WASHINGTON COUNTY

GREENWAYS PLAN

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What are Greenways?

In 2001, the Pennsylvania Department of Conservation and Natural Resources (DCNR) launched a state-wide initiative to implement a strategic plan that would preserve the natural character of Pennsylvania. This initiative came about as a result of Governor Ridge's Executive Order 1998-3, charging DCNR, the Department of Environmental Protection (DEP), and the Department of Transportation (PENNDOT) with establishing the Pennsylvania Greenways Partnership Program. The initiative culminated in a report, *Pennsylvania Greenways: An Action Plan for Creating Connections,* which envisions a statewide interconnected greenways network. The Action Plan serves as a guide for all levels of government to follow when developing a plan for greenways within their community.

The action plan developed the following definition of greenways:

> *"A greenway is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of green that run through urban, suburban, and rural areas to wider corridors that incorporate diverse natural, cultural and scenic features. They can incorporate both public and private property, and can be land- or water-based. They may follow old railways, canals, or ridge tops, or they may follow stream corridors, shorelines, or wetlands, and include water trails for non-motorized craft. Some greenways are recreational corridors or scenic byways that may accommodate motorized and non-motorized vehicles. Others function almost exclusively for environmental protection and are not designed for human passage. Greenways differ in their location and function, but overall, a greenway will protect natural, cultural, and scenic resources, provide recreational benefits, enhance natural beauty and quality of life in neighborhoods and communities, and stimulate economic development opportunities."*
>
> *-Pennsylvania Greenways: An Action Plan for Creating Connections, 2001*

"Hubs and Spokes"

The Action Plan puts forth a "hubs and spokes" approach to a greenways network. The Greenway Hubs are the "destination areas" or gathering places. The Greenway Spokes are the corridors of open-space or recreation trails that connect the various greenway hubs. Together, a system of hubs and spokes "will help to preserve a green infrastructure for future generations and provide 'green' connections for people and wildlife" (Pennsylvania Greenways: An action plan for creating connections, 2001).

Because the Action Plan's definition of a greenway is so inclusive, the following definitions were created to guide the Washington County planning process. These definitions categorize greenways by type and use, which will allow for specific implementation strategies to be devised for each category.

Hubs are defined as access points using the Action Plan definition that Greenway Hubs are destination areas or gathering places. Hubs are intended for human use, where many people will be able to utilize the ecological and recreational benefits available. Therefore, rather than identifying an entire lake or State Park as a hub, only access points to these locations are considered hubs. Examples of Greenway Hubs include recreational destinations such as State Parks, State Game Lands, County Parks, municipal parks, campgrounds, and water access points; natural, historic, and cultural sites that protect and interpret Pennsylvania's heritage; and major trip generators, such as dense traditional downtowns, major interchanges where development is expected to occur, colleges and universities, primary and secondary schools, former industrial sites or brownfields to spur economic development, and major employers.

Spokes are linear corridors that provide connectivity and accessibility between Greenway Hubs. Because of varying sizes and uses, Greenway Spokes are separated into three categories: Trails; Natural Areas; and Greenways.

Natural Areas are typically large areas of high ecological importance with nature observation or environmental education functions. High quality watersheds and landscape conservation areas are typically too large to be acquired for complete protection, so municipal regulations can be used to preserve the ecological integrity, water quality, and wildlife habitats in these areas. Although not linear in nature, these areas typically provide connectivity and accessibility for wildlife within their boundaries, rather than serving as destination areas.

Recreational Greenways are linear corridors of ecological importance that include some form of low-impact recreation. Recreational greenways can include:

- Provide non-motorized public access;
- Connect neighborhoods with destinations;
- Provide for alternative forms of transportation;
- Provide recreation and physical fitness opportunities;
- Provide a strong interpretative element showcasing historic or cultural events, such as heritage corridors and rails-to-trails;
- Serve non-motorized water recreation users; and
- Accommodate motorized recreational vehicles, such as snowmobiles or ATVs, in a responsible manner.

Conservation Greenways are linear corridors of ecological importance and are intended to have little or no human impacts associated with their designation. Two types of Conservation Greenways are Riparian Buffers and Landscape Corridors. A Riparian Buffer is a corridor of vegetation along a stream bank that shades and cools the stream, protects the banks from erosion, and provides for wildlife movement and habitat. Landscape Corridors are tracts that connect habitat areas with each other to provide connectivity.

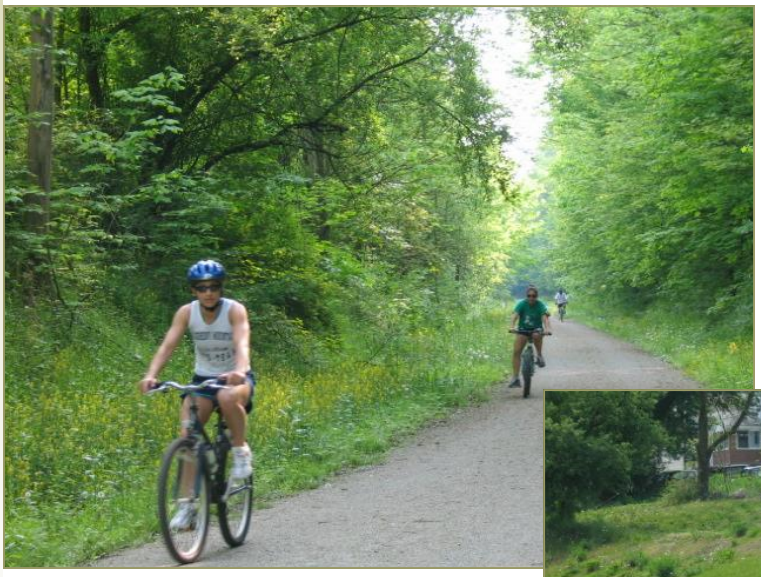
Benefits of Greenways

The benefits of land conservation for open space and greenways has been extensively documented by many private and public organizations. According to the Trust for Public Land (2004), the most significant threat to the quality of the water supply is "pollution from non-point sources related to development" (p. 9). Such pollution is the result of runoff from impervious surfaces that can include oil and toxic metals or runoff from developed areas and contain pesticides and other chemicals. As development spreads from urban cores to undeveloped lands, the natural buffer of forestlands and wetlands are destroyed thus removing the protective filter inherent to these natural systems. Even the negative impacts of agricultural uses are increased by the loss of wetlands, natural grasses, and forestlands. An aggressive policy to ensure the integrity of the water supply is essential and must be undertaken from a "source to tap" approach (TPL, p. 10). Source protection means the conservation of natural lands while tap protection means implementing proper water treatment programs and preventing the deterioration of water distribution infrastructure.

A recent study by David J. Nowak, The Effects of Urban Trees on Air Quality (2005), showed the positive environmental impacts that are associated with the presence of trees in a community. Trees can dramatically affect temperature, reduce air pollution, and improve building efficiency. Nowak determined that trees can actually lower or raise air temperatures given the extent of the tree canopy in an area. Air pollution can be reduced through a variety of ecological factors unique to plant material. Finally, Nowak found that the placement of trees in an urban environment can actually improve the energy efficiency of buildings by providing shade and blocking wind, thereby reducing pollutant emissions.

Greenways also provide economic benefits to the communities in which they are located. The economic benefit of greenways and open space preservation can be seen in increased property values as noted in the report *Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors* by the National Park Service (1992). The value-added benefit that greenway opportunities provide to residents include aesthetic improvements and outdoor recreation opportunities. The report documents higher property values for areas closer to greenways as compared to properties further away. Additionally, it was found that residential areas situated near protected areas had property values that increased at a proportionally higher rate. These findings were supported by the *Trust for Public Land report The Benefits of Parks: Why America needs more city parks and open space* (2005), which found a correlation between open space and higher property values. Additionally, it was shown that homeowners prefer to purchase dwelling units close in proximity to parks, trails, or protected open space.

Health and social benefits can be realized by people who avail themselves to greenway opportunities and the many activities that can be experienced. The Center for Disease Control (CDC) documented health benefits through the establishment of open space or other areas that can be used for avenues to participate in physical activity. In a 1996 study, *Physical Activity and Health: A Report of the Surgeon General*, the CDC describes the concept of a "health-promoting environment" that could be established through the development of "bike paths, parks, and incentives to encourage walking or bicycling to work" (p. 214). The report also documented that many communities have implemented land use regulations to "protect open spaces and other areas that can subsequently be used for recreational pursuits. Such greenways, or linear open space, can connect neighborhoods and foster the use of bicycling and walking for transportation" (CDC, p. 247).



According to the Pennsylvania Greenways Partnership (1998), the key to greenways is connectivity, which allows for the movement of wildlife between Greenspaces or Hubs. The health and safety of wildlife is dependent upon the presence of appropriate habitat and corridors that allow for a pattern of movement sufficient to avoid inbreeding and depletion of food stock. Habitat fragmentation can occur when open space and forested lands are destroyed by development or industry. However, wildlife corridors can co-exist even in urban situations as long as proper mitigation measures and best management practices are adhered to when development occurs. For instance, transportation projects should incorporate animal friendly practices to allow for strategic wildlife passage in a manner that does not harm the traveling public or reduce wildlife habitat. Such methods can include elevating a road structure, installing larger culverts, and incorporating wildlife buffers when building bridges. Urban areas can improve wildlife habitat by restoring riparian buffers, reforesting grassy areas, and building low-impact trail corridors.

Finally, according to Pennsylvania Greenways: An action plan for creating connections (2001), Greenways offer many benefits including the following:

- enhance the sense of place in a community or region;
- accentuate scenic beauty;
- protect water resources by buffering non-point sources of pollution;
- provide opportunities to protect and manage wildlife, forests and ecological systems;
- provide recreation opportunities for families and individuals of all ages and abilities;
- provide alternatives to automotive transportation, reducing traffic congestion;
- contribute to the economic climate; and
- foster health and wellness.

A more in-depth report on the benefits of greenways, Benefits of Greenways: A Pennsylvania Study, is available online at http://www.pagreenways.org/toolbox/Benefits.pdf.

Why a Greenways Plan?

The Washington County greenways plan was initiated following the adoption of the Washington County Comprehensive Plan (November 23, 2005). The coordination of these two important county-level planning efforts affirmed the County's commitment to proactive planning to balance development and preservation. The County Comprehensive Plan included a public participation process that documented the deep appreciation by residents for the scenic beauty of the County's landscapes. Many of the Comprehensive Plan's recommendations support concepts for the protection and promotion of natural features. With the County Comprehensive Plan as its foundation, the Greenways Plan will strengthen the County's capacity to direct development and preservation efforts in a manner that will achieve a desirable quality of life for future generations.

The successful adoption of the Washington County Greenways Plan will also further the Commonwealth's goal of planning for and establishing greenway connections. Funding for the Washington County Greenways Plan was received from the Department of Conservation and Natural Resources (DCNR) with additional funding sources contributed through the development of the County's Comprehensive Plan that included private contributions, the County General Fund, and a Land Use Planning and Technical Assistance Program grant from the Pennsylvania Department of Community and Economic Development.

Pennsylvania Greenways: An Action Plan for Creating Connections

GOAL: PLAN AND ESTABLISH GREENWAY CONNECTIONS

(Strategy 2 of 12): *Greenway Plans:* Promote the development of "greenway plans" by county and local governments as an integral part of their comprehensive planning and implementation efforts, encouraging them to link greenway concerns with programs that address sound land use, community revitalization, recreation needs and open space protection.

- 2007: All 67 counties complete and adopt Greenway Plans.

Relationship to the Washington County Comprehensive Plan

The Washington County Greenways Plan achieves the requirements for a natural resources inventory as specified under the Pennsylvania Municipalities Planning Code, Act of 1968, P.L. 805, No. 247, as reenacted and amended; and, shall be considered as an addendum to the Washington County Comprehensive Plan, which was adopted in 2005. The Washington County Greenways Plan can also serve as a stand alone document for parties or persons interested in planning for development, recreation, or public infrastructure; those who may be interested in preservation or environmental issues; or, those who wish to develop local municipal policies towards greenway development.

Purpose and Intent

The purpose of the Washington County Greenways Plan is to identify priority locations for greenway development, strategize actions to preserve these locations, and engage wide spread support for such goals. The Washington County Greenways Plan establishes County policies for the establishment of a Greenways network for reference and application by residents, municipal officials, developers, planners, state and federal agencies, etc. It is not the intent of this plan to dictate that all the identified greenway areas are unsuitable for development of any nature. Rather, the policies serve to identify areas that have significant contributions to the ecological and natural character in Washington County with the ultimate vision to respect the fragile balance between development and the protection of critical habitat, recreational areas, and the overall quality of life. The Washington County Greenways Plan shall serve as a tool for better decision making when addressing issues of urban design, agriculture preservation, residential needs, transportation impacts, etc.

Planning Strategy

The Washington County Greenways Plan is designed to identify priority greenways, develop strategies, and establish County-level policies for greenways development. The recommendations and plan of action were developed in a manner to facilitate coordination and cooperation locally among Washington County's municipalities and regionally with other counties and the Commonwealth. The planning process was inclusive to the diverse needs of the County's constituents, including abilities and interests, and incorporated an educational component to increase public awareness about greenways and their benefits. The detailed mapping clearly represents the diversity of the greenways network, both existing and proposed. The plan specifies a financial strategy that can be developed to provide the foundation for the County's commitment to the long-term support of greenways. Therefore, the Washington County Greenways Plan should be used by state-level agencies as a guide for funding greenway initiatives and programming in Southwestern Pennsylvania.

The Washington County Greenways planning strategy adhered to the guidelines set forth in *Pennsylvania Greenways: An action plan for creating connections* (DCNR, 2001). The greenways planning strategy encompassed the following components:

- Inventory and data development *(Chapters 2 & 3)*
- Visioning, greenway identification, and strategy development *(Chapter 4, 5 & 6)*
- Plan review and validation of recommendations (to occur annually)

The inventory and data development portion was eased by the work contained in the Comprehensive Plan. The Washington County Comprehensive Plan included a review of previous planning initiatives at the County, municipal and regional levels. The plan review was conducted for the Greenways Plan to include data relevant to greenways *(see Chapter 2)*. The Comprehensive Plan included a detailed analysis of natural and environmental resources, open space and recreation assets, and agricultural lands. Additional data were collected for the Greenways Plan as needed. This was supplemented by a public participation campaign that identified quality of life issues such as natural settings, rural character, and recreational assets. These resources were compiled to establish a baseline of data to build a detailed Geographic Information System (GIS) database for mapping purposes *(see Chapter 3)*.

The visioning, greenway identification, and strategy development process was facilitated by the active participation of the Steering Committee. This committee volunteered numerous hours to support a plan for the establishment of a Washington County Greenways Network. The committee served as stakeholders to represent the needs of key community groups, private businesses, and government agencies, all of which are vital in implementing the Greenways Plan. The committee guided the plan development by conveying overarching goals and concerns *(Chapter 4)*, identifying proposed greenways and hubs *(Chapter 5),* and brainstorming realistic and creative strategies for implementation *(Chapter 6)*. The Steering Committee membership was purposefully kept fluid so as to ensure an open communication process.

The final process involved a presentation of the Washington County Greenways Plan to the Steering Committee, municipalities, and general public. The Washington County Commissioners felt that this was essential to validate the plan's recommendations and strategies, and also to continue the momentum of participation and awareness that accompanied the development of the Plan.

County Greenway Policies

A. Implementation

The Washington County Greenways Plan will support municipalities and grassroots organizations with the acquisition, ownership, and maintenance of greenways. Implementation strategies are located in *Chapter 6: Implementation*. The Washington County Planning Commission will provide review and implementation of the Greenways Plan through educational outreach and coordination of grant funds and potential projects. The Washington County Conservation District will use the Greenways Plan to directs its actions to preserve important natural areas. Likewise the Washington County Recreation Department will work closely with the Planning Commission to continue implementing the Washington County Recreation Plan and the Greenways Plan.

B. Regional Greenways

Regional Greenways include locations identified at a state or regional level. The County will support agencies in implementing the Washington County Greenways Plan to further regional and state goals.

C. County Greenways

County Greenways include locations that may span several Washington County municipalities, cross County borders or encompass a large geographic area, but which have not been identified at a regional level. The County will support municipalities and grassroots organizations in implementing the Washington County Greenways Plan.

D. Urban Greenspace

Urban greenspace includes locations within the built environment of a populated area such as a borough or city. The Washington County Greenways Plan recognizes the need to "preserve "open space, protect water supplies, conserve agricultural land, and create new recreational areas. However, developed lands that have promise for redevelopment should not be razed to manufacture open space, but rather incorporate greenspace into redevelopment plans. With that understanding, Washington County recognizes that many locations within urbanized areas have the potential for creating greenway connections within the smaller scope of a municipality, neighborhood, or development by incorporating greenspace into new uses. Residential subdivisions, educational campuses, and business park locations can easily assimilate greenspace concepts into their land development efforts. Municipal parks, owned and managed by

a municipality or private entity for recreational use by citizens of that municipality, are another source of urban greenspace. Although many of these areas are not included in the County Greenways Plan, the County encourages municipal policies that protect these greenways and their incorporation in municipal or multi-municipal Greenways Plans.

E. Providing Greenways For All Users

Pennsylvania Greenways: An action plan for creating connections (2001) prioritizes the need for various types of users to have access to greenways. This includes off-highway vehicles (OHVs), which include snowmobiles, 4x4 trucks, off-road motorcycles, and all-terrain vehicles (ATVs). The County supports recreational outlets for all users and is receptive to the establishment of such facilities pending funding availability and public review. The County supports the investigation of a multi-county approach to the provision of recreational facilities.

F. Connections

A key to a greenways system is providing connections. Although greenways may not at first be identified as ecologically important, a further examination shows the importance that greenways can have in allowing for the movement of wildlife between habitats. The County encourages greenways that provide connectivity between hubs and other greenways. Urban greenways that create the spokes between nearby areas are encouraged.

G. Roadways

Roadway corridors provide a unique habitat for roadside species, which consist of plant species that are able to thrive in human-impacted environments. However, most roadway construction involves constructing a paved surface, which destroys the existing land cover and can fragment habitats and natural areas, such as wetlands. The health and safety of wildlife is dependent upon the presence of appropriate habitat and corridors that allow for a pattern of movement sufficient to avoid inbreeding and depletion of food stock. The County encourages municipalities to take an comprehensive approach to remediation for greenways by requiring proper mitigation measures and best management practices prior to roadway construction.

As noted in the Comprehensive Plan, major roadway projects, such as the Southern Beltway Corridor, are planned for Washington County in the next ten to twenty years. Federal guidelines require wetland mitigation measures be used to restore or replace wetlands that are disturbed during construction. The County will "get ahead" of these projects to ensure that wetland mitigation occurs strategically to enhance the objectives of this Greenways Plan.

H. Abandoned Rail Right-of-Way

An abandoned rail right-of-way is a strip of land previously prepared for railroads that is no longer actively used by rail cars. These right-of-ways offer a convenient opportunity for developing trails or protecting the cultural heritage of the County. The County supports the preservation of abandoned rail right-of-ways or their development into Rail-to-Trails.

I. Utility Corridors

These corridors host power generation facilities including electric or natural gas transmission. The utility corridor can include the entire transmission line and associated facilities. The County supports the strategic inclusion of utility corridors as greenways as appropriate, but because of liability issues, the use should be conservation and preservation instead of recreation.

J. Riparian Buffers

Riparian buffers are linear strips of land located along wetlands, lakes, streams, rivers, and ponds. These areas of vegetation should be maintained along the shore of a water body to protect water quality and stabilize stream channels and banks. Such vegetation is essential to good water quality and aquatic habitats as well as serving as an excellent habitat for wildlife. The County should work with the State to meet its goal of adding 600 miles of riparian buffers and working to conserve all existing buffers by 2010.

"The ultimate test of man's conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard."
—Gaylord Nelson, former governor of Wisconsin, co-founder of Earth Day

K. Floodplains

Floodplains are important to a community and its environment because they hold back storm flows and reduce destructive flooding downstream. In addition, they provide fertile cropland for agriculture and important shading for stream habitat. Floodplains also provide an important linkage between aquatic and upland habitat. The County supports floodplain protection and encourages municipalities to include provisions for floodplain protection in their ordinances.

L. Wetlands

Wetlands can be defined as transitional layers between terrestrial and aquatic environments where the water table often exists at or near the surface, or the land is inundated by water (Cowardin, Carter, Golet, LaRoe, 1979). Wetlands serve many functions, including the passive treatment of acid mine drainage, sediment trapping, nutrient filtering, providing wildlife and aquatic habitat, and controlling floodflows. The County supports countywide remediation efforts to protect these important ecological resources and encourages the strategic mitigation of wetlands to help transportation and development projects meet Federal requirements. The County's first priority in regard to wetland mitigation is on-site mitigation instead of moving wetlands, particularly where impervious surface will be created in flood areas.

M. Protecting Wildlife and Wildlife Habitat

The County values its natural heritage and through the policies established in the County Greenways Plan will work closely with other agencies, municipalities, and the public to protect these resources for future generations.

N. Steep Slopes

Steep slopes are defined as those in excess of 25 percent and can cause serious problems for development, because they are prone to erosion and are expensive to grade. In addition, Washington County's soils have high clay content and with the amount of rainfall in the area, regardless of the slope, the soils are very prone to slip, causing landslides. The County supports the establishment by municipalities of municipal guidelines to control development affected by these unstable land characteristics.

O. Ridge Tops

Ridge tops are important features in regards to watershed planning and defining the character of topographical features. A ridge top is the continuous horizon line extending along the highest elevation of a mountain chain or line of hills. Protecting ridge tops is one method used to protect viewsheds and scenic vistas. The County values its scenic vistas and viewsheds, but the State and Federal framework is not available to make ridge top protection a priority at this time.

P. Agricultural Uses

The Washington County Comprehensive Plan stressed the importance of protecting agriculture as a viable and profitable industry. Agricultural pursuits can support greenways planning when done so in an environmentally conscientious fashion. For instance, active farming can result in the discharge of pollutants, such as fertilizers, pesticides, and manure disposal, into Pennsylvania's waterways. Washington County supports best management practices for the agricultural industry and efforts to lessen the negative environmental impacts related to farming.

Q. Easements

The Wasington County agricultural easement program provides the option for a landowner to sell the development rights to land dedicated for agricultural uses. The agricultural easement establishes a protection on the land, securing the agricultural use for future generations. Conservation easements are similar in that they provide a protection to the land from development, without purchasing the land outright. Conservation easements are generally used to protect natural resources of significance. The County supports using easements strategically to help further greenways initiatives.

R. Ownership

The Washington County Greenways Network should be acquired, owned, and managed by a variety of entities including private, municipal, county, state, and federal groups, or some combination of these organizations.

The planning process for the Washington County Comprehensive Plan included a review of local, county, and regional planning efforts. The review has been included for the purposes of coordinating other planning efforts with the Washington County Greenways Plan. The relationship between the Washington County Comprehensive Plan and the Washington County Greenways Plan is included in *Chapter 1: Greenways Explained*.

Washington County

Washington County Natural Heritage Inventory (NHI)

The NHI is a database that is spatially designed to catalogue elements of the natural environment including plant, animal, and mineral resources. The Western Pennsylvania Conservancy (WPC), the Department of Conservation and Natural Resources (DCNR), and The Nature Conservancy (TNC) have joined together to develop the Pennsylvania Natural Heritage Program. The Natural Heritage Program is responsible for the collection, tracking, and interpretation of information relating to the biological diversity of the Commonwealth. The Natural Heritage efforts in Pennsylvania are actually a smaller part of the internationally run program organized by NatureServe (WPC, 2005).

The NHI identifies and maps lands that support native species biodiversity; endangered species and their habitats; exceptional or unique plants and animals; areas important for wildlife habitat, open space, education, scientific study, and recreation; areas undisturbed by human activity; and, potential habitats for species of special concern (WPC, 1994). The data gathered in the NHI provides a wealth of information from which to base decisions related to development and preservation. However, the inventory should not be considered the final word on the natural, living, and built resources of a community; rather, the NHI should be used as a baseline from which to conduct additional research to detail specific locations.

The classification of a Natural Heritage Area is based upon the ecological value of that particular site and the particular attributes of identified resources. The NHI categorizes two types of Natural Heritage Areas: Biological Diversity Area (BDA), and Landscape Conservation Area (LCA).

> BDA—"An area containing plants or animals of special concern at state or federal levels, exemplary natural communities, or exceptional native diversity. BDAs include both the immediate habitat and surrounding lands important in the support of these special elements." BDAs are further categorized into Core Areas and Surrounding Natural Landscape, both of which are defined according to their sensitivity to human activities.

- Core areas delineate essential habitat that cannot absorb significant levels of activity without substantial impact to the elements of concern.
- Surrounding areas maintain vital ecological processes or secondary habitat that may be able to accommodate some type of low-impact activities.

LCA—"A large contiguous area that is important because of its size, open space, habitats, and/or inclusion of one or more BDAs. Although an LCA includes a variety of land uses, it typically has not been heavily disturbed and thus retains much of its natural character."

Two additional classifications are integrated into the NHI; Important Bird Areas (IBA) and Important Mammal Areas (IMA).

IBA—This program is administered by the Pennsylvania Audubon Society and is defined as "a site that is part of a global network of places recognized for their outstanding value to bird conservation." Washington County has three IBAs—Raccoon Creek Valley, Enlow Fork, and Lower Buffalo Creek Watershed.

IMA—This program is a collaborative effort of the National Wildlife Federation, the Pennsylvania Wildlife Federation, Pennsylvania Game Commission, PA Federation of Sportsmen's Clubs, Carnegie Museum of Natural History, and Indiana University of Pennsylvania. According to the Pennsylvania Wildlife Federation (http://www.pawildlife.org/, 2005) their "primary concern is to help ensure the future of Pennsylvania's wild mammals, both game and non-game species." However, the IMA also indicates an interest in "habitats that simply have high mammalian diversity."

Although the County has not formally identified specific locations to be protected or set aside for conservation, the *Washington County NHI* (WPC, 1994) does outline potential target areas for future preservation and conservation efforts. The NHI identifies the following locations as those having the greatest potential to protect the ecological system and biological diversity of the County (WPC, 1994, p. 13):

- Mingo Creek County Park
- Cross Creek County Park
- Meadowcroft Village
- Portions of six (6) State Game Lands

The Washington County NHI states that, while the county retains a rural atmosphere, it is rapidly loosing that character through the expansion of development from the Pittsburgh metropolitan area (WPC, 1994, p 17). One example resulting from this urbanization is the negative effect on agricultural pursuits in Washington County and degradation of open space. However, the NHI focuses primarily on ecological values such as habitats for plants and animals as well as the identification of areas that allow linkages for flora and fauna to access the landscape.

The Washington County NHI also notes that the county's landscape consisting of "alternating fields and woodlots…(that) makes potential implementation of management recommendations complex…" (NHI, p 18). Considering the implications of such an assessment almost a full decade ago, it stands to reason that such conditions have worsened due to additional development and growth that have occurred since 1994.

Washington County Recreation Plan

In 2000, Washington County adopted a Comprehensive Recreation, Park and Open Space Plan and Master Plans for Mingo Creek and Cross Creek County Parks (Pashek Associates). The plan includes an inventory of facilities and programs, an assessment of administrative and maintenance procedures in place within the County and an overview of the financing for parks and recreation. The Comprehensive Recreation, Park and Open Space plan was developed with the following Mission Statement: "*To provide for the leisure needs of residents and broaden the awareness of nature and history through regionally significant educational and wellness opportunities that bring all age groups together and enhance the quality of life.*"

As a part of the planning process for the recreation plan, a variety of public involvement techniques were used to collect residents' opinions regarding parks and recreation in Washington County. A recreational needs questionnaire was distributed to 6,888 households in Washington County in the spring of 1999 and 964 surveys were returned for a return rate of 14 percent. In addition, four public meetings were held throughout the County along with stakeholder interviews and study group meetings. The public input collected was used to develop the goals, objectives and strategies for the recreation plan. Goal statements were developed for each of the topics and are as follows:

- To increase awareness of events, programs and the location of county park facilities and communicate the mission of the County Department of Parks and Recreation.
- To make available opportunities for the development of collaborative agreements and relationships.

- To promote the value of regionally significant facilities as an impetus for the interpretation of the County's culture, heritage and stimulating tourism and economic development.
- To acknowledge and support preservation of unique natural resources and promote the value of greenways as linear parks for the enjoyment of future generations.
- To provide educational and wellness opportunities and support for special events.
- To ensure that an appropriate level of funds are available for the department to meet the recreation demands of current and future residents.
- To operate parks in a safe, efficient and effective manner.
- To clarify staffing roles and increase the level of staff / volunteers to meet the future demand for programming, safety and maintenance.
- To provide regionally significant facilities with an emphasis on nature and history to meet the changing needs of County residents.
- To maintain the unique character of each facility while expanding the number of safe leisure opportunities.

Specific to the Washington County Parks, goals are:

- Cross Creek Park—to develop a water-oriented park that supports fishing, hunting, boating, environmental education, trail use and group camping.
- Mingo Creek Park—to preserve the special qualities of the stream valley and to provide opportunities for special events, fishing, passive recreation, group activities, trail use and interpretation of the County's history.
- Ten Mile Creek Park—To provide boating access to the Monongahela River and offer a variety of passive recreational opportunities.
- Panhandle Trail—To develop a safe, regionally important linear County park.

Since the completion of the Washington County Recreation Plan, the following actions have occurred:

- Installation of public water to shelter areas in parks.
- Paved shelter pads and areas adjacent to shelter fountains.
- Partnered with Amateur Astronomers Society to construct Observatory and provide astronomy programs to public.
- Reconstructed access road to Shelter 10 and constructed access road to Observatory.
- Hired two full time recreation program coordinators to conduct various programs in County Parks. Participation has increased from 4008 in 2005 to 5286 in 2006.
- Accessibility improvements to shelters and restroom areas in Mingo and

Cross Creek to be constructed in 2007.

- Grant awarded to extend paved walking/biking trail to Hemlock Trailhead in Mingo.
- Boating facilities grant awarded to improve and pave parking at Cross Creek.
- Thompson Hill Access to Cross Creek Park planned to construct access road, boat launch, picnic pavilion, picnic area, fishing dock, restroom facilities, water well, and playground area.
- Streambank stabilization project completed with Army Corps of Engineers at Ten Mile Creek.
- Approximately 6 miles of Panhandle Trail completed in 2006 in cooperation with Alex Paris Contracting.
- 6.5 miles of Panhandle Trail under construction by RA Yanko Construction to be completed in 2007.
- 2.5 miles of Panhandle Trail through Smith Township/Burgettstown Borough under design by EADS Group for 2008/2009 construction.
- Gas and Oil lease entered with Great Lakes Energy for Cross Creek Park resulting in lease and royalty revenues for County to utilize on improvements to Cross Creek Park.
- CSX tunnels in West Alexander Borough and Donegal Township along Route 40 rehabilitated in cooperation with DCNR, PHMC and National Road Heritage Corridor.
- Grant awarded for multi-use trail in Cross Creek Park.
- Planning further expansion of paved walking/biking path in Mingo Park to Henry Covered Bridge; playground expansions and development in Cross Creek Park and Mingo Park; Cross Creek Shelter/program facility with Growing Greener allocation.
- Preserve America White House designation received in 2006. Grant being submitted in 2007 for heritage tourism marketing plan.
- Fairgrounds Master Site Development Plan to be initiated in 2007.
- Act 167 Stormwater Management Plan Phase I to be initiated in 2007.

Municipalities

The following summaries have been provided regarding municipal and multi-municipal Comprehensive Plans that have been adopted in Washington County within the last ten years.

Bentleyville Borough, Adopted 2001

1. Create new zoning district to accommodate the current land uses and desired future land uses in the interchange area
2. Reduce the impact of commercial traffic on residential properties on Gibson Road
3. Discourage land uses that are not harmonious with neighboring land uses and accommodate land uses that do not currently comply with zoning regulations
4. Manage future growth of borough

California Borough, Adopted 2003

- To enable California Borough to control future land uses by providing guidelines that reflect the recommendations of the adopted California Borough Comprehensive Plan and that will establish local control over the location of unwanted businesses (adult uses, those that pollute the air or water, etc.) and minimize any associated negative impacts upon the region while promoting economic development and protecting the integrity of residential, commercial and industrial uses
- To utilize the Monongahela River to its fullest capacity for development and recreation efforts
- Recognize the complex and unique issues associated with the Monongahela River and capitalize upon this resource for the betterment of the region
- Ensure that future development along the Monongahela Riverbanks reflects the recommendations of the adopted Comprehensive Plan
- To promote a sustainable community by ensuring that future development meets the economic and social needs of the residents in a manner that does not detract from or destroy the productivity or health of its natural systems
- Ensure that the enforcement of the adopted plans / ordinances are in accordance with the goals and recommendations established by the California Borough Comprehensive Plan
- To preserve and improve the natural areas of the region
- Recognize and protect environmentally sensitive areas
- Restrict building in floodplains / wetlands, and on steep slopes
- To improve the quality of the various watersheds within the project area
- Develop a comprehensive water quality database

Canton Township, Adopted 2002

- Revitalize the area surrounding Interstate 70, Exit 5 –Jessop, by seeking to declare this region a LERTA zone

Cecil Township, Adopted 1997

- Maintain the primarily rural atmosphere of the Township
- Preserve and protect the established villages in the Township
- Protect existing single family neighborhoods and guide future suburban residential development to areas which can be served by public sewers
- Guide future multifamily development to areas which can be served by public sewers and which are close to transportation, shopping and services
- Promote the growth of businesses in the Township
- Protect residential areas from intrusion and negative impacts from nonresidential development

Chartiers Township, Adopted 1999

- Maintain a compatible and balanced utilization of land between residential, commercial, industrial and public uses
- Create incentives for developers to redevelop older, run-down properties
- Maintain minimum lots sizes in agricultural areas in order to preserve open space and maintain the rural setting of much of the Township
- Maintain the environmental integrity of the Township through open space preservation and more compact development
- Expand designation of commercial zones in the Township in order to attract more economic development that is compatible with surrounding land uses
- Encourage the provision of safe and attractive residential areas for citizens
- Encourage future development in proximity to existing development and compatible land uses
- Participate in coordination and cooperation for land use planning with adjacent municipalities and Washington County

Deemston Borough, Adopted 2004

- Balance land development and smart growth policies
- Develop land use policies to encourage new development that generates tax revenue to support municipal services
- Provide recreational opportunities that will contribute to the quality of life for residents and create an inviting atmosphere for visitors
- Provide appropriate opportunities to support new residential development and enhance existing residential services
- Provide a multi-modal transportation network that is efficient, safe and enhances access to, and within, the borough while complimenting the regional system

- Establish a water and sewerage network for the Borough
- Enhance the quality of life for residents by improving municipal services
- Plan regionally to strengthen the economic structure including workforce, industry, and business pursuits

Donegal Township, Adopted 2001

- Encourage non-residential development in the immediate vicinity of the interchanges
- Identify properties in the immediate vicinity of the interchanges where sewers and access are available and topography is conducive to development and designate these properties as an economic development district
- Develop information about the sites and make it available to prospective developers
- Establish a listing of available loans, grants and other incentives to provide to developers
- Adopt an economic development plan which sets goals and design criteria for development in the Route 40 Corridor
- Actively recruit developers that fit the criteria for development established by the community
- Continue to cooperate with the West Alexander and Claysville Sewer Authorities to achieve increased capacity for development of the Route 40 corridor
- Develop in harmony with environment
- Recruit development that has little or no impact on the environment
- Work in cooperation with the Buffalo Creek Watershed Association and other environmental protection agencies and organizations
- Consider amendments to the subdivision ordinance designed to protect the environment
- Revisit the issue of zoning at least annually
- Continue the discussions on the advantages and disadvantages of a zoning ordinance
- Monitor development patterns and pressures to determine when and if zoning is appropriate
- Adopt one Planning Commission meeting per year as a zoning discussion meeting and invite the public to participate in educational programs on zoning

Fallowfield Township, Adopted 1998

- Protect and preserve the rural character of the Township
- Protect and preserve existing and future residential areas from impacts of incompatible land uses
- Guide more intensive residential and nonresidential growth to areas where future sanitary sewer service is proposed
- Accommodate the land use impact of the Mon Fayette Expressway Coyle-Curtin

Interchange
- Provide additional opportunities for commercial and industrial growth
- Keep the text of the Zoning Ordinance up to date with changes in legislation, Pennsylvania case law, and good planning practice

Mid Mon Valley Regional Comprehensive Plan "Planning Together for the Future," Adopted 2003 by Allenport Borough, Coal Center Borough, Dunlevy Borough, Elco Borough, Roscoe Borough, and Stockdale Borough
- Provide local control over residential, commercial, and industrial development
- Establish local control over the location of unwanted businesses (adult uses, those that pollute the air or water, etc.)
- Recognize the complex and unique issues associated with the Monongahela River and capitalize upon this resource
- Complete a Riverfront Development Plan
- Complete and enforce a regional zoning ordinance
- Adopt a riverfront development ordinance
- Ensure that the enforcement of the adopted plans / ordinances are in accordance with the goals and recommendations established by the Mid Mon Valley Regional Planning and Zoning Commission
- Recognize and protect environmentally sensitive areas
- Restrict building in floodplains / wetlands, and on steep slopes
- Implement an air quality action plan
- Develop a comprehensive water quality database

North Strabane Township, Adopted 2003
- Improve the community's attractiveness and quality of life by creating a distinct Township identify
- Protect and utilize the community's natural, cultural and historic resources for the benefit of current and future generations while accommodating planned growth
- Accommodate the existing and future development needs by strategically expanding and financing sewer improvements through public-private cooperative partnerships
- Optimize the physical and economic benefits of the proposed Southern Beltway and other potential transportation improvements
- Provide a range of housing choices in targeted areas while encouraging single-family ownership
- Continue to provide diverse employment opportunities by responding to market demands
- Maintain high-quality public services, civic programs and educational opportunities by optimizing available resources
- Exercise fiscal responsibility by continuing to maintain a balance between land use, development, tax revenues, school district services and costs

- Provide a framework for strategic decision-making regarding the evaluation and implementation of proposed development and construction within targeted growth areas
- Establish zoning and land development regulations that balance development densities with infrastructure capacities

Peters Township, Adopted 2001

- Complete a comprehensive update of the existing zoning and subdivision ordinances
- Seek builder/developer and agricultural/residential community input into the formation of specific zoning and subdivision ordinance amendments
- Develop a design overlay district along Route 19, which identifies design guidelines for new developments, reuse projects, and building expansions
- Develop a Low Density Residential/Agricultural District which promotes the use of conservation subdivision design to preserve open space and the rural qualities of the township while maintaining the minimum half-acre lots
- Create McMurray Town Center District
- Consider rezoning the East Valley Brook Road Mixed use Corridor as a mixed use zone, between Route 19 and Nottingham Township, which would permit offices, limited light industrial and multi-family residential
- Rezone the portion of land located on the southside of West Valley Brook Road to rural residential with PRD option being supported to encourage creative design and natural features of the area
- Develop a Venetia Road Neighborhood Commercial Corridor that encourages a mix of residential and convenience retail uses
- Develop specific lighting standards in the zoning ordinance which address levels of illumination and light trespass from buildings or lots
- Develop provisions for off street parking areas, which are oriented to the rear or side of structures in order to manage access points and reduce the negative effect of vast pavement areas in front of structures.
- Require clearly defined walkways within parking lots which are landscaped and separate from traffic lanes and vehicle overhangs
- Re-evaluate the height standards for multi-family structures

Raccoon Valley, Adopted 2002 by Burgettstown Borough, Hanover Township, Jefferson Township, and Smith Township

- Focus future development to the parts of the region that can support development
- Preserve the rural character of the region
- Protect and enhance recreation and historic sites in the region
- Participate in a multi-municipal planning and zoning program

Robinson Township, Adopted 1999

- Encourage development which protects the rural character of the Township
- Ensure that growth areas provide opportunities for a variety of uses
- Base future land uses on location, need and desired intensity
- Target growth into the appropriately identified "growth areas"
- Permit higher density residential growth only where utility extensions are not required or are already planned
- Develop corridor design guidelines for the key transportation roadways
- Review and revise as necessary, all existing land use regulations in order to remain consistent with the recommendations of this plan
- Promote preservation of existing farmland and/or agri-businesses
- Create preservation program for active farms
- Determine needs of township farmers for improvements
- Educate residents about Agricultural Security Area program
- Encourage creation of agricultural security areas and farm owner participation
- Encourage conservation easement agreements between property-owners and conservation organizations
- Protect the natural environment and those areas with developmental constraints
- Create an Environmental Advisory Council
- Promote protection of the environment in land use ordinances
- Create development regulations which enhance and protect areas with developmental constraints
- Encourage reclamation of existing disturbed land areas
- Provide adequate services to township residents
- Create a Capital Improvements Program in order to prioritize future improvements and expansions of existing facilities
- Continue support of the volunteer fire department
- Develop an inventory of municipal structures, furnishings and equipment
- Develop a program for the inclusion of additional capital improvements to be provided by Township residents
- Consider a cooperative agreement with the school district and adjacent municipalities to provide effective use of facilities and avoid duplication of services
- Review park and recreation needs to determine adequacy, or lack thereof, of existing facilities and coordinate future development with other agencies/boards (e.g., school board)
- Prioritize projects on an annual basis for inclusion in the C.I.P.
- Determine appropriate action for provision of sanitary sewage and water distribution service to residents at the most reasonable cost
- Promote the preservation of identifies environmentally sensitive areas and natural resource
- Discourage disturbance of steep slopes and areas with soils prone to slippages
- Discourage development on or in identified environmentally sensitive areas

South Strabane Township "Comprehensive Development Plan," Adopted 1995

- Creation and maintenance of orderly development patterns, and the coordination of the interrelationships between residential and business areas to provide for functionally distinguishable but complimentary districts
- Maintenance and improvement of the aesthetic qualities of the community
- Protection of the natural environmental quality and significant open space features throughout the Township
- Protection of the residential character of the community consistent with the need for a variety of housing types and densities and the ability of the community to expand in an orderly manner
- Preservation of property values and encouragement of the highest and best use of the developable land areas
- Maintenance and expansion of the municipal economic base
- Development of the access-ways, utility systems, municipal services and community facilities consistent with local needs
- Coordination and cooperation with area and regional development programs and trends that are consistent with the type and quality of growth necessary to achieve the community development objectives of the Township

The Region

The Natural Infrastructure Project (NI)

The NI establishes a research-based process to catalogue elements of the natural environment as well as to determine the potential uses and characteristics of natural resources with respect to the human environment in the Southwestern Pennsylvania region. The relevance of the NI Project is that it creates a benchmark for conducting community assessments. The NI Project outlines a quantitative process to evaluate the suitability of land for a particular use and provides planning applications pertinent to both small community planning endeavors and regional and statewide initiatives. The ramifications of the Natural Infrastructure (NI) Project are far reaching. For instance, counties, local governments, decision makers, and planners can apply the NI framework to identify locations that can accommodate such high impact uses as sanitary landfills to those more readily accepted by the citizenry such as parks and trails.

The NI details five steps to complete the assessment application.

1. Define Objectives
2. Inventory Natural Resources
3. Identify Natural Infrastructure Uses
4. Analyze Conflicts
5. Balance Uses

Defining objectives is the first step in the NI process, when the process is qualitatively affected by community values and desires or the needs of the particular project. Creating an inventory of natural resources with spatial locations that can be mapped is the second step. The third step is the identification of uses for the area being studied by listing potential uses, their characteristics and specifications, and identifying lands most suitable for the identified uses. The fourth step is to analyze what is presented once the list of uses and the natural resources are overlaid, which can present multi-use opportunities or conflicts. The final step is to balance the uses through a four-tiered analysis and culminate the NI process. As stated in the Working Draft of the NI Project "A balance between uses resolves conflicts, decreases the irreparable loss of natural resources and minimizes reactionary policy decisions." The methodology applied in the Washington County Greenways Plan followed that outlined in the NI Project.

In addition, a review of Comprehensive Plans of the counties contiguous to Washington County was conducted during the Comprehensive Planning process to ensure that the recommendations and policies of the Washington County Comprehensive Plan were consistent with neighboring counties. This review is included as related to greenways planning.

Allegheny County Comprehensive Plan—In 2005, Allegheny County began to develop their first countywide comprehensive land use plan, a process expected to take 2-3 years. In 1992, the County prepared the *Allegheny County 2001* report, which identified the need to preserve open space within the County and encourage new development in areas already served by existing infrastructure. The entire southwest border of Allegheny County borders Washington County and the presence of the Pittsburgh regional market will continue to affect development patterns in Washington County.

Allegheny County Riverfront Policy Plan (1993)—This document is a management plan for the riverfronts of the Ohio River, Allegheny River, and Monongahela River in Allegheny County. The goal of this plan was to protect natural resources, promote development, coordinate public facilities, and provide for river access. Affecting Washington County are the recommendations pertaining to the Monongahela River across from the New Eagle area.

The Allegheny County Greenways Plan will emphasize the preservation, enhancement, and, where necessary, the acquisition of areas which contain sensitive natural features and will create linkages at the municipal and inter-municipal level.

Dennis M. Davin, Director County of Allegheny Department of Economic Development
(Written correspondence, 11-21-05)

Allegheny County Riverfront Park.

A linear park is envisioned for the four rivers that fall within Allegheny County that would span over 80 miles of shoreline in Allegheny County. The Riverfront Park proposal was approved in November 2006 by the Allegheny County Council and authorizes the Allegheny County Department of Public Works and the Department of Parks, Recreation and Conservation to identify and map the boundaries of the park. The proposal and corresponding ordinances also authorizes the design and engineering efforts to develop the park and provides the authorization to acquire necessary property.

Allegheny County Conservation Corridors Plan (1994)—The conservation Corridors plan identified and mapped conservation corridors throughout Allegheny County. The plan recommended that municipal governments and community groups take action to protect these areas. Allegheny County identified 29 Conservation Corridors, of which, seven abut Washington County. Of the seven corridors affecting Washington County, three were identified as a High Preservation Priority; Chartiers Run, Montour Run, and Potato Run.

Allegheny County Greenways (1995)—This document outlines a variety of strategies for citizens, municipal governments, and County government to develop a countywide network of greenways. Concepts include natural areas, commuter bikeways, riverfront development, and design concepts for transportation improvements.

Beaver County—Beaver County adopted their county comprehensive plan, "Horizons: Planning for the 21st Century "in December of 1999. The plan identifies a general land use plan for the County that is to be used as a framework for future development and investment. The objective of the rural development areas are to "preserve the open, rural character of Beaver County, supporting agriculture as the primary land use while enhancing villages to accommodate future development. " Recommended land uses include single family housing, agriculture, agricultural supporting businesses, recreation / open space, and mining / quarries / sanitary landfills / power plants and other similar types of industries that require a rural location. The southern portion of the County that borders Washington has been designated for rural development. Beaver County is in the process of preparing a greenway and open space plan. The Beaver County draft plan notes that the Hillman State Park is a recreation hub and a possible connection should be investigated via Cain Road across Wingfield Run. Such a recommendation would support connections to and additional use of Washington County Raccoon Creek State Park in Washington County. Additionally, the Beaver County Greenways Plan recommends that Raccoon Creek obtain formal designation from the PA Fish and Boat Commission as a State Water Trail.

Westmoreland County—Westmoreland County adopted their comprehensive plan in 2005. The portion of the county that borders Washington is separated by the Monongahela River. One of the areas that may impact Washington County is the City of Monessen - an urban area that once was a major employer in the region due to the steel industry. Because the city has been losing population over the past 10+ years, the focus of future land use will be rehabilitation and reinvestment. Another area within Westmoreland County that may impact the Monongahela River Valley communities in Washington County is Rostraver Township. The township has been experiencing significant population, housing and business growth over the past few decades. Westmoreland County is in the process of preparing a greenway and open space plan, but unfortunately additional information was not available for inclusion into the Washington County Greenways Plan.

Fayette County—Fayette County adopted their county comprehensive land use plan in 2000, "Land Usage in Fayette County: Building a Better Future." The plan includes a general future land use map for the County. As the Monongahela River serves as the border between Washington and Fayette counties, it is important to note the land uses alongside the river in Fayette. The land uses along the river are varied but tend to favor recreation, rural and agricultural uses in the south. In the north, the land uses tend to be slightly more urban, with Brownsville Borough, Newell Borough and Belle Vernon Borough listed as "existing built areas" and because of the proposed construction of the MonFayette Expressway, Luzerne Township has been designated as a future growth area. Fayette County has just begun the process of preparing a greenway and open space plan. The County is currently in the data collection phase and no recommendations have been made.

Greene County—Greene County began developing their comprehensive plan update in 2005 and is expected to adopt the plan by 2007. As Greene County is predominantly rural, the bordering land uses are comprised mainly of agricultural lands, open space, and forested lands. The areas that may have a future impact on development in Washington County would be along the Interstate 79 and PA Route 88 corridors and the Monongahela River. Greene County is also completing a Comprehensive Parks, Recreation and Trails / Greenways Plan (draft submitted in 2006). The Greene County plan identifies potential trail connections with Washington County via the Greene River Trail extension through Clarksville Borough into Ten Mile Creek Park; the development of the Ten Mile Creek Water Trail; and the possibility of developing the abandoned Washington-Waynesburg Connector railroad corridor as a rail-trail. In addition, two natural areas abut Washington County: Enlow Fork and Browns Creek. These areas are recommended for preservation by limiting human impacts and development so as to protect the ecosystems of these natural areas. Enlow Fork Natural Area is home to the Enlow Valley Important Bird Area (IBA), Enlow Fork Wheeling Creek Trout Stocked

Fishery, and State Game Lands 302, which cross the border into Washington County. Browns Creek Natural Area encompasses the high quality Browns Creek Watershed and Browns Creek Warm Water Fishery, prime agricultural farmland, and several identified Landscape Conservation Areas (LCA).

The Comprehensive Parks, Recreation and Trails / Greenways Plan also included a cursory analysis of areas within the County that would be suitable for the development of ATV trails and/or park. The analysis served only to identify general areas where the development of such a facility would not negatively impact the environment; it did not include an in-depth site assessment or investigate public support. Sites were initially excluded based upon the presence of biodiversity areas (BDA), landscape conservation areas (LCA), important bird areas (IBA), high quality watersheds and streams, cold water fisheries, State Game Lands, state parks, local parks, existing greenways, and population centers. Criteria to support the development of an ATV related facility included disturbed land as a result of resource/mineral extraction or other industrial activity, presence of ridge lines to provide a visual and noise barrier, and suitable road network to provide access to the site. Based upon these criteria, three sites were deemed as viable for such a facility, with the Wayne Township site, located in south-central Greene County near State Route 218, cited as having the most potential due to local interest. The intent of the suitability analysis was only to direct future investigative efforts and should not be misconstrued as a final recommendation as to the feasibility of developing an ATV site.

West Virginia—Washington County is bordered to the west by four counties in West Virginia – Brooke County, Hancock County, Marshall County, and Ohio County. A review of planning efforts of these counties was prepared during the Comprehensive Planning process to ensure that the recommendations and policies of the Washington County Comprehensive Plan were consistent with its neighboring state. This review is included for greenways planning purposes.

The governing structure in West Virginia differs from the Commonwealth of Pennsylvania in that the County's governing body controls any land that is unincorporated. Incorporated areas are political structures and follow the West Virginia State Code as does the County. The State of West Virginia signed into law Senate Bill 454, which modernized the state's planning enabling legislation. Senate Bill 454 repeals Chapter 8, Article 24 of the West Virginia State Code. The new chapter in the state code, Chapter 8A Land Use Planning maintains the permissive status of planning in West Virginia but does clarify the connection between a comprehensive plan and a zoning ordinance. Chapter 8A requires that governing bodies may enact zoning ordinances and subdivision and land development ordinances only after a comprehensive plan has been adopted.

The planning for Brooke and Hancock Counties is accomplished at a regional level. The Brooke, Hancock and Jefferson Metropolitan Planning Office performs the transportation, water and sewer planning for Brooke and Hancock counties in WV and Jefferson County in Ohio. They also are responsible for redevelopment and brownfield projects and have not prepared any comprehensive or land use plans for these counties.

Marshall County - Marshall County does not have a comprehensive land use plan or a planning department / commission. The area that borders Washington County is almost entirely unincorporated and mainly rural. There are presently no land use policies in place.

Ohio County – Ohio is the most urbanized of the bordering counties, as it contains the City of Wheeling. There is no county planning commission or department.

Given the geographic proximity of Washington County to neighboring West Virginia, it is recommended that the County continue efforts to learn of new development plans, transportation improvements, or redevelopment efforts. Development in either state can have regional impacts that could affect migration patterns, transportation needs, etc. For instance, the Starpointe Industrial Park located in Washington County is accessible to West Virginia via SR 22/30. Such a development will increase employment opportunities in surrounding Pennsylvania counties and those in West Virginia.

The Commonwealth of Pennsylvania

Pennsylvania Greenways: An action plan for creating connections, 2001

The Action Plan serves as a guide to assist all forms of government in developing a statewide interconnected greenway system that resembles the interstate highway system in Pennsylvania. The Action Plan was developed following the distribution of public surveys, holding regional greenways workshops, and conducting agency policy reviews. This extensive effort yielded an understanding of needs and existing resources, and established the direction for state agency actions. One of the initiatives of the Action Plan is the development of county greenways plans in all 67 counties by 2007. The Action Plan also establishes a "hub and spokes" approach for a greenways network. The hubs of the network range from destination areas, such as communities or shopping centers, to natural areas, like parks or lakes. The spokes are the actual greenways, which will connect the various natural, historic, cultural and recreational areas. Common spokes of a greenways network can include riparian buffers, non-motorized public access trails, water trails, and even trails that accommodate motorized recreational vehicles such as snowmobiles or ATVs.

Conservation / Preservation

The Monongahela River Conservation Plan (1998)—The Steel Industry Heritage Corporation received funding to prepare a River Conservation Plan for the Monongahela River from the state line of West Virginia to the Glenwood Bridge in the City of Pittsburgh. The study addressed an area of one mile on either side of the river over a linear corridor of 84 river miles that encompasses portions of 65 municipalities in five counties (Allegheny, Greene, Fayette, Westmoreland, and Washington). The Monongahela River Conservation Plan included a variety of management options for the following categories: Cultural and Historical, Economic Development, Education, Natural Resources, Planning and Zoning, and Recreation. Many of the recommendations included under the management options have been undertaken. Others remain to be implemented. Significant recommendations affecting Greenways address concepts of trail development, including a Mon River Water Trail and the redevelopment of bridges for use as trail connections over the Monongahela River.

The Monongahela River Conservation Plan; The Boroughs of Brownsville, California, Centerville, Coal Center, Newell, West Brownsville, and Luzerne Township (1998)—This project was funded through a DCNR Rivers Conservation Program grant to Brownsville Borough. The plan included seven municipalities in two counties, as noted above. The plan includes recommendations regarding land use controls, reuse of river terminals and industrial sites, redevelopment of Ferry Terminals, mine reclamation to improve water quality, and increase public river access.

Upper Chartiers Creek River Conservation Plan (2003)—The Chartiers Creek Watershed Association (CCWA) and the Washington County Watershed Alliance (WCWA) developed the Upper Chartiers Creek River Conservation Plan with the following identified goals:

- Improve water quality,
- Promote sustainable land development,
- Enhance existing recreational opportunities,
- Protect the natural, historic, and scenic beauty,
- Prepare for future growth,
- Encourage compatible economic development,
- Foster communication among stakeholders, and
- Advocate for environmental education programs.

The Upper Chartiers Creek River Conservation Plan supports the implementation of Best Management Practices for agricultural operations, developing model ordinances and guiding local municipal planning efforts, and protecting environmentally fragile areas. While several conservation plans and studies have been completed for the

waterways affecting Washington County. The Upper Chartiers Creek River Conservation Plan (RCP) is an example of successful implementation. Early activities by the Steering Committee included substantial public education and informational activities. Following adoption of the RCP, members of the Steering Committee made presentations to most or all of the municipalities in the watershed. A newsletter and newspaper articles were published and the Executive Summary was widely distributed. All public libraries received copies. Current major projects include: planning for restoring and enhancing Canonsburg Lake, preservation of wetlands in North Franklin Township, and a stream assessment for Catfish Creek.

The Raccoon Creek Watershed Restoration Plan (2000)—The study determined that the major source of pollution within this watershed is AMD. The Watershed Plan specifies the maximum amount of a pollutant that a stream can receive and still meet water quality standards, and allocates pollutant loadings among point and nonpoint pollutant sources. The Washington County Conservation District, United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS), and California University of Pennsylvania Partners for Wildlife Program have worked together and installed agricultural Best Management Practices (BMPs) to improve water quality, aquatic and terrestrial habitat, and hydrologic control in the watershed.

Buffalo Creek Watershed Assessment and Protection Plan (2005)—The Western Pennsylvania Conservancy was contracted to develop the *Buffalo Creek Watershed Assessment and Protection Plan* by the Buffalo Creek Watershed Association, in conjunction with the Washington County Watershed Alliance, using funds received from a Growing Greener Grant from the Pennsylvania Department of Environmental Protection. The plan includes a comprehensive source of past and present natural resource and water quality data, important natural and historic sites, and potential restoration/protection projects and future funding sources within the watershed. Two main contributors to water pollution within the watershed were identified as nutrient loading and sedimentation.

The Cross Creek Watershed Assessment, Restoration, and Protection Plan (2003)—The Cross Creek watershed plan identified several major concerns within this watershed including: sedimentation from dirt and gravel roads, livestock stream access, and lack of riparian buffer protection; lack of sewage service in urbanized areas; and AMD. The Washington County Conservation District has sponsored several programs within the Cross Creek Watershed. Grants were provided to farmers to install Best Management Practices (BMPs) to control nutrient runoff and restore riparian corridors.

Recreational Master Plan for Canonsburg Lake—This project will direct funding and planning efforts for the restoration of the Canonsburg Lake Dam. The goal of the

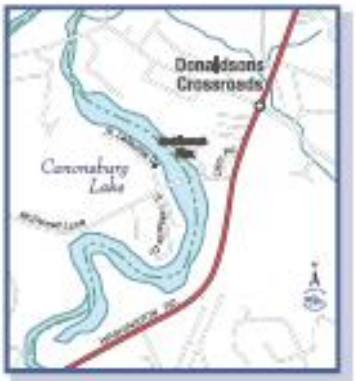
Master Plan is to ensure the safety and continued recreational use of the lake and surrounding area. The project is located in North Strabane Township and Peters Township in Washington County and includes a 76 acre lake that is currently part of the Select Trout-Stocked Lake Program of PFBC and is a highly used recreational amenity that attracts many users on a year round basis. Resources like Canonsburg Lake are key to supporting the Fishing and Tourism Industry in the Commonwealth. This project is being advanced by the Washington County Watershed Alliance.

Washington County
PENNSYLVANIA

2007 Priority Funding *Tourism/Cultural Projects*

Canonsburg Lake Aquatic Restoration Project

Washington County



Description

This project will implement a Corp of Engineers section 206 Aquatic Restoration Feasility Study. Restoring the aquatic ecosystem of the lake that has been severely degraded by sediment deposition. Dredging the sediment from the lake is proposed to enhance the ecosystem for fish species and other aquatic life, restore adequate water levels and create additional wetlands on site.

Key Project Features

- Project has been accepted by the Army Corps of Engineers under Section 206, Water Resource Development Act of 1996.
- Funding has been appropriated to the Corps of Engineers for a feasibility study that is currently taking place.
- Additional funding for 2007 is needed to continue the Section 206 project.
- Continued work is essential to ensure the environmental quality and recreational assets of Canonsburg Lake.
- Dredging the sediment from the lake is also a positive preventative measure to alleviate the possibility of flooding in this highly populated area.
- The Aquatic Restoration has been initiated by the Canonsburg Lake committee and is part of the draft Canonsburg Lake master site plan study.

Project Significance

Economic impact*
in the Commonwealth
Fishing & Boating:
over $2 billion
Tax Revenues:
over $50,000,000

Project Funding

Total project cost:
$3,500,000
Funding secured:
$ 250,000
Funding request:
$2,000,000
section 206
$1,190,000
match

*Resources like Canonsburg Lake are key to supporting the Fishing & Tourism Industry in the Commonwealth

Scenic view of hillsides and ridge tops in southwestern Washington County, 2006

Washington County has large tracts of forested and pasture lands that create spectacular scenic viewsheds. However, much of this land is privately owned with no restrictions that would ensure the preservation of greenspace. Fortunately, there are several locations within the County that can serve as the foundation upon which to build a solid Greenways structure. Locations classified as the Washington County Greenways Inventory include lands protected as greenspace and locations that would be important contributing elements to the greenspace inventory, but which are not protected as such.

Protected Resources

The Washington County Greenways Inventory begins with locations identified upon *Map 1: Protected Resources*, which illustrates all lands within the County that are placed under some method of conservation. Methods of conservation can include State, County or municipal ownership or conservation easements. Protected resources include state park lands, state game lands, state-owned lakes, county parks, regional and county trails, municipal recreation facilities, and conservation easements.

A. State Parks

Hillman State Park is located in the northwestern portion of Washington County as shown on *Map 1: Protected Resources*. The Pennsylvania State Game Commission owns and manages the 4,088 acres of mostly undeveloped land. Public access is allowed at Hillman State Park for hunting during regular hunting seasons and for hiking, mountain biking, horseback riding, and cross-country skiing on trails that are open year around.

B. State Game Lands (SGL)

The Pennsylvania State Game Commission was established in 1895 to manage wild birds and mammals throughout the Commonwealth. The Game Commission is funded by the proceeds received from hunting and fur-taker license sales; State Game Lands timber, mineral and oil/gas revenues; and a federal excise tax on sporting arms and ammunition. With no dedicated allocation from the state budget, the Game Commission is almost entirely supported through the sale of hunting and trapping licenses in Pennsylvania.

Table 3.1: State Game Lands in Washington County

	SGL	Acres	Location
1	117	2,972	The eastern section of Hanover Twp. The northwestern section of Smith Twp.
2	232	5,266	The southern portion of Independence Twp. The northern portion of Donegal Twp.
3	245	3,653	The northwestern, eastern, and southern portion of East Finley Twp. The eastern portion of West Finley Twp. The southwestern portion of South Franklin Twp.
4	297	631	The southern portion of North Bethlehem Twp.
5	302	587	The southern section of West Finley that borders Greene County.
6	303	222	The southeastern portion of Jefferson Twp.
7	432	3,651	The northeastern portion of Donegal Twp. The northwestern and central portion of Blaine Twp. The southeastern portion of Independence Twp.
	Total	16,982	

Source: PA State Game Lands: Southwest Region, SGL (2005)

The seven State Game Lands in Washington County are managed under the Pennsylvania State Game Commission's Southwest Region and total 16,982 acres of public land. Recent land acquisitions by the Game Commission include 3,500 acres in Blaine and Donegal Townships via a property trade with the Washington County Council on Economic Development for Game Commission Property in Smith and Hanover Townships. The Game Lands located in Washington County are listed in Table 3.1 and shown on *Map 1: Protected Resources*.

The PA Game Commission has identified more than 1,000 miles of Designated Routes for Horses and Bicycles in Pennsylvania. These routes are operated under the following State Game Lands use regulations (2003):

> "Anyone who rides a non-motorized vehicle, conveyance or animal on State Game Lands must do so only on designated routes. Such riding activities will not be permitted, except on Sundays or on roads open to public travel, from the last Saturday in September to the third Saturday in January, and after 1 p.m. from the second Saturday in April to the last Saturday in May. "(http://www.pgc.state.pa.us/pgc/cwp, 2005)

However, it should be noted that these regulations do not apply to persons who are legally pursuing hunting, trapping, or fishing activities on State Game Lands. In Washington County four routes have been designated, as follows:

1. SGL # 117—This 2 ¾ mile long route is located north of Burgettstown High School. The route traverses through a reclaimed surface mine on a defined road to the parking lot just off of route 18 north of Burgettstown. The trail provides a connection to Burgettstown High School, allowing access to the game lands for students.

2. SGL # 232—This Designated Route is 2 ¼ miles in length and begins at the intersection

State Game Lands #432, Washington County, 2006

of State Route 331 and State Route 221. The Designated Route leaves State Route 331 to the south and traverses the Game Lands to a parking lot along Dog Run Road.

3. SGL # 245—This Designated Route is approximately 1 1/3 miles and begins at the first gated internal Game Land Road on the south side of Quaker Ridge Road when entering from the east. This route follows a Game Lands road to a Game Lands parking lot on Craft Creek Road.
4. SGL # 245—This 3.5-mile designated route starts on the north side of Quaker Ridge Road and begins at the first parking lot after entering the Game Lands from the east. This route follows an internal road north to Game Land Road where it passes another game land parking lot and turns back down and ends at a second parking lot on Quaker Ridge Road approximately ¼ mile west of the first parking area.

State Game Lands 432, Washington County, 2006

C. Lakes

The Pennsylvania Fish and Boat Commission (PFBC) is an independent Commonwealth agency that operates under the mission to "provide fishing and boating opportunities through the protection and management of aquatic resources." The Fish and Boat Commission owns and operates two fishing lakes within Washington County; Canonsburg Lake and Cross Creek Lake. It is estimated that the economic impact from the fishing industry in Washington County is over $2 billion dollars annually (PFBC, 2006).

Table 3.2: Pennsylvania Fish and Boat Commission Property in Washington County

	Identifier	Acres	Location
1	Canonsburg Lake	136.6	The lake is situated in the townships of North Strabane and Peters.
2	Cross Creek Lake	258	This lake is located in Cross Creek Park - see Table 3.3.

Source: PA State Game Lands: Southwest Region, SGL (2005)

A third fishing lake is Dutch Fork Lake, which was actively used until it was drained following flood damage caused during Hurricane Ivan in 2005. Costs to repair the dam structure and spillway are estimated at $5,200,000.

Table 3.2: Pennsylvania Fish and Boat Commission Property in Washington County, cont.

	Identifier	Acres	Location
3	Dutch Fork Lake	91	This lake was drained in 2005 (see photo below) after the dam was damaged by the flooding caused by Hurricane Ivan. The property is located in Donegal Township, approximately 4 miles west of Claysville.

Source: PA State Game Lands: Southwest Region, SGL (2005)

Dutch Fork Lake, 2006

Cross Creek Lake, 2006

Canonsburg Lake, 2006

D. County Parks

The Washington County Department of Parks and Recreation is responsible for 4,900 acres of County-owned park facilities. The County parks system is comprised of three facilities; **Cross Creek County Park**, **Mingo Creek County Park**, and **Ten Mile Creek County Park**. A variety of amenities are available to residents and visitors, including picnic shelters, nature trails, bicycle and bridle trails, and areas to hunt or fish. The parks also host recreational programs and special events. Table 3.3 displays the established County-owned parks within Washington County and amenities and activities available at each location. The Washington County Comprehensive Recreation and Open Space Plan should be referred to for guidance regarding future development of County Parks.

Table 3.3: Washington County Park System

	Identifier	Acres	Amenities
1	Cross Creek County Park	3,500 acres (includes a 258 Fishing Lake)	Located in Cross Creek Township, this facility has pavilions, picnic tables, grills, playground areas, boat launch, docks, handicapped accessible fishing pier, horseshoe pits, trails, parking areas, restrooms.
2	Mingo Creek County Park	2,600 acres	Located twelve miles east of the City of Washington off of PA Route 136 this facility is home to the Washington County Covered Bridge festival , as two of the County's historic bridges (Ebenezer and Henry) are located within the park. Mingo Creek is a designated High Quality Trout Stocked Fishery and four miles of the stream are designated for fishing. The park has shelters / pavilions, an observatory, picnic tables, grills, playground areas, restrooms, trails, multi-use field, model airplane field, a leash-free dog park, parking areas, and 4 miles of creek.
3	Ten Mile Creek County Park	22 acres	Located near Fredericktown off PA Route 88, the park provides boat access to the Monongahela River. This facility is owned by the Army Corps of Engineers but is managed under a 99-year lease agreement with Washington County. The County leases 12 acres from the US Army Corps of Engineers and owns the remaining 13 acres with the following amenities; pavilions, picnic tables, grills, playground areas, boat launch, dock, restrooms, parking areas.

Source: Washington County Planning Commission, 2006

Cross Creek County Park Trail System

There is a half mile natural surface loop in the Cross Creek County Park. The trail begins at Shelter #2 and terminates at the playground.

A PA Rec Trail Grant was submitted in 2004/2005 to rehabilitate an old roadbed on the northern side of Cross Creek as a natural surface hiking, mountain biking and horseback riding trail. The trail would take users from the dam to the parking area at the upper end of the lake, a distance of five (5) miles. Washington County was notified that the grant application was approved for funding, although a contract has not yet been awarded.

Ten Mile Park Trail System

Ten Mile Park has a small, natural trail system as noted below:

- Beaver Trail—0.3-mile hiking loop, natural surface
- Park Trail—0.5-mile trail, natural surface

Mingo Creek County Park Trail System

In addition to the 17-mile hiking and biking trail, Mingo Creek County Park has the following nature trails:

- Hemlock Trail—a one (1) mile hiking loop, natural surface trail, hiking only.
- Old Spring Trail—a 0.7-mile hiking loop, natural surface, hiking only.
- Unnamed Path—a 0.8-mile paved walking/bicycling only path that begins near the western entrance of Mingo Creek Park and terminates at the Ebenezer Covered Bridge. There are plans to extend this walking path from Ebenezer Bridge to the Hemlock Trailhead Parking Lot, which would extend the path an additional 1.25 miles. Future goals are to extend the path to the Henry Covered Bridge.
- Overlook Trail—a 0.5 mile hiking trail only.
- Little Mingo Creek Road—this bicycle trail runs through Mingo Creek Park and serves as a portion of the Bicycle PA "S" Route.

Ten Mile Creek County Park, 2006

Cross Creek County Park Playground Area, 2006

Mingo Creek County Park, The Ebenezer Bridge, 2006

E. Regional/County Trails

Regional and County trails in Washington County have been identified as shown on Map 1: Protected Resources. All of the major trails in Washington County are classified as Rails-to-Trails, which are trails developed on acquired abandoned rail right-of-ways. These rights-of-ways can be conducive to trail development because of their linear nature and cultural value.

Another type of trail, Rails-with-Trails, allows for access by pedestrians and/or bicyclists in conjunction with an active rail line. Such examples are rare in Pennsylvania due to perceived safety concerns. Although there are no Rails-with-Trails in Washington County, new regulations that address safety issues may make these types of trails more viable in the future.

Each of the following trails has been categorized according to its predominant use. The use of a trail is dictated by its surface, terrain, location, proximity to population centers, and amenities. The following definitions were derived from Creating Connections: The Pennsylvania Greenways and Trails How to Manual (pp 4-6, 1998).

Hike-and-Bike Trails—These trails are identified by an improved trail surface that is wide enough to accommodate pedestrians, bicyclists, cross-country skiers, and possibly horseback riders. Motorized vehicles, except for maintenance, are excluded.

Panhandle Trail

Panhandle Trail, 2006

The Panhandle Trail is a 29-mile trail from Walker's Mill, near Carnegie in Allegheny County, through the northern portion of Washington County to Weirton, West Virginia. The completed trail sections were constructed along the former Conrail railroad line, known previously as the Panhandle Railroad, which connected Pittsburgh to Cincinnati, Chicago and St. Louis. The portion of the trail that lies within Washington County is 17.3 miles long. Once completed, the Panhandle Trail will link the municipalities of Burgettstown, Midway and McDonald to Pittsburgh, PA and trails in West Virginia and Ohio. Management of the Panhandle Trail falls under the auspices of the Washington County Department of Parks and Recreation in Washington County, the Montour Trail Council in Allegheny County, and the Weirton Park Board for the trail sections in West Virginia. The Panhandle Trail Association is a volunteer group associated with the trail. More information can be found at their website at www.panhandletrail.org.

Montour Trail

The Montour Trail spans the northern section of Washington County, linking trail systems in Allegheny County and Maryland. This trail system, known as the Great Allegheny Passage, is recognized by DCNR as one of Pennsylvania's Major Greenway Corridors. The trail, when completed, will extend 47 miles, from Coraopolis to Clairton. Currently, multiple sections of the trail totaling over 40 miles are available for public use with new sections being added each year. The trail is paved with a smooth surface of crushed limestone, which makes it ideal for all forms of non-motorized use: bicycling, walking, running, cross-country skiing, nature appreciation and in designated sections, horseback riding is permitted.

The Montour Trail is under the ownership of the Montour Trail Council (MTC), a non-profit group responsible for trail development, operation and maintenance. MTC relies on corporate, foundation and government grants and private donations for funding. MTC has an active volunteer base who assist with maintenance and light construction (http://www.montourtrail.org). A portion of the Montour Trail falls within Peters Township. This segment is called The Arrowhead Trail and is owned and maintained by the Township.

Montour Trail, 2004

National Pike Trail

Upon completion, the National Pike Trail will follow US Route 40 through the western half of Washington County. The completed trail is expected to include nine bridges and four historic tunnels and will connect into the Wheeling Health Fitness Trail in West Virginia.

The National Pike Trail Council is responsible for trail planning and development. A feasibility study for the trail was completed in 2001, and different portions of the trail are in the planning, acquisition, and development stages. Approximately 1.6 miles of land purchased for the construction of the National Pike Trail are targeted to be opened in spring 2007.

Arrowhead Trail

The Arrowhead Trail is a 3.5-mile section of the Montour Railroad in Peters Township. The section was abandoned in 1977, and the Township purchased the 100 acres of railroad right-of-way in 1985. With the help of state funds, the first phase was developed as a recreational multi-use trail as well as to preserve and reinstate the natural surroundings with native trees and wildflowers. With the aid of a DCNR grant the original section of Arrowhead Trail was resurfaced in 2002. The Arrowhead Trail is recognized as a National Recreation Trail by the Department of Interior. (www.peterstownship.com)

Mingo Creek County Park Trail

The 17-mile Mingo Creek County Park Trail is owned and maintained by Washington County. The trail accommodates the shared uses of bicycling, horseback riding, and mountain bicycling.

Hiking Trails—Hiking trails are typically located in more rural and even remote wilderness areas. Hiking trails will vary in length and in the level of challenge they present. These trails will often provide primitive camping opportunities for hikers interested in backpacking long distances. Although Washington County has no trails classified as a "hiking trail," the Laurel Highlands Trail from Ohiopyle State Park to Seward, PA near Johnstown provides Washington County residents with a regional hiking trail.

Nature Trails—Nature trails are situated in a manner to provide access to interpretative sites or other opportunities for viewing plants and wildlife. These trails are usually less than a mile or two in length and designed in a manner that is circular in fashion. Although some of the trails in the County Parks are similar in size and design to nature trails, no trails in Washington County have designated interpretive sites or signage identifying natural plants and wildlife.

Exercise Trails—This type of trail is located within or near a population center and has an improved surface for persons who wish to walk, jog, run, or bike. Some examples allow for in-line skating and bicyclists. These trails vary in length from 1/4 mile circular routes to trails several miles in length. Exercise trails are located throughout the County in various municipalities. Connections to these trails are best identified in municipal greenways plans.

Bike Routes—This type of trail is located on an existing street or state highway where the surface is wide enough to allow bicyclists to travel safely near, or alongside, vehicles using the roadway. Two designated bike routes are present in Washington County.

BikePA Route A traverses US Route 19 in Washington County in a north-south direction. The route stretches 199 miles from the border of Erie County and New York State to the border of Greene County and West Virginia. The northern half is generally flat while the southern half is gently rolling to hilly. The northern terminus connects to BicyclePA Route Z and the Seaway Trail (www.bikepa.com).

BikePA Route S is the longest BicyclePA Route in the Commonwealth, extending 435 miles from Washington County (east of Wheeling, WV) to Washington Crossing Military Park on the Delaware River in Bucks County, and skirts the metropolitan areas of Pittsburgh, York, Lancaster, and Philadelphia. Part of the route includes 65 miles along the Youghiogheny River and Allegheny Highlands Rail-Trails through southwest Pennsylvania.

BikePA Route A, 2006

Bike Paths—These trails are designed or designated for use by bicyclists only. Bike Paths can include improved surface designs or trails established over terrain that can only accommodate bicycles designed for rough terrain. Although bicycles are allowed on all County-owned trails, no bike paths have been constructed in the County.

BikePA Route S, 2006

Snowmobile and ATV Trails—These trails are designated exclusively for use by motorized recreational vehicles. Motorized trails are present in Washington County under the

ownership of private individuals or locations. Additional information on Off Highway Vehicle Trails is provided in this Chapter under Item F of the Gray Resource Inventory.

Multi-use Trails—This type of trail will accommodate motorized vehicles along with pedestrian or other trail users. Typically, there is some manner of a physical barrier that separates the use. There are no multi-use trails in Washington County.

Water Trails—Water trails utilize rivers or major streams for recreational use by canoeists, kayakers, rafters, or boaters. Water trails are comprised of access points, boat launches, day use sites, and -- in some cases -- overnight camping areas. Water trails are boat routes suitable for canoes, kayaks and small, motorized watercraft. Like conventional trails, water trails are recreational corridors between specific locations. There are no designated Water Trails in Washington County.

F. Municipal Recreation Facilities

Within the County, greenspace is usually preserved at the local level via recreational facilities, usually as traditional parks like those shown on *Map 1: Protected Resources*. These facilities are listed and discussed in the Washington County Comprehensive Plan. However, there are no municipal recreation facilities identified as having Countywide significance.

G. Conservation Easements

An important method to preserve agricultural land is the Pennsylvania Agricultural Conservation Easement Purchase Program, which was established under the Agricultural Area Security Law (1981). The program provides landowners the option to sell the development rights to land dedicated for agricultural uses. The landowner retains ownership, but may not develop the property for any non-agricultural use. An agricultural conservation easement establishes a perpetual restriction on the land, securing the agricultural land for future generations. The County administers the program under the oversight of the Pennsylvania Department of Agriculture.

Washington County follows a ranking system to prioritize potential farms for inclusion into the Agricultural Conservation Easement Program. The Washington County Planning Commission currently is the administering agency and follows the Land Evaluation and Site Assessment (LESA) system. The LESA program was developed by the U.S. Department of Agriculture to provide a method to numerically rank land parcels based on local resource evaluations and site considerations.

Funding to purchase agricultural conservation easements is provided by state, county, and at times, local municipal allocations and private revenue. Unfortunately, due to reduced funding levels, the waiting list includes approximately 20 landowners in Washington County. To date, Washington County has spent $4,680,663 of State money and $120,610 of County money to purchase easements on prime agricultural land. As of April 2005, Washington County had 18 farms with 2,661 acres enrolled in the agricultural conservation easement program as shown on *Map 1: Protected Resources*.

Green Infrastructure (Natural Resources)

The following sections, 'Green Infrastructure' (Natural Resources) and 'Gray Infrastructure' (Manmade Resources) identify locations that are considered to be contributing factors to the Washington County Greenways system, but which have no protection or conservation method associated with them. These resources are identified on Maps 2 thru 8.

Map 2: Water Resources
Map 3: Living Resources
Map 4: Agricultural Resources
Map 5: Forest Resources
Map 6: Topographic Resources
Map 7: Cultural/Historic/Recreational Resources
Map 8: Transportation Facilities and Utility Corridors

A. Watersheds and Major Surface Waters

Watershed associations and water quality are identified below by watershed. Watersheds and water quality are displayed on *Map 2: Water Resources*.

Monongahela River

The Monongahela River major watershed in Washington County has a drainage area of 359 square miles and includes 16 sub-watersheds. The Pennsylvania Department of Environmental Protection (PADEP) has classified the Monongahela river as a Warm Water Fishery (WWF), meaning that this type of stream maintains and propagates fish species and additional flora and fauna that are indigenous to a warm water habitat. Under Section 303(d) of the Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters (USEPA 2004). This section requires that these jurisdictions establish priority rankings for waters on the lists and develop Total Maximum Daily Loads (TMDLs) for these waters. A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and

allocates pollutant loadings among point and nonpoint pollutant sources. The Monongahela River has TMDLs for two pollutants—Chlordane and PCBs. Chlordane was used from 1948 until 1988 in the United States as a pesticide; it bioaccumulates and is a persistent chemical (>20 years). PCBs are manmade chemicals that were used in transformers, paints, adhesives, caulking compounds, some filters, and carbonless copy paper. The Monongahela River Conservation Plan (RCP) was completed in 1998. This plan addresses the stretch of river from the Mason-Dixon Line to where it confluences with the Allegheny River to form the Ohio River.

Ten Mile Creek

Ten Mile Creek watershed has a drainage area of 139 square miles. Ten Mile Creek begins in South Franklin Township and drains east for approximately 12 miles where it empties into Hufford Run in West Bethlehem Township. No TMDLs have been identified for Ten Mile Creek. Ten Mile Creek is classified by the PADEP as a WWF. The Greene County Conservation District has applied for funding to complete a River Conservation Plan for the Ten Mile Creek Watershed, which includes locations within Washington County. Future study efforts will need to be monitored to assure a coordinated approach by both counties.

Mingo Creek

Mingo Creek has a drainage area of 22 square miles. The PADEP has classified a portion of the stream as HQ-WWF from the source to Froman Run. The remaining length is classified as WWF. No organization is associated with this watershed or creek.

Pigeon Creek, Pike Run, and Maple Creek

Pigeon Creek has a drainage area of 59 square miles. It originates in North Bethlehem Township and flows northeast for approximately 15 miles where it empties into the Monongahela River near the city of Monongahela. The PADEP has classified this stream as a WWF. No TMDLs have been established for Pigeon Creek. The Natural Infrastructure project has identified Pigeon Creek as having acid mine drainage.

Pike Run has a drainage area of 29 square miles. It originates in West Pike Run Township and flows east for approximately eight miles where it empties into the Monongahela River near the borough of Coal Center. The PADEP has classified this stream as a WWF. No TMDLs have been established for Pike Run. The Natural Infrastructure project has identified Pike Run as having acid mine drainage.

Maple Creek has a drainage area of 10 square miles. It originates in Fallowfield Township and flows east for approximately 3.5 miles where it empties into the Monongahela River between the boroughs of Charleroi and Speers. The PADEP has classified this stream as a WWF. No TMDLs have been established for Maple Creek.

A watershed association was formed for Pigeon Creek, Pike Run, and Maple Creek in 1998. Although no formal watershed assessment plans have been completed, numerous studies addressing the AMD discharges in the Pike Run headwaters have been conducted.

Peters Creek

Peters Creek has a drainage area of 16 square miles. It originates in Peters Township and flows northeast for approximately seven miles where it empties into the Monongahela River in Allegheny County. The PADEP has classified this stream as a WWF. No TMDLs have been established for Peters Creek. The Natural Infrastructure project has identified Peters Creek as having acid mine drainage.

Other Monongahela River Sub-Watersheds

Other Monongahela River sub-watersheds shown on *Map 2: Water Resources* include Piney Fork (8.5 mi^2), Fishpot Run (5.2 mi^2), Two Mile Run (4.8 mi^2), Lobbs Run (3.9 mi^2), Barneys Run (2.0 mi^2), Dry Run (2.0 mi^2), Hooders Run (1.7 mi^2), Lilly Run (0.8 mi^2), and Huston Run (0.8 mi^2).

Ohio River

The watershed drainage area of the Ohio River Basin, excluding the Tennessee River Basin, includes parts of Illinois, Indiana, Kentucky, Maryland, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia. The total drainage area for the Ohio River Basin is 203,940 square miles. Nine sub-watersheds encompassing approximately 629 square miles of Washington County drain into the Ohio River.

The Ohio River begins in Pittsburgh at the confluence of its two main tributaries, the Allegheny River and the Monongahela River, and flows from Pittsburgh through Allegheny and Beaver Counties to the Ohio border, north of Washington County. The Pennsylvania Department of Environmental Protection (PADEP) has classified the Ohio river as a Warm Water Fishery (WWF), meaning that this type of stream maintains and propagates fish species and additional flora and fauna that are indigenous to a warm water habitat.

Three interstate organizations are dedicated to improving the quality of the Ohio River Basin; The Ohio River Basin Commission, the Ohio River Valley Water Sanitation Commission and the Ohio River Basin Consortium for Research and Education.

Chartiers Creek

Chartiers Creek watershed is the largest sub-watershed in the project area with a drainage area of 165 square miles. It originates in Washington County about seven miles south of the city of Washington in South Franklin Township and flows north/northeast for approximately 30 miles until it empties into the Ohio River in Allegheny County near McKees Rocks at river mile 978.6. Chartiers Creek is classified by the PADEP as a WWF and is one of the most complicated watersheds in Pennsylvania in that it experiences old and new pollution issues alike. Sources include AMD, combined sewer systems, landfills, agriculture, storm water runoff, old and new industrial sites, nuclear waste sites, PCBs, urban storm water runoff, flooding, and junk yard areas. South of Washington Pa, its upper reaches flow through agricultural lands and rural areas that rely on septic systems. Upon entering Washington Pa, the stream is degraded by industrial pollution, treated sewage, and city effects, including urban storm water runoff. North of Washington, the stream passes through suburban commercial and residential areas of Pittsburgh, PA as well as through several old and current industrial sites.

The Catfish Creek Sub-watershed Study and the Robinson Run Sub-watershed Study are two ongoing studies of sub-watersheds in the Chartiers Creek watershed.

Little Chartiers Creek

The main tributary draining into Chartiers Creek is Little Chartiers Creek, which empties into Chartiers just north of Donaldson's Crossroads where Cecil, Peters, and North Strabane Townships meet. Little Chartiers has a drainage area of 47 square miles and is classified as a High Quality WWF (HQ-WWF) by the PADEP for a portion of its length, meaning that the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water. The remaining length is classified as a WWF.

Buffalo Creek

Buffalo Creek has a drainage area of 112 square miles and originates in Independence Township, flowing west through portions of West Virginia and then emptying into the Ohio River south of Wellsburg, West Virginia. The PADEP has classified this stream as a HQ-WWF and no TMDLs have been established for Buffalo Creek. The Washington County

Conservation District, United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS), and California University of Pennsylvania Partners for Wildlife Program have worked together and installed agricultural Best Management Practices (BMPs) to improve water quality, aquatic and terrestrial habitat, and hydrologic control in the Buffalo Creek watershed.

In February 2003, the Buffalo Creek Watershed Association, in conjunction with the Washington County Watershed Alliance, received a Growing Greener Grant from the Pennsylvania Department of Environmental Protection. The Western Pennsylvania Conservancy was contracted to develop the Buffalo Creek Watershed Assessment and Protection Plan, completed in May 2005. Two main contributors to water pollution within the watershed were identified as nutrient loading and sedimentation. The plan put forth recommendations to address these two identified pollutants as well as other sources of pollution. In addition, this plan includes a comprehensive source of past and present natural resource and water quality data, important natural and historic sites, potential restoration or protection projects, and future funding sources to use within the watershed.

Raccoon Creek

Raccoon Creek watershed has a drainage area of 110 square miles. It originates in Mount Pleasant Township and flows north before emptying into the Ohio River in Beaver County. The PADEP has classified Raccoon Creek as a WWF. A Watershed Restoration Plan was completed in 2000. The major source of pollution within this watershed is AMD. TMDLs have been proposed in a Draft Raccoon Creek Watershed TMDL report released in December 2004. The Washington County Conservation District (WCCD) and the Independence Marsh Foundation work closely with the Raccoon Creek Watershed Association. Since this partnership was established, three passive abandoned mine treatment facilities have been installed, including the Langeloth Borehole, Hamilton discharge site in Findlay Township Allegheny County, and the JB#2 treatment facility in Smith Township. In addition, the WCCD has sponsored several programs, including working with farmers to install Best Management Practices (BMPs) to control nutrient runoff and restore riparian corridors. In 2006, the Raccoon Creek Watershed Association applied for funding to complete a River Conservation Plan.

Little Wheeling Creek

The Little Wheeling Creek watershed has a drainage area of 79 square miles and includes Enlow Fork, Robinson Run, and Templeton Fork. The PADEP has classified Little Wheeling Creek as a WWF. No TMDLs have been established. A watershed organization was formed in 2000, although a watershed assessment has not been completed.

Cross Creek

Cross Creek, one of the smaller watersheds in the County, has a drainage area of 63 square miles. It originates in Mount Pleasant Township and flows west through West Virginia until it empties into the Ohio River north of Wellsburg, WV. The PADEP has classified a portion of the stream as HQ-WWF from the source to the Avella Water Intake. The remaining length is classified as WWF. No TMDLs have been established for Cross Creek. The Natural Infrastructure project has identified the lower portion of Cross Creek as having acid mine drainage. A Watershed Assessment, Restoration, and Protection Plan was completed in 2003 for the Cross Creek watershed. The plan identified several major concerns within this watershed including: sedimentation from dirt and gravel roads, livestock stream access, and lack of riparian buffer protection; lack of sewage service in urbanized areas; and Acid Mine Drainage. The Washington County Conservation District has sponsored several programs within the Cross Creek Watershed. Grants were provided to farmers to install Best Management Practices (BMPs) to control nutrient runoff and restore riparian corridors.

Kings Creek

Kings Creek watershed has a drainage area of 25 square miles, originating in Hanover Township and flowing west through West Virginia into the Ohio River. The PADEP has classified Kings Creek and Aunt Clara Fork as cold water fisheries (CWF), the only two in the County. The designation ‘CWF ’means that this type of stream maintains and / or propagates fish species including the family Salmonidae and additional flora and fauna that are indigenous to a cold water habitat. Although no organization has been established, Kings Creek will be included in the River Conservation Plan for Raccoon Creek if funding is awarded.

Harmon Creek

The Harmon Creek watershed has a drainage area of 21 square miles and drains into the Ohio River through West Virginia. The PADEP has classified Harmon Creek as a WWF. No TMDLs have been established, but the watershed does suffer from acid mine drainage, as shown on *Map 2—Water Resources*.

B. Floodplains / Floodways

According to 25 Pa. Code § 106, the definition of a floodplain is "the 100-year floodway and that maximum area of land that is likely to be flooded by a 100-year flood as shown on the floodplain maps approved or promulgated by Federal Emergency Management Agency (FEMA)." A floodway, in comparison, is defined as "the channel of the watercourse and those portions of the adjoining floodplains, which are reasonably required to carry and discharge the 100-year flood."

Floodplains and floodways are important to a community and its environment because they hold back storm flows and reduce destructive flooding downstream. In addition, they provide very fertile cropland for agriculture and important shading for stream habitat. Floodplains also provide an important linkage between aquatic and upland habitat. Municipal ordinances have the most significant effect to enforce appropriate development in these areas. Floodplains and the locations of the twelve flood control dams in Washington County are found on *Map 2: Water Resources*.

C. Living Resources

Natural Heritage Inventory (NHI)

The Washington County NHI (1991) is a record of the important biotic and ecological resources within the political boundaries of Washington County. The major purpose of this inventory is to provide county and local governments and community groups with a valuable tool to assist them in their planning efforts. Not only can this inventory guide local development, it can also give suggestions for protecting significant natural heritage resources in Washington County. The NHI has located areas of significance, and ranked them according to amount, degree, and rate of protection (Exceptional, High, and Notable). The locations of "living resources" are identified on *Map 3: Living Resources*.

Natural Areas (NA)—As defined in the NHI, there are no natural areas identified in the County.

Landscape Conservation Areas (LCA) – A large contiguous area that is important because of its size, open space, and habitats and although including a variety of land uses, has not been heavily disturbed and thus retains much of its natural character. Three "Exceptional" (**Aunt Clara Fork Valley**, **Buffalo Creek—Dutch Fork**, and **Enlow Fork**) and two "High" (**Raccoon Creek Valley** and **Ringlands**) LCAs have been identified within the County as listed in Figure 3-1.

Biological Diversity Areas (BDA) — Eleven "Exceptional", four "High", and eight "Notable" BDAs have been recognized within the County.

- Special Species Habitat – An area that includes natural or human influenced habitat that harbors one or more occurrences of plants or animals recognized as state or national species of special concern.
- High Diversity Area –An area found to possess a high diversity of species of plants and animals native to the county.
- Community/Ecosystem Conservation Area – An area that supports a rare or exemplary natural community (plants or animals), including the highest quality and least disturbed examples of relatively common community types.

Dedicated Areas (DA) – A property, possibly disturbed in the past, where the owner's stated objectives are to protect and maintain the ecological integrity and biological diversity of the property largely through a hands-off management approach, with the intervention only when there are demonstrable threats to the ecology of the area. The NHI names several areas that have the greatest potential to be successfully managed as Dedicated Areas, including Mingo Creek County Park in Nottingham Township, Cross Creek County Park in Hopewell Township, Meadowcraft Village in Independence Township, and portions of the six state game lands (NHI, 1991).

Important Bird Areas (IBA) – The Audubon Society, as the U.S. Partner for BirdLife International, has been working to identify a network of IBAs throughout the US. By focusing attention on the most essential and vulnerable areas, the IBA program promotes proactive habitat conservation which ultimately benefits birds and other wildlife. IBAs range in size from one acre to over 500 square miles, and provide crucial nesting, feeding, roosting, or migratory habitat for birds. Pennsylvania developed the first Audubon IBA program in the United States in 1996. Since then, scientists have identified 81 IBAs across the Commonwealth encompassing over 2 million acres of public and private lands. Three IBAs have been identified in Washington County; **Raccon Creek Valley**, **Buffalo Creek Valley**, and **Enlow Fork**.

Other Heritage Areas (OHA)

- Scientific Area –An area that is consistently utilized for scientific monitoring of the environment, or other natural science studies.
- Educational Area – Land regularly used by educational institutions, local environmental organizations, or general public for nature study or instruction.

Managed Lands —There are two types of managed lands, Public and Private. Neither of these necessarily include, nor are included within, identified natural heritage areas. These properties are typically large in size and are ecologically important in a general sense. Eleven areas considered "Managed Lands" have been recognized within the County, including Cross Creek County Park, Dutch Fork Lake, Hillman State Park, Meadowcroft Village, Mingo Creek County Park, and the six state game lands.

Figure 3-1: Areas Identified by the County Natural Heritage Inventory

BIOLOGICAL DIVERSITY AREAS

Exceptional Value

- Ringlands Slope Forest
- McPherson Creek Valley
- Raccoon Creek Floodplain
- Lower Ten Mile Creek Valley
- Munntown Road
- Froman Run Slope
- Dutch Fork Valley
- Lower Aunt Clara Fork
- Templeton Fork Floodplain
- Enlow Fork Valley

High Value

- Camp Anawanna Tributary Forest
- Cross Creek Valley
- South Branch Maple Creek
- Chartiers Creek Valley
- Wright's Woods
- Mingo Creek
- Riverview Floodplain
- Plumbsock

Notable

- Bailey Bridge Floodplain
- Aunt Clara Fork Floodplain
- Blainsburg Floodplain
- Canonsburg Lake Slope
- Murray Hill Bend
- Robinson Fork Wetlands
- South Branch Pigeon Creek Wetlands
- Black Dog Hollow Slope

LANDSCAPE CONSERVATION AREA

Exceptional Value

- Buffalo Creek—Dutch Fork
- Aunt Clara Fork Valley
- Enlow Fork

High Value

- Ringlands
- Raccoon Creek Valley

IMPORTANT BIRD AREAS

- Raccoon Creek Valley
- Enlow Fork
- Lower Buffalo Creek Watershed

Trout Stocked Fisheries

The PADEP has classified the following streams as Trout Stocked Fisheries (TSF), meaning that these streams provide for the maintenance of stocked trout from February 15 to July 31 and maintenance and propagation of fish species and additional flora and fauna, which are indigenous to a warm water habitat:

- Ten Mile Creek
- Little Chartiers Creek
- Mingo Creek
- Enlow Fork
- Pike Run

The Pennsylvania Fish and Boat Commission (PFBC) has designated Little Chartiers Creek as having "Miscellaneous Special Regulations" from Canonsburg Lake Dam approximately 0.25 mile downstream to the mouth, which means that no fishing is

allowed from March 1 until 8:00 a.m. opening day of trout season. The PFBC has also officially approved the following streams as "approved trout waters", indicating that they meet criteria qualifying them to be stocked with trout by the PFBC:

- Ten Mile Creek
- Little Chartiers Creek
- Aunt Clara Fork
- Kings Fork
- Millers Run
- Pike Run
- Enlow Fork
- Dutch Fork
- Mingo Creek

Riparian Corridors

Riparian buffers, areas of vegetation that are maintained along the shore of a water body to protect stream water quality and stabilize stream channels and banks, are essential to good water quality and aquatic habitats. These areas of tree buffers surrounding bodies of water should be preserved or replanted where feasible. Although the County has not developed a Riparian Corridor GIS file, the presence of a water course indicates where a riparian buffer should be present. Riparian buffers provide additional benefits to landowners and the larger community by:

- Safeguarding water supplies by protecting groundwater recharge areas;
- Providing flood control;
- Providing stormwater management potential – natural vegetation provides a basis for innovative stormwater management systems. Stormwater flows from retention basins can be directed to, and allowed to flow through forested buffers to reduce nutrient and sediment loads;
- Improving the health of municipalities by improving water and air quality;
- Stimulating economic opportunities such as providing valuable open space, which may increase land values and, therefore, the tax base;
- Providing some federal tax incentives to landowners (depending on a landowner's financial situation) willing and able to place some of their lands under conservation easements;
- Cost savings by reducing grounds maintenance;
- Providing recreation opportunities, and associated economic benefits for recreation-related businesses;
- Providing educational and research opportunities for local schools and colleges;
- Providing windbreak, shade, and a visual buffer.

Washington County Stream Bank Fencing Program

Stream bank fencing is an effective method for landowners, including farmers, to improve the water quality of streams on their property and in other areas downstream in their watershed. Stream bank fencing can stabilize stream banks, reduce soil erosion, improve water quality, and improve fish and wildlife habitat. Stream bank fencing also serves to protect livestock by reducing contact with water-borne bacteria and reducing the risk of foot and leg injuries that may occur when livestock indiscriminately access waterways via steep or unstable stream banks. According to information provided by California University of Pennsylvania, the Partners In Wildlife Program, there are approximately 108 miles of stream bank fencing (79 miles adjacent to streams and 29 miles along upland communities) within the County (A. Taracido, personal communication, March 23, 2005).

Wetlands

Washington County Wetlands, 2004

Wetlands can be defined as transitional layers between terrestrial and aquatic environments where the water table often exists at or near the surface, or the land is inundated by water (Cowardin, Carter, Golet, LaRoe, 1979). As such, wetlands frequently exhibit a combination of physical and biological characteristics of each system. Three factors are recognized as criteria for wetland classification: the presence of hydric soils; inundation or saturated conditions during part of the growing season; and a dominance of water-loving vegetation (Environmental Laboratory, 1987). Wetlands serve many functions, including the passive treatment of acid mine drainage, sediment trapping, nutrient filtering, providing wildlife and aquatic habitat, and controlling flood flows.

The US Fish and Wildlife Service (USFWS) has developed a National Wetland Inventory (NWI) as directed by the Emergency Wetland Resources Act of 1986. According to the NWI mapping, there are approximately 2,300 wetlands in Washington County, totaling approximately 7,000 acres, or less than two percent of the total area. *Map 3: Living Resources* illustrates the NWI wetlands within the County. The NWI does not include every wetland in Washington County, so site specific data needs to be collected prior to new development.

D. Agricultural Resources

Active Farms

The agriculture industry in Washington County has changed over time due to shifts in population and by the loss of traditional farming lands to development, but agriculture pursuits remain a viable economic sector. Additionally, agricultural lands contribute significantly to the rural character of Washington County. Existing farming activities were identified at the parcel level by the Washington County Planning Commission and classified as Active Farms (2005). Agricultural conservation easements, agricultural security areas, prime agricultural soils, active farms, and land cover data are visually represented in *Map 4: Agricultural Resources*.

Agricultural Security Areas

The Agricultural Area Security Law was enacted in 1981 to encourage landowners to commit to preserving agricultural lands and to protect agricultural uses from incompatible uses on neighboring lands. The law establishes the authority for municipalities to identify areas of 250 or more acres to be voluntarily enrolled as an Agricultural Security Area (ASA). Land within the district may be owned by more than one

Washington County Agriculture, 2006

person and does not have to be contiguous. The municipality acts as a partner with the land owner to identify and establish ASA's. Eligible property must meet criteria such as having soils compatible with agricultural purposes, being consistent with the local municipal comprehensive plan and the anticipated trends for that land area, and having an agricultural use or improvement. An ASA application process includes a proposal process, public notification, and a review of the ASA on a seven-year basis. Enrollment in an ASA provides limited protection against municipal regulations, eminent domain, and allows the landowner to participate in Pennsylvania's agricultural conservation easement program. In Washington County, as of December 2005, there were approximately 61,000 acres included in agricultural security areas. This land area equals roughly 11 percent of the County's total area.

Prime Agricultural Soils & Prime Agricultural Land

There are seven types of soils that are classified as Pennsylvania Prime Farmland soils and 16 types of soils classified as Additional Farmland of Pennsylvania Statewide Importance within Washington County. The Prime Farmland soil is scattered around the County with denser deposits adjacent to Raccoon Creek, Chartiers Creek, Little Chartiers Creek, Ten Mile Creek, Canonsburg Lake, and Cross Creek.

The definition of "prime agricultural land" in Pennsylvania, according to Executive Order 2003-2 signed in 2003, is as follows:

- In active agricultural use (not including growing timber);
- Lands devoted to active agricultural use the preceding three years; and
- Fall into at least one of the categories of land – State agencies shall provide protection to "prime agricultural land" under this Executive Order based upon the following levels of priority:
    - Preserved Farmland (Highest Priority)
    - Farmland in Agricultural Security Areas (Second Highest Priority)
    - Farmland enrolled in Act 319 of 1974, As Amended (Clean and Green) or Act 515 of 1996, As Amended (Third Highest Priority)
    - Farmland Planned for Agriculture Use and Subject to Effective Agricultural Zoning (Fourth Highest Priority)
    - Land Capability Classes I, II, III, and IV Farmland and Unique Farmland (Fifth Highest Priority)

> "Farming looks mighty easy when your plow is a pencil, and you're a thousand miles from the corn field."
> —Dwight D. Eisenhower

Washington County Fairgrounds

The Washington County Fairgrounds located in Chartiers Township is owned by the County and managed through a lease agreement by the Washington County Agricultural Fair Board. This 100-acre facility has 31 buildings, which include numerous barns, exhibit halls, a show arena, and a historical house. The primary annual event is the agricultural fair held in August of each year. Other special events that take place throughout the year include craft shows, antique shows, wedding receptions, tool sales, and auctions. August 2005 marked the 207 anniversary of the Washington County Agricultural Fair making it one of the longest running agricultural fairs in the Commonwealth.

Washington County Agriculture, 2004

E. Forest Resources

The forests of Washington County help define its rural character. The County has seen many of its forests displaced by logging for timber, agricultural fields, and development. Best management practices should be followed to ensure that the timber industry in Washington County remains sustainable.

Forests are important for ecological processes as well, as they provide habitat for various animal and plant species and act as a natural filtration system, carrying rainwater and snowmelt runoff gradually toward receiving waters. Runoff often contains sediment and pollutants, which tree roots can remove and absorb before the runoff reaches the receiving waters. A visual representation of forest land cover in the County and locations of Oak-Hickory and Maple-Beech-Birch forests is displayed on *Map 5: Forest Resources*. The map indicates large areas of unfragmented forests are located in the southern part of the County. Development pressures in the I-70 corridor as well as the presence of agriculture have reduced forest cover in the middle and central sections of the county.

"A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people."
—Franklin Delano Roosevelt

Washington County Forest, 2006

F. Topographical Resources

Slope

Numerous, narrow, relatively shallow valleys characterize the Washington County. Northern Washington County has smooth, rolling hills, while the southern portion has higher, sharper ridges, and more steeply chiseled stream valleys. Slopes play a significant role when determining the extent and type of development that is being planned. Land with slopes in excess of 15 percent cause serious problems for development. Although a history of building on slopes between 15 and 25 percent exists in the County, developers should be aware of the effects of developing these areas. The slope and soils present on steep slopes are in balance with vegetation, underlying geology, and precipitation levels. If these areas are actively used or the vegetation is removed, the soils become prone to erosion. In addition, Washington County's soils have high clay content and with the amount of rainfall in the area, the soils are very prone to slip, causing landslides. The slope of Washington County is visually displayed on *Map 6: Topographic Resources*.

Landslide in Washington County, 2006

State Route 88-Elco Hill, 2001

Viewsheds

A viewshed is the area observable from a particular point. In general, viewsheds are bounded by elevation and topography. Often a scenic view is the result of a large change in elevation, such as the view from the top of a mountain down into a valley, or vice versa. These visual resources can be easily destroyed if rapid changes occur, such as clear cutting for timber or unplanned development. Identification and protection of these assets is an important component of smart growth and scenic stewardship. Viewsheds in Washington County are not formally identified within this plan as preserving such resources must be undertaken through local municipal ordinances. However, identifying viewsheds can direct planning and development in many aspects, such as:

- How to situate infrastructure, such as pipelines and highways, in "out-of-the way" places that do not destroy the quality of natural scenery; and
- Where to site transmission towers to avoid spatial gaps in reception.

Ridge Tops

Ridge tops are important features in regards to watershed planning and defining the character of topographical features. A ridge top is the continuous horizon line extending along the highest elevation of a mountain chain or line of hills. One method of identifying ridge tops is using watershed boundaries. A watershed is defined as the area from which water drains to a common watercourse in a natural basin. Any rainwater that falls on the watershed boundary, or ridge top will flow into one of two watersheds. Protecting ridge tops is one method used to protect viewsheds and scenic vistas. Washington County development policies recognize the need to preserve steep slopes; however, the topographic nature of Washington County has resulted in ecological priorities that place stream valleys higher in terms of importance than ridge-tops. Ridge tops are displayed on *Map 6: Topographic Resources*.

Scenery Hill View Shed, 2006

Gray Resource Inventory (Manmade/built resources)

A. Developed Areas

Another resource considered "protected" for this plan are developed areas. Developed areas were identified using land cover data (2001) provided by the Southwestern Pennsylvania Commission (SPC). Developed areas are classified as locations where the primary land covering was "urban" or "developed." In other words, the land covering was not forested, agricultural, wetlands, or surface waters. Developed areas are not expected to revert to an undeveloped state at a county level (i.e. razing of a neighborhood, not just one building) or within the timeframe of this plan. Therefore, the plan will assume areas classified as "developed areas" will continue to be developed, and have no ecological value at a county level. Developed areas are important because they indicate where people have made a permanent impact on the landscape. The County should explore opportunities to connect "hubs" such as schools and universities with the spokes of the greenway system. At a local level, a municipal greenways plan is especially important for developed and rapidly growing municipalities that have limited land available to preserve. Developed areas are visually represented on *Map 7: Cultural / Historic / Recreational Resources*.

B. Cultural / Historic / Recreational Resources

Cultural, historic, and recreational resources of County importance are important hubs to the greenway system. Providing access to these resources can increase tourism and residents' appreciation of their heritage. These resources are visually represented where possible on *Map 7: Cultural / Historic / Recreational Resources*.

Heritage Corridors

Steel Industry Heritage Corridor

Created by Congress in 1996, the Rivers of Steel National Heritage Area was established to preserve, interpret, and manage the historic, cultural, and natural resources related to Big Steel and its related industries. Encompassing 3,000 square miles in the seven counties of Allegheny, Armstrong, Beaver, Westmoreland, Greene, Fayette, and Washington, The Rivers of Steel initiative is building on the transition from heavy industry to high technology and diversified services and promoting tourism and economic development based on the industrial history. A multi-faceted program, the Rivers of Steel National Heritage Area's mission includes: historic preservation, cultural conservation, education, recreation and resource development. The Steel Industry Heritage

Corporation (SIHC) that manages the River's of Steel program provides technical assistance, grants and grant workshops, and marketing support to areas identified in SIHC's Management Action Plan (MAP). The River's of Steel, "Fueling a Revolution Journey", focuses on the Upper Monongahela Valley region in Washington County. Planning efforts are now underway to develop a Management Action Plan for the River's of Steel Fueling a Revolution Journey for the Monongahela River. This planning effort will address locations in Washington County situated along the River.

National Road Heritage Corridor

The National Road Heritage Corridor (NRHC), formerly known as the National Road Heritage Park was designated as such in 1994. The mission of the organization managing this effort is to celebrate the history, culture and scenery of the one of the oldest byways, following U.S. Route 40 through Somerset, Fayette and Washington Counties. Similar to the River's of Steel Program, the National Road Heritage Corridor organization provides technical assistance, grants, and marketing support to areas identified in NRHC's Management Action Plan (MAP, which was prepared in 2005. The plan does not include detailed site specific recommendations or elements to supplement the Greenways Plan, although it does support the basic goal of heritage tourism, which aligns with the Washington County Greenways Plan recommendations.

US Route 40 National Road S Bridge, 2002

National Pike Days is an annual event, which promotes the U.S. Route 40 or the National Toll Road. The festival held in May crosses three counties (Somerset, Fayette and Washington) and is billed as the "world's longest festival" as it encompasses over 300 miles from Baltimore, Maryland to the Ohio state line. National Pike Days is a period-oriented festival celebrating the days when the pioneers first began settling the west.

Geologic Features and Fossil Localities—Four Geologic Features/Fossil Localities have been identified within the County in the Natural Heritage Inventory. These areas are included because of historical reference. As shown on **Map 7: Cultural/Historic/Recreational Resources**, The four areas are the California Overlook, Meadowcroft Rock Shelter, Rea Block Field, and the Permian Fish Teeth Fossil Locality.

California Overlook

California Overlook is located in eastern Washington County on the Monongahela River. Just north of the town of Coal Center, the Monongahela River meanders sharply to the west, creating a steep sloped outer bank. The overlook of this meander (known as Greenfield Bend) along State Route 88 is recognized as an outstanding geological site as recognized by Geyer and Boles (1979, 1987).

California Overlook (California Borough Comprehensive Plan , 2003)

Student field trip at Meadowcroft Rock Shelter, 2006

Meadowcroft Rock Shelter

The Meadowcroft Rockshelter, a massive sandstone, shale and siltstone formation and an important archeological site in North America, was recently designated as a National Historic Landmark by the National Parks Service. The Meadowcroft Rock Shelter is located in western Washington County near Cross Creek Lake. The Rockshelter is an outcropping of rock that provided shelter for the earliest inhabitants of the region. Artifacts found at the Rockshelter provide evidence of habitation by Paleo-Indians and other indigenous peoples who occupied this site up until the late 1800's. This site, which provides evidence of human occupation for over 16,000 years, lay unknown until the mid 1950's. However, it was not until 1973 that professional excavation of the site began and within the past several years that it became accessible to the public.

Permian Fish Teeth Fossil Locality

A small abandoned limestone quarry on private property south of Laboratory, PA and recognized by Hoskins et al. (1983) as a Permian Fish-Teeth Fossil Locality with an excellent diversity of fossils including polychaete worm shells, ostracode valves, and several ancient fish teeth from the genera Palaeoniscus and Diplodus.

Rea Block Field

Rea Block Field, a series of massive sandstone outcrops of the Greene Formation showing excellent examples of crossbedding of rock strata, is located in western Washington County near Cross Creek Lake.

Campground Facilities

There are three campground facilities in Washington County.

1. Four Seasons Resort, located in West Finley Township, has 200 campsites, a motel, cabins, apartments, a store, pools, and planned activities for campers. The facility is located near hunting and fishing opportunities at the nearby State Game Lands and has ATV trails located at its site.

2. Pine Cove Beach Club and RV Resort located near the Borough of Charleroi has full hook-ups for campers, lake front and large, level sites, a pool with waterslide, a hot tub and a sauna, two fishing lakes, and three pavilions.

3. Washington KOA is located near the City of Washington and provides full service RV and tent facilities, cabins, a pool, a store, laundry facilities, fishing areas, a volleyball net, horseshoe pits, and a pavilion.

Navigable Streams

The Natural Infrastructure (NI) project has identified the following streams as class I-II whitewater streams, characterized as easy-novice, with fast moving water with ripples or small waves, few obstructions, and simple rapids that may require occasional maneuvering and allows for the following uses; white-water rafting, kayaking or canoeing:

- Ten Mile Creek—from where it crosses I-79 in Washington County to where it meets with South Fork Ten Mile Creek at the border with Greene County
- Buffalo Creek—from just north of I-70 in Washington County to the border with West Virginia
- Chartiers Creek—from where it crosses I-70 in Washington County to across the border with Allegheny County
- Cross Creek—from the Avella Water Intake to the border with West Virginia
- Raccoon Creek—most of its length in Washington County

The Natural Infrastructure (NI) project has identified the following streams as flatwater streams class A-C, characterized by being wide and slow moving and allowing for flatwater kayaking and canoeing:

- Monongahela River
- Ten Mile Creek—from its source to I-79, and from South Fork Ten Mile Creek to its confluence with the Monongahela River
- Buffalo Creek—from its source to just north of I-70

- **Chartiers Creek**—from its source to I-70
- **Cross Creek**—from its source to the Avella Water Intake
- **Raccoon Creek**—small portion south of Route 22

The Natural Infrastructure (NI) project has identified the **Monongahela River** as water navigable by unlimited power boats and **Cross Creek Lake** as being navigable by restricted power boats. Navigable streams are visually represented in *Map 7: Cultural / Historic / Recreational Resources*.

Upper Monongahela Water Trail *(Fayette County, Greene County, and West Virginia)*

The Upper Monongahela Water Trail is a 65-mile section of the Monongahela River that begins in Fairmont, West Virginia and extends north to the boundary of Washington County. The trail is recognized as one the Major Greenway Corridors in Pennsylvania by DCNR.

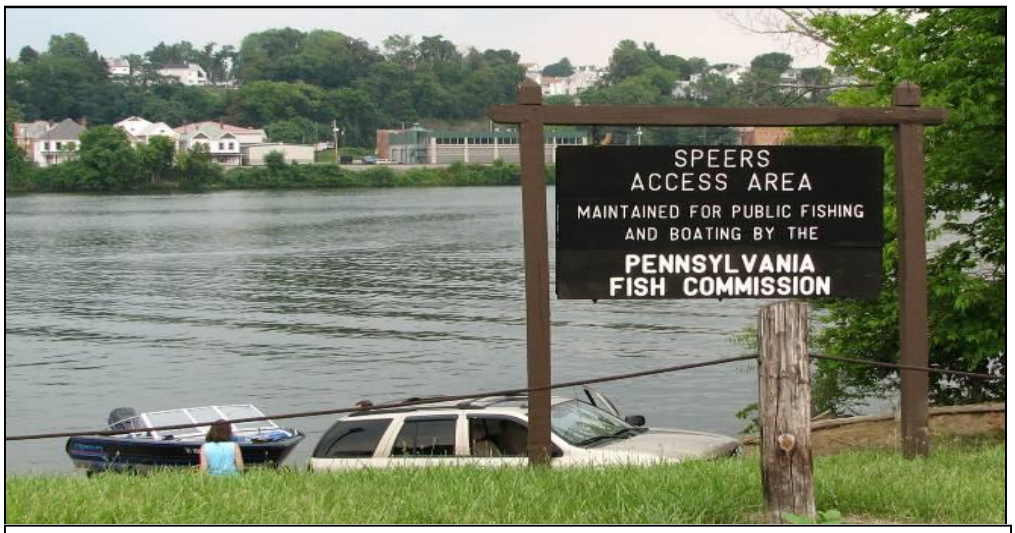
Opportunities for public and or private boat access on the Monongahela River in Washington County are as follows:

- Ten Mile Creek Park Access (Washington County)
  Fee for use, fishing pier, shore fishing, large parking area, loading dock, surfaced ramp provides water access for deep-draft, high-powered recreational boats.
- Dutch Fork Lake Access *(currently drained as of July 2006)*
  - *West Side Access (PA Fish and Boat Commission)*
    Electric motors only, shore fishing, large parking area, beach-type or unpaved ramp provides water access for shallow-draft, lightweight fishing boats, canoes, and inflatable water craft.

Allenport Marina, 2006

- *East Side Access (PA Fish and Boat Commission)*
  Seasonal access only, electric motors only, shore fishing, large parking area, beach-type or unpaved ramp provides water access for shallow-draft, lightweight fishing boats, canoes, and inflatable water craft.
- Canonsburg Lake Access (PA Fish and Boat Commission)
  Electric motors only, shore fishing, large parking area, surfaced ramp provides water access for shallow-draft, lightweight fishing boats, canoes, and inflatable water craft.
- Cross Creek Lake Access (Washington County)
  Limited hours of operation (dawn to dusk), fee for use, fishing pier, shore fishing, large parking area, surfaced ramp provides water access for shallow-draft, lightweight fishing boats, canoes, and inflatable water craft.
- West Brownsville (West Brownsville Borough)
  Small parking area available, shore fishing and fishing pier, beach-type or unpaved ramp provides river access for deep-draft, high-powered recreational boats.
- Fredericktown-Elrama Street (Private)
  Shore fishing, no formal parking, surfaced ramp provides river access for deep-draft, restricted high-powered recreational boats.
- New Eagle (Private)
  Limited hours of operation, fee for use, shore fishing, large parking area, loading dock, surfaced ramp provides river access for deep-draft, high-powered recreational boats.
- New Eagle-Howard Street (PA Fish and Boat Commission)
  Fee for use, fishing pier, shore fishing, large parking area, loading dock, surfaced ramp provides river access for deep-draft, high-powered recreational boats.
- Monongahela Access (PA Fish and Boat Commission)
  Fishing pier, shore fishing, large parking area, surfaced ramp provides river access for deep-draft, high-powered recreational boats.
- Speers Landing Access (PA Fish and Boat Commission)
  This facility has a large lot for parking, a surfaced ramp provides river access for deep-draft, high-powered recreational boats.
- Monongahela Aquatorium (City of Monongahela)
  Fishing pier, shore fishing, large parking area, surfaced ramp provides river access for shallow-draft, lightweight fishing boats, canoes, and inflatable water craft.
- Wayne Street (Roscoe Borough)
  No parking area is provided, surfaced ramp provides river access for deep-draft, high-powered recreational boats.
- California (California Borough)
  No parking area is provided, surfaced ramp provides river access for deep-draft, high-powered recreational boats.

- Dammieco Marina (Private Facility)
  Shore fishing, large parking area, loading dock, surfaced ramp provides river access for deep-draft, high-powered recreational boats.
- Dockers Restaurant (Private Facility)
  Facility assesses a fee for use, shore fishing, large paved parking area, loading dock, surface ramp provides river access for deep-draft, high-powered recreational boats.



Speers Landing Access, 2005

C. Water Transportation

Monongahela River

The Monongahela River flows north 128 miles from the confluence of the West Fork and Tygart rivers at Fairmont, West Virginia to the City of Pittsburgh where it joins with the Allegheny River to form the Ohio River. The Monongahela River serves many purposes including transportation, recreation, and a source of water for many municipalities within the County. Historically, the Monongahela River has been considered a significant form of transportation for all of Southwestern Pennsylvania. During the pre-Revolutionary times, this waterway was utilized to travel westward to the Ohio River. During the industrial era, the Monongahela River was a source for transporting materials from the busy coal mines located along its shores to industrial centers. Today, the River still is considered a commercial waterway due to the number of barge companies that use it to transport coal, petroleum products, scrap metal and other materials. The Pennsylvania Department of Environmental Protection (PADEP) has protected this river under the

Navigation (N) use, meaning that this type of stream is used for the commercial transfer and transport of persons, animals, and goods. The Washington County section of the Monongahela River is approximately 40 river miles in length.

The Monongahela River was improved for year round transportation by the Monongahela Navigation Company in 1837 when a series of seven locks and dams between Pittsburgh and the West Virginia state line were built. The U.S. Army Corps of Engineers took control in 1897 and began operation of the nation's oldest continuously operating slack-water river navigation system (US Army Corps of Engineers, 2004). The present navigation system has nine locks and dams of several sizes and types constructed by the U.S. Army Corps of Engineers between 1902 and 1994. These locks allow boats to travel in a series of "steps" to accommodate the 147-foot difference in pool elevation from Fairmont to Pittsburgh (US Army Corps of Engineers, 2005). Together the U.S. Army Corps of Engineers and the Port Authority of Pittsburgh oversee 200 miles of commercially navigable waterways in a ten-county area including Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington, and Westmoreland Counties.

The Lock and Dam system is an important component of the Washington County transportation system and ultimately the Inland Waterway Navigation System. Two lock and dam systems influence the navigable water of the Monongahela in Washington County—Locks and Dams 4 and the Maxwell Locks and Dam. According to information supplied by the US Army Corps of Engineers (2005), Locks and Dams 4 is one of the three oldest operating navigation facilities on the Monongahela River. The Lower Monongahela River Project is a series of planned improvements by the Army Corps of Engineers to the Locks and Dams 2, 3 and 4. Locks and Dam 2 (Braddock, Allegheny County) was recently replaced to allow the removal of Locks and Dam 3 in Elizabeth, Allegheny County, following the replacement of Locks and dam 4 in Charleroi. The Lock and Dam #4 improvements include the replacement of the existing 70-year-old structure with a larger 110 foot wide chamber system, which will result in an increase in the lock-through capability thereby improving the overall efficiency and capacity. The removal of Locks and Dam 3 will result in a 30-mile long pool of water between Braddock and Charleroi. Other improvements to the Braddock Locks and Dams include dredging Pool #3, which will cause a 3.2-foot drop in water elevation between Elizabeth Borough, Allegheny County and Charleroi Borough, Washington County (US Army Corps of Engineers, 2004).

- Locks and Dam 4—This two-chamber lock and gated dam is located on the Monongahela River near Charleroi approximately 41.5 nautical miles from Pittsburgh. The facility was originally built in 1930-1931 and renovated in 1967. According to the US Army Corps of Engineers, Pittsburgh District, Lock and Dam 4 allows for the

movement of 19 million tons of freight each year. The pool located upstream to the Maxwell Lock and Dam is 19.7 miles of slack water, which is also available for recreational use and as a source of municipal water supply. There are no public facilities located at this site.

- Maxwell Locks and Dam—this two-chamber lock and gated dam is located on the Monongahela River north of Fredericktown (East Bethlehem Township). According to the US Army Corps of Engineers, Pittsburgh District, the Maxwell Locks and Dam accommodates approximately 18 million tons of freight each year. This facility was constructed in 1960 and renovated in 1965.

D. Ground Transportation

Roadways

A roadway is simply a strip of land prepared to allow easier travel for vehicular traffic. Several major transportation projects are planned for Washington County including the construction of the Southern Beltway. These projects include new roadways as well as realignments or improvements to existing roadways. Most roadway construction involves constructing a paved surface, which destroys the existing land cover and can fragment habitats and natural areas, such as wetlands. The health and safety of wildlife is dependent upon the presence of appropriate habitat and corridors that allow for a pattern of movement sufficient to avoid inbreeding and depletion of food stock. However, wildlife corridors can co-exist even in urban situations as long as proper mitigation measures and best management practices are followed. These measures are most effective when employed prior to construction.

Abandoned Railroad Right-of-Way

An abandoned railroad right-of-way is a strip of land previously prepared for railroads that is no longer actively used by rail cars. These right-of-ways should be preserved for future use by rail companies, for future trail development, or as corridors of greenspace. Two local examples of abandoned railroad right-of-ways developed as trails are the Panhandle and Montour Trails in the northern part of the County. Abandoned railroad right-of-ways are scattered throughout the County as shown on **Map 8: Transportation Facilities and Utility Corridors**. The historic presence of numerous rail companies in Washington County has left many abandoned rail corridors, which would require further study to confirm each line's physical presence and status.

Scenic By-ways

The National Scenic Byways Program is a program of the U.S. Department of Transportation, Federal Highway Administration. The Scenic Byway program is a community sponsored effort to help recognize, preserve, and enhance selected roads throughout the United States. The National Scenic Byways Program has provided funding since 1992 for state and nationally designated byway projects in 48 states. The Scenic Byways designation is based upon one or more archeological, cultural, historic, natural, recreational and scenic qualities. America's Byways is the overall marketing term for roads designated as Scenic Byways by the U.S. Department of Transportation, Federal Highway Administration. America's Byways include the National Scenic Byways and All-American Roads. (National Scenic Byways Online, http://www.byways.org/, 2005)

Washington County Scenic Byway: The National Road (US Route 40)

In 1818, the first federally funded road was built linking Cumberland, Maryland to Wheeling, West Virginia, and eventually Illinois. This road brought about an increase in travelers and helped spur westward expansion and settlement of Washington County. The National Road, now US Route 40, continues to play a significant part in the character of Washington County with the following designations:

1. Pennsylvania Heritage Corridor, designated as such by Pennsylvania Department of Transportation on May 1994;
2. Pennsylvania State Scenic Byway, designated as such by Pennsylvania Department of Transportation on July 11, 1996; and
3. All-American Road, designated by FHWA National Scenic Byways Program on June 13, 2002.

As a Scenic Byway, US 40 promotes the following locations in Somerset County, Fayette County, and Washington County:

- The Petersbug/Addison Tollhouse located in Addison, Somerset County;
- Fort Necessity and Braddock's Grave in Fayette County;
- Forbes State Park, and the historic towns of Hopwood and Uniontown, Fayette County;

Scenic Byway US 40 , 2006

- Searights Toll House, the historic town of Brownsville, and the Flatiron Bridge, Fayette County;
- US Route 40 crosses the Monongahela River and passes through Centerville, Beallsville, and Scenery Hill, Washington County;
- Madonna of the Trail, Washington County;
- The historic City of Washington;
- And the S-Bridge, Claysville and West Alexander in Washington County, where the Scenic Byway ends at the state border with West Virginia.

E. Utility Corridors

These corridors serve as a location for facilities that are used for power generation or for the transmission or distribution of power and energy, including electric or natural gas transmission. The utility corridor as referenced within the Washington County Greenways plan includes all types of facilities for the transmission of energy and facilities for the interconnection of such facilities, and the entire transmission line and associated facilities, from substation or interconnection point to substation or interconnection point, of the segment crossing Washington County. Utility Corridors serve as opportunities for the County to develop greenway connections. Utility Corridors are shown on Map 8: Transportation Facilities and Utility Corridors.

Utility Corridor and Wildlife, 2006

F. Off-Highway Vehicle Trails

Off-Highway Vehicle Trails are trails developed for motorized vehicles such as snowmobiles or All Terain Vehicles (ATV). The Pennsylvania Department of Conservation and Natural Resources (PA DCNR) defines off-highway vehicles (OHV) as "any motorized vehicle not eligible to be registered for highway use and designed for or capable of cross country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain. This term does not include motorboats, golf carts, aircraft, automobiles, construction machines, trucks or home utility machines; military, fire, emergency and law enforcement vehicles; implements of husbandry; multipurpose agricultural vehicles; vehicles used by Commonwealth agencies; or off-road vehicles not generally used for outdoor recreation. "
(http://www.dcnr.state.pa.us/forestry/sfrmp/glossary.htm)

As evidenced by the increase in ATV vehicle registrations over the years, the popularity of ATV's continues to grow. According to information released by the ATV Safety Institute (http://www.atvsafety.org), there are approximately 15 million people in the United States who ride ATVs. Over 70 percent of these riders do so as a recreational activity. The ATV Safety Institute has documented the average user to be a 40+ year old male who is married, occupied in a professional or managerial occupation, and earns over $60,000 annually. Such information indicates that ATV riders are well-equipped to support their recreational demands. Additionally, this data suggests that facilities designed for ATV riders will generate revenue sources for the hosting municipality and surrounding businesses.

Washington County ATV Trails

The Four Seasons Resort is the sole ATV facility in Washington County. Located in the southeast corner of the county in West Finley Township, Four Seasons has 200 campsites, a motel, cabins, apartments, a store, pools, and planned activities for campers. Four Seasons has over 800 Acres in the hills of southwestern PA with 16 miles of groomed trails for all skill levels.

Four Seasons Campgrounds, 2006

Statewide Regulations

The Commonwealth of Pennsylvania has legislated that all ATVs must be registered with the Pennsylvania Department of Conservation and Natural Resources (DCNR) as per the 2001 amendment to Chapter 77 of the Pennsylvania Vehicle Code. ATVs used exclusively as a farm or business vehicle are exempt from this requirement, but all others must be titled and registered with the Snowmobile/ATV Registration Section of DCNR. No license is required to operate an ATV in Pennsylvania although a Safety Certificate is mandatory for riders between ages 10 and 15.

Locations where ATVs may be ridden are limited to private property with the landowner's permission; state-owned property marked and designated as an ATV-approved trail; and highways and streets when it is necessary to cross a bridge or culvert, during declared periods of emergency, for special events under permit from the governing body having jurisdiction, or when designated as ATV or Snowmobile Roads (DCNR, 2005).

Locations where ATVs may NOT be ridden include private property when consent is not given; on state forest trails not specifically designated for ATVs; on State Forest roads; in State Game Lands and State Parks; or on local or state-owned roads not designated for use by ATVs. Persons who fail to obey laws governing the registration or use of ATVs are subject to fines that range from $50 to $300.

Regional ATV Trails

Public ATV recreational opportunities in Pennsylvania are available in both National and State Forests. The federally-managed Allegheny National Forest, located in Warren, McKean, Forest and Elk Counties in northwestern Pennsylvania, charges an annual fee of $35 for access privileges to over 100 miles of ATV trails. Pennsylvania ATV trails are listed in Figure 3-2.

Figure 3-2: Pennsylvania ATV Trails (www.dcnr.state.pa.us/forestry/atv/placestoride.aspx)		
	Season	**Trails**
STATE FOREST (summer only)	SUMMER SEASON Friday before Memorial day to last full weekend in September	• Martin Hill, Bedford County • Sideling Hill, Fulton County • Lyman Run-Denton Hill State Parks, Potter County • Bald Eagle State Forest, Snyder and Union Counties • Dixon R. Miller Recreation Area, Monroe County • Maple Run Tract, Pike County
STATE FOREST (summer-winter)	SUMMER SEASON Friday before Memorial day to last full weekend in September WINTER SEASON Day after last day of antlerless deer season to April 1	• Burnt Mills, Pike County • Big Flat-Pine Grove Furnace State Park, Adams and Cumberland Counties • Kettle Creek State Park, Clinton County • Bloody Skillet, Centre County • Button Road/CCC Camp, Lycoming County
STATE GAME LANDS	*ATVs are not permitted on State Game Lands, except when used by disabled hunters.*	
ALLEGHENY NATIONAL FOREST	SUMMER SEASON Friday before Memorial Day through the last Sunday in September WINTER SEASON December 20-April 1	• Marienville ATV/Bike Trail, east of Marienville • Timberline ATV Trail, north of Ridgway • Rocky Gap ATV Trail, southeast of Warren • Willow Creek ATV Trail, eastern side of Allegheny Reservoir (CLOSED during winter season)

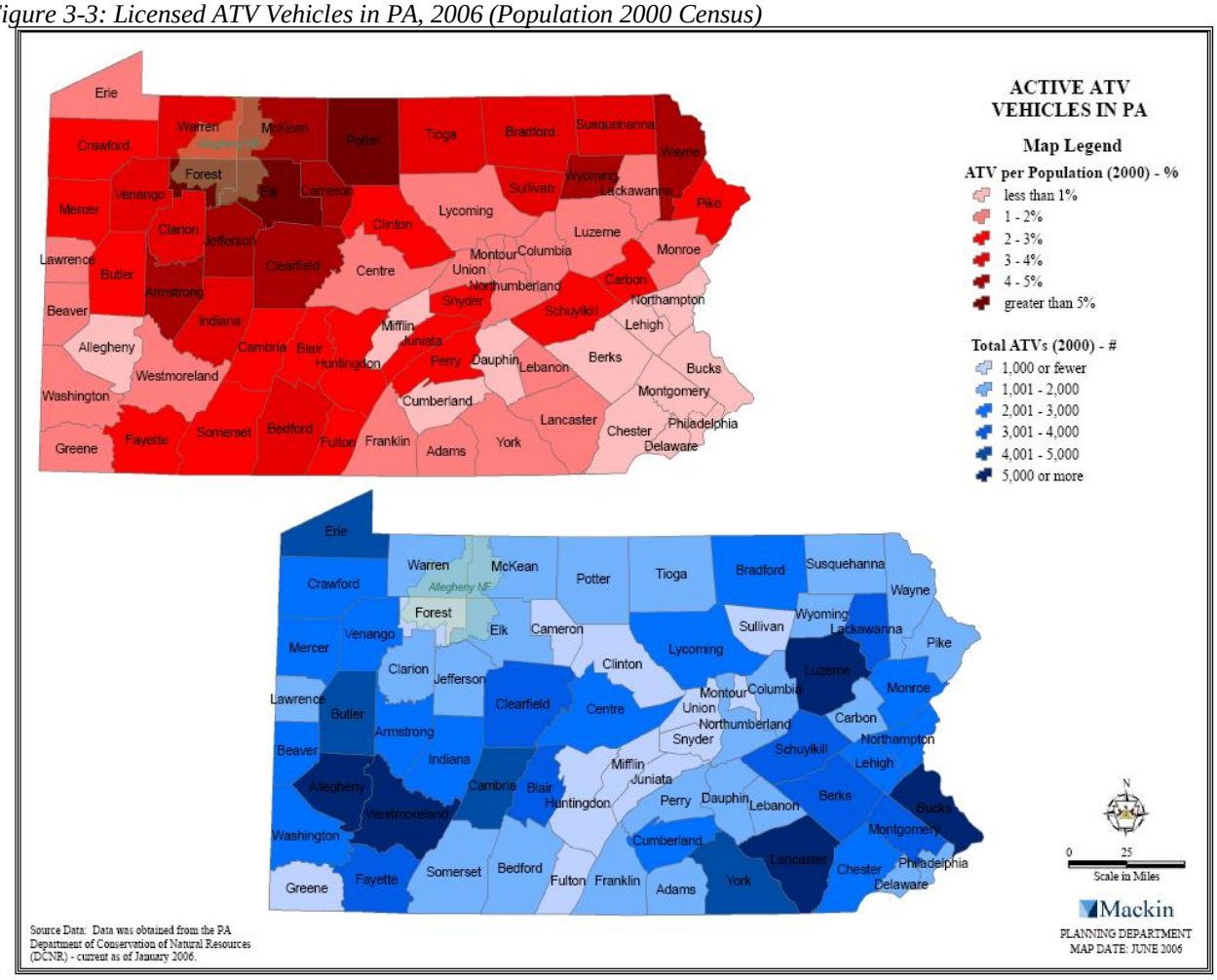
ATV Recreational Needs and Benefits

The recreational needs of ATV riders in Pennsylvania were documented in the 2004 study commissioned by DCNR titled Pennsylvania's ATV Riders and their Needs (Pennsylvania State University, 2004). The study documented that riders of ATVs are not satisfied with the availability of recreational opportunities afforded to them. Specific problems noted were the lack of public riding opportunities, which contributes to trespassing and conflicts with private property owners. The report also noted the increasing popularity of ATV riding and rise in ATV ownership. In 2006, Pennsylvania ranked third nationally for ATVs sold. Figure 3-3: Active ATV Vehicles in PA depicts the number of licensed ATVs for each county in Pennsylvania as well as by percentage of total population. There are 2,979 licensed ATVs in Washington County (about 1 to 2 percent of the total population), while Allegheny and Westmoreland counties both have higher numbers of licensed ATVs. A graphic representation of ATV registration is shown in Figure 3-3: Licensed ATV Vehicles in PA.

The Pennsylvania's ATV Riders and Their Needs report (2004) identified the top reason for ATV operators being unsatisfied with ATV riding was the lack of public trails. A recently completed Greene County ATV Feasibility Study confirmed the lack of facilities in Southwestern Pennsylvania and identified only two private ATV facilities — the Four Seasons Resort and Campground in West Finley Township, Washington County and the Mason Dixon Riders Association Park in South Central Greene County.

The ATV Riders report surveyed ATV users for desired improvements. The findings show that new trail development and maintenance ranks the highest among users in the Laurel Highlands Region. Recreational ATV trail requirements suggest that minimum trail lengths should be 20 to 30 miles with survey results supporting the development of medium to longer trail lengths, in the Laurel Highlands/Pittsburgh Region.

Figure 3-3: Licensed ATV Vehicles in PA, 2006 (Population 2000 Census)



Economic benefits to the host community include increased gasoline sales, food sales, and lodging. ATV users report gasoline purchases for transport to the recreational facility as well as additional purchases of fuel for the ATV. The ATV Riders and Their Needs report documented the average expenditure incurred by ATV users per trip was over $200 (p. 28). Annually, ATV users are estimated to spend $2,500 (DCNR, p. 28, 2004). This figure does not account for costs borne by the user on the vehicle itself or for new purchases of an ATV. Survey results published by DCNR indicate that riders would be willing to pay for access to ATV facilities. The ATV Riders report documented that riders were willing to spend around $60 for a seasonal pass or around $12 for a weekly pass (DCNR, p. 30, 2004).

The site needs associated with an ATV recreational facility include sufficient acreage to accommodate a variety of trail choices, varying topography to create diversity in riding experiences, minimal environmental constraints, and public acceptance. Identifying locations that will be physically appropriate for ATV users include several factors that involve detailed on-site investigations of the particular geographic location. However, the project will fail if a location meets all physical and environmental criteria but is not acceptable to the local community. Public support should be investigated prior to conducting an in-depth site assessment.

Southwestern Pennsylvania ATV Planning Efforts

A recent ATV Feasibility Study completed by Greene County (Parsons Brinckerhoff Quade & Douglas, Inc., 2004) investigated the development of an All Terrain Vehicle (ATV) park at a pre-selected site in southeastern Greene County. The study area encompassed 540 acres located one mile north of Greensboro Borough. The site assessment determined that the physical site could accommodate an ATV facility. However, the study documented that public opinion was primarily against the development of a motorized recreational facility in the Greensboro area. The study noted that many public issues would need to be addressed before an ATV site could be developed at Greensboro or elsewhere in Greene County. Essentially, the study concluded that success would be elusive unless the County could validate the site selection and sufficiently garner adequate public support for the development of an ATV facility.

The study did confirm that the financial benefits of an ATV facility are derived from corresponding activities as users avail themselves to other community amenities (restaurants, shops, etc.) rather than rider fees as these do not provide sufficient revenue for even basic maintenance, much less insurance costs. The ATV Feasibility Study documented the market needs and benefits of a recreational facility for off-road motorized vehicles in the Greene County. The study presupposed that a suitable market area would include an average travel time of three hours, which would generally

encompass Columbus, OH; Cleveland, OH; Erie, PA; Altoona, PA; Charleston, WV; and all areas in between. The market area determinate was predicated upon a review of surveys distributed to persons who owned an Off Highway Vehicle (OHV). The Greene County ATV Feasibility Study showed that Greene County would have a geographic advantage in attracting a high level of interest from ATV owners as over 30 percent of ATV users in Pennsylvania live within a two hour drive of Greensboro, Greene County.

ATV Suitability Analysis

Future efforts to identify new areas within Washington County should begin with a rudimentary analysis to identify locations that meet initial criteria for minimal environmental impacts. It should be noted that this in no way determines actual suitability but serves only to identify general areas where ATV sites do not pose environmental impacts and as a guide for future action by County Officials. Detailed, site-specific studies will need to be conducted to determine feasibility of a particular geographic location for an ATV Recreational Facility identifying criteria such as wetlands, slopes, acreage, public acceptance, etc.

Future development and planning for an ATV recreational facility should follow the standards established by DCNR in their publication Pennsylvania Trail Design Manual for Off-Highway Recreational Vehicles (2004). This manual outlines specific steps that should be followed when determining feasibility of a particular site and when designing the ATV facility. Standards for motorized trail design can also be found in the Off-highway Motorcycle & ATV Trails Guidelines for Design, Construction, Maintenance and User Satisfaction (Wernex, 1994).

The first step to conducting a "pre-feasibility" ATV study would be to identify and remove environmentally sensitive areas by watershed from consideration. Sub-watersheds containing population centers should also be excluded to provide a buffer from excessive noise and traffic for local residents and to increase the likelihood of public acceptance. Locations within the remaining watersheds that have mineral extraction sites or industrial activity where considerable environmental damage has occurred should rank higher in the suitability analysis. The road network is the final element to be compared to the pre-qualified locations so as to identify access opportunities or concerns.

The selection criteria and subsequent results should not be considered as final without conducting public outreach and education. Public officials, community residents, and business owners all need to be included into any investigation for the development of an ATV site. The active and thorough involvement and support of the public can not be over emphasized and should be considered as important as any environmental assessment.

The following ATV selection criteria and terms are suggested for use in future studies:

General Terms:

1. Area: A large block of land created by excluding environmental criteria and often following watershed boundaries.
2. Site: Refers to a parcel or parcels of land, relating directly to property ownership.
3. Watershed: 10-digit, national standard Hydrologic Unit Code (HUC).
4. Sub-watershed: 12-digit, national standard HUC, which is a subset of a watershed.

Environmental Selection Criteria for determining acceptable (or not) ATV Feasible Areas:

1. High-quality watersheds or sub-watersheds, high-quality streams, reservoirs, or cold water fisheries;
2. Biodiversity areas, landscape conservation areas, important bird areas, critical habitat, or other locations identified by the County ṡ Natural Heritage Inventory;
3. State game lands, existing greenways and state and local parks.

Vision for Pennsylvania Greenways

Pennsylvania and its many partners will develop an outstanding network of greenways across the Commonwealth, creating an asset highly valued by Pennsylvanians and enhancing the quality of life for all. This network of greenways will connect Pennsylvania's open space, natural landscape features, scenic, cultural, historic and recreational sites, and urban and rural communities. Greenways will become one of the Commonwealth's most powerful tools to achieve sustainable growth and livable communities.

Pennsylvania Greenways: An Action Plan for Creating Connections, 2001

Vision Statement for the Washington County Comprehensive Plan

The people of Washington County will lead the region and the Commonwealth in working together to encourage a vibrant and prosperous quality of life for people of all ages. We will serve as an example of responsible and sustainable use of land and natural resources. With this as our foundation, we will create a climate that promotes economic diversity and emphasizes education while celebrating our agricultural character, historical significance and scenic beauty.

Washington County Comprehensive Plan, 2005

Vision for Washington County Greenways

The diversity of Washington County and Pennsylvania is unified by a network of greenways that traverses rolling hills, steep valleys, fertile farmlands, and dense forests connecting our cities, towns, and villages alike. These meandering streams, accessible trails, and scenic roadway corridors connect vibrant communities to natural areas, parks, and historical and cultural sites. Inter-municipal partnerships weave a nexus of green and gray infrastructures that lends balance to economic prosperity and environmental integrity. The County's Leaders support a development philosophy that respects the natural environment through the provision of education to municipalities, grassroots organizations, and residents in order to implement the Greenways Vision.

Public Participation

The Washington County Greenways Plan implemented a public involvement process that identified community values and determined the desired vision for a Greenway network in Washington County. The public process prioritized the most appropriate strategies for the future preservation of important ecological areas and established strategies to direct specific activities to locations equipped to accommodate more intense uses. The public involvement approach fostered a highly collaborative atmosphere for everyone involved, so that residents, elected officials, business owners, and public agencies were challenged to contribute equally. The inclusion of many points of view built a solid level of consensus and support for the project and the corresponding recommendations. The resulting implementation plan is comprised of policy guidelines that will attract the interest and support of governmental agencies, private funders, elected officials, and the residents themselves to meet the challenge of developing and maintaining an interconnected Greenway Network.

The public participation process engaged the community and various stakeholder groups throughout the entire planning process. Key organizations such as watershed organizations, trail steward groups, land trusts, heritage parks, economic development agencies, businesses, hospitals and community health partners, school districts, non-profit groups, government representatives, and civic organizations served as members of the Steering Committee and helped review the proposed plan prior to its adoption by the County Commissioners. The Steering Committee directed planning efforts and delivered their specialized knowledge of both local and regional needs. The Steering Committee members attended meetings, and participated in targeted educational workshops designed to increase awareness of Greenways Planning and capacity for implementation.

To foster support at the municipal level, each of the 67 municipalities was invited to participate in special educational workshops held during the planning process. The educational workshops focused on education and awareness of Greenways and the importance that greenways play in recreation, preservation of wildlife habitat, water quality, and flood control. Public officials had the opportunity to identify potential connections and document existing greenway connections. This grassroots effort has hopefully generated a solid level of support for the plan that will eventually lead to local municipal implementation of recommendations.

> "You must be the change you wish to see in the world."
>
> —Mahatma Gandhi

Unique Aspects

The public process for the Washington County Greenways Plan incorporated an intense educational component for the Steering Committee. The initial meeting reviewed the relationship between the Comprehensive Plan for Washington County and how the Greenways Plan will serve as a refinement and more detailed supplement to the Comprehensive Plan. DCNR was present to discuss the state's role in greenways planning and the important role that the County plays in achieving state level goals. The Steering Committee participated in small-group discussions to review the preliminary greenway data.

The Washington County Natural Heritage Inventory documented the challenge that Washington County will have in establishing a greenway network due to its historical development and high number of road miles due to interstate highways, toll roads, and major arterials. These factors coupled with a number of transportation improvements to well-traveled state routes and the planned construction of the Southern-Beltway certainly place Washington County in a position where Officials must act now to preserve critical natural areas and plan for greenway development. The agenda for the second meeting took into account these factors and educated Steering Committee members on how transportation networks can increase, change, and direct the development of a community. A regional perspective was given by a representative from the Southwestern Pennsylvania Commission, which is the metropolitan planning organization (MPO) for Washington County, nine other counties, and the City of Pittsburgh. The Washington County Planning Commission presented future transportation projects planned for Washington County to showcase the county-wide impact from new projects or planned transportation improvements. Additionally, the Steering Committee learned of opportunities to protect and develop green spaces in partnership with transportation organizations such as the Pennsylvania Turnpike and the Pennsylvania Department of Transportation. Finally, the Steering Committee participated in three breakout sessions designed to identify priority locations for greenway development.

The third Steering Committee meeting was conducted in partnership with the Natural Lands Trust who presented the Growing Greener: Conservation by Design workshop. Launched in 1996, Growing Greener: Conservation by Design began as a collaborative effort of Natural Lands Trust, a non-profit land conservation organization based in Media, PA; the Pennsylvania Department of Conservation and Natural Resources (DCNR); and the Pennsylvania State University Cooperative Extension. The purpose of this meeting was to provide a better understanding of how the development process can be used to protect natural resources, greenways, trails, recreational lands and other open space. This concept, if implemented locally, would support the greenways philosophy and reduce the footprint of development. The opportunity to hear from The Natural Lands Trust, whose staff are recognized experts in conservation subdivision, was extended to each Washington County municipality to educate municipal officials and their planning staffs.

Growing Greener: Conservation by Design *(information provided by the Natural Lands Trust, 2006)* is a conservation planning program designed to help local officials manage growth in a manner that uses the development process to their advantage, by adding land to a community-wide network of open space, each time a property is developed. Using this "conservation subdivision design" approach, a developer can build the maximum number of homes permitted under zoning, but in a less land consumptive manner. Conservation design rearranges the density on each development parcel as it is being planned, so that only half (or less) of the buildable land is consumed by houses, lawns and streets. By permitting development using conservation-based tools, a community can protect its most valued resources and special places, while still accommodating full-density growth

To implement conservation design, zoning and subdivision ordinances are overhauled to focus not only on development-related issues (such as lot dimensions, street geometry, stormwater management, etc.), but to place equal emphasis on conserving a variety of environmental, cultural, historic and scenic features. It is precisely those features that typically give a community its special character.

When local land use regulations require developers to design around special natural and cultural features, developers can become a community's greatest conservationists, at no cost to the municipality and with no loss of profit to the developer. To achieve this, a few procedural changes to the subdivision ordinance are needed. These include a pre-application meeting between the applicant and municipal officials, a site visit by municipal representatives, a strongly encouraged sketch plan based on the Existing Resources/Site Analysis Map, and a Four-Step Design Process that requires the plan to be designed around the conservation features, as well as other provisions.

Revisions to the zoning ordinance are based on a multi-optioned approach relating density to the provision of open space, offering a range of density incentives to encourage greater open space and density disincentives to discourage lesser open space. In addition, the zoning ordinance needs to be made more flexible to accommodate development in patterns that preserve natural resources. Both the zoning and subdivision ordinances are further revised to include significant locational and design standards for open space.

A "menu" of density options gives the developer a choice of several approaches toward any particular parcel of land. The Growing Greener model ordinance offers five choices, but the municipality may choose to apply only two or three. The first option is "density neutral", with density equal to the "base density" in any given zoning district. In other words, the developer would get the same number of permitted units as under conventional development. This option requires open space to total 50 percent of the buildable land plus constrained land. Two other zoning options would permit a greater number of lots in exchange for more open

space. And two further options would permit development with no open space, but at much reduced densities. Additional informational material describing Growing Greener concepts is available from Natural Lands Trust . The Natural Lands Trust can be contacted at Hildacy Farm, 1031 Palmers Mill Road, Media, PA 19063, or by telephone at 610-353-5587, or at www.natlands.org.

The conservation design techniques developed under the state-wide Growing Greener program can also be adapted to commercial development. As a general principle, non-residential uses should not be located in environmentally sensitive areas. Commercial and office uses are best located at intersections of major roadways where public infrastructure is available. The most fundamental performance standard is the impervious cover limit, which ensures that a portion of any land development be set aside as open space. Even when non-residential uses infringe upon natural resource areas, local officials can refer to their inventory of natural resource areas and require that developers site the non-residential development in a manner that allows maximum preservation of land in the conservation network. For example, a twenty-acre office development with a sixty percent impervious cover limit would allow the preservation of eight acres of land that could contribute to a community greenway.

Focus Groups

A series of three focus group meetings were held in the final stages of the Greenways Plan development. The focus groups were organized to address specialized issues that had risen during the data gathering and public involvement components. The special interest issues included trails, land development pressures, open space conservation, municipal acceptance and implementation, and agency participation. To address these interests three focus groups were held under the loose titles of Trails, Developer/Builders/Real Estate, and Implementation.

The Trail Focus Group was held to address the diverse interests of users found in Washington County. Invited guests included representatives for motorized trails, pedestrian/bicycling trails, rails-to-trails, water trails, and equine trail users. Attendees participated in a review of the existing network with the goal to identify gaps, priority connections, and missing trail uses. Specific needs related to trail amenities and design were discussed and prioritized. Finally, the group discussed opportunities to form partnerships, strengthen organizational capacity, and identify shared-use opportunities or conflicts.

The Developer/Builders/Real Estate Focus Group had the goal of identifying trends and support for conservation development practices. Invited guests included real estate agents, and residential developers and home builders. Participants were given an overview of the Greenways Plan and how it relates to the Washington County Comprehensive Plan as an

implementation strategy. The group participated in an exercise to generate discussion on experiences with municipalities to identify cooperation and issues with land use regulation ordinances. Attendees shared their views on market demand and influences in Washington County and discussed what types of housing and amenities are most popular. Future growth areas were noted and the concept of the Growing Greener Conservation Design was presented for discussion.

The Implementation Focus group was targeted to the municipalities currently experiencing significant levels of new development. Invited guests included municipal managers of communities along the I-79 and US 19 Corridors. Following a discussion of the role of the County Government and the authority of municipalities for land use controls, the group offered their experiences dealing with growth, experiences with developers, and issues with residents. The municipal representatives noted their concerns or satisfaction with existing land development regulations and policies put forth by Washington County or state agencies. A general discussion was held in relation to development pressures, public opinion, and the responsiveness of the governing bodies. Finally, the concept of the Growing Greener Conservation Design was reviewed and discussed.

Public Meetings

The Washington County Greenways Plan was presented to the municipal officials and residents on October 30, 2006 and November 02, 2006. The municipal and public meetings were held in separate locations within the County to enhance regional accessibility. The first meeting was held at the Mon Valley Vo-Technical School and the second was held at the Washington County Fairgrounds.

The process of creating a Greenways Plan for Washington County began with a review of relevant plans and an identification of the current greenways network —protected natural resources, lands conserved through easement restrictions, reserved recreational lands, and developed areas. Opportunities for expansion of greenways or threats to the existing network were identified and mapped (*see Chapter 3*). A public involvement process identified core community values regarding existing and proposed greenways in Washington County. The public process prioritized the most appropriate strategies for the future preservation of important areas and established strategies to direct specific activities to locations equipped to accommodate more intense uses *(see Chapter 4).*

Inventory Prioritization

Chapter 5 prioritizes these resources using a ranking index based on County-level policies, public input and environmental issues. A composite greenways suitability map (*Map 9: Ecological Index*) was created and used to propose a potential greenways system (*Map 10: Primary and Secondary Greenways*). Finally, a priority greenway system was developed based upon County development policies and the public input process that classifies primary and secondary greenways (*Map 11: Long-Term Potential Trail Corridors*).

Ecological Index

The inventory in *Chapter 3* is a comprehensive description of the natural and manmade resources within Washington County that can be integrated into a greenways plan. Limited time and funding make prioritizing these resources an essential step towards implementation. To do this, an ecological index was created that assigns values of either "High Ecological Value," "Medium Ecological Value," or "Low Ecological Value" to each of the resources based on priorities determined from Steering Committee and County recommendations, and environmental concerns. *Map 9: Ecological Index* identifies the locations of the high, medium and low value areas. High value areas are depicted in pink, with overlapping high value areas reflected as darker shades of pink. Medium value areas are shown in orange and low value areas in yellow.

A high ecological value was assigned to resources that protect critical habitat areas, prime agricultural lands, high-quality water bodies, or drinking-water supplies, including the following: areas identified by the Natural Heritage Inventory as biological diversity areas, landscape conservation areas and important bird areas; high quality fisheries and sub-watersheds; cold water fisheries; prime agricultural soils; and wetlands.

A medium ecological value was assigned to resources that protect farmland, abandoned railroad right-of-ways or water bodies not designated as being "high ecological value,"

including the following: agricultural security areas; active farms; abandoned railroad right-of-ways; and floodplains.

A low ecological value was assigned to linear resources that could be converted into greenways, or present opportunities for water protection or water recreation, including the following: power transmission line right-of-ways; stream courses; trout stocked fisheries; and navigable streams.

The ecological priorities for natural and manmade resources in Washington County are identified and labeled on *Map 9: Ecological Index*. The eight high-priority areas identified from this process are:

1. The Raccoon Creek Valley Important Bird Area;
2. The Cross Creek High Quality Sub-Watershed;
3. The Buffalo Creek High Quality Sub-Watershed;
4. The Enlow Fork Landscape Conservation Area;
5. The Little Chartiers Creek High Quality Sub-Watershed;
6. The Mingo Creek High Quality Sub-Watershed;
7. The High-Quality Sub-Watershed above the dams in North Franklin and South Franklin Townships; and
8. Ten Mile Creek including the Ringlands Landscape Conservation Area.

Washington County Comprehensive Plan

The Washington County Comprehensive Plan specifies locations within the county boundaries where officials should direct investment to encourage the sound and logical allocation of resources. Resource allocation will be reserved to such areas where it has been determined that intervention is needed to correct deficiencies, encourage appropriate development, or provide new infrastructure to meet an existing need. The Future Development Strategy identifies the following categories: Targeted Areas for Investment, Transitional Reserve Lands, Village Development Areas and Rural Resource Areas.

Targeted Areas for Investment (TAI)—identified within Washington County to align with the Commonwealth's classification of Designated Growth Areas as specified under the Pennsylvania Municipalities Planning Code, Act of 1968, P.L. 805, No. 247, as reenacted and amended (p. 2). A Designated Growth Area is "a region within a county that preferably includes and surrounds a city, borough or village, and within which residential and mixed use development is permitted or planned for at densities of one unit to the acre or more, commercial, industrial and institutional uses are permitted or planned for and public

infrastructure services are provided or planned. " The TAI are shown on *Map 9: Ecological Index* in a black hatch pattern.

The TAI should adhere to the following underlying policies as determined by Washington County:

1. The TAI will be used to control development away from agricultural and forest lands as well as important open spaces.
2. Development inside the TAI will provide a mix of uses and adequate, accessible government services.
3. The TAI will include roads, water and sewer systems, open space and parks, schools, and fire / police protection that create a quality of life that in turn attracts residents and businesses.
4. Incentives will be identified to help develop / re-develop land and buildings in the TAI and encourage infill development where current infrastructure exists before expanding to areas outside of the designated TAI.
5. Resources can be targeted to make existing roads, transit service and other services more efficient to facilitate the mobility of people and goods throughout the region.
6. Encourage efficient land use by directing development along major transportation corridors (within a TAI and in a manner that is consistent with the capacity levels of existing infrastructure).
7. Promote a balanced multi-modal transportation system within the region that includes options such as bicycling, walking, driving and public transportation.
8. Support the region's goal of developing sustainable communities by providing jobs and shopping in close proximity to where people live.
9. Provide a variety of housing options and densities to accommodate all income levels, races, and family composition.

Transitional Reserve Lands—includes lands located outside of the TAI that should be reviewed periodically to determine if their inclusion into a TAI or reclassification as a TAI is appropriate. Such classification will identify, but not guarantee, the potential to land owners, developers and governments that future development of the land may become a priority for Washington County. While some of these areas could include farm or forest land or other quality environmental areas, it is acknowledged that the County does not support unnecessary development of areas that are considered "high value" lands. Municipalities are encouraged to utilize zoning to direct development of these lands in a desired fashion that allows for appropriate economic development in a balanced manner.

Village Development Areas—these areas include locations within Washington County that are consistent with the traditional pedestrian-friendly design of an established town center

area. It is the intent of the Village Development Area to encourage existing and new commercial, residential, civic and downtown entertainment, and social uses that are compatible with the existing development.

Rural Resource Areas—the MPC defines Rural Resources Areas as "an area described in a municipal or multi-municipal plan within which rural resource uses including, but not limited to, agriculture, timbering, mining, quarrying, and other extractive industries, forest and game lands, and recreation and tourism are encouraged and enhanced, development compatible or supportive of such uses is permitted, and public infrastructure services are not provided except in villages" (p. 6). The County has the authority under the MPC Chapter 11, Section 1103 (1) to designate Rural Resource Areas where "development at densities that are compatible with rural resource uses are or may be permitted…infrastructure extensions or improvements are not intended to be publicly financed by municipalities except in villages, unless the participating or affected municipalities agree that such services should be provided to an area for health or safety reasons or to accomplish one or more of the purposes set forth in section 1101" of the MPC (p. 91). Rural Resources Areas identified for Washington County include State Game Lands, County Parks, Active Farms, and other farm or forest land, and high quality watersheds.

As specified in the Washington County Comprehensive Plan, the County has put forth specific development policies for locations identified as Target Areas for Investment (TAI). Such policies include supporting redevelopment efforts for existing population centers, identifying where preservation is warranted due to development pressures infringing on important natural resources, or planning for development impacts in locations where new growth is expected. These areas are depicted visually in conjunction with the composite greenways suitability map by overlaying Target Areas for Investments on the natural resources as shown on *Map 9: Ecological Index*. Because these areas are likely to experience increasing development pressures, TAI are an immediate concern for Washington County. Although the County supports and encourages growth, it realizes that if resources in these areas are not protected ahead of development, they will be lost. Therefore, natural resources with a high ecological value that intersect TAI are short-term priorities for protection.

Public Participation

The public participation component of the Greenways Plan was a continuous effort that engaged the community and various stakeholder groups throughout the entire planning process. Key organizations such as watershed organizations, trail steward groups, land trusts, heritage parks, economic development agencies, businesses, hospitals and

community health partners, school districts, non-profit groups, government representatives, and civic organizations served as the Steering Committee and helped review the proposed plan prior to its adoption by the County Commissioners. The Steering Committee directed planning efforts and delivered their specialized knowledge of both local and regional needs. The Steering Committee members attended meetings, and participated in targeted educational workshops designed to increase awareness of Greenways Planning and capacity for implementation.

To foster support at the municipal level, each of the 67 municipalities were invited to participate in special educational workshops held during the planning process. The educational workshops focused on education and awareness of Greenways and the importance that greenways play in recreation, preservation of wildlife habitat, water quality, and flood control. Public officials had the opportunity to identify potential connections and document existing greenway connections. This grassroots effort has hopefully generated a solid level of support for the plan that will eventually lead to local municipal implementation of recommendations.

Three focus group meetings were held in the final stages of the Greenways Plan development. The focus groups were organized to address specialized issues that had arisen during the data gathering and public involvement components. The special interest issues included trails, land development pressures, open space conservation, municipal acceptance and implementation, and agency participation.

Connectivity Analysis

According to the Pennsylvania Greenways Partnership (1998), the key to greenways is connectivity. Although corridors that create connections may have little inherent ecological value on their own, as part of the greenway system they allow for a pattern of movement for wildlife sufficient to avoid inbreeding and depletion of food stock. Therefore, greenways that enhance connectivity are a higher priority than those that do not.

To identify areas that provide connectivity, developed areas, such as urban areas, major roads, and active rail lines, were included on *Map 9: Ecological Index*. Urban areas are considered to be developed and likely to have minimal ecological value. However, they can be integrated into the greenways network as hubs. Road corridors can be incorporated into the greenways network by developing a plan to manage roadside communities containing species of special concern. In addition, fragmentation of habitat caused by roadways too dangerous for wildlife to cross can be lessened by providing crossings a minimum of 1000 feet in width.

Protected resources that make up the existing greenways system, such as trails, bicycle routes, parks, game lands, and conservation agreements, were included on *Map 9: Ecological Index*. Potential greenways should be evaluated for the opportunity to serve as hubs and to provide connectivity to and between protected resources.

Classifying Greenways

Washington County's role in greenways planning is twofold. The County is called upon to implement the statewide greenways action plan and also to encourage and enable municipalities to plan for and implement greenways. Because of this, greenways have been classified as either primary or secondary.

Primary Greenways

Primary Greenways include all greenways designated by the state as major greenways, either in the Pennsylvania Greenways Action Plan or by other designations such as state byways or bicycle corridors. A "Major greenway" is the DCNR label that identifies corridors that are at least fifty miles in length, pass through two or more counties, and are recognized in an official planning document. As these elements are discussed thoroughly in Chapter 3: The Greenways System Inventory, additional text included here is focused to justify the identification and inclusion of Secondary Greenways in future DCNR planning activities, direct county and local planning efforts, and guide development and funding appropriately.

Secondary Greenways

Secondary Greenways include greenways identified by this plan but not designated by the state. These locations were identified as having the highest potential to enhance the natural features and rural character of Washington County.

The Washington County Greenways Plan serves to direct development policies as well as identify specific actions for areas deemed a higher-priority due to the need to protect critical natural resources from rapid development, direct redevelopment efforts, or preserve existing areas. It should be recognized that locations not specifically identified are indeed included under general greenways policies, which can be found in *Chapter 6*. Additionally, the Washington County Greenways Plan addresses all lands within Washington County and the implementation strategies for targeted areas should also be understood to apply to all municipalities.

Categorizing Greenways

The ecological index was used to prioritize natural resources based on their ecological value to Washington County. From this, an inventory of potential greenways was created. Each greenway was categorized as one of three major types of greenways as defined by *The Pennsylvania Greenways and Trails How-To Manual (1998)* and discussed in *Chapter 1.*

Natural Areas—are typically large areas of high ecological importance with nature observation or environmental education functions. In Washington County, Natural Areas include high quality watersheds, landscape conservation areas, and protected resources like State and County Parks, State Game Lands, and Agricultural Conservation Easements. Natural areas of the greenway system are identified on ***Table 5-1 Natural Areas***, including the location, size, contributing elements and significance.

Recreational Greenways—are linear corridors of ecological importance that include some form of low-impact recreation. This typically takes place on either a land or water trail. ***Table 5-2 Recreational Greenways*** identifies the status of each trail as either existing, planning and development, long term goal development (LTGD) or potential. Planning and development means that the proposed trail has an active sponsor and a completed feasibility study. LTGD are trails that provide connectivity and warrant further study and consideration. Potential is reserved for trails that have no sponsor or completed feasibility study. *Table 5-2* also notes each trail's general location, length, and contribution to the County Greenways System. Recreational Greenways that have not been formally studied are not classified as primary or secondary greenways. Once the feasibility of these corridors is established, a determination of primary or secondary status can be made.

Conservation Greenways—are linear corridors of ecological importance and are intended to have little or no human impacts associated with their designation. Two types of Conservation Greenways are Riparian Buffers and Landscape Corridors. A Riparian Buffer is a corridor of vegetation along a stream bank that shades and cools the stream, protects the banks from erosion, and provides for wildlife movement and habitat. Landscape Corridors are tracts that connect habitat areas with each other to provide connectivity. T***able 5-3 Conservation Greenways*** lists each proposed greenway along with its location, size, important contributing factors and significance.

Greenways Inventory

The Washington County Greenways Plan serves to direct development policies as well as identify specific actions for areas deemed a higher-priority due to the need to protect critical natural resources from rapid development, direct redevelopment efforts, or preserve existing areas. A detailed description of each greenway is included in Chapter 3: The Greenway System Inventory. **Map 10: Primary and Secondary Greenways; and Map 11: Long-Term Potential Trail Corridors** provides a visual reference to each greenway or corridor and the municipality or municipalities affected by the recommendation.

A. Primary Greenways: Recreational Greenways

Primary Greenways include all greenways designated by the state as major greenways, either in the Pennsylvania Greenways Action Plan or by other designations such as state byways or bicycle corridors. "Major greenways" is the DCNR label that notes that the corridors are at least fifty miles in length, pass through two or more counties, and are recognized in an official planning document.

RECOMMENDATION: Promote the connection of Primary Greenway Corridors to town centers, parks, and other public facilities and spaces.
RECOMMENDATION: Encourage developers of retail, commercial, and residential projects to connect their facilities to Primary Greenway Corridors.

Monongahela River Water Corridor (Primary Greenway #1 on Map 10)

RECOMMENDATION: Formally designate the Washington County portion of the Monongahela River (approximately 40 river miles) as a water trail, which would serve to extend the water trail from Fairmont West Virginia to the Allegheny County Boundary.
RECOMMENDATION: Encourage communities along the Monongahela River to prepare Comprehensive Plans that address riverfront development.
RECOMMENDATION: Encourage communities along the Monongahela River to develop connections to the waterfront via parks or improvements to public access areas.

National Road Heritage Corridor (Primary Greenway #2 on Map 10)

The National Road (U.S. 40) is an important historical asset for Washington County that passes through numerous scenic viewsheds offering an opportunity to showcase the natural beauty of the County's landscape. The National Road has been designated a Heritage Corridor, Scenic Byway, and an All-American Road.

RECOMMENDATION: Encourage communities along US Route 40 to prepare Comprehensive Plans that address desired development and identify scenic viewsheds.

RECOMMENDATION: Encourage municipalities to enact ordinances like the Growing Greener conservation ordinance to protect the scenic viewsheds along the National Road Heritage Corridor.

Montour Trail Corridor (Primary Greenway #3 on Map 10)

The Montour Trail spans the northern section of Washington County, linking trail systems in Allegheny County and Maryland. This trail system, known as the Great Allegheny Passage, is recognized by DCNR as one of Pennsylvania's Major Greenway Corridors.

RECOMMENDATION: Finish development of the trunk line of the Montour Trail.

RECOMMENDATION: Continue planning and development efforts to provide connections from hubs to the trail, including those trails listed in the Recreational Greenways—Potential Trail Corridors section of this Plan.

Panhandle Trail Corridor (Primary Greenway #4 on Map 10)

The Panhandle Trail is a 29-mile trail from Walker's Mill, near Carnegie in Allegheny County, through the northern portion of Washington County to Weirton, West Virginia. Once completed, the Panhandle Trail will link the municipalities of Burgettstown, Midway and McDonald to Pittsburgh, PA and trails in West Virginia and Ohio.

RECOMMENDATION: Continue planning and development efforts to provide connections from hubs to the trail, including those trails listed in the Recreational Greenways—Potential Trail Corridors section of this Plan.

RECOMMENDATION: Develop the intersection of the Panhandle and Montour Trails as a recreational hub.

Chartiers Creek Water Corridor (Primary Greenway #5 on Map 10)

The Chartiers Creek Water Corridor runs from South Franklin Township, west of the City of Washington, to Cecil Township and includes a high BDA and a notable BDA. Chartiers Creek experiences many different forms of pollution and increased access to the stream will increase awareness within a watershed considered a priority among the Washington County Greenways Steering Committee.

RECOMMENDATION: Implement the Chartiers Creek River Conservation Plan.
RECOMMENDATION: Develop the Chartiers Creek's intersection with the Montour Trail as a recreational hub.

BicyclePA Route A Corridor (Primary Greenway #6 on Map 10)

BikePA Route A stretches 199 miles from the border of Erie County and New York State to the border of Greene County and West Virginia.

RECOMMENDATION: Road maintenance along the BicyclePA Route A Corridor should include expanding lanes or shoulders for bicyclists and adding bike lanes when warranted.
RECOMMENDATION: Local bicycle routes should connect hubs, such as McDonald Borough and the Montour Trail, to the state bikeway.

BicyclePA Route S Corridor (Primary Greenway #7 on Map 10)

BikePA Route S is the longest BicyclePA Route in the Commonwealth, extending 435 miles from Washington County (east of Wheeling, WV) to Washington Crossing Military Park on the Delaware River in Bucks County, and skirts the metropolitan areas of Pittsburgh, York, Lancaster, and Philadelphia. Part of the route includes 65 miles along the Youghiogheny River and Allegheny Highlands Rail-Trails through southwest Pennsylvania.

RECOMMENDATION: Road maintenance along the BicyclePA Route S Corridor should include expanding lanes and shoulders for bicyclists and adding bike lanes when warranted.
RECOMMENDATION: Local bicycle routes should connect hubs, such as Mingo Creek County Park, to the state bikeway.

B. Secondary Greenways: Natural Areas

Raccoon Creek Valley Natural Area (Secondary Greenway #1 on Map 10)

The Raccoon Creek Valley Natural Area is located in northern Washington County and extends into southern Beaver County. A portion of the Raccoon Creek Valley Natural Area encompasses a Targeted Area for Investment along State Route 22. Most of the remaining area is located within a Rural Resource Area.

The Natural Area includes the Raccoon Creek Important Bird Area; Kings Creek sub-watershed, the only designated cold water fishery in the County; Aunt Clara Fork Landscape Conservation Area; Raccoon Creek Valley Landscape Conservation Area; Hillman State Park; Raccoon Creek Water Corridor; and two conservation greenways, the Kings Creek Greenway and the Aunt Clara Fork Greenway. Aunt Clara Fork and Kings Creek are the only two cold water fisheries in the County and are also designated trout stocked fisheries. The Raccoon Creek Water Corridor and the Kings Creek Greenway include BDAs of exceptional significance, while the Aunt Clara Fork Greenway contains a notable BDA. Hillman State Park is the only state park in Washington County and provides connectivity between the Kings Creek and Raccoon Creek sub-watersheds.

The diverse ecological uses of this natural area are best suited for low-impact human activities, such as hiking or hunting in the State Park, bird watching, or fishing along one of the streams. The development of the Raccoon Creek Water Corridor could provide low-impact water recreation, protect the IBA, and better utilize Hillman State Park as a hub.

RECOMMENDATION: Encourage low-impact land use in the Natural Area by discouraging large-scale public infrastructure improvements into the designated Rural Resource Area, as recommended in the Washington County Comprehensive Plan.

RECOMMENDATION: Develop conservation ordinances similar to Growing Greener ordinances that promote preservation of the LCA and connectivity through the area, particularly along major waterways and tributaries.

RECOMMENDATION: Continue efforts for identification and remediation of strip mine-related Brownfield areas.

RECOMMENDATION: Provide additional educational and interpretive sites in coordination with the development of the Raccoon Creek Water Corridor.

RECOMMENDATION: Direct efforts to establish greenways and trails to link Raccoon Creek Valley Natural Area to Hillman State Park.

RECOMMENDATION: Explore opportunities to link Hillman State Park to Raccoon Creek State Park in Beaver County. Possible connections include Cain Road and across Wingfield Run as cited in the Beaver County Greenways and Trails Plan.

Cross Creek Natural Area (Secondary Greenway #2 on Map 10)

The Cross Creek Natural Area is located on the western side of Washington County, south of State Route 50, in a designated Rural Resource Area. The Cross Creek Natural Area contains 4,916 acres of non-gameland protected resources consisting of agricultural easements (with an additional 727 acres pending), the Cross Creek County Park, and Meadowcroft Rock Shelter.

This area is contiguous with the Buffalo Creek Natural Area and contains many natural and recreational resources, including Cross Creek Lake, SGL 303, Rea Block Field, a BDA of high significance, and the Cross Creek Water Corridor. A portion of the Cross Creek sub-watershed has been designated high quality. A potential trail could connect Cross Creek County Park to the Panhandle Trail in Burgettstown by utilizing an abandoned railroad right-of-way. Meadowcroft Rockshelter and Museum of Rural Life includes a pre-historic shelter, one of the first dwellings used by man in Southwestern Pennsylvania; Rea Block Field contains amazing sandstone outcroppings; and Cross Creek Lake is a major destination for recreational fishing within the County.

The mix of historic, natural, and recreational destinations may make this Natural Area a popular tourist attraction within the County, especially in the Western half. Development of the Cross Creek Water Corridor would provide additional low-impact water recreation and the Park and Meadowcroft would serve as Hubs.

RECOMMENDATION: Develop conservation ordinances similar to Growing Greener Ordinances that maintain the integrity of the high-quality watershed and the BDA. The conservation ordinance should promote and develop Riparian Buffers along Cross Creek and its tributaries, preserving prime agricultural soils and active agricultural operations.

RECOMMENDATION: Continue the implementation of the Watershed Restoration and Protection Plan and the promotion of Best Management Practices for active agricultural operations.

RECOMMENDATION: Promote economic development within the Cross Creek Natural Area that capitalizes on the tourist attractions and preserves the area's historic and natural integrity.

Buffalo Creek Natural Area (Secondary Greenway #3 on Map 10)

The Buffalo Creek Natural Area is located directly south of the Cross Creek Natural Area. The majority of the area is designated as a Rural Resource Area although a small portion of the City of Washington's Targeted Area for Investment overlaps the natural area's eastern edge. The Route 40 National Road Heritage Corridor and Scenic Byway provides access to the southern portion of the Natural Area.

The Buffalo Creek watershed is the only entire sub-watershed in Washington County that has been designated high quality. It is also the largest natural area with 112 square miles. Within its boundaries are the Buffalo Creek Valley Important Bird Area, the Buffalo Creek—Dutch Fork Landscape Conservation Area, the Buffalo Creek Water Corridor, the Dutch Fork Greenway, SGL 432, SGL 232, BicyclePA Route S, and the recently drained Dutch Fork Lake. The Buffalo Creek Water Corridor and Dutch Fork Greenway each contain a biological diversity area of exceptional significance. Dutch Fork Creek is a designated trout stock fishery. Development of the Buffalo Creek Water Corridor would provide low-impact water recreation, while the development of educational and interpretive sites would provide opportunities for visitors to learn about the Natural Area.

The Buffalo Creek Natural Area has the most undisturbed protected resources in the County. It consists of 8,917 acres of game lands and 91 acres of fish and boat commission property around Dutch Fork Lake. The two combined protect and provide access to 400 miles of stream bank along Buffalo Creek and its tributaries. The area also has 477 acres of preserved agricultural easements with additional applications totaling over 1,000 acres.

RECOMMENDATION: Develop Growing Greener conservation ordinances that maintain the integrity of the high quality watershed and the Landscape Conservation Area. The conservation ordinance should promote the development and preservation of the remaining land currently not identified as protected resources.

RECOMMENDATION: As land becomes available, the County should continue to support additional land acquisition by the Pennsylvania Game Commission, the Fish and Boat Commission, as well as other conservation organizations.

RECOMMENDATION: Due to the many acres of preserved stream banks, every effort should be made to develop a water trail on Buffalo Creek.

RECOMMENDATION: Repair the dam at Dutch Fork Lake.

Enlow Fork Natural Area (Secondary Greenway #4 on Map 10)

The Enlow Fork Natural Area extends across Washington County's southern boundary into Greene County. The entire area is designated as a Rural Resource Area in the Washington County Comprehensive Plan. The area includes the Enlow Fork Important Bird Area, the Enlow Fork Landscape Conservation Area, the Enlow Fork Greenway, the Robinson Run Greenway, the Templeton Fork Greenway, SGL 302, and Dreamer Memorial Park in Greene County. The Enlow Fork and Templeton Greenways include biological diversity areas of exceptional importance, while the Robinson Run Greenway includes a BDA of notable importance. Enlow Fork has been designated a trout stocked fishery.

The Enlow Fork Natural Area includes a privately-owned recreational facility, the Four Seasons Resort & Campground. The Four Seasons facility provides lodging and offers trails for users of All-Terrain Vehicles (ATVs). Washington County recognizes that this high-impact use conflicts with many of the recommendations for protecting areas of high ecological importance in the Enlow Fork Natural Area. However, allowing off-highway vehicle trail opportunities is a priority for DCNR and supports the philosophy that providing legal and properly designed trails for ATV users will decrease the amount of environmental damage done by illegal ATV use. Additionally, with the rising registration and use of ATVs, there is an increasing demand for an expanded trail system and building on an existing system offers economies of scale and reduces duplication.

RECOMMENDATION: Protect this Natural Area through coordination with Greene County and local municipal ordinances.

RECOMMENDATION: Support additional land acquisitions by the Pennsylvania Game Commission.

RECOMMENDATION: Coordinate with local watershed groups, conservationists, and ATV users to identify partnerships and opportunities to allow both ATV recreation and the environment to thrive in Washington County.

Little Chartiers Creek Natural Area (Secondary Greenway #5 on Map 10)

The Little Chartiers Creek Natural Area is located to the east of U.S. Route 19 and encompasses the majority of land in North Strabane, South Strabane, and Nottingham Townships. The Little Chartiers Creek Natural Area is a complex designation as it is affected by three separate Targeted Areas for Investment and bisected by a Rural Resource Area. Residential and commercial development is located on the northern, western, and southern peripheries of the Natural Area. The Targeted Areas for Investment include the I-79/U.S. Route 19 corridor to the

west, the Southern Beltway corridor to the north, and the I-70 corridor to the south. Important ecological resources included in the Little Chartiers Creek Natural Area are the high-quality sub-watersheds from the source of Little Chartiers Creek to Canonsburg Lake, the Little Chartiers Creek Greenway, the Linden Creek Greenway, and Canonsburg Lake. The entire Little Chartiers Creek has been designated a trout stocked fishery.

This Natural Area provides a unique challenge due to the rapid development occurring along the I-79 and US Route 19 corridors, which is expected to increase over the next ten years. Two communities, North Strabane Township and South Strabane Township, are currently among the fastest growing communities in Washington County. This fact coupled with the planned construction of the Southern Beltway will likely expand development pressures and growth areas. Therefore, it is imperative that conservation measures be implemented quickly to protect fragile ecological environments.

RECOMMENDATION: Promote best management practices for Growing Greener conservation subdivisions in municipal ordinances, such as establishing riparian buffers, preserving fertile and active agricultural lands, implementing access management ordinances to lessen fragmentation of habitat, preserving open space, and managing storm water from new developments.

RECOMMENDATION: Work cooperatively with the Pennsylvania Fish and Boat Commission and private organizations to rehabilitate Canonsburg Lake.

RECOMMENDATION: Complete a review and assessment of municipal land use regulations for communities within this watershed.

Mingo Creek Natural Area (Secondary Greenway #6 on Map 10)

The Mingo Creek Natural Area is primarily located within a designated Rural Resource Area, with the Southern Beltway Corridor Targeted Area for Investment intersecting to the north. The Natural Area is contiguous to the eastern side of Little Chartiers Creek Natural Area. The BicyclePA Route S corridor provides for regional connectivity between the natural areas.

The Mingo Creek Natural Area includes the portions of the Mingo Creek sub-watershed designated 'high quality,' the Mingo Creek County Park, and the Mingo Creek Greenway. This greenway includes an exceptional BDA and a BDA of high significance, and the stream is designated a trout stocked fishery. The County Park is contiguous to both BDAs, and the Mingo Creek Trail allows residents to experience pristine natural areas. A potential trail could be developed to connect park visitors with the Montour Trail in Finleyville by following an abandoned railroad right-of-way.

RECOMMENDATION: Develop conservation ordinances that maintain the integrity of the high quality watershed and the Natural Heritage Areas.

RECOMMENDATION: If land and funds become available, consideration should be given to extending the county park to protect the BDA's.

RECOMMENDATION: Promote the county park within the natural area as a hub for recreation.

RECOMMENDATION: Continue to provide and develop educational and interpretive trails to further the development of the Greenway system.

Franklin Natural Area (Secondary Greenway #7 on Map 10)

The Franklin Natural Area, designated primarily a rural resource area, is located approximately two miles south of the City of Washington and is the smallest Natural Area in Washington County at four square miles. The northern portion of the Natural Area intersects with the city of Washington Targeted Area for Investment. The Natural Area is defined as the drainage area for two unnamed dams in North Franklin Township and has been designated as 'high quality.' This area should be principally protected, but may provide educational opportunities if connected to nearby schools.

RECOMMENDATION: Explore opportunities to provide trail connections to local schools and provide educational and interpretive sites.

RECOMMENDATION: Promote best management practices for new developments that address open space and storm water management in North Franklin Township and South Franklin Township.

Ringlands Natural Area (Secondary Greenway #8 on Map 10)

The Ringlands Natural Area is located in a designated Rural Resource Area along the Ten Mile Creek Water Corridor in south-central Washington County along the boundary with Greene County. The greenway includes four BDA's within the Natural Area, including one of exceptional significance, two high BDAs, and a notable BDA. The Greene County Greenways Plan included a potential trail (the Washington to Waynesburg Trail) that would serve to connect the county seats in Greene County and Washington County by intersecting this area. This connectivity would be furthered if the Ten Mile Water Corridor was developed as a water trail.

RECOMMENDATION: Promote best management practices for new developments that address open space and storm water management in Amwell Township and Morris Township.

RECOMMENDATION: Consider land preservation opportunities within this area.

C. Secondary Greenways: Recreational Greenways

Several Secondary Greenways are noted for their importance related to recreational uses, connectivity potential, or proximity to population centers.

Mingo Creek Trail Corridor (Secondary Greenway #9 on Map 10)

The 17-mile Mingo Creek County Park Trail is owned and maintained by Washington County. The trail accommodates the shared uses of bicycling, horseback riding, and mountain bicycling.

RECOMMENDATION: Continue to develop trails to further the development of the Greenway system.

Bethel Branch (of the Montour Trail) Corridor (Secondary Greenway #10 on Map 10)

The Bethel Spur Trail provides a connection from Peters Township to Bethel Park in Allegheny County.

RECOMMENDATION: Continue to develop this section of the Montour Trail.

National Pike Trail Corridor (Secondary Greenway #11 on Map 10)

Upon completion, the National Pike Trail will follow the US Route 40-National Toll Road through the western half of Washington County. Approximately 1.9 miles of land purchased for the construction of the National Pike Trail are targeted to be opened in spring 2007.

RECOMMENDATION: Continue to acquire funding and support the efforts of the National Pike Trail Council to construct this trail.

Montour Trail to Westland Trail Corridor (Secondary Greenway #12 on Map 10)

The Montour Trail to Westland Trail follows an abandoned railroad right-of-way from Montour Trail into Mount Pleasant Township and Chartiers Township. **The trail is currently owned by the Montour Trail Council and is feasible for development.**

RECOMMENDATION: Continue to acquire funding and support the efforts of the Montour Trail Council to construct this trail.

Several water corridors identified as a navigable stream by the Natural Infrastructure Project for Southwestern Pennsylvania present the opportunity for water trails. These trails would provide low-impact outdoor recreational opportunities. The Water Corridors do not have sponsors for further development or implementation. The Potential Water Corridors are as listed:

Buffalo Creek Water Corridor (Secondary Greenway #13 on Map 10)

Buffalo Creek is designated high quality and connects to an exceptional BDA, SGL 432, SGL 232, Dutch Fork. A water trail developed in the Buffalo Creek Corridor should include educational and interpretive sites to increase awareness of this highly ecologically important area.

Cross Creek Water Corridor (Secondary Greenway #14 on Map 10)
A portion of Cross Creek is designated as high quality. A water trail developed in the Cross Creek Corridor would provide additional outdoor recreational opportunities for visitors to Cross Creek County Park and Meadowcroft Rockshelter and Museum of Rural Life.

Raccoon Creek Water Corridor (Secondary Greenway #15 on Map 10)

The Raccoon Creek Water Corridor includes an exceptional BDA. A water trail developed in this Corridor could capitalize on the presence of Hillman State Park and the high ecological value of the corridor by including educational and interpretive sites. Such a designation by Washington County would extend an existing 27.9 mile seasonal water trail in Beaver County. The Beaver County portion of the Raccoon Creek Water Trail was developed by Canoe Raccoon Creek and provides an access point at Murdocksville along the border of Washington and Beaver Counties. The Beaver County Greenways and Trails Plan (draft) recommends that the Raccoon Creek Water Trail be formally designated by the PA Fish and Boat Commission as a State Water Trail.

Ten Mile Creek Water Corridor (Secondary Greenway #16 on Map 10)

The Ten Mile Creek Water Corridor provides a connection between the Ringlands Natural Area, a BDA of exceptional significance upstream, the Ten Mile Creek County Park, and the nearby village of Fredericktown. Ten Mile Creek is a designated trout stocked fishery upstream from the County Park between State Route 18 Morris Township and US Route 19 in Amwell Township. A water trail developed in the Ten Mile Creek Water Corridor could include educational and interpretive sites that would bridge the transition from preservation in the Ringlands Natural Area to recreation at Ten Mile Creek County Park.

D. Secondary Greenways: Conservation Greenways

There are no sponsors for these potential trails and the projects likely will not advance until a sponsor steps forward. A sponsor could be a municipality or a non-profit organization.

Dutch Fork Greenway (Secondary Greenway #17 on Map 10)

The Dutch Fork Greenway connects SGL 232 with the Buffalo Creek Greenway and a BDA of exceptional significance and is located in the center of the Buffalo Creek Natural Area. Dutch Fork has also been designated a high-quality stream.

Enlow Fork Greenway (Secondary Greenway #18 on Map 10)

The Enlow Fork Greenway contains a BDA of exceptional significance and is in the center of the Enlow Fork Natural Area.

Little Chartiers Creek Greenway (Secondary Greenway #19 on Map 10)

The Little Chartiers Creek Greenway contains a high-quality stream and has been designated a trout-stocked fishery.

Peterswood Park Greenway (Secondary Greenway #20 on Map 10)

This Greenway was designated by the Greenways Steering Committee for its importance in draining into Little Chartiers Creek near Canonsburg Lake.

Mingo Creek Greenway (Secondary Greenway #21 on Map 10)

The Mingo Creek Greenway contains an exceptional BDA and a BDA of high significance. Mingo Creek has been designated a trout-stocked fishery and high quality. The greenway is in the center of the Mingo Creek Natural Area and Mingo Creek County Park.

Kings Creek Greenway (Secondary Greenway #22 on Map 10)

The Kings Creek Greenway contains an exceptional BDA and connects to Hillman State Park. Kings Creek is one of only two designated cold-water fisheries in the County and has also been designated a trout-stocked fishery.

Aunt Clara Fork Greenway (Secondary Greenway #23 on Map 10)

The Aunt Clara Fork Greenway contains a BDA of notable significance. Aunt Clara Fork is one of only two designated cold-water fisheries in the County and has also been designated a trout-stocked fishery.

Morganza Run Greenway (Secondary Greenway #24 on Map 10)

The Morganza Run Greenway contains an exceptional BDA and drains into Chartiers Creek.

Froman Run Greenway (Secondary Greenway #25 on Map 10)

The Froman Run Greenway contains an exceptional BDA just east of the Mingo Creek Natural Area.

Peters Creek Greenway (Secondary Greenway #26 on Map 10)

The Peters Creek Greenway contains a BDA of high significance north of the Mingo Creek Natural Area.

South Branch Maple Creek Greenway (Secondary Greenway #27 on Map 10)

The South Branch Maple Creek Greenway contains a high BDA and drains just south of the Pine Cove Beach and RV Resort.

Pigeon Creek Greenway (including South Branch) Secondary Greenway #28 on Map 10)

The South Branch Pigeon Creek Greenway contains a notable BDA.

Black Dog Run Greenway (Secondary Greenway #29 on Map 10)

The Black Dog Run Greenway contains a notable BDA just north of where Ten Mile Creek flows into the Monongahela River.

Pike Run Greenway (Secondary Greenway #30 on Map 10)

The Pike Run Greenway has been designated a trout stocked fishery and flows into the Monongahela River just south of the California Overlook.

Millers Run Greenway (Secondary Greenway #31 on Map 10)

The Millers Run Greenway has been designated a trout stocked fishery.

Templeton Fork Greenway (Secondary Greenway #32 on Map 10)

The Templeton Fork Greenway connects SGL 245 with the Enlow Fork Natural Area and a BDA of exceptional significance.

Robinson Run Greenway (Secondary Greenway #33 on Map 10)

The Robinson Run Greenway connects SGL 245 with the Enlow Fork Natural Area and a BDA of notable significance.

E. Secondary Greenways: Recreational Greenways—Potential Trail Corridors

Potential trail corridors were identified that would connect with the existing trail and greenway network and provide a countywide system of greenways, as shown in ***Map 11: Long-Term Potential Greenways System***. These have **not** been found to be feasible, only that they provide connectivity and warrant further study. Trail feasibility studies are needed before a formal designation as a Proposed Trail could be made. **There are no sponsors for these corridors and future projects likely will not advance until a sponsor steps forward**. As such, these greenways are considered a long-term priority.

Greene River Trail to Charleroi Corridor (Recreational Greenway #1 on Map 11)

This corridor provides an opportunity to develop a low-impact recreational trail that would also serve as an alternative form of transportation linking Charleroi Borough to many communities along the Monongahela River. Connections to Fayette County and Greene County would be possible via the Greene River Trail and proposed Fayette County trails (Redstone Creek and Dunlap Creek).

Greene River Trail to Ten Mile Creek County Park Corridor (Recreational Greenway #2 on Map 11)

This corridor would offer local residents improved accessibility to the Ten Mile Creek County Park in Washington County and regional access to the Greene River Trail in Greene County if developed as a trail. The Ten Mile Creek County Park is a centrally-located hub to several small population centers and offers an important recreational outlet in southern Washington County.

Montour Trail to Mingo Creek Trail Corridor (Recreational Greenway # 3 on Map 11)

This corridor follows an abandoned railroad right-of-way into Union Township. Development of a trail could extend past the railroad right-of-way terminus to provide connectivity from the Montour Trail/Great Allegheny Passage to Mingo Creek County Park.

Montour Trail to Muse Corridor (Recreational Greenway #4 on Map 11)

The Montour Trail extension follows an abandoned rail road right-of-way from the Montour Trail to the village of Muse in Cecil Township. This corridor is only partially owned and has a longer term feasibility.

Montour Trail to National Pike Corridor (Recreational Greenway # 5 on Map 11)

This extension would connect the planned National Pike Trail to the Montour Trail in Cecil Township. This potential trail was noted in the Natural Infrastructure Project as a Regional Missing Link.

Montour Trail to Pittsburgh Corridor (Recreational Greenway #6 on Map 11)

This extension to the Montour Trail would connect to Pittsburgh by following Chartiers Creek into Allegheny County.

Montour Trail to Ten Mile Creek County Park Corridor (Recreational Greenway #7 on Map 11)

This extension to the Montour Trail would link Ten Mile Creek County Park with BicyclePA Route A and eventually to the Montour Trail in Cecil Township. This potential trail was noted in the Natural Infrastructure Project as a Regional Missing Link.

Panhandle Trail through Midway Corridor (Recreational Greenway #8 on Map 11)

This corridor follows an abandoned railroad right-of-way and would provide opportunities to residents of Midway, identified by the Washington County Greenways Steering Committee as a hub, to access the Panhandle Trail. The portion between Primrose Lane and Station Street, which includes Midway Borough, is under construction with an estimated completion date of Spring, 2007.

Panhandle Trail to Cross Creek County Park Corridor (Recreational Greenway #9 on Map 11)

This corridor follows an abandoned railroad right-of-way from the Panhandle Trail into Cross Creek Township. If a trail was developed, it could be extended past the terminus of the railroad right-of-way to connect to hubs at Cross Creek County Park and in Burgettstown. There currently is no sponsor for this trail.

Sudan Corridor (Recreational Greenway #10 on Map 11)

The Sudan Corridor could be developed as a trail that follows an abandoned railroad right-of-way to provide opportunities for residents of Carroll Township to access the City of Monongahela and the Monongahela River. There currently is no sponsor for this trail.

Ten Mile Creek to Ellsworth Corridor (Recreational Greenway #11 on Map 11)

This corridor follows an abandoned railroad right-of-way and would provide opportunities to connect Ellsworth Borough to the Ten Mile Creek County Park and the Monongahela River. There currently is no sponsor for this trail.

Washington to Waynesburg Corridor (Recreational Greenway #12 on Map 11)

The Washington to Waynesburg Corridor is located along an abandoned railroad right-of-way. A potential trail was proposed in the Greene County Greenways Plan that would connect the City of Washington to the Borough of Waynesburg, both of which are county seats. There currently is no sponsor for this trail.

The **Redstone Creek Trail** and the **Dunlap Creek Trail** (also known as the Masontown to Brownsville Trail) are two trails proposed in Fayette County. The proposed trail alignment follows the abandoned railroad right-of-way along both creeks. Both trails would connect a variety of communities in Fayette County linking through Brownsville Borough. These trails have not been formally studied and will require alignment and deed research before the feasibility as a trail could be confirmed. Connecting to these trails from Washington County would provide additional opportunities to become a regional hub for trails in Southwestern Pennsylvania.

Two other recreational greenway corridors include power transmission line right-of-ways (Recreational Greenway # 13 on Map 11) and an ATV corridor to connect into Greene County (Recreational Greenway # 14 on Map 11). Power transmission line right-of-ways may provide opportunities for hiking trail opportunities in rural portions of the County,

although their development would need to be sensitive to issues regarding homeland security. In addition, Washington County is in the process of partnering with Greene County and DCNR to study the feasibility of an ATV trail connection between Four Seasons Resort & Campground and the Mason Dixon Riders ATV Park. This process is in the early stages of planning.

Hubs

Hubs are defined as access points intended for human use. These include recreational destinations such as State Parks, State Game Lands, County Parks, municipal parks, campgrounds, and water access points; natural, historic, and cultural sites that protect and interpret Pennsylvania's heritage; and major trip generators, such as dense traditional downtowns, major interchanges where development is expected to occur, colleges and universities, primary and secondary schools, former industrial sites or brownfields to spur economic development, and major employers. The hubs of the greenway system are identified on *Table 5-4 Hubs* and bulleted below.

Hillman State Park

Hillman State Park has the potential to act as the anchor point for the Raccoon Creek Valley Natural Area. Efforts to increase awareness of the State Park should be pursued.

State Game Lands-Various

These valuable resources serve to anchor several Natural Areas. Efforts should be continued that support the acquisitions of important lands to extend the state game lands network.

Institutions of Higher Learning—California University of Pennsylvania & Washington and Jefferson College—and public schools

These locations serve as important quality of life resources and are located in advantageous areas to expanded connections to major population areas, recreational resources, or natural areas. Pedestrian connections should be offered that would facilitate the movement of people, reduce reliance on the automobile, and encourage physical activity.

Meadowcroft Rock Shelter

The Meadowcroft Rock Shelter is a major tourism asset and historical resource for Washington County and supports the Cross Creek Natural Area. Connections from surrounding areas should be facilitated and promotional efforts encouraged.

Four Seasons Resort

This privately-owned recreational facility offers the only formal legal riding opportunity in Washington County for off-highway vehicle users. Additional research into the feasibility of expanding ATV riding facilities should be explored.

County Parks —Cross Creek County Park, Mingo Creek County Park and Ten Mile Creek County Park

These large land areas contribute to the sustainability of natural areas. Each offers opportunities for connections to regional trails and population centers. For instance. Ten Mile Creek County Park is in a unique location to serve as a regional recreation hub. Four potential trails have been identified that would connect the park to the Greene River Trail in Greene County, Charleroi Borough and Redstone Creek and Dunlap Creek Trails in Fayette County, a north-south connection through Washington County to the Montour Trail, and a connection via an abandoned railroad right-of-way to Ellsworth. In addition, the Ten Mile Creek Water Corridor could be developed to preserve the riparian buffers and BDA's along the stream and provide low-impact outdoor recreation. It is recommended that partnerships with Fayette and Green Counties as well as communities located along the Monongahela River be fostered to explore the feasibility of a trail connecting Ten Mile Creek County Park to Charleroi Borough, the Greene River Trail, and to communities in Fayette County. Consider expanding and further developing Ten Mile Creek County Park so as to serve as a regional recreational hub serving Tri-County residents. Additional recommendations and action steps specific to the County Park system are included in the Washington County Comprehensive Recreation, Park and Open Space Plan and Master Plans for Mingo Creek and Cross Creek County Parks (2000).

Water Resources—Monongahela River Access, Canonsburg Lake, Cross Creek Lake and Dutch Fork Lake

Water resources offer exciting opportunities to enhance recreational assets. Redeveloping Dutch Fork Lake, remediation on Canonsburg Lake, and expanding opportunities for public access to the Monongahela River are strongly recommended. Communities should work cooperatively with the Pennsylvania Fish and Boat Commission to develop boating facilities.

Population Centers—Charleroi Borough, Village of Fredericktown, Burgettstown Borough, Midway Borough, McDonald Borough, City of Washington, etc.

Washington County has numerous established population centers in boroughs, villages, etc. that would benefit from access to greenways or the development of greenways. Future opportunities to dedicate lands for park development, revitalize brownfields, or develop commercial centers should incorporate areas of greenspace.

Management Philosophy of Washington County Greenways

The attainment of an interconnected network of greenways throughout Washington County is a commendable goal. However, there are fundamental questions that must be answered if the actual attainment of a greenways network is to be realized—How is such a Greenways Network established, who is responsible, who pays, and how is it managed?

The Washington County Greenways Plan contains goals and recommendations that move beyond County financing and management of greenways. While the County must identify and establish the vision and provide guidance, only through the spirit of cooperation will an interconnected network of Greenways be attained. Therefore, it should be understood that the implementation of the Washington County Greenways Plan encompasses federal, state, local, corporate, private, non-profit, and private citizen partnerships.

GOAL: The Washington County Greenways Plan is a living document that is the basis for achieving the greenways vision.

RECOMMENDATION: The Greenways Plan is used by Local, County, State, and Federal entities to direct development and preservation efforts and to render decisions.

RECOMMENDATION: The Greenways Plan is reviewed annually to ensure the document remains relevant to present trends and conditions.

RECOMMENDATION: The Greenways Plan is updated at least every ten (10) years.

One way to think of greenways planning is as a "greenprint" for growth:

A greenprint serves the same function for a community that a blueprint serves for a home: it delivers an environment that meets the needs of those who inhabit it for space, comfort, and livability. With a greenprint to identify lands they wish to protect, communities can guide growth into less sensitive areas.

—Trust for Public Land, 1999

Administration

To strike a balance between development and conservation, the municipalities of Washington County will need to be educated as to what steps they can take to allow growth while protecting their community's natural character. Organizations such as 10,000 Friends, Pennsylvania Natural Lands Trust, and the Pennsylvania Environmental Council can support efforts to increase awareness of greenways and their contribution to the overall quality of life in the County. Potential sources of technical expertise and personnel resources include the Washington County Conservation District, Washington County Redevelopment Authority, Washington County Parks and Recreation Department, Washington County Planning Commission, Pennsylvania Department of Environmental Protection, Pennsylvania Department of Conservation and Natural Resources, and the Pennsylvania Department of Community and Economic Development.

GOAL: Provide municipal education regarding greenways.

RECOMMENDATION: Prepare an informational presentation about greenways that is presented to municipal officials from each of the 67 municipalities in Washington County

RECOMMENDATION: Present the Washington County Greenways Plan in a manner that targets a regional implementation such as all municipalities within a watershed.

Educating the general public, community organizations, and businesses will also be essential to achievement of the goals expressed in this Plan. Promoting the vision to educate these diverse constituencies will be a fundamental component as they will bear a large responsibility to develop the Washington County Greenways Network.

GOAL: Promote the Washington County greenways vision.

RECOMMENDATION: Conduct a media campaign in cooperation with the Washington County Tourism Promotion Agency to educate the public, raise awareness, and continue the momentum created during the greenways planning process.

The data management of the Washington County greenways inventory will be an ongoing exercise that is best undertaken at the County level. The inventory was created in a Geographic Information System (GIS) database, which allows for ease in updating information and provides mapping capabilities for visual representation. The Washington County Planning Commission (WCPC) currently manages the County's GIS and is a natural entity to continue this responsibility. The inventory of Greenways and future updates should be coordinated with the municipalities and state level agencies. Two funding sources that will support GIS development are the state agencies of DCED and DCNR.

GOAL: Maintain and update the greenways GIS.

RECOMMENDATION: The WCPC should assume ongoing responsibility for data management and GIS mapping.

RECOMMENDATION: The WCPC should identify and secure grant funding to further develop and continuously update the Greenways GIS.

RECOMMENDATION: The WCPC should update the greenways inventory in coordination with local planning and implementation efforts.

Legislation / Ordinances

The municipalities in Washington County are asked to implement County and State policies through the enactment of local regulatory codes. Zoning and subdivision ordinances that establish design standards and design review processes are one of the most effective methods to limit the impact of development on natural resources, greenways, and other open space. Growing Greener ordinances give communities an opportunity to determine how development proposals will impact their landscapes.

The Washington County Greenways Plan supports the concepts and principles of the Growing Greener: Conservation by Design program. The program supports the enactment of municipal land use codes that protect open space through conservation design. The program provides model ordinances that can serve as a guide for the development of local municipal ordinances.

The idea is not to create additional or overly restrictive regulations but rather to promote consistency to achieve countywide goals. A countywide approach for design and development guidelines can encourage economic development, increase desired development patters, and ultimately streamline the building permit process.

GOAL: Achieve consistency for development practices and locations.

RECOMMENDATION: Development projects that include Federal or State funding or incentives should follow Growing Greener guidelines.

Other types of legislative protection include overlay zoning and the creation of view corridors. View corridors are planned openings in the built environment that allow views of scenic vistas and view sheds Zoning laws that limit the height of buildings based on their proximity to a designated view shed or that lie within a view corridor are an effective way of preserving scenic vistas. Additional restrictions are often used to control density, grading, ridgeline development, and vegetation, which are also effective measures to preserve scenic vistas.

Other negative impacts to the natural landscape include the placement of billboards or other off-premise signs in a manner that is known as "sign clutter". The placement of billboards falls under the local authority of each municipality. Billboards, also known as off-premise signs,

block out scenic beauty and blight the countryside. Banning billboards along scenic byways and corridors ensures that the unique beauty of scenic vistas and viewsheds remains unmarred by intrusive and unnecessary signs.

GOAL: Achieve consistency between municipal and countywide ordinances.

RECOMMENDATION: Review and prepare an analysis of each municipal zoning ordinance and subdivision and land development ordinance (SALDO) within the County. The review and analysis should include an evaluation of municipal regulations that encourage open space protection, foster community recreation, enhance alternative means of transportation through pathways, and enforce the preservation of important natural features. The Evaluation should also provide recommendations on how municipalities can implement appropriate zoning techniques and land use ordinances for the protection of greenspace. Potential partners include 10,000 Friends, the Pennsylvania Environmental Council, and the Natural Lands Trust.

RECOMMENDATION: Develop design and development guidelines and standards.

RECOMMENDATION: Provide guidance to municipalities as to how they can implement zoning to control billboards.

The consistency of municipal ordinances regarding development of waterways is the only method by which to reduce flooding and improve water quality. Streams, creeks, and rivers do not stop at political boundaries and conflicting land development policies reduce the success of organizations who are restoring natural vegetation along waterways. Washington County should at a minimum consider a County Riparian Buffer policy that aligns with the Commonwealth's criteria for streamside buffer restoration, which was established through the efforts to restore the Chesapeake Bay Watershed. The 2,010-mile goal for the Chesapeake Bay watershed put forth the following criteria:

1. A buffer must be at least 35 feet wide from the top of the streambank to the buffer's uphill edge (a width of 50 to 100 feet is strongly encouraged);
2. A buffer must contain at least two species of trees or shrubs, or a combination of trees and shrubs; natural regeneration is acceptable where nearby trees native to the area can provide a natural source of seeds, and where invasive plant species can be controlled; buffers established around wetlands may also count towards the goal;
3. Conservation of existing forested streamside areas should occur within at least a 100-foot wide corridor; and,
4. Buffers restored along lake and pond shores also will be counted towards the bay wide 2,010 mile goal.

GOAL: Ensure that municipal ordinances are consistent throughout the County so as to improve water quality and reduce flooding.

RECOMMENDATION: Develop a model Riparian (Stream) Buffer Ordinance.

RECOMMENDATION: Planning Commission staff should present the model Riparian Buffer Ordinance at Planning Commission and governing body meetings to increase awareness and encourage enactment.

RECOMMENDATION: Implement a countywide stream buffer program.

The forestry industry is an important industry in Pennsylvania and in Washington County there are several locations where logging activities occur. Irresponsible logging practices can lead to increased stormwater runoff, erosion and sedimentation problems, flooding, and habitat destruction. However, proper logging techniques can actually benefit a forested area in terms of regeneration and the prevention of erosion. Additionally, landowners who harvest timber are less likely to develop their land in a more intensive fashion thereby increasing greenspace.

In Pennsylvania, the right to forest is a protected activity. In 1983, the Pennsylvania Right to Practice Forestry Act was passed, which establishes logging as an agricultural practice like farming that can not be unfairly restricted. Forestry is defined in the PA MPC as "the management of forests and timberlands when practiced in accordance with accepted silvicultural principles, through developing, cultivating, harvesting, transporting and selling trees for commercial purposes, which does not involve any land development." In June of 2000, the Pennsylvania Legislature amended the MPC so that Article VI, Section 603 (f) states "zoning ordinances may not unreasonably restrict forestry activities. To encourage maintenance and management of forested or wooded open space and promote the conduct of forestry as a sound and economically viable use of forested land throughout this commonwealth, forestry activities, including, but not limited to, timber harvesting, shall be a permitted use by right in all zoning districts in every municipality."

GOAL: Encourage the use of sound logging techniques and educate municipalities and landowners of the benefits associated with forestry activities.

RECOMMENDATION: The County should assist municipalities to develop land use regulations that implement Best Management Practices that address logging and forestry.

RECOMMENDATION: The County should contact the Bureau of Forestry Service Forester for assistance. This bureau has a forester assigned to every county in Pennsylvania and is available to provide technical assistance.

Partnerships / Organizations

Grassroots implementation is truly the only method by which a sustainable greenways network can be attained. It will be the people who live, work, or play in a given community or region who dedicate their time to carry out the vision of the Washington County Greenways Plan. Such activities are occurring daily across Washington County and there are numerous studies and plans that provide a wealth of information to direct local efforts to establish a Greenways Network. A few such plans are the Chartiers Creek Watershed Plan and the Buffalo Creek Protection Plan.

Organizations such as Environmental Advisory Councils are recognized advisory bodies who can educate municipal officials regarding local natural resources. An Environmental Advisory Council is a community based group that is appointed by the governing body to act on the behalf of the natural environment on matters such as development within a municipality. A local example is the EAC in Peters Township.

GOAL: Encourage the creation of a network of environmental organizations throughout Washington County.

RECOMMENDATION: Review and assign responsibilities or conduct outreach to support the implementation of completed local conservation studies, river conservation plans, etc.

Environmental Advisory Councils (EAC) Act 177 of 1996, originally Act 148 of 1973

CHAPTER 30 C. ENVIRONMENTAL ADVISORY COUNCILS

•§ 11501. Council created; purposes and general powers.
The governing body of any city, borough, township, or incorporated town, or group of two or more such political subdivisions, may by ordinance establish an Environmental Advisory Council to advise other local governmental agencies, including, but not limited to, the planning commission, park and recreation boards and elected officials, on matters dealing with protection, conservation, management, promotion and use of natural resources including air, land and water resources, located within its or their territorial limits.

•§ 11503. Specific powers.
An Environmental Advisory Council organized under this act shall have power to identify environmental problems and recommend plans and programs to the appropriate agencies for the promotion and conservation of the natural resources and for the protection and improvement of the quality of the environment within its territorial limits; to make recommendations as to the possible use of open land areas of the political subdivisions within its territorial limits; to promote a community environmental program; to keep an index of all open space areas, publicly or privately owned, including, but not limited to flood-prone areas, swamps and other unique natural areas, for the purpose of obtaining information on the proper use of such areas; and to advise the appropriate local governmental agencies, including but not limited to, the planning commission and recreational park board or, if none, to the elected governing body or bodies within its territorial limits in the acquisition of property, both real and personal, by gift, purchase, grant, bequest, easement, devise or lease in matters dealing with the purposes of this act.

RECOMMENDATION: Establish a countywide network of environmental advisory councils. Potential partners include the Pennsylvania Environmental Council and the Washington County Conservation District.

Land trusts are private organizations that hold land and partial interests in land for the benefit of the public. Nonprofit land trusts can raise private funds from corporations and individuals and can also solicit donations from foundations that may not fund government agencies. Some land trusts use revolving funds to purchase land and then resell it at cost to buyers who agree to specific land use restrictions. Land trusts also use their resources to educate property owners on the benefits of voluntary land or easement donations. Currently, there are four entities that own property in the County:

1. Allegheny Land Trust (PALTA Member)
   949 Thorn Run Road, Moon Twp., PA 15108
   Counties where acquisitions completed: Allegheny, Washington
   Founded: 1993, Phone: (412) 604-0422, Email: rkraynyk@alleghenylandtrust.org,
   Web: http://www.alleghenylandtrust.org

1. Chartiers Nature Conservancy (PALTA Member)
   PO Box 44221, Pittsburgh, PA 15205
   Counties where acquisitions completed: Allegheny, Washington
   Phone: (412) 276 9150
   Email: chartiersnature@hotmail.com
   Web: http://www.chartiersconservancy.org

1. Independence Marsh Foundation (PALTA Member)
   PO Box 1033, Aliquippa, PA 15001-0833
   Counties where acquisitions completed: Washington
   Counties where acquisitions anticipated: Allegheny, Beaver
   Phone: (724) 774-7119Email: info@independencemarsh.org Web: http://www.independencemarsh.org

1. Montour Trail Council PALTA Member
   PO Box 11866
   Pittsburgh, PA 15228-0866
   Counties where acquisitions completed: Allegheny, Washington

GOAL: Enhance the capacity of Washington County Land Trusts, or those which have land holdings in Washington County.

RECOMMENDATION: The WCPC should contact appropriate land trusts to present the Washington County Greenways Plan.

RECOMMENDATION: The County should contact the Pennsylvania Land Trust Association to provide assistance to build stronger relationships with existing land trusts so as to increase land holdings reserved for greenspace purposes (http://conserveland.org/org). After consulting the Pennsylvania Land Trust Association, the County should consider establishing new Land Trusts as needed.

Partnering with public and private sector leaders, such as business, civic, and nonprofit organizations can attract new avenues of federal, state, and private funding to support local efforts. Contributors are often more comfortable donating to a foundation that supports a government project than to the government with the same mission. Conservation foundations can attract new funding, raising money from individual and corporate donors, other foundations, and state and federal grant programs.

GOAL: Increase opportunities to attract funding to implement the Washington County Greenways Plan

RECOMMENDATION: Establish a Washington County Conservation Foundation, which would have the mission to acquire funding to support the implementation of the Plan and expand the Greenways network.

Recreation within Greenways

Washington County has been a recognized leader in their efforts to develop a County-wide network of trails and parks. In fact, the County in many ways exceeds the "standards" of parks and recreation. For instance, to increase community availability and accessibility of physical activity opportunities, the Center for Disease Control (CDC) outlined the following benchmarks for communities:

- 1 mile of hiking, biking, and/or fitness trail per 10,000 people
- 4 acres of park and recreation open space per 1,000 people

Washington County, as of 2006, had approximately 88 miles of trails and 22,500 acres of municipal, county, state parks and state game lands. However, it should be noted, that the CDC requirement is for localized areas much smaller geographically than Washington County, therefore underscoring the need for local assessment and implementation. While the County stands at the forefront for expanding the regional system of greenways, many communities within the county will be better served through local systems.

GOAL: Strengthen the regional role that Washington County serves as a gateway for trails in Southwestern Pennsylvania and increase local benefits.

RECOMMENDATION: Foster regional connections to Ohio, West Virginia, and Maryland by working with surrounding counties and states to establish inter-county and inter-state trail networks.

RECOMMENDATION: Direct funding to support efforts to establish spur trails from the main line trail into targeted population centers and to residential subdivisions developments.

RECOMMENDATION: Direct funding to support efforts to establish trails needed to connect targeted population centers to recreation sites, such as the Ten Mile Creek County Park to Ellsworth Corridor.

GOAL: Increase the number of visitors, encourage community connections, foster economic development, establish regional connections, and allow for shared uses.

RECOMMENDATION: Conduct local assessments of trails and parks.

RECOMMENDATION: Direct funding and support efforts to complete ongoing projects planned by various trail groups.

RECOMMENDATION: Encourage trail design that accommodates equine users with pedestrian/bicycle users.

GOAL: Provide appropriate trail experiences for a wide range of users.

Hiking and Biking Trails

RECOMMENDATION: Identify and secure funding and complete the missing segments of the Montour Trail.

RECOMMENDATION: Identify and secure funding to develop connector trails from the Montour Trail to the villages of Muse and Westland.

RECOMMENDATION: Identify and secure funding to develop the National Pike Trail from Claysville to the City of Washington.

RECOMMENDATION: Identify and secure funding to connect the Panhandle Trail to West Virginia and Ohio Trails.

RECOMMENDATION: Investigate opportunities to develop the stream bank fencing program that would include trails.

Equine Industry

RECOMMENDATION: Develop equestrian facilities and trails in Cross Creek County Park. Regional equestrian trails should be 10-15 miles in length and loop to the point of origin. Equestrian trail amenities may include overnight camping areas, potable water, parking areas to accommodate horse trailers, electrical hook-ups, and restrooms/outhouses.

RECOMMENDATION: Foster a County-wide equestrian outreach program to organize this diverse group of users. This group should be consulted to investigate the need for a new equestrian arena with appropriate facilities.

RECOMMENDATION: Develop partnerships between equestrian groups and formal trail groups.

RECOMMENDATION: Enhance partnership and riding opportunities between equestrian groups and the PA State Game Commission.

RECOMMENDATION: Establish countywide trail design standards for shared use (off to the side of pedestrian/bicycle pathways, use of pea gravel, removing cobblestones, plant deep rooted grasses, provide stream crossings, larger parking areas to accommodate trailers, loop trails).

Water Trails

RECOMMENDATION: Establish a water trail and appropriate public access and/or boating amenities along the following waterways:

- Monongahela River Water Corridor.
- Chartiers Creek Water Corridor
- Buffalo Creek Water Corridor
- Cross Creek Water Corridor
- Raccoon Creek Water Corridor
- Ten Mile Creek Water Corridor

Trails for Off-Highway Vehicle (OHV) Users

There is one greenway hub within Washington County that accommodates motorized vehicles—4 Seasons Resort and Campground. Motorized uses are not recognized as conducive to shared trail opportunities with horses, pedestrians, or bicyclists due to noise and safety issues. However, this recreational use can support access to rural areas and foster economic development. Also, providing legal motorized trail opportunities may reduce illegal riding and the subsequent negative environmental impacts created by unauthorized access.

RECOMMENDATION: Apply for funding to investigate the feasibility of extending the motorized trail network in Washington County.

RECOMMENDATION: Foster a County-wide outreach program to organize this diverse group of users.

RECOMMENDATION: Continue to explore partnerships with Greene County to extend the motorized trail network.

RECOMMENDATION: Support the efforts of private developers such as the 4 Seasons Resort and Campground to expand their facilities to meet the growing demand for motorized trails.

Gray Infrastructure

Several major transportation projects are planned for Washington County that have the potential to have major, long-lasting impacts on the County's landscape and development.

GOAL: "Get ahead" of planned transportation improvements

- RECOMMENDATION: Develop a "mitigation bank" for the replacement of wetlands impacted by transportation projects.
- RECOMMENDATION: The County should partner with the Southwestern Pennsylvania Commission (SPC), Pennsylvania Department of Transportation (Penn DOT) and The Pennsylvania Turnpike Commission to ensure that transportation projects are in line with the greenways vision.
- RECOMMENDATION: Transportation projects should allow for strategic wildlife passage in a manner that does not harm the traveling public. Such methods can include elevating a road structure, installing larger culverts, and building bridges.
- RECOMMENDATION: Mitigation measures should include trails and bicycle lanes to allow for alternative transportation modes, such as walking and bicycling, to take place in urban settings and along transportation corridors previously designed exclusively for automobiles.
- RECOMMENDATION: Request that future transportation improvements include reforestation of hillsides and right-of-ways with native vegetation.
- RECOMMENDATION: Request that future transportation improvements include mitigation measures for greenspace such as steeping slopes to minimize right-of-way requirements, creating a vegetation clear zone along the edge of the roadway to discourage wildlife entry, and preserving existing habitat within the proposed right-of-way whenever possible.
- RECOMMENDATION: Utilize Transportation Enhancement monies for the purchase of easements to protect and extend greenways.
- RECOMMENDATION: Support transportation legislation that includes protection of open space and habitats (currently done with wetlands).
- RECOMMENDATION: Lobby SPC, Penn DOT, and the PA Turnpike Commission to consider land conservation, open space preservation, and habitat conservation when preparing long range plans for transportation and economic development.
- RECOMMENDATION: Establish a program to dedicate Transportation Enhancement funding to purchase easements along scenic byways and near transportation improvement projects to create scenic viewsheds.
- RECOMMENDATION: Encourage the preservation of transportation right-of-ways for greenways.

Municipalities in urban areas face the difficult challenge to overcome the lack of available recreation and natural areas. Many established communities across Washington County are taking steps to welcome residents back to these "built" areas but are struggling to offer pleasing residential options in locations where there is little open space but significant remnants of the past as an industrial hub. Therein lies the challenge to recapture locations of "neglected green" in urban areas.

GOAL: Integrate Greenspace into urban areas

RECOMMENDATION: Include greenspace into planning for educational facilities and within Industrial/Business Parks (Simpson, W. 1996):

1. Planning and Design

- Locate development convenient to population being served and regional public transit system
- Develop master plans which minimizes negative impacts and disruption of natural ecosystems and surroundings
- Protect natural areas from development
- Concentrate buildings and arrange campus walkways and roads to minimize on-site driving and create a convenient pedestrian and bicycle campus
- Allow for solar access in building siting and orientation

2. Grounds and Land Use

- Promote "natural succession" for unneeded lawn areas
- Develop a nature appreciation program
- Implement a tree protection policy
- Plant native species

Traditional land use regulations do not typically address the preservation or dedication of greenspace. Many municipalities are not even aware that they have the authority to require openspace preservation or dedication through zoning and subdivision requirements. The Washington County Comprehensive Plan (Chapter 6: Housing) outlines detailed recommendations to encourage municipal regulations that promote open space or conservation elements. Conservation design practices reduce the demand for publicly provided open spaces such as recreation areas. In addition, conservation design practices provide protection for fragile natural areas and reduce storm water damage typical in many traditional housing subdivisions.

GOAL: Protect Greenspace within high growth areas

RECOMMENDATION: Include greenspace into planning for new development by:

- Don't oversize or build unnecessarily
- Utilize sustainable or "green" design principles for all new construction and rehabs

- Adopt development policies to support public investment for large civic projects in existing communities instead of Greenfield areas
- Use water-efficient indigenous plantings; landscape for energy efficiency as well as aesthetics

Land Acquisitions and Management Options

The sale or donation of privately held lands for a particular use without losing all of the legal right to that land is behind the concept of easements. Such use is specified in a legal document that dictates the particular requirements that will apply to the land in question. For instance, a piece of land may be identified as being important for the protection of natural habitat. In such a case, the land owner can sell or donate the entire parcel or portions of that parcel to an organization for use as conservation lands.

Two commonly associated easement concepts are the Conservation Easement and the Agricultural Easement.

Easement

- The right to use the real property of another for a specific purpose. The easement is itself a real property interest, but legal title to the underlying land is retained by the original owner for all other purposes.
- Typical easements are for access to another property (often redundantly stated "access and egress," since entry and exit are over the same path), for utility or sewer lines both under and above ground, use of spring water, entry to make repairs on a fence or slide area, drive cattle across and other uses.
- Easements can be created by a deed to be recorded just like any real property interest, by continuous and open use by the non-owner against the rights of the property owner for a statutory number of years, typically five ("prescriptive easement"), or to do equity (fairness), including giving access to a "land-locked" piece of property (sometimes called an "easement of necessity").
- Easements may be specifically described by boundaries ("24 feet wide along the northern line for a distance of 180 feet"), somewhat indefinite ("along the trail to the northern boundary") or just for a purpose ("to provide access to the Jones property" or "access to the spring") sometimes called a "floating easement."
- There is also a "negative easement" such as a prohibition against building a structure which blocks a view.
- Title reports and title abstracts will usually describe all existing easements upon a parcel of real property. Issues of maintenance, joint use, locking gates, damage to easement and other conflicts clog the judicial system, mostly due to misunderstandings at the time of creation. *(http://www.legal-explanations.com/definitions/easement.htm, 2005)*

Conservation easement - An easement that grants a party certain rights to the land someone owns. These rights usually sold are development rights and subdivision rights. (DCNR, http://www.dcnr.state.pa.us/forestry/sfrmp/glossary/conseasement.htm, 2005)

The Pennsylvania **Agricultural Conservation Easement** Purchase Program was developed in 1988 to enable state, county, and local governments to purchase conservation easements (sometimes called development rights) from owners of quality farmland. Counties participating in the program have appointed agricultural land preservation boards with a state board created to oversee this program. The state board is responsible for distribution of state funds, approval and monitoring of county programs and specific easement purchases. Farms are chosen for easement purchase by:

Inclusion into an Agricultural Security District; or, the farm is rated against other eligible parcels according to the following criteria:

- Quality of the Farmland. State regulations require that easements be purchased on farms of a minimum of 50 acres in size. Parcels as small as 10 acres may be preserved if adjacent to existing preserved farmland or used for the production of crops unique to the area. At least half the tract must either be harvested cropland, pasture or grazing land and it must contain 50 soil capability classes I-N.
- Stewardship. Farms are rated on the use of conservation practices and best management practices of nutrient management and control of soil erosion and sedimentation.
- Likelihood of Conversion. Easements offered for sale to counties will be scored and ranked for acquisition based on a variety of factors such as:
  - Proximity of farm to sewer and water lines
  - Extent and type of non -agricultural uses nearby
  - Amount and type of agricultural use in the vicinity
  - The amount of other preserved farmland in close proximity

<u>GOAL: Continue to support the Washington County Agricultural Easement Program</u>

<u>RECOMMENDATION:</u> Identify new Easement Agreements & Right of Way Agreements Opportunities.

Commonwealth Eligibility Requirements for Agricultural Easements

The State Agricultural Land Preservation Board has established minimum eligibility requirements for participation in the farmland preservation program. Farmland tracts must:

1. Be located in an agricultural security area consisting of 500 acres or more.
2. Be contiguous acreage of at least 50 acres in size unless the tract is at least 10 acres in size and is either used for a crop unique to the area or is contiguous to a property previously preserved with an agricultural conservation easement.
3. Have at least 50% of the soils on the property in soil capability classes I-IV (as defined by the local Soil Survey) and be available for agricultural production.
4. Contain the greater of 50% or 10 acres of harvested cropland, pasture or grazing land.

Although purchasing parcels of land or easements is among the most expensive options, outright purchase is sometimes the only way to protect permanently scenic vistas and viewsheds from development. When an outright purchase is made, the land conveyance occurs in full and is called "Fee Simple." All rights to the land is aquired under this method. To acquire land, interested parties can purchase parcels via a Fair Market Sale or Bargain Sale.

Fair Market Value Sale

A purchase at fair market value (FMV) is the "normal" real estate transaction in which the buyer and seller agree upon a price that is thought to reflect the full value of the land in a competitive marketplace. This will generally achieve the highest financial return for the landowner.

Bargain Sale

A Bargain Sale is when a landowner sells land to a conservation group or land trust for less than fair market value. This type of sale allows the landowner to receive payment for the property and a charitable deduction for federal income tax purposes equal to the difference between the fair market value and the sale price.

Other methods to encourage future acquisition opportunities can occur through the following:

Right of First Refusal

A Right of First Refusal option allows the landowner to retain ownership while giving a conservation group the opportunity to buy the property when it is offered for sale. The Right of First Refusal can even be donated or sold. By donating or selling the Right of First Refusal, the holder now has the opportunity to match any purchase offer the owner receives from other interested parties within a specified time frame.

Donation of Land

The donation of private lands transfers full title and ownership to the recipient. The property owner who donated the land is now eligible for a federal income tax deduction. Depending upon the legal structure of the donation, once the title to the land is transferred the "landowner" can remain living on the property. This legal structure of donated land is termed "Donation with Life Estate."

Donation with Life Estate

The property owner reserves the right to continue to live on the donated property until a specified event such as when the property owner moves from the property or dies at which time the land ownership rights are convey to the recipient organization.

Bequest
A person's will or living trust allows full control of the land during the lifetime of the property owner. Pending the death of the landowner, the land is donated through bequest and the landowner's estate receives an estate tax charitable deduction for the fair market value of the property.

Asset Property
This option allows for the conservation of lands that are not a high priority for protection or conservation. The Asset Property is donated to a conservation organization that, in turn, places a conservation easement on it restricting future development. The organization then sells the property and uses the proceeds to support other conservation projects. Such lands can be acquired through an endowment of the property to a Land Trust or other conservation group.

Endowment
An endowment provides an ongoing source of financial support for the preservation and management of greenspace. An endowment can be established using other assets, like securities, cash, real estate, and even life insurance policies. Asset properties can be created by subdividing off a portion of the land—an "endowment lot"—and proceeds from the sale of the asset property are used to establish the endowment.

Legislation
Pass legislation to establish areas of greenspace, which are often called Greenbelts. Greenbelts are open tracts of land that create a scenic buffer between developed areas and the surrounding countryside. Most greenbelt ordinances allow only agricultural activities on designated lands - eliminating land speculation and development pressure.

Transfer of Development Rights (TDR)
The TDR is an alternative strategy to purchasing land. TDRs preserve scenic areas by transferring, or "sending," development rights from sensitive lands to "receiving" areas marked for growth. Most TDR programs offer incentives such as increased density, faster permit processing, less stringent design review, or tax breaks to encourage developers and landowners to take advantage of the program. Monterey County, CA and Burlington County, NJ are just two of the more than 50 areas nationwide that have successfully used TDR programs to protect their unique character from the development pressure of nearby cities.

Financial Strategy—Paying for Greenspace

The financial strategy for funding greenways is a grassroots approach that combines public investment with funds from federal, state, and local sources. Public investment includes physical, human, and monetary resources. A system of greenways will directly impact local residents, so investment from Washington County residents is essential to successful implementation of the greenways plan. The following resources are a few that are available to Washington County *Appendix B: Funding Sources,* identifies additional resources.

Federal Agencies
- Transportation
- USDA Natural Resources Conservation Service
- EPA
- US Fish and Wildlife Service

State Agencies or State-wide Organizations
- DCNR
- Penn DOT
- Natural Lands Trust
- 10,000 Friends of Pennsylvania
- Western Pennsylvania Conservancy

Local Government
- Taxes
- Impact Fees
- Bond Referendums
- Local capital improvements programs
- Zoning Regulations
- Subdivision and Land Development Ordinances to include Mandatory Dedication and Fees-in-lieu-of

Local Foundations
- Pennsylvania Environmental Council
- Richard King Mellon Foundation
- The Heinz Endowments

Trail Sponsors – are individuals or local businesses that provide smaller donations for the construction of recreation greenway amenities, such as picnic areas, benches, trash receptacles, directional signage, and signage for interpretive sites.

"Buy-a-foot" Programs – are programs designed to raise funds and awareness for recreation greenway projects. The program offers local citizens the opportunity to purchase one linear foot of trail by donating the construction cost. A t-shirt or certificate can be given to foster local support for the greenway development.

Corporate Donations
Local Businesses
Volunteers

Priority Action Projects

The Washington County Greenways Plan identifies specific projects that will be considered as a priority action project. Each project is listed in *Table 6-1: Priority Action Projects* along with the potential funding source, a description of the project, responsible party, and opinion of probable cost (where feasible). This list will serve to direct immediate efforts of the Washington County Commissioner, Washington County Planning Commission, other Washington County departments and agencies, as well as state agencies. However, it should be noted that this list is a flexible and adaptable to allow new projects if funding opportunities become available or if parties state an interest in pursuing a project not listed.

WASHINGTON COUNTY GREENWAYS PLAN

Acknowledgements

The Washington County Greenways Plan was completed with the help of dedicated volunteers who donated their time and expertise to assist the Washington County Planning Commission. The Greenways Steering Committee included:

Dr. Angelo Armenti, California University of PA
Mr. Alan Bailey, PennDOT District 12-0
Ms. Lynn Barger, Washington & Jefferson College
Mr. August Carlino, Steel Industry Heritage Corporation
Ms. Suzie Carmichael, Washington County Conservation District
Mr. Joseph Cerenzia, Consol Energy Inc.
Mr. Jeff Donahue, Washington Co. Parks Department
Dr. Robert East, Washington & Jefferson College
Ms. Donna Holdorf, National Road Heritage Corridor
Mr. Joseph Iannetti, Western Area Career & Tech Center
Mr. Thomas Jennings, Wash. Co. Planning Commission
Ms. Joan Jessen, Washington County Watershed Alliance
Mr. Abe Key, Pony Baseball and Softball
Mr. Jeff Kotula, Wash. Co. Chamber of Commerce
Mr. Wayne Kucich, Dept. of Environmental Protection
Ms. Carol Levy, Washington County Historical Society
Mr. Jay Lucas, PA American Water Company
Mr. Frank Ludwin, Montour Traill Council
Ms. Loretta Manus, Mon Valley YMCA
Mr. William McGowen, Redevelopment Authority of Wash. Co.
Mr. Curt Meeder, US Army Corps of Engineers
Dr. Leslie Midla, Washington County Planning Commission
Ms. Nancy Midla
Mr. David B. Miller, M & M Equipment Sales Co.
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Mr. Robert Tracht
Ms. Sandee Umbach
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Mr. W. Ernest Watson, Washington County Planning Commission
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Mr. Christopher Wheat, Washington County Planning Commission
Dr. Tom Wickham, California University of PA
Mr. Ned Williams, Panhandle Trail
Ms. Libby Wilson Durr, Allegheny Power
Ms. Lee Young, Penn State Cooperative Extension

Special thanks is given to the Washington County Commissioners Larry Maggi, Bracken Burns, and Diana Irey for their support during this process.

The Washington County was funded in part by a Pennsylvania Department of Conservation of Natural Resources (DCNR) Community Cooperation Partnerships Program (C2P2) grant.

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Resolution

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF THE COUNTY OF WASHINGTON, COMMONWEALTH OF PENNSYLVANIA, ADOPTING THE WASHINGTON COUNTY GREENWAYS AND OPEN SPACE PLAN AS AN AMENDMENT TO THE WASHINGTON COUNTY COMPREHENSIVE PLAN

WHEREAS, the Washington County Planning Commission serves as the official planning agency for Washington County and has a variety of responsibilities including the orderly development of land and the preparation of studies regarding environmental, economic and general issues that impact county development and natural resources; and

WHEREAS, the Greenways plan was initiated following the adoption of the Washington County Comprehensive Plan on November 23, 2005; and

WHEREAS, the coordinaton of these two important county-level planning efforts affirmed the county's commitment to proactive planning to balance development and preservation; and

WHEREAS, the Greenways Plan is a tool to direct the County's efforts to develop an extensive system of natural landscape features and identify opportunities to enhance the quality of life for residents; and

WHEREAS, the Greenways Plan will serve as an integral component of both local and state greenway efforts; and

WHEREAS, the Greenways Plan can also serve as a stand alone document for parties or persons interested in planning for development, recreation or public infrastructure; those who may be interested in preservation or environmental issues or those who wish to develop local municipal policies toward greenway development; and

WHEREAS, the Washington County Board of Commissioners and the Washington County Planning Commission established a steering committee to oversee the preparation of the county greenways plan which included an extensive public participation process that was used to help identify the goals, policies and actions in order to achieve the vision created for the county; and

WHEREAS, the Washington County Planning Commission has distributed the plan to all municipalities and school districts in the county, adjacent counties, and the Pennsylvania Depart of Conservation and Natural Resources for review and comment and

has taken the comments from these entities into consideration in preparing the final draft of the comprehensive plan; and

WHEREAS, the Washington County Planning Commission has held at least one public meeting in accordance of the provisions of the Pennsylvania Municipalities Planning Code and has been recommended for adoption by the Washington County Board of Commissioners; and

WHEREAS, the Washington County Board of Commissioners has held a public hearing pursuant to the Pennsylvania Municipalities Planning Code to consider public comments; and

WHEREAS, the Washington County Board of Commissioners, after consideration of comments received (or lack thereof, as the case may be), has determined that the Washington County Greenways Plan and Open Space, should not be substantially revised in whole or in part; and

WHEREAS, the Washington County Board of Commissioners has found the Greenways Plan to be beneficial to the health, safety and welfare of the citizens of the county.

NOW, THEREFORE, BE IT RESOLVED, the Board of Commissioners of the County of Washington hereby adopt the Washington County Greenways and Open Space Plan, dated January 18, 2007, as an amendment to the official Comprehensive Plan for the County; and

BE IT FURTHER RESOLVED, THAT:

1. The Washington County Board of Commissioners will follow the guidelines and policies contained in the plan when dealing with issues requiring action by the Board; and

2. The Washington County Board of Commissioners encourages all Authorities, Boards, Commissions and Municipalities in Washington County, as well as state agencies, to review and consider the Washington County Comprehensive Plan and Greenways Plan in their decision making processes when it applies to them; and

3. Any resolution, or part of a resolution, conflicting with the provisions of this resolution, is hereby repealed insofar as the same affects of this resolution; and

4. The Chief Clerk of the County shall distribute copies of this Resolution to the proper officers and other personnel of Washington County whose further action is necessary to achieve the purpose of this resolution.

RESOLVED AND ENACTED this 16th day of January, 2007 by the Washington County Board of Commissioners.

By: _____
Larry Maggi, Co-Chairman

By: _____
Bracken Burns, Co-Chairman

By: _____
Diana L. Irey

ATTEST:

_____
Mary E. Helicke
Chief Clerk

Per Minute: 807
Dated: January 18, 2007

APPROVED AS TO FORM AND LEGALITY

_____
J. Lynn DeHaven
Washington County Solicitor

The Washington County Greenways Plan was prepared by:

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WASHINGTON COUNTY GREENWAYS PLAN
EXECUTIVE SUMMARY

The Washington County greenways plan was initiated following the adoption of the Washington County Comprehensive Plan on November 23, 2005. The coordination of these two important county-level planning efforts affirmed the County's commitment to proactive planning to **balance development and preservation.** With the County Comprehensive Plan as its foundation, the Greenways Plan will strengthen the County's capacity to direct development and preservation efforts in a manner that will achieve a desirable quality of life for future generations. The Washington County Greenways Plan also serves as a stand alone document for parties or persons interested in planning for development, recreation, or public infrastructure; those who may be interested in preservation or environmental issues; or, municipalities that wish to develop local policies towards greenway development.

The Washington County Commissioners adopted the Washington County Greenways Plan on January 18, 2007 as an amendment to the County Comprehensive Plan.

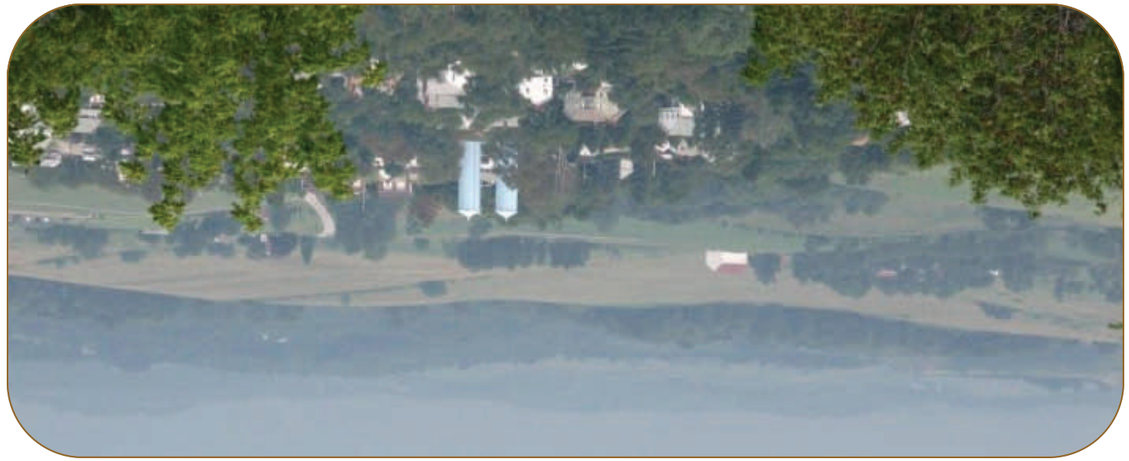
"One way to think of greenways planning is as a "greenprint" for growth:

A greenprint serves the same function for a community that a blueprint serves for a home: it delivers an environment that meets the needs of those who inhabit it for space, comfort, and livability. With a greenprint to identify lands they wish to protect, communities can guide growth into less sensitive areas."

— Trust for Public Land, 1999

Project Sponsors

The Washington County Greenways Plan was funded in part by a Pennsylvania Department of Conservation of Natural Resources (DCNR) Community Cooperation Partnerships Program (C2P2) grant. Additional funding for the Washington County Greenways Plan was provided by the PA Department of Community & Economic Development (DCED). Special thanks is given to the Washington County Commissioners Larry Maggi, Bracken Burns, and Diana Irey for their support.



Washington County Planning Commission
100 Beau Street, Suite 701
Washington, PA 15301

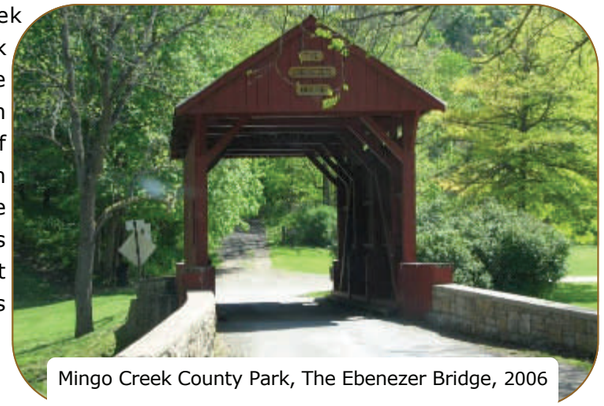
Completed by: Mackin Engineering Co.

GREENWAYS VISION

"The diversity of Washington County and Pennsylvania is unified by a network of greenways that traverses rolling hills, steep valleys, fertile farmlands and dense forests connecting our cities, towns, and villages alike. These meandering streams, accessible trails, and scenic roadway corridors connect vibrant communities to natural areas, parks and historical and cultural sites. Inter-municipal partnerships weave a nexus of green and gray infrastructures that lends balance to economic prosperity and environmental integrity. The County's Leaders support a development philosophy that respects the natural environment through the provision of education to municipalities, grassroots organizations and residents in order to implement the Greenways Vision."

Washington County has large tracts of farmland and rolling meadows that create a calming pastoral atmosphere where it is not uncommon to see grazing cattle or a farmer plowing his fields. The densely forested hills and steep river valleys provide beautiful scenic vistas for residents and visitors to enjoy as they travel on the historic National Road or boat down the mighty Monongahela River. However, much of this land is privately owned and there is no guarantee this natural landscape will remain.

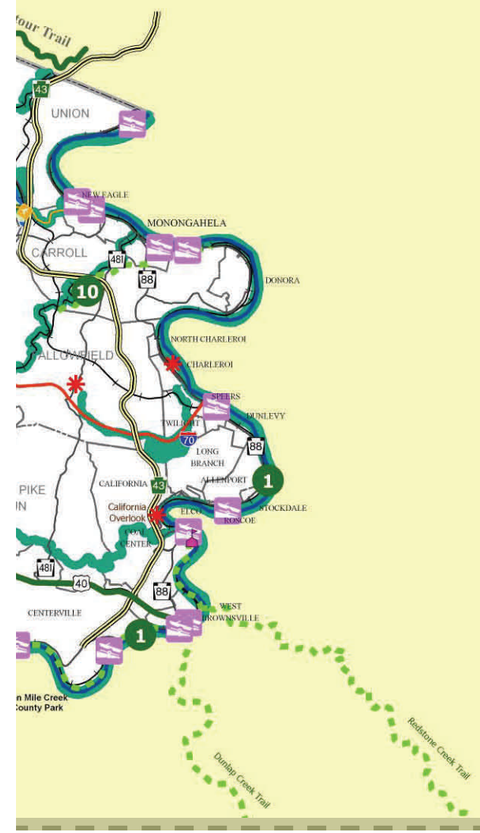
Fortunately, Washington County has a solid foundation upon which to extend its greenways network for the benefit of all for years to come. Protected resources include state park lands, state game lands, state-owned lakes, county parks, regional and county trails, municipal recreation facilities and conservation easements. Washington County has almost 5,000 acres of County-owned park facilities— Cross Creek County Park, Mingo Creek County Park, and Ten Mile Creek County Park. In addition to this wealth of parkland, Washington County residents have access to recreational trails that will soon interconnect to surrounding counties and states.



Mingo Creek County Park, The Ebenezer Bridge, 2006

Recreation Greenways - Potential Trail Corridors

1. Greene River Trail to Charleroi Corridor
2. Greene River Trail to Ten Mile Creek County Park Corridor
3. Montour Trail to Mingo Creek Trail Corridor
4. Montour Trail to Muse Corridor
5. Montour Trail to National Pike Trail Corridor
6. Montour Trail to Pittsburgh Corridor
7. Montour Trail to Ten Mile Creek County Park Corridor
8. Panhandle Trail through Midway Corridor
9. Panhandle Trail to Cross Creek County Park Corridor
10. Sudan Corridor
11. Ten Mile Creek to Ellsworth Corridor
12. Washington to Waynesburg Corridor
13. Power Transmission Line Corridor
14. ATV Corridor to Greene County



NORTH

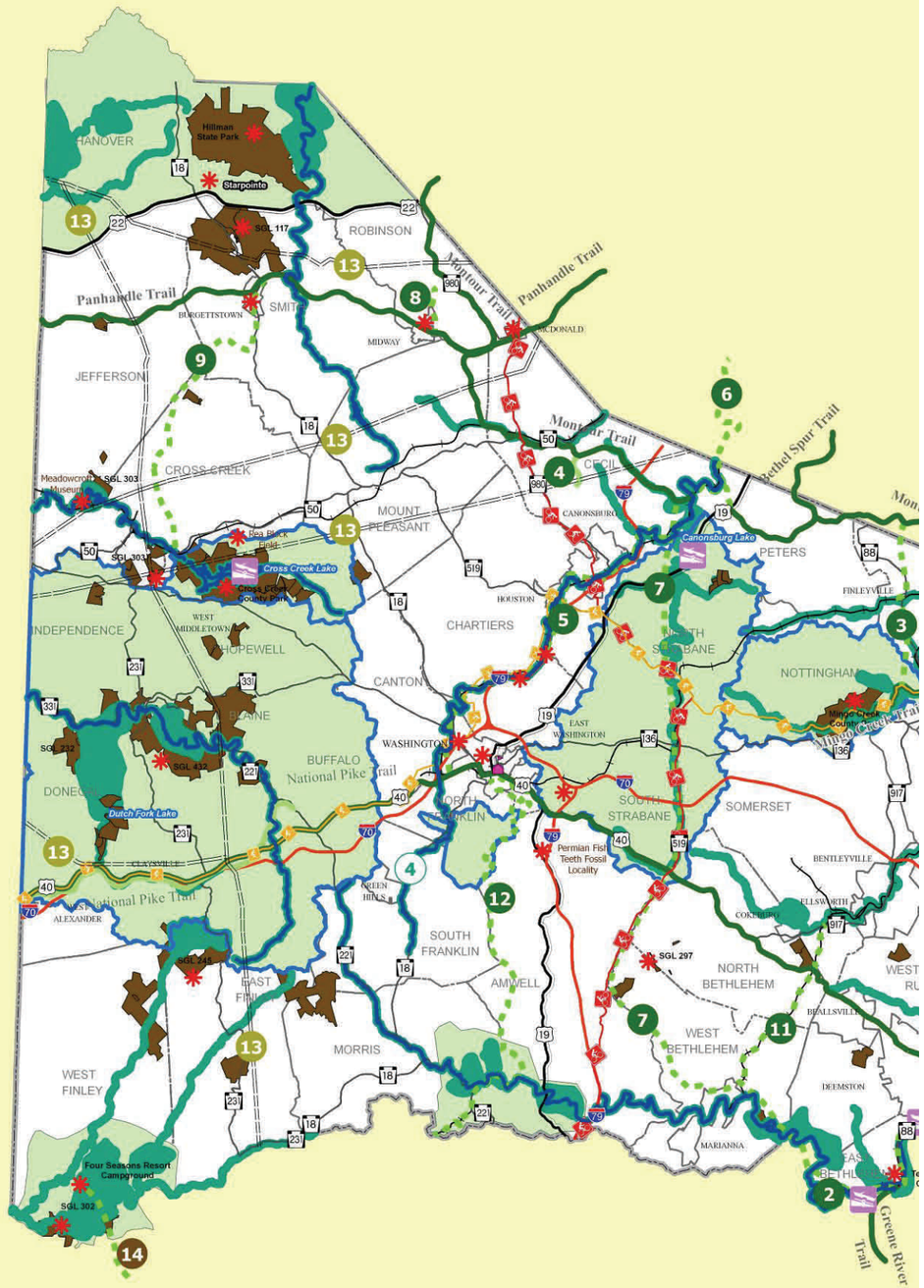
1" = 4 miles

Legend

- Interstate
- Toll Road
- US Route
- State Route
- Railroad
- Existing Trail
- Trail Under Construction
- Potential Corridor
- BicyclePA Route A
- BicyclePA Route S
- Proposed Water Corridor
- University
- Hub
- Water Access Point
- Greenway
- Natural Area
- Protected Resource
- High quality watershed

NOTE: In an effort to have connectivity throughout the greenway system proposed recreation and conservation greenways have been identified. While feasibility studies have not been developed for these projects this map displays the proposed overall greenway system. Chapter 5 and 6 discuss the various ways these areas can be developed.

LONG-TERM POTENTIAL CORRIDORS



Existing Greenways in Washington County

Washington County is recognized by the state as a leader for its efforts to develop a County-wide network of trails and parks. In fact, the County in many ways exceeds the "standards" of parks and recreation. Washington County, as of 2006, had approximately **88 miles of trails and 22,500 acres of municipal, county, state parks and state game lands**.

This extensive network of greenspace and public lands is a resource for residents, but within a county as expansive as Washington, access may be problematic for some families with limited resources or physical challenges. Therefore there remains a significant need for local recreational and greenspace assessment and implementation. As the County stands at the forefront for expanding the regional system of greenways, its municipalities will be asked to better serve their residents through local systems.

While the agriculture industry in Washington County has experienced a loss of traditional farm lands to development, it has also adapted to meet the changing needs of a diverse population and remains a viable economic sector. Washington County is committed to preserving the rural character through the farmland preservation program and, as of 2006, had 18 farms with 2,661 acres entered into the agricultural preservation program. With over 11 percent of the County's land enrolled in agricultural security areas, it is obvious that farming continues to contribute significantly to the rural character of Washington County.

DEFINING GREENWAYS

"A greenway is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of green that run through urban, suburban and rural areas to wider corridors that incorporate diverse natural, cultural and scenic features. They can incorporate both public and private property, and can be land– based or water-based. They may follow old railways, canals, or ridge tops, or they may follow stream corridors, shorelines, or wetlands, and include water trails for non-motorized craft. Some greenways are recreational corridors or scenic byways that may accommodate motorized and non-motorized vehicles. Others function almost exclusively for environmental protection and are not designed for human passage. Greenways differ in their location and function, but overall, a greenway will protect natural, cultural, and scenic resources, provide recreational benefits, enhance natural beauty and quality of life in neighborhoods and communities, and stimulate economic development opportunities."

-Pennsylvania Greenways: An Action Plan for Creating Connections, 2001

Classifying Greenways

Washington County's role in greenways planning is to implement the Pennsylvania Greenways Action Plan and to encourage and enable municipalities to plan for and implement greenways. To aid in this process, Washington County greenways have been classified as either **primary** or **secondary**. The Washington County Greenways Plan provides development policies for areas deemed a higher-priority due to critical natural resources threatened by rapid development or where redevelopment efforts are essential to direct intensive activities to existing areas with sufficient infrastructure and population.

Primary Greenways

Primary Greenways include all greenways designated by the state, either in the Pennsylvania Greenways Action Plan or by other designations such as state byways or bicycle corridors.

Secondary Greenways

Secondary Greenways are greenways identified by the Washington County Greenways Plan. These locations were identified as having the highest potential to enhance the natural features and rural character of Washington County.

Categorizing Greenways

The natural resources of Washington County were prioritized based upon their ecological value to Washington County. Each greenway was categorized as one of three major types.

Montour Trail to Ten Mile Creek County Park Corridor (Recreational Greenway #7) This extension would link Ten Mile Creek County Park with BicyclePA Route A and to the Montour Trail in Cecil Township. This potential trail was noted in the Natural Infrastructure Project as a Regional Missing Link. There currently is no sponsor for this trail.

Panhandle Trail through Midway Corridor (Recreational Greenway #8) This corridor follows an abandoned railroad right-of-way and would provide connect to Midway and the Panhandle Trail. The portion between Primrose Lane and Station Street, which includes Midway Borough, is under construction with an estimated completion date of Spring, 2007.

Sudan Corridor (Recreational Greenway #10) The Sudan Corridor follows an abandoned railroad right-of-way and would provide opportunities for residents of Carroll Township to access the City of Monongahela and the Monongahela River. There currently is no sponsor for this trail.

Ten Mile Creek to Ellsworth Corridor (Recreational Greenway #11) This corridor follows an abandoned railroad right-of-way and would provide opportunities to connect Ellsworth Borough to the Ten Mile Creek County Park and the Monongahela River. There currently is no sponsor for this trail.

Washington to Waynesburg Corridor (Recreational Greenway #12) The Washington to Waynesburg Corridor is located along an abandoned railroad right-of-way. A potential trail was proposed in the Greene County Greenways Plan that would connect the City of Washington to the Borough of Waynesburg, both of which are county seats. There currently is no sponsor for this trail.

"A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people."
— Franklin Delano Roosevelt

POTENTIAL TRAIL CORRIDORS

Potential Trail Corridors

Potential trail corridors are Greenways that would connect with the existing trail and greenway network and eventually provide a countywide system of greenways. These trails have not been found to be feasible, only that they provide connectivity and warrant further study. Trail feasibility studies will be necessary prior to a formal designation as a Proposed Trail, therefore these recreational greenways are considered long-term.

Greene River Trail to Charleroi Corridor (Recreational Greenway #1) This corridor provides an opportunity to develop a low-impact recreational trail and an alternative form of transportation linking Charleroi Borough to many communities along the Monongahela River. Connections to Greene County would be possible via the Greene River Trail. There currently is no sponsor for this trail.

Greene River Trail to Ten Mile Creek County Park Corridor (Recreational Greenway #2) This corridor would offer local residents improved accessibility to the Ten Mile Creek County Park in Washington County and regional access to the Greene River Trail in Greene County. The Ten Mile Creek County Park is a centrally-located hub to several small population centers and offers an important recreational outlet in southern Washington County. There currently is no sponsor for this trail.

Montour Trail to Mingo Creek Trail Corridor (Recreational Greenway #3) This corridor follows an abandoned railroad right-of-way into Union Township. Development of a trail could extend past the railroad right-of-way terminus to provide connectivity from the Montour Trail/Great Allegheny Passage to Mingo Creek County Park. There currently is no sponsor for this trail.

Montour Trail to Muse Corridor (Recreational Greenway #4) The Montour Trail extension follows an abandoned rail road right-of-way from the Montour Trail to the village of Muse in Cecil Township. This corridor is only partially owned and has a longer term feasibility.

Montour Trail to National Pike Corridor (Recreational Greenway #5) This extension would connect the planned National Pike Trail to the Montour Trail in Cecil Township. This potential trail was noted in the Natural Infrastructure Project as a Regional Missing Link. There currently is no sponsor for this trail.

Montour Trail to Pittsburgh Corridor (Recreational Greenway #6) This extension to the Montour Trail would connect to Pittsburgh by following Chartiers Creek into Allegheny County. There currently is no sponsor for this trail.

Natural Areas—are large areas of high ecological importance. In Washington County, Natural Areas include high quality watersheds, landscape conservation areas, and protected resources like State and County Parks, State Game Lands, and Agricultural Conservation Easements.

Recreational Greenways—are linear corridors of ecological importance that include some form of low-impact recreation, which typically takes place on either a land or water trail. Recreational Greenways that have not been formally studied are not classified as primary or secondary greenways. Once the feasibility of these corridors is established, a determination of primary or secondary status can be made.

Conservation Greenways—are linear corridors of ecological importance intended to have little or no human impacts. Two types of Conservation Greenways are Riparian Buffers and Landscape Corridors. A Riparian Buffer is a corridor of vegetation along a stream bank that shades and cools the stream, protects the banks from erosion, and provides for wildlife movement and habitat. Landscape Corridors are tracts that connect habitat areas with each other to provide connectivity.

The Washington County Greenways Plan encompasses all lands within the County and the implementation strategies apply to all municipalities.

PRIMARY & SECONDARY GREENWAYS

Primary Greenways

Recreation Greenways

1. Monongahela River Water Corridor
2. National Road Heritage Corridor
3. Montour Trail Corridor
4. Panhandle Trail Corridor
5. Chartiers Creek Water Corridor
6. BicyclePA Route A Corridor
7. BicyclePA Route S Corridor

Secondary Greenways

Natural Areas

1. Raccoon Creek Natural Area
2. Cross Creek Natural Area
3. Buffalo Creek Natural Area
4. Enlow Fork Natural Area
5. Little Chartiers Creek Natural Area
6. Mingo Creek Natural Area
7. Franklin Natural Area
8. Ringlands Natural Area

Recreation Greenways

9. Mingo Creek Trail Corridor
10. Bethel Spur Trail Corridor
11. National Pike Trail Corridor
12. Montour Trail to Westland Trail Corridor
13. Buffalo Creek Water Corridor
14. Cross Creek Water Corridor
15. Raccoon Creek Water Corridor
16. Ten Mile Creek Water Corridor

Conservation Greenways

17. Dutch Fork Greenway
18. Enlow Fork Greenway
19. Little Chartiers Creek Greenway
20. Peterswood Park Greenway
21. Mingo Creek Greenway
22. Kings Creek Greenway
23. Aunt Clara Fork Greenway
24. Morganza Run Greenway
25. Froman Run Greenway
26. Peters Creek Greenway
27. South Branch Maple Creek Greenway
28. Pigeon Creek Greenway
29. Black Dog Run Greenway
30. Pike Run Greenway
31. Millers Run Greenway
32. Templeton Fork Greenway
33. Robinson Run Greenway

NORTH

1" = 4 miles

Legend

- Interstate
- Toll Road
- US Route
- State Route
- Railroad
- Primary Greenway
- Secondary Greenway
- Hub
- Water Access Point
- University
- Protected Resource
- Natural Area
- High quality watershed