

CHAPTER 2

PHYSICAL ENVIRONMENT, NATURAL AND HISTORIC RESOURCES

INTRODUCTION

Plum Borough has numerous natural, historic and cultural resources. This section of the plan will identify those resources and some measures needed to protect, conserve, and preserve them.

Historic Resources

Plum Borough has several historic structures and sites from the early nineteenth century. These structures and sites provide a link to the borough's past. The borough has a historical society known as the Allegheny Foothills Historical Society. The historical society's office and resources are located in the Oliver M. Thompson History Room at the Plum Borough Library.

When Allegheny County was created in 1788, Plum was incorporated as one of its seven original townships. In 1956, Plum was reincorporated as a borough.

Many Native American tribes once lived in present day Plum. These tribes include the Iroquois, Algonquian, Cherokee, Seneca, Erie, and later the Shawnee and Delaware. There are Native American archeological sites in the borough and trails that the tribes once used still survive in Boyce Park. The last Native American tribe to inhabit the area was the Monongahela Tribe in the 1600's.

Plum Borough's population has grown from about 6,300 in 1930 to about 30,000 in 2009. This growth was largely due to the advent of the automobile and the expansion of public infrastructure, i.e., sewer and water lines and roadways.

Early development in Plum centered on coalmines and oil and gas fields. These natural resources provided employment and spawned the mining towns of Barking, Renton, Unity, and Logans Ferry. These towns still have remnants of miners' housing and survive today in the form of neighborhoods rather than coal patch towns.

The Allegheny Foothills Historical Society has compiled the following inventory of Plum's historic and cultural resources. The borough should now use measures and techniques (e.g., historic district overlay zoning) to facilitate the preservation and protection of these resources.

Forbes Trail

In 1758, British General John Forbes marched his troops through Plum, entering the borough where Piersons Run empties into Abers Creek. Their route, which has been marked with signs, roughly followed the path of Old Frankstown Road.

Coal Miner's Memorial

Plum Borough's last operating coal mine closed in 1987, and the borough is seeking to preserve its coal mining heritage via a coal miners memorial. The Memorial is constructed and located in front of the borough building.

Logans Ferry Powder Works Historic District

Since May 1998, Logans Ferry Powder Works Historic District has been listed on the National Register of Historic Places Plaques Program Historical Markers. The purpose of the plaques program is to preserve historic neighborhoods by awarding plaque designations to individual buildings of outstanding architectural or historic significance as a means of facilitating the preservation of the chosen buildings.

Carpenter Log House

Very few of the log homes built by early settlers in western Pennsylvania remain. The Carpenter Log House (c. 1820) in Boyce Park is a prime example of an early 19th century log house. It was rebuilt in 1958 and is open to the public.

The Allegheny Foothills Historical Society plans to provide guided tours of the Carpenter Log House on Sundays in the summer, A Log House Christmas during Sugar Plum Days, and a yearly harvest festival in October.

William D. Boyce Marker and Homestead

William D. Boyce was the founder of the Boy Scouts of America. He was born in 1858 in Plum Township. The William Boyce Monument is located on Drennen Road between Route 366 and Sardis Road. The Boyce homestead off of Drennen Road is in a state of disrepair and should be restored and preserved.

Veterans Memorial

This monument is located at the Plum Creek Cemetery across from the Plum Creek Church.

Laird Cemetery

Located at the intersection of Route 380 and New Texas Road, this site has local historic significance due to it being one of the first cemeteries in Plum. The cemetery's maintenance is funded by the Allegheny Foothills Historical Society with the maintenance work performed by the Girls Leaders Association from Plum High School.

McJunkin Village

This former Native American village was located at the current site of the basketball complex in Boyce Park along New Texas Road. The village takes its name from its location on the former McJunkin farm property. This site was excavated in 1966 by a team of researchers from the Carnegie Institute and again in 1976 by the Department of Anthropology at the University of Pittsburgh. Few artifacts were found, suggesting that the Native Americans did not inhabit the village for a long period of time.

Plum Nike Site

This site is located at the intersection of New Texas Road and Lindsey Lane. The original United States Army base houses and command center still exist. The command center is owned by the University of Pittsburgh, and the facilities are being used as research science centers. The former base housing is privately owned.

Oakmont Country Club Historic District

Allegheny County's comprehensive plan, *Allegheny Places*, lists the Oakmont Country Club as a Historic Landscape Feature as defined by the National Park Service. Located in the northwest section of Plum, the golf course is considered a historic district that has an area of significance or historic function.

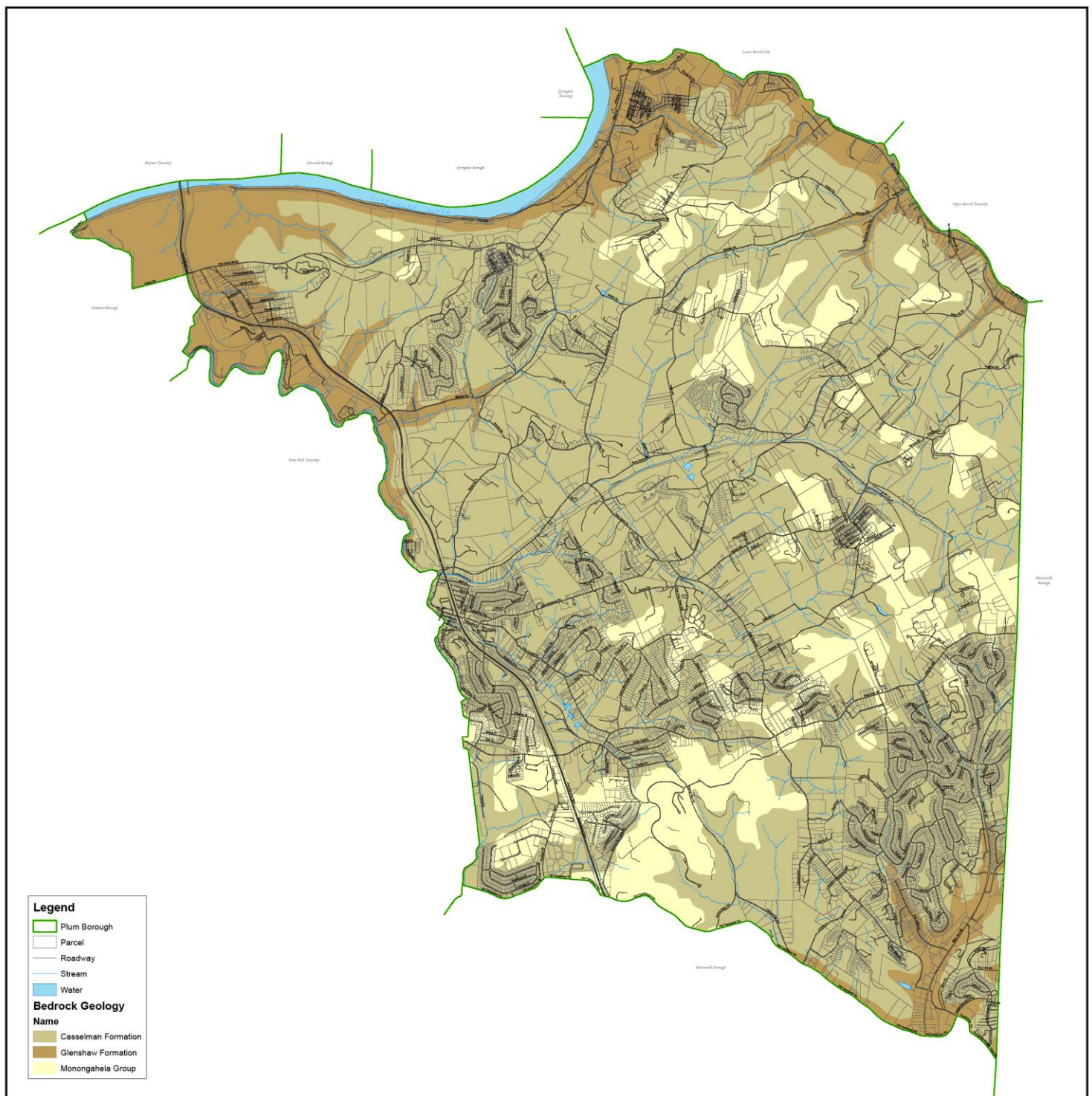
ENVIRONMENTAL FEATURES

Environmental features such as soil types, slope, wetlands, and other natural features determine the intensity of development that land can support. The following is a summary of the environmental features of the borough.

Geology

The underlying rock formations of the borough have influenced both past and current development patterns. There are three bedrock geological formations in Plum (see Bedrock Geology Map on page 2-4):

- Casselman Formation
- Glenshaw Formation
- Monongahela Group



BEDROCK GEOLOGY

BOROUGH OF PLUM
ALLEGHENY COUNTY
PENNSYLVANIA

0 2,000 4,000 8,000 Feet
1 inch equals 1,200 feet

The parcel, municipal boundary, stream, and water body datasets obtained from the Allegheny County Division of Computer Services, Geographic Information Systems Group.

2011 Pennsylvania Bedrock Geology data provided by the Pennsylvania Bureau of Topographic and Geologic Survey, Department of Conservation and Natural Resources, acquired from Pennsylvania Spatial Data Access (PSDA).

All Positions Based on the Following:
- North American Datum 1983 (Horizontal Datum)
- Pennsylvania State Plane Coordinate System
- English Feet Units



plum borough

Remington, Vernick & Beach Engineers
600 Grant Street
Suite 1251
Pittsburgh, PA 15219
412.263.2200; Fax: 412.263.2210
Web Site Address: www.rve.com

The Cassleman Formation covers the majority of Plum Borough. The only areas not to have this bedrock type are the areas along the Allegheny River, Pucketa Creek and Plum Creek.

The Glenshaw Formation, which consists predominantly of sandstone and mudrock is found in Plum along the watercourses of the Allegheny River, Pucketa Creek, Abers Creek, Humms Run, Plum Creek and in the area around the Village of Logans Ferry.

The Monongahela Group is the third geological formation in Plum, and there are pockets of this formation throughout the borough. This formation contains thick mineable coals, with the largest concentrations being found in Boyce Park, the Renton area, the area surrounding the Laurel Gardens Subdivision and the area immediately north of Laurel Gardens.

Soils

Soil conditions influence the ability of land to support development. There are over fifty soil types in Plum, including prime agricultural soils. (See Prime Agricultural Soils Map on page 2.19.) The predominant soils in the borough are:

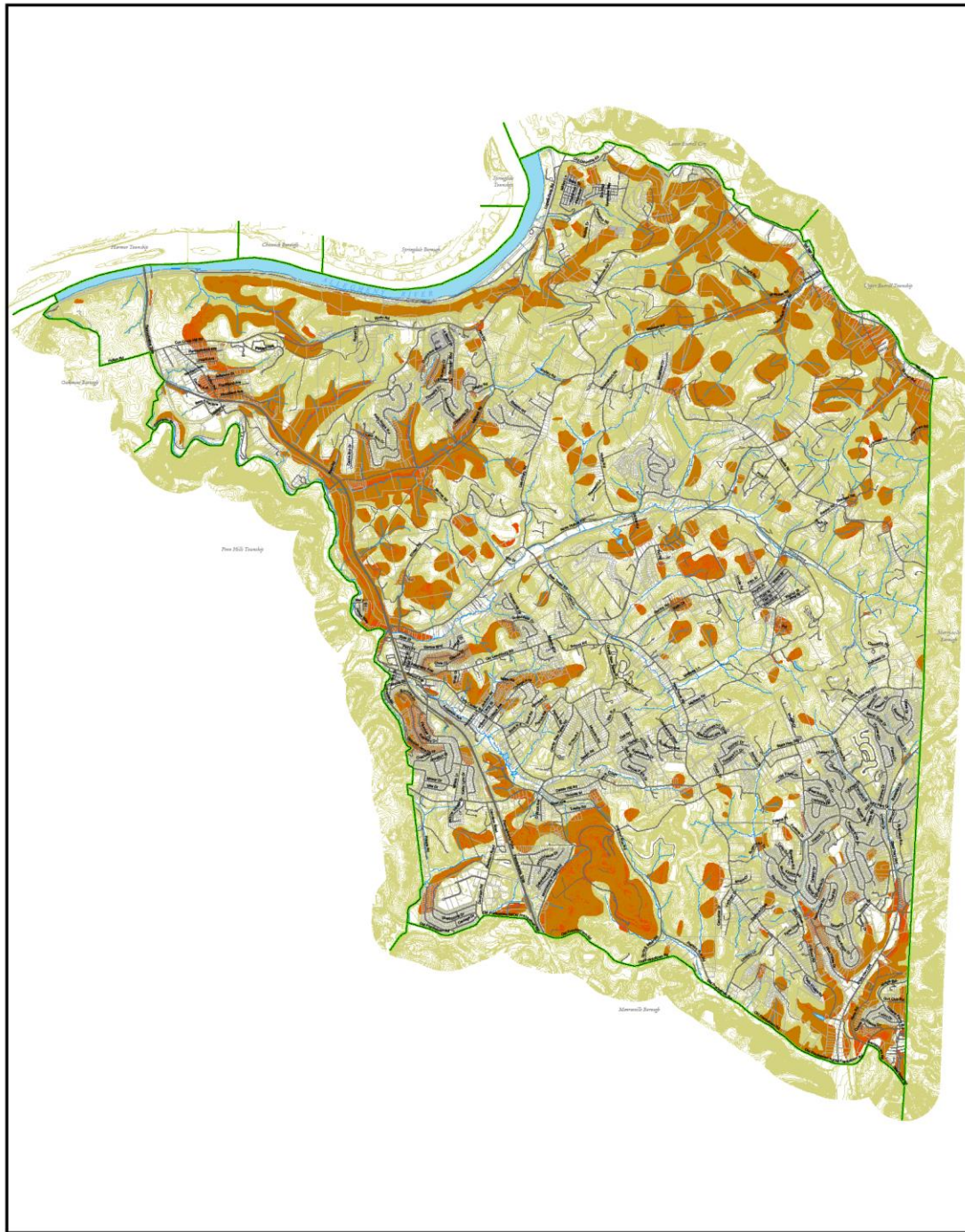
- Culleoka
- Gilpen-Silt-Loam
- Gilpen-Upshur Complex
- Gilpen-Weikert Shaley Silt Loam
- Hazleton Silt Loam
- Rainsborough

According to the USDA Soil Conservation Service, many of the borough's soils have limited ability to support development. For example, certain soils can accommodate on-lot septic systems while others cannot. This is of particular importance in rural areas of the borough.

Landslide Prone Areas

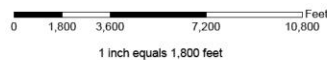
Landslides can be destructive and costly. Gilpen-Upshur Complex, one of the predominant soils in Plum Borough, is susceptible to landslides. The borough should scrutinize all applications for development proposed to be on or near landside prone areas.

Areas in Plum that are susceptible to landslides are shown in red on the Landslide Prone Areas Map on the following page. Landslide prone areas in Plum can be found in various locations of the borough with the majority occurring in areas of steep slopes. In particular, landslide prone areas are found along Little Plum Creek and Humms Run, in Boyce Park, and in the area west of the PA Turnpike. These areas have had no development occur on them.



LANDSLIDE PRONE AREAS

BOROUGH OF PLUM
 ALLEGHENY COUNTY
 PENNSYLVANIA



Legend	
	Roadway
	Stream
	5' Contours
	Parcel
	Plum Borough
	Water
	Landslide Prone Areas



December 16, 2009 10:00 AM Project: Allegheny County: Plum Borough: Landslide Prone Areas

Tax parcel, municipal boundary, tax parcel, stream, water body and
 landslide area details obtained from the Allegheny County
 Division of Computer Services, Geographic Information Systems
 Group
 All Positions Based on the Following:
 - North American Datum 1983 (Horizontal Datum)
 - Pennsylvania (South) State Plane Coordinate System
 - English Feet Units



Remington, Vernick & Beach Engineers
 600 Grant Street
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 Pittsburgh, PA 15219
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Topography

Elevation changes in the borough range from 730 feet above sea level along the Allegheny River to 1,395 feet above sea level east of the Clements Road- Hallowell Drive Intersection.

It is important to consider slope in conjunction with underlying geology and soil conditions before allowing development to occur. Slopes in Plum Borough range from 0% to in excess of 40%, and the borough's unified development ordinance regulates development on slopes. The Topography and Steep Slopes Map on page 2-8 indicates slopes within the borough.

The majority of the developed portion of Plum is in areas with slopes between 0 and 8%. Most of this land lies south of Ross Hollow Road.

In the village of Logans Ferry, the built-out area has slopes of 0 to 8 % while surrounding slopes exceed 15%.

Several areas in Regency Park and Holiday Park have slopes between 8 and 15 % that have been built upon. Most of the areas north of Ross Hollow Road that have this degree of slope are undeveloped.

Areas where slopes exceed 15% tend to follow streambeds and have not been built on other than for recreational facilities.

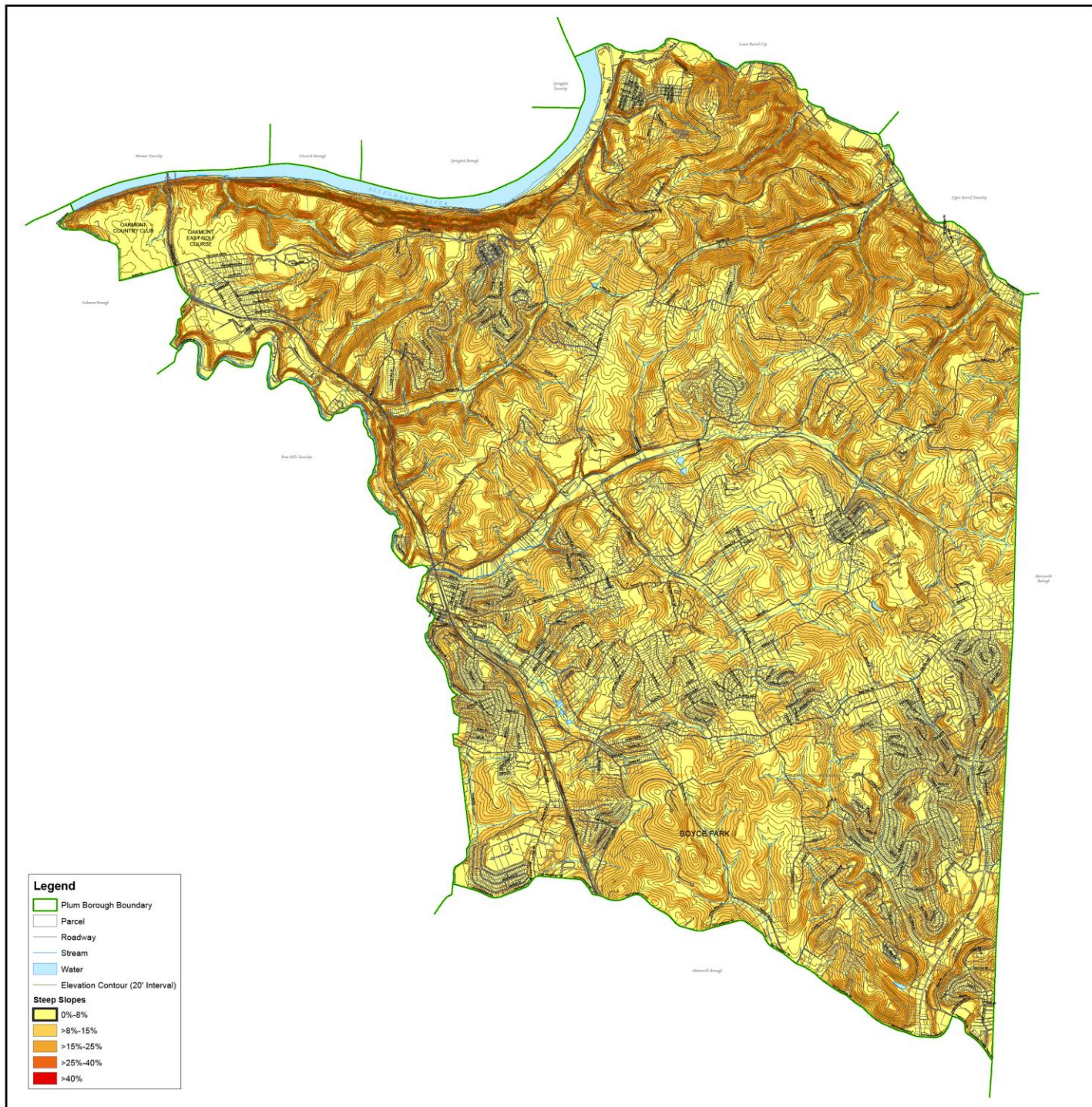
There is a pocket of steeply sloped land in the southeast corner of the borough below Falls Village. This area is undeveloped due to slope and underlying geology.

Areas adjacent to the Falling Springs, Plum Creek and Bodies Run sub-watersheds have slopes that exceed 40%. This is one reason there has been limited development within these areas.

The majority of the slopes in the borough that are 40% or greater are near the Village of Barking. The borough's steepest slopes can be found in the Barking Slopes Biodiversity Area (which has been protected by the Allegheny Land Trust) and the northwest corner of the borough along the Allegheny River. The Barking Slopes Biodiversity Area is generally bounded by the Allegheny River on the north, Oakmont East Golf Course on the west, and Coxcomb Hill Road on the south and east. The Pucketa Creek Watershed also has areas with slopes in excess of 40 %. (See Topography and Steep Slopes Map on page 2-8.)

Storm Water Management

Storm water management is crucial to ensuring that streams and watersheds are free of erosion, sediment, and debris. In addition, proper storm water management protects local streams by mitigating the amount of pollutants that may enter them. Lack of storm water controls leads to flooding and may cause drainage infrastructure to fail causing catastrophic conditions.



TOPOGRAPHY AND STEEP SLOPES

BOROUGH OF PLUM
ALLEGHENY COUNTY
PENNSYLVANIA

0 2,000 4,000 8,000 Feet
1 inch equals 1,200 feet

Topography contours, lot parcel, municipal boundary, stream, and water body features obtained from the Allegheny County Division of Computer Services, Geographic Information Systems Group.
Steep Slopes generated from topography contours by Remington, Vernick & Beach Engineers using ESRI's Spatial Analyst extension, February 2006.
All Positions Based on the Following:
North American Datum 1983 (Geographic Datum)
Pennsylvania (North) State Plane Coordinate System
- English Feet Units



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Plum Borough adopted a storm water management ordinance pursuant to the Pennsylvania Storm Water Management Act. The ordinance governs the four watersheds found in the borough. Continued compliance with the Municipal Separate Storm Water Sewer System (MS4) program and National Pollutant Discharge Elimination System (NPDES) permits is essential to improved water quality in streams and local watersheds. Plum Borough adopted the MS4 Storm Water Management requirements as an ordinance on September 12, 2005.

Use of Best Management Practices (BMP) is included in the ordinance under section 113. The requirements of the ordinance address non-storm water discharges, erosion and sediment control, and post-construction runoff for new development and redevelopment, including the use of BMPs. These practices mitigate existing flooding problems and prevent future flooding. This is particularly important in new developments.

Watersheds, Streams, Wetlands

Watersheds

There are numerous streams in Plum Borough, and each has a corresponding watershed or sub-watershed. These streams and watersheds are indicated on the Watercourses, Wetlands, and Watersheds Map on page 2-10.

Allegheny River Watershed

The Allegheny River Watershed stretches westward from Logans Ferry to Oakmont Borough. The watershed is linear and contains the Barking Slopes Biodiversity Area as defined in the Allegheny County Natural Heritage Program Inventory. It is bounded by the Allegheny River to the north, the Pucketa Creek Watershed to the east and the Plum Creek Watershed to the south and west. Sub-watersheds of the Allegheny River Watershed include the Allegheny River Sub-basin, Blacks Run Sub-basin, and Falling Springs Sub-basin. Streams in this watershed include Blacks Run, Falling Springs, and unnamed tributaries.

Allegheny River Sub-Watershed

This watershed extends from New York State through Pittsburgh. It is one of the largest in the United States. Plum Creek enters into the Allegheny River between Oakmont and Verona. This once polluted watershed is becoming cleaner due to the formation of watershed associations, which take active roles in improving the water quality of tributaries that feed the river. This sub-watershed is part of the larger Ohio River Watershed.

Plum Creek Watershed

The Plum Creek watershed includes or covers four municipalities in Allegheny County-- Plum Borough, Oakmont Borough, Verona Borough, and Penn Hills Township. This

watershed is defined as the area that includes Plum Creek, Little Plum Creek, and Bodies Run and their unnamed tributaries extending to the Allegheny River.

The Plum Creek Watershed Association is a non-profit, public/private partnership conservation organization. Its primary mission is to protect and improve the water quality of the watershed for the water conservation and natural and recreational resources of both the Plum Creek and Little Plum Creek Watersheds. The association undertakes projects such as stream assessments, community clean ups, watershed studies and evaluations, and removal of debris and garbage from the streams. The association also works with the Plum Borough School District on environmental education programs.

In 2006, the association prepared an assessment, restoration, and protection plan. The goal of the project was to assess the watershed and develop recommendations for restoration and protection of the natural resources within the watershed. The plan revealed that the main impacts in the watershed were non-point source pollution such as abandoned mine drainage and sedimentation. This was caused by abandoned deep mines, poor stormwater management, stream bank erosion, debris, and riparian buffer alterations. Stormwater management is a major issue in this watershed.

The association's 2006 study concluded that remediation measures in the Renton area would have a major positive impact on the quality of the watershed. The study also indicated that educating watershed landowners on the effects of floodplain encroachment would help improve watershed quality as well.

Recommendations from the 2006 Plum Creek Watershed Study include:

- Prepare an Act 167 plan
- Develop educational programs
- Reclaim and develop links to trails
- Preserve the watershed as a natural area or conservation district
- Develop joint comprehensive plans with surrounding municipalities
- Obtain funding to clean up and reuse underutilized properties
- Design and implement abandoned mine discharge treatments
- Maintain buffer areas around floodplains
- Install riparian plantings

Pucketa Creek Watershed

This watershed is primarily located in Upper Burrell Township, the City of Lower Burrell, and the Municipality of Murrysburg, but covers a significant portion of the northwest section of Plum Borough.

There is a watershed association; however, it is inactive at this time. There are no sub-watersheds in the Pucketa Creek Watershed. Streams in the Pucketa Creek Watershed include Pucketa Creek and unnamed tributaries.

Thompson Run Watershed

The Thompson Run Watershed is located in the far southwest corner of Plum. It is one of the most heavily polluted watersheds in the borough, with abandoned mine drainage being the primary source of pollution. This watershed is bounded by the Turtle Creek-Brush Creek Watershed to the east and Plum Creek Watershed to the north. The Thompson Run Watershed is the smallest in the borough, and it has no sub-watersheds. Thompson Run and unnamed tributaries are the only streams in the watershed.

Turtle Creek-Brush Creek Watershed

Located in the southeastern section of the borough, the Turtle Creek-Brush Creek Watershed is one of the largest watersheds in Plum. Streams within this watershed include Abers Creek, Humms Run, Piersons Run, and their unnamed tributaries. This watershed takes in the Thompson Run and Abers Creek Sub-watersheds.

Founded in 1968, the Turtle Creek Watershed Association is one of the oldest in Pennsylvania. It covers a 147-square mile area. The watershed association is involved in the following projects:

- Abandoned mine drainage remediation
- Streambank stabilization
- Multi-municipal storm water management and flood prevention
- Municipal assistance with MS4 implementation
- Water quality monitoring

The Turtle Creek Watershed has had an Act 167 Plan since 1991, but it has not been updated due to lack of funding. The Turtle Creek Watershed Association is actively pursuing funding for an Act 167 Plan update which Plum Borough Council has supported and agreed to participate in.

Streams

Plum Creek

Plum Creek is a primary tributary of the Allegheny River. It is a meandering stream that is polluted by abandoned mine drainage from the former Renton Mine. However, according to the Pennsylvania Natural Diversity Inventory (PNDI), sections of the stream provide habitat for animal species of special concern, as well as natural communities. The creek valley has seen a great deal of human disturbance from logging and recreational activities.

Little Plum Creek

According to the Pennsylvania Department of Environmental Protection, Little Plum Creek's acid mine drainage has created water quality issues and ecological concerns in its watershed. The 2006 study by the Plum Creek Watershed Association recommended the following improvements to the Little Plum Creek watershed:

- Repair the channel
- Design an abandoned mine discharge treatment system
- Maintain buffer areas around floodplains
- Vegetate riparian buffers

Abers Creek

Abers Creek is a small tributary to Turtle Creek. It is located near PA Route 286 on the eastern side of Plum Borough. In the past, the stream has been contaminated with sewage overflows from the Holiday Park Sewage Treatment Plant during extreme wet weather.

The Abers Creek sub-watershed includes eastern Boyce Park and the western section of Holiday Park in the southeast section of the borough. This sub-watershed is part of the Turtle Creek watershed which covers two areas of Plum. The Abers Creek Sub-watershed and the Thompson Run Sub-watershed (see below) are part of the Turtle Creek Watershed, which is severely affected by abandoned mine drainage.

Blacks Run

Situated near the mouth of Lock and Dam No. 3 on the Allegheny River, Blacks Run is a small tributary to the Allegheny River. The stream is impacted by acid mine drainage. Its watershed includes the area flanking Coxcomb Hill Road between Oakmont East Golf Course and River Road.

Bodies Run

Bodies Run begins near Logans Ferry and runs southwest into Plum Creek near the Pennsylvania Turnpike. The stream is polluted by abandoned mine drainage.

The Bodies Run sub-watershed is part of the Plum Creek Watershed. As such, it was included in the Plum Creek Watershed Association's aforementioned 2006 study. Housing developments and abandoned mine drainage have not had a traumatic effect on the stream; however, it remains an area of concern. Recommended improvements from the 2006 Plum Creek Watershed Association study include:

- Enhance as a wetland bank
- Restore natural stream channel restoration
- Assess abandoned mine drainage
- Repair channel that receives stormwater and reconstruct Bodies Run below Cherry Springs Development
- Contact land owners about preservation options
- Improve agricultural management

Humms Run

Located at the far southeastern area of the borough, Humms Run is a shallow tributary to Abers Creek. Its watershed runs through the Holiday Park section of Plum and is adjacent to the Abers Creek watershed.

Falling Springs Run

Falling Springs Run runs into the Allegheny River near Oakmont County Club. Its watershed is the smallest watershed in the borough.

Piersons Run

Piersons Run, a tributary of Abers Creek, is the principal stream draining Boyce Park. The stream has abandoned mine drainage at its headwaters. Piersons Run's waters ultimately drain into the Monongahela River. Its watershed is about two square miles and is located in the south central portion of the borough between the Abers Creek and Thompson Run watersheds.

Pucketa Creek

In response to concerns about pollution of Pucketa Creek, a 2005 study by the Western Pennsylvania Watershed Alliance Center and Allegheny County Conservation District indicated that the creek is inhabited by creek chubs, common suckers, northern hog nosed suckers, and black nosed daces. The Pucketa Creek watershed is primarily located in Upper Burrell Township, the City of Lower Burrell, and the Municipality of Murrysville, but has a significant portion contained in Plum Borough as well.

The watershed is polluted from development and from abandoned mine drainage. Pucketa Creek is a designated Act 167 Watershed.

Thompson Run

Thompson Run is a shallow stream that flows into Penn Hills in the far southwest corner of the borough. Its watershed is located in the Regency Park section of Plum.

In sum, the numerous streams and corresponding watersheds in Plum Borough have issues that need to be addressed. The most prominent concerns are abandoned mine drainage, stormwater management, channel restoration/repair, riparian buffers, and stream bank erosion.

Plum Borough can help address these issues by continuing to take an active role in supporting the work of watershed associations to improve the water quality of the borough's streams and watersheds. This will entail collaboration with neighboring municipalities, environmental groups, and other interested parties. Among the steps that Plum Borough can take are continued support for the update of the Turtle Creek Watershed Act 167 Plan, for the implementation of the recommendations of the 2006 Plum Creek Watershed Study, and for the implementation of priority projects identified

in the borough's Comprehensive Stormwater Management Study that was completed in 2010.

Wetlands

Wetlands are identified on the Wetlands, Watercourses, and Watersheds Map. Protection of these wetlands is needed for erosion and sediment control, flood protection and abatement, water filtration and purification, and fish and wildlife habitat preservation as well as recreational purposes.

Wetlands can be protected through riparian buffers, conservation easements, and proper flood plain management.

Allegheny County Natural Heritage Inventory of 1994

The Allegheny County Natural Heritage Inventory identifies and maps Allegheny County's most significant natural areas, e.g., unique animal and plant species and communities for conservation, education and scientific study.

Natural Areas

Natural areas are sites that have essentially the same ecological conditions that existed prior to European settlement and are large enough and buffered enough to support and permanently protect the natural community. An example would be a virgin forest ten or more acres in size, if the surrounding landscape is only moderately disturbed and the forest has long-term viability.

Natural Heritage Areas

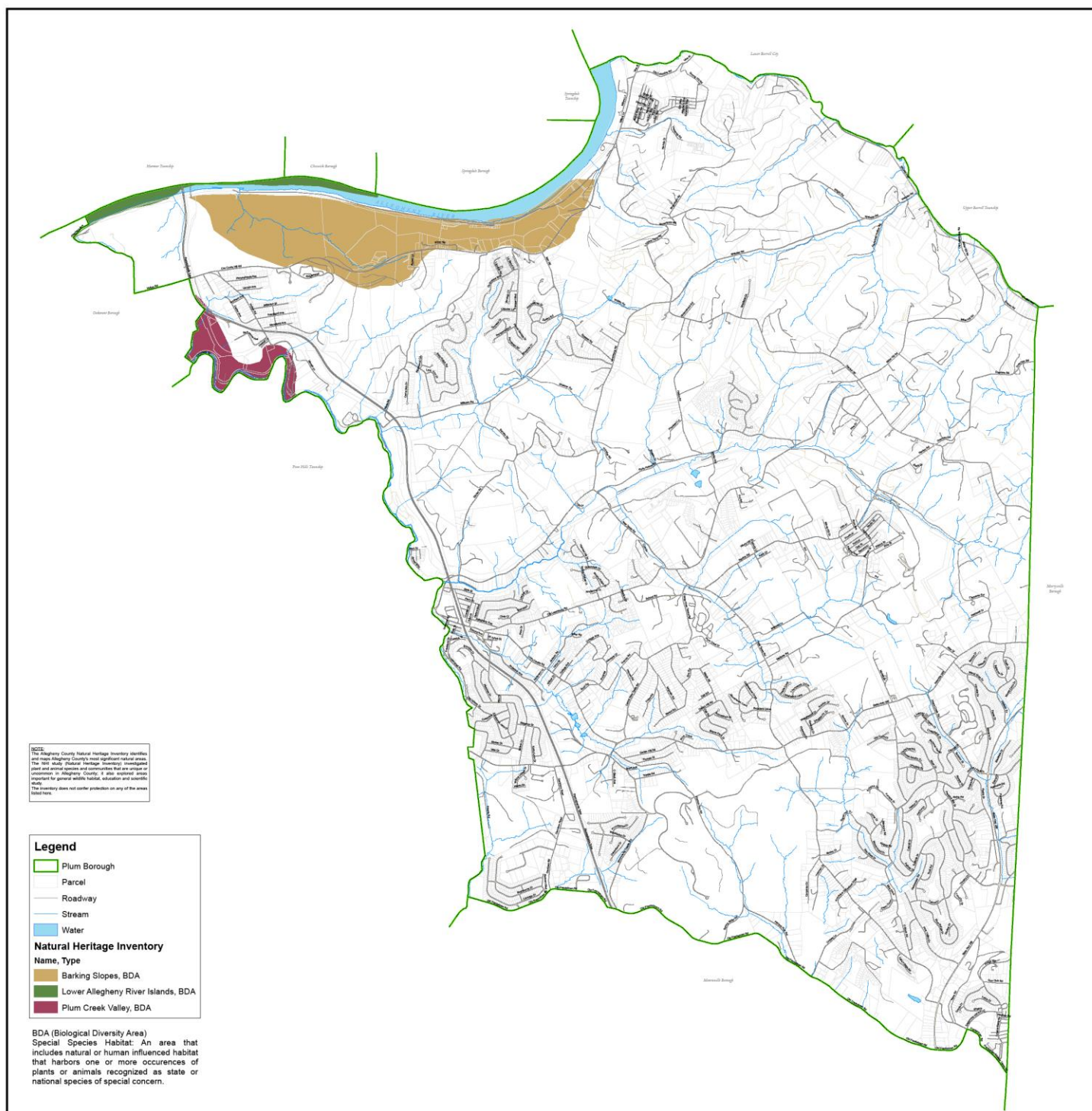
Plum Borough's special environmental features include Biodiversity Areas (BDAs). The borough is home to the Barking Slopes BDA, Lower Allegheny Islands BDA, and Plum Creek Valley BDA. Each of these BDAs is considered a natural heritage area, i.e., an area that has flourished without human disturbance. (See Biodiversity Map on page 2-16.)

Biodiversity Areas

Biodiversity areas include sites that are recognized as supporting special species, relatively large numbers and kinds of species, or entire ecosystems. On occasion, human manipulation has occurred on these sites in order to maintain suitable conditions to keep the sites as BDAs. This is particularly true where human development has caused the need for natural habitats to be buffered and protected.

When human activities threaten to impact ecological features, the municipality should contact the appropriate agencies (e.g., Western Pennsylvania Conservancy, PA Department of Environmental Protection, watershed associations, etc.) to request their assistance and solicit their evaluations and recommendations.

The northwestern area of the borough is particularly noteworthy because much of it lies within the borough's three biodiversity areas. These areas have special environmental features that make them unique to Allegheny County and worthy of preservation and conservation. These BDAs were ranked as areas of high significance in the 1994 Pennsylvania Natural Diversity Index (PNDI) Natural Heritage Inventory. A description of each BDA is provided below: (See Biodiversity Map on following page.)



BIODIVERSITY AREAS

BOROUGH OF PLUM
ALLEGHENY COUNTY
PENNSYLVANIA

0 2,000 4,000 8,000 Feet
1 inch equals 1,200 feet

Top parcel, municipal boundary, stream, and water body details obtained from the Allegheny County Division of Computer Services, Geographic Information Systems Group.
Allegheny County - 19th Natural Heritage Inventory (data published by the Allegheny County - Western Pennsylvania Conservancy, 2005), obtained from the Allegheny County Division of Computer Services, Geographic Information Systems Group.
All figures based on the following:
North American Datum 1983 (NAD83) datum
Pennsylvania County State Plane Coordinate System
English Feet Units



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Barking Slopes Biodiversity Area

The Barking Slopes Biodiversity Area is located in the Blacks Run valley, a 2.5-mile long steep, forested area. It is one of the few remaining steep river slopes in the county, and serves as a buffer for the Lower Allegheny River Islands BDA. The area has been logged, but it is in a state of recovery. The Allegheny Land Trust owns 230 acres in this BDA. Located entirely in Plum Borough this natural resource is open to the public for use of its trails and deer hunting. Access to the property is from Coxcomb Hill Road (PA 909) near the Allegheny Land Trust sign or on the lock side of the dam service road downstream of the Village of Barking. Motorized vehicles are prohibited from the property.

Plum Creek Valley Biodiversity Area

Plum Creek is a primary tributary of the Allegheny River. The section of the creek that has retained its natural character has been designated as the Plum Creek BDA. The Plum Creek BDA is considered to be of high significance because it is a moderate-size forested stream valley and associated tributary with mature examples of Mesic Central Forest, Dry Mesic Acidic Forest, and Northern Hardwoods Forest communities.

Much of this land is privately owned and undeveloped. The Plum Creek Valley Biodiversity Area has been subject to a good deal of past disturbance through logging and clearing for recreational activities.

Lower Allegheny River Islands BDA

This section of the Allegheny River represents pre-lock and dam conditions of the river. The islands represent natural features in the southwestern part of the Commonwealth and exhibit a recovering Floodplain Forest Community. This BDA is recognized for being habitat to a number of animal species identified as Pennsylvania Species of special concern as well as an island habitat associated with the riverine system.

Managed Lands

Managed lands are areas that have been disturbed, but not degraded. There are two managed lands within the Plum Creek Valley BDA. They are the Dark Hollow Woods Park and the Penn Hills Community Park.

Dark Hollow Woods Park is located in Oakmont. The northern side of the valley of Dark Hollow Woods Park exhibits mature or maturing communities of trees. This area is a relatively protected forest. Penn Hills Community Park is adjacent to the Dark Hollow Woods Park.

The Lower Allegheny River Islands Biodiversity Area is also managed land.

Boyce Park

Boyce Park, which is owned by the County of Allegheny, is considered managed land. The park has little to offer in the way of significant natural resources, since it has been established on cleared lands. Recreational developments are scattered about the park rather than concentrated in one area. The only area of the park that has potential for returning to its natural condition is the area in the uplands of the Piersons Run Headwaters.

Prime Agricultural Soils and Farmland

Plum Borough has a significant amount of prime agricultural soils and farmland and farmland of state importance. (See Prime Agricultural Soils Map on the following page.) There has been a considerable amount of development on these soils in the southern and northwestern portions of the borough. Due to environmental conditions, it is unlikely that the prime agricultural soils and farmland and farmland of state importance will be developed in the northeast section of the borough.

Protection of prime agricultural soils and farmland of state importance can be achieved by including disturbance standards in the Unified Development Ordinance such as agricultural easements. Disturbance standards for the protection of prime agricultural soils include requiring the identification of prime agricultural lands when development plans are proposed and then applying grading standards to them. This may include preventing any grading from occurring on prime agricultural lands. These standards may also involve using smart growth land use techniques such as density bonuses to prevent development from occurring on these lands. Higher density may be granted on other areas of the site while, keeping development from occurring on the prime agricultural lands.

Conservation Corridors

The Allegheny County Conservation Corridors Plan lists two corridors in Plum. One is the Plum Creek corridor and the other is the Turtle Creek corridor.

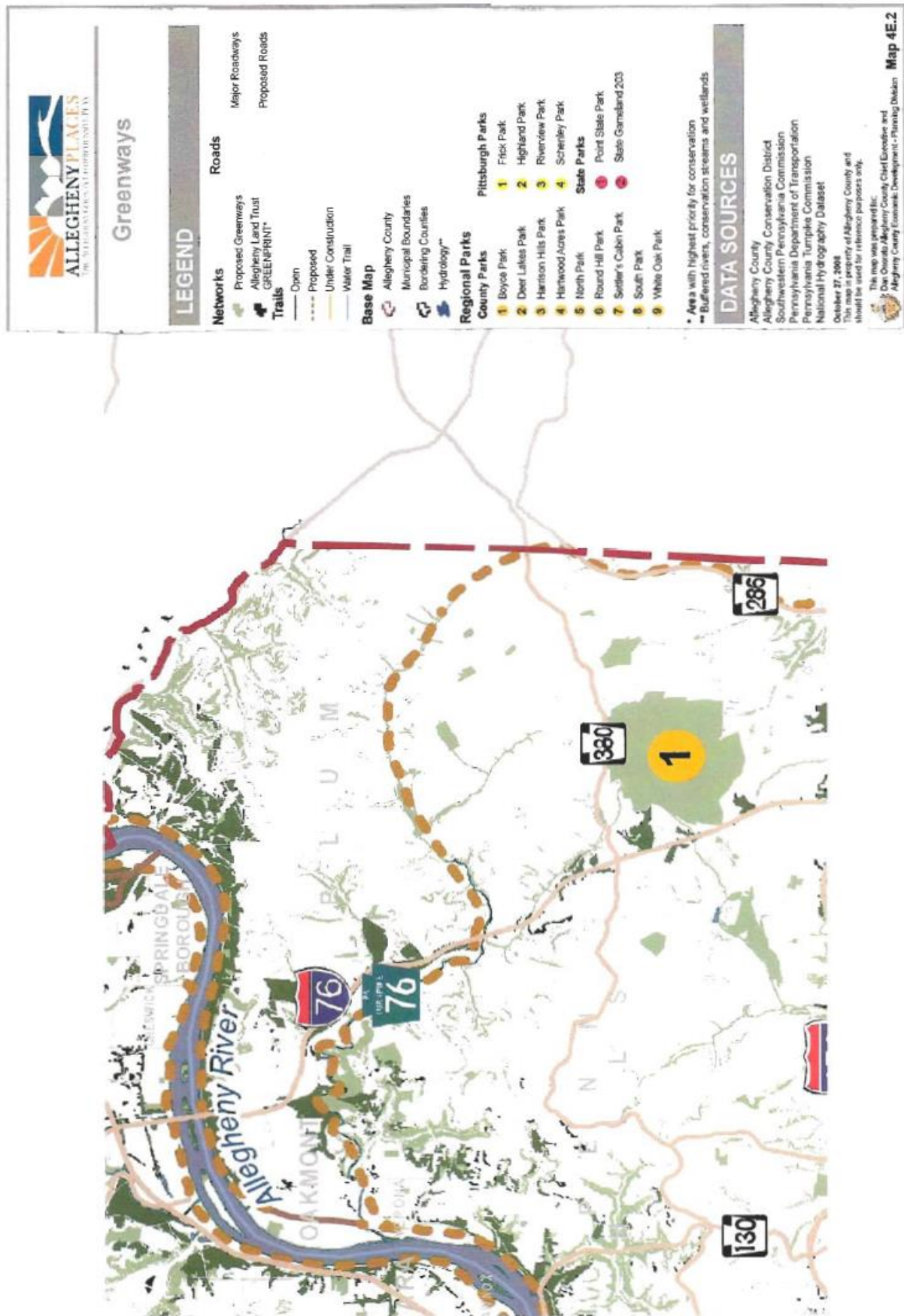
The Plum Creek corridor is classified as a high priority corridor. It contains the Barking Slopes BDA and the Plum Creek BDA. This corridor runs through the municipalities of Penn Hills, Plum, Oakmont, and Verona. It provides linkages to the Allegheny River, the Turtle Creek Trail and to the Sandy Creek Corridor via the Allegheny River Bikeway.

Turtle Creek runs through the eastern edge of Plum, and the Turtle Creek corridor is classified as a high priority corridor. This corridor contains the Simpson Run BDA and it provides connections to the Pittsburgh corridor and natural resources located in Westmoreland County and the eastern side of Plum.

Greenways and Trails

Allegheny County's comprehensive plan includes proposed greenways and trails. The Greenways Map in the county comprehensive plan illustrates a proposed greenway along Plum Creek. (See Greenways Map on page 2-22.)

The county comprehensive plan's Trails Map includes two proposed trails in Plum. One is known as the Plum Creek Trail and the other is the Allegheny River Trail. The proposed Plum Creek Trail extends from PA 286 across the borough to the Allegheny River and connects to the future Verona Trail. It would run through the Plum Creek Biodiversity Area. The proposed Allegheny River Trail would run along the Allegheny River at the borough's northern boundary. (See Trails Map on page 2-23.)





Trails

LEGEND

Trails

- Open
 - Proposed
 - Under Construction
 - Water Trails
 - Proposed Bike Plan
- #### Mega Greenways
- Great Allegheny Passage
 - Pittsburgh - Harrisburg Mainline Canal Greenway
 - Pittsburgh to Erie Greenway

Base Map

- Allegheny County
- Municipal Boundaries
- Major Roadways
- Proposed Roads
- Hydrology
- County Parks
- Parks

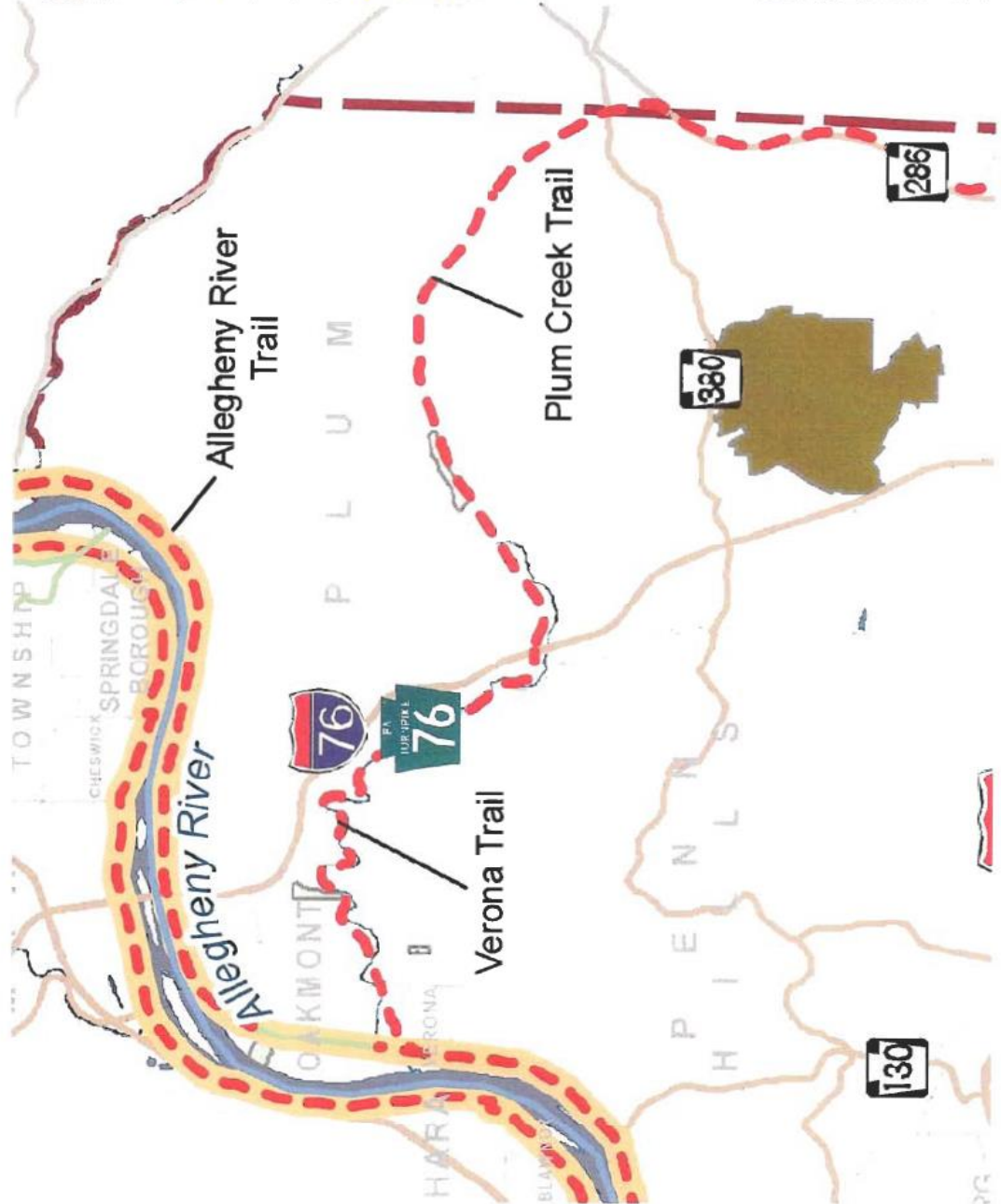
DATA SOURCES

- Allegheny County
- Pittsburgh Department of Planning
- Department of Conservation and Natural Resources
- Marshall Township
- Pennsylvania Department of Transportation
- Pennsylvania Turnpike Commission
- National Hydrography Dataset

December 15, 2008
This map is property of Allegheny County and should be used for reference purposes only.

This map was prepared for:
Dan Onorato, Allegheny County Chief Executive
Allegheny County Economic Development - Planning Division

Map 4E.3



GOALS, OBJECTIVES AND STRATEGIES

Implementing the following goals, objectives and strategy will enable Plum Borough to protect, preserve and conserve its natural and manmade resources.

Historic and Cultural Resources

Goal 1: Protect and preserve significant historic structures and sites within the borough

Objective A: Develop a historic and cultural resources inventory.

Strategy

- Request the assistance of the Pittsburgh History and Landmarks Foundation and the Pennsylvania Historical and Museum Commission to identify and evaluate potential historic structures.

Objective B: Preserve identified historical and cultural resources.

Strategy

- Continue the development of the coal miners memorial
- Encourage the Allegheny County Parks Department to continue to maintain the Carpenter House
- Work with the Allegheny Foothills Society, the Pittsburgh History and Landmarks Foundation, and the PA Historical and Museum Commission to promote historic preservation efforts
- Request the Plum Borough School District to incorporate historic preservation into the social studies curriculum

Objective C: Preserve Oakmont Country Club Historic District and Logan's Ferry Powder Works Historic District

Strategy

- Preserve the districts through zoning

Objective D: Preserve historic sites and structures

Strategy

- Develop historic overlay district to protect historic sites and structures

Environment

Goal 1: Protect, conserve and preserve the natural resources and rural character of the borough

Objective A: Protect and restore wetlands, scenic areas, riparian buffers/streams, biodiversity areas, native flora and fauna, floodplains, steep slopes, watersheds, woodlands, etc.

Strategy

- Consider creation of a borough environmental advisory council
- Develop new or strengthen existing borough ordinances governing and protecting land disturbance, logging, tree replacement, landslide prone areas, biodiversity areas, riparian buffers, streams, vegetation, wetlands, and greenways by utilizing such resources as the Allegheny Land Trust Greenprint, etc.
- Implement smart growth techniques and sustainability principles to develop and enact natural resource protection ordinances for farmlands, steep slopes, flood plains, watercourses, riparian buffers, and open spaces

Objective B: Use native landscaping as much as possible and other buffering measures to enhance all future land development and minimize any adverse impacts of conflicting land uses.

Strategy

- Define “appropriate screening” in the Unified Development Ordinance and continue to enforce the screening provisions of the ordinance
- Shorten the time for replacing vegetation that does not survive on new development sites from three years to one year after the date of installation to ensure vegetative growth
- Develop a list of vegetation that may be used for landscaping and buffering
- Consider developing landscaping standards for all future commercial and light industrial development
- Require landscaped walkways, trails and paths throughout proposed developments

Objective C: Secure and maintain adequate open space in the borough.

Strategy

- Promote conservation and agricultural easements throughout the borough to create greenways
- Encourage the development of greenways to connect land developments and community features throughout the borough.
- Implement the borough's new parks, recreation and open space plan, including development of the proposed Plum Creek Trail and Allegheny River Trail
- Establish a borough land banking and/or open space program

Objective D: Ensure protection provisions in borough ordinances are implemented throughout the land development process.

Strategy

- Promote environmentally-friendly land development via smart growth techniques, LEED principles, developer incentives for green building design and construction, etc.
- Continue current land development review practices through the borough planning and zoning department.

Objective E: Require the borough planning commission to identify environmental impacts of proposed development and any measures that are needed to mitigate or eliminate any negative impacts of such development.

Strategy

- As needed, require an environmental assessment and/or environmental impact statement based on the characteristics of proposed development site and the size of the proposed development

Objective F: Promote Best Management Practices to Address Stormwater Issues.

Strategy

- Encourage the use of Best Management Practices in all developments in the borough
- Continue to enforce the Best Management Practices set forth in the borough's stormwater management ordinance

- Encourage low impact development projects that include the installation of green infrastructure strategies such as rain gardens, green roofs, tree box filters, permeable pavement, rain barrels and cisterns, bioretention techniques, and other mechanisms to improve water quality.

Objective G: Continue waste management and recycling efforts.

Strategy

- Continue the borough's recycling and waste management program
- Encourage schools to educate students about the importance of waste management and recycling
- Continue the borough's leaf collection program

Objective H: Preserve and protect the Barking Slopes, Plum Creek and Lower Allegheny River Islands Biodiversity Areas

Strategy

- Preserve these areas through zoning

Objective I: Protect managed lands such as Dark Hollow Woods Park, Boyce Park, and Penn Hills Community Park

Strategy

- Preserve these managed lands through zoning

Objective J: Protect Plum Creek from abandoned mine drainage

Strategy

- Complete Act 167 Plan

Objective K: Mitigate abandoned mine drainage in Little Plum Creek

Strategy

- Require mine subsidence information for developments that drain into Little Plum Creek

Objective L: Reduce pollution in storm water runoff

Strategy

- Continue to comply with Municipal Separate Storm Sewer System (MS4) Program

Objective M: Address Renton Mine Fire

Strategy

- Have fire extinguished