solutions to water resource issues in Allegheny County point to the advisability of applying regional approaches to these issues. Regionalization can increase operational efficiencies, increase financial viability and improve the quality of service. Before regionalization is realized, however, greater inter-municipal cooperation may be a necessary interim step.

Stormwater Management

A better and more comprehensive approach to stormwater management in Allegheny County must address all aspects of stormwater management including:

- Better management of stormwater runoff than has been accomplished under past legislation
- Development of appropriate best management practices, and promoting/requiring their use
- Identifying and preserving natural systems critical to the management of stormwater
- Better design of stormwater management facilities
- Better maintenance of existing stormwater management facilities
- Minimizing development in flood-prone areas

The County will discourage inappropriate development in floodplains and encourage municipalities to preserve them as open space. The County will use funding and technical assistance available through PADEP to initiate watershed studies with the participation of relevant municipalities. The County will promote the adoption of regulations that require the use of best management practices, and especially those that do not rely on in-ground filtration, such as:

- Avoidance of encroachments, disturbances, and alterations to natural features that provide valuable stormwater functions
- Site design techniques that retain more natural vegetation and reduce impervious surfaces
- Building design techniques to reduce runoff, such as green roofs

Act 167 Watershed Stormwater Management Planning will be completed on a regional basis. The planning will address all of the watersheds within and encompassing Allegheny County, and thus will be regional in nature.

The plan will also evaluate the creation of a regional stormwater management agency charged with coordinating stormwater management, generating funds dedicated to stormwater management, implementing capital improvement projects and maintaining stormwater conveyance systems.

Because stormwater issues are often most severe in downstream communities that frequently are financially disadvantaged, efforts must be made to equitably allocate the true costs of stormwater management to those who generate stormwater runoff.

Priorities for Stormwater Management Planning

In the event that storm water planning cannot be completed for all watersheds simultaneously as a comprehensive regional plan, it may be necessary to continue developing individual stormwater management plans for designated watersheds. Should this be the case, Act 167 stormwater management plans should be completed on a prioritized basis. Table 4J.2 lists the 16 Allegheny County watersheds for which Act 167 planning has not been completed, by order of priority.

The watersheds were prioritized based on:

1. Whether or not they provide drainage for priority streams designated by the Allegheny County Emergency Services Department, and
2. The density of planned land development activities that would be located within the watershed.

For the purpose of this analysis, density of future land development activities is defined as the percentage of the watershed area situated in Allegheny County that is anticipated to be affected by future development under the Future Land Use Plan. Designated Act 167 watersheds of priority streams that would have the highest density of future development activity received the highest priority rating.

Regional Water Service

The ability of the County's water suppliers to achieve regulatory compliance, fund capital improvements along with operation and maintenance activities, and maintain system security is largely a function of the technical capabilities and financial condition of the individual authority. Water suppliers should periodically consider and evaluate regionalizing water systems – or in a lesser form sharing utility assets – as a potential



means of increasing operating efficiencies, improving the technical resources available to all water system operators, increasing financial viability and improving the quality of service.

Municipalities must share resources and work cooperatively across geographic boundaries in order to significantly trim the total bill for ratepayers who will have to bear sewer rate increases in the coming years.

Regional Sewer Service

In January 2002, the 3 Rivers Wet Weather Program issued *The Regionalization Report: An Initial Study on Options for Regionalizing the Management of Sewage Collection within the ALCOSAN Service Area*. The report recommended establishing area-wide management of sewer systems to address immediate and future needs. Furthermore, the report outlined three options for cooperative ownership and operation of sewer systems:

1. Redefine ALCOSAN as the regional sewage authority. Consolidate responsibility for the entire sewage collection system within ALCOSAN, creating an entity responsible for both aspects of sewage – collection and treatment.

2. Regionalize the responsibility for sewage collection under a new authority. Create a regional authority to assume ownership and decision-making responsibilities for the entire collection system within the ALCOSAN service area. This authority would become the body that assumes responsibility for management activities and liabilities regarding the collection system.

3. Consolidate the responsibility for sewage collection under a combination of new and existing authorities. Identify those authorities with the resources and sustainability to remain solvent and create an authority or authorities to assume responsibility for the other areas of the collection system.

The 3 Rivers Wet Weather Program has been successful in promoting collaborative approaches to addressing the wet weather issues, including negotiating consent orders and agreements, assisting in mapping and data collection, and formulating a flow monitor program as required under those orders and agreements.

The 3 Rivers Wet Weather Program will continue to facilitate the development of an effective and equitable regional approach to addressing sewage collection and treatment issues throughout Allegheny County. The Program will additionally continue to seek financial aid and push for consolidation of sewage authorities.

TABLE 4J.2 – Designated Act 167 Watersheds

PRIORITY	DESIGNATED ACT 167 WATERSHEDS	PRIORITY	DESIGNATED ACT 167 WATERSHEDS
1	Robinson Run	9	Little Sewickley Creek
2	Lowries Run	10	Breakneck Creek
3	Chartiers Creek	11	Allegheny River
4	Plum Creek	12	Youghiogheny River
5	Bull Creek	13	Big Sewickley Creek
6	Raccoon Creek	14	Pucketa Creek
7	Ohio River	15	Breakneck Creek
8	Peters Creek	16	Buffalo Creek

ENVIRONMENTAL RESOURCE PLAN

■ TODAY'S CONDITIONS

Land use patterns have a direct effect on the quality of the environment. This is as true today as it was a century ago.

From 1850 through 1950, western Pennsylvania extracted its living from the natural resources of its hills: lumber, coal, oil and natural gas. There were no environmental protections in place, so the result was over-timbering, acid mine drainage, mine subsidence, deplorable air pollution, acid rain and untreated wastewater flowing directly into the County's rivers and streams. The region was being poisoned by the very industries that had helped it to grow.



Photo credit: Kevin Smay

Pittsburgh emerged from World War II exhausted and dirty. It had made huge contributions to the war effort and, as a result, suffered from environmental pollution and general degradation. Conditions were so dangerous and disgusting that business leaders, led by Richard King Mellon, and government officials led by Pittsburgh Mayor David Lawrence, forged a new partnership. The result was the Allegheny Conference on Community Development.

In 1945, the Allegheny Conference proposed a grand design for Pittsburgh. Over the next decade and a half, their program, the Pittsburgh Renaissance, was a pioneering effort to reduce air and water pollution. The Renaissance rebuilt downtown Pittsburgh.

Environmental remediation continues even today, but the County's natural resources have made a significant

recovery. Today, the City's beautiful natural setting is our prime amenity.

AIR QUALITY

In the early part of the 20th century, coal smoke from industrial furnaces, locomotives and domestic fires filled the air in quantities that can scarcely be imagined today. Furthermore, sulfuric acid, formed by sulfur dioxide in coal smoke reacting with water in the atmosphere, caused acid rain which killed vegetation on the hillsides surrounding the City and on the riverbanks.

Smoke-control legislation was enacted in 1941, but suspended during World War II. In 1946 smoke control measures were finally enforced countywide. The 1950s and 1960s brought even stricter air pollution controls. The effects were dramatic: eight years later the hours of "heavy smoke", as reported by the U.S. Weather Bureau, were reduced by 94%. This was in 1954, when the steel mills were still running at full capacity, more than 20 years before the first mill closings.

One result of cleaner air was the eventual return of vegetation to the hills and riverbanks. The decline of the steel industry in the 1970s brought severe economic hardship to the entire region, but did lead to a cleaner environment.

Today, Allegheny County is in the Pittsburgh-Beaver Valley Air Quality Control Region (AQCR). Air quality is monitored by State and local authorities as part of the State Implementation Plan (SIP). Six criteria pollutants are the focus of this monitoring: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), and sulfur dioxide (SO₂). The attainment status for each of these pollutants is listed in Table 4K.1.

A 2004 emission inventory report showed the Cheswick power plant in Springdale Borough is responsible for 80% of all sulfur dioxide emissions in Allegheny County.

GEOLOGY

Allegheny County is located within the *Allegheny Plateaus* Physiographic Province, predominantly in the Pittsburgh Low Plateau Section. The Pittsburgh Low Plateau is characterized



TABLE 4K.1 –Pittsburgh-Beaver Valley AQCR Attainment Status 2006

CRITERIA POLLUTANT	ATTAINMENT STATUS
CO	Maintenance
Pb	Attainment
NO ₂	Attainment
O ₃	Non-Attainment
PM ₁₀ / PM _{2.5}	Attainment / Non-Attainment
SO ₂	Attainment

by a rising and falling upland surface cut by many narrow and shallow valleys. The bedrock underlying the Pittsburgh Low Plateau consists of layers of shale, siltstone, sandstone, limestone and coal.

Coal is found in numerous beds underlying much of the County. The Pittsburgh Coal bed has been extensively mined. Other important coal beds are the Redstone Coal, Upper Freeport Coal, Middle Kittanning Coal and the Lower Kittanning Coal.

A portion of the southwestern part of the County lies in the Waynesburg Hills Section. The Hills are characterized by narrow hilltops with steeply-sloped, narrow valleys. Rock layers in the Hills are sandstone, shale, red beds and limestone. The Pittsburgh Coal bed underlies 50 square miles of southern Allegheny County in the Waynesburg Hills Section.

Mining of minerals and use of coal and gas reserves are discussed in the Resource Extraction Plan.

Elevations in the County range from 682 feet above sea level along the Ohio River at the County's border, to 1801 feet at River Hill in Forward Township.

HYDROLOGY

Watercourses are a prominent feature of Allegheny County – there are over 2,000 miles of stream and 90 miles of river. Four large rivers flow through the County: the Allegheny, Monongahela, Ohio, and Youghiogheny.

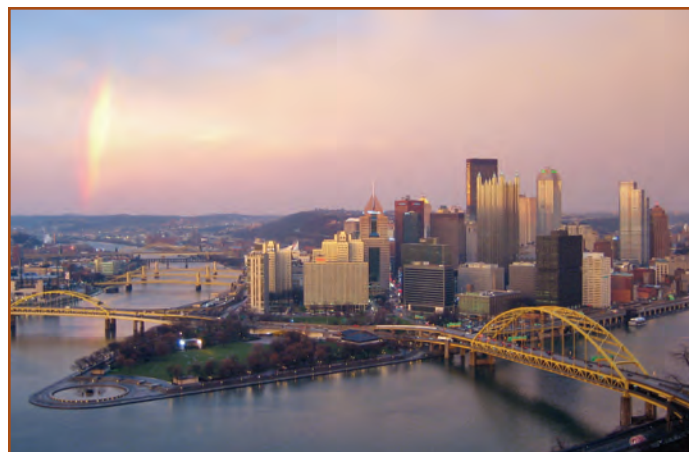


Photo credit: Kevin Smay

The Allegheny and Monongahela rivers meet at the Point in the City of Pittsburgh to form the Ohio River, which is a principal tributary of the Mississippi River.

The principal drainage destination on the northern and northeastern sides of the County is the Allegheny River. The river flows through Allegheny County for approximately 29 miles and provides the northeastern-most drainage into the Mississippi River watershed. The Monongahela River drains the southeastern portion of the County and extends for 35 miles through Allegheny County. The river is navigable for its entire length in the County with a series of locks and dams maintaining a consistent depth of nine feet.

The Monongahela River is one of the few major, navigable northward flowing rivers in the world.

The Ohio River extends for 15 miles through the County, receiving drainage from the western and southwestern sections of Allegheny County.

The Youghiogheny River is a major tributary of the Monongahela River, flowing for about 17 miles along the southeastern Allegheny County/Westmoreland County border to its confluence with the Monongahela near McKeesport.

There are notably large floodplain areas located along the County's four biggest drainage ways.

In addition to rivers, major streams include Chartiers Creek, Pine Creek and Montour Run.



Photo credit: McCormick Taylor

Wetlands are among our most valuable natural resources in that they reduce flooding, improve water quality, and support a wide variety of plant and animal species. Wetlands are generally characterized by a high water table, poor drainage and some degree of surface ponding. There are approximately 1,700 acres of wetlands in the County as identified by the National Wetlands Inventory.

Many people who live at the bottom of watersheds in flood-prone areas experience a loss of property value and a discouraging cycle of personal property damage.

Hydric soils are poorly drained soils unsuitable for development. They are often indicators of wetlands. This is especially true of the County's two primary hydric soils – Atkins and Brinkerton silt loams. There are several other soils types

in the County with inclusions of hydric soils. There are approximately 198,000 acres of hydric soils in the County – less than 1% of the County's total land area – mostly along waterways.

WATER QUALITY

At the turn of the last century, much effort went toward managing the flow of the rivers for navigation. Little effort went toward improving their water quality. Nearly 200 years of using the rivers as open sewers had taken a toll. Pittsburgh had the highest rate of typhoid fever in the nation at the time because it was dumping raw, untreated sewage into the rivers and pumping raw, untreated drinking water out of the rivers. In 1907, the city built its first water treatment plant.

Degraded in the past, the County's waterways are recovering and are now a focus of development plans.

Incredibly, though, until the 1950s most municipalities in Allegheny County still allowed their sanitary sewers to empty untreated into the area's streams and rivers. Factories dumped waste chemicals and hot wastewater into the rivers. Fish and other wildlife were unable to tolerate the conditions. The County's waters were lifeless.

In 1955, the Allegheny County Sanitary Authority (ALCOSAN) was contracted to build wastewater collection and treatment facilities throughout the city. Industries were also required to treat their wastewater. Slowly, the rivers recovered and by the 1970s, when local and national governments instituted water pollution laws, the fish population began to increase. There is still much work to do, but today the rivers are populated by a diversity and abundance of fish species, and a variety of waterfowl.

Surface Water Quality

Still, there are water quality problems that need to be addressed. According to the National Water-Quality Assessment program of the U.S. Geological Survey, the major findings that emerged from an assessment conducted in the Allegheny and Monongahela River basins between 1996 and 1998 were:

- Streams and rivers in the two river basins range from those of high quality that support diverse aquatic life



to those that are seriously degraded and support few aquatic species and few human uses of the water.

- Acid- and mineral-laden mine drainage from abandoned coal mines is one of the most serious and persistent water quality problems in the basins, limiting water use and aquatic resources. Sulfate concentrations were five times greater in streams draining mined areas than in streams draining unmined areas.



Photo credit: Bernadette E. Kazmarski

- Zinc in bed sediment exceeded aquatic life guidelines at 15 of 50 sites.
- A group of now-banned industrial chemicals, polychlorinated biphenyls (PCBs), was detected in over 40% of sediment and fish tissue samples. Consumption advisories are in place for several fish species because of PCB and chlordane contamination in some large river reaches.
- In sampled streams in basins dominated by urban or agricultural land, pesticides and volatile organic compounds (VOCs) were commonly detected, although generally at concentrations meeting drinking water and aquatic life standards and guidelines.
- Since 1980, treatment of drainage from active and abandoned mines has generally resulted in improved

water quality, with increased pH and lower metal and sulfate concentrations, but diversity and abundance of aquatic organisms remain reduced in comparison to unmined areas.

- Some of the most degraded stream reaches have, since the early 1900s, supported few aquatic organisms. Yet, the quality of many reaches is now improving, and abundant fish and invertebrate populations include sensitive species not seen here in decades.
- Streams in forested settings are among the most diverse nationally with respect to aquatic insects among sites sampled.

The Ohio River, since it receives water from both the Ohio and the Monongahela Rivers, experiences similar contamination. Additionally, dioxin levels exceed water quality standards in Pittsburgh and decrease in concentration in a downstream direction.

The State Water Plan, currently being prepared by the Commonwealth, identified the following water quality issues for Allegheny County:

- Lower Allegheny River
 - Inadequately treated municipal and industrial waste causing acid mine drainage and nutrient enrichment
- Monongahela River
 - Mine drainage
 - Untreated and/or inadequately treated municipal and industrial discharge
 - Variety of non-point pollution sources
 - Thermal pollution
 - Landfill leachate
 - Excessive mineral constituent concentrations
- Ohio River
 - Mine drainage
 - Raw and inadequately treated sewage and industrial discharges

Abandoned Mine Drainage

Past mining operations have polluted local streams and waterways with Abandoned Mine Drainage (AMD) through exposing acid producing rocks to rainfall and runoff. Mine drainage can also be alkaline, and pollute streams with

metals such as iron, manganese and aluminum. The following streams experience AMD problems:

- Chartiers Creek
- Dolphin Run
- Half Crown Run
- Little Plum Creek
- Long Run
- Montour Run
- Raccoon Creek
- Thompson Run

This topic is addressed more thoroughly in the Resource Extraction Plan.

Sewer Overflows

According to the National Research Council, in 2005, overflow of outdated combined stormwater and sanitary sewers directly into streams and rivers was the most serious water pollution problem affecting the County.

During dry weather, the sewage collection system, which transports wastewater from thousands of homes to the wastewater treatment plant, operates effectively. However, when it rains or snow melts, extra stormwater gets into the sewage collection system through direct connections or through leaky, cracked pipes. This extra volume of water overloads the sewage collection system pipes and raw sewage overflows at hundreds of locations before it reaches the treatment plant. Untreated sewage runs into waterways, overflows from manholes or backs up into homeowners' basements.

The service area of ALCOSAN has at least 450 combined and separate sewer overflow structures from which untreated sewage is discharged into local streams during wet weather, more than any similar authority in the country.

River Conservation Plans

The Pennsylvania Rivers Conservation Program has been developed to conserve and enhance river resources through preparation and accomplishment of locally initiated plans. The program provides technical and financial assistance to municipalities and river support groups to carry out planning, implementation, acquisition and development activities. River conservation plans have been completed for rivers and creeks on the Pennsylvania River Registry:

- Monongahela River (1998)
- Youghiogheny River (1998)
- Montour Run (2000)

- Nine Mile Run (2000)
- Allegheny River (2001)
- Lower Chartiers Creek (2001)
- Turtle Creek (2003)
- Allegheny Monongahela and Ohio Rivers (2004)
- Sewickley Creek (2005)
- Pine Creek (2007)

In order for a river to be placed on the registry, it must have an approved plan and local municipal support. All of these plans have implementation strategies.

Groundwater Quality

Although not regulated, the quality of water from domestic wells meets Federal standards for drinking water for most substances analyzed in the National Water-Quality Assessment program study conducted in the Allegheny and Monongahela River basins between 1996 and 1998. However, the study found that:

- Compared to groundwater in unmined areas, water in shallow private domestic wells near reclaimed surface coal mines had higher concentrations of sulfate, iron and manganese, even after all mining and reclamation had been completed.
- Overall, volatile organic compounds (VOCs) were detected at very low levels in the groundwater samples analyzed. Gasoline related compounds were detected slightly more frequently and at slightly higher concentrations in groundwater near reclaimed surface coal mines than near unmined areas.
- Nitrate was detected in over 60% of sampled wells, although only one domestic well sample exceeded the drinking water standard for nitrate.
- Radon was detected at levels exceeding the proposed Federal drinking-water standard of 300 pCi/L (picocuries per liter) in over half of the groundwater samples.

FLOODING AND STORMWATER MANAGEMENT

Rivers and streams often have to carry more water than their channels can contain. The excess water spills onto adjacent lowlands – the floodplain – until the water volume decreases enough to be contained within the channel again.



When a storm hits the region, 16 multi-purpose flood control reservoirs built and maintained by the U.S. Army Corps of Engineers in the headwaters of the Allegheny and Monongahela rivers retain excess water upstream of the dam. Controlled releases of this excess water help to prevent or reduce downstream flooding.



Photo credit: Bernadette E. Kazmarski

However, flooding problems are still experienced throughout much of the County. Although there is no comprehensive, county-wide inventory of chronic flooding problems, the Allegheny County Emergency Service Department has designated 12 waterways as priority streams relative to flooding (see Map 4K.1), based on data collected on flooding and the resultant damages:

- | | |
|-------------------|----------------|
| ■ Bull Creek | ■ Pine Creek |
| ■ Chartiers Creek | ■ Plum Creek |
| ■ Deer Creek | ■ Rawlins Run |
| ■ Lowries Run | ■ Robinson Run |
| ■ McLaughlin Run | ■ Sawmill Run |
| ■ Montour Run | ■ Streets Run |

These streams are high-priority for protection from further development and other activities that would increase flooding. The Emergency Management Division is considering adding two more streams to the list: Girty's Run and Dirty Camp Run.

The *PA Storm Water Management Act* (Act 167), enacted in 1978, enables counties to prepare stormwater management plans for designated watersheds, which provide the basis for local municipal stormwater management ordinances. When a plan for a watershed has been prepared and approved by the Pennsylvania Department of Environmental Protection

(PADEP), local municipalities within the watershed must enact stormwater management ordinances to control runoff water volumes, water quality and peak rates of stormwater runoff from development sites.

To date, Act 167 plans have been completed for 8 of the 25 designated watersheds in Allegheny County:

- | | |
|---------------------|----------------|
| ■ Deer Creek | ■ Montour Run |
| ■ Flagherty Run | ■ Pine Creek |
| ■ Girty's Run | ■ Squaw Run |
| ■ Monongahela River | ■ Turtle Creek |

In December 2007, Allegheny County Council approved an update to the County's 1985 *Stormwater Management Plan* for Girty's Run, Pine Creek, Squaw Run and Deer Creek watersheds.

STEEP SLOPES

Half of the land area in Allegheny County is either moderately sloped or steeply sloped (see Map 4K.2). Generally, the steepest slopes are found in the valleys of the tributaries to the major rivers.

SOILS

Much of Allegheny County has a thin soil cover with areas of low-permeability, clay-rich soils underlain by bedrock. Soils are classified by the U.S. Department of Agriculture, Natural Resource Conservation Service according to their suitability for development, agriculture or other uses. The Soil Survey of Allegheny County provides maps of the soil series, or soil types found within the County, along with descriptions of their characteristics and suitability for different land uses.

WOODLANDS

Woodlands cover approximately 280 square miles, or more than a third of the County. Tree cover is a valuable resource in that it provides:

- Slope stability
- Aesthetic value
- Habitat for a great diversity of plant and animal species
- Opportunities for recreation
- Management of stormwater runoff
- Improved water quality

The majority of forested areas are located on the steeply sloped hills and ridges of the County's stream and river valleys.



Photo credit: Kevin Smay

State Game Lands #203, located in Marshall Township and Franklin Park Borough, encompasses about two square miles of woodlands. Another 29 square miles is owned by Allegheny County, mostly as parks. The overwhelming majority of the County's woodlands are privately owned.

NATURAL HERITAGE AREAS

The Allegheny County Natural Heritage Inventory identifies and maps important biotic and ecological resources that make up the natural heritage of Allegheny County (see Map 4K.3). These areas, which include Biological Diversity Areas, Landscape Conservation Areas and Other Heritage Areas, provide habitat for a great diversity of plants and animals, including rare, threatened and endangered species. Natural heritage areas also provide scenic and recreational opportunities for residents and visitors.

In addition to this classification system, each area has been assigned one of three County significance ranks of either 'Exceptional', 'High' or 'Notable'.

The significance rankings have been used to set priorities for protection.

Biological Diversity Areas

Allegheny County has 30 listed Biological Diversity Areas (BDAs):

- Allegheny River
- Barking Slopes
- Beckets Run
- Campbell Run Valley
- Campmeeting Woods
- Clinton Wetlands
- Crouse Run Valley
- Deer Creek Valley
- Guyasuta Run Valley
- Harrison Hills
- Hemlock Grove
- Jacks Run Valley
- Liberty Valley(Dead Man's Hollow)
- Lower Allegheny River Islands
- Lowries Run
- Mayview Valley
- Millers Run
- Millerstown Woods
- Moon Run Slopes
- North Park Lake
- Oakmont Flood Plain
- Ohio River
- Painters Run Slopes
- Peregrine Falcon
- Peters Creek Wetland
- Plum Creek Valley
- Simpson Run
- Toms Run Valley
- Trillium Trail
- Willow Run Slopes

BDAs are:

- Natural or human influenced habitat that harbor one or more occurrences of plants or animals recognized as state or national species of special concern,
- Areas that possess a high diversity of native species of plants and animals, or
- Areas that support a rare or exemplary natural community, including the highest quality and least disturbed examples of relatively common community types.

Landscape Conservation Areas

Allegheny County has three Landscape Conservation Areas (LCAs):

- Big and Little Sewickley Creek
- Montour Run Valley
- Raccoon Creek Valley

An LCA is a large contiguous area that is important because of its size, open space and habitats. Although an LCA may include a variety of land uses, it has not been heavily disturbed and thus retains much of its natural character.



Other Heritage Areas

There are six Other Heritage Areas in the County:

- Beechwood Farms Nature Reserve
- Blue Run Valley
- Bullock-Pens Park
- Frick Park
- Gilfillan Woods
- Salamander Park

OHAs are areas that are consistently utilized for scientific monitoring of the environment or other natural science studies. This classification includes land regularly used by educational institutions, local environmental organizations or the general public for nature study or instruction.

The Western Pennsylvania Conservancy released the Natural Heritage Inventory in 1994. The Conservancy realizes the inventory is outdated and has plans to update it.

■ ISSUES AND ANALYSIS

This section examines what can be done to protect quality of our environmental resources; maintain clean and abundant air, water and energy resources; and promote safety from natural hazards.

KEY CHALLENGES

In developing the Environmental Resource Plan, the Environmental Quality Resource Panel helped to identify these key challenges:

- Reducing sewer overflows
- Impacts of development on steep slopes
- Impacts of development landslide-prone areas
- Loss of forest land
- Improving air quality, especially for ozone and particulate matter
- Flood prevention and mitigation
- Protecting and improving ground and surface water quality
- Wetland protection
- Loss of Natural Heritage Areas
- Protection of wildlife and biodiversity corridors

The following provides an understanding of these issues.

REDUCING SEWER OVERFLOWS

Nearly a third of the County's municipalities are served by combined sewer systems. Combined sewer pipes carry both wastewater (used water and sewage that goes down the drain in homes and businesses) and stormwater (rain or snow that washes off streets and parking lots) to a wastewater or sewage treatment plant. In a combined sewer system, the mixed wastewater and stormwater flow together in a single pipe. During wet weather and high groundwater table conditions, many of these systems are hydraulically overloaded, causing an overflow.

Because these overflows violate the Clean Water Act, regulatory agencies, such as the U.S. Environmental Protection Agency (EPA) and PADEP, have denied new sewer system tie-ins. This restriction is limiting economic growth in many municipalities.

Eleven wastewater treatment agencies operating in the County have permits that include requirements for addressing combined sewer overflow. Forty-one of the 126 sewered municipalities within the County have been operating under the requirements of corrective action plans. The municipalities of Edgewood, Penn Hills, Pittsburgh and Swissdale are all under consent orders as well.

Combined sewer overflows (CSOs) must be significantly reduced over the next decade. Communities are required to reduce CSOs in the system from 50-60 annually down to 4-5 per year or the EPA will force the community to correct the problem in a very short time frame and may impose very large penalties and fines for noncompliance.

Actions required for achieving compliance with Clean Water Act and Safe Drinking Water Act regulations and to address stormwater drainage issues within the County will require major capital investments. The costs of maintaining, repairing and replacing aging infrastructure and expanding the capabilities of the existing systems are significant. Preliminary estimates place the cost of achieving compliance with the current combined sewer overflow regulations for ALCOSAN and the tributary systems at over \$3 billion.

The wet weather issue has become a priority for the region's state and federal legislators. Federal funding totals \$17 million to date and the Commonwealth of Pennsylvania recently awarded a \$2 million grant to the 3 Rivers Wet

Weather Program (3RWW) to help municipalities address the issue. 3RWW has awarded more than \$6.8 million to communities over the last four years to help fund 33 innovative sewer projects that can become models for other municipalities and regions. Many of these projects involve multiple communities collaborating to solve the wet weather issue.

IMPACTS OF DEVELOPMENT ON STEEP SLOPES

Much of the County's steeply sloped land is highly susceptible to landslides and rockfalls. The red bed (claystones) of the Waynesburg Hills is especially prone to slope failure. Very steep slopes in particular can be difficult and dangerous to develop. There are a number of potentially significant environmental impacts associated with disturbance of steep slopes, including:

- Difficulty of re-establishing vegetation
- Decreased stormwater run-off absorption rates
- Increased volume and velocity of stormwater runoff
- Increased potential for accelerated erosion
- Potential for landslides and rockfalls
- Ugly scarification and other visual impacts



Photo credit: PennDOT

Steep slopes may provide spectacular opportunities for development, but they also present special challenges for construction. Poorly done and excessive hillside development can diminish the very views and natural features that people valued in the first place. And in the absence of strict controls, public safety may be at risk.

In 2005, the Heinz Endowments commissioned a study, *The Physical and Ecological Investigation of Pittsburgh's Hillside*.

The study, managed by the Allegheny Land Trust, identified options for protecting the City's wooded hillsides. The main recommendations of the study were:

- Adopt standards, rather than guidelines, for development in the Hillside District
- Amend the City of Pittsburgh's zoning code to establish a steep slope overlay district (based on slopes of 25% or greater) that encourages conservation through strict, legally defensible controls
- Prohibit development on slopes 40% and greater
- Address buffer areas

While the study was specific to the City of Pittsburgh, its findings and recommendations are applicable throughout Allegheny County.

IMPACTS OF DEVELOPMENT ON LANDSLIDE-PRONE AREAS

Landslides are common in Western Pennsylvania, and have shaped the landscape of the region throughout its history. "Monongahela", a Native American word, is variously interpreted as "river of the falling banks", "many landslides", "high banks or bluffs, breaking off and falling down in places", or "places of caving or falling banks".

'Landslide' is a general term for the mass movement of soil and rock on an unstable slope. Landslides can be rapid or very slow, and involve large or small areas and volumes of material. The principal types of movement are falling, sliding, flowing and slumping, but combinations of these are common.

Slopes in the Waynesburg Hills have a high susceptibility to landslides, while those in the Pittsburgh Low Plateau have a high to moderate susceptibility. However, major landslides occur regularly in both physiographic regions (see Map 4K.4).

The most recent major landslide occurred in Kilbuck Township in the Spring of 2006. Over ½ million cubic yards of rock and soil material fell onto Route 65 and spilled across the adjacent railroad lines. The landslide caused major disruptions to critical transportation infrastructure - two days for rail, and two weeks for highway. The rail impacts were felt throughout the country. As of 2008, Route 65 still has a single-lane closure in the area of the slide. The landslide was caused when a steep, landslide-prone hillside was excavated to prepare a building site for a large-scale commercial



development. It was the biggest - and most costly - landslide in the County in decades, and highlights the need for greater control of development in landslide-prone areas.

LOSS OF FOREST LAND

Forested lands throughout the County are under pressure from development. According to the University of Pittsburgh's Center for Social and Urban Research, the greatest population increases since the early 1990s have been in forested areas. That growth areas should face the greatest losses in tree cover is ironic, given the correspondingly greater need for the benefits that these natural systems provide.

Forest lands are important as wildlife habitat. They contribute to the stability of soils and slopes, improve air quality, and play an important role in water management. Tree cover can significantly reduce both the quantity and velocity of surface runoff to streams and rivers, thereby reducing sediment loads and flooding. Trees can take carbon dioxide out of the air and store it as carbon in wood, thereby reducing greenhouse gases that contribute to global warming. Tree cover along streams and wetlands lowers water temperature as well, which is important to stream ecology.

The northerly and southerly parts of the County have experienced the most significant growth and development, causing a loss of forest cover and altering the hydrological characteristics of watersheds. The flooding that has resulted has caused severe problems for a number of downstream communities.

Municipalities with higher percentages of tree cover have a greater percentage of streams in attainment of water quality standards. The positive effect begins when the percentage of tree cover is above 40%. At greater than 40%, attainment of water quality standards increases sharply as the percentage of tree cover increases.

Water management will become increasingly expensive for growing municipalities, and for the County, unless more attention is paid to managing human activities in the landscape and maintaining adequate vegetative cover in critical locations within watersheds.

The County's extensive wooded hillsides have also helped to define a scenic identity for Allegheny County. The landscape attracts visitors for sightseeing, and for a wide variety of outdoor sports and recreation including outdoor festivals,

fishing, boating, hiking, birding, and bicycling - all of which generate significant economic benefits.

Simply put, extensive loss of forest lands will be a blow to the quality of ecosystems necessary for future sustainability and to the quality of life in the region.

IMPROVING AIR QUALITY

Particulate matter in the air remains a significant concern. In 2007, the American Lung Association named Pittsburgh the second worst metropolitan area in the nation polluted by year-round particle pollution (Annual PM_{2.5}) and Allegheny County the second most polluted county by short-term particle pollution (24-Hour PM_{2.5}). The ranking is driven by the fine particle monitor located in Liberty Borough, downwind of U.S. Steel's Clairton Coke Works (the largest cokemaking facility in the United States), as well as other industry. The Liberty/Clairton area is a special non-attainment area for fine particles, also known as PM_{2.5} (particulate matter with diameters smaller than 2.5 micrometers). This area includes five municipalities: Glassport, Liberty, Lincoln and Port Vue Boroughs, and the City of Clairton. This smaller non-attainment area is surrounded by the larger Pittsburgh-Beaver Valley non-attainment area.

The air quality in the rest of the region is hardly pristine. According to the American Lung Association, if the Liberty/Clairton area were omitted from the ranking, Allegheny County would still place as 22nd worst in the nation, and Pittsburgh would be the 19th worst metro area in the U.S. The second highest fine-particulate readings in Allegheny County were found in North Braddock. Three-year averages from monitors located in Stowe, Clairton, Harrison and Lawrenceville exceeded the annual standard.

The American Lung Association, in its 2008 *State of the Air* report, named Pittsburgh the sootiest city in America. The ranking is based on based on air quality measurements of short-term particle pollution between 2004 and 2006.

It is anticipated that reductions of pollution from the coal-fired power plants upwind of Allegheny County will help reduce PM_{2.5} in the County.

Large power plants are major sources of air pollution. The vast majority of these large power plants (over 70%) are coal-fired. A disproportionate share of emissions comes from a handful of plants that have not yet installed modern pollution controls, or which operate inefficiently. A 2005

report by the Environmental Integrity Project ranks the top fifty power plant polluters for sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon dioxide (CO₂) and mercury. According to the report, the Cheswick power plant in Springdale is the 15th dirtiest plant for SO₂ and 45th worst for mercury, based on emission rates, which measure the amount of pollution per megawatt-hour of electricity generated. The plant is planning to install an air pollution control system to reduce emission levels.

FLOOD PREVENTION AND MITIGATION

In September 2004, the remnants of Hurricane Ivan caused massive flooding throughout Western Pennsylvania. Flooding and mudslides damaged and destroyed bridges, closed roadways, and damaged and destroyed thousands of homes and businesses. In January 2005, the remnants of Hurricane Katrina once again produced flooding and mudslides that caused severe damage in Allegheny County.

Not all severe flooding in the County has been hurricane related, however. In June 2004, high winds and heavy rains caused flooding. In January 1996, a combination of ice, heavy snow and rain caused severe flooding statewide. The Allegheny and Monongahela Rivers crested within five hours of each other, causing major flooding downtown and elsewhere in the County.

Much flash flooding in the County has been caused by development in the uplands and along streams. When rain falls or snow melts on impermeable surfaces, it is usually collected in a system of gutters and storm sewers and either released directly into a receiving waterway (more typical of older development), or conveyed to stormwater detention facilities where it is gradually released into a receiving waterway. When there is too much precipitation in too short a time, both natural and manmade stormwater management systems can be overwhelmed. Large volumes of water are passed rapidly downstream, overtopping channel banks and adjacent floodplain areas; and are even forced up out of inlets, storm sewers and drain pipes.

A good example of a streamshed that has experienced severe flash flooding is Pine Creek. Pine Creek and its tributary streams drain about 67 square miles of northwestern Allegheny County and include some 14 municipalities. The watershed begins near the Butler County line and reaches the Allegheny River at the Borough of Etna.

Historic patterns of land development in the municipalities at the bottom of the Pine Creek watershed greatly reduced the capacity of the floodplain in its southerly reaches. More recent land development in the northerly municipalities further diminished the capacity of the floodplain in its northerly reaches. In 1986, a flash flood on Pine Creek resulted in the deaths of eight people and extensive damage in Etna Borough and Shaler Township, municipalities located at the bottom of the watershed.

Communities at the bottom of watersheds in flood-prone areas experience declines in property values and a discouraging cycle of personal property damage.

■ Stormwater Management

Allegheny County's many municipalities, diverse patterns of land use and development, and complex topography and geology underscore the need for coordinated stormwater management planning. Stormwater management involves the control of water that runs off the surface of the land from rain or melting ice or snow. The volume and speed of runoff substantially increase with increased land development. Management of stormwater is necessary to mitigate the impacts of development such as frequent flooding, erosion and sedimentation problems, damages to roads, bridges and other infrastructure, as well as non-point source pollution from impervious surfaces.

Better development controls and practices – including best management practices adapted for the County's particular soils and topography – are essential for mitigating existing problems and preventing future flooding. Stormwater management programs typically consist of three elements: the enforcement of effective runoff source controls, structural flood control measures and improved channel maintenance. Pennsylvania's Act 167 requires local storm management regulations to control runoff volumes and peak rates of stormwater runoff from development sites.

Poorly maintained stormwater management facilities can contribute to flooding. A lack of maintenance can cause reduced capacity in pipes, inlets and swales due to the accumulation of sediment and debris.



PROTECTING AND IMPROVING GROUND AND SURFACE WATER QUALITY

Allegheny County's ground and surface waters provide sources of drinking water, recreational opportunities, wildlife habitat and the means for transporting people, goods and services.

Polluted stormwater runoff is often transported to municipal separate storm sewer systems (MS4s) and ultimately discharged into local rivers and streams without treatment. When deposited into nearby waterways through MS4 discharges, pollutants can impair the waterways, thereby discouraging recreational use of the resource, contaminating drinking water supplies and interfering with fish and wildlife habitat.

National Pollutant Discharge Elimination System (NPDES) permits require owners of MS4s to develop, implement and enforce a stormwater management program designed to reduce the discharge of pollutants to the "maximum extent practicable". Ninety-seven municipalities are currently developing the stormwater management programs required by the NPDES permits.

As previously discussed, combined sewer overflows are a serious problem in Allegheny County and in the region. Deteriorated sewage infrastructure, combined sewers and sewers that bypass treatment plants have created unsafe and unhealthy conditions in the County's streams and rivers. As little as one-tenth of an inch of rain – an average area rainfall is one-quarter inch – can cause raw sewage to overflow into the County's rivers and streams. Melting snow can cause the same effect.

Sewage overflows present a public health risk. The bacteria in sewage deplete oxygen from the waters, suffocating delicate aquatic life. While exposure to disease-causing organisms, such as giardia or cryptosporidium, is not considered fatal for a healthy adult, it can be deadly for those with weaker immune systems – small children and the elderly. Phosphorous and nitrogen in sewage provide nutrients that can trigger algal blooms, blocking oxygen and sunlight from reaching water organisms. The discharge of heated water used for cooling power plants further causes harmful reductions in dissolved oxygen concentrations. State and federal regulations require sewer agencies to reduce overflows and meet Clean Water Act requirements.

During the recreational boating season, May 15 – September 30, the Allegheny County Health Department issues river

advisories to warn individuals using the rivers to limit contact with the water when sewage overflows have likely contaminated it with bacteria (fecal coliforms and e.coli) and viruses. A river advisory can last for several days after a rainfall. Since the program began in 1995, river advisories issued by the Health Department have been in effect for nearly 50% (70 days) of each recreational season.

WETLAND PROTECTION

Wetlands provide many important ecological functions, including:

- Pollutant removal
- Floodwater storage and absorption
- Groundwater recharge and discharge
- Wildlife habitat
- Shoreline protection

When wetlands are lost or degraded by land development, these benefits must often be replaced by costly water treatment and flood control infrastructure. Given the many environmental benefits wetlands provide, wetland conservation and restoration should be an integral part of a comprehensive local watershed management strategy.

LOSS OF NATURAL HERITAGE AREAS

The *Allegheny County Natural Heritage Inventory* was completed in 1994 by the Western Pennsylvania Conservancy. This scientific study made a thorough search for plant and animal species and communities that are unique or uncommon in the County. It also identified areas important for general wildlife habitat, education and scientific study. Further investigation could reveal greater significance at a Natural Heritage Area or uncover a previously unidentified site. An update is needed to reassess this and to assess current development threats to these areas.

Historically, wildlife habitats in the County have endured dramatic changes. A century ago, mining and industrialization altered the landscape. Today, there are new and different, but just as serious, threats to wildlife. The largest threat to wildlife habitats, both terrestrial and aquatic, is sprawling development. Although the population of the County has decreased in several decades, the amount of rural and suburban land being consumed continues to increase. Habitat paved over can rarely be reclaimed or restored.

Serious threats to the viability of natural areas come from road runoff, habitat fragmentation, logging, invasive species and fragmentation of wildlife areas by roads or development.

PROTECTION OF WILDLIFE AND BIODIVERSITY CORRIDORS

Wildlife or biodiversity corridors are linear strips of land that connect larger areas of wildlife habitat together. The corridors allow flora and fauna to travel across a wider territory to:

- Move from where food and water is scarce to where food and water is plentiful
- Prevent overgrazing
- Move from overpopulated to less populated areas
- Access a wider range of breeding partners, thus preventing inbreeding and loss of genetic diversity in a local population

The County's ridge tops and stream valleys – when not developed – are natural corridors for animal travel.

When planning for future growth and development, it is important to provide for the protection of the County's natural places.

Land trusts in the County have been working to preserve biodiversity corridors. In 2003, the Allegheny Land Trust purchased 98 acres in Sewickley Heights, adjacent to Sewickley Hills Park. The property consists of open meadows, wooded slopes, spring seeps and headwaters of Little Sewickley Creek. It is located within the Little and Big Sewickley Creek Area Landscape Conservation Area (LCA), which is the buffer surrounding the Camp Meeting Woods Biological Diversity Area. The land was zoned for single and multi-family housing sites, which if constructed, would have had a significant negative environmental and aesthetic impact.

RECOMMENDATIONS

GOAL OF THE PLAN

Natural resources are managed to conserve unique assets; provide recreational and visual enjoyment; maintain clean and abundant air, water, and energy; and provide safety from natural hazards.

OBJECTIVES OF THE PLAN

The objectives of the Environmental Resource Plan are to:

- A. Meet federal, state and local air quality standards.
- B. Improve quality of surface water and groundwater resources.
- C. Identify and protect ecologically sensitive areas such as wooded steep slopes, stream headwaters, woodlands and wildlife corridors.
- D. Encourage development in Places identified in the Future Land Use Plan to minimize impacts to greenfields.
- E. Protect and restore critical stream valleys, floodplains and wetlands to preserve their functions for floodwater storage, water supply, and groundwater recharge.
- F. Eliminate urban, agricultural and industrial pollution runoff to protect streams and watersheds.

The following provides an understanding of the objectives.

A. Meet Air Quality Standards

Since a portion of the County is in non-attainment for PM_{2.5}, a criteria pollutant, Allegheny County is required to develop and implement a plan to reduce levels of PM_{2.5} in that portion of the County. Allegheny County must also participate in the development and implementation of its portion of a state-developed plan for the multi-county Western Pennsylvania area to bring it into attainment for ozone and PM_{2.5}.

The Allegheny County Health Department's Air Quality Program is developing a plan to control fine particulates



in the Liberty/Clairton area. This attainment plan is known as a State Implementation Plan, or SIP, and must be submitted to the EPA by early 2008.

The County will work with PADEP and EPA to develop and implement measures to encourage and assist local businesses and industries in reducing particulate emission sources. Local governments will be encouraged to implement and enforce measures to reduce emissions within their municipalities, such as prohibiting open burning or requiring measures to reduce dust during construction.

Alternative Energy Sources

The Pennsylvania legislature passed the *Alternative Energy Bill* in November 2004. The Bill has increased interest in implementing alternative energy production systems statewide and in the County. This issue is discussed in more depth in the Energy Conservation Plan.

Working with PADEP and EPA, the County will continue to develop programs to promote and attract sources of 'green' renewable energy, and encourage residents and businesses to purchase power from these sources.

Alternative fuel options for motor vehicles are increasing, but supplies and availability are still limited at this time. The County will support and encourage their use, however, as the availability of alternative fuels and fuel-efficient vehicles increases.

Reducing Traffic Emissions

The County will continue working to reduce congestion on roadways in the County, to reduce emissions from motorized vehicles. The federal Congestion Mitigation and Air Quality Improvement (CMAQ) Program funds transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), and particulate matter (PM). The CMAQ program supports two important goals of the County: improving air quality and relieving congestion. CMAQ funds are intended to improve air quality and must be spent in non-attainment or maintenance areas, which Allegheny County is.

The Transportation Plan describes several possible CMAQ eligible project categories and Demand Management Strategies that the County will employ to reduce congestion and fuel consumption.

Transit-Friendly Development Patterns

Transportation and land use strategies to reduce automobile dependency are a cornerstone of the County's energy conservation and emissions reduction plans. Reducing vehicle miles traveled is also part of the County's strategy to address climate change.

Energy consumption from personal travel can be reduced by investing in more fuel-efficient forms of transportation, including transit. The Future Land Use Plan promotes land use patterns that support transit. Many Places are located on existing transportation corridors, and/or are in areas with transit service. The biggest impediment to efficient and affordable transit use is low density, spread-out development. Therefore, one of the key benefits of concentrating development in Places is that it supports the development of transportation alternatives, which will more provide choices and options for movement between Places. Increasing mobility will also help to ensure better access to jobs, shopping, schools and other destinations for more people.

Most Places designated on the Future Land Use map are supportive of transit use. The transit services may range from circulator vehicles within a Place, such as Oakland, to transit that connects one Place to another, such as Oakland to the Airport. In either case, transit will reduce the number of trips by private automobile and reduce energy consumption as a result.

Transit-Oriented Development (TOD) is a key element in the County's planned economic growth. TODs offers a mix of uses including office, retail and housing. Since they are accessible by many modes of transportation, TODs can reduce the number of vehicles on the road.

B. Improve Quality of Surface and Groundwater Resources

Abandoned Mine Drainage

Since mining has the greatest influence on surface and groundwater quality of any single land use in the County, according to the National Water-Quality Assessment program, efforts to remediate the effects of mining activities will significantly improve water quality. The County will support the efforts of state agencies and nonprofits who are working to reclaim and remediate abandoned mine lands to minimize the impacts of acid mine drainage. This is especially important in the Chartiers Creek drainage basin, since abandoned mine drainage is so prevalent there.

Wet Weather Issues

Addressing the problem of untreated sewage and stormwater overflowing into waterways is also crucial to improving the quality of the region's surface waters. The County supports the work of 3 Rivers Wet Weather to promote the most cost-effective, long-term, sustainable solutions to improving the quality of Allegheny County's water resources. This includes educating the public, advocating inter-municipal partnerships and promoting the use of improved sewer technology.

The University of Pittsburgh's Institute of Politics' Environment Policy Committee recently released a framing paper describing southwestern Pennsylvania's most pressing problems concerning stormwater, sewage, water quality and flooding. The Committee established, with the endorsement of the Southwestern Pennsylvania Commission, an independent Regional Water Management Task Force, with the charge of finding and implementing practical, regionally relevant solutions. The County will keep apprised of the work of this committee.

More recommendations for wet weather problems can be found in the Utilities Plan.

Reclaiming the Riverfronts

Restoring riverbanks will help to improve water quality. Allegheny County has made a significant commitment to reclaiming, rejuvenating and conserving its riverfronts. The County is applying for federal, state and private foundation grants to raise \$100 million for land acquisition and construction of the world's largest urban linear park. This park will run 128 miles along the County's four major rivers and touch more than half of the County's 130 municipalities. The plan is the product of years of study and collaboration among civic leaders, environmental groups and developers. The park will include hillside preservation in places like Mount Washington and across from the Clairton Coke Works.

Allegheny County, Friends of the Riverfront and the Pennsylvania Environmental Council are teaming together to implement a strategic plan for the Allegheny County Riverfront Project. This team will have to work with a variety of other partners, including local governments, to accomplish the many specific tasks that will lead to the acquisition, restoration and development of riverfront areas.

The City of Pittsburgh is also working to preserve its riverfronts. The City's 1998 *Riverfront Development Plan* seeks "to maintain an open space area with the potential for public access along the banks and to impose additional requirements on structures or uses within the district." The City intends to acquire all of the 35 miles of riverfront property within its borders.

Redevelopment of brownfields located along the Three Rivers will contribute to improved water quality. Local governments can contribute to the success of riverfront redevelopment by mandating development setbacks from the river through local zoning ordinances. These actions must be taken before sites are redeveloped and the opportunity is lost.

Riverfront blight is a pervasive problem in the County. Litter, flood debris and illegal dumping contribute to the damage. The County supports the efforts of PA Greenways in Allegheny County and numerous watershed organizations to clean up our rivers.



C. Identify and Protect Ecologically Sensitive Areas

More needs to be done to preserve and protect the County's ecologically sensitive areas from degradation.

The *Allegheny County Conservation Corridors Plan* identifies 29 conservation corridors, ranks them in order of priority and proposes that they be protected through the actions and partnerships of municipal governments, nonprofit organizations and community groups. The plan defines conservation corridors as "ribbons of undeveloped open space which include and link sensitive natural features... [such as] floodplains, wetlands, and steep unstable slopes."

In developing *Allegheny Places*, experts from the County Parks Department, local land trusts and environmental groups have also identified priority areas for conservation. These priority areas are based on the *Conservation Corridors Plan* and provide for a network of connected green space throughout the County.

Priorities for conservation can change as development threats emerge or as new information becomes available concerning habitats of threatened species. The list of preservation priorities from the *Conservation Corridors Plan* and the Greenway Network for *Allegheny Places* provides a starting point, but it should be revisited and revised through the years. The County will initiate coordination between the range of environmental groups and land trusts active in the County to revisit the Greenway Network to ensure the list of conservation priorities is current and comprehensive.

Protecting Waterways and Wetlands

The wetlands associated with the County's streams and rivers control flooding, improve water quality and support a diversity of plants and animals. Wetland regulations require land developers to delineate and limit disturbances to wetlands.

The County will protect wetlands by:

- Directing development away from these areas
- Encouraging cluster development on higher ground surrounding wetlands
- Purchasing wetlands that are important for protecting local floodplains or ecological systems

The primary federal authority protecting streams and wetlands is the Clean Water Act. Recent Supreme Court decisions have potentially restricted the scope of the Clean Water Act, making headwater streams and isolated wetlands vulnerable. Furthermore, the federal program does not regulate impacts to streams and wetlands resulting from activities within their drainage areas. Numerous studies have documented how indirect impacts from land development significantly alter the hydrology of streams and wetlands, and have secondary effects on water quality, habitat and biodiversity. Headwater streams and isolated wetlands are extremely vulnerable to direct and indirect impacts because they typically receive stormwater runoff, are relatively easy to fill or relocate, and are often unmapped.

Headwater streams and isolated wetlands provide a host of benefits that are just beginning to be understood, including:

- Ecological linkages to downstream receiving waters
- Capacity to store floodwaters and recharge groundwater supplies
- Removal of excess nutrients and sediment
- Supporting habitat for many threatened or endangered species

Most local governments do not currently have the regulatory tools in place needed to protect headwater streams and isolated wetlands. Municipalities are strongly encouraged to implement regulations to control activities in or around vulnerable headwater streams and wetlands.

Retaining Forest Cover

Allegheny Places promotes the redevelopment of existing centers and brownfields to reduce development pressures on greenfields, many of which are forested. The Future Land Use Plan includes recommendations to ensure that land development takes place in a responsible way. This includes the use of appropriate land development controls that lead to development

that is high quality and contributes to the long-term conservation of environmental resources. Conservation subdivisions can simultaneously provide for development while preserving valuable forest cover.

The Parks, Open Space and Greenways Plan seeks to establish greenways and preserve open space to protect bio-diverse areas, including forest lands. Conservation easements and land stewardship initiatives are primary tools used to accomplish this.

Another way to retain forest lands is to support timbering as an economic activity similar to farming. Timbering is not land development since few landowners harvest timber in preparation for development. Landowners who can harvest their woodlots for economic gain have an incentive to leave the forest in an undeveloped condition. As with farmers, forest landowners should be encouraged by their communities to keep their lands in a perpetually forested condition.

The Municipal Planning Code (MPC) amendments prohibit local governments from using a zoning ordinance to unreasonably restrict forestry activities. The latest MPC amendments specifically direct all municipalities to permit forestry activities in their zoning ordinances as a “use by right” in all zoning districts. The intent is to make it easier to carry out all forestry activities by limiting the scope of zoning and other regulations.

Preserving Land Resources

The County is known for its beautiful hillsides and valleys. In order to protect these resources as well as to prevent environmental hazards such as landslides, development on steep slopes will be discouraged. Large areas containing steep slopes should be offered for dedication to the municipality, a private land trust or a nonprofit agency in order to preserve and maintain the area in its natural state. The use of conservation easements on steep slopes is also encouraged to preserve the area in perpetuity. The *Opportunities for Hillside Protection* developed for the City of Pittsburgh will be used as a model for local municipalities to use when updating their land development ordinances.

The Western Pennsylvania Conservancy prepared the *Allegheny County Natural Heritage Inventory* in 1994.

The County will work with the Conservancy to update this inventory and set priorities for areas for protection. To ensure the best use of limited funding, the County will develop a list of planned and ongoing recreation plans and conservation activities by local organizations and municipalities.

D. Encourage Development In Places Identified in the Future Land Use Plan to Minimize Impacts to Greenfields

Allegheny Places promotes the redevelopment of existing centers and brownfields to reduce development pressures on greenfields. *Allegheny Places* defines greenfields as lands not previously developed at the edge of the urban area. Greenfields help to delineate one village, city or town from another. Greenfields also provide places for outdoor recreation including playing fields, parks, golf courses, and hiking and bicycle trails; and for conservation of natural resources such as wetlands, wooded hillsides, and greenways.

Development in greenfields can require significantly more infrastructure than development in brownfields and in existing centers. Costly water, sewer and road extensions are often needed to support development in greenfields. *Allegheny Places* targets redevelopment and reinvestment in brownfields and existing centers to support improvements to the County’s essential existing infrastructure.

When development approvals are piecemeal, parochial, and/or reactionary, valuable greenfields can be fragmented or lost. *Allegheny Places* provides an effective planning framework for identifying and coordinating which areas should be developed and which areas should be protected or preserved. The County will promote protection of greenfields by:

- Directing development away from these areas,
- Encouraging the protection of natural ecosystems and green spaces, and
- Encouraging efficient development density in proximity to existing infrastructure and community resources to minimize the need for the development of new infrastructure.

While local municipalities have control over land uses, County funding will be directed to projects that support the Future Land Use Plan. To be consistent with



Allegheny Places, major developments should be located in the Places identified on the Future Land Use map. The County will not support (through financial or other assistance) locating major projects in areas outside of designated Places. The County will further work with municipalities to achieve consistency with the comprehensive plan to direct development away from greenfields.

Land is a limited resource that should be used wisely and, when possible, recycled and reused.

E. Protect and Restore Critical Environmental Functions

Protecting Wetlands

Wetlands are extremely valuable to both people and the environment along the County's waterways. Some of the important functions and benefits of wetlands include:

- **Erosion and Sedimentation Control** – Wetlands act as buffers along shorelines, protecting the property from waves or stream activity. Wetland vegetation filters out sediment by decreasing water velocity and settling suspended particles in the wetland, thereby preventing the sediment from reaching the lake.
- **Flood Protection and Abatement** – Wetlands act like giant sponges, soaking up excess water and releasing it slowly.
- **Water Filtration and Purification** – Wetlands are capable of filtering many pollutants from water that is destined for lakes, rivers and sources of drinking water. Water leaving a wetland is frequently cleaner than water entering the wetland.
- **Fish and Wildlife Habitat** – Wetlands are one of the most productive and valuable wildlife habitats. Many species of fish and wildlife depend on wetlands for breeding, nesting and feeding. Due to the loss of wetland habitat, many endangered fish, wildlife and plant species depend on remaining wetlands.

- **Recreation** – Wetlands provide a variety of recreational opportunities, including fishing, bird watching, photography, canoeing, hiking, hunting and trapping.

Landowners are urged to avoid clearing or replacing natural native vegetation along the wetland edge for a minimum width of 50 feet.

Restoring and Preserving Floodplain Functions

The County's objective is to protect and preserve the ability of floodplains to carry and store flood waters safely, in order to protect human life and property from damage.

Floodplains are low-lying areas adjacent to streams, lakes, wetlands and rivers that are covered by water during a flood. Floodplains that are relatively undisturbed work as nature's own disaster damage control; they are naturally designed to accommodate floodwaters. Proper management of floodplains is essential. When the volume of water carried by a waterway, such as a stream, is too great and the water cannot move downstream fast enough to stay within the stream channel, it spills over into the adjacent floodplain.

Act 166, the Pennsylvania *Flood Plain Management Act*, requires compliance with the National Flood Insurance Program (NFIP). The main intention of the Act is to regulate new construction, development and major improvements in floodplain areas.

Act 166 requires that municipalities identified as having areas subject to flooding participate in the NFIP by enacting floodplain management regulations that comply with the minimum standards of NFIP and also with the regulations set forth by the Act. Act 166 only applies to development within the 100-year floodplain. This area is shown on municipal floodplain maps created by the Federal Emergency Management Agency (FEMA) and can also be referred to as a Special Flood Hazard Area. Most regulation is achieved through ordinances and the issuance of building permits.

Municipalities must review proposed projects and impose conditions on any permits issued to reduce the potential for damage from floodwater. Permits

are required for any development as well as for filling or grading activities in the floodplain.

Where feasible, efforts should be made to reclaim developed floodplains, especially those subject to repeated flooding and flood damage. Floodplains should be reconsidered for land uses such as recreation and conservation uses that require minimal structures and impervious surface.

Recommendations for stormwater management can be found in the Utilities Plan.

Avoiding Future Stormwater Problems

Land development will continue to affect stormwater management in the County. New development that creates large areas of impervious surfaces can cause increases in stormwater runoff, contributing to drainage, flooding and erosion problems. The potentially adverse impacts of land development activities can be mitigated through the use of best management practices (BMPs), including good site design, and structural and non-structural stormwater controls.

Approximately 31,000 acres of land within designated Places in the Future Land Use Plan lie within watersheds of a priority stream. Priority streams were identified by the Allegheny County Emergency Service Department based on a history of flash flooding and resultant damages. Furthermore, approximately 26,000 acres of land within designated Places lie within watersheds for which no Act 167 planning has been completed. Stormwater runoff from these Places must be adequately controlled through the use of appropriate BMPs and other technologies.

BMPs are generally two-fold: reduce the amount of stormwater runoff created through careful site planning; and manage as much of the runoff that is created on the site as possible. Typically, on-site management of stormwater runoff relies heavily on in-ground filtration techniques. Allegheny County's soils, weather, and topography can make in-ground filtration particularly problematic, however. The development of BMPs appropriate to the County is needed. Greater use of preventative BMPs, such as retention of existing site vegetation, should be promoted.

Municipalities should adopt and enforce site development regulations that require sensitive site design targeting reduction of stormwater runoff, especially for major development. Municipalities should also require the use of BMPs.

Landowners are encouraged to use natural retention measures to control runoff.

Restoring Riverbank Landscapes

The Riverlife Task Force commissioned the *Three Rivers Landscape Management Guidelines* in 2006 to focus and provide direction to the many independent initiatives that are taking place along the riverfronts from the 31st Street Bridge on the Allegheny River to the Hot Metal Bridge on the Monongahela River to the West End Bridge on the Ohio River. The guidelines are based on sustainable design strategies and are focused on restoring native plants, conserving water and managing stormwater. The overall recommendations of the guidelines include:

- Strengthening the landscape requirements of the City of Pittsburgh Riverfront Zoning Overlay
- Building on the identity and visibility of Three Rivers Park
- Using Three Rivers Second Nature GIS studies to prioritize and track management activities
- Training landscape managers
- Ensuring that river edge management is adequately budgeted

Although the study has focused on targeted areas along the Three Rivers, the County will encourage similar studies to include all of the riverfronts in Allegheny County. Riverlife's guidelines will also be a resource for implementing the Three Rivers Park System, the 128-mile long riverfront park along the four major rivers that was adopted by the Allegheny County Council.

F. Eliminate Pollution Runoff to Protect Streams and Watersheds

According to the University of Pittsburgh's Center for Social and Urban Research, tree cover is positively associated with higher water quality in Allegheny County streams. Streams that are in attainment of



water quality standards have a higher percentage of tree cover (75%) within a 660-foot buffer along the water's edge than for streams not in attainment (57%).

Lands adjacent to streams, lakes or other surface water bodies that are adequately vegetated provide an important environmental protection and water resource management benefit. The benefits of riparian buffers are that they:

- Prevent excessive nutrients, sediment and other pollutants from reaching surface waters
- Provide for shading of the aquatic environment so as to moderate temperatures, retain more dissolved oxygen and support a healthy assemblage of aquatic flora and fauna
- Provide for the availability of natural organic matter (fallen leaves and twigs) and large woody debris (fallen trees and limbs) that provide food and habitat for small bottom dwelling organisms (insects, amphibians, crustaceans and small fish), which are essential to maintain the food chain
- Increase stream bank stability and maintain natural flow of the stream system, thereby reducing stream bank erosion and sedimentation and protecting habitat for aquatic organisms

- Maintain base flows in streams and moisture in wetlands
- Control downstream flooding
- Conserve the natural features important to land and water resources, such as headwater areas, groundwater recharge zones and floodways

The characteristics of the riparian lands – such as slope, soil characteristics and plant community structure and density – help to determine the width of the buffer strip.

The County urges local municipalities and landowners to protect riparian zones of streams and rivers and adjacent wetlands. Many municipalities have already adopted riparian buffer provisions into their zoning ordinances. The County subdivision and land development ordinance includes provisions for riparian buffers. Those municipalities that have not done so should enact such an ordinance. The *Three Rivers Park Landscape Management Guidelines* describes and illustrates restoration measures for the river edge landscape.

ENERGY CONSERVATION PLAN

■ TODAY'S CONDITIONS

Energy conservation is important to the future of Allegheny County. As energy costs continue to rise, more efficient use of energy will be essential for the continued economic health of the region. Energy conservation practices are also essential for improving and protecting the quality of the County's air and water, and so the health of its citizens. Energy conservation is, in many ways, the key to a truly sustainable future for the County.

Energy conservation can be achieved through a number of measures including:

- Energy efficient technologies
- Waste reduction and recycling
- Recovering energy from waste
- Sustainable building design, including green building
- Deep energy reductions in existing homes
- Energy efficient development
- Reduced reliance on the automobile
- Transportation Congestion Management and multimodal solutions
- Alternative energy sources

Through these and other conservation practices, not only will public health and the environment be better protected, but consumers, businesses and local governments will save money.

MORE ENERGY EFFICIENT BUILDING SYSTEMS

In recent years, Allegheny County has installed energy efficient lights, upgraded HVAC, energy management and control systems, and reduced water use in dozens of County facilities. These relatively simple improvements have been projected to save the County over \$740,000 annually.

By lowering its use of resources through energy-efficient technologies, the County is also reducing the overall demand for electricity. Electricity generated by burning coal or natural gas releases carbon dioxide, sulfur oxide and nitrogen oxides into the air. These pollutants contribute to smog, acid rain and global warming. The County's building systems upgrades should reduce carbon dioxide emissions by 30 million tons of carbon dioxide per year.

GREEN BUILDING

Green building, as defined by the U.S. Environmental Protection Agency, is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle (from siting to design, construction, operation, maintenance, renovation and deconstruction). Green buildings are designed to reduce the long-term impact of the built environment on human health and the natural environment by:

- Incorporating sustainable materials in their construction
- Reducing waste, pollution and environmental degradation
- Efficiently using energy, water and other resources
- Creating healthy indoor environments

It has been shown that worker productivity increases in green buildings – another contribution to the bottom line. Green building is also known as a sustainable or high performance building.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction and operation of high performance green buildings. Pittsburgh has become one of the top five cities in the world in green building, with 17 structures LEED Certified by the U.S. Green Building Council.



Photo credit: Kevin Smay

PNC Financial Services built the LEED Certified PNC Firstside Center in 2000. The Pittsburgh Convention Center, constructed in 2003, is the first green convention center and the world's largest green building. The center has a LEED Gold rating. Carnegie Mellon University built the country's



first green dorm room in 2003. River Quest has a \$4 million, 90-foot certified green boat in its fleet of classroom vessels. UPMC's new Children's Hospital, due to open in 2009, will also be a green building. Hospital officials expect the energy cost savings reaped from the green design to reach 30%.

The Green Building Alliance keeps a listing of the certified green buildings in the region on its website (www.gbapgh.org/casestudies_main.asp). Additional resources are available at www.epa.gov/greenbuilding/ and www.usgbc.org.

URBAN FORESTRY

Trees can conserve energy by reducing utility demands (air conditioning in summer, heating in winter). Urban tree plantings help to cool cities, creating a more pleasant pedestrian environment. The evaporation from a single large tree can produce the cooling effect of ten room-sized air conditioners operating 20 hours a day, according to the U.S. Department of Agriculture. Trees can also reduce the effects of global warming by converting carbon dioxide, the dominant greenhouse gas, into oxygen.

The City of Pittsburgh's Shade Tree Commission works to preserve and maintain as many trees within the City as possible. Newly planted street trees are generally Bradford Pears.

Other municipalities in the County also have shade tree commissions.

RECYCLING

The Allegheny County Health Department has a Recycling Coordinator to carry out the requirements of Act 101, the State Municipal Waste Planning, Recycling, and Waste Reduction Act. Act 101 mandates recycling in Pennsylvania's larger municipalities, requires counties to develop municipal waste management plans and provides for grants to offset expenses. The goals of the Act are to:

- Reduce municipal waste generation;
- Recycle at least 25% of waste generated;
- Procure and use recycled and recyclable materials in state governmental agencies; and
- Educate the public as to the benefits of recycling and waste reduction.

Of our 130 municipalities, 81 have a curbside collection program and 16 have a drop-off program. Communities not included in the Act's mandate are those that have a population of 5,000 or less. Allegheny County had a recycling rate of 20% in 2001, much less than Pennsylvania's 36% recycling rate.

Under current permit and loading conditions, the average estimated remaining life of County landfills is 12 years. Greater use of recycling throughout the County will extend the life of existing landfills, averting the development of new facilities.

METHANE RECOVERY

Methane is the major component of natural gas and a potent greenhouse gas that contributes to global warming.

Landfill Methane

Methane can be generated by the fermentation of organic matter, including municipal solid waste. Municipal solid waste landfills are the largest human-generated source of methane emissions in the United States. Methane that is generated by landfills can be captured, however, and used as a source of energy. The capture and use of landfill methane has substantial economic and environmental benefits, including:

- Reducing the use of fossil fuels such as coal and natural gas
- Reducing methane emissions and therefore global warming
- Reducing local air pollution
- Creating jobs, revenues and cost savings

Generating energy from landfill gas emitted from decomposing garbage can directly reduce greenhouse gas emissions – the gas is captured rather than released into the atmosphere. There is a methane recovery facility at the Mazzaro Landfill site in Findlay Township and the Monroeville Landfill in Monroeville Borough. The BFI – Imperial Landfill in Findlay Township has a pending methane recovery project, while the Kelly Run Landfill in Forward Township is listed as a candidate site for methane recovery by the Pennsylvania Department of Environmental Protection.

Coalbed Methane

Coalbed methane (CBM) has become a valuable part of the nation's energy portfolio, accounting for about a twelfth of U.S. natural gas production. As America's natural gas demand grows substantially over the next two decades, CBM will become increasingly important for ensuring adequate and secure natural gas supplies for the nation.

Interest in commercial development of CBM is growing throughout the Commonwealth. Pennsylvania has many coal resources that are too thin or too deep to be of commercial value for mining and therefore provide opportunities for methane production. Currently, there are 75 CBM wells in commercial production in Pennsylvania. To date, there are no CBM facilities operating in Allegheny County. Known CBM facilities in the region are in Cambria, Fayette, Green, Indiana, Washington and Westmoreland Counties.

The Pittsburgh coal of the Monongahela Formation has all the qualities desirable for producing coalbed methane, including high methane emission rates, according to the Pennsylvania Department of Natural Resources.

PATTERNS OF DEVELOPMENT

Over the last few decades, the predominant development pattern in Allegheny County has been suburban sprawl. 'Sprawl' is a term used to describe a pattern of land development that results in the conversion of farmland, forests and other open space lands into new development that is typically low density, single-use and automobile dependant. Sprawl often results in land being consumed at rates that exceed population growth.

A 1998 study for the Natural Resources Defense Council showed that low density sprawl is costly, inefficient and inequitable. Sprawl uses more resources, such as fuel, than traditional city and town development, and requires costly extensions of infrastructure, such as public water and sewer service.

Inequitable Development

In Allegheny County, sprawl has certainly been inequitable. Sprawl has resulted in the hollowing out of the urban core and decay in older, urbanized communities. The loss of tax ratables in these areas has led to higher tax rates to raise the revenues needed to pay for existing services. Some of

the most impoverished communities in the County have the highest property tax rates.

In the past, public transportation served workers commuting into the urban core where the majority of jobs were located. But today, economic development has spread to suburban areas and so is more disperse. Many of the new jobs aren't accessible to low-income residents since public transit does not serve those workplaces. Public transit is a more energy-efficient form of transportation than the use of privately-owned automobiles. Longer distances between low-income neighborhoods and new job opportunities means longer and more costly commutes for those who can least afford it.

The transportation sector is the largest consumer of petroleum in the United States, accounting for 67% of America's petroleum consumption and 28% of its greenhouse gas emissions.

INCREASING USE OF CARS

Figure 41.1 (Chapter 4, Section I, Transportation Plan) shows that in four out of the past five years, average vehicle miles traveled in the County have been increasing. As development patterns change, people are driving more frequently and driving longer distances to get to their destinations. While the general trend is increasing, fluctuations do occur and are a response to shifts in the economy. The number of trips is also increasing due to changes in household patterns and locations of activities.

Annual vehicle miles traveled in Allegheny County are expected to continue to increase over the next several years unless changes in development patterns occur. Even if the fuel efficiency of vehicles improves, driving more miles will lead to greater fuel consumption. A reduction in annual vehicle miles traveled is needed to conserve fuel reserves and can result from increased transit use.

ALTERNATIVE ENERGY SOURCES

The Pennsylvania legislature passed the Alternative Energy Bill in November 2004. The Bill requires a total of 18% of Pennsylvania's electricity to be generated by alternative energy sources by the year 2020. The Bill also requires eight percent of Pennsylvania's electricity to be generated by so-called 'Tier I' renewable sources of energy by 2020. Tier I energy resources include solar, wind, geothermal



and biomass. In addition, the Bill requires 10% of the State's electricity to come from a second category of resources that includes waste coal, integrated combined coal gasification technology, municipal solid waste, large-scale hydro, demand-side management and distributed generation systems.

The Bill has increased interest in implementing alternative energy production systems statewide and in the County.

■ ISSUES AND ANALYSIS

This section examines what can be done to reduce the amount of energy used in the County.

KEY CHALLENGES

In developing the Energy Conservation Plan, the Environmental Quality Resource Panel helped to identify these key challenges:

- Inefficient use of energy
- High reliance on automobiles

The following provides an understanding of these issues.

INEFFICIENT USE OF ENERGY AND ITS RELATION TO GLOBAL WARMING

Energy conservation is an important topic in terms of quality of life for present and future residents of Allegheny County. The consumption of carbon-based fuels produces carbon emissions, or greenhouse gases, that contribute to global warming. The rising concentration of greenhouse gases poses a multitude of risks to Allegheny County and to our planet as a whole. Many scientists believe it's the most challenging environmental issue of our time. Recent studies show that the increase in greenhouse gases into our atmosphere will have a lasting effect on our climate for many generations to come.

Allegheny County currently experiences nine to ten days a year of temperatures exceeding 90°. Over the next century, the County can expect 65 days over 90° Fahrenheit if nothing is done to reduce greenhouse gas emissions, according to recently published research by the Union of Concerned

Scientists on climate changes in the Northeast United States. The climate change will have dramatic effects on human health, air quality, water quality, economic development and winter recreation. The impact on the poor and disadvantaged is likely to be disproportionately severe.

According to the 2007 *Climate Change Roadmap for Pennsylvania* produced by the Pennsylvania Environmental Council, Pennsylvania is responsible for about 1% of the worldwide emissions of greenhouse gases. This level of emissions ranks third among U.S. states and puts Pennsylvania in the league of the top 25 nations.

■ Reducing Emissions

Currently, Pennsylvania has no climate change strategy. But there are a number of climate policy proposals currently before the U.S. Congress that would require severe emissions reductions. Many solutions are already available, including greater energy efficiency, increased use of renewable energy and reductions in deforestation. These changes can be encouraged by a wide range of market-based and complementary policies, including international cooperation on emissions reductions, renewable electricity standards, efficiency standards for electricity and vehicles, and incentives for cleaner technologies.

Recognizing the problem, investment in the clean technology industry has been increasing dramatically over the last couple of years. According to a May 2006 Cleantech Capital Group Report, venture capitalists invested \$1.6 billion in North American clean technology companies in 2005, an increase of 43% from 2004. Because the County has a number of firms producing pollution control equipment, clean technology can drive dynamic economic growth in Allegheny County while also improving the environment.

■ Sustainable Building Design

The May/June 2007 issue of *Progressive Investor* explores the reasons why the real estate industry is embracing sustainable business practices and clean technologies. Some of the significant drivers of this trend are the clear benefits of green design:

- Developers and building owners are feeling the crunch of high energy and water costs, which, according to the Building Owners and Managers Association, constitute 28% of operating costs for downtown office properties

and 30% for suburban properties. They see the quick payback and cost savings energy efficiency and other green building upgrades offer.

- Building green no longer costs more. Turner Construction's 2005 Green Building Market Barometer shows it costs a mere 0.8% more for basic LEED Certification, which is easily recouped through lower operating costs.
- Increasingly, clients and tenants show a preference for green buildings, which have been proven to increase productivity and employee retention, and lower absenteeism. The combination of reduced operating costs and more satisfied occupants translates into 3.5% higher occupancy rates, 3% higher rents and a 7.5% increase in building value, according to the McGraw-Hill 2006 SmartMarket Report.
- A recent United Nations study concluded that green buildings can do more to fight global warming than all of the curbs on greenhouse gases agreed to under the Kyoto Protocol, while saving billions of dollars.

Progressive development firms are increasingly focused on urban infill buildings, rather than suburban greenfields, and incorporating advanced energy efficiency measures as well as recycled building materials, gray water systems, rainwater capture and green roofs into construction.

HIGH RELIANCE ON AUTOMOBILES

In Allegheny County, suburban development has increased considerably in previously rural areas over the last 20 years. The County's population has shifted away from older, denser urban core areas to newer, less dense development in the outlying municipalities. Such sprawl requires people to drive longer distances and make more trips by car.

In the late 1940s, about 70% of the County's population was close to urban population centers accessible by trolley lines. After 1950, most of the core communities experienced substantial population losses, while newer municipalities in outlying areas gained residents. Public transit ridership dropped dramatically. Unlike historical forms of development in Allegheny County, the typical suburban land use pattern does not have the density to support transit use.

Suburban sprawl is a major contributor to global warming.

Suburban sprawl has the potential to accelerate as the transportation system expands, allowing people to live ever farther distances from where they work. It has been a problem throughout the state. Pennsylvanian residents are driving more than ever before, fueling increases in vehicle emissions, one of the leading sources of global warming pollution. Annual vehicle miles traveled by all Pennsylvanians increased 51% from 1980 to 2005, and only a small part of that increase was caused by population growth.

Sprawling development patterns are a key contributor to global warming and an essential factor in combating it, according to the report released in September 2007 by the Urban Land Institute, Smart Growth America and other organizations. The report warns that if sprawling development continues, the total miles that people drive will increase nearly 60% between 2005 and 2030, and carbon emissions from this increased driving will overwhelm expected gains from vehicle efficiency and low-carbon fuels.

Even with technological improvements, vehicle emissions of carbon dioxide would be over 40% above today's levels, well over the goal of reducing CO₂ emissions to 1990 levels by 2050, according to *Growing Cooler: The Evidence on Urban Development and Climate Change*.

■ Curbing Sprawl

Pennsylvania is working to address the problem of sprawl. Executive Order 1999-1 established eight policies to guide state agencies when making decisions that impact land use, including ensuring that infrastructure plans are consistent with sound land use practices. Building on these policies, an interagency land use team released Keystone Principles for growth, investment and resource conservation in 2005. Three Keystone Principles promote energy efficient development:

- Redevelop first
- Provide efficient infrastructure
- Concentrate development

Compact communities with a mix of land uses and a highly connected street network promoted by *Allegheny Places* are associated with fewer vehicle miles and trips, and



more bicycling and walking per capita. They have also been linked to lower per capita levels of ozone and carbon dioxide emissions.

■ Equity Considerations

Reinforcing and revitalizing existing centers and creating new tightly-knit, mixed-use, walkable and transit-supportive centers not only conserves energy, but supports the equity principles of *Allegheny Places*. For economic reasons, many families and individuals do not have the use of automobiles for commuting to jobs, school, shopping or entertainment. Other individuals who are disabled, elderly, young or not licensed to drive may rely on walking and transit to reach their destinations. Mixed-use developments (especially those near transit stops) provide the opportunity for people to more easily travel to and within these communities without the use of a car.

■ RECOMMENDATIONS

GOAL OF THE PLAN

Development and redevelopment in the County occurs in a manner that supports sustainable and cost effective energy utilization.

OBJECTIVES OF THE PLAN

The objectives of the Energy Conservation Plan are to:

- A.** Protect and enhance the environment and public health by promoting energy conservation and continuing to improve the County's air quality.
- B.** Establish compact mixed-use centers that provide a dense population of potential transit users, both for trips within and between centers.
- C.** Make transportation corridors multi-modal, by providing vehicular, transit, pedestrian and bicycling options.
- D.** Provide incentives to develop certified green buildings and use alternative fuels and renewable energy.

The following provides an understanding of the objectives.

A. Protect and Enhance the Environment and Public Health

Our way of life is powered by energy. Energy drives the economy and has a significant impact on the environment.

Improving Air Quality

Since the Pittsburgh region is in non-attainment for a criteria pollutant, Allegheny County is required to develop and implement a plan to reduce ozone and particulate matter (PM_{2.5}) pollutant levels. The County's maintenance status for carbon monoxide (CO) indicates that it is nearing the goal of attainment, but will continue existing activities and pursue new opportunities to reduce CO levels.

The use of reformulated gasoline can help to reduce CO levels in the County. Reformulated gasoline is designed to reduce ozone-forming volatile organic compounds and air toxics emissions by increasing the oxygen content to promote more complete fuel combustion.

The County will work with the Pennsylvania Department of Environmental Protection (PADEP) and the U.S. Environmental Protection Agency (EPA) to develop and distribute educational materials to promote practices that reduce emissions. Such practices include using public transit, combining trips in the car, the use of hybrid vehicles and using products that do not contain volatile organic compounds. The County will also work with PADEP and EPA to develop and implement measures to encourage and assist local businesses and industries in reducing emission sources. Priority will be given to reducing toxic emissions.

Local governments will be encouraged to implement and enforce measures to reduce emissions within their municipalities.

Reducing Greenhouse Gases

Pennsylvania – and to a lesser extent Allegheny County – is already a recognized leader in many of the technologies, policies and practices needed to reduce greenhouse gas emissions:

- Green buildings
- Windpower
- Recovery of landfill methane
- Sustainable management of forests
- Commitments to cleaner vehicles and fuels

Pennsylvania joined 16 other states in endorsing a renewable energy goal of 25% of our energy from renewable resources like wind, solar and biofuels by the year 2025. Known as “25 x 25”, the U.S. Senate unanimously adopted this goal in June 2007. Increasing America's renewable energy use will:

- Bring new technologies to market and save consumers money
- Reduce our dependence on oil from the Middle East
- Create new jobs in rural America
- Clean up the air and reduce urban smog and help slow increases in global warming

In February 2007, Pennsylvania's Governor unveiled an Energy Independence Strategy that is expected to avoid higher consumer utility bills, reduce reliance on foreign sources of fuel, add 13,000 new jobs and attract \$3.5 billion in new investments to the state's economy. By funding renewable energy and reducing energy consumption, the state's greenhouse gas emissions will be reduced.

Locally, individuals, businesses, organizations and government agencies can take actions that include:

- Purchasing renewable energy
- Reducing fuel use (including driving less)
- Reducing waste
- Recycling more

These and other measures will reduce the impact human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide (known as a ‘carbon footprint’).

A carbon footprint can also be reduced through the purchase of ‘carbon offsets’. Carbon offsets

are typically used to fund activities by nonprofit organizations dedicated to reducing greenhouse emissions in this country or globally. There are a number of organizations set up to receive the purchase of carbon offsets on the internet.

Alternative Energy Sources

Working with PADEP and EPA, the County will develop programs to promote and attract sources of green renewable energy and encourage residents and businesses to purchase power from these sources. There is little practical opportunity for wind power generation within Allegheny County, according to the Pennsylvania Wind Resource Map published by the U.S. Department of Energy's Wind Program and the National Renewable Energy Laboratory. However, the potential for application of other technologies does exist.

A number of alternative fuel options exist for motor vehicles, but supplies and availability are limited.

Reducing Traffic Congestion

Numerous Federal Highway Administration (FHWA) studies have shown how a dedicated traffic signal coordination program can yield consistent benefits in terms of reduced travel time and increased fuel savings. On average the retiming of one signalized intersection can result in an annual fuel saving of 4,000 gallons of fuel. At current fuel prices, this translates into a savings of \$12,000 per year assuming \$3.00 per gallon. Signalized intersections across the County should be systematically upgraded, along with an ongoing retiming and coordination program.

Because most emissions are from motorized vehicles in congested areas, the County will continue to work with and encourage PennDOT to develop plans to reduce congestion on State roadways.

The federal Congestion Mitigation and Air Quality Improvement (CMAQ) Program funds transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards (NAAQS) for ozone, carbon monoxide, and particulate matter. The CMAQ program supports two important goals of the County: improving air quality



and relieving congestion. Because CMAQ funds are intended to improve air quality, funds must be spent in non-attainment or maintenance areas, which Allegheny County is.

Demand Management Strategies (see Table 4L.1) can also result in a more energy-efficient use of the County's transportation system and resources.

The Transportation Plan describes several possible CMAQ eligible project categories and Demand Management Strategies that the County will employ to reduce congestion and fuel consumption.

B. Establish Compact Mixed-Use Centers

The Future Land Use Plan for Allegheny County directs land use to designated Places in the County in order to conserve energy. A compact arrangement of mixed land uses can conserve energy by:

- Reducing travel distances
- Reducing the need to drive
- Providing public transit
- Supporting walking and bicycling
- Minimizing the size of infrastructure systems

The 'shape' of the future County, as reflected in the Future Land Use Plan, fundamentally supports the conservation of energy.

Most Places designated on the Future Land Use map will be closely-knit, mixed-use centers of housing, shopping, employment, community facilities and open space. Jobs and retail opportunities will be within walking distance (or a short bicycle or drive) from residences. All uses are to be easily accessible to one another and potentially reduce the need for automobile trips. Even when required, vehicle trips will be shorter and thus consume less fuel.

Allegheny Places encourages efficient development density close to existing infrastructure and community resources to minimize the need for the development of new infrastructure.

The Future Land Use Plan promotes the redevelopment of existing centers and brownfields, which also acts as a check on suburban sprawl by reducing development pressures on greenfields. Furthermore, it acts as a check on water and sewer extensions and roadway expansions that are often needed to support development in greenfields.



Source: McCormick Taylor

Transit-Friendly Development

The Future Land Use Plan is intended to maximize the use of the existing transportation network, target investments for maximum return and provide all people equal access to growth opportunities, especially those associated with Places designated on the Future Land Use map.

The Future Land Use Plan focuses development in designated Places. Most Places are along existing transportation corridors and all are highly accessible to each other, as well as to the region. The biggest impediment to transit use is low-density, spread-out development. Therefore, one of the key benefits of concentrating development, investment and activities in Places is that transportation alternatives can be developed that provide choices and options for movement between Places. Increased mobility will help ensure that more people have greater access to jobs, shopping, schools and other destinations.

Land is a limited resource that should be used wisely and, when possible, recycled and reused.

Most Places designated on the Future Land Use map will be more supportive of transit use. Potential transit services range from circulator vehicles within a Place, such as Oakland, to transit that connects one Place to another, such as Oakland to the Airport. In any case, the intent is for transit to reduce private automobile trips, reducing energy consumption as a result.

Transit-Oriented Development (TOD) is a key element in the County's planned economic growth, as explained further in the Economic Development, Future Land Use and Transportation plans. TOD offers a mix of uses including office, retail and housing. Since TODs are accessible by multiple modes of transportation, they can reduce the number of vehicles on the road.

TABLE 4L.1 – Demand Management Strategies

Address Security Concerns	Strategies for improving personal security on public transit
Alternative Work Schedules	Flextime, Compressed Work Week (CWW), and staggered shifts
Bike/Transit Integration	Ways to integrate bicycling and public transit
Bus Rapid Transit	Bus Rapid Transit (BRT) systems provide high quality bus service on busy urban corridors
Carsharing	Vehicle rental services that substitute for private vehicle ownership
Cycling Improvements	Strategies for improving bicycle transport
Flextime	Flexible daily work schedules
Guaranteed Ride Home	An occasional subsidized ride home for commuters who use alternative modes
Individual Actions for Efficient Transport	Actions that individuals can take to increase transport system efficiency
Nonmotorized Facility Management	Best practices for managing nonmotorized facilities such as walkways, sidewalks and paths
Nonmotorized Planning	Planning for walking, cycling, and their variants
Park & Ride	Providing convenient parking at transit and rideshare stations
Pedestrian Improvements	Strategies for improving walking conditions
Ridesharing	Encouraging carpooling and vanpooling
Shuttle Services	Shuttle buses, jitneys and free transit zones
Taxi Service Improvements	Strategies for improving taxi services
Telework (Telecommuting, Distance-Learning, etc.)	Use of telecommunications as a substitute for physical travel
Traffic Calming	Roadway designs that reduce vehicle traffic speeds and volumes

Source: Victoria Transport Institute



C. Make Transportation Corridors Multi-Modal

Transportation and land use strategies to reduce the need to drive are a cornerstone of the County's energy conservation and emissions reduction plans. Although improvements in fuel and vehicle technology can help, land use and transportation planning that reduces vehicle demand is crucial and can be accomplished at the local level. Reducing vehicle miles traveled is a part of the County's strategy to address climate change. Transportation funds will be allocated based on consistency with the Future Land Use Plan.

The needs of bicyclists and pedestrians can be met by incorporating bicycle lanes and sidewalks into both roadway and transit projects. Bicycle and pedestrian needs should be considered at the earliest stages of transportation project development to ensure the appropriate accommodation of those needs. Street systems for designated Places should incorporate development patterns that maximize connectivity, convenience, safety and efficiency for pedestrians and bicyclists.

Connections between all modes and systems are paramount to an efficient transportation system.

While conserving energy, Places also support equal access to jobs and services in a way that most contemporary development does not.

D. Provide Incentives to Develop Certified Green Buildings and Use Alternative Fuels and Renewable Energy

Educating the public, including public officials, about the benefits of green building, energy conservation and sustainable development is essential for Plan implementation.

Many people are still most familiar with traditional suburban development where zoning separates different land uses, and residential development is primarily single-family detached houses on large lots. If developers fear there will be no market for non-traditional development, choices for consumers will remain limited. Public officials, consumers and developers may have misconceptions that green building and sustainable development costs more than

traditional development. Local officials may be fearful they will discourage development in their communities if existing land use regulations are changed and different requirements added. Ultimately, education is the key to ensuring more widespread use and acceptance of sustainable development practices.

Saving Energy through Green Buildings

Allegheny Places promotes energy efficient, green building design. According to a May 2007 summary report by the Intergovernmental Panel on Climate Change, more energy efficient buildings could avert 30% of projected greenhouse gas emissions by 2030. Energy efficiency can be achieved through:

- Improved insulation
- Alternative refrigeration fluids
- More efficient appliances
- Solar technology
- Intelligent energy meters that provide feedback on use
- Green building
- Site design (landscaping and siting of buildings)

To be consistent with *Allegheny Places*, development that is funded wholly or partly with public funds must incorporate energy efficiency into building and site design.

One resource for information is Affordable Comfort, Inc., a southwestern Pennsylvania-based nonprofit organization dedicated to making homes more energy efficient. The organization's vision is that every family has a green home that is energy efficient, durable, comfortable, healthy and safe, and every community has access to and values skilled home performance services. Toward this end, they provide training to building and housing professionals to advance home performance (www.affordablecomfort.org).

Municipalities should update their zoning and subdivision ordinances to allow for site design that increases energy efficiency. Providing for solar access should also be addressed, as provided for by the Municipalities Planning Code. Improvements in solar technology are making its use more feasible in places like western Pennsylvania.

Sustainable Development

An even more holistic approach to energy savings can be achieved by applying LEED to neighborhood design. The LEED for Neighborhood Development Rating System, currently a pilot program, integrates the principles of smart growth, urbanism and green building into the first national standard for neighborhood design. LEED certification provides independent, third-party verification that a development's location and design meet accepted high standards for environmentally responsible, sustainable development.

Allegheny County is fortunate to have a number of organizations such as the Green Building Alliance, Sustainable Pittsburgh, and the Local Government Academy that provide information about and training in sustainable development practices. The County will continue to work with these groups and others to promote the importance of green building, energy conserving and sustainable development to area residents, business owners and developers.

Financing and Grants

There is funding available that fosters the use of renewable energy and reduces overall energy usage in Pennsylvania:

- **The Alternative Fuels Incentive Grant (AFIG) Program** – was established in 1992 under Act 166. Act 178 was passed in 2004, resulting in new programs designed to stimulate the production and use of biodiesel and ethanol in the state. Grants are available to school districts, municipal authorities, political subdivisions, nonprofit entities, corporations, limited liability companies or partnerships incorporated or registered in the Commonwealth for the deployment of fuel saving vehicles, fleets and technologies. The fuels supported by this program include mixtures of 85% ethanol 15% gasoline (E85); liquid or compressed natural gas, liquid propane, hydrogen, coal-derived liquid fuel; electricity and biodiesel/diesel blends as well as other potential R&D fuels.
- **The Pennsylvania Energy Development Authority (PEDA)** – is an independent public financing authority. The Authority's mission is to provide tax-free bond financing for projects that develop, promote and more efficiently use alternative energy resources indigenous to the state.
- **The Pennsylvania Energy Harvest Grant Program** – is a new state initiative to advance the deployment of clean energy technologies, lessen the nation's dependence on foreign fuels, and significantly reduce air and water pollution. Funded projects must simultaneously reduce or supplement the use of conventional energy sources and lead to improvements in air and water quality.





CHAPTER 5: PUTTING IT IN PLACES

Allegheny Places is a blueprint for the future for Allegheny County, showing how growth and redevelopment can be directed to existing and future Places to provide new economic opportunities, revitalize existing communities, protect natural features, and conserve open space and historic and cultural resources.

Allegheny Places is a call to action. This chapter describes the Plan implementation strategy. It includes a specific sequence of steps for the County, municipalities, COGs, local agencies, the state, and others to create a positive future for the County and all of its Places.

BENEFITS OF THE PLAN

Allegheny Places offers significant benefits to everyone.

Allegheny Places benefits the County by:

- Setting the vision and direction for the coming decades
- Providing a framework for decision-making
- Providing implementation strategies for a more vigorous approach to conservation, land development and economic initiatives
- Identifying new economic, residential and cultural opportunities
- Assisting in developing partnerships with residents, communities and businesses through their involvement in plan development
- Informing the County capital budget process to target goals more effectively

Allegheny Places benefits municipalities by:

- Providing a better understanding of multi-municipal issues
- Providing tools, models, best practices and funding sources
- Providing data and mapping to support development and redevelopment opportunities
- Strengthening applications for government grants and loans
- Facilitating the processing of permits

Allegheny Places benefits private developers by:

- Explaining County economic development policies and strategies
- Highlighting development opportunities
- Providing data and mapping for development sites
- Strengthening applications for government grants and loans (When applying for government grants, loans or permits, a development proposal that is consistent with County and local plans will be more likely to gain a favorable review)
- Facilitating the processing of permits
- Assisting in national and international marketing
- Providing a single source (the e-library) for municipal land development regulations

Allegheny Places benefits local nonprofit and civic organizations by:

- Providing a cohesive vision for enhancing the overall quality of life in Allegheny County
- Providing direction on where these organizations can focus their efforts and leverage their resources with other partners

The benefits of managed growth and revitalization may be realized only if Allegheny County is joined in action by local municipalities and their Councils of Government, public agencies, private organizations, developers, investors and others. Timely, coordinated planning efforts must make the most of opportunities to direct development, investment and activity to specific areas, and to ensure that initiatives occur in ways that support existing communities. Deliberate, cooperative steps to implement the Plan's goals, objectives and policies are required in order to create a bright future for Allegheny County.

THE COUNTY ROLE

Allegheny County will mobilize its resources and bring them to bear on the issues and opportunities raised by *Allegheny Places*. The Implementation Strategy outlined in this chapter calls for a higher County profile in planning over the coming



years. The Implementation Strategy also calls for a higher profile for local planning as well, with municipalities looking to the County for assistance to help them fulfill that role. County government will be the lead agency in the implementation of *Allegheny Places*.

Municipalities need to be able to receive county assistance in preparing local land use planning ordinances and plans, and other technical planning assistance. The County will develop a formal planning assistance program with local governments and other planning partners. The program will include the delivery of specialized professional planning services to local governments under contractual terms and/or the distribution of small grants to municipalities to assist them in engaging their own professional planning expertise.

There is plenty of work to be done to implement the Plan. Actions are required by all those influencing the future direction of Allegheny County, but the County Executive, the County Council, the Authorities, and the County Office of Economic Development will begin the process.

COUNTY COMMITMENT AND LEADERSHIP

Following adoption, *Allegheny Places* becomes the day-to-day policy document of the County regarding development and redevelopment. The decisions of Allegheny County and its Authorities will be consistent with *Allegheny Places*, including capital budget expenditures. Unequivocal support from County-level public officials will make it easier to persuade local officials, developers, and others to take the Plan seriously.

Similarly, all Allegheny County departments should integrate the Plan into their day-to-day work. Staff support of the Plan should be a basic obligation of employment, as should the dissemination of the Plan's policies.

COUNTY PLANNING RESOURCES

The County will strengthen and mobilize its resources in order to help County Council and government to use the Plan. When the Plan is put into effect, outreach to municipalities will commence immediately upon Plan adoption and be sustained for the foreseeable future. Substantive planning issues raised by the Plan will need to be followed up with further studies, research, model ordinance preparation, and other professional planning

activities. Plan amendments and updates will be ongoing to ensure that the Plan remains timely.

Plan implementation depends upon a much more prominent County planning role in the coming years. Allegheny County will need a planning staff that is comparable in size and capabilities to other counties in Pennsylvania that are populous, diverse, and committed to planning as a means to achieve economic growth and a high quality of life. Within a year of adoption of the Plan, there should be in place a ten-person planning staff with an adequate budget to cover the work program, estimated to be \$1.2 million. Within five years of Plan adoption, Allegheny County should have a planning staff of twenty-five people, with a corresponding commitment to an adequate budget of at least of \$2.5 million in payroll support. Staff will be based both at a central planning office and at 'planning area' offices, such as described below.

COUNTY OUTREACH TO MUNICIPALITIES

The centerpiece of the Plan is its Places, which are the focus of the implementation program for the Plan. This message will be conveyed in discussions with municipalities and others that are the County's partners in Plan implementation. The discussion below describes how the County will work with municipalities and other planning partners. Examining existing and proposed local land use policies, regulations, and other initiatives to ensure consistency with the Plan will be a common element of each partnership.

The County will publicize the Plan and provide information to its public and private planning partners so they can take actions necessary to support Plan implementation. The single most important group targeted for education and outreach is Allegheny County's municipalities. The County will also work closely with its other partners, which will include federal, state, county and local agencies, authorities, institutions, and the private sector, to ensure their awareness and participation.

The County looks to its constituent municipalities, including the City of Pittsburgh, to take actions in support of *Allegheny Places'* policies. Actions include adopting local comprehensive plans and ordinances that are generally consistent with *Allegheny Places* and providing planning and design support for the development of designated Places in the Plan. It is critical that Allegheny County achieves a high degree of cooperation from local

municipalities, especially their acceptance of the basic principles of the Plan.

Cooperation, **cross-acceptance**, and **consistency** are the key guidelines toward establishing a solid relationship between municipalities and *Allegheny Places*. There are two major challenges, however, which are as follows:

- Allegheny County has a large number of municipalities. Outreach, interaction, and agreement can be slowed to an ineffective pace when the number of jurisdictions is so great.
- Many local elected and appointed officials are volunteers and may not have had the opportunity to become well versed in the latest planning concepts and tools. Allegheny County will need to help local officials obtain a working knowledge of the Plan. Doing so will show the many advantages and opportunities that working with the County and neighboring municipalities can provide. It will also allow discussions about planning tools and programs to occur from a common basis of knowledge.

There are some methods available to help overcome these shortcomings, which include harnessing a structure for intermunicipal cooperation that already exists. Councils of Government (COGs) are organizations that bring neighboring municipalities together for common purpose and should be utilized in the implementation of *Allegheny Places*. The County understands the need for additional funding as the COGs take on new responsibilities. As the process moves forward, funding sources will be identified. In the implementation of *Allegheny Places*, COGs can play new roles. These are discussed below.

Cooperation

The Councils of Government are existing multi-municipal organizations that can potentially be an important partner in advancing the Plan's implementation. While there are many municipalities, most are grouped together into eight COGs. In the *Allegheny Places* era, each COG area will be considered a County sub-planning area. Professional planning personnel will be assigned from County staff to provide planning assistance germane to each planning area, promote the policies of the Plan, work with local municipalities on achieving consistency with the Plan, and facilitate the operations of Places Task Forces.

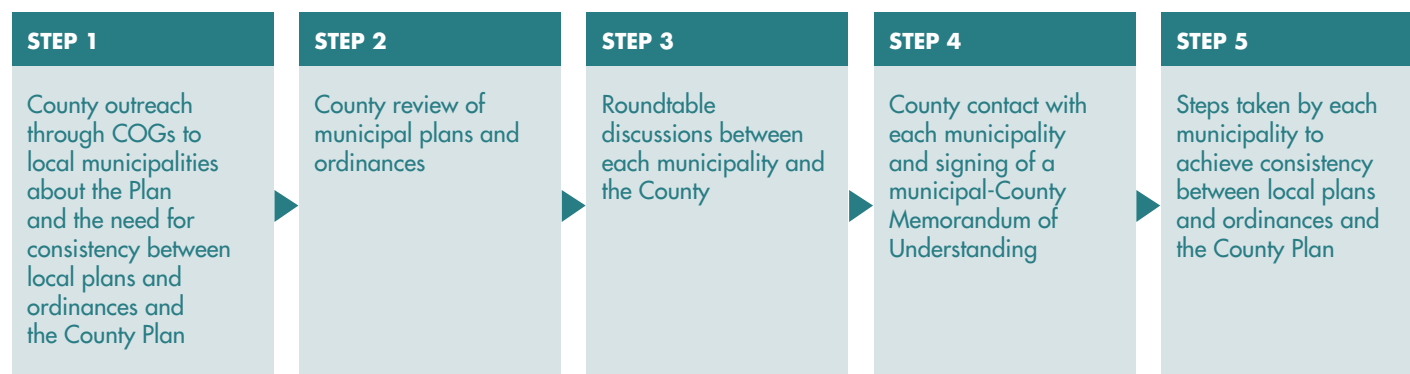
Allegheny County will work within each COG area to provide initial outreach and education about the Plan to local municipalities. As Plan implementation proceeds, the County will customize its messages about planning for each COG area.

Many of the Places identified in the Plan cross municipal boundaries. Among other things, the COGs can help to promote the cooperation of local municipalities with the County and with one another in order to make Places achieve their potential. The County will work within the COG areas to promote and support intermunicipal planning, cooperative zoning, and area master planning and design guidelines consistent with the Places defined in the Plan.

Cross-Acceptance and Consistency

Outreach and education is vital to help municipalities understand the potential that is expressed in the Plan and to explain local roles in Plan implementation. Advancing the policies of *Allegheny Places* will require that local

Figure 5.1 – The Cross-Acceptance and Consistency Process





comprehensive plans and ordinances be generally consistent with the Plan, and support the creation of new and revitalization of existing Places as directed in the Plan. Allegheny County will coordinate with the interCOG Council toward using the COG framework to gain the confidence and cooperation of local jurisdictions.

A first step will be to prepare the groundwork for a formal review of current (in general, those not more than ten years old) local plans and ordinances for their consistency with the County Plan. “Cross-acceptance” will be established in the form of a memorandum of understanding (MOU), in which municipalities agree to work with the County to implement the Plan. The MOU will outline the municipality’s agreement in regard to the following points:

- Municipal support for the implementation of *Allegheny Places*
- Willingness to work with the County, the COG, and other municipal partners to implement the Plan
- Authorization for consistency reviews that will identify the manner in which local plans can be made generally consistent with the County Plan

In addition to a formal letter prepared by County technical staff, consistency reviews will include roundtable discussions among local and County representatives. The letter will summarize potential inconsistencies and/or shortcomings of current plans and ordinances, outline steps that municipalities can use to achieve consistency, and identify appropriate resources.

If the comprehensive plan and implementing ordinances of a municipality are found to be generally consistent with *Allegheny Places*, the letter will summarize the points of consistency, and outline steps that the County and municipality may take to further support and implement the Plan.

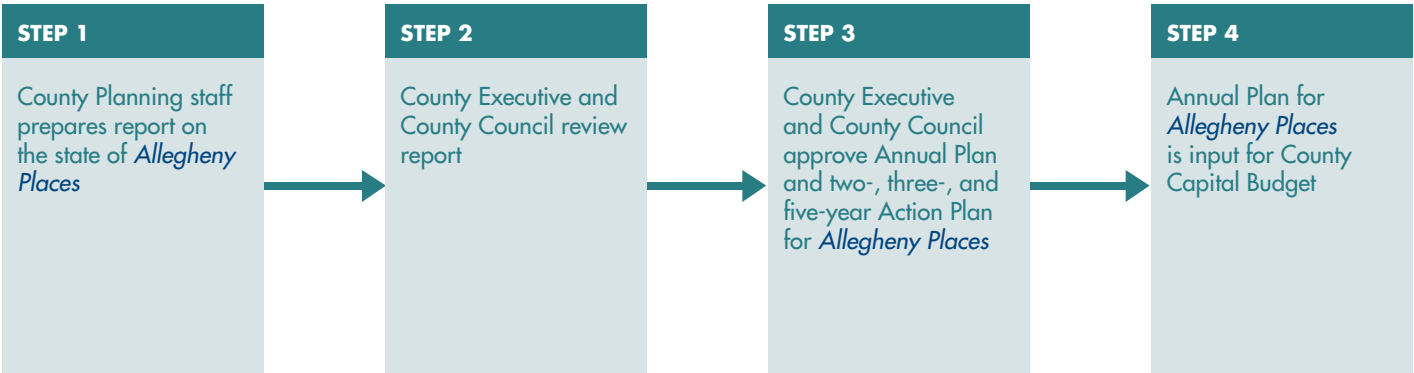
COUNTY OUTREACH TO OTHER GROUPS

While the municipalities will be critical to the Plan’s ultimate implementation, there are many other groups that will be equally important partners in Plan implementation. The County will provide outreach and education about the Plan to key groups for all levels of government and other institutions that have an interest in the Plan, and/or are important for implementation. How the County would like to work with a group or institution to implement the Plan will be central to the message. Follow up information and strategy sessions will be arranged with these groups and institutions to review the Plan and discuss how best to work together in the future.

YEARLY ACTIVITIES AND PLAN UPDATES

The chief mechanism for updating *Allegheny Places* will be the Annual Review. County planning staff will prepare an annual report to the County Executive and County Council summarizing development activities in the County and progress on Plan implementation. If there are any amendments to the Plan to be considered for adoption, County Planning staff will prepare these for consideration as part of the annual report.

Figure 5.2 – The Annual Review Process



The Annual Review will, as an annual agenda item, include an Annual Plan, which outlines cross-acceptance agreements to be obtained, consistency reviews to be completed, studies to be undertaken, and other initiatives to be made over the coming year. The Annual Plan will also contain a two-, three-, and five-year Action Plan.

Capital Budget Review

The approved Annual Plan will be completed in time to be considered in the preparation of the County Capital budget. Proposed capital budget items will be reviewed by County staff for consistency with the Plan. Inconsistencies may indicate either the need for a change in the focus of expenditures, or an update to *Allegheny Places*.

ACTION PLAN FOR IMPLEMENTATION

Table 5-1 describes initial critical actions needed to implement the Plan, including internal County coordination and the addition of staff resources. Also included is enlisting the services of public and private agencies and organizations at all levels in order to coordinate policies and leverage available technical and financial resources.

THE ALLEGHENY PLACES FUND

The County's resources, including funding available through the County's general taxing powers and its special Authorities and grants from State and Federal agencies, will be applied toward the implementation of *Allegheny Places*. Many of the required implementation actions are basic commitments that adoption of a County Plan implies, such as education and outreach, cross-acceptance with local communities, and reviews of local plans and ordinances for consistency with the Plan.

Adoption of *Allegheny Places* also implies a commitment to follow through with the establishment or revitalization of Places, as designated in the Plan. Through *Allegheny Places*, the County has targeted specific locations for development and redevelopment. Allegheny County has made a commitment to these Places as the foundation for future growth and investment in the County through policy and

programming. To that end, bonds issued by the County would provide funding for economic and community development and redevelopment projects in designated Places. The Allegheny Places Fund (APF) will support the mission of implementing *Allegheny Places*.

Eligible Applicants

Applicants will be Places Task Forces, established through cooperative agreements among the County, one or more COGs, and one or more municipalities that have Memoranda of Understanding with the County. A Place Task Force would be set up for the express purpose of overseeing the planning, design, development and/or redevelopment of a Place, as designated in the Future Land Use Plan of the Comprehensive Plan.

Funding for projects is expected to be highly competitive. Projects that meet the most Plan goals will be rated highest for receipt of funds.

Eligible Project Types

- Creation and adoption of specific master/urban design plans for designated Places
- Creation and adoption of new development regulations for designated Places
- Design, production and distribution of marketing brochures to solicit private partners to participate in the development/ redevelopment of designated Places
- Pre-construction activities, including approved demolition and engineering
- Construction or rehabilitation of infrastructure
- Acquisition, development, or improvement of civic open space, trails, and greenways
- Building and/or property acquisition and/or rehabilitation



Ineligible Project Types

- Administrative or operating costs of a Place Task Force
- Maintenance or operating costs for new or existing facilities or infrastructure

Required Community Involvement

To be eligible for grants from the APF, a Place Task Force for a designated Place must be set up through an agreement among the County, the relevant COG (or COGs), and the relevant municipality (or municipalities). Membership in the Task Force should include representatives of these same

TABLE 5.1 – Action Plan for Implementation

	ACTION	TIMING
1.	Adopt <i>Allegheny Places</i>	Immediate
2.	Identify staffing required for plan implementation (coordination, consistency reviews, technical assistance) & increase planning staff as appropriate	Immediate
3.	Coordinate with all County departments regarding plan policies and implementation steps	Within 6 mos.
4.	Coordinate with all regional, state and federal agencies regarding their roles in supporting plan implementation	Within 6 mos.
5.	Coordinate with all major foundations and non-profit organizations regarding their roles in supporting plan implementation	Within 6 mos.
6.	Determine budgetary requirements and establish capital budget funding for plan implementation (staffing, programs)	Within 1 yr.
7.	Develop and deliver outreach program with COGs	Within 1 yr.
8.	Work with COGs to implement education and outreach program for municipalities	Within 1 yr.
9.	Determine method for setting priorities for implementing Places	Within 1 yr.
10.	Identify top 3 Places for early implementation	Within 1 yr.
11.	Conduct targeted municipal outreach and gain agreements for consistency reviews	Within 1 yr.
12.	Conduct consistency reviews to identify planning and regulatory needs as well as infrastructure requirements for top 3 Places for early implementation	Within 2 yrs.
13.	Gain memorandums of understanding and perform consistency reviews for 20% of municipalities	Within 2 yrs.
14.	Develop new plans and ordinances to support each of the top 3 Places for early implementation	Within 2.5 yrs.
15.	Gain memorandums of understanding and perform consistency reviews for 40% of municipalities	Within 3.5 yrs.
16.	Gain memorandums of understanding and perform consistency reviews for 60% of municipalities	Within 5 yrs.
17.	Gain memorandums of understanding and perform consistency reviews for 80% of municipalities	Within 6 yrs.
18.	Gain memorandums of understanding and perform consistency reviews for 100% of municipalities	Within 7 yrs.

groups. Meetings of the Task Force should be open to the public, advertised, with opportunities for residents of the Place and its vicinity to participate. The Task Force must be able to demonstrate to the APF that applications for funding have been preceded by publicly-advertised community meetings in which the opportunity for residents to express opinions on the types of projects to be considered for funding have occurred.

Local Match

The APF will provide no more than 75% of total project costs for any project. The local match may come from a variety of sources, both public and private, including local, state, and federal sources, school districts, public authorities, foundations, lending institutions, and private developers.

DEVELOPMENTS OF REGIONAL SIGNIFICANCE AND IMPACT

Article III, Section 301 (7) (ii), of the Municipalities Planning Code (MPC) defines Developments of Regional Significance and Impact (DRSI) as “any land development that, because of its character, magnitude or location will have substantial effect upon the health, safety, or welfare of citizens in one or more than one municipality.” The MPC specifies that a County Comprehensive Plan shall “identify current and proposed land uses which have a regional impact and significance, such as large shopping centers, major industrial parks, mines and related activities and recreational complexes, hospitals, airports and port facilities.”

Some examples of DRSIs in Allegheny County include:

- The Casino planned for the North Shore in the City of Pittsburgh
- The new Pittsburgh Penguin Arena planned for the Hill District in the City of Pittsburgh
- The recently completed Pittsburgh Mills Mall in Fraser Township
- The Wal-Mart development in Kilbuck Township (application withdrawn)

Over the planning period it is expected that there will be other development in Allegheny County with the potential to have a substantial effect on the Region; for example, the Allegheny County Riverfronts Project and proposed Greenways Network. However, it is likely that there will be

more smaller-scale developments whose potential effects are multi-municipal, rather than regional.

The MPC gives local municipalities the authority to approve subdivisions and land developments in the municipality. In Allegheny County, the county planning agency’s role is primarily advisory. The Planning Division will continue providing advisory reviews of proposed land developments, as required by the MPC. For those applications that meet the definition of a DRSI, whether regional or multi-municipal, the recommendations of Planning Division will be consistent with the goals and objectives of *Allegheny Places*.

Benchmarks to determine whether a proposed development is likely to have impacts on more than one municipality are needed. The Planning Division will consider the following criteria in reviewing potential DRSIs:

Distance of the project site from a municipal boundary;

- Size of the project (square footage of floor space, numbers of dwelling units, parking spaces, acreage);
- Use
- Height of structures;
- Extent of physical disturbance;
- Extent of excavation;
- Extent of demolition;
- Presence of historic resources;
- Presence of rare or endangered plants or wildlife;
- Presence of natural features;
- Presence of publicly-accessible open space;
- Trip generation rates (automobiles);
- Trip generation rates (trucks);
- Trip generation rates (rail and other “heavy” modes);
- Extent of stormwater runoff;
- Water consumption rates;
- Sewage generation rates;
- Noise generation rates;
- Airborne emissions generation rates;
- Extent of vibration;
- Extent of outdoor illumination.

Thresholds for the criteria and others that may be developed will be established as part of the ongoing implementation of the Plan. The findings of the Kilbuck Landslide Task Force, which was formed to investigate the causes of landslide that occurred in September of 2006, will be considered, and additional recommendations that may result from the work of the Task Force.



MODEL ZONING PROVISIONS – ACCESS MANAGEMENT

The Controlled-Access Roadway Corridor Overlay District, following, is a model zoning district potentially applicable to many municipalities in Allegheny County. It is an overlay zone, meaning that its regulations apply to a location where certain criteria have been met, and in addition to the regulations that already apply to that location based on the districts delineated on a zoning map. In this instance, the overlay applies to any location within a long, narrow strip of land that would include a thoroughfare and the area of a certain dimension on either side of it (60 feet is used in the model, but other figures could be used, such as 75 feet or 100 feet, as may be appropriate).

The text for the Controlled-Access Roadway Corridor Overlay District codifies or provides legal language for access management in a roadway corridor that should also have an access management policy guide (“access management handbook”) and “access plan” (map and an accompanying text that locates and describes all of the roadways that are planned to intersect with the thoroughfare and the planned system of feeder roads for motorists to reach the thoroughfare) associated with it.

The Access Plan is a plan adopted as part of, or as an addendum to, the Comprehensive Plan of a municipality. In fact, both the Access Management Plan and Access Plan may be considered prerequisites for the Controlled-Access Roadway Corridor Overlay District, since the text for the District specifically references both the Access Management Handbook and the Access Plan. Planning for access management, including developing an Access Management Plan and Access Plan specifically tailored to the local situation, is highly recommended, as opposed to simply trying to alter parts of the model ordinance. The PennDOT Access Management Handbook is one possible tool to use in lieu of preparing an Access Management Plan, although it may lack sufficient specificity to be completely useful in the local setting.

The text for the Controlled-Access Roadway Corridor Overlay District covers all situations where decisions concerning access to properties bordering the thoroughfare must be made in the context of zoning. These situations would include land development, change of use, change of intensity of use, change of zoning, application for building permit, application for zoning permit, application for driveway access permit, and application for certificate of occupancy.

The Controlled-Access Roadway Corridor Overlay District essentially requires that new development in the corridor gain access from the thoroughfare via Designated Intersecting Roadways, as described in the Access Plan, and not via new driveways directly from the thoroughfare. In order to gain access directly from the thoroughfare, a Conditional Use must be granted by the governing body of the municipality. This Conditional Use may be granted only when certain criteria have been met, including, among others, access arrangements that are consistent with the guidelines contained in the municipality’s adopted Access Management Handbook.



ARTICLE X: CONTROLLED-ACCESS ROADWAY CORRIDOR OVERLAY DISTRICT

X.01 Intent.

The intent of this Article to provide for reasonable access to all uses in the Controlled-Access Roadway Corridor Overlay District, while promoting a high level of safety and mobility on controlled-access roadways. More specifically, these provisions are designed to:

- A) Recognize the significance of designated roadways to carry traffic between communities and, in particular, of their role as part of the regional highway system;
- B) Allow designated roadways to function as efficient thoroughfares now and in the future;
- C) Minimize circumstances that will negatively affect the ability of designated roadways to provide safe and efficient movement of traffic;
- D) Allow for access to properties along designated roadways in accordance with access plans for each controlled-access roadway;
- E) Protect the health, safety, and welfare of all residents and visitors through the promotion of sound land development practices;
- F) Aid in the implementation of the Comprehensive Plan [and Official Map] and the attainment of its [their] goals and objectives.

X.02 Definitions.

- A) **Access Plan** – A plan adopted as part of, or as an addendum to, the Comprehensive Plan that establishes conditions of vehicular access for a controlled-access roadway.
- B) **Controlled-Access Roadway** – Any road designated as such in the Comprehensive Plan.
- C) **Controlled-Access Roadway Corridor** – A strip of land, including a controlled-access arterial road, its right-of-way, and additional area, delineated by lines parallel to the right-of-way and sixty (60) feet on either side of it.
- D) **Designated Intersecting Roadway** – A roadway that intersects with a controlled- access roadway for the purposes of serving as a feeder road to the controlled- access roadway. This roadway is designated by means of an access plan.

X.03 Applicability and Scope.

The Controlled-Access Roadway Corridor Overlay District shall apply to any controlled-access roadway corridor as designated in the Comprehensive Plan [or Official Map]. Where the requirements of the Controlled-Access Roadway Corridor Overlay District shall conflict with any requirements of the underlying zoning district, requirements of the Controlled-Access Roadway Corridor Overlay District shall take precedence.

X.04 Access to a Controlled-Access Roadway.

All vehicular access to a controlled-access roadway, except as indicated below, shall be by means of a designated intersecting roadway, in accordance with an access plan for each controlled-access roadway. No road, driveway, shared access, service road, or other access arrangement with respect to a controlled-access roadway shall be established, reconstructed, or removed without first meeting the requirements of this Article.

- A) The access plan shall be adopted as part of the Comprehensive Plan [or Official Map] and shall indicate designated intersecting roadways to a controlled-access roadway as determined by [the municipality] in consultation with the Planning Commission, the Allegheny County Planning Commission, the Pennsylvania Department of Transportation, and adjoining municipalities;
 - 1. Designated intersecting roadways shall be spaced generally at least one-half mile apart along the controlled-access roadway and shall in no case be spaced closer than one-quarter mile apart;
 - 2. The access plan shall indicate methods by which tracts that abut controlled-access roadways may achieve vehicular access by means of designated intersecting roadways. In addition, such access means may include existing roads, new roads, and new service drives;
- B) Tracts that abut controlled-access roadways may achieve emergency vehicle access from the right-of-way of a controlled-access roadway by means of a designated emergency access easement. Such access shall be permitted only in cases where a designated emergency access easement has been included as part of an approved subdivision and land development and where the easement does not include any curb cuts along the controlled-access roadway nor any type of travelway or driveway that may be used by vehicular traffic other than emergency vehicles.

X.05 Construction within Controlled-Access Roadway Corridor.

No structure other than signs, as allowed elsewhere in this Ordinance, telephone poles, and other utility structures that are not buildings, shall be permitted within the Controlled-Access Roadway Corridor. In addition, the following regulations shall govern the placement of other facilities within a Controlled-Access Roadway Corridor:

- A) No parking areas, driveways, interior roadways or display of vehicles, goods or other materials for sale, shall be located within thirty (30) feet of the right-of-way of a controlled-access roadway. This setback shall be planted in grass and landscaped with small clusters of salt tolerant trees and shrubs suitable to the underlying soils.

X.06 Nonconforming Access.

Driveways that do not conform to the regulations in this Article, and were constructed before the effective date of this Article, shall be considered legal nonconforming driveways;

- A) Loss of legal nonconforming status occurs when a nonconforming driveway ceases to be used for its intended purpose for a period of twelve (12) months or more. Any reuse of the driveway may only take place after the driveway conforms to all aspects of this Article;
- B) Legal nonconforming driveways may remain in use until such time as the use of the driveway or property is changed or expanded in number of vehicle trips per day or in the type of vehicles using the driveway. At this time, the driveway shall be required to conform to all aspects of this Article;

- C) Existing driveways that do not comply with the requirements of this Article shall be closed when an application for subdivision or land development is approved and a new means of access under this Article is granted. A closed driveway shall be graded and landscaped to conform with adjacent land and any curb cut shall be filled in;
- D) No existing driveway within the district shall be widened, unless its access to the controlled-access roadway is closed;
- E) Driveways that do not conform to the regulations in this Article and have been constructed after adoption of this Article shall be considered illegal nonconforming driveways.

X.07 Shared Access by Conditional Use.

The [governing body] is authorized to permit by Conditional Use access arrangements for properties to a controlled-access roadway that are not consistent with Section X.04 but that do incorporate the sharing of an existing driveway, subject to the following conditions:

- A) Access from the property to the controlled-access roadway by means of a designated intersecting roadway is, in the [governing body's] determination, not practicable at the time of the Conditional Use application; and
- B) Access from the property to the controlled-access roadway by means of an existing driveway to be shared by abutting properties is, in the [governing body's] determination, practicable at the time of the Conditional Use application; and
- C) The access arrangement is consistent with the guidelines contained in the [municipality's] adopted *Principles of Access Management* handbook; and
- D) The applicant and owner of an abutting property agree to an internal property circulation and parking scheme that affords vehicular movement to abutting property boundary lines and, in addition, to consent to sharing an existing access driveway; and
- E) Deed restrictions are executed and recorded that maintain sharing of the existing access driveway until such time as alternate access arrangements, consistent with the adopted Access Plan and Section X.04, above, may be implemented.

X.08 New Access by Conditional Use.

The [governing body] is authorized to permit by Conditional Use access arrangements for properties to a controlled-access roadway that are not consistent with Section X.04 and that do not involve sharing of existing driveways, subject to the following conditions:

- A) Access from the property to the controlled-access roadway by means of a designated intersecting roadway is, in the [governing body's] determination, not practicable at the time of the Conditional Use application; and
- B) Access from the property to the controlled-access roadway by means of an existing driveway to be shared by abutting properties is, in the [governing body's] determination, not practicable at the time of the Conditional Use application; and

- C) The access arrangement is consistent with the guidelines contained in the [municipality's] adopted *Principles of Access Management* handbook; and
- D) The applicant agrees to an internal property circulation and parking scheme that affords vehicular movement to abutting property boundary lines and, in addition, to consent to sharing access driveways with abutting properties when practicable; and
- E) The applicant agrees that, at such time that access from the property to the controlled-access roadway by means of a designated intersecting roadway becomes practicable, he will close any driveways installed under the Conditional Use provisions; and
- F) Deed restrictions are executed and recorded that maintain the agreements made by the applicant in Subsections D and E, above, until such time as alternate access arrangements, consistent with the adopted Access Plan and Section X.04, above, may be implemented.

MODEL ZONING PROVISIONS – TRANSIT-ORIENTED DEVELOPMENT

Transit-Oriented Development (TOD) is characterized by compact, mixed-use development centered on transit stations. Concentrating complementary residential, commercial, and office uses around transit stations in a pedestrian-friendly environment creates an efficient land use setting in support of transit usage and provides convenience, mobility, and economy for residents, employees, and visitors. The model zoning provisions for TOD, following, explicitly support the following characteristics that are typically associated with TODs:

- A mix of land uses including residential, retail, office, and civic space;
- A strong network of pedestrian connections, amenities and proximity of destinations to promote a safe, convenient, and walkable environment;
- More intense development closest to the transit facility, with a gradual reduction in intensity as one moves outwards;
- “Infilling” existing districts and neighborhoods;
- Orientation of buildings and building access to streets;
- Reduction in parking requirements where compared with conventional development;
- Balancing of land uses to maintain a steady flow of activity throughout the day and evening;
- Safe, attractive, and convenient transit stations; and
- Office and retail destinations within 1/8-mile of the transit station and the majority of residential units within 1/4-mile of the transit station. This configuration matches research that concludes that commuters will walk 1/8-mile from a transit station on a commute to work, but that they will walk a somewhat greater distance (1/4-mile) to transit stations from home.



MODEL ZONING PROVISIONS FOR ALLEGHENY COUNTY TOD PLACES

ARTICLE Y: TRANSIT-ORIENTED DEVELOPMENT DISTRICTS

Y00	General Provisions
Y01	Permitted Uses
Y02	Development Standards — Development Parcels
Y03	Development Standards — Roadways
Y04	TOD Station District
Y05	TOD Primary Pedestrian District
Y06	TOD Secondary Pedestrian District

Y00 GENERAL PROVISIONS

Y00.01 Definitions.

Unless otherwise expressly stated, the following words shall, for the purpose of this Article, have the meanings indicated:

Cartway	The extent of a street from curb to curb, including the travelway, shoulders, and on-street parking areas.
Neck-down	A traffic calming device, usually at intersections, in which the curb line is brought out to the edge of the travelway. The effect of a neck-down is to reduce the effective width of the street for pedestrians, while maintaining the width of the street for the movement of traffic.
Primary pedestrian frontage	A streetscape in which the front façades of buildings are constructed up to the street right-of-way and for which there are no building setbacks.
Right-of-way	A strip of land occupied by a street, including its cartway, boulevard, and sidewalks.
Streetscape	The area between building façades on either side of a street or between properties on either side of a street, encompassing its cartway, boulevards, sidewalks, setbacks, and property façades or frontages.
TOD station district	A zoning district in the immediate vicinity of a transit station and encompassing lands generally within 1/8-mile of the transit station.
TOD primary pedestrian district	A zoning district adjacent to a TOD Station District and encompassing lands generally with 1/4-mile of a transit station.
TOD secondary pedestrian district	A zoning district adjacent to a TOD Primary Pedestrian District and encompassing lands generally with 1/2-mile of a transit station.
Traffic calming	Physical measures taken within the right-of-way of a street that have the effect of increasing pedestrian safety. Traffic calming may be achieved by devices that lessen pedestrians' exposure to vehicles, increase pedestrians' visibility to motorists, reduce vehicular speeds, or have a combination of these effects.

Transit station	A location for passenger boarding and alighting from public transportation vehicles traveling on fixed guideways, including rail stations.
Travelway	The lanes of a street for moving traffic and any shoulders between the lanes and on-street parking areas.

Y00.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in transit-oriented development districts in accordance with Section Y01.

Y00.03 Conditional Uses.

The [governing body] is authorized to grant Conditional Uses for uses specified in Section Y01 in accordance with Article ____ and for applications meeting the following criteria:

- A) The use shall not generate high levels of vehicular traffic, nor noise, noxious odors, air pollution, or glare;
- B) The manner, location, and hours of operations and of deliveries to the premises shall be compatible with the daily cycle of active and quiet periods associated with any adjacent or nearby residential uses;
- C) The use shall complement other uses in the district, creating a mixed-use character that contributes toward an increased rate of pedestrian access to local services, including transit, minimized auto-trip generation, and additional security for district businesses;
- D) Additional Conditional Use criteria specified in Sections of this Article are met, when appropriate.

Y00.04 Accessory Uses.

Accessory uses are permitted in accordance with Article ____.

Y00.05 Buffers.

Buffers shall be provided in accordance with Article ____.

Y00.06 Signs.

Signs shall be in accordance with Article ____.

Y00.07 Sewer and Water Facilities.

All development in transit-oriented development districts shall be served by central water and sanitary sewer facilities acceptable to the [governing body] and subject to the approval of the Pennsylvania Department of Environmental Protection or its successor agency and the appropriate municipal authority providing water or sewer facilities.

Y00.08 Performance Standards.

Any activity or use in transit-oriented development districts shall comply with the performance standards of Article ____.

Y00.09 Street and Parcel Layout.

Transit-oriented development districts shall consist of an interconnected grid or modified grid layout of streets with development parcels generally bounded by streets formed as part of this layout. Rights-of-way and streets shall be in accordance with Section Y03.

Y00.10 Pedestrian and Bicycle Orientation.

Transit-oriented development districts shall facilitate pedestrian and bicycle access to the transit station and a high level of mobility throughout TOD districts. Sidewalks and bike lanes shall be provided in accordance with Section Y03. Additional routes for pedestrians and cyclists, such as mid-block cut throughs and all-weather trails, shall also be provided. Intersection neck-downs shall be provided wherever feasible. Traffic calming techniques shall be employed to promote pedestrian safety.

Y00.11 Use Mix.

Transit-oriented development districts shall consist of a mix of land uses. TOD Station Districts shall substantially comprise street-level shops, with office and residential uses above. TOD Primary Pedestrian Districts shall substantially comprise residential uses with retail uses oriented to local residents. TOD Secondary Pedestrian Districts shall comprise a mix of residential, retail, and other uses. Institutional uses, ranging from community centers and post offices to day-care centers, schools, and libraries, are recommended in transit-oriented development districts and strongly recommended in TOD Station Districts.

Y00.12 Transit Station.

Transit stations shall be located centrally within a TOD Station District, with a high degree of accessibility, surrounded by a closely-related mix of retail, office, and residential uses. Transit stations shall provide covered platforms and bicycle storage space for transit patrons. Access, drop-off, and waiting opportunities for rubber-tired transit vehicles (feeder bus, shuttle bus) and other vehicles (private auto, taxi) shall be provided. Civic open space shall be provided adjacent to the transit station.

Y00.13 Parking and Loading.

On-street parking is required in accordance with Section Y03. Off-street parking and loading shall be provided in accordance with Article _____. On-street parking spaces located within five hundred (500) feet of a use may be credited toward required off-street parking spaces as specified in Article _____. Off-street parking should take the form of small lots behind buildings and as part of structures containing other uses, such as retail, residential, and office uses.

Y00.14 Open Space.

Linear open space corridors shall be provided to facilitate pedestrian and bicycle connections to the transit station as well as from TOD Station Districts to TOD Primary Pedestrian Districts and TOD Secondary Pedestrian Districts. Non-linear open space in TOD Station Districts shall be usable for civic and community functions. TOD Primary Pedestrian Districts

shall contain open space areas for passive recreation and tot-lots. TOD Secondary Pedestrian Districts shall contain substantial open space areas for active and passive recreation. Open space shall protect natural features, including floodplains, wetlands, and tree masses.

Y00.15 Natural and Landscaped Areas.

Except as provided for in specific sections of this Article, all portions of a tract not occupied by buildings and required improvements shall be maintained as landscaped areas consisting of natural environmental features and/or planted vegetation.

MODEL ZONING PROVISIONS FOR ALLEGHENY COUNTY TOD PLACES

Section Y01: Permitted Uses – Transit-Oriented Development Districts

Use Classification	DISTRICTS		
	STN.	PP	SP
Use Classification			
1. Stores and personal service shops dealing directly with customers	P	P	SE
2. Restaurants or other similar establishments, but excluding drive-in facilities	P	P	CU
3. Banks, but excluding drive-in facilities	P	P	CU
4. Cinemas or similar recreational or cultural establishments	P	P	CU
5. Exercise or fitness facilities	P	P	SE
6. Studios for dance, art, music or photography	P	P	SE
7. Nursery schools or day care centers	P	P	SE
Business or professional offices, including:			
1. Operations designed to attract and serve customers or clients on the premises, such as the offices of physicians, lawyers, other professions, veterinarians (but excluding animal boarding facilities), insurance and stock brokers, travel agents, & government entities	P	P	CU
2. Operations designed to attract little or no customer or client traffic other than employees of the entity operating the principal use	P	P	CU
Hotels, motels or inns	P	CU	
Bed & breakfast establishments	P	P	P
Lawn and garden centers			CU
Not-for-profit museums, libraries or other educational, cultural, religious, civic or philanthropic uses of a similar nature	P	P	CU
Public or private not-for-profit open space and recreation uses	P	P	P
For-profit open space and recreation uses		CU	P
Transit stations or public utility facilities	P	P	P
Animal hospital, veterinarian, or kennel		P	CU
Single-family detached residential dwellings (SFD)			P
Two-family residential dwellings (2F)		CU	P
Single-family attached residential dwellings (SFA)		P	P
Multi-family residential dwellings (MF)	P	P	P
Residences, in mixed-use commercial-residential or institutional-residential buildings	P	P	SE
Drive-in facility			CU
Non-accessory antennas			CU
Public garage, motor-vehicle sales, service or repair shop, gasoline service station and motor vehicle parking lot		CU	CU

P Permitted
STN. Station District

SE Special Exception
PP Primary Pedestrian District

CU Conditional Use
SP Secondary Pedestrian District

MODEL ZONING PROVISIONS FOR ALLEGHENY COUNTY TOD PLACES

Section Y02: Development Standards – Transit-Oriented Development Districts

Standards	DISTRICTS		
	STN.	PP	SP
Maximum Tract Density (floor-area ratio[FAR])	1.2	0.8	0.6
Minimum Tract Density (floor-area ratio[FAR])	0.6	0.4	-
Maximum Tract Density (units per developable acre)	40	20	7
Minimum Tract Density (units per developable acre)	25	10	-
Minimum Tract Area (square feet)	1,000	2,500	5,000
Maximum Building Coverage (% of tract)*	55	45	35
Maximum Impervious Coverage (% of tract)	65	55	45
Central Water & Sewer Facilities Required	Yes	Yes	Yes
Maximum Height - Principal Structures (feet)	65	45	35
Minimum Height - Principal Structures (feet)	35	25	-
Maximum Height - Accessory Structures (feet)	45	50% height of tallest principal structure	16
Minimum Lot Width at Right-of-Way Line (feet)	20	20	20
Minimum Lot Width at Building Setback Line (feet)	20	20	30
Minimum setbacks from streets (feet):			
■ Any building face to arterial street ultimate right-of-way	0	0	20
■ Any building face to collector or local street ultimate right-of-way	0	0	10
■ Any building face to common parking area	5	5	10
■ Surface parking areas to arterial street ultimate right-of-way	20	20	30
■ Surface parking areas to collector street ultimate right-of-way	10	10	15
■ Surface parking areas to local street ultimate right-of-way	10	10	10
Maximum setbacks from streets (feet):			
■ Any building face to arterial street ultimate right-of-way	5	10	-
■ Any building face to collector or local street ultimate right-of-way	0	5	-
Minimum principal structure setbacks from tract perimeter (excluding street frontages) (feet):			
■ From other like-zoned tracts	5	5	10
■ From other district boundary lines	10	10	15
Minimum principal building spacing (feet):			
■ Window wall to windowless wall	20	20	20
■ Window wall to window wall			
a) Front to front	40	40	50
b) Rear to rear	35	35	45
c) End to end	25	25	35
d) Front to rear	40	40	50
e) Front to end	40	40	50
f) Rear to end	35	35	45

* Excluding parking structures required to meet minimum off-street parking requirements.

MODEL ZONING PROVISIONS FOR ALLEGHENY COUNTY TOD PLACES

Section Y03: Development Standards – Transit-Oriented Development Districts Roadway Types

Standards	ROADWAY TYPES						
	Arterial	Collector	Boulevard	Mixed Use	Residential	Alley	
	As per Place Master Plan		Entry Roadway into District or Development	Collector or Local Fronting Mixed Uses	Collector or Local Fronting Residential	Access to Interior of Blocks	
Design Speed	40	30	30	25	25	15	
Right-of-Way Width (feet)	86	64	78	64	52	18	
Paved Width (Cartway) (feet)	66	44	22 x 2 = 44	44	24 – 28	18	
Parking, both sides	Yes	Yes	Yes	Yes	Yes *	No	
Parking, one side	No	No	No	No	Yes **	No	
Concrete or Granite Curbing	Yes	Yes	Yes	Yes	Yes	No	
Central Landscaped Area (14-foot-wide boulevard)	No	No	Yes	No	No	No	
Side Landscaped Areas (5 feet between cartway & sidewalks)	Yes	Yes	Yes	Yes	Yes	No	
Sidewalks (both sides)	Yes	Yes	Yes	Yes	Yes	No	
Bikeways (both sides)	Yes	Yes	Yes	Yes	No	No	
Street Lights (both sides)	Yes	Yes	Yes	Yes	Yes	One Side	
Street Lights -- Maximum Height (feet)	16	16	16	16	16	16	
Street Lights -- Maximum Spacing (one side) (feet)	90	80	70	60	60	60	
Shade (Street) Trees (both sides)	Yes	Yes	Yes + Blvd.	Yes	Yes	No	
Shade (Street) Trees -- Maximum Spacing (one side) (feet)	80	70	60	40	40	–	

* 28-foot-wide cartway

** 24-foot-wide cartway

Y04 TOD STATION DISTRICT

Y04.01 Intent.

The intent of the TOD Station district is to provide for the combining of offices, stores and shops, hotels and inns, higher-intensity residential uses, and civic, public, and semi-public uses in a closely-knit walking precinct at transit stations. It is the purpose of these regulations to encourage a diversification of uses in each TOD Station district and to promote close interrelationships among different uses; high-quality, visually-attractive, and environmentally-responsible site design and buildings; efficient circulation systems; conservation of land and energy resources; reduced rates of auto-trip generation; and increased opportunities for pedestrian circulation. In addition, the specific intent of the district is to:

- A) Encourage the development of land and buildings at transit stations for a variety of uses, either individually or together within the same building, for compatible mixed-use developments;
- B) Permit the development of functionally-related land uses in a manner that is supportive of transit usage and that is more efficient, environmentally-sensitive, and mutually-supporting than conventional sprawling, strip-type, low-intensity suburban development;
- C) Maximize transit patronage and minimize auto-trip generation through maximizing opportunities for pedestrian mobility to transit and pedestrian movement and patronage of multiple facilities in a development district that emphasizes the interrelationship of uses and structures;
- D) Establish a framework for development that anticipates and encourages the necessary conditions for a high level of transit utilization and pedestrian circulation;
- E) Provide for civic, public, and semi-public uses, including exterior common use areas, convenient to office and commercial concentrations, so as to function for the general benefit of the community as places for relaxation, recreation, and social activity;
- F) Enhance the functional values of natural and landscaped areas for developed areas, including groundwater recharge, runoff control, and microclimate moderation.

Y04.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in TOD Station districts in accordance with Section Y01.

Y04.03 Development Standards.

Uses shall occur in accordance with the standards of Section Y02.

Y04.04 Pedestrian Frontages.

At least seventy-five percent (75%) of streetscapes in TOD Station districts shall be primary pedestrian frontages.

Y04.05 Building Size and Spacing.

The greatest dimension of a structure, measured parallel to exterior walls, shall not exceed two hundred (200) feet. The minimum distance between structures shall be ten (10) feet, except that all structures connected by a common roof line or effectively connected by means of intervening covered areas shall be considered as one (1) structure.

Y05.06 Orientation of Retail and Service Commercial Premises.

Patron access to commercial premises shall be by way of a door or similar opening giving access directly from the sidewalk along the front of the property or directly from the street right-of-way.

Y04.07 Pedestrian Circulation Provisions for Natural and Landscaped Areas.

Natural and landscaped areas, as provided for in Section Y00.15, shall predominantly consist of natural environmental features or planted and maintained vegetation, but up to twenty percent (20%) of the total area may also consist of exterior common use areas such as pedestrian paths, sidewalks, plazas, courtyards, and recreational amenities. Whenever practicable, ground surfaces in common use areas shall be constructed of pavers in a sand setting bed with permeable joints, or similar partly-pervious surface treatments.

Y05 TOD PRIMARY PEDESTRIAN DISTRICT

Y05.01 Intent.

The intent of the TOD Primary Pedestrian district is to provide for the combining of medium-high intensity, residential uses, stores and shops, offices, and civic, public, and semi-public uses in a closely-knit walking precinct close to transit stations. It is the purpose of these regulations to encourage a diversification of uses in each TOD Primary Pedestrian district and to promote close interrelationships among different uses; high-quality, visually-attractive, and environmentally-responsible site design and buildings; efficient circulation systems; conservation of land and energy resources; reduced rates of auto-trip generation; and increased opportunities for pedestrian circulation. In addition, the specific intent of the district is to:

- A) Encourage the development of land and buildings close to transit stations for a variety of uses, either individually or together within the same building, for compatible mixed-use developments;
- B) Permit the development of functionally-related land uses in a manner that is supportive of transit usage and that is more efficient, environmentally-sensitive, and mutually-supporting than conventional sprawling, strip-type, low-intensity suburban development;
- C) Maximize transit patronage and minimize auto-trip generation through maximizing opportunities for pedestrian mobility to transit and pedestrian movement and patronage of multiple facilities in a development district that emphasizes the interrelationship of uses and structures;
- D) Establish a framework for development that anticipates and encourages the necessary conditions for a high level of transit utilization and pedestrian circulation;

- E) Provide for public and semi-public uses, including exterior common use areas, convenient to medium-high density residential concentrations, so as to function for the general benefit of the community as places for relaxation, recreation, and social activity;
- F) Enhance the functional values of natural and landscaped areas for developed areas, including groundwater recharge, runoff control, and microclimate moderation.

Y05.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in TOD Primary Pedestrian districts in accordance with Section Y01.

Y05.03 Development Standards.

Uses shall occur in accordance with the standards of Section X02.

Y05.04 Pedestrian Frontages.

At least fifty percent (50%) of streetscapes in TOD Primary Pedestrian districts shall be primary pedestrian frontages.

Y05.05 Retail and Service Commercial Uses.

Retail and service commercial uses shall be contained in multistory, mixed-use structures with retail and service commercial uses on the ground level and office and/or dwellings on the upper levels. The greatest dimension of a structure, measured parallel to exterior walls, shall not exceed two hundred (200) feet. The maximum ground level footprint of a retail and service commercial building shall be twenty thousand (20,000) square feet. The minimum distance between structures shall be ten (10) feet, except that all structures connected by a common roof line or effectively connected by means of intervening covered areas shall be considered as one (1) structure.

Y05.06 Orientation of Retail and Service Commercial Premises.

Patron access to commercial premises shall be by way of a door or similar opening giving access directly from the sidewalk along the front of the property or directly from the street right-of-way.

Y05.07 Pedestrian Circulation Provisions for Natural and Landscaped Areas.

Natural and landscaped areas, as provided for in Section Y00.15, shall predominantly consist of natural environmental features or planted and maintained vegetation, but up to twenty percent (20%) of the total area may also consist of exterior common use areas such as pedestrian paths, sidewalks, plazas, courtyards, and recreational amenities. Whenever practicable, ground surfaces in common use areas shall be constructed of pavers in a sand setting bed with permeable joints, or similar partly-pervious surface treatments.

Y06 TOD SECONDARY PEDESTRIAN DISTRICT

Y06.01 Intent.

The intent of the TOD Secondary Pedestrian district is to provide for the combining of moderate-intensity residential uses, stores and shops, offices, and civic, public, and semi-public uses in areas near to transit stations. It is the purpose of these regulations to encourage a diversification of uses in each TOD Secondary Pedestrian district and to promote close interrelationships among different uses; high-quality, visually-attractive, and environmentally-responsible site design and buildings; efficient circulation systems; conservation of land and energy resources; reduced rates of auto-trip generation; and increased opportunities for pedestrian circulation. Furthermore, it is the intent to:

- A) Establish or reinforce moderate-intensity, mixed-use areas, following the precedent of traditional towns, by keeping a variety of different, reasonably-compatible uses together in a closely-knit setting;
- B) Provide for convenient, local services for residents living in and near to these areas and opportunities for short-distance trips by automobile or alternate means, such as by bicycle or on foot;
- C) Encourage the use of transit;
- D) Allow for moderate-intensity commercial uses where more intensive commercial use would have adverse effects on adjacent and neighboring residential areas;
- E) Minimize auto-trip generation through maximizing opportunities for pedestrian movement and patronage of multiple facilities in a development district that emphasizes the interrelationship of uses and structures;
- F) Establish a framework for development that anticipates and encourages the necessary conditions for a high level of pedestrian circulation.
- G) Enhance the functional values of open space and landscaping for developed areas, including groundwater recharge, runoff control, microclimate moderation, noise attenuation, and visual buffering.

Y06.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in TOD Secondary Pedestrian districts in accordance with Section Y01.

Y06.03 Development Standards.

Uses shall occur in accordance with the standards of Section X02.

CRITERIA FOR CONSISTENCY REVIEW — A CHECKLIST FOR ACED STAFF USE

LAND USE

Local Comprehensive Plans, Area Master Plans, and Ordinances

Is it generally consistent with the Future Land Use Plan's distribution of land uses?

Does it recognize and support the Future Land Use Plan's designation of Places, infill areas, conservation areas, and parks, open space, and greenways?

Does it provide for relatively-dense, mixed-use, walkable, and transit-friendly districts? [Not every plan or ordinance will need to do this but, central as the question is to *Allegheny Places* generally, it ought at least to be asked.]

Land Developments

If the use is an "urban" use (residential, commercial, industrial, institutional), is it proposed for a location consistent with where the Future Land Use Plan directs such uses (ie Places or infill areas)?

Is the intensity of use and size of project proposed consistent with the Future Land Use Plan's directing of major (intense, large) development to Places (i.e. major new developments not directed to infill areas)?

Is it a Development of Multi-Municipal Impact (DMMI)?

Will the use contribute to the revitalization of existing developed areas, or, if not, will it contribute to the development of a relatively-dense, mixed-use, walkable, and transit-friendly Place?

Does the proposal mix uses, or, if not, does it positively contribute uses that will, together with existing and prospective development, form a mixed-use neighborhood, district, or Place?

Is the use accessible to transit, pedestrians, and cyclists? If not, does it, though its features, anticipate and accommodate these modes being provided in the short- and/or medium-term future?

ECONOMIC DEVELOPMENT

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it provide a variety of locations and opportunities for employment, and respond to and accommodate current and prospective trends in business and industry?

Does it provide for a balance of housing and jobs?

Does it provide for close home-work linkages, including employment within walking distance of housing?

Land Developments

Does it provide for the kinds of jobs that match the skills of the resident labor force?

Is it supportive of the Comprehensive Plan's endorsement of mixed-use development?

Does it address the home-work commute? Does it anticipate and accommodate employee and visitor access by multiple modes from the region?

Does it anticipate and accommodate access by the resident labor force, including pedestrians, cyclists, and transit users?

Does it address the needs of employees for services during the workday, including retail services, day care, and recreation?

Are the impacts reasonable? Is the site appropriate for the use?

Does it anticipate and accommodate additional uses (residential, commercial, industrial, institutional) that may follow its implementation?



HOUSING

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it provide for a variety of housing opportunities, including affordable housing, to meet the needs of residents as they move through the life cycle?

Are there adequate areas to accommodate single-family detached, single-family attached, and multi-family units?

Do at least some districts allow for small-lot single-family detached units?

Is there provision for units for residents with specialized needs in housing?

Are accessory apartments permitted?

Do at least some districts allow for a wide range of housing types by right (versus special exception or conditional use)?

Are mixed-use developments encouraged?

Land Developments

Does it meet a local need for certain types of housing? An area need? A regional need?

Does it contribute toward a balance of uses (residential, commercial, industrial, institutional) in the community?

Does it contribute toward a balance of types of residential units in the community?

Does it provide work-live units?

Does it contain a mix of uses so that, for example, residents can reach retail services without making vehicular trips?

Does it have mixed-use buildings, so as to maximize residents' convenience to services?

Do residents have convenient opportunities to reach destinations (jobs, school, day care, shopping, recreation) by means other than private vehicles?

Is the development connected to the greenway system by an open space linkage? By some other means?

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it accommodate the range of spaces, facilities, and programs outlined for the type of community (small, mature suburban, rapidly-growing edge, urban) in the Comprehensive Plan?

Does it provide strategies to achieve the range of spaces, facilities, and programs outlined for the type of community (small, mature suburban, rapidly-growing edge, urban) in the Comprehensive Plan?

Does it acknowledge a need to conserve open space and identify strategies to do it?

Does it recognize the countywide greenway system and support its implementation?

Land Developments

Are there appropriate facilities to accommodate the recreation and open space needs of the expected population? If not, will the developer contribute financially or otherwise to off-site accommodation of recreation and open space needs of the expected population?

Is the open space distributed logically throughout the development and are spaces linked to one another? Is there a means to circulate conveniently and safely within the open space and within the development on foot? By bicycle?

Is the development connected to the greenway system by an open space linkage? By some other means?

RESOURCE EXTRACTION

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it address the issue of mitigating effects of resource extraction, if applicable?

Land Developments

Will land development contribute positively to cleanup of mined areas?

AGRICULTURE

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it support agriculture as a viable economic activity, if applicable?

Land Developments

Does it threaten or support maintenance of economically-viable agricultural activities?

COMMUNITY FACILITIES

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it make provision for needed services and facilities?

Does it encourage sharing of services among providers?

Land Developments

Is it visible to its expected users? Is it easily found?

Is it accessible to its expected users by various means (vehicular, transit, pedestrian, bicycle)?

Is it accessible to its expected users, based on personal levels of mobility?

Will it provide multiple services at one location? Does it anticipate and accommodate expansion of services and of floor area?

TRANSPORTATION

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it provide for mobility by a variety of means (car, truck, rail, boat, air, transit, pedestrian, bicycle)?

Does it link Places, as designated in the County Comprehensive Plan?

Does it advocate 'complete streets', transit use, trails and other means for bicycle and pedestrian mobility?

Land Developments

What are its trip generation rates (automobiles, trucks, other)? Is there a traffic impact study? How will trips be accommodated? Is there a strategy to reduce automobile trip generation?

Does it have a grid or modified-grid systems of streets for multi-modal mobility?

Does it have 'complete streets', with sidewalks, crosswalks, landscaping, pedestrian-oriented lighting, provisions for transit stops and bicycle movement, and, in most cases, on-street parking?



UTILITIES

Local Comprehensive Plans, Area Master Plans, and Ordinances

Are utility extensions and expansions consistent with the Future Land Use Plan?

Does it address the need to conserve and protect water supplies?

Does it address the problem of stormwater management? Solid waste disposal? Sanitary sewer?

Does it support regionalization and shared use of utility assets?

Land Developments

What is its rate of stormwater generation? How does it address stormwater runoff?

What is its rate of water consumption? How is water conservation addressed?

What is its rate of solid waste generation? How is recycling and solid waste disposal handled?

ENVIRONMENTAL

Local Comprehensive Plans, Area Master Plans, and Ordinances

Is development directed to appropriate locations, in conformance with the Future Land Use Plan?

Does it address methods to reduce airborne emissions?

How are surface and ground water resources protected? Waterways and wetlands?

Land Developments

Is it designed so as to minimize impacts on environmentally-sensitive areas? What is the extent of natural features? Rare or endangered plants or wildlife?

Are physical disturbance and excavation minimized?

What are the rates of noise generation? Airborne emissions? Vibration?

What is the extent of outdoor illumination?

HISTORIC AND CULTURAL RESOURCES

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it protect historic and cultural resources, including viewsheds and corridors? How?

Does it promote historic and cultural resources? How?

Land Developments

Does it contribute to saving a resource from demolition or loss by neglect?

Does it contribute to the long-term protection of resources?

If adaptive reuse is proposed, is the extent and type of change appropriate?

ENERGY CONSERVATION

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it promote compact, mixed-use centers that allow for less use of the automobile, especially designated Places?

Does it promote reinvestment and adaptive reuse in existing centers?

Does it promote mobility by transit?

Does it promote alternative fuels? 'Green' buildings?

Land Developments

Is it a compact, mixed-use, walkable, bikable, and transit-friendly layout?

Is there a mix of residential and employment space, so that at least some workers can walk to their jobs?

Are there live-work units?

Are attached dwellings, multi-family residences, and multiple-unit structures present?

Are there shade trees? Any 'green' buildings?



TABLE 5.2 – Implementation Strategy for Allegheny Places

LAND USE				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Create Places that emphasize community.	1. Formulate master/urban design plans that incorporate mixed-use buildings, civic space, community facilities, and 'complete' streets, including sidewalks, crosswalks, landscaping, pedestrian-oriented lighting, transit stops, bicycle lanes, and on-street parking.	<ul style="list-style-type: none"> • Places Task Forces • Allegheny County Planning • COGs • Local Governing Bodies 	<p>High-priority Places – Now.</p> <p>Other Places – as set by schedule for Places development.</p>	Consultant fees to prepare Places plans. and Places regulations.
	2. Adopt new development regulations for each Place to achieve a mixing of uses and use tools such as form-based zoning and design controls to gain pedestrian-scaled settings and land development plans that follow through on the guidelines of the master/urban design plans.	<ul style="list-style-type: none"> • Places Task Forces • Local Governing Bodies • Allegheny County Planning • COGs 	When master/urban design plans are in final draft form.	Consultant fees to prepare Places regulations.

LAND USE				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Direct development, redevelopment and conservation to Places identified on the Future Land Use map.	1. Devise focused master/urban design plans and new zoning district regulations for Places.	<ul style="list-style-type: none"> Allegheny County Planning COGs Places Task Forces Local Governing Bodies DCED Other State Agencies 	High-priority Places – Now. Other Places – as set by schedule for Places development.	Consultant fees to prepare Places plans and Places regulations.
	2. Produce and distribute marketing brochures to solicit private partners to participate in the development/redevelopment of Places.	<ul style="list-style-type: none"> Allegheny County Planning COGs Places Task Forces Local Governing Bodies Other ACED 	When master/urban design plans are in final draft form.	Consultant fees to prepare brochures.
	3. Review and approve land development plans for Places.	<ul style="list-style-type: none"> Places Task Forces Local Planning Commissions Local Governing Bodies Allegheny County Planning PennDOT, DEP, other State Agencies 	When final land development plans are ready.	Some review costs may be passed on to developers.
	4. Construct land developments in Places.	<ul style="list-style-type: none"> Developers Local Governing Bodies PennDOT 	When final land development plans are approved.	Developers, possibly PennDOT and/or others.

LAND USE				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
C. Ensure that new development occurring outside of designated Places and Infill Areas is beneficial and necessary.	Coordinate Community Development Block Grant (CDBG) funding with infill areas identified on the Future Land Use map.	<ul style="list-style-type: none"> Allegheny County 	Now	Agency staff time, for the most part.
D. Encourage transit-oriented development.	Provide new and/or upgraded transit service for Places, including internal circulation and connections to external destinations.	<ul style="list-style-type: none"> Port Authority TMA's Allegheny County Planning COGs Places Task Forces 	In time for first new occupants and thereafter.	Developer or corporate entity may pay for internal service.

LAND USE				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
E. Promote municipal consistency with <i>Allegheny Places</i> .	1. Plan together, using the COGs structure as a mechanism for intermunicipal consultation, cooperation, and consensus-building, with the involvement of the County, State, and other planning partners, as appropriate.	<ul style="list-style-type: none"> Allegheny County Planning COGs Local Governing Bodies DCED Other State Agencies Other Planning Partners 	Now	Agency staff time, for the most part.
	2. Determine the Places that should be high-priority ones and for which focused master/urban design plans need to be prepared.	<ul style="list-style-type: none"> Allegheny County Planning Other ACED COGs Local Governing Bodies 	Now	Agency staff time, for the most part.
	3. Establish Places Task Forces for each high-priority Place, to oversee the preparation of focused master/urban design plans.	<ul style="list-style-type: none"> Allegheny County Planning COGs Local Governing Bodies 	Now + 6 mos.	Agency staff time, for the most part.
	4. Limit the amount, extent, and intensity of new development outside designated Places.	<ul style="list-style-type: none"> Allegheny County Planning COGs Local Governing Bodies DCED, PennDOT, DEP Other State Agencies 	Now	Agency staff time, for the most part.
	5. Work to establish the interconnecting greenway network of the Future Land Use Plan.	<ul style="list-style-type: none"> Allegheny County Planning COGs Local Governing Bodies DCNR, DEP, DCED Other Planning Partners 	Now	Possible purchase of easements for public access.

HISTORIC AND CULTURAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Promote and protect historic and cultural resources.	1. Establish a Historic Resources volunteer committee with one Planning Division employee to be responsible for overseeing the implementation of the Historic & Cultural Resources Plan.	<ul style="list-style-type: none"> Allegheny County Planning Division 	Short-Term (1-2 years)	Dependent on existing staff or new hire
	2. Conduct a comprehensive county survey of historic sites.	<ul style="list-style-type: none"> Historic Resources Committee Historic Preservation Organizations Local foundations and State agencies (funding) 	Short-Term	\$5,000 to \$10,000 per year
	3. Work with the Local Government Academy to provide education and training to elected officials on the importance of historic and cultural resources.	<ul style="list-style-type: none"> Historic Resources Committee Local Government Academy 	Short-Term	N.A.
	4. Promote historic resources in the County through brochures, historic tour opportunities, a news campaign, and County website.	<ul style="list-style-type: none"> Historic Resources Committee (create the brochures, lead tours, etc.) Allegheny County Department of Computer Services (update website) Local Foundations, state agencies and private partners (supply funding) 	Medium-Term (3-5 years)	\$5,000 to \$10,000 yearly
	5. Provide development incentives to preserve resources such as density bonuses, grants for preservation from a municipal or outside source, or tax incentives (i.e. donating property or easement).	<ul style="list-style-type: none"> Municipalities Allegheny County Economic Development Foundations, Private Partners 	Medium-Term	Dependent on the incentive
	6. Work with municipalities to establish historic districts under the Historic District Act and/or the MPC, by utilizing historic district ordinances available through PHMC or Allegheny County.	<ul style="list-style-type: none"> Historic Resources Committee Allegheny County Planning Division 	Medium-Term	N.A.

HISTORIC AND CULTURAL RESOURCES				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
	7. Apply to become a <i>Preserve America</i> Community, and incorporate their goals into the revitalization of the <i>Allegheny Together</i> Communities.	<ul style="list-style-type: none"> • <i>Allegheny Together</i> Staff 	Medium-Term	N.A.
	8. Update the Historic & Cultural implementation strategies after completing the historic resource survey, and with input from the County's citizens, municipalities, historical societies, and other preservation-oriented groups.	<ul style="list-style-type: none"> • Historic Resources Committee 	Medium-Term	N.A.
B. Utilize cultural resources as a tool to stimulate economic development.	1. Identify heritage tourism opportunities in Allegheny County.	<ul style="list-style-type: none"> • Historic Resources Committee 	Short-Term	N.A.
	2. Market historic and cultural resources as a feature of new and revitalizing Places.	<ul style="list-style-type: none"> • Historic Resources Committee (create the marketing materials) • Municipalities (utilize marketing materials when developing Places) • COGs (utilize marketing materials when developing Places) 	Medium to Long Term (3+ years)	N.A.
C. Encourage cooperation between historical and cultural organizations throughout the County.	Work with the Councils of Government (COGs) to attend one of their municipal meetings yearly to educate municipalities on incentives for historic properties.	<ul style="list-style-type: none"> • Historic Resources Committee 	Short-Term	N.A.

HISTORIC AND CULTURAL RESOURCES				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
D. Protect historic landscapes including viewsheds and corridors.	1. Identify additional Heritage Park tourism opportunities in the region.	<ul style="list-style-type: none"> • Historic Resources Committee • Surrounding Counties 	Short-Term	N.A.
	2. Apply for funding from PA Department of Conservation and Natural Resources for identified Heritage Park opportunities.	<ul style="list-style-type: none"> • Historic Resources Committee 	Medium to Long Term	N.A.

ECONOMIC DEVELOPMENT				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Prioritize development and redevelopment in accordance with the Guiding Principles.	Use public and foundation funding and technical assistance to support investment in these locations.	<ul style="list-style-type: none"> Federal, State, Regional, County, & Local Governments Foundations Other Planning Partners 	Thru planning period	Mixture of public & private funding.
B. Target investment to increase job opportunities where low- and moderate-income people live.	Direct public funding to appropriate locales; guide foundation and private funding as well.	<ul style="list-style-type: none"> Federal, State, Regional, County, & Local Governments Foundations Other Planning Partners 	Thru planning period	Mixture of public & private funding.
C. Match development types to Places identified in the Future Land Use Plan.	Follow Plan recommendations by type of Place.	<ul style="list-style-type: none"> Allegheny County Planning Allegheny Co. Economic Dvlp. Places Task Forces Local Governing Bodies COGs DCED 	Thru planning period	Agency staff time, for the most part.
D. Support and recruit industry targets identified in the Future Land Use Plan.	Follow Plan recommendations to encourage 'driver' industries.	<ul style="list-style-type: none"> Allegheny Co. Economic Dvlp. Allegheny County Planning 	Thru planning period	Agency staff time, for the most part.
E. Work with the educational system to produce and attract skilled workers.	Train computer and health care professionals, as well as other specialists needed by industry.	<ul style="list-style-type: none"> Community College of Allegheny County Workforce Investment Board 	Thru planning period	Agency staff time, for the most part.
F. Advance a uniform, streamlined development process throughout the county.	Train municipal officials	<ul style="list-style-type: none"> Pennsylvania Municipal Planning Education Institute Allegheny Co. Economic Dvlp. Allegheny County Planning 	Thru planning period	Agency staff time, for the most part.
G. Require that new developments provide for pedestrians and are completely accessible to individuals with disabilities.	Adopt new development regulations.	<ul style="list-style-type: none"> Local Governing Bodies Places Task Forces Allegheny County Planning 	Start now, especially for high-priority Places.	Agency staff time and/or consultant fees to prepare regulations.

ECONOMIC DEVELOPMENT

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
H. Promote an efficient transit system to provide access to jobs.	Connect Places and provide multi-modal access within Places.	<ul style="list-style-type: none"> • Port Authority • TMAs • Allegheny County Planning • COGs • Places Task Forces 	Start now, especially for high-priority Places	Agency staff time, for the most part. Developer or corporate entity may pay for internal service in Places.
I. Target Incentives in accordance with Preferred Development Scenarios.	Direct tax incentives and other business supports to revitalize and expand existing Places.	<ul style="list-style-type: none"> • Federal, State, Regional, County, & Local Governments • Foundations • Other Planning Partners 	Thru planning period	Mixture of public & private funding.
J. Attract investment and tourism by enhancing our cultural, environmental, educational and historic resources.	Target heritage tourism.	<ul style="list-style-type: none"> • State Tourism Agencies • Greater Pittsburgh Convention and Visitors Bureau 	Thru planning period	Agency staff time, for the most part.

HOUSING				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Support existing fair housing policies that ensure a right to housing regardless of race, disability, and other federally and locally protected classes.	Expand the geographic distribution of affordable housing units across municipalities within the county through housing development and redevelopment.	<ul style="list-style-type: none"> Local Governing Bodies Places Task Forces Allegheny County 	Thru planning period	Agency staff time, for the most part.
B. Provide a variety of mixed-income and affordable housing in Places identified on the Future Land Use Plan.	Target funding to communities that adopt housing development regulations consistent with the recommendations of <i>Allegheny Places'</i> Plan for Housing.	<ul style="list-style-type: none"> Local Governing Bodies Places Task Forces Allegheny County 	Thru planning period	Agency staff time, for the most part.
C. Target infill housing where needed.	Complete a countywide study of vacant and abandoned properties.	<ul style="list-style-type: none"> Allegheny County 	Now	Agency staff time and/or consultant fees to conduct study.
D. Promote accessible and visitable housing in communities with desirable amenities.	Increase the number of new and redeveloped housing units that include affordable, accessible and visitable units in a variety of housing structures and tenure types.	<ul style="list-style-type: none"> Local Governing Bodies Places Task Forces Allegheny County 	Thru planning period	Agency staff time, for the most part.

HOUSING				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
E. Promote the use of green building techniques and energy efficient housing design.	Provide information on website to encourage developers to use LEED.	<ul style="list-style-type: none"> Allegheny County 	Thru planning period	Agency staff time, for the most part.
F. Support measures to reduce foreclosures.	Provide information on County website to educate residents on the dangers of predatory lending, and contact information for banks that can help provide support.	<ul style="list-style-type: none"> Allegheny County Local Banks 	Thru planning period	Agency staff time.

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Implement a strategy to establish greenways that provide connections between people, recreational facilities, cultural facilities and other significant public areas.	1. Establish a Greenways Committee	<ul style="list-style-type: none"> Allegheny County 	Immediately	Agency staff time.
	2. Hire a Greenways Coordinator to serve as program manager for the Greenways committee	<ul style="list-style-type: none"> Greenways Committee DCNR 	Immediately	Salary
	3. Develop a comprehensive list of conservation priorities	<ul style="list-style-type: none"> Greenways Committee & Coordinator 	w/in 6 mos. of hiring coordinator	N.A.
	4. Develop education and outreach programs and marketing strategies to promote the Greenways Network	<ul style="list-style-type: none"> Greenways Committee & Coordinator 	Short Term and on-going	TBD
	5. Work with adjacent counties and SPC to develop a regional greenways network	<ul style="list-style-type: none"> Greenways Committee & Coordinator 	Short Term and on-going	TBD
	6. Complete the Great Allegheny Passage a. determine an alternative route for the property that cannot be acquired b. Construct 2 new bridges at Whitaker & Port Perry	<ul style="list-style-type: none"> Allegheny County Allegheny Trail Alliance 	a. 2009 – 2010 b. late 2009	a. TBD b. \$5 milion
	7. Connect Montour Trail to: a. South Park b. Pittsburgh International Airport	<ul style="list-style-type: none"> Allegheny County Parks Foundation Montour Trail Council Allegheny County Airport Authority 	a. 2009 b. 2008	a. \$1,000,000 b. \$60,000
	8. Develop detailed cost estimates and scopes to: a. Complete the Pittsburgh to Erie Greenway, & specifically the Community Trails Initiative segment in Allegheny County (32 miles) b. Complete the Pittsburgh to Harrisburg Mainline Canal Greenway	<ul style="list-style-type: none"> Greenways Committee Allegheny County PEC Friends of the Riverfront Allegheny Ridge Corp. 	a. Feasibility Study funded; Mid to long term for implementation	TBD

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
	9. Connect Panhandle Trail to Settler's Cabin Park	<ul style="list-style-type: none"> Allegheny County Parks Foundation 	Short-term	TBD
	10. Connect Youghiogheny Trail to Round Hill Park	<ul style="list-style-type: none"> Allegheny County Parks Foundation Regional Trail Corp. 	Mid to Long Term	TBD
	11. Connect Panhandle Trail to the Three Rivers Heritage Trail	<ul style="list-style-type: none"> Allegheny County Parks Foundation 	Long-term	TBD
	12. Acquire property and/or easements for the Plum Creek Trail to connect to Boyce Park	<ul style="list-style-type: none"> Allegheny County Parks Foundation 	Mid-term	TBD
	13. Acquire property to connect the Baker Trail, Freeport-Butler Trail and Rachel Carson Trail to Harrison Hills Park	<ul style="list-style-type: none"> Greenways Committee Allegheny County Parks Foundation Other Partners 	Long-term	TBD
	14. Acquire easements for the Rachel Carson Trail and connect to the North Hills/Harmony Trail (west) and the Pittsburgh to Erie Greenway (east)	<ul style="list-style-type: none"> Allegheny County Parks Dept. Allegheny County Parks Foundation 	Long-term	TBD
	15. Coordinate reconstruction of Route 28 to ensure trail connections along the Allegheny River are maintained	<ul style="list-style-type: none"> Allegheny County Friends of the Riverfront 	Short-term	TBD
	16. Participate in the development of a County Active Transportation Plan (see Transportation) to integrate trails and greenways that serve as connections between destinations.	<ul style="list-style-type: none"> Allegheny County Greenways Committee PennDOT SPC 	Short term for plan; Mid to Long Term for implementation	TBD
	17. Lobby state and federal governments to: <ol style="list-style-type: none"> Expand game lands and regional parks Fund open space and greenway planning efforts 	<ul style="list-style-type: none"> Allegheny County Local Governing Bodies Land trusts and conservancies Developers 	Thru planning period	Mixture of public & private funding for land and/or easement acquisitions.

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Implement a strategy to establish greenways that encourage protection of bio-diverse areas, floodplains, steep slopes, forested areas, landslide-prone areas, riparian corridors and wildlife corridors.	1. Support the implementation of the GREENPRINT developed by Allegheny Land Trust.	<ul style="list-style-type: none"> Allegheny County Greenways Committee Land Trusts & conservancies Local Governing Bodies 	Thru planning period	TBD
	2. Develop a tool kit to assist municipalities and others with the conservation of identified open space.	<ul style="list-style-type: none"> Allegheny County Greenways Committee & Coordinator 	w/in 3 yrs	N.A.
C. Expand the parks and trails system to serve future populations.	1. Complete the park improvement and system-wide recommendations of the 2002 Allegheny County Parks Comprehensive Master Plan (see Supporting Documents).	<ul style="list-style-type: none"> Allegheny County Allegheny County Parks Foundation 	Thru planning period	\$10 million from County + private funds raised
	2. Implement the recommendations of the 2007 Allegheny County Parks Action Plan (see Supporting Documents).			
	3. Continue to use CDBG funds to assist low/mod income areas to rehab existing facilities, replace substandard equipment, provide adaptive reuse of obsolete facilities.	<ul style="list-style-type: none"> Allegheny County COGs Local Governing Bodies 	Thru planning period	Dependent on annual allocation of CDBG funds
	4. Update the municipal survey of parks to include an assessment of the condition of park facilities, and to identify unmet needs on a multi-municipal basis.	<ul style="list-style-type: none"> Allegheny County COGs Local Governing Bodies 	w/in 3 years	TBD
	5. Conduct workshops and other outreach activities to promote the use of Park Prototypes	<ul style="list-style-type: none"> Allegheny County COGs Local Governing Bodies 	December 2008 & on-going	\$5,000 for December workshop
	6. Use the DCNR Peer to Peer and Circuit Rider Programs to assist with the creation of multi-municipal open space, trail, park and recreation organizations	<ul style="list-style-type: none"> Allegheny County COGs Local Governing Bodies 	Immediately & on-going	TBD

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
D. Facilitate Public Access to Riverfronts	1. Develop a toolkit for the Riverfront Community Linear Greenway Prototype	<ul style="list-style-type: none"> Allegheny County State Agencies Foundations 	w/in 2 years	TBD
	2. Work with PEC and Friends of the Riverfront to design and implement the Community Trails Initiative as a multi-municipal demonstration project.	<ul style="list-style-type: none"> Allegheny County Local Governing Bodies PEC Friends of the Riverfront 	Mid-term	TBD
	3. Work with the Allegheny County Riverfronts Project and its partners to create a linear park along the 4 rivers	<ul style="list-style-type: none"> Allegheny County Local Governing Bodies PEC Friends of the Riverfront Allegheny County Riverfront Commission Other Planning Partners 	Thru planning period	TBD
E. Ensure that regionally significant parks and trails are in ADA compliance and transit accessible.	Publish ADA guidelines on website and work with transit providers to provide upgraded service.	<ul style="list-style-type: none"> Allegheny County Planning Port Authority TMA's 	Now and thru planning period	New and expanded facilities and transit services.
F. Raise public awareness of the benefits of greenways and open space.	Conduct County, DCNR, and DCED marketing programs.	<ul style="list-style-type: none"> Allegheny County State Agencies Foundations Other Planning Partners 	Now and thru planning period	Agency staff time, for the most part.

RESOURCE EXTRACTION				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Mitigate the negative effects of resource extraction.	Set priorities for remediation, particularly those related to acid mine drainage, in areas that have been mined (surface and deep) or quarried.	<ul style="list-style-type: none"> • PADEP • USDI-OSM • USEPA • Appalachian Clean Steams Initiative (ACSI) • Local Governing Bodies • Allegheny County 	Now	Agency staff time, for the most part.
B. Identify areas of potential mine subsidence.	Require mine subsidence information to be provided as part of the development approval process.	<ul style="list-style-type: none"> • Local Governing Bodies 	Thru planning period	N.A.

AGRICULTURE				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Support agriculture as a viable industry.	Establish Agriculture Security Areas and enact effective agricultural zoning.	<ul style="list-style-type: none"> Local Governing Bodies 	Now and thru planning period	Agency staff time, for the most part.
B. Locate new infrastructure outside of identified agriculture areas.	Identify agriculturally-significant areas in each municipality.	<ul style="list-style-type: none"> Local Governing Bodies 	Now and thru planning period	Agency staff time, for the most part.
C. Promote the use of Allegheny County Agricultural Land Preservation Program.	Acquire conservation easements.	<ul style="list-style-type: none"> Allegheny County Local Governing Bodies Land trusts & conservancies 	Now and thru planning period	Mixture of public & private funding.
D. Promote sustainable agricultural practices.	Provide links on County website to organizations/agencies active in these efforts.	<ul style="list-style-type: none"> Allegheny County 	Now	Agency staff time.

COMMUNITY FACILITIES				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Encourage multi-municipal cooperation in the provision of municipal services.	Provide workshops for local municipalities on regional servicing.	<ul style="list-style-type: none"> PA Local Government Academy Allegheny County 	Now	Agency staff time, for the most part. Possible consultant fees.
B. Provide efficient emergency response services.	Upgrade centralized communications system.	<ul style="list-style-type: none"> Allegheny County 	Now	Agency staff time, consultant fees, new equipment.
C. Support and promote high quality educational opportunities for all of the county's citizens.	Construct new and upgraded facilities in concert with Places development.	<ul style="list-style-type: none"> School Districts Community College of Allegheny County Other Educational Institutions Places Task Forces Local Governing Bodies Allegheny County Developers 	Start now, especially for high-priority Places	Agency staff time. Consultant fees. Developer may pay for facilities as part of Plan approvals.
D. Support and provide equal access to the public library system throughout the county.	Expand Knowledge Connections, Bookmobile, and eiNetwork programs.	<ul style="list-style-type: none"> Allegheny County Allegheny County Library Association Carnegie Library of Pittsburgh 	Now and thru planning period.	Agency staff time. Consultant fees. Technical upgrades.

COMMUNITY FACILITIES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
E. Promote coordination among hospitals to ensure the quality of health care.	Expand data sharing among health care organizations.	<ul style="list-style-type: none"> Allegheny County Human Services Department Health care Organizations 	Now and thru planning period.	Agency staff time, for the most part.
F. Encourage the development of public & private adult day care centers, senior centers, licensed personal care facilities and any other age-related facilities to care for the County's aging population.	Construct new and upgraded facilities, especially in concert with Places development.	<ul style="list-style-type: none"> Allegheny County Human Services Department Public and private providers 	Start now, especially for high-priority Places	Agency staff time. Developer may pay for facilities as part of Plan approvals.
G. Promote equal access to public facilities.	Develop sliding-scale user-fee program for selected services.	<ul style="list-style-type: none"> Allegheny County Local Governing Bodies Other Providers 	Thru planning period.	Agency staff time, for the most part.

UTILITIES				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Protect and enhance the quality and quantity of water resources.	1. Continue to utilize the 3 Rivers Wet Weather Demonstration Program to promote and facilitate regional/cooperative approaches to achieving compliance with the Clean Water Act.	<ul style="list-style-type: none"> Allegheny County PADEP Local Governing Bodies Local Water Suppliers 	Thru planning period.	Agency staff time, for the most part.
	2. Facilitate the development and implementation of Source Water Assessment and Protection programs throughout Allegheny County.	<ul style="list-style-type: none"> Allegheny County PADEP Local Water Suppliers 	Thru planning period.	Agency staff time, for the most part.
	3. Assume a lead role in implementing a water supply pollutant incident early warning system on the county's three rivers.	<ul style="list-style-type: none"> Allegheny County PADEP USEPA Local Water Suppliers 	Now and thru planning period.	Agency staff time, for the most part.
	4. Utilize best management practices (BMPs) for new development.	<ul style="list-style-type: none"> Local Governing Bodies Allegheny County Planning Developers 	Start now, especially for high-priority Places	Agency staff time. Developer construction/installation expenses.

UTILITIES				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Support planning and funding for utility extensions and improvements that are consistent with the Future Land Use Plan.	1. Direct new development and redevelopment to areas with adequate public infrastructure.	<ul style="list-style-type: none"> Allegheny County Planning COGs Places Task Forces Local Governing Bodies Local Authorities DCED Other State Agencies 	<p>High-priority Places – Now.</p> <p>Other Places – as set by schedule for Places development.</p>	Agency staff time, for the most part.
	2. Use Pennsylvania Sewage Facilities Planning Act (Act 537) planning process to anticipate and prepare for future development and to identify and address on-lot sewage disposal problems.	<ul style="list-style-type: none"> Local Governing Bodies Local Authorities PADEP Allegheny County Health Department 	Now and thru planning period.	Agency staff time, for the most part.
C. Support regionalization and shared use of utility assets.	1. Facilitate and coordinate the actions of agencies and governments regarding storm water management, stream maintenance and flood mitigation.	<ul style="list-style-type: none"> Allegheny County Local Governing Bodies PADEP 	Now and thru planning period.	Agency staff time, for the most part.
	2. Complete a regional storm water management plan under the Pennsylvania Storm Water Management Act (Act 167) management agency.	<ul style="list-style-type: none"> Allegheny County Local Governing Bodies PADEP 	Now	Agency staff time. Consultant fees.

ENVIRONMENTAL RESOURCES				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Meet federal, state, and local air quality standards.	1. Develop educational and/or incentive programs to promote pollution prevention and encourage the use of lower polluting products/services.	<ul style="list-style-type: none"> PADEP USEPA Allegheny County 	Now and thru planning period.	Agency staff time, for the most part.
	2. Work with local industries to reduce air emissions, especially toxic emissions, in order to meet federal air quality standards.	<ul style="list-style-type: none"> PADEP USEPA Allegheny County Local Industries 	Now and thru planning period.	Agency staff time. Industry expenses for emissions reduction installations.
	3. Develop programs and/or incentives to promote and attract green renewable power.	<ul style="list-style-type: none"> PADEP USEPA Allegheny County Local Businesses 	Now and thru planning period.	Agency staff time, for the most part.
	4. Develop plans to reduce motor-vehicle congestion on area roadways.	<ul style="list-style-type: none"> PennDOT PADEP USEPA Allegheny County 	Now and thru planning period.	Agency staff time, for the most part.
	5. Direct development and redevelopment to Places as identified on the Future Land Use Plan.	<ul style="list-style-type: none"> Allegheny County Planning COGs Places Task Forces Local Governing Bodies DCED Other State Agencies 	Now and thru planning period.	Agency staff time, for the most part.

ENVIRONMENTAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Improve quality of surface water and groundwater resources.	Protect and restore critical stream valleys, floodplains and wetlands to preserve their functions for flood water storage, water supply and ground water recharge.	<ul style="list-style-type: none"> Local Governing Bodies Watershed Organizations Allegheny County PADEP USEPA Developers 	Now and thru planning period.	Mixture of public & private funding.
C. Identify and protect ecologically sensitive areas such as wooded steep slopes, stream headwaters, woodlands, and wildlife corridors.	Set conservation priorities from Conservation Corridors Plan.	<ul style="list-style-type: none"> Allegheny County Western Pennsylvania Conservancy Pennsylvania Environmental Council PADCNR 	Now	Agency staff time, for the most part.
D. Encourage development in Places to minimize impacts to greenfields.	Direct development and redevelopment to Places as identified on the Future Land Use Plan.	<ul style="list-style-type: none"> Allegheny County Planning COGs Places Task Forces Local Governing Bodies DCED Other State Agencies 	Now and thru planning period.	Agency staff time, for the most part.
E. Protect and restore critical stream valleys, floodplains and wetlands to preserve their functions for floodwater storage, water supply and groundwater recharge.	Enact new and updated local regulations.	<ul style="list-style-type: none"> Local Governing Bodies Allegheny County Planning 	Now and thru planning period.	Agency staff time, for the most part.

ENVIRONMENTAL RESOURCES				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
F. Eliminate urban, agricultural and industrial pollution runoff to protect streams and watersheds.	Enact riparian buffer ordinances.	<ul style="list-style-type: none"> Local Governing Bodies Allegheny County Planning 	Now	Agency staff time, for the most part.

ENERGY CONSERVATION

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Protect and enhance the environment and public health by promoting energy conservation and continuing to improve the county's air quality.	1. Develop educational and/or incentive programs to promote pollution prevention and encourage the use of lower polluting products/services.	<ul style="list-style-type: none"> PADEP USEPA Allegheny County 	Now and thru planning period.	Agency staff time, for the most part.
	2. Work with local industries to reduce air emissions, especially toxic emissions, in order to meet federal air quality standards.	<ul style="list-style-type: none"> PADEP USEPA Allegheny County Local Industries 	Now and thru planning period.	Agency staff time. Industry expenses for emissions reduction installations.
B. Establish compact mixed-use centers that provide a dense population of potential transit users, both for trips within and between centers.	1. Lay out new neighborhoods and districts with a grid or modified grid circulation systems and small blocks.	<ul style="list-style-type: none"> Places Task Forces Allegheny County Planning COGs Local Governing Bodies 	High-priority Places – Now. Other Places – as set by schedule for Places development.	Consultant fees to prepare Places plans and Places regulations.
	2. Encourage municipalities to provide zoning districts that provide the necessary densities and intermingling of uses to achieve compact, mixed-use centers as well as permit live-work structures.	<ul style="list-style-type: none"> Places Task Forces Local Governing Bodies Allegheny County Planning COGs 	When master/urban design plans are in final draft form.	Consultant fees to prepare Places regulations.

ENERGY CONSERVATION				
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
C. Make transportation corridors multi-modal, by providing vehicular, transit, pedestrian and cycling options.	Link new development to major educational, cultural, and recreational destinations via transit and trail connectors.	<ul style="list-style-type: none"> • PennDOT • Port Authority • TMAs • Allegheny County Planning • Places Task Forces 	Now and thru planning period	Mixture of federal, state, and local funding.
D. Provide incentives to develop certified 'green' buildings and use alternative fuels and renewable energy.	Encourage municipalities to amend local development regulations.	<ul style="list-style-type: none"> • Local Governing Bodies • Allegheny County Planning • Green Building Alliance • Sustainable Pittsburgh 	Now	Agency staff time, for the most part.

TABLE 5.3 – Implementation Strategy for Allegheny Places Transportation Plan**ROADWAYS AND BRIDGES**

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
<p>A. Support the Future Land Use Plan through strategic prioritization of transportation system maintenance and operations.</p> <p>B. Target transportation investments to support job and housing growth as shown on the Future Land Use map.</p> <p>C. Use demand management strategies to reduce highway congestion. Encourage options of telecommuting, ridesharing, staggered work weeks, flex-time, intelligent transportation systems, etc.</p> <p>D. Coordinate transportation systems, modes and facilities to increase connectivity and mobility for all, including car, truck, barge, pedestrian, transit, rail, air, roads and bridges, bicycle, etc.</p> <p>E. Protect and enhance the environment by promoting energy conservation, emissions reduction and use of alternative fuels.</p> <p>F. Review County road and bridge ownership to identify ways to improve operation and maintenance efficiencies.</p> <p>G. Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.</p>	<ul style="list-style-type: none"> • Program road and bridge maintenance and construction on the TIP (Transportation Improvement Program). • Explore creative financing methods including P3 (Public/Private Partnerships) to fund road and bridge projects. • Allegheny County and the Public Works Department should rationalize a system for road and bridge ownership. • SPC should develop specific transportation demand management strategies. • Pursue/support P3 enabling legislation at the state level. • Manage sprawl and encourage urban redevelopment at the municipal level through the Allegheny Places strategies, local zoning, and land development ordinances. 	<ul style="list-style-type: none"> • Allegheny County • City of Pittsburgh • Local Governing Bodies • Southwestern Pennsylvania Commission

PUBLIC TRANSIT		
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
<p>A. Target transportation investments to support job and housing growth as shown on the Future Land Use map.</p> <p>B. Prioritize the maintenance of existing transportation infrastructure within and across all modes.</p> <p>C. Provide integrated transportation alternatives and coordinated transportation systems to increase connectivity and mobility.</p> <p>D. Promote transit-oriented development sites at key transit stations and along major transit corridors.</p> <p>E. Connect Pittsburgh International Airport to Downtown, Oakland and major population centers via a rapid transit system.</p> <p>F. Improve transit into and around Oakland.</p> <p>G. Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.</p>	<ul style="list-style-type: none"> Establish dedicated funding source for operating existing transit service. Explore commercial use of busway to create revenue stream. Integrate 'Complete Streets' concepts into transportation improvement projects. Explore using existing inactive rail corridors for commuter rail service (e.g., Allegheny Valley Transit – Strip District to New Kensington). Establish a Transportation Action Partnership (TAP) to spearhead development of Transit projects: <ul style="list-style-type: none"> Oakland Circulator Rapid Transit from Downtown to Oakland Light Rail or Bus Rapid Transit upgrade to current available transit from Oakland to the Mon Valley Rapid Transit from Downtown to Airport North Shore Connector West Busway Extension to Robinson Town Center Hub East Busway Extension to Rankin/East Pittsburgh Carnegie Intercept Garage Bates Street Intercept Garage West Busway/High Occupancy Toll (HOT) Facility Conceptual Study Port Authority Transit Development Plan Regional Transit/Regional Pass Study 	<ul style="list-style-type: none"> Allegheny County City of Pittsburgh Local Developers Port Authority of Allegheny County Southwestern Pennsylvania Commission

BICYCLE AND PEDESTRIAN

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
<p>A. Provide integrated transportation alternatives including bikeways, sidewalks and transit.</p> <p>B. Coordinate transportation systems and modes to increase mobility.</p>	<ul style="list-style-type: none"> • Conduct an inventory of bicycle and pedestrian facilities and amenities at transit stops and stations. • Prioritize and implement bicycle and pedestrian improvement projects at selected transit stops and stations. • Continue to install “rack and roll” equipment on Port Authority buses as funding becomes available, and ensure dependable and predictable return trips. • Install secure bike racks in all public parking areas. • Develop a program to encourage the provision of low-cost bicycle parking facilities to private parking facility owners. • Publish a county map and install wayfinding signage that identifies roadways suitable for on-road commuting. • Identify roadways on the TIP that are scheduled for resurfacing and other improvements and work with PennDOT to ensure that the shoulders are paved. • Work with PennDOT to add bicycle and pedestrian facilities as part of all types of PennDOT projects. • Design and construct ‘Complete Streets’ whenever appropriate to provide safe, comfortable and convenient travel via auto, foot, bicycle and transit. 	<ul style="list-style-type: none"> • Allegheny County • City of Pittsburgh • Local Bicycle and Trail Organizations • PennDOT • Port Authority of Allegheny County • Southwestern Pennsylvania Commission

AIRPORTS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
<p>A. Support Pittsburgh International Airport (PIT) efforts to retain and increase passenger and air cargo connectivity to national and international destinations.</p> <p>B. Support freight movements through safe and efficient air shipping practices.</p> <p>C. Increase connectivity to and from PIT to Downtown Pittsburgh, Oakland and major population centers via a rapid transit system, and other modes and system improvements.</p>	<ul style="list-style-type: none"> • Support PIT efforts and strategies to increase passengers, air carriers, cargo carriers and national and international flight destinations, as well as competitive fares. • Retain, improve and increase service on the PAAC 28X Route serving PIT. • Develop a direct high-speed Light Rail Transit (LRT) connection from PIT, via the North Shore, to Downtown Pittsburgh and on to Oakland. • Create a midway multi-modal intermodal hub between Downtown and PIT in the vicinity of Robinson Town Center as a first step to the LRT connection from PIT to Downtown Pittsburgh and Oakland. • Utilize the West Busway and a “virtual busway extension on the Parkway” to a Robinson Town Center Hub. • Continue development of congestion mitigation measures such as improvements PennDOT has planned for the 22/30/60 Interchange area. • Appropriate entities should promote airport operations and facilities in marketing materials. • Increase the number of parking spaces at the airport. • Market the availability of land for air cargo facilities and other development potential. • Support development of PIT in accordance with the Pittsburgh International Airport Layout Plan - 2006, and the Pittsburgh International Airport Site Prioritization Analysis - 2004. • Support development of more than 2,000 acres of non-aviation land on the airport property, especially the 400+ acres ready for users. • Support development of the Allegheny County Airport, located in West Mifflin, in accordance with the Allegheny County Airport Master Plan Update - 2006. 	<ul style="list-style-type: none"> • Airport Area Chamber of Commerce • Allegheny County • Allegheny County Airport • Greater Pittsburgh Chamber of Commerce • Greater Pittsburgh International Airport • Port Authority of Allegheny County • Southwestern Pennsylvania Commission

RAIL FREIGHT

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
<p>A. Support freight movements through safe and efficient truck and rail intermodal connectivity and systems as well as with multi-modal facilities.</p> <p>B. Increase rail safety at interfaces with people and with other transportation modes.</p> <p>C. Support increased movement of goods by rail to free road capacity, and increase road capacity by supporting rail freight initiatives.</p>	<ul style="list-style-type: none"> • Eliminate the pinch point at Port Perry by widening the rail corridor to two tracks. • Identify potential double-stack rail freight corridors that could be developed to accommodate double-stack heights in the future. • Invest in projects which would increase capacity of the freight rail network and in projects that would allow for operation of commuter rail. The latter should be done in coordination with PAAC and the Transportation Action Partnership. • Address rail crossing safety for pedestrians and other modes. • Coordinate road improvements to achieve increased efficiency and better intermodal connectivity. 	<ul style="list-style-type: none"> • Allegheny County • City of Pittsburgh • Greater Pittsburgh International Airport • PennDOT • Railroad Companies • Southwestern Pennsylvania Commission

WATERWAYS			
OBJECTIVES		ACTIONS	RESPONSIBLE PARTIES
<p>A. Support freight movements through safe and efficient water systems.</p> <p>B. Provide access to the rivers for commercial and recreation uses.</p>		<ul style="list-style-type: none"> • Create a coalition of local leaders and industry representatives to urge Congress to appropriate sufficient funding for the maintenance and rehabilitation of the region's locks and dams facilities. • Expand the water taxi system to include more special events and/or daily commuting. • Implement "Last Mile" improvements to accommodate the type and volume of vehicles accessing the ports. • Promote and reclaim the economic potential of the rivers as a regional transportation resource with trails to connect population and activity centers, thereby providing alternative modes of travel. • Continue coordination among regional transportation agencies and partners to complete maintenance projects listed below: 	<ul style="list-style-type: none"> • Allegheny County • Port of Pittsburgh • Southwestern Pennsylvania Commission
RIVER	LOCK AND DAM (MAINTENANCE NEEDED)	YEAR TO BE COMPLETED	COST (MILLIONS)
Ohio	Emsworth (dam gates, gate hoisting machinery, electrical power and distribution system, emergency bulkheads and a permanent scour protection system)	2011	\$78
Ohio	Dashields (Annual Maintenance)	2012	\$3.7/year
Mon	Elizabeth (repairs to the dam foundation at Locks and Dam 3; for dredging, and for in leasing for railroad right-of-way maintenance, plus Annual Maintenance)	2014	\$1.0 \$2.5/year
Mon	Braddock (Annual Maintenance)	2012	\$4.0M/year
Allegheny	Pittsburgh (Annual Maintenance)	2012	\$3.8/year
Allegheny	CW Bill Young (Annual Maintenance)	2012	\$2.8/year
Allegheny	Natrona (Annual Maintenance)	2012	\$1.9/year



GLOSSARY

■ A

Abatement – A reduction in degree of intensity of a substance or quantity.

Acid Mine Drainage – Acid drainage from bituminous coal mines containing a high concentration of acidic sulfates, especially ferrous sulfate.

Act 43 – Pennsylvania Act 1981-43 - Known as the Agricultural Area Security Law, Act 43 enables landowners to propose the creation of agricultural areas to local units of government. Voluntary agricultural areas would consist of 500 or more acres of viable farmland. Incentives to encourage farming in these agricultural areas are provided. It also authorizes county governments to establish programs for the purchase of development easements.

Act 100 – Creates an independent administrative body known as the Agricultural Lands Condemnation Approval Board (ALCAB), which must approve any condemnation, by the Commonwealth of Pennsylvania or its agencies, of productive agricultural land for certain purposes, including the construction of highways on new alignment.

Act 319 – Commonly known as the "Clean and Green Act", it was passed as a Constitutional Amendment permitting preferential assessment of farmland and forest land. The Act is designed to preserve farmland, forest land, and open space by taxing land according to its use value rather than the prevailing market value.

Act 515 – Enables counties to covenant with land owners for preservation of land in farm, forest, water supply, or open space uses. In return, the land is assessed for tax purposes at its value as farmland and not at its market value for urban uses such as housing.

Adaptive Reuse – The development of a new use for an older building or for a building originally designed for a special or specific purpose.

Aerial Mapping – Aerial photographs are taken and used in the data collection process and to produce topographic maps of a project corridor. Shown on the mapping are all buildings, roads, rivers and other topographical features as well as contour elevations for use in developing project

alternatives. Project mapping at the preliminary stage is usually at a scale of 1" = 200'.

Affordable Housing – Housing that has a sales price or rent within the means of a low- or moderate-income household as defined by local, state or federal legislation.

Agricultural Security Area (ASA) – Defined as a unity of 250 or more acres of land, not necessary connected, which are used for agricultural production.

Air Emissions – Physical, chemical or biological substance emitted into the ambient air which contains air pollutants as defined in Section 302 of the Clear Air Act.

Alignment – The line which represents the proposed location of a new highway or transit line.

Alternative Fuel – A liquid or gaseous non-petroleum fuel. The term usually refers to alcohol fuels, mineral fuels, natural gas and hydrogen.

Americans with Disabilities Act (ADA) – Passed in 1992, this federal law prohibits discrimination on the basis of disability in the services, programs or activities of all state and local governments. Under the provisions of ADA, the Department must take steps to make all public involvement activities related to the Transportation Project Development Process accessible to persons with disabilities. This includes providing services and/or auxiliary aids to those with special needs.

Annual Average Daily Traffic (AADT) – The estimate of typical daily traffic on a road segment for all seven days of the week over the period of one year.

Appropriation – Legislation that allocates budgeted funds to programs that have been previously authorized by other legislation. The amount of money appropriated may be less than the amount authorized (this has been the case with ISTEA).

Aquatic – Living or growing in, on, or near water; having a water habitat.

At-grade Intersection – An intersection where all roadways join or cross at the same level.



Authorization – Federal legislation that creates programs including formulas and guidelines for awarding funds. Authorizing legislation may set an upper limit on program spending or may be open ended, as in “such sums as may be necessary”. General revenue funds to be spent under an authorization must be appropriated by separate legislation.

Average Daily Traffic (ADT) – The average 24-hour volume, being the total volume during a stated period divided by the number of days in that period. Unless otherwise stated, the period is a year.

■ B

Best Management Practices – The methods, measures, or practices to prevent or reduce the amount of pollution from point or non-point sources, including structural controls, non-structural controls, and operation and maintenance procedures.

Biological Diversity or Biodiversity – The variety and abundance of species, their genetic composition, and the communities, ecosystems, and landscapes in which they occur.

Brownfield – Abandoned industrialized land left unused or underused, often because of the presence of environmental contaminants. These abandoned properties, once remediated (cleaned up), can provide viable spaces for sustainable industries, commercial uses and even parkland or open spaces.

Build-out Analysis – Illustrates the form and pattern that development can be expected to take under a continuation of current trends and the manner and degree to which this form and pattern are contrary to planning goals. A description and illustrations of the consequences of a continuation of current trends help to identify the kinds of action that are needed and to build public support for these measures.

■ C

Capacity – The maximum rate of traffic flow which can be expected to pass a certain point; usually expressed in vehicles per hour.

Carbon Monoxide (CO) – A colorless, odorless, poisonous gas that is formed as a product of the incomplete combustion of carbon and is emitted directly by automobiles and trucks.

Central Business District (CBD) – The downtown retail trade area of the city or an area of very high land valuation, traffic flow, and concentration of retail business offices, theaters, hotels, and services.

Clean Air Act Amendments (CAAA) of 1990 – Requires assessment of the project's impacts on ambient air quality standards established for mobile source pollutants.

Combined Sewer Overflow – A pipe that discharges untreated wastewater during storms from a sewer system that carries both sanitary wastewater and storm water. The overflow occurs because the system does not have the capacity to transport, store, or treat the increased flow caused by storm water runoff.

Combined Sewer System – Sewer collection systems that carry both stormwater and wastewater.

Community Development Block Grants (CDBG) – Federal grants, administered by the County, designed to lower the overall cost of a project; projects must demonstrate the ability to improve the economic conditions of an area.

Comprehensive Plan – The general, inclusive, long-range statement of the future development of a community. The plan is typically a map accompanied by description and supplemented by policy statements that direct future capital improvements in an area.

Conceptual Plan – The early, generalized identification of design, operation or construction measures that would minimize or avoid anticipated environmental consequences. Typically, conceptual mitigation ideas are discussed prior to the concluding stages of an environmental study, well before many of the ideas are further worked upon, refined or committed.

Congestion – The level at which transportation system performance is no longer acceptable to the traveling public due to traffic interference. The level of acceptable system performance may vary by type of transportation facility, geographic location, public tolerance, and/or time of day.

Congestion Management System (CMS) – Requires states and large metropolitan areas (with population of 200,000 or more) to develop management plans which make new and

existing transportation facilities more effective through the use of travel demand management and operational management strategies. The CMS requirements strengthen the link between the Clean Air Act Amendments and ISTEA.

Congestion Mitigation and Air Quality Program (CMAQ) – A \$6 billion funding program contained in Title I of ISTEA which provides funds for projects and activities which reduce congestion and improve air quality. To be eligible for CMAQ, projects and activities must contribute to the National Ambient Air Quality Standards and must be included in a transportation improvement program (TIP).

Conservation Easement – A legal document that provides specific land-use rights to a secondary party. A perpetual conservation easement usually grants conservation and management rights to a party in perpetuity.

Controlled Access – Partial access restriction that gives preference to through traffic. Also provides for connections to selected public routes and to certain other adjacent locations where vehicles can enter or leave a roadway safely without interfering with through traffic.

Control of Access – A condition in which public authority fully or partially controls the right of abutting property owners to have access in connection with a highway. Common terms defining types of access control are free access and limited access.

Corridor – Any major transportation route that includes parallel limited access highways, major arterials or transit lines. With regard to traffic incident management, a corridor may include more distant transportation routes that can serve as viable alternatives to each other in the event of accidents.

Cropfall (or Subsidence) – Occurs when the support of old underground mines gives way causing the surface to collapse.

Cultural Resource – See Historic Resource.

D

Deep Mine – Open or exposed abandoned surface mine pits following outcropping coal seams usually associated with the formation of a highwall.

Development Right – The nature and the extent to which land, including the air space above, may be improved under a development regulation.

Disability – In the Americans with Disabilities Act (ADA) the term disability is defined to include any physical or mental impairment that substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment. Major life activities include caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working. Persons with cognitive disabilities and those with contagious or non-contagious disease (including tuberculosis and HIV disease) are specifically included in this definition.

E

Earth Disturbance – Any construction or other activity which disturbs the surface of the land including, but not limited to, excavations; embankments; depositing or storing soil; rock; or earth.

Ecosystem – A functional system which includes the organisms of a natural community together with their environment.

Eminent Domain – The power of government to acquire private property for public use without the owner's consent, when the proposed use of the property promotes a public purpose. Fair market value (also called Just Compensation) must be paid to the property owner. It is usually determined by appraisals which establish the market value of the lands.

Enabling Act – Legislation passed by the state legislature granting specific powers to cities and boroughs and authorizing the powers and duties they can perform.

Environmental – 1. In a scientific context, a combination of external or extrinsic conditions present in nature. 2. In a planning context, a category of analytical studies of aesthetic values, ecological resources, cultural (historical) resources, sociological and economic conditions, etc.

Environmental Protection Agency (EPA) – The government agency responsible for enforcing environmental regulations such as RCRA, CERCLA, Clean Air Act, Clean Water Act.



Erosion and Sedimentation Control Plan – A detailed series of plans developed to minimize accelerated erosion and prevent sedimentation damage. In accordance with Design Manual, Part 2, Chapter 13, and PADER's Erosion and Sediment Pollution Control Program Manual, these plans are prepared in conjunction with construction staging plans, detailing what erosion control measures must be in place at all times during various construction stages and phases.

Exaction – Contributions or payments required as an authorized precondition for receiving a development permit.

F

Fauna – The animal life characteristic of a particular region or environment.

Feasibility Study – Evaluation of potential remedial alternatives for their ability to meet technical, public health, environmental and cost effective programs.

Federal Aid Highways – Those highways eligible for assistance under Title 23 of the United States Code (aka ISTEA), except those functionally classified as local or rural minor collectors.

Federal Aid Project – An activity, study, survey, project, or other work related to transportation authorized in advance by the Federal Highway Administration, and which is paid for either partially or fully by public funds.

Feeder Service – Local transit service to pick up or deliver passengers in connection with a transfer at a transit station or express or arterial bus stop terminal.

Fill – Material, usually soil, used to raise or change the surface contour of an area, to construct an embankment, or to be placed within a stone or concrete arch bridge.

Floodplain – Any flat or nearly flat lowland that borders a stream and is covered by its waters at flood stage.

Flora – The plant life characterizing a specific geographic region or environment.

Free Access – The lowest condition of access control on state highways which allows an unlimited number of private driveway connections, intersections at grade, field

entrances, or other land service linkages that give vehicles or pedestrians access to the highway.

Functional Classification – The grouping of streets and highways to classes, or systems, according to the character of service that they provide. Facilities are divided according to the degree to which they provide access to places. The recognition that individual roads do not serve travel independently, and that most travel involves movement through a network of roads, is basic to functional classification. Three general classifications are Arterial, Collector, and Local.

G

Geographic Information System (GIS) – A computerized system of compiling, presenting and analyzing geographic based data. Map images of the road network can be overlaid with land use zoning information, environmental concerns, census data, and other useful information.

Grade-separation – A crossing of two highways or other transportation facilities, at different levels.

Greenway – A linear open space established along either a natural corridor, such as a river front, stream valley, or ridge line, or over land along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route;

- Any natural or landscaped course for pedestrian or bicycle passage;
- An open space connector linking parks, natural reserves, cultural features, or historic sites with each other and with populated areas; and
- Locally, certain strip or linear parks designated as a parkway or greenbelt.

Groundwater – Naturally occurring water that moves through the earth's crust, usually at a depth of several feet to several hundred feet below the earth's surface.

H

Habitat – The place where an organism lives, composed of both physical and biological elements.

Hazardous Waste – Waste identified by characteristics, source or specific substance as found in 25 PA Code Chapter

75, Subchapter D and Code of Federal Regulations Title 40, Chapter 261. A hazardous waste may: 1) cause or significantly contribute to an increase in mortality or morbidity in either an individual or the total population; and 2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed or otherwise managed.

Heritage Tourism – Marketing and promotion of cultural and historical elements of interest to visitors of an area.

Highwall – The unexcavated face of exposed overburden and coal in a surface mine.

Historic Integrity – The unimpaired ability of a property to convey its historical significance.

Historic Property – See Historic Resource.

Historic Resource – Building, site, district, object, or structure evaluated as historically significant.

Hydric Soil – Soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

I

Impacts – Positive or negative effects upon the natural or human environment resulting from transportation projects.

Improvement District – Both an organizing and financing technique for area revitalization. The District provides a stable stream of income for activities and projects considered special to an area or in addition to general municipal services. Improvement Districts are a vehicle for providing additional services for a fee and not a substitute for services funded through traditional tax revenues.

Infill – Development of new homes, commercial and/or retail buildings, and public facilities on unused or underused lands in existing communities.

Inner-Ring Suburbs – Communities adjacent to the City of Pittsburgh.

Intensity – Refers to the amount of development on a piece of land. The lower the intensity, the higher the amount of

land associated with a development (i.e. low density residential = one house on a large lot).

Interchange – A system of interconnecting roadways in conjunction with one or more grade separations, providing for the movement of traffic between two or more roadways on different levels.

Intermodal Facility – A transportation element or facility that connects different modes for transportation. Intermodal transportation facilities serve intrastate, interstate and international movement of goods and people. The Harrisburg Transportation Center is a good example of an intermodal facility.

L

Land Trust – Private, non-profit conservation organization whose principal purpose is to protect land under its stewardship and intended to exist indefinitely.

Level of Service (LOS) – A qualitative rating of the effectiveness of a highway in serving, measured in terms of operating conditions. Note: The Highway Capacity Manual identifies operating conditions ranging from "A" for the best operation (low volume, high speed) to "F" for poor operation where volumes are below capacity.

Limited Access – A term to describe either partial or full access-controlled highway abutting property.

Local Government – A city, county, parish, township, municipality, borough, or other general purpose political subdivision of a state.

Long Range Transportation Plan (LRTP) – A 20-year forecast plan, required at both the metropolitan and state levels, which must consider a wide range of social, environmental, energy and economic factors in determining overall regional goals and how transportation can best meet these goals.

M

Management of Companies and Enterprises – A term of the North American Industry Classification System (NAICS), this subsector includes three main types of establishments:



(1) those that hold the securities of (or other equity interests in) companies and enterprises; (2) those (except government establishments) that administer, oversee, and manage other establishments of the company or enterprise but do not hold the securities of these establishments; and (3) those that both administer, oversee, and manage other establishments of the company or enterprise and hold the securities of (or other equity interests in) these establishments. Those establishments that administer, oversee, and manage normally undertake the strategic or organizational planning and decision-making role of the company or enterprise.

Metropolitan Planning Organization (MPO) – The agency designated by the Governor (or Governors in multi-state areas) to administer the federally required transportation planning process in a metropolitan area. An MPO must be in place in an urbanized area with a population over 50,000. The MPO is responsible for the 20-year long range plan and the transportation improvement program.

Metropolitan Statistical Area – The Census classifications for areas having a population over 50,000. The MSA may contain several urbanized areas, but contains one or more central city or cities.

Mitigation – The replacement of natural features which have been lost or reduced in value.

Mixed-Use Development – Comprehensively planned and designed development that contains at least three different but interdependent uses, including residential use unless otherwise specified. Mixed-use development integrates its physical and functional components, is pedestrian oriented within its development, is connected to its surroundings by pedestrian or public transportation access, and is compatible in density, layout, and character with adjacent development.

Municipalities Planning Code (MPC) – A Pennsylvania State act that empowers the municipalities to plan their development and to govern the same by zoning, subdivision and land development ordinances, by official maps, to promote conservation of energy; to establish planning commissions, planning departments and zoning hearing boards.

■ N

National Ambient Air Quality Standards (NAAQS) –

The standards set by EPA for various Pollutants known to cause health related problems, including ozone and its precursors (nitrous oxides and hydrocarbons), established by the Environmental Protection Agency to measure the health impacts of pollution on air. EPA set up NAAQS measures for six pollutants; carbon monoxide, ozone, particulate matter, lead, sulfur dioxide and nitrous oxide.

National Historic Landmark – A historic property that the Secretary of the Interior has designated a National Historic Landmark.

National Pollutant Discharge Elimination System (NPDES) Permit – Mandated by Section 402 of the Clean Water Act for projects that involve the discharge of pollutants from a point source into surface waters (including wetlands) for disposal purposes; intended to regulate the amount of chemicals, heavy metals and biological waste discharged in wastewater. The EPA has granted Pennsylvania the authority to administer NPDES permits under the Pennsylvania Clean Streams Law.

National Register of Historic Places – A list maintained by the U.S. Department of the Interior of historic and prehistoric sites that have local, state, or national significance.

Natural Population Change – The difference between the number of births and the number of deaths over a period of time.

Natural Resources – Land, fish, wildlife, drinking water supplies and other assets belonging to, maintained by, or otherwise controlled by the federal, state, or local government.

Niche – A site or habitat supplying factors necessary for the successful existence of an organism or species in a given habitat; the role of an organism in an ecological community.

Non-attainment Areas – Counties that do not meet national ambient air quality standards for ozone pollution; ranked by the severity of their problem as marginal, moderate, serious, severe, or extreme. In accordance with the Clean Air Act Amendments of 1990, these areas must take specific emission reduction measures.

Normal Farming Operations or Practices – The customary and generally accepted activities, practices, and procedures that farmers adopt, use, or engage in year after year in the production and preparation for market of crops, livestock, and livestock products and in the production and harvesting of agricultural, agronomic, horticultural, silvicultural, and aquacultural crops and commodities. The term includes the storage and utilization of agricultural and food processing wastes for animal feed and the disposal of manure, other agricultural waste and food processing waste on land where the materials will improve the condition of the soil or the growth of crops or will aid in the restoration of the land for the same purposes.

■ O

Open Space – Any parcel or area of land or water essentially unimproved and set aside, dedicated, designated, or reserved for public or private use or enjoyment, or for the use and enjoyment of owners, occupants, and their guests, of land adjoining or neighboring such open space.

Ordinance – A municipal ordinance regulates building setbacks, lot and building coverage, parking, and storm water management.

Outer-Ring Suburbs – Communities along the perimeter of the county.

Overlay Zone – A special purpose zoning district that is superimposed over existing zoning jurisdictions. It is designated to provide additional standards and regulations for specific areas based on special conditions such as environmental factors, historical features or neighborhood preservation.

Ozone – Unstable blue gas with a pungent odor formed principally in secondary reaction involving volatile organic compounds, nitrogen oxides and sunlight.

■ P

Paratransit – Forms of transportation services that are more flexible and personalized than conventional fixed-route, fixed-schedule service, but not including such exclusionary services as charter bus trips. The vehicles are usually low or medium-capacity highway vehicles, and their services offered are adjustable in various degrees to individual users' desires.

Its categories are public, and available only to people of a certain group such as the elderly, employees of a company or residents of a neighborhood.

Park and Ride – A procedure that permits a patron to drive a private automobile to a transit station, park in the area provided for that purpose and ride the transit system to his or her destination.

Peak Hour – The one hour period of a typical day during which traffic volumes are the greatest.

Pennsylvania Department of Environmental Protection (PADEP) – State regulatory agency responsible for enforcing environmental regulations.

Pennsylvania Department of Transportation (PennDOT) – The agency of the Pennsylvania State Government responsible for the design, construction and maintenance of state highways and bridges in Pennsylvania, not including toll highways that are under the jurisdiction of the Pennsylvania Turnpike Commission. PennDOT is funded by state and federal tax dollars.

Pennsylvania Turnpike Commission (PTC) – The Pennsylvania Turnpike Commission was created in 1937 by Act 211. The Turnpike Commission has the authority to construct, finance, operate and maintain toll highways. Presently, the Turnpike Commission has over 500 miles of limited access highway. The operation of the Pennsylvania Turnpike Commission is supported by tolls and bond revenue, not tax dollars.

pH – Measure of hydrogen ion activity in an aquatic ecosystem which affects many chemical and physical processes, as well as the toxicity of many compounds, used to express relative acidity and alkalinity.

Pittsburgh MSA – Allegheny, Armstrong, Butler, Beaver, Fayette, Washington and Westmoreland Counties.

Planned Unit Development (PUD) – A PUD is a development, usually residential, that is planned in its entirety rather than lot-by-lot. A PUD will typically have a clustering of structures to preserve open space and unique natural features. It may contain a mix of housing types (single-family) as well as non-residential uses. PUDs have an advantage over conventional lot-by-lot development, in that the best use of land can be made through a comprehensive, unified site plan.



Privatization – The contracting of public services or selling public assets to private industry.

Public Facilities – Streets, utility and service corridors, utility lines, sites for schools, parks, parking garage, sidewalks, pedestrian ways, community facilities, public highways, storm drainage systems, water systems, street lighting systems, off-street parking facilities and sanitary sewerage systems.

Public Involvement – Coordination events and informational materials geared at encouraging the public to participate in project development. A successful Public Involvement Program facilitates the exchange of information among project sponsors and outside groups and the general public, and includes meetings, surveys, committees, presentations, etc.

■ R

Refuse – Waste material generated as a result of the washing process of raw coal.

Regionally Significant – A project that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc. or transportation terminals as well as most terminal themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including, as a minimum, all principal arterial highways and all fixed guideway transit facilities that offer a significant alternative to regional highway travel.

Remediation – Involves clean-up of environmentally sensitive material as well as cost for studies relocation, management, overhead and other expenses.

Riparian – Pertaining to anything connected with or immediately adjacent to the banks of a stream.

Roadway Deficiencies – Problems with the existing roadway system or lack of a roadway system that cause safety concerns, motorist inconvenience or traffic congestion.

■ S

Safety Improvements – Roadway maintenance activities and smaller construction projects that correct conditions occurring on or alongside an existing highway. Typically involves minor widening, resurfacing, regrading roadside, hazard or obstacle elimination, guiderail installation, and miscellaneous maintenance.

Section 401 Water Quality Certification – Required as per Section 401 of the Federal Clean Water Act for projects involving the discharge of materials into surface waters, including wetlands. The applicant must demonstrate that activities will comply with Pennsylvania water quality standards and other provisions of federal and state law and regulations regarding conventional and nonconventional pollutants, new source performance standards, and toxic pollutants.

Section 404 – Section 404 of the Clean Water Act requires approval by the United States Army Corps of Engineers (COE) prior to the placement of any fill materials into waters of the United States, including wetlands.

Seeps – Location where fluids contained in the ground slowly release to the surface and often form small pools.

Shared-ride – Public transportation services which include demand responsive transportation that is available to the general public, operates on a non-fixed route basis and charges a fee to riders. The first fare-paying passenger to enter the public transportation vehicle may not refuse to share the vehicle with other passengers during a given trip.

Signalization – Intersections that carry large vehicular volumes cannot be safely and satisfactorily controlled without traffic signals. The installation of traffic signals at an intersection can effectively separate all or most conflicting flows, bringing about a degree of orderliness and safety that would otherwise be impossible at higher traffic volumes.

Sinkhole – A hollow place or depression where drainage or waste collects or is deposited.

Spoil – Overburden or non-coal material removed in gaining access to the material extracted through surface mining methods.

Sprawl – Uncontrolled growth, usually of a low-density nature, in previously rural areas and some distance from existing development and infrastructure.

State Implementation Plan – A document prepared by state government officials, specifying measures to be used in the attainment and maintenance of national Ambient Air Quality Standards.

Statewide Transportation Plan – The official statewide, intermodal transportation plan that is developed through the statewide transportation planning process.

Stationary Source – Stationary sources of air pollutants are relatively large, fixed sources of emissions (i.e. chemical process industries, petroleum refining and petrochemical operations, or wood processing).

Stormwater Runoff – Rainwater or snow melt that runs off surfaces (such as pavement) into water bodies.

Stream Corridor – Any river, stream, pond, lake, or wetland, together with adjacent upland areas, that support protective bands of vegetation that line the waters' edge.

Streetscape – A design term referring to all the elements that constitute the physical makeup of a street and that, as a group, define its character, including building frontage, street paving, street furniture, landscaping, including trees and other plantings, awnings and marquees, signs, and lighting.

Strip Development – A mixed commercial/retail zone, usually only one store deep, that occurs along both sides of a main street or road.

Subdivision – The division or re-division of lots, tracts or parcels. A municipal ordinance that regulates how this may occur, including, but not limited to, public streets, parks, utilities and storm water management.

Subsidence – Downward movement of strata over mined-out voids.

Sufficiency Rating – A numerical rating of a section of roadway or of a bridge. This rating is obtained by comparing that section with an ideal section, looking at such factors as structure, safety and service. This rating is one of the tools used in developing maintenance priorities.

System Linkage – Improving access to various points throughout the region by connecting or "linking" two or more transportation routes.

T

Taking – A government action that results in the public acquisition of property, or a severe decline in the value of the property. A taking typically results when land use regulations are so severe that they substantially or entirely eliminate a property owner's profit, use and enjoyment of his or her land.

Tax Abatement – The taxing entity abates or reduces a portion of the tax burden; this can happen in the form of an adjustment on an individual property basis or in an abatement zone, such as a Keystone Opportunity Zone.

Tax Increment Financing (TIF) – A public financing method which uses the additional taxes generated by a completed development to pay for development costs such as land acquisition and site improvements. The difference between the taxes before the development occurs and after its completion is referred to as the 'increment'.

Topography – The natural surface features of a region, including its relief; may be land or water-bottom surface.

Transfer of Development Rights (TDR) – Ability to transfer property entitlements from one property to another when one of the parcels is located in a designated development area.

Transit-Oriented Development (TOD) – The concept of using mass transit as the focal point of new development, particularly housing, because if residents can be bought close to mass transit, people would be more inclined to use it rather than their own automobiles.

Transit Revitalization Investment District (TRID) Act of 2004 – Authorizes state public transportation agencies to work cooperatively with counties, local governments, transportation authorities, the private sector, and AMTRAK to:

- create and designate Transit Revitalization Investment Districts;
- facilitate and implement TODs; and
- promote economic development, community revitalization and increased transit ridership.



Transit-Supportive Land Use – Land uses and land use forms supportive of alternative forms of transportation and typically including high-density mixed uses.

Transportation Demand Management – Actions which are designated to change travel behavior in order to improve performance of transportation facilities and to reduce need for additional highway capacity. Methods may include ride-sharing and vanpool programs, trip-reduction incentives and congestion mitigation pricing. These methods will generally be evaluated on a regional basis rather than a project by project basis.

Twelve-Year Program – The official prioritized listing, as adopted by the PA Department of Transportation and the State Transportation Commission, of those transportation improvements identified for development and implementation in Pennsylvania during the upcoming 12 years. The plan, together with any additions or changes, is subject to review and re-adoption biannually.

■ U

Urban Area – An area having a Center City population of 50,000 or more as defined by the 1990 US Census; may also include other major population concentrations where a systems planning study is deemed necessary.

■ V

Vehicle Miles Traveled (VMT) – The sum of distances traveled by all motor vehicles in a specified region in a given period of time. Travel demand forecasting (modeling) is used to generate the average trip lengths for a region. The average trip length measure can then be used in estimating vehicle miles of travel, which in turn is used in estimating gasoline usage or mobile source emissions of air pollutants.

Velocity – The time rate of motion; the distance traveled divided by the time required to travel that distance.

Visitability – A term used to describe housing that does not have the kinds of physical barriers that prevent or make visits by people with mobility impairments difficult.

■ W

Watershed – A region or area bounded by a water parting and draining ultimately to a particular watercourse or body of water.

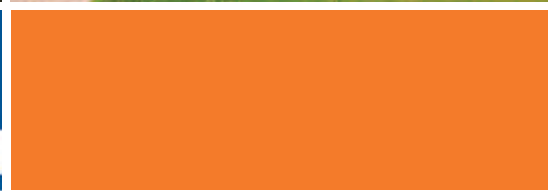
Wetland – Lands frequently inundated or saturated with water. An important natural resource that provides flood control, pollution control and habitat for fish, birds and mammals and aquatic life. Wetlands are more commonly known as marshes, bogs, swamps, wet meadows and shallow ponds.

■ Z

Zoning Ordinance – Municipal regulations that may permit, prohibit, regulate, restrict and determine:

- Size, height, bulk, location, construction, repair, maintenance, alteration, razing, removal and use of structures.
- Areas and dimensions of land and bodies of water to be occupied by uses and structures, as well as areas, courts, yards and other open spaces and distances to be left unoccupied by uses and structures.
- Density of population and intensity of fundamental rights provided for citizens in the Constitution and should be protected at all costs.





Allegheny County
Pennsylvania