

# Plum Creek Watershed Assessment, Restoration, and Preservation Plan



Blair County, Pennsylvania

October, 2010

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## **Introduction**

The Blair County Conservation District, in partnership with the John Kennedy Chapter of Trout Unlimited, received a Coldwater Heritage Partnership Grant in 2007 to create a watershed assessment and conservation plan for the Plum Creek Watershed, Blair County. Coldwater Conservation Plans are meant to identify potential problems and opportunities for stream conservation, while building local awareness and support for the long term stewardship of Plum Creek.

Plum Creek is an established trout fishery and the Pennsylvania Fish and Boat Commission (PA F&BC) has identified the lower section of the stream as Class A- Naturally Reproducing Wild Trout. Subsequently in 2007, the Pennsylvania Department of Environmental Protection (PA DEP) upgraded the Title 25 Chapter 93 existing use designation for the lower section of Plum Creek from Warm Water Fishes (WWF) to High Quality Cold Water Fishes (HQ-CWF) with all tributaries flowing into this lower section as Cold Water Fishes (CWF). Both of these designations identify Plum Creek and its' associated watershed as environmentally significant and overall in excellent condition as a valuable resource for habitat and clean water. Unfortunately, it appears that portions of this natural resource are becoming degraded by increased erosion, sedimentation and other non-point sources of pollution.

It is the goal of the Conservation District, along with support from other watershed stakeholders, to identify areas of opportunity within Plum Creek by working with the community in developing a restoration and preservation plan.

### *Blair County Conservation District*

The Blair County Conservation District, over the years, has developed several watershed assessment and restoration plans. Historically, those plans have mostly focused on the restoration of mining impacted watersheds. However, more recently we've completed our first preservation/conservation plan in 2005 with the completion of the Piney Creek

Watershed Assessment and Conservation Plan. We believe that conservation works best when local people, those who live and work in an area, play an active role in managing their natural resources. The Blair County Conservation District, governed by a local Board of Directors, offers technical assistance and educational guidance to: land owners, local governments, schools, teachers, students, farmers, developers, neighborhoods and people from every walk of life. We are the people who help the community take care of the natural resources in their area. After all, using natural resources wisely helps to ensure their availability well into the future.

The Blair County Conservation District is responsible for numerous programs. Our Resource Conservation Specialist authorizes permits and inspects construction sites through the NPDES Program; and reviews and approves Erosion and Sediment Pollution Control Plans. He also provides technical and financial assistance to municipalities for Dirt & Gravel Road Improvements. Our Agriculture Conservation Specialist provides technical and financial assistance to farmers using “Best Management Practices” on their farms; and is delegated to review and approve Nutrient Management Plans. He also serves to permanently preserve farmland by purchasing Agricultural Conservation Easements, now totaling over 5,000 acres in Blair County.

The Watershed Specialist assists in watershed planning and watershed restoration projects, often seeking non-local funds to restore those watersheds that have been degraded by pollution. The Blair County Conservation District spearheaded the work in Glenwhite Run where over 2 million dollars in state and federal funds were utilized to restore the water flowing to the Kittanning Reservoir, which is the primary source of drinking water for the City of Altoona. It once again supports aquatic life.

The Blair County Conservation District is host to one of only two Agricultural Ombudsman Positions. Our Ombudsman is available to serve as a liaison between local residents, local municipalities and agricultural operations across central and western Pennsylvania. Her primary duty is to respond to complaints and to facilitate conflict resolution. More importantly, the Ombudsman serves a key role in providing education and information related to agriculture and environmental issues.

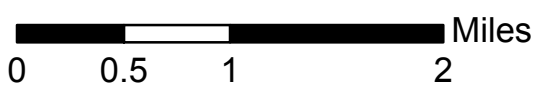
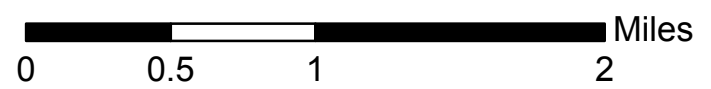
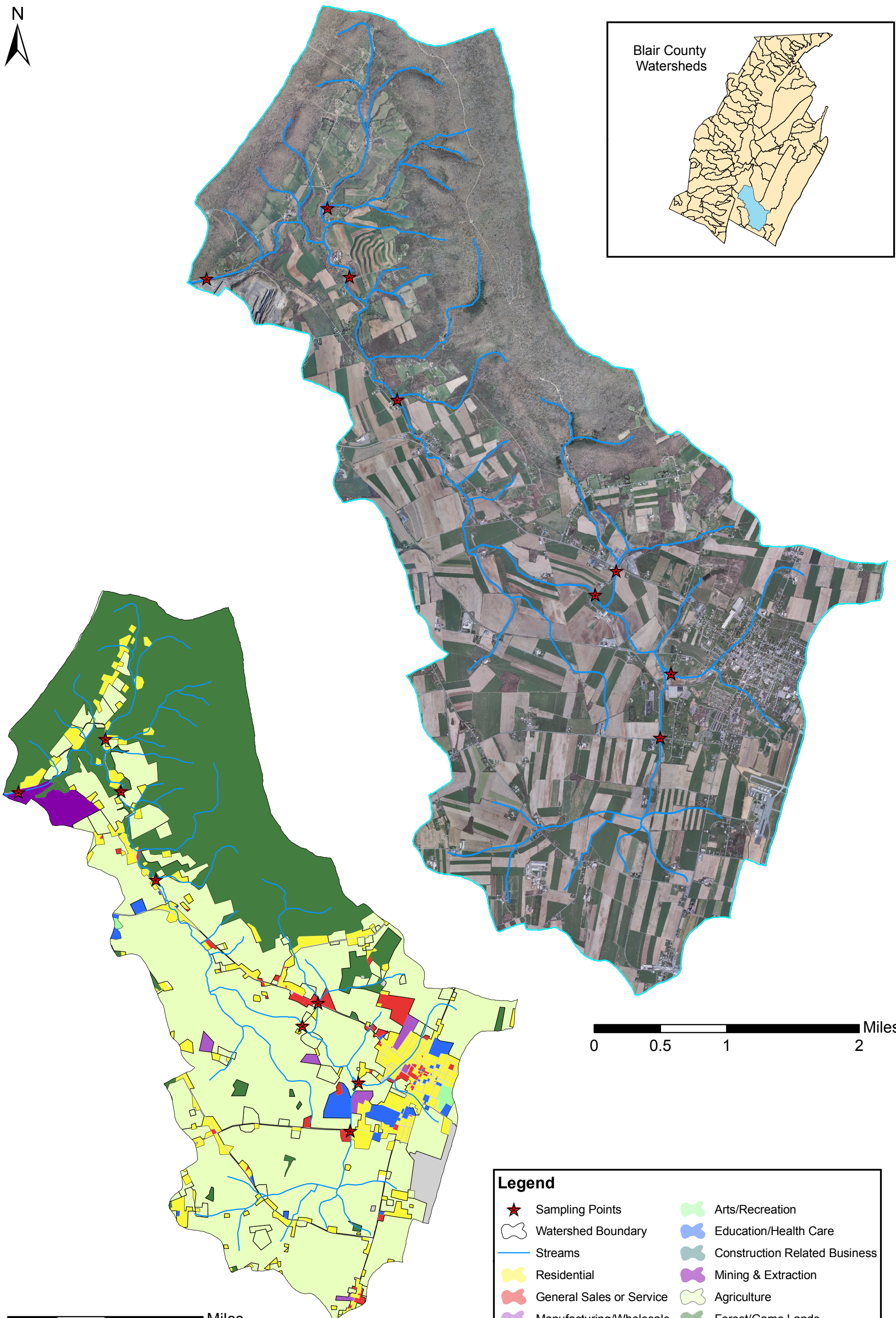
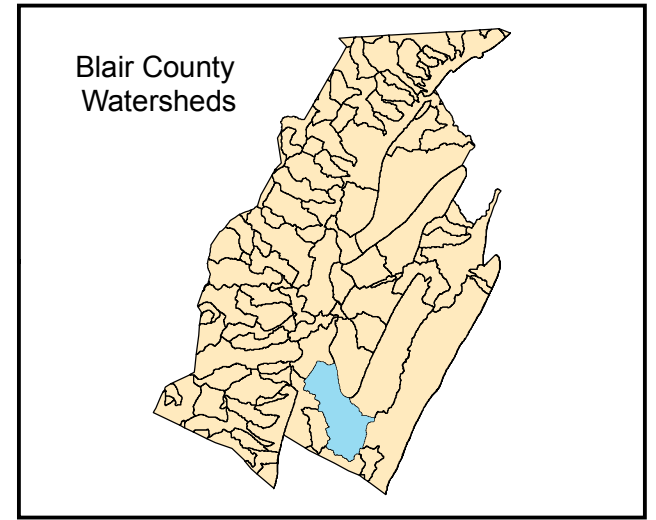
*John Kennedy Chapter of Trout Unlimited*

Blair County Chapter of Trout Unlimited was chartered in 1960 and changed its name to John Kennedy Chapter (JKTU), its present name, in 2006. JKTU is a conservation group with 240 members, whose mission is to “Protect, Preserve, and Restore” the cold water resources of the Commonwealth. JKTU is a member of the PA Council of Trout Unlimited, which consists of 51 chapters and over 12,000 members statewide.

We accomplish our mission through many different activities. We have done stream restoration projects on the following area streams: Clover Creek, Piney Creek, Halter Creek, Yellow Creek, Plum Creek, Potter Creek, Mary Ann’s Creek, Canoe Creek, Poplar Run, and the Little Juniata River. We have assisted in many area farm “Best Management Practices” projects. We helped fund Educational Outreach programs at the Blair County Conservation District, for programs at our local schools. JKTU provides classroom support and funding to three area schools for the “Trout in the Classroom” program. We participate and help fund the Blair County Sportsman’s Youth Field Days and Henrietta Sportsman’s Youth days. We have booths at the Outdoor Times and Jaffa Sportsman’s shows.

Although a majority of our members favor fly fishing, TU does not advocate tackle specific fishing. All anglers are encouraged to join TU, realizing we all share a common goal, improving the quality of our resources.

# Plum Creek Watershed - Sampling Points and Landuse Map



Legend	
	Sampling Points
	Watershed Boundary
	Streams
	Residential
	General Sales or Service
	Manufacturing/Wholesale
	Transportation/Utilities
	Arts/Recreation
	Education/Health Care
	Construction Related Business
	Mining & Extraction
	Agriculture
	Forest/Game Lands



## Watershed Characteristics

See Plum Creek Watershed - Sampling Points and Landuse Map

### Watershed Description

Plum Creek is a spring-fed stream that flows for 7.5 miles through a relatively rural watershed. This watershed encompasses approximately 17.4 square miles (over 11,000 acres). The watershed is divided into three primary landuses; agriculture 65.4%, forested 29.8%, and the remaining 4.8% is urban. The trend in land use over the past decade is moving toward an increase in urbanization. One of the driving forces behind this is that farmers are selling off building lots to help subsidize farm income. In addition, the surrounding communities are growing out into this primarily rural watershed. With the increase in the price of building lots, the value of the farmland is increasing to where it is becoming harder and harder for a person to purchase land for agricultural production.

Figure 1. Headwater's Sampling Site



Plum Creek watershed encompasses portions of five municipalities with the greatest portion in Taylor Township (65%), North Woodbury (25%), Huston Township (5%), Martinsburg Borough (4%) and Roaring Spring Borough (1%). There is also a small portion of State Game Lands 147 within the watershed. The headwaters of Plum Creek are made up of small springs starting around Cove Lane, just south of the Borough of Martinsburg, in North Woodbury Township. Plum Creek meanders along flowing in a north then north west direction into Taylor Township. Here Plum Creek picks up more water and crosses under SR (state route) 164 in East Sharpsburg. Finally the stream flows around the

New Enterprise Stone and Lime, Roaring Spring plant before emptying into Halter Creek adjacent to SR 36.

Plum creek is designated by PA Code, Title 25, Chapter 93 (Water Quality Standards) as a Warm Water Fishes or Fishery. However, in December, 2007 the lower portion of the stream's Existing Use was upgraded to High-Quality-Cold Water Fishes with those tributaries flowing into the main stem upgraded to Cold Water Fishes. The section upgraded includes the piece from the bridge at SR 164 (in East Sharpsburg) down stream to the confluence with Halter Creek. Of the 64 stream segments identified in Blair County by the PA DEP, only 7 segments (approximately 11%) are identified as High Quality – Cold Water Fishes. This designation is the highest, second only to Exceptional Value, of which there is only two within the county. These valuable stream segments within our county afford a higher level of protection by the state. This protection includes reduced limits of allowable pollution and a more comprehensive/ restricted permitting process.

The PA F&BC have also identified that same section of Plum Creek as Class A-Wild Trout Waters. This designation identifies streams that support a population of naturally reproducing trout of sufficient size and abundance to support a long-term and rewarding sport fishery. In Blair County only ten streams carry the Class A designation. This designation identifies Plum Creek and its associated watershed as environmentally significant and overall in excellent condition as a valuable resource for habitat and clean water.

Unfortunately, this natural resource is becoming degraded by increased sedimentation from upland earth disturbances, streambank erosion, and agricultural practices. In 2002, the last mile of Plum Creek was placed on the State's 303d list as impaired due to run-off and siltation. The stream is also being degraded by increased nutrients from malfunctioning on-lot septic systems, agriculture production, and the mismanagement of everyday lawn and garden chemicals. Plum Creek's situation is a bit odd in that the higher use level or protection level (HQ-CWF/ CWF) has been designated to the lower portion of the watershed as opposed to the upper portion of the watershed which is still designated WWF. This reversal makes it difficult to protect the downstream coldwater resource.

An additional detriment to water quality and stream habitat is the loss of riparian buffers. Riparian buffers are vegetative strips of grasses, shrubs and/ or trees along the stream banks providing a transition zone between the stream and upland land-uses. Riparian buffers are the last line of defense between the stream and land-uses such as transportation corridors, housing developments, industrial areas and farms. Buffers act as living filters capturing polluted stormwater runoff while providing wildlife habitat, bank protection, and shade to reduce thermal pollution. A stream with these designations is a significant asset to any county in which it is located, as well as the Commonwealth. The ability to assess the problems with the stream, develop restoration and preservation plans, and then implement the plan will lead to the enhancement of this great resource. So for this reason future protection and preservation needs to be a high priority.

## **Socio-economic Characteristics**

### **Political Boundaries**

Blair County is a fifth class county in the state of Pennsylvania which means the population ranges from 95,000-144,999. Specifically, Blair County's population is 125,174 as of 2008. In comparison to that same year Pennsylvania's population was about 12.5 million.

The Plum Creek watershed is located in the south eastern part of Blair County near the border with Huntingdon and Bedford Counties. It is contained within five municipalities Taylor Township, North Woodbury Township, Huston Township, Martinsburg Borough and Roaring Spring Borough. The greatest majority, 94+ % of the watershed, is located within the three townships with 65% located in Taylor Township. The watershed is served by the Spring Cove School District and is located within Pennsylvania House District 80 and Senatorial District 30.

## **Demographic/ Economics Characteristics**

An economic comparison of Blair County to the State reflects similar numbers on average. In 2009 the unemployment rate statewide was 8.5% but the County's was just slightly lower at 7.9%. This lower unemployment rate is most likely due to the County's diverse job market. However in regards to the median household income and property value the County is about 20% lower than the State's average. These averages are most likely due to lower housing values usually found in rural areas and the number of people working in the retail and service industries.

Specifically, the Plum Creek watershed is characterized by the communities of Taylor Township, North Woodbury Township and Martinsburg Borough. Taylor Township's demographics and economics are similar to those within the watershed. It is a rural township dominated by agricultural with an average population of 2,200. The split between males and females is 50-50 with a median age of 41. The educational attainment level is slightly lower than the County overall with 61% attaining a high school diploma or equivalent and 23% of those graduates moving on to additional college work.

Also similar to the rest of the watershed, the economic characteristics reflect a rural community. The average commute to work is 20.6 minutes. The top three industries employing the majority of the residents are manufacturing (25.0%); educational, health and social services (12.9%) and retail trade (12.8%). The median household income of \$41,635 in 2000 was much higher than the County average of \$32,800 and just slightly higher than the state's \$40,106 at that time.

North Woodbury Township's demographics and economics are similar to Taylor Townships. North Woodbury is a rural Township dominated by agricultural with an average population of 2,276. The split between males and females is 51-49 with a median age of 39. The educational attainment level is lower than the County overall with 51% attaining a high school diploma or equivalent and 34% of those graduates moving on to additional college work.

Again similar to the rest of the watershed, the economic characteristics reflect a rural community. The average commute to work is 22.1 minutes. The top three industries employing the majority of the residents are manufacturing (20.6%); educational, health and social services (20.7%) and agriculture (including forestry, fishing, hunting and mining) at 11.6%. The median household income of \$37,229 in 2000 was higher than the County average of \$32,800 and just slightly lower than the state's \$40,106 at that time.

In comparison the Borough of Martinsburg, the largest Borough in the watershed, although accounting for less than 4% of the watershed has demographics that reflect both sub-urban and rural influences. The Borough is urban in nature with an average population of 2,236. Although the population is similar to the surrounding townships the Borough covers a much smaller geographic area. The split between males and females is 56-44; however the median age is higher at 46. The educational attainment level is lower than the County overall with 45.3% attaining a high school diploma or equivalent and 30.4% of those graduates moving on to additional college work.

Again similar to the rest of the watershed, the economic characteristics reflect a rural community, except in commuter travel and the retail trade industry which better reflects a more sub-urban Pennsylvania. The average commute to work is less than the surrounding communities at 18.5 minutes. The top three industries employing the majority of the residents are manufacturing (19.3%); educational, health and social services (19.0%) and retail trade (16.2%) with retail trade showing the highest levels of neighboring municipalities. The median household income of \$27,125 in 2000 was lower than the County average of \$32,800 and much lower than the state's \$40,106 at that time. These lower income levels are more characteristic of an urban community with greater populations servicing all components of the economic community including the retail trade industry which would include many minimum wage positions.

Additional County and State wide demographic information can be found in Appendix A. Also complete *Profile of General Demographic Characteristics: 2000* can be found for the State, County and each of the municipalities located within the watershed in Appendix B

(Appendix B.1, Pennsylvania; Appendix B.2, Blair County; Appendix B.3, Huston Township; Appendix B.4, Martinsburg Borough; B.5, North Woodbury Township; B.6, Roaring Spring Borough; and B.7, Taylor Township. Although this data will soon be updated with the completion of 2010 U.S. Census, the data still accurately represents the County and its' municipalities.

## **History**

### **Blair County History**

Blair County was organized in 1846 with Hollidaysburg as its county seat. Blair County is situated in south central Pennsylvania and lies on the eastern side of the Allegheny Ridge. The Allegheny Ridge is the eastern continental divide between the east coast and the central plains. The Ridge also acts as the watershed boundary between the Ohio River to the west and the Susquehanna River to the east. This geological diversity has provided Blair County with numerous natural resources and opportunities. Blair County has flourished because of its' abundant resources of forest, coal and prime agricultural land. These resources became an important key to the growth of Blair County during the industrial era.

In addition to the County's wealth of natural resources, Blair County quickly became a hub for transportation. Transportation played a major role in the development of not only Blair County but in the growth of the City of Altoona. From the wagon trails of the mid-1700s, to the opening of the Pennsylvania Canal in 1832 in conjunction with the Portage Railroad in 1834, and finally with the completion of the Horseshoe Curve in 1854, Blair County became the important link between Pittsburgh and Philadelphia. According to *A Brief History of Blair County, Pennsylvania*, Altoona became one of the largest railroad repair shops ever and with this growth came supporting services and industries. Today Altoona still maintains its' strong tradition of rail car repair shops, although due to the decreased use in rail transportation production is at its lowest.

Blair County, relying on its heritage and natural resources, provides a beautiful place to live for its' 125,000 plus residents. The County provides outdoor recreation through hundreds of acres of State Game Lands and is home to Canoe Creek State Park. Today the County serves the role as a hub for transportation and is a vital connection between cities of the east to those in the west. The County provides economic opportunities through manufacturing and retail jobs and continues its' legacy of agriculture which is still Pennsylvania's largest industry. Blair County is proud of its heritage of transportation, manufacturing and mining and preserves them in the Allegheny Portage Railroad Historic Site, the Horseshoe Curve and the Altoona Railroader's Museum. Excerpts from *A Brief History of Blair County, Pennsylvania* can be found in Appendix C.

### **Archeological and Historical Features**

Blair County has several significant archeological and historical features that can be found throughout the County. Those features specific to the Plum Creek watershed are often related to transportation and commerce including both historic and archeologically significant features. Several sites have been identified through state and federal historical and natural resource databases. These resources are listed with the National Register of Historic Places and with the Pennsylvania Museum and Historical Commission (PMHC). The PMHC also documents areas of archeological significance. Those historical features found within or adjacent to the Plum Creek watershed are listed below. Additional sites outside the watershed are found in the Roaring Spring and Martinsburg Historic District.

*Pennsylvania Museum and Historical Commission-Cultural Resources GIS (CRGIS) Historic Site Detailed Summary Report*

CRGIS is a map-based inventory of the historic and archaeological sites and surveys stored in the files of the Bureau for Historic Preservation (BHP). The Pennsylvania Historical and Museum Commission (PHMC) has been collecting information concerning archaeological sites and historic resources for the greater part of a century. Currently there are approximately 20,859 archaeological sites and 125,205 historic properties in these files.

There were several sites identified within or adjacent to the Plum Creek watershed that included archaeological survey information, bridge resource information, and historical resource information. The archeological surveys completed were done in response to development and/or replacement and include a phase 1 archeological survey. Available surveys include the Martinsburg Sewage Treatment facility, the County bridge #53, and at state route 866. Additionally, a phase 1 cultural resource survey was done on state route 36 and a Texas Eastern transmission right of way. To see an example of one of the corresponding abstracts see Appendix D.1

As with the archaeological sties, CRGIS inventory also includes historic structures breaking them down into two groups, one bridges and two historic structures. There are four bridges identified within or adjacent to the watershed. They are County Bridge #16 (Brumbaugh Road), the bridge crossing Plum Creek on SR 164, the bridge crossing Halter Creek on state SR 164 and the one crossing Plum Creek at East Sharpsburg. These bridges were built in 1916, 1938, 1930, and 1915 respectively.

Finally, similar to the bridge resource information, the historic resource information identifies historic structures. There are six sites within or adjacent to the watershed that include the Martinsburg Historic District; Pennsylvania Railroad, Martinsburg Freight Station/ Martinsburg Milling Company; Morrison Cove High school, New Enterprise Stone and Lime Company, Garvey Russel Mansion, and the Hagey and Clapper Mill. To see a complete list of all sites within or adjacent to the Plum Creek watershed see Appendix D.

### **Areas of Significant Importance**

Another source of significant historic areas is the Geographic Names Information System. In efforts to identify locations of physical and cultural geographic features located throughout the United States, the United States Geological Service has developed a mapping standardization for these sites. These sites represent an important part of the local history of Blair County. A preliminary review, using the data and available mapping created by the



Geographic Names Information System, resulted no conflicts were found within the stream corridor. A listing below identifies those sites found within the Plum Creek watershed.

<b>Feature</b>	<b>Feature Class Abbreviation</b>
Altoona-Blair County Airport	airport
Borough of Martinsburg	civil
Central High School	school
Curryville	ppl
East Sharpsburg	ppl
East Sharpsburg Post Office (historical)	post office
Fairview Cemetery	cemetery
Lock Mountain	summit
Martinsburg Junction	ppl
Martinsburg	ppl
McKee Gap	gap
Noggle Cemetery	cemetery
Short Mountain	ridge
Stowberger Cemetery	cemetery

For a description of the U.S.G.S. Geographic Names Information System Feature Class Terms and Abbreviations see Appendix E.

### **Soils and Geological**

The Story of Blair County Soils (abstract from Soil Survey of Blair County, Pennsylvania)

#### *Physiography and Geology*

The majority of the county is in the Valley and Ridge physiographic province; the western third is in the Appalachian Plateau physiographic province. The Valley and Ridge province forms a series of parallel valleys and ridges oriented northeast-southwest, while the Appalachian Plateau province has high, rounded ridges and stream-dissected valleys. The elevation in the county ranges from a high of about 3,000 feet in the southwest corner to a low of 720 feet where the Juniata River crosses into Huntington County.

Rocks of Pennsylvanian and Mississippian age are the youngest in the county and outcrop in the Appalachian Plateau province. They are composed primarily of a cyclic

sequence of shale, siltstone, sandstone, and some limestone and coal. The dominant soils in this area are of the Laidig-Hazleton-Clymer association.

The oldest rocks in the county are in the Valley and Ridge province. The more resistant Ordovician and Silurian quartzites, sandstones, conglomerates, and shales form the ridges and slopes in the province. The soils of the Laidig-Hazleton-Buchanan association are dominant on the ridges.

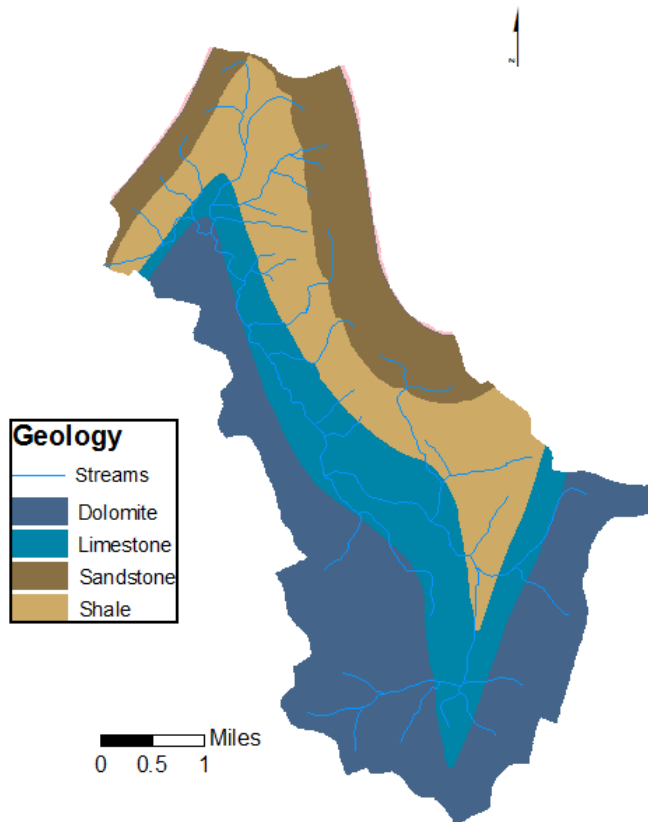


Figure 2. Plum Creek Watershed Geology

The Tuscarora formation (quartzite sandstone) caps several prominent ridge tops in the county—the Bald Eagle, Brush, and Canoe Mountains in the north and central parts of the county and the Lock, Loop, and Dunning Mountains in the southern part. Soils of the Laidig-Hazleton-Buchanan association dominate these areas.

The Nittany Valley, the Canoe Valley, and Morrison Cove are underlain by Cambrian and Ordovician limestone and dolomite. The major soils in these areas are of the Hublersburg-Murrill-Opequon and Edom-Opequon associations.

The long, narrow valley running nearly the full length of the county from Tyrone to Hollidaysburg is composed of Silurian limestone and Devonian shale. The Morrison association is dominant over limestone, and the Berks-Brinkerton-Weikert association is dominant over shale. The Basher-Monongahela-Purdy association is on flood plains and terraces in this area. Between the valley and the Allegheny Front lies a band of Devonian shale that also runs the full length of the county. The major soils in this band are in

the Leck Kill-Meckesville-Albrights association and the Berks-Brinkerton-Weikert association.

According to the *Juniata River Subbasin Small Watershed Study: Morrison Cove* the Plum Creek watershed, which is contained entirely within the Morrison Cove valley, is dominated by Cambrian and Ordovician age limestone and dolomite creating karst topography. The corresponding ridges consist of sandstones, siltstones and shale. Because carbonate rocks are soluble in water, underground rock is dissolved leaving channels and conduits that allow for high yielding aquifers. The benefit to this type of geology is a stable surface flow in the local streams as well as a strong supply for their associated springs. The downfall to this type of geology is the high mineral content, including the presence of magnesium and calcium creating hard water and possible increasing treatment costs as well as the opportunity for contamination from surface sources.

Regional uplift and compression from the southeast during the Permian period caused intense folding and faulting of rocks in the Valley and Ridge province and caused only a regional northwest dip of bedding in the Appalachian Plateau province. The majority of the faulting occurred in the limestone valley near the eastern border. The structural disturbance resulted in the formation of the northeast-southwest oriented valleys and ridges. Erosion over the course of 200 million years has severely reduced the mountains to their present topography.

#### *Mineral Resources*

Deposits of limestone, sandstone, shale, clay, and coal provide most of the mineral resources in the county. All mining is done by quarrying, open-pit, or strip-mining methods. Deposits of clay and shale of Pennsylvanian and Devonian age are mined in the western, central, and southern parts of the county. This material is used primarily for fill, road building, and refractories.

Limestone is mined from the Cambrian and Ordovician formations in the valleys of the central and southern parts of the county. It is mainly used for aggregate and agricultural lime. Sandstone, used in the production of crushed and broken stone, is mined from Silurian

quartzite in the southern part of the county. Middle Devonian sandstone is mined for construction sand and gravel in an area east of Hollidaysburg.

## **Water Resources**

### **Wetlands**

Numerous high quality wetlands have been identified within the Plum Creek Watershed. These wetlands are an asset to the watershed and lend themselves to Plum Creek's high water quality. Throughout much of Plum Creek wetlands dominate the streams corridor and are only impacted by human encroachment from agricultural production, transportation, and development.

Through thorough review of the Blair County Soil Survey and the National Wetland Inventory (NWI) maps, a large diversity of wetlands have been identified in the headwaters of the Plum Creek Watershed. Additionally, the entire main stem of Plum Creek from the headwaters to the mouth is identified on the NWI maps as containing Palustrine wetlands. Palustrine systems include any inland wetland which lacks flowing water.

### **National Wetlands Inventory - United States Department of the Interior**

Several wetlands were identified on the National Wetland Inventory maps. Those identified wetlands and their type down to class have been listed below.

#### **Roaring Spring – April, 1977**

<u>Wetland Type</u>	<u>Map Symbol</u>
Palustrine-Lower Perennial Open Water Intermittently exposed/ permanent	R2OWZ
Palustrine-Forested Broad-leaved Deciduous Temporary	PFO1A

## Martinsburg – April, 1977

<u>Wetland Type</u>	<u>Map Symbol</u>
Palustrine-Open Water Intermittently exposed/ permanent	POWZ
Palustrine-Emergent Saturated/ Semi-permanent/ Seasonal	PEMY
Palustrine-Forested Broad-leaved Deciduous Temporary	PFO1A
Palustrine-Emergent Temporary	PEMA

## Springs

In a watershed of karst topography springs are invaluable to maintaining stream flow. Springs can provide large quantities of cool fresh water year round regardless of seasonal conditions. According to the *Juniata River Sub basin Small Watershed Study: Morrison Cove* Plum Creek has both diffuse (those deep moving and rarely changing) and conduit springs which are more responsive to precipitation events and surface influences. Several springs within the watershed, especially around the East Sharpsburg area and down stream towards the mouth, make up a large portion of the flow and have created the conditions for a cold water fishery. Unfortunately, as the springs provide cool water for the stream, those conduit type springs also bring high concentrations of nitrates and sulfates from surrounding landuses such as agricultural and quarry operations.



Figure 3. Spring Sampling Site

## Chemistry

### Water Sampling

A single snapshot was taken in October 2009, with a follow-up in November that same year, of Plum Creek's water quality in order to characterize Plum Creek's chemistry. A water sampling protocol was developed to identify specific pollutants and to systematically cover the entire watershed. The watershed was divided into sub-watersheds and samples were taken throughout the main stem and at several of the large tributaries.

Water Sample Analysis: All water samples were analyzed by:

Fairway Laboratories Inc. 2019 Ninth Avenue, P.O. Box 1925, Altoona, PA 16603

#### Fairway Laboratories, Inc.

History: Fairway Laboratories Inc. has been providing quality environmental laboratory services for over twenty years. Incorporated on July 12, 1977 to fill the need for a local, affordable wet chemistry laboratory, Fairway Laboratories quickly established a standard of reliability and accuracy within the industry.

Our Quality Mission: Fairway Laboratories, Inc. currently holds Drinking Water Certification for Pennsylvania and Maryland. We continually strive to enhance our quality systems and processes without compromising the health or safety of our employees. Using EPA, PA DEP, NELAC and OSHA guidelines, we continually adopt new procedures that improve the quality of our data and the safety of our staff.

Our Quality Mission is company wide. Each scientist, technician and support staff member is dedicated to providing quality data and service. Our objectives are fundamental to Environmental Data.

- To produce legally defensible data of known origin and documented quality.

- To report precise, accurate, reproducible, complete, comparable and representative data.
- To generate data according to recognized professional standards.
- To minimize random and systemic errors.
- To maintain a company wide safety program to ensure employee health and safety.
- To adopt guidelines set forth by the National Environmental Laboratory Accreditation Program in our daily practices and procedures.

\*taken from material provided by Fairway Laboratories

### **Water Sampling Quality and Control**

All efforts were made to collect the samples on the same day under similar circumstances. If any significant environmental factors had occurred, they were noted on the water sampling data entry spreadsheet. In addition, quality assurance and quality control measures were taken by the participating laboratory. For information concerning their Quality Assurance & Quality Control please contact Fairway Laboratories.

### **Stream Sampling Points:**

Sampling points were chosen in order to bisect the watershed into representative areas by landuse and size. Five main stem samples were identified, starting at the mouth of Plum Creek with sample PlumSS1 (stream sample) with subsequent samples upstream. Four tributary samples were identified, starting near the mouth of Plum Creek with sample PlumTR1 (tributary sample) with subsequent samples upstream (see the Plum Creek Watershed - Sampling Points and Landuse Map). Sampling points PlumSS5, PlumSS4, PlumTR4, PlumTR3 and PlumTR2 are all located within the PA F&BC section 1 and sites PlumSS3, PlumSS2, PlumSS1 and PlumTR1 are all in the designated Class A (section 02 of Plum Creek).

An initial round of samples was taken on October 7, 2009 by conservation District staff. Due to an error with the laboratory a second set of coliform samples were taken on October 20, 2009. Finally a subsequent coliform sample was taken, at five of the sites, on November 17, 2009 to double check the initial reading. Overall five main stem and three tributary sites were sampled for this snapshot of Plum Creek. Site PlumTR2 was not sampled after a brief discussion with the landowner and field investigation determined that there was no substantial flow at the site or defined bed and bank as it had appeared on the topographic maps.

All sampling points were sampled for the following parameters and analyzed by a professional lab except for field samples of pH, dissolved oxygen, and temperature. Field tests were taken using LaMotte Dissolved Oxygen and pH kits and a handheld scientific thermometer was used to record temperature. A subsequent sampling used a Hannah multimeter to measure the same parameters including conductivity. However, the numbers listed in the tables below for pH are the lab results. Accurate temperature and dissolved oxygen results are best recorded in the field.

<b>Sampling Parameter</b>	<b>Units</b>
pH	Scale (0-14)
Temperature	Fahrenheit (degrees)
Dissolved Oxygen	Milligrams/ Liter
Conductivity	Microsiemens /Centimeter
Alkalinity	Milligrams/ Liter
Nitrates	Milligrams/ Liter
Phosphorous	Milligrams/ Liter
Calcium	Milligrams/ Liter
Sodium	Milligrams/ Liter
Chloride	Milligrams/ Liter
Total Suspended Solids	Milligrams/ Liter
Fecal Coliforms	Colonies/100 milliliters

The tables below represent the water quality data collected by monitoring point for the twelve above listed parameters.



<b>Table 1. Water Quality Data Collected by Monitoring Site</b>						
	<b>pH</b>	<b>Temperature</b>	<b>Dissolved Oxygen</b>	<b>Nitrates</b>	<b>Phosphorus</b>	<b>Fecal Coliform</b>
<b>PlumSS5</b>	7.80	51.3	<b>5.30</b>	1.10	0.04 *	<b>335.00</b>
<b>PlumTR4</b>	8.05	51.7	9.50	<b>3.06</b>	0.04 *	125.00
<b>PlumTR3</b>	8.00	50.5	12.00	0.76	0.10	<b>230.00</b>
<b>PlumSS4</b>	8.00	53.2	9.20	<b>2.00</b>	0.26	<b>250.00</b>
<b>PlumSS3</b>	8.15	51.1	11.20	<b>7.08</b>	<b>8.21</b>	165.00
<b>PlumSS2</b>	8.65	51.5	8.50	<b>6.25</b>	0.11	60.00
<b>PlumTR1</b>	7.65	51.5	9.00	0.57	0.04 *	<b>210.00</b>
<b>PlumSS1</b>	8.25	51.9	10.00	<b>5.49</b>	0.08	<b>325.00</b>

	<b>Alkalinity</b>	<b>Calcium</b>	<b>Sodium</b>	<b>Chloride</b>	<b>Conductivity</b>	<b>Total Suspended Solids</b>
<b>PlumSS5</b>	168.0	127.00	88.80	150.00	<b>926.0</b>	6.00
<b>PlumTR4</b>	200.0	116.00	47.80	69.70	764.0	4.00
<b>PlumTR3</b>	130.0	52.60	7.10	7.28	302.0	<b>28.00</b>
<b>PlumSS4</b>	232.0	84.00	90.50	137.00	<b>927.0</b>	<b>86.00</b>
<b>PlumSS3</b>	266.0	117.00	64.70	89.60	<b>835.0</b>	<b>23.00</b>
<b>PlumSS2</b>	260.0	96.90	52.30	82.20	773.50	4.00 *
<b>PlumTR1</b>	38.0	9.23	2.19	1.71	76.70	8.00
<b>PlumSS1</b>	260.0	108.00	45.00	64.30	730.00	4.00 *

\*Not detectible within test limits

Maximum level exceeded or outside the preferred range for cold water fish

Data needs further investigation into the cause of the samples extreme reading

#### Temperature:

The average temperature throughout the Plum Creek Watershed, recorded in October and November, was 51.6 degrees Fahrenheit. According to the *Pennsylvania Fish and Boat Commission's Pond and Stream Study Guide* cold water fish species require temperatures less than 75 °F, however, they prefer temperatures between 50 - 65 °F. 51.6 °F is well within the optimal temperature range for coldwater fish species. However a closer look at acceptable temperature ranges for coldwater water species throughout the year shows all sites meeting the October maximum of 54 °F but failing to meet the maximum temperature for November of 46 °F. Although the temperature levels allowed in October and November are adequate for warm water species, a year's worth of data should be collected to see if the stream does stay within the tolerable level for coldwater species.

#### pH:

The average pH throughout the Plum Creek Watershed was 7.85. According to the *Pennsylvania Fish and Boat Commission's Pond and Stream Study Guide* most coldwater fish species prefer a near neutral stream with a pH of 7.0 but can tolerate pH levels as low as 5.0 and as high as 9.0 for most trout. 7.8 is well within the optimal limits for pH and was observed to be relatively consistent throughout the watershed. Plum Creek is a well buffered stream situated in a limestone based bedrock valley which provides excellent buffering capacity from acid rain.

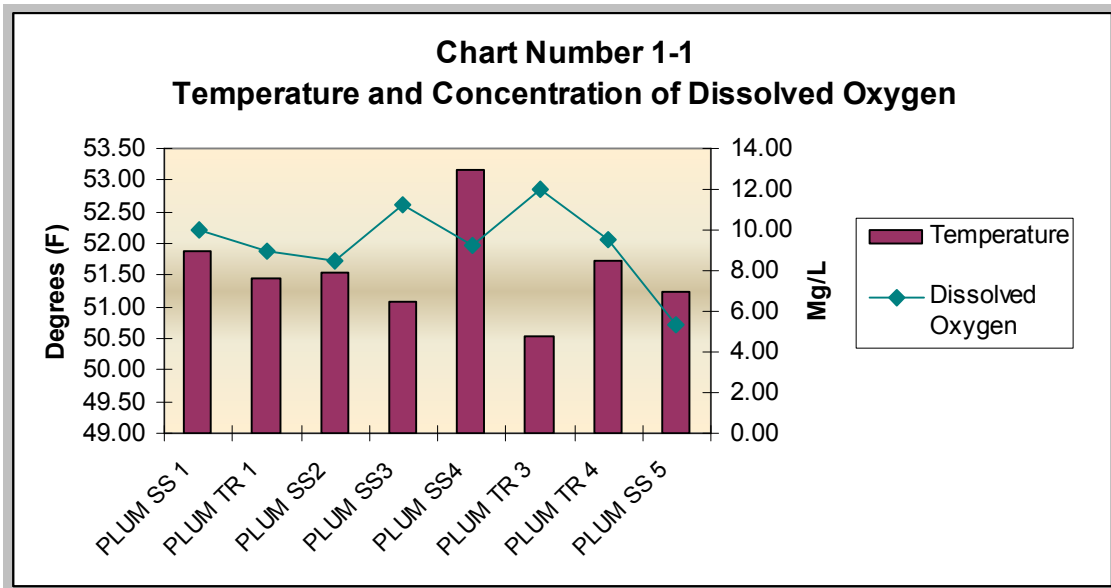
#### Alkalinity:

The average alkalinity levels found throughout the Plum Creek Watershed was 194.25 milligram/ liter (mg/L). According to the *Pennsylvania Fish and Boat Commission's Pond and Stream Study Guide* in limestone based streams the alkalinity is usually found to be 75 mg/L or greater. As mentioned above the high alkalinity is able to buffer any acidic influences such as acid rain and help maintain a neutral pH, a stream does not become sensitive to acid precipitation until the alkalinity becomes less than 20 mg/L.

Dissolved Oxygen:

The average dissolved oxygen levels found throughout the Plum Creek Watershed was 9.34 milligram/ liter (mg/L). Cold water fish species require at least 6 mg/l or more of dissolved oxygen. 9.34 mg/L is well over the optimum level of required dissolved oxygen and was relatively consistent throughout the entire watershed. Considering an average dissolved oxygen of 9.91 (mg/L), excluding that low average recorded at site PlumSS5 and an average temperature of 51.6 °F, the percentage saturation value of oxygen is 91%.

According to the *Pennsylvania Fish and Boat Commission's Pond and Stream Study Guide*. 91% saturation of oxygen has the highest rating of “excellent”. This is reflected in the chart below (Chart Number 1-1) as temperatures decrease the concentration of dissolved oxygen increases. However, PlumSS5 did have a reading slightly lower than the required 6 mg/L at 5.4 mg/L. This site is located high within the headwaters and annually has a relatively low flow over a very shallow gradient which maybe the cause of the low dissolved oxygen reading.



#### Conductivity:

The average conductivity levels found throughout the Plum Creek Watershed was 666.8 microsiemens per centimeter ( $\mu\text{s}/\text{cm}$ ). The specific conductance test measures the ability of water to pass an electrical current. Conductivity in water is affected by the presence of inorganic dissolved solids such as chloride, sulfate, sodium, calcium and others. In general, streams that run through limestone bedrock have higher conductivity levels.

There are no water quality standards for conductivity, however the *Kentucky River Basin Assessment Report* and the *Lower Colorado River Authority* suggest that conductivity levels in the 300-700 ( $\mu\text{s}/\text{cm}$ ) range should be considered average and that levels greater than 800 ( $\mu\text{s}/\text{cm}$ ) would require further investigation. At sites where the conductivity levels exceed 800 ( $\mu\text{s}/\text{cm}$ ) the calcium and chloride levels are well over 80 mg/l. This maybe the cause of the elevated conductivity levels which are commonly found in a limestone based stream.

#### Nitrates:

The average nitrate levels found throughout the Plum Creek Watershed was 3.3 milligram/ liter (mg/L). Nitrates, described by the *Hach Company's H2O University*, are a major ingredient of farm fertilizer and are necessary for crop production. When it rains, varying nitrate amounts wash from farmland into nearby waterways. Nitrates also get into waterways from lawn fertilizer run-off, leaking septic tanks and cesspools, manure from farm livestock, animal wastes (including fish and birds), and discharges from car exhausts. According to *Investigating Water Problems, A Water Analysis Manual*, nitrate levels above 1.0 mg/L can begin to impact the stream through the promotion of algae growth causing eutrophication. For drinking water supplies the maximum allowable level is 10 mg/L. Additionally, high levels of nitrates can cause "blue baby syndrome" (methemoglobinemia) in infants less than six months of age and is an important factor to be considered in livestock production. At three of the sample locations, PlumSS5, PlumTR3, and Plum TR1 the nitrate levels were less than or near 1.0 mg/l. However at the remaining sites the nitrate levels ranged from 2.0 to 7.1 mg/L which would be considered above natural levels with the potential to cause a significant negative impact on the stream.

### Calcium, Sodium and Chloride:

The average Calcium, Sodium and Chloride levels observed throughout the Plum Creek Watershed were 88.84 mg/L, 49.80 mg/L, and 75.22 mg/L respectively. Most likely the elevated calcium level can be attributed to the local geology however the high sodium and chloride levels maybe related to the use of deicing materials in the winter. Since these samples were taken in early fall, one could assume that these levels are probably the lowest that would be found throughout the year, however this would need to be determined through the collection of a years worth of data. According to the Pennsylvania Code Title 25 Chapter 93 the maximum level for Chloride is 250 mg/L. The highest recorded level within Plum Creek was 137 mg/L at PlumSS3, therefore all levels observed were well below the maximum level.

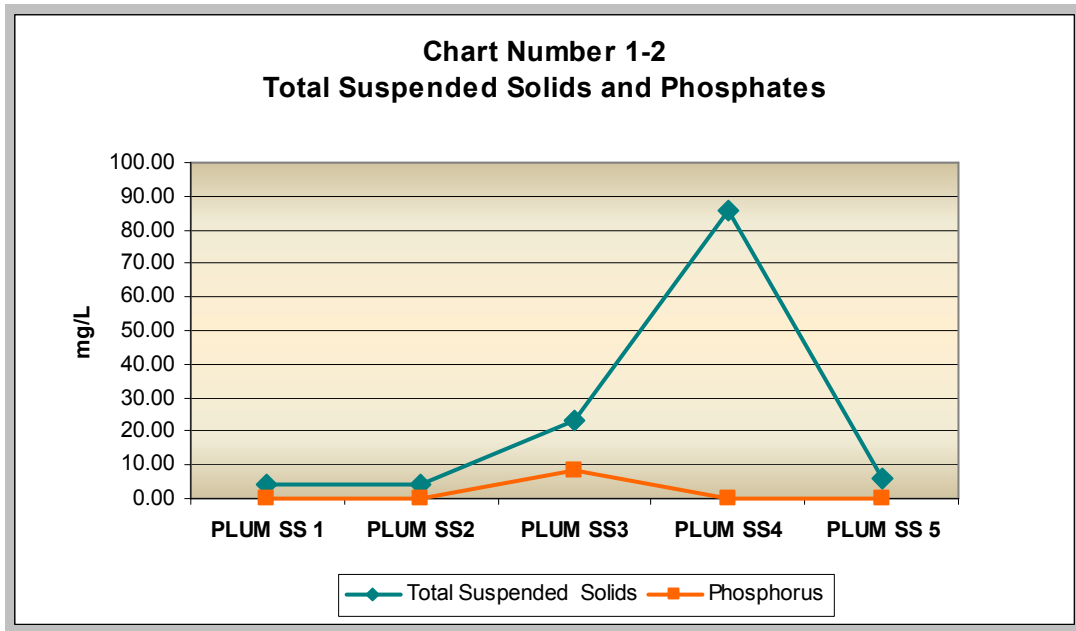
The use of road salt/ deicing material can have several immediate impacts on the stream, macroinvertebrate and fish populations, and its' riparian buffer. According to a study done by the Entomology Department of Michigan State University, elevated salts found in streams can cause; the release of heavy metals such as cyanide through ion exchange; the destruction of roadside vegetation weakening the streams buffers; as well as causing osmoregulatory and growth problems in fish and macroinvertebrate species. An additional article by Rich Axler of Lake Superior Streams found that, "chloride (one of the components of road salt) is toxic to fish if the level is over 230 mg/L for a tenth of an organisms life span (100 - 200 days for brook trout) or a maximum of 860 mg/L for short periods of time." Similar studies done in Ontario and Quebec by Environment Canada have had comparable results.

### Phosphorus:

The average Phosphorus level observed throughout the Plum Creek watershed was 0.10 milligram/ liter (mg/L) if you exclude the high isolated reading at PlumSS3. If you add in PlumSS3 the average jumps to 1.10 (mg/L). In order to confirm this outlier a follow-up sample should be taken. According to the *Rush River Watershed* website, Phosphorous is a nutrient essential to the growth of organisms, and is commonly the limiting factor in the primary productivity of crops. Agricultural drainage, wastewater, and certain industrial

discharges are typical sources of phosphorus, and can contribute to the eutrophication of surface water bodies. For streams and rivers phosphorus levels below 0.20 mg/L are considered normal.

As mentioned previously, PlumSS3 was the only site to exceed the 0.20 mg/L threshold with a recorded level of 8.21 mg/L. This is a significantly high level of phosphorus and could be directly tied to an erosion event on one of the neighboring farm fields, since phosphorus ties itself closely with sediment travel. Total phosphorus includes the amount of phosphorus in solution (reactive) and in particle form, to see the relationship between particle travel represented by Total Suspended Solids and phosphorus see Chart Number 1-2.



**Total Suspended Solids:**

The average Total Suspended Solids (TSS) levels observed throughout the Plum Creek watershed was 20.4 milligram/ liter (mg/l). Although if you exclude the three sites with high readings, the remaining sites all showed levels less than 8 mg/l. According to the *Rush River Watershed* website, TSS is a measure of the material suspended in water. Total suspended solids can cause: interference with light penetration, buildup of sediment, and potential reduction in aquatic habitat. Solids also carry other toxic pollutants that are harmful to fish as

well as nutrients that cause algal blooms. According to the *Investigating Water Problems, A Water Analysis Manual*, Concentration greater than 15 mg/l can impact the stream. Three sites, PlumTR3, PlumSS4 and PlumSS3 were found to have concentrations ranging from 23 – 86 mg/l. Most likely these elevated numbers are directly related to a single run-off event from a disturbed area carrying sediment to the stream. However, additional monitoring should be conducted to determine the cause.

#### Fecal Coliform:

According to *Rush River Watershed* website, Fecal coliform are groups of bacteria found in the intestinal tract of humans and animals, and are also found in soil. While harmless in themselves, coliform bacteria are commonly used as indicators of the presence of pathogenic organisms and other disease causing bacteria, such as those that cause typhoid, dysentery, hepatitis A and cholera. In colonies over 200 CFU/100ml there is a significant chance that pathogenic organisms are also present. Because of this significant chance, direct contact thresholds, for such activities as swimming are 200 CFU/ 100ml.

Failing septic systems and runoff from feedlots are common sources of fecal coliform in water samples. In the Plum Creek watershed fecal coliform numbers ranged from 60 to 560 CFU/100ml. However, most samples were in the 100 to low 200 CFU/100ml range. In the case of coliform I am hesitant to identify an average since the results were not consistent. Although a trend was observed reflecting higher coliform levels in the headwaters, with in most cases, concentrations decreasing as you moved downstream.

## **Biology**

### **Natural Heritage Inventory**

Natural Heritage Inventories (NHI) are a collection of information on unique plants, animals, natural ecological communities, and other important natural resources. The inventories identify, map, and discuss important places within a county; prioritize them based upon their attributes; and provide recommendations regarding their management and protection. The *Blair County Natural Heritage Inventory* was completed on March 20, 2006.

County Inventories are designed to inform the residents of a county about their living heritage and give them a tool to use in planning the future of their communities. County and municipal planners; federal, state and local agencies; businesses; environmental consultants; developers; local conservation organizations; and many other people and groups use these studies to help make land-use decisions within their counties. With increasing emphasis on planning within the state, these studies will become more and more important for considering the resources of the commonwealth wisely and comprehensively.

Two sites identified by the NHI fall within the Plum Creek Watershed. These sites, listed in the tables below, are all identified as either a Biological Diversity Area (BDA) or Landscaped Conservation Area (LCA). A BDA is an area containing plants or animals of special concern at state or federal levels, exemplary natural communities, or exceptional native diversity. An LCA is a large contiguous area that is important because of its size, open space, habitats, and/or inclusion of one or more BDAs.

For more information on the two areas see Appendix F, Natural Heritage Inventory - Area Descriptions which contains excerpts taken directly from the *Blair County Natural Heritage Inventory* that briefly describe their threats and stresses, as well as recommendations on how to preserve these priority areas.



<b>Table 2. Natural Heritage Inventory Sites</b>	
Name	McKees Quarry Cave Biological Diversity Area
Common Name	Eastern Small – footed myotis
Scientific Name	Myotis leibii
Significance	Notable
Description	Range of summer habitat for bat colonies hibernating in the McKees Quarry Cave

Name	Loop Mountain Landscaped Conservation Area
Ecological Feature	Large contiguous forest block
Significance	Exceptional

***Exceptional:** Sites that are of exceptional importance for the biological diversity and ecological integrity of the county or region. Sites in this category contain one or more occurrences of state or national species of special concern or a rare natural community type that is of a good size and extent and is in a relatively undisturbed condition. Sites of exceptional significance merit quick, strong and complete protection.*

***Notable:** Sites that have great potential of protecting biodiversity in the county but are not, as yet, known to contain species of special concern or state significant natural communities. Often recognized because of their size, undisturbed character, or proximity to areas of known significance, these sites invite further survey and investigation. In some cases, these sites could be revealed as high or exceptional sites.*

### **Pennsylvania Natural Diversity Inventory**

The next step in protection and preservation of those species identified by the NHI was the development of Pennsylvania Natural Heritage Program's screening tool, the Pennsylvania Natural Diversity Inventory-Project Planning and Environmental Review Tool. This tool has become routine in most environmental assessments, and subsequently has prevented losses of species of special concern without negatively affecting the state's economic growth. So although the PNDI is often used by the development community, to identify areas of special concern, it can also be used by the conservation community to identify areas in need of future protection or preservation.

According to the Pennsylvania Natural Heritage Program (PNHP), protection of the Commonwealth's natural heritage can be accomplished in harmony with our needs to develop

and use natural resources. With objective and accurate data, PNHP can help guide planning and development, while avoiding damage to unique ecological areas. The Commonwealth has lost at least 192 species of plants and animals while nearly 500 species have been diminished to endangerment status.

The PNHP works by conducting inventories and collecting data regarding the Commonwealth's native biological diversity by providing information on the location and status of important ecological resources (plants, vertebrates, invertebrates, natural communities and geologic features). These ecological resources are those classified as Endangered, Threatened, or Rare as listed by the Department of Conservation and Natural Resources, PA Game Commission, PA Fish and Boat Commission, U.S. Fish and Wildlife Service and species recommended by the PA Biological Survey. Proposed status is assigned by the appropriate task force of the Pennsylvania Biological Survey. Natural community types and geologic features are identified and mapped based on the recommendations of PNHP ecologists and the Bureau of Topographic and Geologic Survey, respectively.

List of agencies and their responsibilities:

- Pennsylvania Department of Conservation and Natural Resources: PA state-listed plants, natural communities, terrestrial invertebrates and geological features
- U.S. Fish and Wildlife Service: listed, proposed & candidate species under the federal Endangered Species Act
- Pennsylvania Game Commission: PA state-listed birds and mammals
- Pennsylvania Fish and Boat Commission: PA state-listed fish, reptiles, amphibians and aquatic organisms

The Pennsylvania Natural Diversity Inventory's Project Planning and Environmental Review Tool did not identify any species of special concern in or adjacent to Plum Creek. This could have limited potential restoration project areas had a conflict been found.

## **Habitat Assessment**

In order to develop a complete picture of the habitat conditions on Plum Creek two assessments were completed. The first one was conducted by members of the John Kennedy Chapter of Trout Unlimited. They looked at the watershed as a whole focusing on fishery impacts. The second assessment, conducted by Blair County Conservation District staff, used a qualitative analysis to score each of the five monitoring sites. Combined these two assessments give a comprehensive look at the habitat conditions within the watershed.

### *John Kennedy Chapter of Trout Unlimited*

Plum Creek is a small limestone stream running approximately 7 ½ miles. The first section of the stream covers about 4 miles from its headwaters southwest of Martinsburg to where it crosses RT 164 at Sharpsburg. This section of stream is classified warm water fishery. The majority of its water sources are small springs in the Martinsburg area. Most of these waters are impounded in small ponds and dams before being released into the tributaries forming Plum Creek. These tributaries along with the outflow of the Martinsburg Sewage Treatment Plant form the headwaters of Plum Creek. The water temperatures of the headwaters are warmer due to the water being held in these impoundments and the fact that the riparian buffers are narrow and contain very little canopy cover on this entire section of stream. The stream width averages 6-12 feet with shallow pools and very few riffles. The vegetation in this section consists of mostly large quantities of algae. Heavy nutrient load as well as sedimentation is predominant throughout the whole section. Most of the stream runs through farmland. This combined with storm water runoff from the many rural roads surrounding the watershed and several tributaries coming off Lock Mountain contribute to this condition. The stream banks are low and fairly stable with adequate vegetation and little erosion throughout. As per a Fish Survey in 2005 By PA Fish & Boat Commission there were no cold water species of fish in this section (see Pennsylvania Fish and Boat Commission – Fisheries Management Report: Summary below).

The second section of Plum Creek runs about three miles from Route 167 in Sharpsburg to where the stream enters Halter Creek at Route 36 adjacent to New Enterprise

Stone & Lime. Section two is classified Class A Wild Brown Trout, High Quality Water, most of this section also runs through farmland. The flow rate almost doubles in this section due to several large springs in the Sharpsburg area and several other springs on the lower half of this section. Also several tributaries run into Plum Creek off of Lock Mountain. The stream width averages 12-18 feet through this section. Unlike the upper section, most of this section has canopy protection along its banks, as well as small forested areas between farms as this section of stream runs closer to the foot of Lock Mountain. This section has a nice pool and riffle pattern throughout, with several areas having small waterfalls created by outcrops of bedrock. There is a lot more fish habitat in this section due to deeper pools, undercut banks heavier vegetation along its banks and more woody obstructions in the water. Most of the streambed is suitable for wild trout reproduction, although some sections suffer from heavy sedimentation. This section also receives heavy agricultural and storm water runoff. There is more bank erosion after high water events in this area due to higher banks and steeper terrain, but larger trees and their associated root systems have served this area well. Most of the conditions in this section have resulted in a healthy wild trout population.

#### *Blair County Conservation District*

The stream habitat assessment study was conducted using the United States Department of Agriculture, Natural Resources Conservation Service's Stream Visual Assessment Protocol (National Water and Climate Center Technical Note 99-1). The assessment was completed on September 23, 2009 by trained Conservation District staff. This habitat assessment identifies the condition of the stream by using a visual criteria scale of 1 through 10 with 10 being the highest score. For each category a specific visual assessment description is given reflecting the numerical scale. In some cases specific numbers that are measured in the field are provided. The assessment consists of the following 12 parameters; channel condition, hydrologic alteration, riparian zone, bank stability, water appearance, nutrient enrichment, barriers to fish movement, instream fish cover, pools, insect/invertebrate habitat, canopy cover and riffle embeddedness. For additional information regarding the Stream Visual Assessment Protocol see the NRCS website technical reports (<http://www.nrcs.usda.gov/technical/ECS/aquatic/svapfnl.pdf>).

A total of five monitoring sites were identified throughout the watershed to provide a representation of the overall health of Plum Creek and to identify any areas where habitat could be improved. The land use of the first two sites, PLUMSS5 and PLUMSS4, starting in the headwaters are primarily agriculture. PLUMSS5 and PLUMSS4 are both located in the first section of the watershed as referred to above in JKTU’s assessment. At PLUMSS3 the stream corridor becomes a little steeper and narrower and there is a transition between agriculture and forested pasture. The remaining two sites, PLUMSS2 and PLUMSS1, are similar to PLUMSS3 with the addition of impacts from roads adjacent to the stream and a large stone quarry operation directly adjacent to PLUMSS1. Although still primarily a rural area there is some impact from housing and commercial development. PLUMSS3, PLUMSS2, PLUMSS1 are located in the second section of the watershed as referred to above in JKTU’s assessment.

The Protocol ranges from “poor” to “fair” to “good” to the highest criteria of “excellent”. The table below lists the earned score for each of the monitoring sites. The habitat assessment of Plum Creek quantified the stream habitat quality, found throughout the watershed overall as poor to fair. However, from East Sharpsburg downstream to the mouth the habitat condition improved to “FAIR”.

<b>Table 3. Stream Habitat Quality</b>	
PLUMSS5	POOR
PLUMSS4	POOR
PLUMSS3	FAIR
PLUMSS2	FAIR
PLUMSS1	FAIR

Although Plum Creek earned a below average score, especially for such a high quality stream, a deficiency in several key habitat criteria kept the scores low at several of the monitoring sites. These deficiencies most often were related to the lack of riparian areas within the headwaters sites and alterations to the stream channel through road building. This lack of significant natural riparian areas reduced the streams score in the riparian zone, canopy cover, and bank stability criteria.

Another criterion earning a poor rating was nutrient enrichment. Nutrient enrichment is often reflected by the types and amounts of aquatic vegetation in the water. High levels of nutrients (especially phosphorus and nitrogen) promote an overabundance of algae and floating and rooted macrophytes. Excess nutrient levels are often caused by the over application of lawn and agricultural fertilizers, malfunctioning on-lot septic systems or are signs of manure run-off reaching the stream. Finally, rifle embeddedness in the headwaters also received low scores due to excess sediment found within the stream. Sediment can negatively impact macroinvertebrate habitat, fish spawning and egg incubation. This sediment is most likely directly related to development and the upstream agricultural operations in areas with limited riparian buffers. For complete details on each site's score see Appendix G, Plum Creek - Stream Visual Assessment Protocol.

### **Macroinvertebrate Study**

A macroinvertebrate (stream bug) assessment was completed on September 8, 2009 by staff from the Western Pennsylvania Conservancy and Blair County Conservation District. This assessment was designed to quantify the types of macroinvertebrates in order to determine the overall health of the population and therefore the stream. In order to maintain consistency each site was sampled for one minute using a one-meter kick net. The macroinvertebrates were then identified in the field and separated.

Once sorted, two analyses were run on the samples, the pollution tolerance index (PTI) and the EPT:D ratio which is the number of ephemeroptera (mayflies), plecoptera (stoneflies) and trichoptera (caddisflies) compared to the number of diptera (all other true flies). For each site approximately 300 individuals were collected except at sites PLUMSS4 and the upper tributary sampling site (16530) which was used as an alternate to PLUMSS5. Due to limited numbers only 80 and 25 individuals respectively were collected at the two sites.

A total of five monitoring sites were identified throughout the watershed to provide a representation of the overall health of Plum Creek. One change from the habitat assessment

was the sampling at site PLUMSS5, which was not sampled because of the lack of flowing water. In order to include a sample at a headwaters site, a tributary sample was taken just downstream from PLUMSS5 near the confluence of the main stem and the first upstream tributary.

The landuse of the first two sites, the upper tributary site (16530) and PLUMSS4,



Figure 6. Plum Creek at Sharpsburg

starting in the headwaters are primarily agriculture. At PLUMSS3 the stream corridor becomes a little steeper and narrower and there is a transition between agriculture and forested pasture. The remaining two sites, PLUMSS2 and PLUMSS1, are similar to PLUMSS3 with the addition of impacts from roads adjacent to the stream and a large

stone quarry operation directly adjacent to PLUMSS1. Although still primarily a rural area there is some impact from housing and commercial development.

The initial analysis looked at the number of different species found. This level of richness or diversity is just as important as the number of species found. In the case of Plum Creek, as few as 5 species were found in the headwaters while as many as 12 were found in the lower half of the watershed, with an average of 8.4. This diversity watershed wide indicates a healthy and thriving ecosystem.

According to Western Pennsylvania Conservancy's *North Bear Run Coldwater Conservation Plan*, the Pollution Tolerance Index (PTI) is based on the concept of indicator organisms and tolerance levels. Indicator organisms are those sensitive to water quality changes and their presence or absence indicates the condition of the water in which they live. Excellent water quality is indicated by the presence of group 1 (sensitive) organisms, such as

mayflies, stoneflies and caddisflies, or a PTI value greater than 23. Examples of organisms from the remaining three groups would be; a dragonfly (group 2 - moderately intolerant), a midge (group 3 - fairly tolerant) and aquatic worm (group 4 - very tolerant). PTI values and their rankings for all five sites are shown below.

<b>Table 4. Pollution Tolerance Index Values</b>	
Upper Tributary (16530)	11 (Poor)
PLUMSS4	17 (Fair)
PLUMSS3	35 (Excellent)
PLUMSS2	26 (Excellent)
PLUMSS1	29 (Excellent)

An additional analyses tool used is the EPT:D ratio. This ratio compares the number of pollution intolerant organisms ephemeroptera (mayflies), plecoptera (stoneflies) and trichoptera (caddisflies) to the pollution tolerant diptera (all other true flies). The higher the EPT the better the water quality and inversely the greater number of diptera equals lower water quality most likely from some pollution impact. The EPT:D values for all five sties are shown below.

<b>Table 5. EPT:D Values</b>	
Upper Tributary (16530)	0:5
PLUMSS4	1:1
PLUMSS3	7:10
PLUMSS2	29:0
PLUMSS1	33:0

The macroinvertebrate assessment of Plum Creek yielded slightly different results than the habitat assessment. Although the habitat assessment was less favorable for large sections of the stream the macroinvertebrate population and diversity was in most cases better with excellent density in the lower section of the watershed. The macroinvertebrate assessment of Plum Creek quantified the watershed overall as “GOOD”. However, from East



Sharpsburg downstream to the mouth the stream was designated as “EXCELLENT” with increased diversity, higher PTI scores and higher EPT:D ratios.

## **Fishes**

### **Pennsylvania Fish and Boat Commission – Fisheries Management Report: Summary**

In the summer of 2005 the Pennsylvania Fish and Boat Commission (PA F&BC) sampled Plum Creek, Blair County. In November, 2005 they prepared the Plum Creek Fisheries Management Report written by D. Miko and J. Frederick. The study was conducted to quantify the wild brown trout population within Plum Creek.

The F&BC divided Plum Creek into two sections for fisheries management purposes. They are Section 1 which is 4.08 miles long and runs from the headwaters to the SR 164 bridge near East Sharpsburg and Section 2 which is 3.42 miles long and runs from the SR 164 bridge downstream to the mouth. The headwaters section consisted of one sample site. The lower section, below East Sharpsburg, consisted of three sample sites.

Overall 2.9% of Section 1 was sampled through the single sampling site. Section 1 was located just downstream of Brumbaugh Road (T-353) bridge. The station was located in a fallow field with no riparian buffer. Through the assessment it was determined that streambank erosion was light and that the macroinvertebrate (stream bugs) diversity was poor with only 7 taxa found. None of the macroinvertebrate species found were considered sensitive to pollution and flatworms, an indicator of nutrient enrichment, were abundant. As for fish species, like the macroinvertebrates, the diversity was poor with only four species found of which none were trout. Those species found included blacknose dace, creek chubs, white sucker and common carp. All of these fish species are considered Warm Water Fishes (WWF). This designation reflects the low quality of water for fish habitat.

In Section 2, combining all three sampling sites, 16.4% of the section was sampled. The first section, starting upstream, was Section 0201A. Section 0201A was located 600 feet downstream from a private lane bridge off of Plum Creek Road. Again after a visual assessment the streambank erosion was quantified as light. The macroinvertebrate diversity had improved to fair with eleven taxa found. However, the fish diversity remained poor with only five species found. Those species found included longnose dace, bluegill, white sucker, hatchery reared rainbow trout and wild brown trout. Overall 431 individual wild brown trout were captured at this site; with approximately 87.0% 5 inches or less and 13.2% greater than 7 inches, with 3.7% greater than 12 inches. **That equates to approximately 348 trout per mile, 7 inches or greater, which is the legal length.** The fish collected represent a transitional environment between cold and warm water fisheries.

The next sample site in Section 2, Section 0201B was located off Timber Ridge Lane. Again after a visual assessment the streambank erosion was quantified as light. The macroinvertebrate diversity remained the same at fair with fifteen taxa found. The fish diversity improved to fair with nine species found. Those species found included largemouth bass, bluegill, pumpkin seed, redbreast sun fish, hatchery reared rainbow trout, and hatchery reared and wild brown trout. Overall 599 individual wild brown trout were captured at this site; with approximately 89.1% 5 inches or less and 10.9% greater than 7 inches, with 4.0% greater than 12 inches. **That equates to approximately 426 trout per mile, 7 inches or greater, which is the legal length.** The fish collected represent a transitional environment between cold and warm water fisheries, however less than 3 warm water fish were found for each species.

The last sample site in Section 2, Section 0202 was located off Weitzel Hill Road. Again after a visual assessment the streambank erosion was quantified as light. The macroinvertebrate diversity remained the same at fair with thirteen taxa found. Also the fish diversity remained the same at fair with ten species found. Those species found included blacknose dace, white sucker, pumpkin seed, redbreast sun fish, common carp, rock bass, and hatchery reared and wild brown trout. Overall 534 individual wild brown trout were captured at this site; with approximately 74.2% 5 inches or less and 25.8% greater than 7 inches, with

5.0% greater than 12 inches. **That equates to approximately 969 trout per mile of legal length.** The fish collected represent a transitional environment between cold and warm water fisheries.

In conclusion the PA F&BC noted that the fish species diversity steadily increased in a downstream direction. Furthermore, a dense wild brown trout population was documented at all three stations surveyed in Section 2 with an average biomass of 141.2 kilograms/ hectare. The F&BC minimum for Class A wild brown trout waters is 40kg/ha. Therefore the lower section of Plum Creek qualifies as Class A wild brown trout. Additional notes included the presence of flat worms and snails, indicating a nutrient rich environment and that the water temperatures were greatest in the headwaters.

Finally the PA F&BC made three management recommendations. First, that the PA F&BC should manage Plum Creek under conventional statewide angling regulations. Second that the Pennsylvania Department of Environmental Protection should consider upgrading the Title 25 Chapter 93 water quality standards for Plum Creek from Warm Water Fishes to High Quality Cold Water Fishes based on the presence of the wild brown trout population in Section 2. Third the Blair County Conservation District should educate the landowners along Plum Creek about the benefits of streambank fencing and riparian buffers and work with landowners in accomplishing these tasks. To see the complete Report see Appendix H - Plum Creek (711A) Fisheries Management Report.

## **Other Studies**

*Juniata River Subbasin Small Watershed Study: Morrison Cove, Susquehanna River Basin Commission*

In 2005 the Susquehanna River Basin Commission (SRBC) identified the Roaring Spring area in Morrison Cove as a Potentially Stressed Area. According to the SRBC, a Potentially Stressed Area is an area that meets at least two of the following criteria: diminished yields, declining water levels, diminished stream or spring flows, expanded dry

stream reaches, a water budget analysis indicating that the withdraws exceed the recharge for a 1-in-10 year annual drought, or for developing areas, known withdrawals exceed 50% of the recharge for a 1-in-10 year annual drought. In the case of the Roaring Spring area SRBC staff had determined that, “virtually 100 percent of the 1-in-10 year drought recharge is being utilized and that nearly all of the flow from the large spring is being used during times of drought”.

The study also highlighted characteristics of each of the four primary watersheds that make up Morrison Cove; Halter Creek, Clover and Piney Creeks, Yellow Creek and Plum Creek. Four sites were sampled within the Plum Creek basin (H-10, H-9, H-8 and T-3) along with several spring sites. Springs are very important to Plum Creek since they make up the largest portion of the flow. Due to the geology of the watershed groundwater in carbonate areas also augments stream flow, which enables relatively stable surface flow even during dry periods. However this close interconnection allows for pollutants to easily move from the surface, through run-off into our streams and groundwater. One spring S5, located adjacent to the Brumbaugh Bridge, had recorded flows, during the study, discharging more than 2,200 gallons per minute which doubled the downstream flow of Plum Creek. Overall the report identified high levels of nitrates throughout the watershed although sodium, chloride and conductivity levels decreased as you moved from upstream to downstream.

SRBC monitored four sites, mentioned previously within the Plum Creek Basin. Each site was rated for the following site conditions, water quality, biology and habitat. Each condition was based on a 1-4 scale with four being the highest representing “higher quality”, “non impaired”, and excellent respectively. The next level down was “middle quality”, “slightly impaired” and supporting respectively. Nearing marginal levels the conditions were designated as “lower quality”, “moderately impaired” and “partially supporting” respectively. Finally the lowest site conditions were designated as “poor quality”, “severely impaired”, and “non supporting”.

*The Socio-Economic Value of Water in a Karsts Terrain Groundwater Aquifers, Paul Claar II*

In 2008 a paper was written entitled *The Socio-Economic Value of Water in a Karsts Terrain Groundwater Aquifers*, as part of a convening grant from the Foundation for Pennsylvania Watersheds. The paper began to identify impacts to the Halter Creek basin, which includes Plum Creek, Cabbage Creek and Halter Creek. Those impacts or existing pollution concerns were identified as continuing expansion of the dolomite stone quarry, groundwater pollution (primarily from nutrients and bacteria found in animal waste and fertilizers), surface water pollution (soil erosion and sedimentation), methane production from dairy cattle and pharmaceuticals and personal care products (PPCP). Of the three watersheds the paper identified Plum Creek watershed as the most endangered. Specific to Plum creek were concerns regarding discharges from Martinsburg Sewer Authority, sump water from the stone quarry and a future discharge from the Cove Area Regional Digester project.

The paper further outlines the necessary data to be collected as well as the use of a Decision Support System (DSS) employing a cost/ benefit analyses to estimate the social cost of water. The DSS would take into consideration a complex hydrology model, looking at groundwater inflow/ outflow, aquifer storage, and both natural and anthropogenic consumptive uses. The second component of the model would be a socio-economic model that would include the supply and demand with respect to use industries such as agriculture, municipal water supply, and industry (including the paper mill, bottling plant and stone quarry). Finally the paper recommends that a dynamic water budget sub-model be developed to create an interactive tool to test policy options and water planning concepts for the basin in order to provide adequate planning to maintain sustainability for all uses within the Halter Creek Watershed.

*Determining Sources of Water and Contaminates to wells in a Carbonate Aquifer near Martinsburg, Blair County, Pennsylvania, By Use of Geochemical Indicators, Analysis of Anthropogenic Contaminants, and Simulation of Ground-Water Flow: United States Geological Survey*

In cooperation with Southern Alleghenies Conservancy and the Borough of Martinsburg, the United States Geological Survey looked into the impacts of contaminants, namely nitrates, on groundwater in the Morrison Cove areas of Bedford and Blair Counties. This study focused on the impacts of drinking water wells since on regular occasion Martinsburg's municipal well system had a history of elevated levels of nitrate concentrations that at times had exceeded the MCL of 10mg/L. Recorded levels ranged from 5.7 to 36.9 mg/L. According to the report, this was done by determining the extent of the zone of contribution (the groundwater area that contributes to the well system) using geochemical indicators, analyzing for anthropogenic contaminants, and microbial source tracking.

The first step was to determine the path of flow, in this limestone based karst watershed. This would determine the type and time of travel of groundwater. It was determined that fracture flow was the dominant pathway and not conduit flow, however the report is quick to point out that karst features are present and that they could have a significant effect on localized patterns. Next the report looked at anthropogenic contaminants. It was determine through water quality analysis that the chloride to bromide ratio was well above the level indicating anthropogenic influence. This realization led to the next step of identifying the source of those influences.

The report determined that these high nitrate concentrations most likely originated from the dominate land-use in the area, agriculture. Using fecal-source tracking to analyze the groundwater, they determined that human sewage was probably not the primary source of nitrogen, but although not conclusive that most likely the bacteria came from dairy manure. Finally, although manure did provide some of the nitrogen, the report identified chemical fertilizer as the predominate source of nitrogen around both of the municipal well systems.

## **Areas of Concern**

### **Riparian Buffers**

Lack of riparian buffers is the overwhelming concern identified throughout the assessment. Riparian buffers provide a natural layer of protection between human activity and the stream. Buffers provide shade to reduce water temperature; food and habitat for wildlife and aquatic animals; act as a natural filter trapping sediment and removing pollutants; and provide necessary bank protection while allowing for absorption of high stream events. Buffers protect private property, provide clean water, and maintain high quality streams.

### **Stream Designation**

Recently the Pennsylvania Fish and Boat Commission designated the lower portion of Plum Creek, from East Sharpsburg downstream, to Class A Wild Trout. Subsequently the Pennsylvania Department of Environmental Protection upgraded the Chapter 93 existing use from Warm Water Fishes to High Quality Cold Water Fishes. Plum Creek's upstream designation of Warm Water Fishes can not adequately protect the downstream resource. This designation seems counterproductive since water flowing downstream, from an area of less protection to an area of greater protection, could negatively impact the down stream resource where more stringent regulations are to be in place to protect this high quality stream.

### **Sediment**

Sedimentation is a concern identified throughout the assessment as well as by the Pennsylvania Fish and Boat Commission. Increased sedimentation has been observed by PA F&BC staff during their fish studies and quantified through the Stream Visual Assessment Protocol's criteria of embeddedness. Sources of sedimentation are agricultural run-off, degradation of unprotected streambanks (from road encroachments and animal access), and erosion of unprotected culverts, unimproved roads and waterways. Excess sedimentation can be harmful to the macroinvertebrate and fish populations by reducing light reaching the bottom of the stream channel while suffocating the stream life acting as a thick blanket.

### **Nutrients**

Run-off carries phosphorus and nitrates to the stream attached to sediment. Sources of excess nutrients could include failing on-lot septic systems, agricultural operations, and even municipal waste water treatment plants. Nitrate levels were exceeded at most sample locations, this should be of concern for an areas who's primary water supply, both private and public are wells. Also excess nutrients promote accelerated vegetated growth that, when decomposed, consume large quantities of oxygen and impact the aquatic community.

### **Stormwater**

Stormwater run-off is an ever increasing concern primarily due to continued development within the communities of Pennsylvania. Although Plum Creek is fortunate to have minimal development to date, it is still impacted by stormwater. Flashy stormwater events with unexpected high flows have been documented by several members of the community, although the source considering the relatively rural nature of the watershed has yet to be identified. Stormwater has the potential to carry with it chemicals, road salts, paints, oils, and to increase temperatures. Stormwater is an ever increasing issue with municipalities and has been acknowledged within this report. Finally, although minimal to date, increased downstream degradation of the channel and banks can be directly attributed to increased flow within the stream channel.

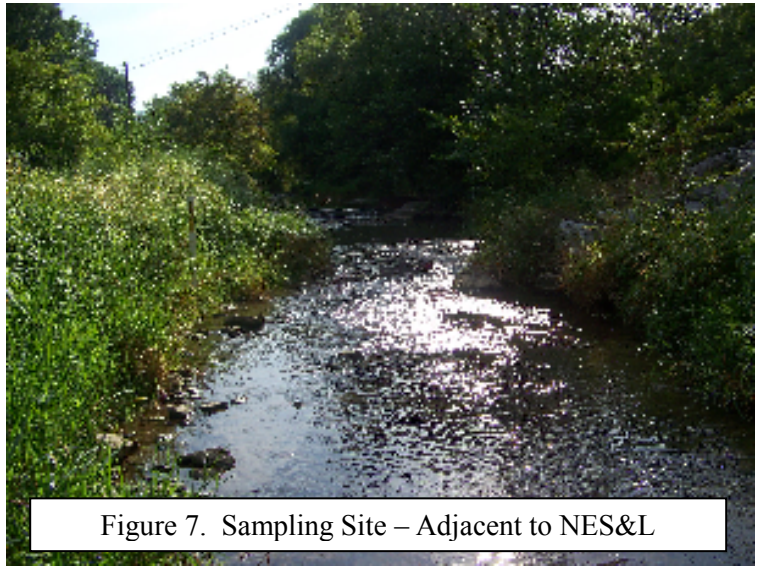
### **Fecal Coliform**

Another source of impairment found in all stream samples throughout the watershed, is elevated levels of fecal coliforms. These levels were very high at times. Levels exceeded the water quality standards for not only drinking water standards, but also those for recreational contact such as swimming. High fecal coliform levels increase the chances of pathogenic organisms being present, which can be harmful to people and animals. Increased levels of coliforms are often related to animal waste and malfunctioning on-lot septic systems. A large portion of the homes in the Plum Creek Watershed are on individual on-lot septic systems.



## Habitat

Habitat within the Plum Creek watershed as stated above is fair at best, although there is potential. Through the Stream Visual Assessment Protocol process, it was identified that a large portion of the headwaters lacked the appropriate riparian area to protect the stream and provide habitat. In most cases these areas were void of any trees and shrubs. The headwaters also suffered from lack of diversity of substrate and places for shelter and attachment, primarily due to excess sediment in the stream. Finally the lower portions of the watershed were often impacted by invasive plants due to the disturbed nature of the stream corridor.



## Additional Area of Concern

Two additional areas of concern are the Cove Area Regional Digester project and the New Enterprise Stone and Lime Roaring Spring Quarry. Community members are concerned that the Digester, currently in the permitting phase, could potentially become a source of nutrient and thermal pollution to the headwaters of Plum Creek. Similarly several community members have expressed concerns regarding the quarry's continued expansion. Expansion of the operation would mean increased blasting, in a watershed of karst geology as well as additional pumping of potentially polluted water from their pit floor high in sulfates and other pollutants.

## Watershed Goals and Recommendations

### Goals

- Preserve Water Quality
- Maintain Water Quantity
- Promote sustainable growth
- Maintain Fishery

\*the above listed goals have been developed by the watershed stakeholders.

### Recommendations

The following recommendations address the restoration and preservation goal originally outlined in the introduction. Implementing the below listed recommendations may contain several elements to reach the intended outcome. Those elements may include property owner cooperation; additional outreach and education; technical support and secured funding. The recommendations listed below have been grouped into restoration, preservation, and educational activities but have not been prioritized and are of equal importance.

#### Restoration

- Lack of riparian buffers along Plum Creek is a significant issue for this watershed. A study should be completed using aerial photography to quantify the percentage of riparian buffers within the watershed. This data could then identify gaps within the buffers and highlight possible sites for restoration.
- Implement federal, state and local programs that support the establishment of riparian buffers in the headwaters.

- Implement federal, state and local programs that promote the use of Agricultural Best Management Practices; specifically streambank fencing, no-till planting, cover crop use, and establishment of riparian buffers.
- Installation of fish habitat structures where recommended by the John Kennedy Chapter of Trout Unlimited, the Pennsylvania Fish & Boat Commission and/or in conjunction with natural stream design restoration projects.
- Work with private landowners and townships to identify and remediate illegal dumps.

### **Protection**

- Water quality and quantity is a concern within the watershed and should be monitored. Stream sampling locations as well as several spring sites should be monitored on a quarterly basis in order to develop a baseline of flow and chemical data. The data should be reviewed regularly or after any potentially significant event in order to determine any changing trends. If possible solicit a volunteer group to do the monitoring.
- Complete an annual macroinvertebrate survey.
- Complete a representative study of the invasive species population within the watershed. Invasive species should be monitored throughout the watershed to detect any increases in their populations that may threaten native species. If invasives increase to substantially dominate the native vegetation, control measures should be evaluated, balancing the need to decrease invasive populations with minimization of overall damage to the site
- Plum Creek's upstream designation of Warm Water Fishes can not adequately protect the downstream portion, recently upgraded to High Quality Cold Water Fishes and designated as Class A Wild Trout by Pennsylvania Fish and Boat Commission. This designation seems counterproductive since water flowing downstream, carrying

allowable levels of pollutants, could negatively impact the stream where more stringent regulations are to be in place to protect this high quality resource.

- Promote the protection of existing riparian and wetland areas through conservation easements.
- Preserve future farming through the promotion of Blair County's Agricultural Land Preservation program.
- Preserve future public access for fishing and boating recreation.
- Implement the development of Conservation Plans and Nutrient Management plans on all agricultural lands where applicable.
- An ordinance review should be completed of all the municipalities within the watershed. An initial review should be done using the Center for Watershed Protection's Better Site Design: A Handbook for changing Development Rules in Your Community. This should identify future areas to focus on within the ordinances. Next using those models available at the Center, such as post-construction stormwater management, stream buffer ordinance, erosion and sediment control and open-space design zoning the tools can be developed to better protect the environmental resources of the watershed.
- Monitor progress on Regional Digester Project and request cold water release of wastewater from project.
- Conduct a stormwater assessment on the watershed in order to develop possible improvements that could be made to reduce stormwater pressures
- Preserve wildlife areas by following recommendations made in the County Natural Heritage Inventory

## **Education**

- Educate property owners on the maintenance and management issues related to on-lot septic systems. If necessary, encourage landowners to upgrade failing systems. This work should be done in conjunction with the sewage enforcement officer.
- Educate those landowners (both permanent and temporary) living adjacent to the stream of their responsibilities as stewards, through continued outreach.
- Promote townships to become eligible, by attending the required training, and apply for funds from the Dirt and Gravel Road Pollution Prevention Program
- Encourage cooperation with local municipalities on land use and permitting issues
- Promotion of Agricultural, Timber Harvesting, and Development Best Management Practices.

## **Conclusion**

The Plum Creek Watershed is one of few high quality cold water resources in Blair County. The karst geology provides large springs that feed cool clean water into the watershed. Additionally, it's dominate landuse of agriculture has protected the stream from urban impacts and preserved large portions of the watershed in native vegetation.

Unfortunately, agriculture has impacted several sections of the stream through elimination of riparian buffers as fields are planted up to the stream and the use of organic and chemical fertilizers. These two impacts are causing significant negative effects on the watershed from increased water temperatures; high concentrations of nitrates and phosphorous; excessive bank erosion and channel destabilization; and reduced in-stream habitat. Additionally, there are possible future threats within the watershed from the expansion of the stone quarry as well as possible impacts from a regional digester. Considering the watershed's geology and importance of water to agricultural and industrial

operations, any activities that could potentially damage this valuable resource should be carefully considered.

The Plum Creek watershed has great potential and is in need of future preservation. The Pennsylvania Fish and Boat Commission and Pennsylvania Department of Environmental Protection has taken the first steps and identified the lower section of Plum Creek as Class A wild trout fishery and a high-quality cold water fishery. The next step will be to work with the local landowners and impress upon them the value of riparian buffers as a simple tool to protect this great resource. Other tools that benefit both the stream and the community are the Farmland Preservation program and habitat improvement work conducted by the John Kennedy Chapter of Trout Unlimited. Through community support and these tools listed we can begin to work on the appropriate protection for the entire watershed that will ensure preservation of Plum Creek.

## Works Cited

- Axler, Rich. *Road Salts: can we have safe roads and healthy streams*. July 2010.  
[http://www.lakesuperiorstreams.org/understanding/impact\\_salt.html](http://www.lakesuperiorstreams.org/understanding/impact_salt.html)
- Benbow, M Eric, *Effects of Road Salt on Aquatic Organisms*, Entomology Department of Michigan State University, July 2010.  
[http://www.fortinconsulting.com/pdfs/impact\\_roadsalt.pdf](http://www.fortinconsulting.com/pdfs/impact_roadsalt.pdf)
- Claar II, Paul. October 2008. *The Socio-Economic Value of Water in Karsts Terrain Groundwater Aquifers*
- Emerson, Sylva. 1996. *A Brief History of Blair County, Pennsylvania*
- Hach Company's H2O University. July, 2010. <http://www.h2ou.com/h2wtrqual.htm>
- Kentucky River Basin Assessment. July, 2010.  
[http://www.uky.edu/WaterResources/Watershed/KRB\\_AR/wq\\_standards.htm](http://www.uky.edu/WaterResources/Watershed/KRB_AR/wq_standards.htm)
- Lower Colorado River Authority. July, 2010.  
<http://www.lcra.org/water/quality/crwn/indicators.html>
- Lindsey, Bruce and Koch, Michele. 2004. *Determining Sources of Water and Contaminates to wells in a Carbonate Aquifer near Martinsburg, Blair County, Pennsylvania, By Use of Geochemical Indicators, Analysis of Anthropogenic Contaminants, and Simulation of Ground-Water Flow*. United States Geological Survey
- Renn, Dr. Charles E. October, 1970. *Investigating Water Problems, A Water Analysis Manual*
- Rush River Watershed. July, 2010.  
[http://mrbdc.wrc.mnsu.edu/major/lowminn/subshed/rush/rr\\_waterqual.html](http://mrbdc.wrc.mnsu.edu/major/lowminn/subshed/rush/rr_waterqual.html)
- Steffy, Luanne and Buda, Susan. September 2006. *Juniata River Subbasin Small Watershed Study: Morrison Cove A Water Quality and Biological Assessment*, April 2005-February 2006. Susquehanna River Basin Commission
- U.S. Census Bureau, 2000. *State & County Quick Facts, Profile of General Demographic Characteristics*
- U.S. Department of Agriculture, Natural Resources Conservation Service. *National Water and Climate Center Technical Note 99-1. Stream Visual Assessment Protocol*
- U.S. Department of Agriculture, Soil Conservation Service, October 1981. *Soil Survey of Blair County, Pennsylvania*

U.S. Geological Survey, 19810501, U.S. Geographic Names Information System (GNIS):  
U.S. Geological Survey, Reston, VA.

University of Wisconsin-Extension in Cooperation with the Wisconsin Department of  
Natural Resources. Pennsylvania Fish and Boat Commission's Pond and Stream Study  
Guide

Western Pennsylvania Conservancy. March, 2006. Blair County Natural Heritage Inventory

Western Pennsylvania Conservancy, July, 2009. *North Bear Run Coldwater Conservation  
Plan*. <http://www.coldwaterheritage.org/grantinfo/2005Grantees/Bear%20Run%20Plan.pdf>

Unemployment Rates in Pennsylvania. April, 2010. <http://www.bls.gov/ro3/palaus.htm>

US Census Bureau State and County Quick Facts. April, 2010.  
<http://quickfacts.census.gov/qfd/states/42/42013.html>



## Appendices

## Appendix A

### QuickFacts for Blair County and Pennsylvania

## QuickFacts for Blair County and Pennsylvania

*Listed below is a segment from the QuickFacts table from the U.S. Census Bureau for Blair County and Pennsylvania.*

<b>People QuickFacts</b>	<b>Blair County</b>	<b>Pennsylvania</b>
Population, 2008 estimate	125,174	12,448,279
Population percent change, April 1, 2000-July 1, 2008	-3.1%	1.4%
Population, 2000	129,144	12,281,052
Persons under 5 years old, percent, 2008	5.8%	5.9%
Persons under 18 years old, percent, 2008	21.1%	22.2%
Persons 65 years old and over, percent, 2008	17.3%	15.3%
Female persons, percent, 2008	51.8%	51.3%
White persons, percent, 2008 (a)	97.0%	85.4%
Black or African American persons, percent, 2008 (a)	1.6%	10.8%
American Indian and Alaska Native persons, percent, 2008 (a)	0.1%	0.2%
Asian persons, percent, 2008 (a)	0.5%	2.4%
Native Hawaiian and Other Pacific Islander, percent, 2000 (a)	Z	Z
Persons of Hispanic or Latino origin, percent, 2008 (b)	0.7%	4.8%
Living in same house in 1995 and 2000, pct age 5+, 2000	66.7%	63.5%
High school graduates, percent of persons age 25+, 2000	83.8%	81.9%
Bachelor's degree or higher, pct of persons age 25+, 2000	13.9%	22.4%
Persons with a disability, age 5+, 2000	25,182	2,111,771
Housing units, 2007	56,132	5,477,864
Homeownership rate, 2000	72.9%	71.3%
Housing units in multi-unit structures, percent, 2000	19.1%	21.2%
Median value of owner-occupied housing units, 2000	\$73,600	\$97,000
Households, 2000	51,518	4,777,003
Persons per household, 2000	2.43	2.48
Median household money income, 2007	\$41,646	\$48,562
Per capita money income, 1999	\$16,743	\$20,880
Persons below poverty, percent, 2007	13.8%	11.6%
Private non-farm establishments, 2006	3,334	304,058
Private non-farm employment, 2007	51,585	5,195,818
Private non-farm employment, percent change 2000-2007	-0.5%	2.1%
Non-employer establishments, 2007	6,599	771,520
Manufacturers shipments, 2002 (\$1000)	1,557,695	181,462,443
Retail sales, 2002 (\$1000)	1,695,016	130,713,197
Retail sales per capita, 2002	\$13,277	\$10,603

**Geography QuickFacts**

Land Area, (square miles) 2000  
Persons per square mile, 2000  
Metropolitan Area

<b>Blair County</b>	<b>Pennsylvania</b>
525.8	44,816.61
245.6	274
Altoona, PA MSA	

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

NA: Not available

D: Suppressed to avoid disclosure of confidential information

X: Not applicable

S: Suppressed; does not meet publication standards

Z: Value greater than zero but less than half unit of measure shown

## Appendix B

Profile of General Demographic Characteristics: 2000, U.S.  
Census Bureau

Appendix B.1, Pennsylvania

Appendix B.2, Blair County

Appendix B.3, Huston Township

Appendix B.4, Martinsburg Borough

Appendix B.5, North Woodbury Township

Appendix B.6, Roaring Spring Borough

Appendix B.7, Taylor Township

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic area: Pennsylvania

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>12,281,054</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>12,281,054</b>	<b>100.0</b>
Male.....	5,929,663	48.3	Hispanic or Latino (of any race).....	394,088	3.2
Female.....	6,351,391	51.7	Mexican.....	55,178	0.4
Under 5 years.....	727,804	5.9	Puerto Rican.....	228,557	1.9
5 to 9 years.....	827,945	6.7	Cuban.....	10,363	0.1
10 to 14 years.....	863,849	7.0	Other Hispanic or Latino.....	99,990	0.8
15 to 19 years.....	850,986	6.9	Not Hispanic or Latino.....	11,886,966	96.8
20 to 24 years.....	746,086	6.1	White alone.....	10,322,455	84.1
25 to 34 years.....	1,560,486	12.7	<b>RELATIONSHIP</b>		
35 to 44 years.....	1,948,076	15.9	<b>Total population</b> .....	<b>12,281,054</b>	<b>100.0</b>
45 to 54 years.....	1,705,032	13.9	In households.....	11,847,753	96.5
55 to 59 years.....	619,969	5.0	Householder.....	4,777,003	38.9
60 to 64 years.....	511,656	4.2	Spouse.....	2,467,673	20.1
65 to 74 years.....	969,272	7.9	Child.....	3,555,036	28.9
75 to 84 years.....	712,326	5.8	Own child under 18 years.....	2,653,125	21.6
85 years and over.....	237,567	1.9	Other relatives.....	525,185	4.3
Median age (years).....	38.0	(X)	Under 18 years.....	201,853	1.6
18 years and over.....	9,358,833	76.2	Nonrelatives.....	522,856	4.3
Male.....	4,430,102	36.1	Unmarried partner.....	237,622	1.9
Female.....	4,928,731	40.1	In group quarters.....	433,301	3.5
21 years and over.....	8,842,276	72.0	Institutionalized population.....	213,790	1.7
62 years and over.....	2,219,927	18.1	Noninstitutionalized population.....	219,511	1.8
65 years and over.....	1,919,165	15.6	<b>HOUSEHOLD BY TYPE</b>		
Male.....	767,547	6.2	<b>Total households</b> .....	<b>4,777,003</b>	<b>100.0</b>
Female.....	1,151,618	9.4	Family households (families).....	3,208,388	67.2
<b>RACE</b>			With own children under 18 years.....	1,430,808	30.0
One race.....	12,138,830	98.8	Married-couple family.....	2,467,673	51.7
White.....	10,484,203	85.4	With own children under 18 years.....	1,043,071	21.8
Black or African American.....	1,224,612	10.0	Female householder, no husband present.....	554,693	11.6
American Indian and Alaska Native.....	18,348	0.1	With own children under 18 years.....	298,021	6.2
Asian.....	219,813	1.8	Nonfamily households.....	1,568,615	32.8
Asian Indian.....	57,241	0.5	Householder living alone.....	1,320,941	27.7
Chinese.....	50,650	0.4	Householder 65 years and over.....	555,374	11.6
Filipino.....	14,506	0.1	Households with individuals under 18 years.....	1,559,281	32.6
Japanese.....	6,984	0.1	Households with individuals 65 years and over.....	1,328,237	27.8
Korean.....	31,612	0.3	Average household size.....	2.48	(X)
Vietnamese.....	30,037	0.2	Average family size.....	3.04	(X)
Other Asian <sup>1</sup> .....	28,783	0.2	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	3,417	-	<b>Total housing units</b> .....	<b>5,249,750</b>	<b>100.0</b>
Native Hawaiian.....	897	-	Occupied housing units.....	4,777,003	91.0
Guamanian or Chamorro.....	646	-	Vacant housing units.....	472,747	9.0
Samoan.....	734	-	For seasonal, recreational, or		
Other Pacific Islander <sup>2</sup> .....	1,140	-	occasional use.....	148,230	2.8
Some other race.....	188,437	1.5	Homeowner vacancy rate (percent).....	1.6	(X)
Two or more races.....	142,224	1.2	Rental vacancy rate (percent).....	7.2	(X)
<b>Race alone or in combination with one or more other races:</b> <sup>3</sup>			<b>HOUSING TENURE</b>		
White.....	10,596,409	86.3	<b>Occupied housing units</b> .....	<b>4,777,003</b>	<b>100.0</b>
Black or African American.....	1,289,123	10.5	Owner-occupied housing units.....	3,406,337	71.3
American Indian and Alaska Native.....	52,650	0.4	Renter-occupied housing units.....	1,370,666	28.7
Asian.....	248,601	2.0	Average household size of owner-occupied units.....	2.62	(X)
Native Hawaiian and Other Pacific Islander.....	8,790	0.1	Average household size of renter-occupied units.....	2.12	(X)
Some other race.....	238,700	1.9			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

**Table DP-2. Profile of Selected Social Characteristics: 2000**

Geographic area: Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>SCHOOL ENROLLMENT</b>			<b>NATIVITY AND PLACE OF BIRTH</b>		
Population 3 years and over enrolled in school .....	<b>3,135,934</b>	<b>100.0</b>	Total population .....	<b>12,281,054</b>	<b>100.0</b>
Nursery school, preschool .....	203,934	6.5	Native .....	11,772,763	95.9
Kindergarten .....	159,146	5.1	Born in United States .....	11,620,495	94.6
Elementary school (grades 1-8) .....	1,379,671	44.0	State of residence .....	9,544,251	77.7
High school (grades 9-12) .....	690,020	22.0	Different state .....	2,076,244	16.9
College or graduate school .....	703,163	22.4	Born outside United States .....	152,268	1.2
<b>EDUCATIONAL ATTAINMENT</b>			Foreign born .....	508,291	4.1
Population 25 years and over .....	<b>8,266,284</b>	<b>100.0</b>	Entered 1990 to March 2000 .....	209,123	1.7
Less than 9th grade .....	452,069	5.5	Naturalized citizen .....	257,339	2.1
9th to 12th grade, no diploma .....	1,044,036	12.6	Not a citizen .....	250,952	2.0
High school graduate (includes equivalency) .....	3,150,013	38.1	<b>REGION OF BIRTH OF FOREIGN BORN</b>		
Some college, no degree .....	1,284,731	15.5	Total (excluding born at sea) .....	<b>508,282</b>	<b>100.0</b>
Associate degree .....	487,804	5.9	Europe .....	182,667	35.9
Bachelor's degree .....	1,153,383	14.0	Asia .....	182,967	36.0
Graduate or professional degree .....	694,248	8.4	Africa .....	25,413	5.0
Percent high school graduate or higher .....	81.9	(X)	Oceania .....	2,178	0.4
Percent bachelor's degree or higher .....	22.4	(X)	Latin America .....	99,514	19.6
<b>MARITAL STATUS</b>			Northern America .....	15,543	3.1
Population 15 years and over .....	<b>9,861,713</b>	<b>100.0</b>	<b>LANGUAGE SPOKEN AT HOME</b>		
Never married .....	2,685,328	27.2	Population 5 years and over .....	<b>11,555,538</b>	<b>100.0</b>
Now married, except separated .....	5,352,297	54.3	English only .....	10,583,054	91.6
Separated .....	215,846	2.2	Language other than English .....	972,484	8.4
Widowed .....	808,903	8.2	Speak English less than "very well" .....	368,257	3.2
Female .....	656,381	6.7	Spanish .....	356,754	3.1
Divorced .....	799,339	8.1	Speak English less than "very well" .....	140,502	1.2
Female .....	456,801	4.6	Other Indo-European languages .....	428,122	3.7
<b>GRANDPARENTS AS CAREGIVERS</b>			Speak English less than "very well" .....	138,542	1.2
Grandparent living in household with one or more own grandchildren under 18 years .....	<b>204,909</b>	<b>100.0</b>	Asian and Pacific Island languages .....	143,955	1.2
Grandparent responsible for grandchildren .....	80,423	39.2	Speak English less than "very well" .....	76,183	0.7
<b>VETERAN STATUS</b>			<b>ANCESTRY (single or multiple)</b>		
Civilian population 18 years and over ..	<b>9,354,471</b>	<b>100.0</b>	Total population .....	<b>12,281,054</b>	<b>100.0</b>
Civilian veterans .....	1,280,788	13.7	Total ancestries reported .....	13,575,589	110.5
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>			Arab .....	49,413	0.4
Population 5 to 20 years .....	<b>2,689,895</b>	<b>100.0</b>	Czech <sup>1</sup> .....	70,704	0.6
With a disability .....	202,259	7.5	Danish .....	16,762	0.1
Population 21 to 64 years .....	<b>6,837,268</b>	<b>100.0</b>	Dutch .....	255,373	2.1
With a disability .....	1,196,717	17.5	English .....	966,253	7.9
Percent employed .....	54.8	(X)	French (except Basque) <sup>1</sup> .....	211,264	1.7
No disability .....	5,640,551	82.5	French Canadian <sup>1</sup> .....	31,769	0.3
Percent employed .....	78.3	(X)	German .....	3,115,560	25.4
Population 65 years and over .....	<b>1,809,320</b>	<b>100.0</b>	Greek .....	56,911	0.5
With a disability .....	712,795	39.4	Hungarian .....	132,184	1.1
<b>RESIDENCE IN 1995</b>			Irish <sup>1</sup> .....	1,983,262	16.1
Population 5 years and over .....	<b>11,555,538</b>	<b>100.0</b>	Italian .....	1,418,465	11.6
Same house in 1995 .....	7,333,591	63.5	Lithuanian .....	78,330	0.6
Different house in the U.S. in 1995 .....	4,056,716	35.1	Norwegian .....	38,869	0.3
Same county .....	2,513,167	21.7	Polish .....	824,146	6.7
Different county .....	1,543,549	13.4	Portuguese .....	13,566	0.1
Same state .....	874,796	7.6	Russian .....	178,855	1.5
Different state .....	668,753	5.8	Scotch-Irish .....	218,173	1.8
Elsewhere in 1995 .....	165,231	1.4	Scottish .....	185,163	1.5
			Slovak .....	243,009	2.0
			Subsaharan African .....	58,807	0.5
			Swedish .....	105,525	0.9
			Swiss .....	60,107	0.5
			Ukrainian .....	122,291	1.0
			United States or American .....	633,236	5.2
			Welsh .....	182,289	1.5
			West Indian (excluding Hispanic groups) .....	36,396	0.3
			Other ancestries .....	2,288,907	18.6

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-3. Profile of Selected Economic Characteristics: 2000**

Geographic area: Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>			<b>INCOME IN 1999</b>		
<b>Population 16 years and over</b> .....			<b>Households</b> .....		
In labor force .....	9,693,040	100.0	Less than \$10,000 .....	4,779,186	100.0
Civilian labor force .....	6,000,512	61.9	\$10,000 to \$14,999 .....	465,860	9.7
Employed .....	5,992,886	61.8	\$15,000 to \$24,999 .....	333,381	7.0
Unemployed .....	5,653,500	58.3	\$25,000 to \$34,999 .....	657,266	13.8
Percent of civilian labor force .....	339,386	3.5	\$35,000 to \$49,999 .....	633,953	13.3
Armed Forces .....	5.7	(X)	\$50,000 to \$74,999 .....	809,165	16.9
Not in labor force .....	7,626	0.1	\$75,000 to \$99,999 .....	929,863	19.5
<b>Females 16 years and over</b> .....	3,692,528	38.1	\$100,000 to \$149,999 .....	457,480	9.6
In labor force .....	5,094,133	100.0	\$150,000 to \$199,999 .....	317,171	6.6
Civilian labor force .....	2,818,832	55.3	\$200,000 or more .....	84,173	1.8
Employed .....	2,817,741	55.3	Median household income (dollars) .....	90,874	1.9
<b>Own children under 6 years</b> .....	2,660,720	52.2	With earnings .....	40,106	(X)
All parents in family in labor force .....	845,915	100.0	Mean earnings (dollars) <sup>1</sup> .....	3,667,238	76.7
<b>COMMUTING TO WORK</b>			With Social Security income .....	54,209	(X)
<b>Workers 16 years and over</b> .....			Mean Social Security income (dollars) <sup>1</sup> .....	1,451,386	30.4
Car, truck, or van -- drove alone .....	5,556,311	100.0	With Supplemental Security Income .....	203,851	4.3
Car, truck, or van -- carpooled .....	4,247,836	76.5	Mean Supplemental Security Income (dollars) <sup>1</sup> .....	6,523	(X)
Public transportation (including taxicab) .....	577,364	10.4	With public assistance income .....	149,203	3.1
Walked .....	289,699	5.2	Mean public assistance income (dollars) <sup>1</sup> .....	2,848	(X)
Other means .....	229,725	4.1	With retirement income .....	940,184	19.7
Worked at home .....	47,041	0.8	Mean retirement income (dollars) <sup>1</sup> .....	14,663	(X)
Mean travel time to work (minutes) <sup>1</sup> .....	164,646	3.0	<b>Families</b> .....		
	25.2	(X)	Less than \$10,000 .....	3,225,707	100.0
<b>Employed civilian population</b>			\$10,000 to \$14,999 .....	167,090	5.2
<b>16 years and over</b> .....			\$15,000 to \$24,999 .....	124,473	3.9
<b>OCCUPATION</b>			\$25,000 to \$34,999 .....	352,867	10.9
Management, professional, and related occupations .....	1,841,175	32.6	\$35,000 to \$49,999 .....	410,489	12.7
Service occupations .....	838,137	14.8	\$50,000 to \$74,999 .....	586,011	18.2
Sales and office occupations .....	1,525,131	27.0	\$75,000 to \$99,999 .....	756,698	23.5
Farming, fishing, and forestry occupations .....	26,722	0.5	\$100,000 to \$149,999 .....	396,388	12.3
Construction, extraction, and maintenance occupations .....	500,898	8.9	\$150,000 to \$199,999 .....	278,306	8.6
Production, transportation, and material moving occupations .....	921,437	16.3	\$200,000 or more .....	74,520	2.3
<b>INDUSTRY</b>			Median family income (dollars) .....	78,865	2.4
Agriculture, forestry, fishing and hunting, and mining .....	73,459	1.3	Per capita income (dollars) <sup>1</sup> .....	49,184	(X)
Construction .....	339,363	6.0	<b>Median earnings (dollars):</b>		
Manufacturing .....	906,398	16.0	Male full-time, year-round workers .....	37,051	(X)
Wholesale trade .....	201,084	3.6	Female full-time, year-round workers .....	26,687	(X)
Retail trade .....	684,179	12.1	Subject		
Transportation and warehousing, and utilities .....	304,335	5.4			
Information .....	148,841	2.6	<b>POVERTY STATUS IN 1999</b>		
Finance, insurance, real estate, and rental and leasing .....	372,148	6.6	<b>Families</b> .....		
Professional, scientific, management, administrative, and waste management services .....	478,937	8.5	With related children under 18 years .....	250,296	7.8
Educational, health and social services .....	1,237,090	21.9	With related children under 5 years .....	188,366	12.1
Arts, entertainment, recreation, accommodation and food services .....	397,871	7.0	<b>Families with female householder, no husband present</b> .....		
Other services (except public administration) .....	274,028	4.8	With related children under 18 years .....	134,560	24.9
Public administration .....	235,767	4.2	With related children under 5 years .....	118,782	34.9
<b>CLASS OF WORKER</b>			With related children under 5 years .....	55,163	47.4
Private wage and salary workers .....	4,657,372	82.4	<b>Individuals</b> .....		
Government workers .....	639,088	11.3	18 years and over .....	1,304,117	11.0
Self-employed workers in own not incorporated business .....	339,631	6.0	65 years and over .....	882,372	9.8
Unpaid family workers .....	17,409	0.3	Related children under 18 years .....	164,095	9.1
			Related children 5 to 17 years .....	408,079	14.3
			Unrelated individuals 15 years and over .....	291,913	13.6
				473,182	22.8

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator. See text.

Source: U.S. Bureau of the Census, Census 2000.



**Table DP-4. Profile of Selected Housing Characteristics: 2000**

Geographic area: Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total housing units</b> .....	<b>5,249,750</b>	<b>100.0</b>	<b>OCCUPANTS PER ROOM</b>		
<b>UNITS IN STRUCTURE</b>			<b>Occupied housing units</b> .....	<b>4,777,003</b>	<b>100.0</b>
1-unit, detached .....	2,935,248	55.9	1.00 or less .....	4,685,077	98.1
1-unit, attached .....	940,396	17.9	1.01 to 1.50 .....	61,367	1.3
2 units .....	273,798	5.2	1.51 or more .....	30,559	0.6
3 or 4 units .....	241,745	4.6			
5 to 9 units .....	179,909	3.4	<b>Specified owner-occupied units</b> .....	<b>2,889,484</b>	<b>100.0</b>
10 to 19 units .....	131,691	2.5	<b>VALUE</b>		
20 or more units .....	283,714	5.4	Less than \$50,000 .....	435,193	15.1
Mobile home .....	258,551	4.9	\$50,000 to \$99,999 .....	1,079,698	37.4
Boat, RV, van, etc .....	4,698	0.1	\$100,000 to \$149,999 .....	703,093	24.3
			\$150,000 to \$199,999 .....	344,172	11.9
<b>YEAR STRUCTURE BUILT</b>			\$200,000 to \$299,999 .....	214,812	7.4
1999 to March 2000 .....	66,916	1.3	\$300,000 to \$499,999 .....	84,425	2.9
1995 to 1998 .....	212,916	4.1	\$500,000 to \$999,999 .....	23,654	0.8
1990 to 1994 .....	266,445	5.1	\$1,000,000 or more .....	4,437	0.2
1980 to 1989 .....	531,986	10.1	Median (dollars) .....	97,000	(X)
1970 to 1979 .....	709,768	13.5			
1960 to 1969 .....	595,897	11.4	<b>MORTGAGE STATUS AND SELECTED</b>		
1940 to 1959 .....	1,275,149	24.3	<b>MONTHLY OWNER COSTS</b>		
1939 or earlier .....	1,590,673	30.3	With a mortgage .....	1,798,402	62.2
			Less than \$300 .....	9,157	0.3
<b>ROOMS</b>			\$300 to \$499 .....	108,720	3.8
1 room .....	62,654	1.2	\$500 to \$699 .....	270,083	9.3
2 rooms .....	143,152	2.7	\$700 to \$999 .....	498,003	17.2
3 rooms .....	403,457	7.7	\$1,000 to \$1,499 .....	546,365	18.9
4 rooms .....	668,040	12.7	\$1,500 to \$1,999 .....	220,493	7.6
5 rooms .....	924,603	17.6	\$2,000 or more .....	145,581	5.0
6 rooms .....	1,220,416	23.2	Median (dollars) .....	1,010	(X)
7 rooms .....	767,695	14.6	Not mortgaged .....	1,091,082	37.8
8 rooms .....	561,360	10.7	Median (dollars) .....	318	(X)
9 or more rooms .....	498,373	9.5			
Median (rooms) .....	5.8	(X)	<b>SELECTED MONTHLY OWNER COSTS</b>		
			<b>AS A PERCENTAGE OF HOUSEHOLD</b>		
<b>Occupied housing units</b> .....	<b>4,777,003</b>	<b>100.0</b>	<b>INCOME IN 1999</b>		
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>			Less than 15.0 percent .....	1,091,368	37.8
1999 to March 2000 .....	696,279	14.6	15.0 to 19.9 percent .....	509,245	17.6
1995 to 1998 .....	1,139,483	23.9	20.0 to 24.9 percent .....	399,694	13.8
1990 to 1994 .....	734,248	15.4	25.0 to 29.9 percent .....	264,015	9.1
1980 to 1989 .....	821,152	17.2	30.0 to 34.9 percent .....	164,558	5.7
1970 to 1979 .....	575,344	12.0	35.0 percent or more .....	436,159	15.1
1969 or earlier .....	810,497	17.0	Not computed .....	24,445	0.8
<b>VEHICLES AVAILABLE</b>			<b>Specified renter-occupied units</b> .....	<b>1,348,824</b>	<b>100.0</b>
None .....	613,249	12.8	<b>GROSS RENT</b>		
1 .....	1,667,535	34.9	Less than \$200 .....	85,346	6.3
2 .....	1,791,526	37.5	\$200 to \$299 .....	89,493	6.6
3 or more .....	704,693	14.8	\$300 to \$499 .....	389,144	28.9
			\$500 to \$749 .....	454,749	33.7
<b>HOUSE HEATING FUEL</b>			\$750 to \$999 .....	167,064	12.4
Utility gas .....	2,452,941	51.3	\$1,000 to \$1,499 .....	65,230	4.8
Bottled, tank, or LP gas .....	145,254	3.0	\$1,500 or more .....	19,811	1.5
Electricity .....	786,648	16.5	No cash rent .....	77,987	5.8
Fuel oil, kerosene, etc .....	1,217,155	25.5	Median (dollars) .....	531	(X)
Coal or coke .....	67,986	1.4			
Wood .....	76,060	1.6	<b>GROSS RENT AS A PERCENTAGE OF</b>		
Solar energy .....	663	-	<b>HOUSEHOLD INCOME IN 1999</b>		
Other fuel .....	20,500	0.4	Less than 15.0 percent .....	259,386	19.2
No fuel used .....	9,796	0.2	15.0 to 19.9 percent .....	193,612	14.4
			20.0 to 24.9 percent .....	165,624	12.3
<b>SELECTED CHARACTERISTICS</b>			25.0 to 29.9 percent .....	139,877	10.4
Lacking complete plumbing facilities .....	24,450	0.5	30.0 to 34.9 percent .....	93,260	6.9
Lacking complete kitchen facilities .....	25,831	0.5	35.0 percent or more .....	386,384	28.6
No telephone service .....	65,680	1.4	Not computed .....	110,681	8.2

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic area: Blair County, Pennsylvania

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>129,144</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>129,144</b>	<b>100.0</b>
Male.....	61,917	47.9	Hispanic or Latino (of any race).....	662	0.5
Female.....	67,227	52.1	Mexican.....	161	0.1
Under 5 years.....	7,257	5.6	Puerto Rican.....	186	0.1
5 to 9 years.....	8,134	6.3	Cuban.....	13	-
10 to 14 years.....	8,518	6.6	Other Hispanic or Latino.....	302	0.2
15 to 19 years.....	9,595	7.4	Not Hispanic or Latino.....	128,482	99.5
20 to 24 years.....	7,306	5.7	White alone.....	125,641	97.3
25 to 34 years.....	15,459	12.0	<b>RELATIONSHIP</b>		
35 to 44 years.....	19,424	15.0	<b>Total population</b> .....	<b>129,144</b>	<b>100.0</b>
45 to 54 years.....	18,416	14.3	In households.....	125,037	96.8
55 to 59 years.....	6,820	5.3	Householder.....	51,518	39.9
60 to 64 years.....	5,759	4.5	Spouse.....	27,080	21.0
65 to 74 years.....	11,127	8.6	Child.....	36,690	28.4
75 to 84 years.....	8,479	6.6	Own child under 18 years.....	26,862	20.8
85 years and over.....	2,850	2.2	Other relatives.....	4,456	3.5
Median age (years).....	39.5	(X)	Under 18 years.....	1,768	1.4
18 years and over.....	99,862	77.3	Nonrelatives.....	5,293	4.1
Male.....	46,880	36.3	Unmarried partner.....	2,535	2.0
Female.....	52,982	41.0	In group quarters.....	4,107	3.2
21 years and over.....	93,748	72.6	Institutionalized population.....	2,480	1.9
62 years and over.....	25,845	20.0	Noninstitutionalized population.....	1,627	1.3
65 years and over.....	22,456	17.4	<b>HOUSEHOLD BY TYPE</b>		
Male.....	8,777	6.8	<b>Total households</b> .....	<b>51,518</b>	<b>100.0</b>
Female.....	13,679	10.6	Family households (families).....	34,895	67.7
<b>RACE</b>			With own children under 18 years.....	15,078	29.3
One race.....	128,365	99.4	Married-couple family.....	27,080	52.6
White.....	126,059	97.6	With own children under 18 years.....	10,836	21.0
Black or African American.....	1,535	1.2	Female householder, no husband present.....	5,769	11.2
American Indian and Alaska Native.....	109	0.1	With own children under 18 years.....	3,112	6.0
Asian.....	463	0.4	Nonfamily households.....	16,623	32.3
Asian Indian.....	145	0.1	Householder living alone.....	14,344	27.8
Chinese.....	89	0.1	Householder 65 years and over.....	6,832	13.3
Filipino.....	49	-	Households with individuals under 18 years.....	16,414	31.9
Japanese.....	36	-	Households with individuals 65 years and over.....	15,184	29.5
Korean.....	78	0.1	Average household size.....	2.43	(X)
Vietnamese.....	23	-	Average family size.....	2.96	(X)
Other Asian <sup>1</sup> .....	43	-	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	19	-	<b>Total housing units</b> .....	<b>55,061</b>	<b>100.0</b>
Native Hawaiian.....	10	-	Occupied housing units.....	51,518	93.6
Guamanian or Chamorro.....	6	-	Vacant housing units.....	3,543	6.4
Samoan.....	1	-	For seasonal, recreational, or occasional use.....	322	0.6
Other Pacific Islander <sup>2</sup> .....	2	-	Homeowner vacancy rate (percent).....	1.2	(X)
Some other race.....	180	0.1	Rental vacancy rate (percent).....	7.5	(X)
Two or more races.....	779	0.6	<b>HOUSING TENURE</b>		
<b>Race alone or in combination with one or more other races:</b> <sup>3</sup>			<b>Occupied housing units</b> .....	<b>51,518</b>	<b>100.0</b>
White.....	126,795	98.2	Owner-occupied housing units.....	37,554	72.9
Black or African American.....	1,861	1.4	Renter-occupied housing units.....	13,964	27.1
American Indian and Alaska Native.....	384	0.3	Average household size of owner-occupied units.....	2.55	(X)
Asian.....	611	0.5	Average household size of renter-occupied units.....	2.09	(X)
Native Hawaiian and Other Pacific Islander.....	43	-			
Some other race.....	294	0.2			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.

<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

**Table DP-2. Profile of Selected Social Characteristics: 2000**

Geographic area: Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>SCHOOL ENROLLMENT</b>			<b>NATIVITY AND PLACE OF BIRTH</b>		
<b>Population 3 years and over enrolled in school</b> .....			<b>Total population</b> .....		
Nursery school, preschool.....	29,585	100.0	Native.....	129,144	100.0
Kindergarten.....	1,965	6.6	Born in United States.....	127,834	99.0
Elementary school (grades 1-8).....	1,642	5.6	State of residence.....	127,399	98.6
High school (grades 9-12).....	13,632	46.1	Different state.....	115,832	89.7
College or graduate school.....	7,095	24.0	Born outside United States.....	11,567	9.0
	5,251	17.7	Foreign born.....	435	0.3
<b>EDUCATIONAL ATTAINMENT</b>			<b>REGION OF BIRTH OF FOREIGN BORN</b>		
<b>Population 25 years and over</b> .....			<b>Total (excluding born at sea)</b> .....		
Less than 9th grade.....	88,366	100.0	Europe.....	1,310	100.0
9th to 12th grade, no diploma.....	4,228	4.8	Asia.....	567	43.3
High school graduate (includes equivalency).....	10,124	11.5	Africa.....	433	33.1
Some college, no degree.....	44,107	49.9	Oceania.....	45	3.4
Associate degree.....	12,509	14.2	Latin America.....	-	-
Bachelor's degree.....	5,130	5.8	Northern America.....	152	11.6
Graduate or professional degree.....	8,115	9.2		113	8.6
Percent high school graduate or higher.....	4,153	4.7	<b>LANGUAGE SPOKEN AT HOME</b>		
Percent bachelor's degree or higher.....	83.8	(X)	<b>Population 5 years and over</b> .....		
	13.9	(X)	English only.....	121,866	100.0
<b>MARITAL STATUS</b>			<b>Population 15 years and over</b> .....		
Never married.....	105,162	100.0	Language other than English.....	118,116	96.9
Now married, except separated.....	26,092	24.8	Speak English less than "very well".....	3,750	3.1
Separated.....	57,346	54.5	Spanish.....	1,080	0.9
Widowed.....	2,324	2.2	Speak English less than "very well".....	1,049	0.9
Female.....	10,101	9.6	Other Indo-European languages.....	321	0.3
Divorced.....	8,472	8.1	Speak English less than "very well".....	2,233	1.8
Female.....	9,299	8.8	Asian and Pacific Island languages.....	639	0.5
	5,266	5.0	Speak English less than "very well".....	363	0.3
				111	0.1
<b>GRANDPARENTS AS CAREGIVERS</b>			<b>ANCESTRY (single or multiple)</b>		
<b>Grandparent living in household with one or more own grandchildren under 18 years</b> .....			<b>Total population</b> .....		
Grandparent responsible for grandchildren.....	2,006	100.0	Total ancestries reported.....	129,144	100.0
	1,042	51.9	Arab.....	134,937	104.5
<b>VETERAN STATUS</b>			Czech <sup>1</sup> .....		
<b>Civilian population 18 years and over</b> .....			Danish.....		
Civilian veterans.....	99,782	100.0	Dutch.....	142	0.1
	15,901	15.9	English.....	3,291	2.5
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>			French (except Basque) <sup>1</sup> .....		
<b>Population 5 to 20 years</b> .....			French Canadian <sup>1</sup> .....		
With a disability.....	27,874	100.0	German.....	321	0.2
	2,459	8.8	Greek.....	49,435	38.3
<b>Population 21 to 64 years</b> .....			Hungarian.....		
With a disability.....	71,046	100.0	Irish <sup>1</sup> .....	292	0.2
Percent employed.....	14,404	20.3	Italian.....	630	0.5
No disability.....	56,642	79.7	Lithuanian.....	21,756	16.8
Percent employed.....	77.8	(X)	Norwegian.....	12,464	9.7
<b>Population 65 years and over</b> .....			Polish.....		
With a disability.....	20,359	100.0	Portuguese.....	245	0.2
	8,319	40.9	Russian.....	187	0.1
<b>RESIDENCE IN 1995</b>			Scottish.....		
<b>Population 5 years and over</b> .....			Slovak.....		
Same house in 1995.....	121,866	100.0	Subsaharan African.....	706	0.5
Different house in the U.S. in 1995.....	81,255	66.7	Swedish.....	97	0.1
Same county.....	40,217	33.0	Swiss.....	1,057	0.8
Different county.....	29,234	24.0	Ukrainian.....	483	0.4
Same state.....	10,983	9.0	United States or American.....	343	0.3
Different state.....	6,759	5.5	Welsh.....	9,525	7.4
Elsewhere in 1995.....	4,224	3.5	West Indian (excluding Hispanic groups).....	1,626	1.3
	394	0.3	Other ancestries.....	42	-
				9,674	7.5

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-3. Profile of Selected Economic Characteristics: 2000**

Geographic area: Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>			<b>INCOME IN 1999</b>		
<b>Population 16 years and over</b> .....			<b>Households</b> .....		
In labor force	103,379	100.0	Less than \$10,000	51,622	100.0
Civilian labor force	61,655	59.6	\$10,000 to \$14,999	5,940	11.5
Employed	61,589	59.6	\$15,000 to \$24,999	4,903	9.5
Unemployed	57,756	55.9	\$25,000 to \$34,999	8,458	16.4
Percent of civilian labor force	3,833	3.7	\$35,000 to \$49,999	7,845	15.2
Armed Forces	66	(X)	\$50,000 to \$74,999	9,967	19.3
Not in labor force	41,724	40.4	\$75,000 to \$99,999	8,934	17.3
<b>Females 16 years and over</b> .....			\$100,000 to \$149,999	3,182	6.2
In labor force	54,717	100.0	\$150,000 to \$199,999	1,588	3.1
Civilian labor force	28,395	51.9	\$200,000 or more	408	0.8
Employed	28,393	51.9	Median household income (dollars)	397	0.8
Own children under 6 years	26,638	48.7	With earnings	32,861	(X)
All parents in family in labor force	8,464	100.0	Mean earnings (dollars) <sup>1</sup>	38,087	73.8
<b>COMMUTING TO WORK</b>			With Social Security income	42,564	(X)
<b>Workers 16 years and over</b> .....			Mean Social Security income (dollars) <sup>1</sup>	17,405	33.7
Car, truck, or van -- drove alone	56,733	100.0	With Supplemental Security Income	2,718	5.3
Car, truck, or van -- carpooled	46,626	82.2	Mean Supplemental Security Income (dollars) <sup>1</sup>	5,609	(X)
Public transportation (including taxicab)	5,897	10.4	With public assistance income	1,553	3.0
Walked	258	0.5	Mean public assistance income (dollars) <sup>1</sup>	2,566	(X)
Other means	2,080	3.7	With retirement income	9,266	17.9
Worked at home	492	0.9	Mean retirement income (dollars) <sup>1</sup>	12,240	(X)
Mean travel time to work (minutes) <sup>1</sup>	1,380	2.4	<b>Families</b> .....		
	20.2	(X)	Less than \$10,000	35,267	100.0
<b>Employed civilian population 16 years and over</b> .....			\$10,000 to \$14,999	2,060	5.8
	57,756	100.0	\$15,000 to \$24,999	2,038	5.8
<b>OCCUPATION</b>			\$25,000 to \$34,999	5,017	14.2
Management, professional, and related occupations	14,775	25.6	\$35,000 to \$49,999	5,563	15.8
Service occupations	9,469	16.4	\$50,000 to \$74,999	7,895	22.4
Sales and office occupations	15,439	26.7	\$75,000 to \$99,999	7,693	21.8
Farming, fishing, and forestry occupations	469	0.8	\$100,000 to \$149,999	2,832	8.0
Construction, extraction, and maintenance occupations	6,354	11.0	\$150,000 to \$199,999	1,436	4.1
Production, transportation, and material moving occupations	11,250	19.5	\$200,000 or more	370	1.0
			363	1.0	
<b>INDUSTRY</b>			Median family income (dollars)	40,160	(X)
Agriculture, forestry, fishing and hunting, and mining	949	1.6	Per capita income (dollars) <sup>1</sup>	16,743	(X)
Construction	3,529	6.1	<b>Median earnings (dollars):</b>		
Manufacturing	9,159	15.9	Male full-time, year-round workers	30,968	(X)
Wholesale trade	2,595	4.5	Female full-time, year-round workers	21,828	(X)
Retail trade	8,391	14.5	Subject		
Transportation and warehousing, and utilities	4,091	7.1	<b>POVERTY STATUS IN 1999</b>		
Information	1,243	2.2	<b>Families</b> .....		
Finance, insurance, real estate, and rental and leasing	2,495	4.3	With related children under 18 years	3,201	9.1
Professional, scientific, management, administrative, and waste management services	3,100	5.4	With related children under 5 years	2,425	14.8
Educational, health and social services	12,603	21.8	With related children under 5 years	1,087	18.2
Arts, entertainment, recreation, accommodation and food services	4,488	7.8	<b>Families with female householder, no husband present</b> .....		
Other services (except public administration)	2,924	5.1	With related children under 18 years	1,654	29.3
Public administration	2,189	3.8	With related children under 5 years	1,453	42.9
			With related children under 5 years	630	53.8
<b>CLASS OF WORKER</b>			<b>Individuals</b> .....		
Private wage and salary workers	47,557	82.3	18 years and over	15,840	12.6
Government workers	6,599	11.4	65 years and over	10,700	11.1
Self-employed workers in own not incorporated business	3,420	5.9	Related children under 18 years	1,783	8.8
Unpaid family workers	180	0.3	Related children 5 to 17 years	4,946	17.2
			Unrelated individuals 15 years and over	3,497	16.3
				5,773	26.6

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator. See text.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-4. Profile of Selected Housing Characteristics: 2000**

Geographic area: Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total housing units</b> .....	<b>55,061</b>	<b>100.0</b>	<b>OCCUPANTS PER ROOM</b>		
<b>UNITS IN STRUCTURE</b>			<b>Occupied housing units</b> .....	<b>51,518</b>	<b>100.0</b>
1-unit, detached .....	38,600	70.1	1.00 or less .....	50,886	98.8
1-unit, attached .....	2,005	3.6	1.01 to 1.50 .....	467	0.9
2 units .....	3,242	5.9	1.51 or more .....	165	0.3
3 or 4 units .....	2,480	4.5			
5 to 9 units .....	1,850	3.4	<b>Specified owner-occupied units</b> .....	<b>31,614</b>	<b>100.0</b>
10 to 19 units .....	963	1.7	<b>VALUE</b>		
20 or more units .....	1,962	3.6	Less than \$50,000 .....	7,802	24.7
Mobile home .....	3,933	7.1	\$50,000 to \$99,999 .....	15,453	48.9
Boat, RV, van, etc .....	26	-	\$100,000 to \$149,999 .....	5,705	18.0
			\$150,000 to \$199,999 .....	1,641	5.2
<b>YEAR STRUCTURE BUILT</b>			\$200,000 to \$299,999 .....	704	2.2
1999 to March 2000 .....	698	1.3	\$300,000 to \$499,999 .....	217	0.7
1995 to 1998 .....	2,077	3.8	\$500,000 to \$999,999 .....	63	0.2
1990 to 1994 .....	2,345	4.3	\$1,000,000 or more .....	29	0.1
1980 to 1989 .....	4,678	8.5	Median (dollars) .....	73,600	(X)
1970 to 1979 .....	7,277	13.2			
1960 to 1969 .....	4,666	8.5	<b>MORTGAGE STATUS AND SELECTED</b>		
1940 to 1959 .....	11,333	20.6	<b>MONTHLY OWNER COSTS</b>		
1939 or earlier .....	21,987	39.9	With a mortgage .....	18,076	57.2
			Less than \$300 .....	185	0.6
<b>ROOMS</b>			\$300 to \$499 .....	2,320	7.3
1 room .....	435	0.8	\$500 to \$699 .....	5,130	16.2
2 rooms .....	1,175	2.1	\$700 to \$999 .....	5,978	18.9
3 rooms .....	3,284	6.0	\$1,000 to \$1,499 .....	3,365	10.6
4 rooms .....	7,024	12.8	\$1,500 to \$1,999 .....	674	2.1
5 rooms .....	10,785	19.6	\$2,000 or more .....	424	1.3
6 rooms .....	13,645	24.8	Median (dollars) .....	756	(X)
7 rooms .....	9,036	16.4	Not mortgaged .....	13,538	42.8
8 rooms .....	5,474	9.9	Median (dollars) .....	271	(X)
9 or more rooms .....	4,203	7.6			
Median (rooms) .....	5.9	(X)	<b>SELECTED MONTHLY OWNER COSTS</b>		
			<b>AS A PERCENTAGE OF HOUSEHOLD</b>		
<b>Occupied housing units</b> .....	<b>51,518</b>	<b>100.0</b>	<b>INCOME IN 1999</b>		
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>			Less than 15.0 percent .....	13,525	42.8
1999 to March 2000 .....	7,077	13.7	15.0 to 19.9 percent .....	5,575	17.6
1995 to 1998 .....	11,356	22.0	20.0 to 24.9 percent .....	4,276	13.5
1990 to 1994 .....	8,061	15.6	25.0 to 29.9 percent .....	2,604	8.2
1980 to 1989 .....	9,406	18.3	30.0 to 34.9 percent .....	1,423	4.5
1970 to 1979 .....	6,214	12.1	35.0 percent or more .....	4,064	12.9
1969 or earlier .....	9,404	18.3	Not computed .....	147	0.5
<b>VEHICLES AVAILABLE</b>			<b>Specified renter-occupied units</b> .....	<b>13,753</b>	<b>100.0</b>
None .....	5,036	9.8	<b>GROSS RENT</b>		
1 .....	18,510	35.9	Less than \$200 .....	1,486	10.8
2 .....	19,939	38.7	\$200 to \$299 .....	1,493	10.9
3 or more .....	8,033	15.6	\$300 to \$499 .....	5,930	43.1
			\$500 to \$749 .....	3,201	23.3
<b>HOUSE HEATING FUEL</b>			\$750 to \$999 .....	486	3.5
Utility gas .....	31,213	60.6	\$1,000 to \$1,499 .....	149	1.1
Bottled, tank, or LP gas .....	680	1.3	\$1,500 or more .....	31	0.2
Electricity .....	4,438	8.6	No cash rent .....	977	7.1
Fuel oil, kerosene, etc .....	13,330	25.9	Median (dollars) .....	411	(X)
Coal or coke .....	764	1.5			
Wood .....	891	1.7	<b>GROSS RENT AS A PERCENTAGE OF</b>		
Solar energy .....	-	-	<b>HOUSEHOLD INCOME IN 1999</b>		
Other fuel .....	143	0.3	Less than 15.0 percent .....	2,550	18.5
No fuel used .....	59	0.1	15.0 to 19.9 percent .....	1,788	13.0
			20.0 to 24.9 percent .....	1,716	12.5
<b>SELECTED CHARACTERISTICS</b>			25.0 to 29.9 percent .....	1,592	11.6
Lacking complete plumbing facilities .....	111	0.2	30.0 to 34.9 percent .....	1,027	7.5
Lacking complete kitchen facilities .....	125	0.2	35.0 percent or more .....	3,897	28.3
No telephone service .....	536	1.0	Not computed .....	1,183	8.6

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic area: Huston township, Blair County, Pennsylvania

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>1,262</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>1,262</b>	<b>100.0</b>
Male.....	632	50.1	Hispanic or Latino (of any race).....	3	0.2
Female.....	630	49.9	Mexican.....	-	-
Under 5 years.....	92	7.3	Puerto Rican.....	2	0.2
5 to 9 years.....	96	7.6	Cuban.....	-	-
10 to 14 years.....	112	8.9	Other Hispanic or Latino.....	1	0.1
15 to 19 years.....	96	7.6	Not Hispanic or Latino.....	1,259	99.8
20 to 24 years.....	69	5.5	White alone.....	1,252	99.2
25 to 34 years.....	171	13.5	<b>RELATIONSHIP</b>		
35 to 44 years.....	186	14.7	<b>Total population</b> .....	<b>1,262</b>	<b>100.0</b>
45 to 54 years.....	203	16.1	In households.....	1,262	100.0
55 to 59 years.....	62	4.9	Householder.....	452	35.8
60 to 64 years.....	35	2.8	Spouse.....	299	23.7
65 to 74 years.....	69	5.5	Child.....	446	35.3
75 to 84 years.....	60	4.8	Own child under 18 years.....	344	27.3
85 years and over.....	11	0.9	Other relatives.....	30	2.4
Median age (years).....	34.7	(X)	Under 18 years.....	14	1.1
18 years and over.....	898	71.2	Nonrelatives.....	35	2.8
Male.....	452	35.8	Unmarried partner.....	19	1.5
Female.....	446	35.3	In group quarters.....	-	-
21 years and over.....	850	67.4	Institutionalized population.....	-	-
62 years and over.....	156	12.4	Noninstitutionalized population.....	-	-
65 years and over.....	140	11.1	<b>HOUSEHOLD BY TYPE</b>		
Male.....	65	5.2	<b>Total households</b> .....	<b>452</b>	<b>100.0</b>
Female.....	75	5.9	Family households (families).....	341	75.4
<b>RACE</b>			With own children under 18 years.....	166	36.7
One race.....	1,258	99.7	Married-couple family.....	299	66.2
White.....	1,254	99.4	With own children under 18 years.....	143	31.6
Black or African American.....	4	0.3	Female householder, no husband present.....	26	5.8
American Indian and Alaska Native.....	-	-	With own children under 18 years.....	12	2.7
Asian.....	-	-	Nonfamily households.....	111	24.6
Asian Indian.....	-	-	Householder living alone.....	96	21.2
Chinese.....	-	-	Householder 65 years and over.....	38	8.4
Filipino.....	-	-	Households with individuals under 18 years.....	175	38.7
Japanese.....	-	-	Households with individuals 65 years and over.....	101	22.3
Korean.....	-	-	Average household size.....	2.79	(X)
Vietnamese.....	-	-	Average family size.....	3.27	(X)
Other Asian <sup>1</sup> .....	-	-	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	-	-	<b>Total housing units</b> .....	<b>476</b>	<b>100.0</b>
Native Hawaiian.....	-	-	Occupied housing units.....	452	95.0
Guamanian or Chamorro.....	-	-	Vacant housing units.....	24	5.0
Samoan.....	-	-	For seasonal, recreational, or		
Other Pacific Islander <sup>2</sup> .....	-	-	occasional use.....	11	2.3
Some other race.....	-	-	Homeowner vacancy rate (percent).....	0.8	(X)
Two or more races.....	4	0.3	Rental vacancy rate (percent).....	1.0	(X)
<b>Race alone or in combination with one or more other races:</b> <sup>3</sup>			<b>HOUSING TENURE</b>		
White.....	1,257	99.6	<b>Occupied housing units</b> .....	<b>452</b>	<b>100.0</b>
Black or African American.....	6	0.5	Owner-occupied housing units.....	354	78.3
American Indian and Alaska Native.....	3	0.2	Renter-occupied housing units.....	98	21.7
Asian.....	-	-	Average household size of owner-occupied units.....	2.94	(X)
Native Hawaiian and Other Pacific Islander.....	-	-	Average household size of renter-occupied units.....	2.28	(X)
Some other race.....	-	-			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.

<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

**Table DP-2. Profile of Selected Social Characteristics: 2000**

Geographic area: Huston township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>SCHOOL ENROLLMENT</b>			<b>NATIVITY AND PLACE OF BIRTH</b>		
<b>Population 3 years and over enrolled in school</b> .....			<b>Total population</b> .....	<b>1,262</b>	<b>100.0</b>
Nursery school, preschool.....	14	4.8	Native.....	1,262	100.0
Kindergarten.....	27	9.3	Born in United States.....	1,244	98.6
Elementary school (grades 1-8).....	158	54.5	State of residence.....	1,153	91.4
High school (grades 9-12).....	67	23.1	Different state.....	91	7.2
College or graduate school.....	24	8.3	Born outside United States.....	18	1.4
<b>EDUCATIONAL ATTAINMENT</b>			Foreign born.....	-	-
<b>Population 25 years and over</b> .....			Entered 1990 to March 2000.....	-	-
Less than 9th grade.....	95	11.9	Naturalized citizen.....	-	-
9th to 12th grade, no diploma.....	67	8.4	Not a citizen.....	-	-
High school graduate (includes equivalency).....	386	48.3	<b>REGION OF BIRTH OF FOREIGN BORN</b>		
Some college, no degree.....	89	11.1	<b>Total (excluding born at sea)</b> .....	-	-
Associate degree.....	47	5.9	Europe.....	-	-
Bachelor's degree.....	78	9.8	Asia.....	-	-
Graduate or professional degree.....	37	4.6	Africa.....	-	-
Percent high school graduate or higher.....	79.7	(X)	Oceania.....	-	-
Percent bachelor's degree or higher.....	14.4	(X)	Latin America.....	-	-
<b>MARITAL STATUS</b>			Northern America.....	-	-
<b>Population 15 years and over</b> .....			<b>LANGUAGE SPOKEN AT HOME</b>		
Never married.....	224	23.2	<b>Population 5 years and over</b> .....	<b>1,168</b>	<b>100.0</b>
Now married, except separated.....	618	64.0	English only.....	1,057	90.5
Separated.....	13	1.3	Language other than English.....	111	9.5
Widowed.....	50	5.2	Speak English less than "very well".....	36	3.1
Female.....	36	3.7	Spanish.....	2	0.2
Divorced.....	60	6.2	Speak English less than "very well".....	-	-
Female.....	26	2.7	Other Indo-European languages.....	109	9.3
<b>GRANDPARENTS AS CAREGIVERS</b>			Speak English less than "very well".....	36	3.1
<b>Grandparent living in household with one or more own grandchildren under 18 years</b> .....			Asian and Pacific Island languages.....	-	-
Grandparent responsible for grandchildren.....	9	100.0	Speak English less than "very well".....	-	-
	7	77.8	<b>ANCESTRY (single or multiple)</b>		
<b>VETERAN STATUS</b>			<b>Total population</b> .....	<b>1,262</b>	<b>100.0</b>
<b>Civilian population 18 years and over</b> .....			<i>Total ancestries reported</i> .....	<i>1,076</i>	<i>85.3</i>
Civilian veterans.....	100	11.1	Arab.....	-	-
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>			Czech <sup>1</sup> .....	-	-
<b>Population 5 to 20 years</b> .....			Danish.....	-	-
With a disability.....	28	8.9	Dutch.....	43	3.4
<b>Population 21 to 64 years</b> .....			English.....	67	5.3
With a disability.....	88	12.1	French (except Basque) <sup>1</sup> .....	21	1.7
Percent employed.....	60.2	(X)	French Canadian <sup>1</sup> .....	2	0.2
No disability.....	637	87.9	German.....	504	39.9
Percent employed.....	83.2	(X)	Greek.....	-	-
<b>Population 65 years and over</b> .....			Hungarian.....	-	-
With a disability.....	45	34.6	Irish <sup>1</sup> .....	100	7.9
<b>RESIDENCE IN 1995</b>			Italian.....	30	2.4
<b>Population 5 years and over</b> .....			Lithuanian.....	-	-
Same house in 1995.....	902	77.2	Norwegian.....	-	-
Different house in the U.S. in 1995.....	264	22.6	Polish.....	10	0.8
Same county.....	182	15.6	Portuguese.....	-	-
Different county.....	82	7.0	Russian.....	2	0.2
Same state.....	62	5.3	Scotch-Irish.....	9	0.7
Different state.....	20	1.7	Scottish.....	23	1.8
Elsewhere in 1995.....	2	0.2	Slovak.....	-	-
			Subsaharan African.....	-	-
			Swedish.....	7	0.6
			Swiss.....	45	3.6
			Ukrainian.....	-	-
			United States or American.....	158	12.5
			Welsh.....	11	0.9
			West Indian (excluding Hispanic groups).....	-	-
			Other ancestries.....	44	3.5

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-3. Profile of Selected Economic Characteristics: 2000**

Geographic area: Huston township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>			<b>INCOME IN 1999</b>		
<b>Population 16 years and over</b> .....	<b>940</b>	<b>100.0</b>	<b>Households</b> .....	<b>446</b>	<b>100.0</b>
In labor force .....	674	71.7	Less than \$10,000 .....	39	8.7
Civilian labor force .....	674	71.7	\$10,000 to \$14,999 .....	31	7.0
Employed .....	656	69.8	\$15,000 to \$24,999 .....	74	16.6
Unemployed .....	18	1.9	\$25,000 to \$34,999 .....	69	15.5
Percent of civilian labor force .....	2.7	(X)	\$35,000 to \$49,999 .....	84	18.8
Armed Forces .....	-	-	\$50,000 to \$74,999 .....	78	17.5
Not in labor force .....	266	28.3	\$75,000 to \$99,999 .....	55	12.3
<b>Females 16 years and over</b> .....	<b>464</b>	<b>100.0</b>	\$100,000 to \$149,999 .....	7	1.6
In labor force .....	287	61.9	\$150,000 to \$199,999 .....	5	1.1
Civilian labor force .....	287	61.9	\$200,000 or more .....	4	0.9
Employed .....	284	61.2	Median household income (dollars) .....	36,250	(X)
<b>Own children under 6 years</b> .....	<b>109</b>	<b>100.0</b>	With earnings .....	366	82.1
All parents in family in labor force .....	61	56.0	Mean earnings (dollars) <sup>1</sup> .....	42,924	(X)
<b>COMMUTING TO WORK</b>			With Social Security income .....	103	23.1
<b>Workers 16 years and over</b> .....	<b>645</b>	<b>100.0</b>	Mean Social Security income (dollars) <sup>1</sup> .....	11,661	(X)
Car, truck, or van -- drove alone .....	437	67.8	With Supplemental Security Income .....	14	3.1
Car, truck, or van -- carpooled .....	87	13.5	Mean Supplemental Security Income		
Public transportation (including taxicab) .....	-	-	(dollars) <sup>1</sup> .....	6,229	(X)
Walked .....	31	4.8	With public assistance income .....	7	1.6
Other means .....	13	2.0	Mean public assistance income (dollars) <sup>1</sup> .....	943	(X)
Worked at home .....	77	11.9	With retirement income .....	66	14.8
Mean travel time to work (minutes) <sup>1</sup> .....	24.3	(X)	Mean retirement income (dollars) <sup>1</sup> .....	11,206	(X)
<b>Employed civilian population</b>			<b>Families</b> .....	<b>339</b>	<b>100.0</b>
<b>16 years and over</b> .....	<b>656</b>	<b>100.0</b>	Less than \$10,000 .....	20	5.9
<b>OCCUPATION</b>			\$10,000 to \$14,999 .....	14	4.1
Management, professional, and related occupations .....	173	26.4	\$15,000 to \$24,999 .....	46	13.6
Service occupations .....	54	8.2	\$25,000 to \$34,999 .....	46	13.6
Sales and office occupations .....	160	24.4	\$35,000 to \$49,999 .....	73	21.5
Farming, fishing, and forestry occupations .....	54	8.2	\$50,000 to \$74,999 .....	72	21.2
Construction, extraction, and maintenance occupations .....	83	12.7	\$75,000 to \$99,999 .....	53	15.6
Production, transportation, and material moving occupations .....	132	20.1	\$100,000 to \$149,999 .....	7	2.1
<b>INDUSTRY</b>			\$150,000 to \$199,999 .....	5	1.5
Agriculture, forestry, fishing and hunting, and mining .....	124	18.9	\$200,000 or more .....	3	0.9
Construction .....	47	7.2	Median family income (dollars) .....	44,063	(X)
Manufacturing .....	130	19.8	Per capita income (dollars) <sup>1</sup> .....	15,688	(X)
Wholesale trade .....	29	4.4	<b>Median earnings (dollars):</b>		
Retail trade .....	68	10.4	Male full-time, year-round workers .....	25,577	(X)
Transportation and warehousing, and utilities .....	33	5.0	Female full-time, year-round workers .....	20,446	(X)
Information .....	9	1.4			
Finance, insurance, real estate, and rental and leasing .....	17	2.6			
Professional, scientific, management, administrative, and waste management services .....	11	1.7			
Educational, health and social services .....	134	20.4			
Arts, entertainment, recreation, accommodation and food services .....	15	2.3			
Other services (except public administration) .....	26	4.0			
Public administration .....	13	2.0			
<b>CLASS OF WORKER</b>					
Private wage and salary workers .....	484	73.8			
Government workers .....	60	9.1			
Self-employed workers in own not incorporated business .....	102	15.5			
Unpaid family workers .....	10	1.5			
			<b>POVERTY STATUS IN 1999</b>		
			<b>Families</b> .....	<b>36</b>	<b>10.6</b>
			With related children under 18 years .....	26	15.5
			With related children under 5 years .....	9	15.8
			<b>Families with female householder, no husband present</b> .....	<b>8</b>	<b>34.8</b>
			With related children under 18 years .....	8	66.7
			With related children under 5 years .....	2	66.7
			<b>Individuals</b> .....	<b>161</b>	<b>12.8</b>
			18 years and over .....	102	11.3
			65 years and over .....	21	16.2
			Related children under 18 years .....	59	16.6
			Related children 5 to 17 years .....	41	15.7
			Unrelated individuals 15 years and over .....	34	24.5

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator.

See text.

Source: U.S. Bureau of the Census, Census 2000.



**Table DP-4. Profile of Selected Housing Characteristics: 2000**

Geographic area: Huston township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total housing units</b> .....	<b>476</b>	<b>100.0</b>	<b>OCCUPANTS PER ROOM</b>		
<b>UNITS IN STRUCTURE</b>			<b>Occupied housing units</b> .....	<b>452</b>	<b>100.0</b>
1-unit, detached .....	365	76.7	1.00 or less .....	438	96.9
1-unit, attached .....	12	2.5	1.01 to 1.50 .....	11	2.4
2 units .....	3	0.6	1.51 or more .....	3	0.7
3 or 4 units .....	-	-			
5 to 9 units .....	6	1.3	<b>Specified owner-occupied units</b> .....	<b>205</b>	<b>100.0</b>
10 to 19 units .....	-	-	<b>VALUE</b>		
20 or more units .....	-	-	Less than \$50,000 .....	37	18.0
Mobile home .....	90	18.9	\$50,000 to \$99,999 .....	79	38.5
Boat, RV, van, etc .....	-	-	\$100,000 to \$149,999 .....	51	24.9
			\$150,000 to \$199,999 .....	21	10.2
<b>YEAR STRUCTURE BUILT</b>			\$200,000 to \$299,999 .....	17	8.3
1999 to March 2000 .....	6	1.3	\$300,000 to \$499,999 .....	-	-
1995 to 1998 .....	29	6.1	\$500,000 to \$999,999 .....	-	-
1990 to 1994 .....	48	10.1	\$1,000,000 or more .....	-	-
1980 to 1989 .....	70	14.7	Median (dollars) .....	94,800	(X)
1970 to 1979 .....	89	18.7			
1960 to 1969 .....	43	9.0	<b>MORTGAGE STATUS AND SELECTED</b>		
1940 to 1959 .....	41	8.6	<b>MONTHLY OWNER COSTS</b>		
1939 or earlier .....	150	31.5	With a mortgage .....	126	61.5
<b>ROOMS</b>			Less than \$300 .....	-	-
1 room .....	-	-	\$300 to \$499 .....	13	6.3
2 rooms .....	6	1.3	\$500 to \$699 .....	31	15.1
3 rooms .....	21	4.4	\$700 to \$999 .....	38	18.5
4 rooms .....	45	9.5	\$1,000 to \$1,499 .....	35	17.1
5 rooms .....	101	21.2	\$1,500 to \$1,999 .....	4	2.0
6 rooms .....	111	23.3	\$2,000 or more .....	5	2.4
7 rooms .....	79	16.6	Median (dollars) .....	838	(X)
8 rooms .....	73	15.3	Not mortgaged .....	79	38.5
9 or more rooms .....	40	8.4	Median (dollars) .....	288	(X)
Median (rooms) .....	6.1	(X)	<b>SELECTED MONTHLY OWNER COSTS</b>		
<b>Occupied housing units</b> .....	<b>452</b>	<b>100.0</b>	<b>AS A PERCENTAGE OF HOUSEHOLD</b>		
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>			<b>INCOME IN 1999</b>		
1999 to March 2000 .....	25	5.5	Less than 15.0 percent .....	88	42.9
1995 to 1998 .....	98	21.7	15.0 to 19.9 percent .....	23	11.2
1990 to 1994 .....	78	17.3	20.0 to 24.9 percent .....	36	17.6
1980 to 1989 .....	85	18.8	25.0 to 29.9 percent .....	20	9.8
1970 to 1979 .....	81	17.9	30.0 to 34.9 percent .....	17	8.3
1969 or earlier .....	85	18.8	35.0 percent or more .....	21	10.2
			Not computed .....	-	-
<b>VEHICLES AVAILABLE</b>			<b>Specified renter-occupied units</b> .....	<b>76</b>	<b>100.0</b>
None .....	53	11.7	<b>GROSS RENT</b>		
1 .....	98	21.7	Less than \$200 .....	10	13.2
2 .....	203	44.9	\$200 to \$299 .....	9	11.8
3 or more .....	98	21.7	\$300 to \$499 .....	27	35.5
			\$500 to \$749 .....	6	7.9
<b>HOUSE HEATING FUEL</b>			\$750 to \$999 .....	-	-
Utility gas .....	2	0.4	\$1,000 to \$1,499 .....	-	-
Bottled, tank, or LP gas .....	14	3.1	\$1,500 or more .....	-	-
Electricity .....	51	11.3	No cash rent .....	24	31.6
Fuel oil, kerosene, etc .....	307	67.9	Median (dollars) .....	327	(X)
Coal or coke .....	12	2.7			
Wood .....	65	14.4	<b>GROSS RENT AS A PERCENTAGE OF</b>		
Solar energy .....	-	-	<b>HOUSEHOLD INCOME IN 1999</b>		
Other fuel .....	1	0.2	Less than 15.0 percent .....	17	22.4
No fuel used .....	-	-	15.0 to 19.9 percent .....	7	9.2
			20.0 to 24.9 percent .....	4	5.3
<b>SELECTED CHARACTERISTICS</b>			25.0 to 29.9 percent .....	8	10.5
Lacking complete plumbing facilities .....	6	1.3	30.0 to 34.9 percent .....	7	9.2
Lacking complete kitchen facilities .....	-	-	35.0 percent or more .....	9	11.8
No telephone service .....	3	0.7	Not computed .....	24	31.6

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic area: Martinsburg borough, Pennsylvania

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>2,236</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>2,236</b>	<b>100.0</b>
Male.....	979	43.8	Hispanic or Latino (of any race).....	8	0.4
Female.....	1,257	56.2	Mexican.....	-	-
Under 5 years.....	86	3.8	Puerto Rican.....	5	0.2
5 to 9 years.....	118	5.3	Cuban.....	-	-
10 to 14 years.....	137	6.1	Other Hispanic or Latino.....	3	0.1
15 to 19 years.....	114	5.1	Not Hispanic or Latino.....	2,228	99.6
20 to 24 years.....	88	3.9	White alone.....	2,217	99.2
25 to 34 years.....	258	11.5	<b>RELATIONSHIP</b>		
35 to 44 years.....	284	12.7	<b>Total population</b> .....	<b>2,236</b>	<b>100.0</b>
45 to 54 years.....	214	9.6	In households.....	1,956	87.5
55 to 59 years.....	100	4.5	Householder.....	892	39.9
60 to 64 years.....	116	5.2	Spouse.....	437	19.5
65 to 74 years.....	242	10.8	Child.....	532	23.8
75 to 84 years.....	254	11.4	Own child under 18 years.....	398	17.8
85 years and over.....	225	10.1	Other relatives.....	38	1.7
Median age (years).....	46.3	(X)	Under 18 years.....	14	0.6
18 years and over.....	1,816	81.2	Nonrelatives.....	57	2.5
Male.....	746	33.4	Unmarried partner.....	39	1.7
Female.....	1,070	47.9	In group quarters.....	280	12.5
21 years and over.....	1,759	78.7	Institutionalized population.....	277	12.4
62 years and over.....	797	35.6	Noninstitutionalized population.....	3	0.1
65 years and over.....	721	32.2	<b>HOUSEHOLD BY TYPE</b>		
Male.....	223	10.0	<b>Total households</b> .....	<b>892</b>	<b>100.0</b>
Female.....	498	22.3	Family households (families).....	544	61.0
<b>RACE</b>			With own children under 18 years.....	235	26.3
One race.....	2,228	99.6	Married-couple family.....	437	49.0
White.....	2,224	99.5	With own children under 18 years.....	165	18.5
Black or African American.....	-	-	Female householder, no husband present.....	83	9.3
American Indian and Alaska Native.....	2	0.1	With own children under 18 years.....	51	5.7
Asian.....	1	-	Nonfamily households.....	348	39.0
Asian Indian.....	-	-	Householder living alone.....	320	35.9
Chinese.....	-	-	Householder 65 years and over.....	180	20.2
Filipino.....	-	-	Households with individuals under 18 years.....	247	27.7
Japanese.....	1	-	Households with individuals 65 years and over.....	336	37.7
Korean.....	-	-	Average household size.....	2.19	(X)
Vietnamese.....	-	-	Average family size.....	2.85	(X)
Other Asian <sup>1</sup> .....	-	-	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	-	-	<b>Total housing units</b> .....	<b>924</b>	<b>100.0</b>
Native Hawaiian.....	-	-	Occupied housing units.....	892	96.5
Guamanian or Chamorro.....	-	-	Vacant housing units.....	32	3.5
Samoan.....	-	-	For seasonal, recreational, or occasional use.....	1	0.1
Other Pacific Islander <sup>2</sup> .....	-	-	Homeowner vacancy rate (percent).....	1.0	(X)
Some other race.....	1	-	Rental vacancy rate (percent).....	1.7	(X)
Two or more races.....	8	0.4	<b>HOUSING TENURE</b>		
<b>Race alone or in combination with one or more other races:</b> <sup>3</sup>			<b>Occupied housing units</b> .....	<b>892</b>	<b>100.0</b>
White.....	2,232	99.8	Owner-occupied housing units.....	601	67.4
Black or African American.....	-	-	Renter-occupied housing units.....	291	32.6
American Indian and Alaska Native.....	4	0.2	Average household size of owner-occupied units.....	2.36	(X)
Asian.....	5	0.2	Average household size of renter-occupied units.....	1.86	(X)
Native Hawaiian and Other Pacific Islander.....	-	-			
Some other race.....	3	0.1			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

**Table DP-2. Profile of Selected Social Characteristics: 2000**

Geographic area: Martinsburg borough, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>SCHOOL ENROLLMENT</b>			<b>NATIVITY AND PLACE OF BIRTH</b>		
<b>Population 3 years and over enrolled in school</b>			<b>Total population</b>	<b>2,236</b>	<b>100.0</b>
Nursery school, preschool	53	13.2	Native	2,232	99.8
Kindergarten	30	7.5	Born in United States	2,228	99.6
Elementary school (grades 1-8)	183	45.6	State of residence	1,993	89.1
High school (grades 9-12)	93	23.2	Different state	235	10.5
College or graduate school	42	10.5	Born outside United States	4	0.2
<b>EDUCATIONAL ATTAINMENT</b>			Foreign born	4	0.2
<b>Population 25 years and over</b>			Entered 1990 to March 2000	-	-
Less than 9th grade	234	13.8	Naturalized citizen	4	0.2
9th to 12th grade, no diploma	178	10.5	Not a citizen	-	-
High school graduate (includes equivalency)	766	45.3	<b>REGION OF BIRTH OF FOREIGN BORN</b>		
Some college, no degree	200	11.8	<b>Total (excluding born at sea)</b>		
Associate degree	99	5.9	Europe	-	-
Bachelor's degree	137	8.1	Asia	-	-
Graduate or professional degree	78	4.6	Africa	-	-
Percent high school graduate or higher	75.7	(X)	Oceania	-	-
Percent bachelor's degree or higher	12.7	(X)	Latin America	-	-
<b>MARITAL STATUS</b>			Northern America	4	100.0
<b>Population 15 years and over</b>			<b>LANGUAGE SPOKEN AT HOME</b>		
Never married	344	18.2	<b>Population 5 years and over</b>		
Now married, except separated	963	50.9	English only	2,142	100.0
Separated	33	1.7	Language other than English	2,107	98.4
Widowed	374	19.8	Speak English less than "very well"	35	1.6
Female	326	17.2	Spanish	21	1.0
Divorced	179	9.5	Speak English less than "very well"	20	0.9
Female	107	5.7	Other Indo-European languages	16	0.7
<b>GRANDPARENTS AS CAREGIVERS</b>			Speak English less than "very well"	10	0.5
<b>Grandparent living in household with one or more own grandchildren under 18 years</b>			Asian and Pacific Island languages	-	-
Grandparent responsible for grandchildren	8	100.0	Speak English less than "very well"	-	-
	3	37.5	<b>ANCESTRY (single or multiple)</b>		
<b>VETERAN STATUS</b>			<b>Total population</b>		
<b>Civilian population 18 years and over</b>			<b>Total ancestries reported</b>		
Civilian veterans	239	13.2	Arab	1,931	86.4
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>			Czech <sup>1</sup>	-	-
<b>Population 5 to 20 years</b>			Danish	-	-
With a disability	39	10.5	Dutch	82	3.7
<b>Population 21 to 64 years</b>			English	186	8.3
With a disability	208	20.0	French (except Basque) <sup>1</sup>	27	1.2
Percent employed	40.9	(X)	French Canadian <sup>1</sup>	3	0.1
No disability	833	80.0	German	918	41.1
Percent employed	74.9	(X)	Greek	-	-
<b>Population 65 years and over</b>			Hungarian	7	0.3
With a disability	194	42.8	Irish <sup>1</sup>	227	10.2
<b>RESIDENCE IN 1995</b>			Italian	63	2.8
<b>Population 5 years and over</b>			Lithuanian	-	-
Same house in 1995	1,276	59.6	Norwegian	-	-
Different house in the U.S. in 1995	866	40.4	Polish	26	1.2
Same county	588	27.5	Portuguese	-	-
Different county	278	13.0	Russian	-	-
Same state	182	8.5	Scotch-Irish	35	1.6
Different state	96	4.5	Scottish	14	0.6
Elsewhere in 1995	-	-	Slovak	3	0.1
			Subsaharan African	-	-
			Swedish	9	0.4
			Swiss	15	0.7
			Ukrainian	-	-
			United States or American	171	7.6
			Welsh	28	1.3
			West Indian (excluding Hispanic groups)	-	-
			Other ancestries	117	5.2

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.



**Table DP-4. Profile of Selected Housing Characteristics: 2000**

Geographic area: Martinsburg borough, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total housing units</b> .....	<b>924</b>	<b>100.0</b>	<b>OCCUPANTS PER ROOM</b>		
<b>UNITS IN STRUCTURE</b>			<b>Occupied housing units</b> .....	<b>892</b>	<b>100.0</b>
1-unit, detached .....	513	55.5	1.00 or less .....	885	99.2
1-unit, attached .....	39	4.2	1.01 to 1.50 .....	7	0.8
2 units .....	80	8.7	1.51 or more .....	-	-
3 or 4 units .....	82	8.9			
5 to 9 units .....	41	4.4	<b>Specified owner-occupied units</b> .....	<b>437</b>	<b>100.0</b>
10 to 19 units .....	15	1.6	<b>VALUE</b>		
20 or more units .....	26	2.8	Less than \$50,000 .....	67	15.3
Mobile home .....	128	13.9	\$50,000 to \$99,999 .....	271	62.0
Boat, RV, van, etc .....	-	-	\$100,000 to \$149,999 .....	83	19.0
			\$150,000 to \$199,999 .....	12	2.7
			\$200,000 to \$299,999 .....	-	-
<b>YEAR STRUCTURE BUILT</b>			\$300,000 to \$499,999 .....	-	-
1999 to March 2000 .....	32	3.5	\$500,000 to \$999,999 .....	4	0.9
1995 to 1998 .....	39	4.2	\$1,000,000 or more .....	-	-
1990 to 1994 .....	24	2.6	Median (dollars) .....	79,400	(X)
1980 to 1989 .....	102	11.0			
1970 to 1979 .....	86	9.3	<b>MORTGAGE STATUS AND SELECTED</b>		
1960 to 1969 .....	89	9.6	<b>MONTHLY OWNER COSTS</b>		
1940 to 1959 .....	202	21.9	With a mortgage .....	179	41.0
1939 or earlier .....	350	37.9	Less than \$300 .....	-	-
			\$300 to \$499 .....	22	5.0
<b>ROOMS</b>			\$500 to \$699 .....	58	13.3
1 room .....	-	-	\$700 to \$999 .....	46	10.5
2 rooms .....	23	2.5	\$1,000 to \$1,499 .....	46	10.5
3 rooms .....	70	7.6	\$1,500 to \$1,999 .....	7	1.6
4 rooms .....	202	21.9	\$2,000 or more .....	-	-
5 rooms .....	212	22.9	Median (dollars) .....	743	(X)
6 rooms .....	140	15.2	Not mortgaged .....	258	59.0
7 rooms .....	117	12.7	Median (dollars) .....	270	(X)
8 rooms .....	90	9.7			
9 or more rooms .....	70	7.6	<b>SELECTED MONTHLY OWNER COSTS</b>		
Median (rooms) .....	5.3	(X)	<b>AS A PERCENTAGE OF HOUSEHOLD</b>		
			<b>INCOME IN 1999</b>		
<b>Occupied housing units</b> .....	<b>892</b>	<b>100.0</b>	Less than 15.0 percent .....	225	51.5
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>			15.0 to 19.9 percent .....	79	18.1
1999 to March 2000 .....	103	11.5	20.0 to 24.9 percent .....	66	15.1
1995 to 1998 .....	217	24.3	25.0 to 29.9 percent .....	24	5.5
1990 to 1994 .....	150	16.8	30.0 to 34.9 percent .....	20	4.6
1980 to 1989 .....	181	20.3	35.0 percent or more .....	23	5.3
1970 to 1979 .....	87	9.8	Not computed .....	-	-
1969 or earlier .....	154	17.3			
			<b>Specified renter-occupied units</b> .....	<b>290</b>	<b>100.0</b>
<b>VEHICLES AVAILABLE</b>			<b>GROSS RENT</b>		
None .....	87	9.8	Less than \$200 .....	28	9.7
1 .....	378	42.4	\$200 to \$299 .....	31	10.7
2 .....	339	38.0	\$300 to \$499 .....	143	49.3
3 or more .....	88	9.9	\$500 to \$749 .....	26	9.0
			\$750 to \$999 .....	33	11.4
<b>HOUSE HEATING FUEL</b>			\$1,000 to \$1,499 .....	-	-
Utility gas .....	89	10.0	\$1,500 or more .....	-	-
Bottled, tank, or LP gas .....	3	0.3	No cash rent .....	29	10.0
Electricity .....	216	24.2	Median (dollars) .....	380	(X)
Fuel oil, kerosene, etc .....	556	62.3			
Coal or coke .....	12	1.3	<b>GROSS RENT AS A PERCENTAGE OF</b>		
Wood .....	11	1.2	<b>HOUSEHOLD INCOME IN 1999</b>		
Solar energy .....	-	-	Less than 15.0 percent .....	31	10.7
Other fuel .....	5	0.6	15.0 to 19.9 percent .....	44	15.2
No fuel used .....	-	-	20.0 to 24.9 percent .....	34	11.7
			25.0 to 29.9 percent .....	42	14.5
<b>SELECTED CHARACTERISTICS</b>			30.0 to 34.9 percent .....	27	9.3
Lacking complete plumbing facilities .....	4	0.4	35.0 percent or more .....	74	25.5
Lacking complete kitchen facilities .....	-	-	Not computed .....	38	13.1
No telephone service .....	10	1.1			

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic area: North Woodbury township, Blair County, Pennsylvania

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>2,276</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>2,276</b>	<b>100.0</b>
Male.....	1,118	49.1	Hispanic or Latino (of any race).....	6	0.3
Female.....	1,158	50.9	Mexican.....	-	-
Under 5 years.....	137	6.0	Puerto Rican.....	-	-
5 to 9 years.....	139	6.1	Cuban.....	-	-
10 to 14 years.....	174	7.6	Other Hispanic or Latino.....	6	0.3
15 to 19 years.....	167	7.3	Not Hispanic or Latino.....	2,270	99.7
20 to 24 years.....	140	6.2	White alone.....	2,257	99.2
25 to 34 years.....	260	11.4	<b>RELATIONSHIP</b>		
35 to 44 years.....	326	14.3	<b>Total population</b> .....	<b>2,276</b>	<b>100.0</b>
45 to 54 years.....	330	14.5	In households.....	2,276	100.0
55 to 59 years.....	131	5.8	Householder.....	886	38.9
60 to 64 years.....	101	4.4	Spouse.....	574	25.2
65 to 74 years.....	151	6.6	Child.....	726	31.9
75 to 84 years.....	157	6.9	Own child under 18 years.....	548	24.1
85 years and over.....	63	2.8	Other relatives.....	43	1.9
Median age (years).....	39.1	(X)	Under 18 years.....	18	0.8
18 years and over.....	1,703	74.8	Nonrelatives.....	47	2.1
Male.....	833	36.6	Unmarried partner.....	30	1.3
Female.....	870	38.2	In group quarters.....	-	-
21 years and over.....	1,635	71.8	Institutionalized population.....	-	-
62 years and over.....	434	19.1	Noninstitutionalized population.....	-	-
65 years and over.....	371	16.3	<b>HOUSEHOLD BY TYPE</b>		
Male.....	158	6.9	<b>Total households</b> .....	<b>886</b>	<b>100.0</b>
Female.....	213	9.4	Family households (families).....	649	73.3
<b>RACE</b>			With own children under 18 years.....	281	31.7
One race.....	2,267	99.6	Married-couple family.....	574	64.8
White.....	2,262	99.4	With own children under 18 years.....	246	27.8
Black or African American.....	4	0.2	Female householder, no husband present.....	47	5.3
American Indian and Alaska Native.....	-	-	With own children under 18 years.....	26	2.9
Asian.....	1	-	Nonfamily households.....	237	26.7
Asian Indian.....	-	-	Householder living alone.....	214	24.2
Chinese.....	-	-	Householder 65 years and over.....	126	14.2
Filipino.....	-	-	Households with individuals under 18 years.....	295	33.3
Japanese.....	-	-	Households with individuals 65 years and over.....	273	30.8
Korean.....	1	-	Average household size.....	2.57	(X)
Vietnamese.....	-	-	Average family size.....	3.07	(X)
Other Asian <sup>1</sup> .....	-	-	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	-	-	<b>Total housing units</b> .....	<b>919</b>	<b>100.0</b>
Native Hawaiian.....	-	-	Occupied housing units.....	886	96.4
Guamanian or Chamorro.....	-	-	Vacant housing units.....	33	3.6
Samoan.....	-	-	For seasonal, recreational, or		
Other Pacific Islander <sup>2</sup> .....	-	-	occasional use.....	3	0.3
Some other race.....	-	-	Homeowner vacancy rate (percent).....	0.8	(X)
Two or more races.....	9	0.4	Rental vacancy rate (percent).....	2.2	(X)
<b>Race alone or in combination with one</b>			<b>HOUSING TENURE</b>		
<b>or more other races:</b> <sup>3</sup>			<b>Occupied housing units</b> .....	<b>886</b>	<b>100.0</b>
White.....	2,271	99.8	Owner-occupied housing units.....	706	79.7
Black or African American.....	7	0.3	Renter-occupied housing units.....	180	20.3
American Indian and Alaska Native.....	1	-	Average household size of owner-occupied units.....	2.70	(X)
Asian.....	5	0.2	Average household size of renter-occupied units.....	2.04	(X)
Native Hawaiian and Other Pacific Islander.....	-	-			
Some other race.....	1	-			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

**Table DP-2. Profile of Selected Social Characteristics: 2000**

Geographic area: North Woodbury township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>SCHOOL ENROLLMENT</b>			<b>NATIVITY AND PLACE OF BIRTH</b>		
<b>Population 3 years and over enrolled in school</b> .....			<b>Total population</b> .....	<b>2,276</b>	<b>100.0</b>
Nursery school, preschool.....	18	3.8	Native.....	2,254	99.0
Kindergarten.....	12	2.6	Born in United States.....	2,250	98.9
Elementary school (grades 1-8).....	254	54.2	State of residence.....	2,044	89.8
High school (grades 9-12).....	148	31.6	Different state.....	206	9.1
College or graduate school.....	37	7.9	Born outside United States.....	4	0.2
<b>EDUCATIONAL ATTAINMENT</b>			Foreign born.....	22	1.0
<b>Population 25 years and over</b> .....			Entered 1990 to March 2000.....	5	0.2
Less than 9th grade.....	69	4.6	Naturalized citizen.....	9	0.4
9th to 12th grade, no diploma.....	160	10.6	Not a citizen.....	13	0.6
High school graduate (includes equivalency).....	771	51.0	<b>REGION OF BIRTH OF FOREIGN BORN</b>		
Some college, no degree.....	197	13.0	<b>Total (excluding born at sea)</b> .....	<b>22</b>	<b>100.0</b>
Associate degree.....	85	5.6	Europe.....	-	-
Bachelor's degree.....	157	10.4	Asia.....	-	-
Graduate or professional degree.....	74	4.9	Africa.....	-	-
Percent high school graduate or higher.....	84.9	(X)	Oceania.....	-	-
Percent bachelor's degree or higher.....	15.3	(X)	Latin America.....	13	59.1
<b>MARITAL STATUS</b>			Northern America.....	9	40.9
<b>Population 15 years and over</b> .....			<b>LANGUAGE SPOKEN AT HOME</b>		
Never married.....	387	21.1	<b>Population 5 years and over</b> .....	<b>2,127</b>	<b>100.0</b>
Now married, except separated.....	1,175	64.1	English only.....	2,080	97.8
Separated.....	19	1.0	Language other than English.....	47	2.2
Widowed.....	140	7.6	Speak English less than "very well".....	18	0.8
Female.....	109	5.9	Spanish.....	5	0.2
Divorced.....	111	6.1	Speak English less than "very well".....	-	-
Female.....	55	3.0	Other Indo-European languages.....	38	1.8
<b>GRANDPARENTS AS CAREGIVERS</b>			Speak English less than "very well".....	14	0.7
<b>Grandparent living in household with one or more own grandchildren under 18 years</b> .....			Asian and Pacific Island languages.....	-	-
Grandparent responsible for grandchildren.....	16	57.1	Speak English less than "very well".....	-	-
<b>VETERAN STATUS</b>			<b>ANCESTRY (single or multiple)</b>		
<b>Civilian population 18 years and over</b> .....			<b>Total population</b> .....	<b>2,276</b>	<b>100.0</b>
Civilian veterans.....	214	12.6	<i>Total ancestries reported</i> .....	<i>2,005</i>	<i>88.1</i>
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>			Arab.....	-	-
<b>Population 5 to 20 years</b> .....			Czech <sup>1</sup> .....	5	0.2
With a disability.....	36	7.5	Danish.....	-	-
<b>Population 21 to 64 years</b> .....			Dutch.....	38	1.7
With a disability.....	135	10.6	English.....	145	6.4
Percent employed.....	74.1	(X)	French (except Basque) <sup>1</sup> .....	26	1.1
No disability.....	1,134	89.4	French Canadian <sup>1</sup> .....	3	0.1
Percent employed.....	77.0	(X)	German.....	978	43.0
<b>Population 65 years and over</b> .....			Greek.....	6	0.3
With a disability.....	161	42.8	Hungarian.....	12	0.5
<b>RESIDENCE IN 1995</b>			Irish <sup>1</sup> .....	247	10.9
<b>Population 5 years and over</b> .....			Italian.....	61	2.7
Same house in 1995.....	1,524	71.7	Lithuanian.....	-	-
Different house in the U.S. in 1995.....	603	28.3	Norwegian.....	5	0.2
Same county.....	395	18.6	Polish.....	67	2.9
Different county.....	208	9.8	Portuguese.....	-	-
Same state.....	105	4.9	Russian.....	8	0.4
Different state.....	103	4.8	Scotch-Irish.....	16	0.7
Elsewhere in 1995.....	-	-	Scottish.....	34	1.5
			Slovak.....	4	0.2
			Subsaharan African.....	-	-
			Swedish.....	20	0.9
			Swiss.....	66	2.9
			Ukrainian.....	6	0.3
			United States or American.....	147	6.5
			Welsh.....	10	0.4
			West Indian (excluding Hispanic groups).....	13	0.6
			Other ancestries.....	88	3.9

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-3. Profile of Selected Economic Characteristics: 2000**

Geographic area: North Woodbury township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>			<b>INCOME IN 1999</b>		
<b>Population 16 years and over</b> .....	<b>1,790</b>	<b>100.0</b>	<b>Households</b> .....	<b>893</b>	<b>100.0</b>
In labor force .....	1,122	62.7	Less than \$10,000 .....	64	7.2
Civilian labor force .....	1,120	62.6	\$10,000 to \$14,999 .....	78	8.7
Employed .....	1,085	60.6	\$15,000 to \$24,999 .....	125	14.0
Unemployed .....	35	2.0	\$25,000 to \$34,999 .....	126	14.1
Percent of civilian labor force .....	3.1	(X)	\$35,000 to \$49,999 .....	207	23.2
Armed Forces .....	2	0.1	\$50,000 to \$74,999 .....	180	20.2
Not in labor force .....	668	37.3	\$75,000 to \$99,999 .....	61	6.8
<b>Females 16 years and over</b> .....	<b>915</b>	<b>100.0</b>	\$100,000 to \$149,999 .....	43	4.8
In labor force .....	476	52.0	\$150,000 to \$199,999 .....	-	-
Civilian labor force .....	474	51.8	\$200,000 or more .....	9	1.0
Employed .....	459	50.2	Median household income (dollars) .....	37,229	(X)
<b>Own children under 6 years</b> .....	<b>166</b>	<b>100.0</b>	With earnings .....	679	76.0
All parents in family in labor force .....	92	55.4	Mean earnings (dollars) <sup>1</sup> .....	46,776	(X)
<b>COMMUTING TO WORK</b>			With Social Security income .....	278	31.1
<b>Workers 16 years and over</b> .....	<b>1,062</b>	<b>100.0</b>	Mean Social Security income (dollars) <sup>1</sup> .....	10,782	(X)
Car, truck, or van -- drove alone .....	857	80.7	With Supplemental Security Income .....	18	2.0
Car, truck, or van -- carpooled .....	95	8.9	Mean Supplemental Security Income (dollars) <sup>1</sup> .....	12,983	(X)
Public transportation (including taxicab) .....	-	-	With public assistance income .....	7	0.8
Walked .....	36	3.4	Mean public assistance income (dollars) <sup>1</sup> .....	1,543	(X)
Other means .....	28	2.6	With retirement income .....	167	18.7
Worked at home .....	46	4.3	Mean retirement income (dollars) <sup>1</sup> .....	10,012	(X)
Mean travel time to work (minutes) <sup>1</sup> .....	22.1	(X)	<b>Families</b> .....		
<b>Employed civilian population 16 years and over</b> .....	<b>1,085</b>	<b>100.0</b>	Less than \$10,000 .....	13	2.0
<b>OCCUPATION</b>			\$10,000 to \$14,999 .....	36	5.5
Management, professional, and related occupations .....	283	26.1	\$15,000 to \$24,999 .....	62	9.4
Service occupations .....	99	9.1	\$25,000 to \$34,999 .....	96	14.6
Sales and office occupations .....	196	18.1	\$35,000 to \$49,999 .....	177	26.9
Farming, fishing, and forestry occupations .....	57	5.3	\$50,000 to \$74,999 .....	170	25.8
Construction, extraction, and maintenance occupations .....	128	11.8	\$75,000 to \$99,999 .....	61	9.3
Production, transportation, and material moving occupations .....	322	29.7	\$100,000 to \$149,999 .....	35	5.3
<b>INDUSTRY</b>			\$150,000 to \$199,999 .....	-	-
Agriculture, forestry, fishing and hunting, and mining .....	126	11.6	\$200,000 or more .....	9	1.4
Construction .....	97	8.9	Median family income (dollars) .....	44,153	(X)
Manufacturing .....	223	20.6	Per capita income (dollars) <sup>1</sup> .....	17,386	(X)
Wholesale trade .....	53	4.9	<b>Median earnings (dollars):</b>		
Retail trade .....	108	10.0	Male full-time, year-round workers .....	30,142	(X)
Transportation and warehousing, and utilities .....	99	9.1	Female full-time, year-round workers .....	24,028	(X)
Information .....	11	1.0	Subject		
Finance, insurance, real estate, and rental and leasing .....	24	2.2	<b>POVERTY STATUS IN 1999</b>		
Professional, scientific, management, administrative, and waste management services .....	17	1.6	<b>Families</b> .....	<b>35</b>	<b>5.3</b>
Educational, health and social services .....	225	20.7	With related children under 18 years .....	16	5.4
Arts, entertainment, recreation, accommodation and food services .....	26	2.4	With related children under 5 years .....	6	4.2
Other services (except public administration) .....	46	4.2	<b>Families with female householder, no husband present</b> .....		
Public administration .....	30	2.8	With related children under 18 years .....	3	6.1
<b>CLASS OF WORKER</b>			With related children under 5 years .....	-	-
Private wage and salary workers .....	847	78.1	<b>Individuals</b> .....		
Government workers .....	111	10.2	18 years and over .....	121	7.1
Self-employed workers in own not incorporated business .....	120	11.1	65 years and over .....	39	10.4
Unpaid family workers .....	7	0.6	Related children under 18 years .....	47	8.5
			Related children 5 to 17 years .....	41	10.1
			Unrelated individuals 15 years and over .....	67	22.0

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator.

See text.

Source: U.S. Bureau of the Census, Census 2000.



**Table DP-4. Profile of Selected Housing Characteristics: 2000**

Geographic area: North Woodbury township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total housing units</b> .....	<b>919</b>	<b>100.0</b>	<b>OCCUPANTS PER ROOM</b>		
<b>UNITS IN STRUCTURE</b>			<b>Occupied housing units</b> .....	<b>886</b>	<b>100.0</b>
1-unit, detached .....	617	67.1	1.00 or less .....	883	99.7
1-unit, attached .....	42	4.6	1.01 to 1.50 .....	3	0.3
2 units .....	7	0.8	1.51 or more .....	-	-
3 or 4 units .....	11	1.2			
5 to 9 units .....	4	0.4	<b>Specified owner-occupied units</b> .....	<b>457</b>	<b>100.0</b>
10 to 19 units .....	-	-	<b>VALUE</b>		
20 or more units .....	45	4.9	Less than \$50,000 .....	28	6.1
Mobile home .....	189	20.6	\$50,000 to \$99,999 .....	240	52.5
Boat, RV, van, etc .....	4	0.4	\$100,000 to \$149,999 .....	131	28.7
			\$150,000 to \$199,999 .....	32	7.0
<b>YEAR STRUCTURE BUILT</b>			\$200,000 to \$299,999 .....	22	4.8
1999 to March 2000 .....	28	3.0	\$300,000 to \$499,999 .....	4	0.9
1995 to 1998 .....	124	13.5	\$500,000 to \$999,999 .....	-	-
1990 to 1994 .....	74	8.1	\$1,000,000 or more .....	-	-
1980 to 1989 .....	179	19.5	Median (dollars) .....	92,500	(X)
1970 to 1979 .....	114	12.4			
1960 to 1969 .....	64	7.0	<b>MORTGAGE STATUS AND SELECTED</b>		
1940 to 1959 .....	65	7.1	<b>MONTHLY OWNER COSTS</b>		
1939 or earlier .....	271	29.5	With a mortgage .....	268	58.6
<b>ROOMS</b>			Less than \$300 .....	-	-
1 room .....	3	0.3	\$300 to \$499 .....	42	9.2
2 rooms .....	-	-	\$500 to \$699 .....	60	13.1
3 rooms .....	42	4.6	\$700 to \$999 .....	120	26.3
4 rooms .....	116	12.6	\$1,000 to \$1,499 .....	32	7.0
5 rooms .....	168	18.3	\$1,500 to \$1,999 .....	10	2.2
6 rooms .....	231	25.1	\$2,000 or more .....	4	0.9
7 rooms .....	141	15.3	Median (dollars) .....	763	(X)
8 rooms .....	128	13.9	Not mortgaged .....	189	41.4
9 or more rooms .....	90	9.8	Median (dollars) .....	259	(X)
Median (rooms) .....	6.1	(X)			
<b>Occupied housing units</b> .....	<b>886</b>	<b>100.0</b>	<b>SELECTED MONTHLY OWNER COSTS</b>		
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>			<b>AS A PERCENTAGE OF HOUSEHOLD</b>		
1999 to March 2000 .....	100	11.3	<b>INCOME IN 1999</b>		
1995 to 1998 .....	222	25.1	Less than 15.0 percent .....	238	52.1
1990 to 1994 .....	140	15.8	15.0 to 19.9 percent .....	96	21.0
1980 to 1989 .....	211	23.8	20.0 to 24.9 percent .....	30	6.6
1970 to 1979 .....	118	13.3	25.0 to 29.9 percent .....	40	8.8
1969 or earlier .....	95	10.7	30.0 to 34.9 percent .....	15	3.3
			35.0 percent or more .....	34	7.4
			Not computed .....	4	0.9
<b>VEHICLES AVAILABLE</b>					
None .....	65	7.3	<b>Specified renter-occupied units</b> .....	<b>158</b>	<b>100.0</b>
1 .....	249	28.1	<b>GROSS RENT</b>		
2 .....	337	38.0	Less than \$200 .....	7	4.4
3 or more .....	235	26.5	\$200 to \$299 .....	15	9.5
			\$300 to \$499 .....	40	25.3
<b>HOUSE HEATING FUEL</b>			\$500 to \$749 .....	29	18.4
Utility gas .....	74	8.4	\$750 to \$999 .....	4	2.5
Bottled, tank, or LP gas .....	32	3.6	\$1,000 to \$1,499 .....	30	19.0
Electricity .....	181	20.4	\$1,500 or more .....	9	5.7
Fuel oil, kerosene, etc .....	507	57.2	No cash rent .....	24	15.2
Coal or coke .....	20	2.3	Median (dollars) .....	512	(X)
Wood .....	65	7.3			
Solar energy .....	-	-	<b>GROSS RENT AS A PERCENTAGE OF</b>		
Other fuel .....	-	-	<b>HOUSEHOLD INCOME IN 1999</b>		
No fuel used .....	7	0.8	Less than 15.0 percent .....	32	20.3
			15.0 to 19.9 percent .....	25	15.8
<b>SELECTED CHARACTERISTICS</b>			20.0 to 24.9 percent .....	5	3.2
Lacking complete plumbing facilities .....	4	0.5	25.0 to 29.9 percent .....	11	7.0
Lacking complete kitchen facilities .....	-	-	30.0 to 34.9 percent .....	7	4.4
No telephone service .....	4	0.5	35.0 percent or more .....	50	31.6
			Not computed .....	28	17.7

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic area: Roaring Spring borough, Pennsylvania

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>2,418</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>2,418</b>	<b>100.0</b>
Male.....	1,158	47.9	Hispanic or Latino (of any race).....	1	-
Female.....	1,260	52.1	Mexican.....	-	-
Under 5 years.....	134	5.5	Puerto Rican.....	-	-
5 to 9 years.....	168	6.9	Cuban.....	-	-
10 to 14 years.....	147	6.1	Other Hispanic or Latino.....	1	-
15 to 19 years.....	157	6.5	Not Hispanic or Latino.....	2,417	100.0
20 to 24 years.....	164	6.8	White alone.....	2,391	98.9
25 to 34 years.....	338	14.0	<b>RELATIONSHIP</b>		
35 to 44 years.....	340	14.1	<b>Total population</b> .....	<b>2,418</b>	<b>100.0</b>
45 to 54 years.....	334	13.8	In households.....	2,415	99.9
55 to 59 years.....	110	4.5	Householder.....	1,019	42.1
60 to 64 years.....	120	5.0	Spouse.....	551	22.8
65 to 74 years.....	198	8.2	Child.....	684	28.3
75 to 84 years.....	170	7.0	Own child under 18 years.....	500	20.7
85 years and over.....	38	1.6	Other relatives.....	91	3.8
Median age (years).....	38.1	(X)	Under 18 years.....	38	1.6
18 years and over.....	1,874	77.5	Nonrelatives.....	70	2.9
Male.....	855	35.4	Unmarried partner.....	52	2.2
Female.....	1,019	42.1	In group quarters.....	3	0.1
21 years and over.....	1,784	73.8	Institutionalized population.....	-	-
62 years and over.....	473	19.6	Noninstitutionalized population.....	3	0.1
65 years and over.....	406	16.8	<b>HOUSEHOLD BY TYPE</b>		
Male.....	156	6.5	<b>Total households</b> .....	<b>1,019</b>	<b>100.0</b>
Female.....	250	10.3	Family households (families).....	706	69.3
<b>RACE</b>			With own children under 18 years.....	309	30.3
One race.....	2,412	99.8	Married-couple family.....	551	54.1
White.....	2,392	98.9	With own children under 18 years.....	214	21.0
Black or African American.....	4	0.2	Female householder, no husband present.....	115	11.3
American Indian and Alaska Native.....	1	-	With own children under 18 years.....	69	6.8
Asian.....	9	0.4	Nonfamily households.....	313	30.7
Asian Indian.....	-	-	Householder living alone.....	277	27.2
Chinese.....	5	0.2	Householder 65 years and over.....	148	14.5
Filipino.....	-	-	Households with individuals under 18 years.....	335	32.9
Japanese.....	-	-	Households with individuals 65 years and over.....	303	29.7
Korean.....	3	0.1	Average household size.....	2.37	(X)
Vietnamese.....	-	-	Average family size.....	2.88	(X)
Other Asian <sup>1</sup> .....	1	-	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	5	0.2	<b>Total housing units</b> .....	<b>1,087</b>	<b>100.0</b>
Native Hawaiian.....	5	0.2	Occupied housing units.....	1,019	93.7
Guamanian or Chamorro.....	-	-	Vacant housing units.....	68	6.3
Samoan.....	-	-	For seasonal, recreational, or		
Other Pacific Islander <sup>2</sup> .....	-	-	occasional use.....	1	0.1
Some other race.....	1	-	Homeowner vacancy rate (percent).....	1.0	(X)
Two or more races.....	6	0.2	Rental vacancy rate (percent).....	7.2	(X)
<b>Race alone or in combination with one or more other races:</b> <sup>3</sup>			<b>HOUSING TENURE</b>		
White.....	2,398	99.2	<b>Occupied housing units</b> .....	<b>1,019</b>	<b>100.0</b>
Black or African American.....	9	0.4	Owner-occupied housing units.....	724	71.1
American Indian and Alaska Native.....	2	0.1	Renter-occupied housing units.....	295	28.9
Asian.....	9	0.4	Average household size of owner-occupied units.....	2.46	(X)
Native Hawaiian and Other Pacific Islander.....	5	0.2	Average household size of renter-occupied units.....	2.15	(X)
Some other race.....	1	-			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.

<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

**Table DP-2. Profile of Selected Social Characteristics: 2000**

Geographic area: Roaring Spring borough, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>SCHOOL ENROLLMENT</b>			<b>NATIVITY AND PLACE OF BIRTH</b>		
<b>Population 3 years and over enrolled in school</b>			<b>Total population</b>	<b>2,418</b>	<b>100.0</b>
Nursery school, preschool	42	8.1	Native	2,399	99.2
Kindergarten	10	1.9	Born in United States	2,395	99.0
Elementary school (grades 1-8)	281	54.4	State of residence	2,188	90.5
High school (grades 9-12)	116	22.4	Different state	207	8.6
College or graduate school	68	13.2	Born outside United States	4	0.2
<b>EDUCATIONAL ATTAINMENT</b>			Foreign born	19	0.8
<b>Population 25 years and over</b>			Entered 1990 to March 2000	-	-
Less than 9th grade	61	3.7	Naturalized citizen	15	0.6
9th to 12th grade, no diploma	166	10.0	Not a citizen	4	0.2
High school graduate (includes equivalency)	735	44.5	<b>REGION OF BIRTH OF FOREIGN BORN</b>		
Some college, no degree	243	14.7	<b>Total (excluding born at sea)</b>	<b>19</b>	<b>100.0</b>
Associate degree	143	8.7	Europe	9	47.4
Bachelor's degree	229	13.9	Asia	10	52.6
Graduate or professional degree	75	4.5	Africa	-	-
Percent high school graduate or higher	86.3	(X)	Oceania	-	-
Percent bachelor's degree or higher	18.4	(X)	Latin America	-	-
<b>MARITAL STATUS</b>			Northern America	-	-
<b>Population 15 years and over</b>			<b>LANGUAGE SPOKEN AT HOME</b>		
Never married	480	24.4	<b>Population 5 years and over</b>	<b>2,286</b>	<b>100.0</b>
Now married, except separated	1,144	58.2	English only	2,256	98.7
Separated	18	0.9	Language other than English	30	1.3
Widowed	159	8.1	Speak English less than "very well"	5	0.2
Female	142	7.2	Spanish	5	0.2
Divorced	166	8.4	Speak English less than "very well"	5	0.2
Female	114	5.8	Other Indo-European languages	15	0.7
<b>GRANDPARENTS AS CAREGIVERS</b>			Speak English less than "very well"	-	-
<b>Grandparent living in household with one or more own grandchildren under 18 years</b>			Asian and Pacific Island languages	10	0.4
Grandparent responsible for grandchildren	8	42.1	Speak English less than "very well"	-	-
<b>VETERAN STATUS</b>			<b>ANCESTRY (single or multiple)</b>		
<b>Civilian population 18 years and over</b>			<b>Total population</b>	<b>2,418</b>	<b>100.0</b>
Civilian veterans	253	13.5	<b>Total ancestries reported</b>	<b>2,256</b>	<b>93.3</b>
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>			Arab	-	-
<b>Population 5 to 20 years</b>			Czech <sup>1</sup>	7	0.3
With a disability	67	13.7	Danish	-	-
<b>Population 21 to 64 years</b>			Dutch	68	2.8
With a disability	214	15.4	English	144	6.0
Percent employed	63.1	(X)	French (except Basque) <sup>1</sup>	52	2.2
No disability	1,172	84.6	French Canadian <sup>1</sup>	7	0.3
Percent employed	82.6	(X)	German	1,000	41.4
<b>Population 65 years and over</b>			Greek	-	-
With a disability	164	40.0	Hungarian	-	-
<b>RESIDENCE IN 1995</b>			Irish <sup>1</sup>	325	13.4
<b>Population 5 years and over</b>			Italian	70	2.9
Same house in 1995	1,517	66.4	Lithuanian	-	-
Different house in the U.S. in 1995	766	33.5	Norwegian	-	-
Same county	525	23.0	Polish	49	2.0
Different county	241	10.5	Portuguese	-	-
Same state	172	7.5	Russian	-	-
Different state	69	3.0	Scotch-Irish	39	1.6
Elsewhere in 1995	3	0.1	Scottish	12	0.5
			Slovak	30	1.2
			Subsaharan African	-	-
			Swedish	19	0.8
			Swiss	43	1.8
			Ukrainian	9	0.4
			United States or American	189	7.8
			Welsh	29	1.2
			West Indian (excluding Hispanic groups)	-	-
			Other ancestries	164	6.8

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-3. Profile of Selected Economic Characteristics: 2000**

Geographic area: Roaring Spring borough, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>			<b>INCOME IN 1999</b>		
<b>Population 16 years and over</b> .....	<b>1,934</b>	<b>100.0</b>	<b>Households</b> .....	<b>1,021</b>	<b>100.0</b>
In labor force .....	1,267	65.5	Less than \$10,000 .....	112	11.0
Civilian labor force .....	1,267	65.5	\$10,000 to \$14,999 .....	81	7.9
Employed .....	1,220	63.1	\$15,000 to \$24,999 .....	140	13.7
Unemployed .....	47	2.4	\$25,000 to \$34,999 .....	175	17.1
Percent of civilian labor force .....	3.7	(X)	\$35,000 to \$49,999 .....	180	17.6
Armed Forces .....	-	-	\$50,000 to \$74,999 .....	225	22.0
Not in labor force .....	667	34.5	\$75,000 to \$99,999 .....	71	7.0
<b>Females 16 years and over</b> .....	<b>1,061</b>	<b>100.0</b>	\$100,000 to \$149,999 .....	16	1.6
In labor force .....	630	59.4	\$150,000 to \$199,999 .....	8	0.8
Civilian labor force .....	630	59.4	\$200,000 or more .....	13	1.3
Employed .....	603	56.8	Median household income (dollars) .....	35,329	(X)
<b>Own children under 6 years</b> .....	<b>156</b>	<b>100.0</b>	With earnings .....	797	78.1
All parents in family in labor force .....	115	73.7	Mean earnings (dollars) <sup>1</sup> .....	42,401	(X)
<b>COMMUTING TO WORK</b>			With Social Security income .....	320	31.3
<b>Workers 16 years and over</b> .....	<b>1,199</b>	<b>100.0</b>	Mean Social Security income (dollars) <sup>1</sup> .....	12,325	(X)
Car, truck, or van -- drove alone .....	994	82.9	With Supplemental Security Income .....	33	3.2
Car, truck, or van -- carpooled .....	118	9.8	Mean Supplemental Security Income (dollars) <sup>1</sup> .....	5,779	(X)
Public transportation (including taxicab) .....	-	-	With public assistance income .....	22	2.2
Walked .....	47	3.9	Mean public assistance income (dollars) <sup>1</sup> .....	2,568	(X)
Other means .....	18	1.5	With retirement income .....	191	18.7
Worked at home .....	22	1.8	Mean retirement income (dollars) <sup>1</sup> .....	14,185	(X)
Mean travel time to work (minutes) <sup>1</sup> .....	19.3	(X)	<b>Families</b> .....	<b>713</b>	<b>100.0</b>
<b>Employed civilian population</b>			Less than \$10,000 .....	44	6.2
<b>16 years and over</b> .....	<b>1,220</b>	<b>100.0</b>	\$10,000 to \$14,999 .....	33	4.6
<b>OCCUPATION</b>			\$15,000 to \$24,999 .....	71	10.0
Management, professional, and related occupations .....	340	27.9	\$25,000 to \$34,999 .....	115	16.1
Service occupations .....	164	13.4	\$35,000 to \$49,999 .....	140	19.6
Sales and office occupations .....	328	26.9	\$50,000 to \$74,999 .....	202	28.3
Farming, fishing, and forestry occupations .....	7	0.6	\$75,000 to \$99,999 .....	71	10.0
Construction, extraction, and maintenance occupations .....	131	10.7	\$100,000 to \$149,999 .....	16	2.2
Production, transportation, and material moving occupations .....	250	20.5	\$150,000 to \$199,999 .....	8	1.1
<b>INDUSTRY</b>			\$200,000 or more .....	13	1.8
Agriculture, forestry, fishing and hunting, and mining .....	23	1.9	Median family income (dollars) .....	42,370	(X)
Construction .....	80	6.6	Per capita income (dollars) <sup>1</sup> .....	17,972	(X)
Manufacturing .....	271	22.2	<b>Median earnings (dollars):</b>		
Wholesale trade .....	56	4.6	Male full-time, year-round workers .....	31,643	(X)
Retail trade .....	146	12.0	Female full-time, year-round workers .....	24,352	(X)
Transportation and warehousing, and utilities .....	77	6.3			
Information .....	22	1.8			
Finance, insurance, real estate, and rental and leasing .....	55	4.5			
Professional, scientific, management, administrative, and waste management services .....	58	4.8			
Educational, health and social services .....	287	23.5			
Arts, entertainment, recreation, accommodation and food services .....	67	5.5			
Other services (except public administration) .....	47	3.9			
Public administration .....	31	2.5			
<b>CLASS OF WORKER</b>					
Private wage and salary workers .....	1,019	83.5			
Government workers .....	115	9.4			
Self-employed workers in own not incorporated business .....	86	7.0			
Unpaid family workers .....	-	-			
			<b>POVERTY STATUS IN 1999</b>		
			<b>Families</b> .....	<b>57</b>	<b>8.0</b>
			With related children under 18 years .....	53	15.5
			With related children under 5 years .....	33	25.8
			<b>Families with female householder, no husband present</b> .....	<b>42</b>	<b>42.9</b>
			With related children under 18 years .....	38	56.7
			With related children under 5 years .....	18	51.4
			<b>Individuals</b> .....	<b>246</b>	<b>10.2</b>
			18 years and over .....	147	7.8
			65 years and over .....	39	9.5
			Related children under 18 years .....	89	17.0
			Related children 5 to 17 years .....	47	12.0
			Unrelated individuals 15 years and over .....	89	23.4

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator.

See text.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-4. Profile of Selected Housing Characteristics: 2000**

Geographic area: Roaring Spring borough, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total housing units</b> .....	<b>1,087</b>	<b>100.0</b>	<b>OCCUPANTS PER ROOM</b>		
<b>UNITS IN STRUCTURE</b>			<b>Occupied housing units</b> .....	<b>1,019</b>	<b>100.0</b>
1-unit, detached .....	779	71.7	1.00 or less .....	1,016	99.7
1-unit, attached .....	38	3.5	1.01 to 1.50 .....	3	0.3
2 units .....	86	7.9	1.51 or more .....	-	-
3 or 4 units .....	48	4.4			
5 to 9 units .....	68	6.3	<b>Specified owner-occupied units</b> .....	<b>697</b>	<b>100.0</b>
10 to 19 units .....	36	3.3	<b>VALUE</b>		
20 or more units .....	32	2.9	Less than \$50,000 .....	111	15.9
Mobile home .....	-	-	\$50,000 to \$99,999 .....	484	69.4
Boat, RV, van, etc .....	-	-	\$100,000 to \$149,999 .....	66	9.5
			\$150,000 to \$199,999 .....	32	4.6
<b>YEAR STRUCTURE BUILT</b>			\$200,000 to \$299,999 .....	4	0.6
1999 to March 2000 .....	10	0.9	\$300,000 to \$499,999 .....	-	-
1995 to 1998 .....	8	0.7	\$500,000 to \$999,999 .....	-	-
1990 to 1994 .....	12	1.1	\$1,000,000 or more .....	-	-
1980 to 1989 .....	51	4.7	Median (dollars) .....	71,400	(X)
1970 to 1979 .....	84	7.7			
1960 to 1969 .....	52	4.8	<b>MORTGAGE STATUS AND SELECTED</b>		
1940 to 1959 .....	284	26.1	<b>MONTHLY OWNER COSTS</b>		
1939 or earlier .....	586	53.9	With a mortgage .....	359	51.5
			Less than \$300 .....	-	-
<b>ROOMS</b>			\$300 to \$499 .....	69	9.9
1 room .....	-	-	\$500 to \$699 .....	93	13.3
2 rooms .....	12	1.1	\$700 to \$999 .....	107	15.4
3 rooms .....	68	6.3	\$1,000 to \$1,499 .....	86	12.3
4 rooms .....	168	15.5	\$1,500 to \$1,999 .....	4	0.6
5 rooms .....	205	18.9	\$2,000 or more .....	-	-
6 rooms .....	274	25.2	Median (dollars) .....	749	(X)
7 rooms .....	131	12.1	Not mortgaged .....	338	48.5
8 rooms .....	126	11.6	Median (dollars) .....	257	(X)
9 or more rooms .....	103	9.5			
Median (rooms) .....	5.8	(X)	<b>SELECTED MONTHLY OWNER COSTS</b>		
			<b>AS A PERCENTAGE OF HOUSEHOLD</b>		
<b>Occupied housing units</b> .....	<b>1,019</b>	<b>100.0</b>	<b>INCOME IN 1999</b>		
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>			Less than 15.0 percent .....	312	44.8
1999 to March 2000 .....	134	13.2	15.0 to 19.9 percent .....	166	23.8
1995 to 1998 .....	217	21.3	20.0 to 24.9 percent .....	78	11.2
1990 to 1994 .....	101	9.9	25.0 to 29.9 percent .....	54	7.7
1980 to 1989 .....	166	16.3	30.0 to 34.9 percent .....	26	3.7
1970 to 1979 .....	106	10.4	35.0 percent or more .....	61	8.8
1969 or earlier .....	295	28.9	Not computed .....	-	-
<b>VEHICLES AVAILABLE</b>			<b>Specified renter-occupied units</b> .....	<b>295</b>	<b>100.0</b>
None .....	63	6.2	<b>GROSS RENT</b>		
1 .....	403	39.5	Less than \$200 .....	42	14.2
2 .....	400	39.3	\$200 to \$299 .....	37	12.5
3 or more .....	153	15.0	\$300 to \$499 .....	139	47.1
			\$500 to \$749 .....	53	18.0
<b>HOUSE HEATING FUEL</b>			\$750 to \$999 .....	4	1.4
Utility gas .....	176	17.3	\$1,000 to \$1,499 .....	-	-
Bottled, tank, or LP gas .....	4	0.4	\$1,500 or more .....	4	1.4
Electricity .....	134	13.2	No cash rent .....	16	5.4
Fuel oil, kerosene, etc .....	671	65.8	Median (dollars) .....	390	(X)
Coal or coke .....	18	1.8			
Wood .....	8	0.8	<b>GROSS RENT AS A PERCENTAGE OF</b>		
Solar energy .....	-	-	<b>HOUSEHOLD INCOME IN 1999</b>		
Other fuel .....	-	-	Less than 15.0 percent .....	67	22.7
No fuel used .....	8	0.8	15.0 to 19.9 percent .....	32	10.8
			20.0 to 24.9 percent .....	53	18.0
<b>SELECTED CHARACTERISTICS</b>			25.0 to 29.9 percent .....	42	14.2
Lacking complete plumbing facilities .....	4	0.4	30.0 to 34.9 percent .....	8	2.7
Lacking complete kitchen facilities .....	7	0.7	35.0 percent or more .....	77	26.1
No telephone service .....	26	2.6	Not computed .....	16	5.4

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-1. Profile of General Demographic Characteristics: 2000**

Geographic area: Taylor township, Blair County, Pennsylvania

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total population</b> .....	<b>2,239</b>	<b>100.0</b>	<b>HISPANIC OR LATINO AND RACE</b>		
<b>SEX AND AGE</b>			<b>Total population</b> .....	<b>2,239</b>	<b>100.0</b>
Male.....	1,153	51.5	Hispanic or Latino (of any race).....	8	0.4
Female.....	1,086	48.5	Mexican.....	1	-
Under 5 years.....	104	4.6	Puerto Rican.....	4	0.2
5 to 9 years.....	145	6.5	Cuban.....	-	-
10 to 14 years.....	159	7.1	Other Hispanic or Latino.....	3	0.1
15 to 19 years.....	158	7.1	Not Hispanic or Latino.....	2,231	99.6
20 to 24 years.....	114	5.1	White alone.....	2,211	98.7
25 to 34 years.....	239	10.7	<b>RELATIONSHIP</b>		
35 to 44 years.....	375	16.7	<b>Total population</b> .....	<b>2,239</b>	<b>100.0</b>
45 to 54 years.....	357	15.9	In households.....	2,239	100.0
55 to 59 years.....	152	6.8	Householder.....	852	38.1
60 to 64 years.....	109	4.9	Spouse.....	616	27.5
65 to 74 years.....	197	8.8	Child.....	664	29.7
75 to 84 years.....	105	4.7	Own child under 18 years.....	471	21.0
85 years and over.....	25	1.1	Other relatives.....	55	2.5
Median age (years).....	41.2	(X)	Under 18 years.....	26	1.2
18 years and over.....	1,733	77.4	Nonrelatives.....	52	2.3
Male.....	873	39.0	Unmarried partner.....	29	1.3
Female.....	860	38.4	In group quarters.....	-	-
21 years and over.....	1,644	73.4	Institutionalized population.....	-	-
62 years and over.....	386	17.2	Noninstitutionalized population.....	-	-
65 years and over.....	327	14.6	<b>HOUSEHOLD BY TYPE</b>		
Male.....	144	6.4	<b>Total households</b> .....	<b>852</b>	<b>100.0</b>
Female.....	183	8.2	Family households (families).....	686	80.5
<b>RACE</b>			With own children under 18 years.....	260	30.5
One race.....	2,225	99.4	Married-couple family.....	616	72.3
White.....	2,213	98.8	With own children under 18 years.....	224	26.3
Black or African American.....	5	0.2	Female householder, no husband present.....	43	5.0
American Indian and Alaska Native.....	-	-	With own children under 18 years.....	22	2.6
Asian.....	3	0.1	Nonfamily households.....	166	19.5
Asian Indian.....	-	-	Householder living alone.....	146	17.1
Chinese.....	-	-	Householder 65 years and over.....	73	8.6
Filipino.....	-	-	Households with individuals under 18 years.....	277	32.5
Japanese.....	-	-	Households with individuals 65 years and over.....	227	26.6
Korean.....	2	0.1	Average household size.....	2.63	(X)
Vietnamese.....	1	-	Average family size.....	2.95	(X)
Other Asian <sup>1</sup> .....	-	-	<b>HOUSING OCCUPANCY</b>		
Native Hawaiian and Other Pacific Islander.....	-	-	<b>Total housing units</b> .....	<b>909</b>	<b>100.0</b>
Native Hawaiian.....	-	-	Occupied housing units.....	852	93.7
Guamanian or Chamorro.....	-	-	Vacant housing units.....	57	6.3
Samoan.....	-	-	For seasonal, recreational, or		
Other Pacific Islander <sup>2</sup> .....	-	-	occasional use.....	5	0.6
Some other race.....	4	0.2	Homeowner vacancy rate (percent).....	1.2	(X)
Two or more races.....	14	0.6	Rental vacancy rate (percent).....	7.2	(X)
<b>Race alone or in combination with one or more other races:</b> <sup>3</sup>			<b>HOUSING TENURE</b>		
White.....	2,227	99.5	<b>Occupied housing units</b> .....	<b>852</b>	<b>100.0</b>
Black or African American.....	8	0.4	Owner-occupied housing units.....	724	85.0
American Indian and Alaska Native.....	11	0.5	Renter-occupied housing units.....	128	15.0
Asian.....	3	0.1	Average household size of owner-occupied units.....	2.69	(X)
Native Hawaiian and Other Pacific Islander.....	-	-	Average household size of renter-occupied units.....	2.29	(X)
Some other race.....	4	0.2			

- Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup> Other Asian alone, or two or more Asian categories.

<sup>2</sup> Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

<sup>3</sup> In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

**Table DP-2. Profile of Selected Social Characteristics: 2000**

Geographic area: Taylor township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>SCHOOL ENROLLMENT</b>			<b>NATIVITY AND PLACE OF BIRTH</b>		
<b>Population 3 years and over enrolled in school</b>			<b>Total population</b>	<b>2,239</b>	<b>100.0</b>
Nursery school, preschool	473	100.0	Native	2,229	99.6
Kindergarten	38	8.0	Born in United States	2,225	99.4
Elementary school (grades 1-8)	23	4.9	State of residence	2,093	93.5
High school (grades 9-12)	221	46.7	Different state	132	5.9
College or graduate school	155	32.8	Born outside United States	4	0.2
	36	7.6	Foreign born	10	0.4
<b>EDUCATIONAL ATTAINMENT</b>			Entered 1990 to March 2000	-	-
<b>Population 25 years and over</b>			Naturalized citizen	10	0.4
Less than 9th grade	1,565	100.0	Not a citizen	-	-
9th to 12th grade, no diploma	98	6.3	<b>REGION OF BIRTH OF FOREIGN BORN</b>		
High school graduate (includes equivalency)	144	9.2	<b>Total (excluding born at sea)</b>	<b>10</b>	<b>100.0</b>
Some college, no degree	955	61.0	Europe	-	-
Associate degree	180	11.5	Asia	2	20.0
Bachelor's degree	47	3.0	Africa	-	-
Graduate or professional degree	106	6.8	Oceania	-	-
Percent high school graduate or higher	35	2.2	Latin America	8	80.0
Percent bachelor's degree or higher	84.5	(X)	Northern America	-	-
	9.0	(X)	<b>LANGUAGE SPOKEN AT HOME</b>		
<b>MARITAL STATUS</b>			<b>Population 5 years and over</b>	<b>2,131</b>	<b>100.0</b>
<b>Population 15 years and over</b>			English only	2,050	96.2
Never married	1,834	100.0	Language other than English	81	3.8
Now married, except separated	400	21.8	Speak English less than "very well"	36	1.7
Separated	1,233	67.2	Spanish	24	1.1
Widowed	17	0.9	Speak English less than "very well"	-	-
Female	102	5.6	Other Indo-European languages	57	2.7
Divorced	90	4.9	Speak English less than "very well"	36	1.7
Female	82	4.5	Asian and Pacific Island languages	-	-
	29	1.6	Speak English less than "very well"	-	-
<b>GRANDPARENTS AS CAREGIVERS</b>			<b>ANCESTRY (single or multiple)</b>		
<b>Grandparent living in household with one or more own grandchildren under 18 years</b>			<b>Total population</b>	<b>2,239</b>	<b>100.0</b>
Grandparent responsible for grandchildren	38	100.0	<i>Total ancestries reported</i>	<i>2,098</i>	<i>93.7</i>
	17	44.7	Arab	-	-
<b>VETERAN STATUS</b>			Czech <sup>1</sup>	-	-
<b>Civilian population 18 years and over</b>			Danish	6	0.3
Civilian veterans	1,729	100.0	Dutch	75	3.3
	212	12.3	English	177	7.9
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>			French (except Basque) <sup>1</sup>	23	1.0
<b>Population 5 to 20 years</b>			French Canadian <sup>1</sup>	-	-
With a disability	486	100.0	German	925	41.3
	27	5.6	Greek	-	-
<b>Population 21 to 64 years</b>			Hungarian	-	-
With a disability	1,316	100.0	Irish <sup>1</sup>	215	9.6
Percent employed	225	17.1	Italian	88	3.9
No disability	1,091	82.9	Lithuanian	4	0.2
Percent employed	78.3	(X)	Norwegian	6	0.3
<b>Population 65 years and over</b>			Polish	28	1.3
With a disability	329	100.0	Portuguese	-	-
	103	31.3	Russian	27	1.2
<b>RESIDENCE IN 1995</b>			Scotch-Irish	34	1.5
<b>Population 5 years and over</b>			Scottish	32	1.4
Same house in 1995	2,131	100.0	Slovak	11	0.5
Different house in the U.S. in 1995	1,691	79.4	Subsaharan African	-	-
Same county	440	20.6	Swedish	30	1.3
Different county	321	15.1	Swiss	24	1.1
Same state	119	5.6	Ukrainian	4	0.2
Different state	82	3.8	United States or American	247	11.0
Elsewhere in 1995	37	1.7	Welsh	17	0.8
	-	-	West Indian (excluding Hispanic groups)	8	0.4
			Other ancestries	117	5.2

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.

**Table DP-3. Profile of Selected Economic Characteristics: 2000**

Geographic area: Taylor township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>			<b>INCOME IN 1999</b>		
<b>Population 16 years and over</b> .....	<b>1,809</b>	<b>100.0</b>	<b>Households</b> .....	<b>852</b>	<b>100.0</b>
In labor force .....	1,150	63.6	Less than \$10,000 .....	47	5.5
Civilian labor force .....	1,150	63.6	\$10,000 to \$14,999 .....	45	5.3
Employed .....	1,125	62.2	\$15,000 to \$24,999 .....	85	10.0
Unemployed .....	25	1.4	\$25,000 to \$34,999 .....	150	17.6
Percent of civilian labor force .....	2.2	(X)	\$35,000 to \$49,999 .....	186	21.8
Armed Forces .....	-	-	\$50,000 to \$74,999 .....	237	27.8
Not in labor force .....	659	36.4	\$75,000 to \$99,999 .....	70	8.2
<b>Females 16 years and over</b> .....	<b>897</b>	<b>100.0</b>	\$100,000 to \$149,999 .....	5	0.6
In labor force .....	471	52.5	\$150,000 to \$199,999 .....	10	1.2
Civilian labor force .....	471	52.5	\$200,000 or more .....	17	2.0
Employed .....	457	50.9	Median household income (dollars) .....	41,635	(X)
<b>Own children under 6 years</b> .....	<b>126</b>	<b>100.0</b>	With earnings .....	686	80.5
All parents in family in labor force .....	76	60.3	Mean earnings (dollars) <sup>1</sup> .....	49,794	(X)
<b>COMMUTING TO WORK</b>			With Social Security income .....	258	30.3
<b>Workers 16 years and over</b> .....	<b>1,110</b>	<b>100.0</b>	Mean Social Security income (dollars) <sup>1</sup> .....	12,042	(X)
Car, truck, or van -- drove alone .....	942	84.9	With Supplemental Security Income .....	5	0.6
Car, truck, or van -- carpooled .....	57	5.1	Mean Supplemental Security Income (dollars) <sup>1</sup> .....	14,160	(X)
Public transportation (including taxicab) .....	-	-	With public assistance income .....	11	1.3
Walked .....	22	2.0	Mean public assistance income (dollars) <sup>1</sup> .....	1,600	(X)
Other means .....	8	0.7	With retirement income .....	119	14.0
Worked at home .....	81	7.3	Mean retirement income (dollars) <sup>1</sup> .....	9,298	(X)
Mean travel time to work (minutes) <sup>1</sup> .....	20.6	(X)	<b>Families</b> .....	<b>690</b>	<b>100.0</b>
<b>Employed civilian population 16 years and over</b> .....	<b>1,125</b>	<b>100.0</b>	Less than \$10,000 .....	3	0.4
<b>OCCUPATION</b>			\$10,000 to \$14,999 .....	21	3.0
Management, professional, and related occupations .....	251	22.3	\$15,000 to \$24,999 .....	74	10.7
Service occupations .....	112	10.0	\$25,000 to \$34,999 .....	113	16.4
Sales and office occupations .....	239	21.2	\$35,000 to \$49,999 .....	156	22.6
Farming, fishing, and forestry occupations .....	37	3.3	\$50,000 to \$74,999 .....	221	32.0
Construction, extraction, and maintenance occupations .....	139	12.4	\$75,000 to \$99,999 .....	70	10.1
Production, transportation, and material moving occupations .....	347	30.8	\$100,000 to \$149,999 .....	5	0.7
<b>INDUSTRY</b>			\$150,000 to \$199,999 .....	10	1.4
Agriculture, forestry, fishing and hunting, and mining .....	85	7.6	\$200,000 or more .....	17	2.5
Construction .....	98	8.7	Median family income (dollars) .....	45,795	(X)
Manufacturing .....	281	25.0	Per capita income (dollars) <sup>1</sup> .....	18,260	(X)
Wholesale trade .....	19	1.7	<b>Median earnings (dollars):</b>		
Retail trade .....	144	12.8	Male full-time, year-round workers .....	30,368	(X)
Transportation and warehousing, and utilities .....	136	12.1	Female full-time, year-round workers .....	23,438	(X)
Information .....	10	0.9			
Finance, insurance, real estate, and rental and leasing .....	27	2.4			
Professional, scientific, management, administrative, and waste management services .....	53	4.7			
Educational, health and social services .....	145	12.9			
Arts, entertainment, recreation, accommodation and food services .....	56	5.0			
Other services (except public administration) .....	59	5.2			
Public administration .....	12	1.1			
<b>CLASS OF WORKER</b>					
Private wage and salary workers .....	967	86.0			
Government workers .....	55	4.9			
Self-employed workers in own not incorporated business .....	91	8.1			
Unpaid family workers .....	12	1.1			
			<b>POVERTY STATUS IN 1999</b>		
			<b>Families</b> .....	<b>6</b>	<b>0.9</b>
			With related children under 18 years .....	6	2.1
			With related children under 5 years .....	-	-
			<b>Families with female householder, no husband present</b> .....	<b>3</b>	<b>6.5</b>
			With related children under 18 years .....	3	12.0
			With related children under 5 years .....	-	-
			<b>Individuals</b> .....	<b>67</b>	<b>3.0</b>
			18 years and over .....	52	3.0
			65 years and over .....	20	6.1
			Related children under 18 years .....	15	3.0
			Related children 5 to 17 years .....	15	3.8
			Unrelated individuals 15 years and over .....	39	19.8

-Represents zero or rounds to zero. (X) Not applicable.

<sup>1</sup>If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator.

See text.

Source: U.S. Bureau of the Census, Census 2000.



**Table DP-4. Profile of Selected Housing Characteristics: 2000**

Geographic area: Taylor township, Blair County, Pennsylvania

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
<b>Total housing units</b> .....	<b>909</b>	<b>100.0</b>	<b>OCCUPANTS PER ROOM</b>		
<b>UNITS IN STRUCTURE</b>			<b>Occupied housing units</b> .....	<b>852</b>	<b>100.0</b>
1-unit, detached .....	759	83.5	1.00 or less .....	842	98.8
1-unit, attached .....	-	-	1.01 to 1.50 .....	10	1.2
2 units .....	8	0.9	1.51 or more .....	-	-
3 or 4 units .....	10	1.1			
5 to 9 units .....	-	-	<b>Specified owner-occupied units</b> .....	<b>543</b>	<b>100.0</b>
10 to 19 units .....	-	-	<b>VALUE</b>		
20 or more units .....	-	-	Less than \$50,000 .....	75	13.8
Mobile home .....	132	14.5	\$50,000 to \$99,999 .....	283	52.1
Boat, RV, van, etc .....	-	-	\$100,000 to \$149,999 .....	133	24.5
			\$150,000 to \$199,999 .....	38	7.0
<b>YEAR STRUCTURE BUILT</b>			\$200,000 to \$299,999 .....	14	2.6
1999 to March 2000 .....	17	1.9	\$300,000 to \$499,999 .....	-	-
1995 to 1998 .....	51	5.6	\$500,000 to \$999,999 .....	-	-
1990 to 1994 .....	33	3.6	\$1,000,000 or more .....	-	-
1980 to 1989 .....	137	15.1	Median (dollars) .....	86,500	(X)
1970 to 1979 .....	157	17.3			
1960 to 1969 .....	115	12.7	<b>MORTGAGE STATUS AND SELECTED</b>		
1940 to 1959 .....	203	22.3	<b>MONTHLY OWNER COSTS</b>		
1939 or earlier .....	196	21.6	With a mortgage .....	298	54.9
<b>ROOMS</b>			Less than \$300 .....	-	-
1 room .....	-	-	\$300 to \$499 .....	21	3.9
2 rooms .....	4	0.4	\$500 to \$699 .....	117	21.5
3 rooms .....	13	1.4	\$700 to \$999 .....	90	16.6
4 rooms .....	100	11.0	\$1,000 to \$1,499 .....	59	10.9
5 rooms .....	220	24.2	\$1,500 to \$1,999 .....	5	0.9
6 rooms .....	222	24.4	\$2,000 or more .....	6	1.1
7 rooms .....	183	20.1	Median (dollars) .....	732	(X)
8 rooms .....	106	11.7	Not mortgaged .....	245	45.1
9 or more rooms .....	61	6.7	Median (dollars) .....	247	(X)
Median (rooms) .....	6.0	(X)	<b>SELECTED MONTHLY OWNER COSTS</b>		
			<b>AS A PERCENTAGE OF HOUSEHOLD</b>		
<b>Occupied housing units</b> .....	<b>852</b>	<b>100.0</b>	<b>INCOME IN 1999</b>		
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>			Less than 15.0 percent .....	254	46.8
1999 to March 2000 .....	69	8.1	15.0 to 19.9 percent .....	50	9.2
1995 to 1998 .....	151	17.7	20.0 to 24.9 percent .....	92	16.9
1990 to 1994 .....	136	16.0	25.0 to 29.9 percent .....	50	9.2
1980 to 1989 .....	201	23.6	30.0 to 34.9 percent .....	29	5.3
1970 to 1979 .....	132	15.5	35.0 percent or more .....	63	11.6
1969 or earlier .....	163	19.1	Not computed .....	5	0.9
<b>VEHICLES AVAILABLE</b>			<b>Specified renter-occupied units</b> .....	<b>116</b>	<b>100.0</b>
None .....	61	7.2	<b>GROSS RENT</b>		
1 .....	183	21.5	Less than \$200 .....	3	2.6
2 .....	431	50.6	\$200 to \$299 .....	14	12.1
3 or more .....	177	20.8	\$300 to \$499 .....	39	33.6
			\$500 to \$749 .....	19	16.4
<b>HOUSE HEATING FUEL</b>			\$750 to \$999 .....	-	-
Utility gas .....	26	3.1	\$1,000 to \$1,499 .....	-	-
Bottled, tank, or LP gas .....	32	3.8	\$1,500 or more .....	-	-
Electricity .....	89	10.4	No cash rent .....	41	35.3
Fuel oil, kerosene, etc .....	603	70.8	Median (dollars) .....	370	(X)
Coal or coke .....	52	6.1			
Wood .....	43	5.0	<b>GROSS RENT AS A PERCENTAGE OF</b>		
Solar energy .....	-	-	<b>HOUSEHOLD INCOME IN 1999</b>		
Other fuel .....	7	0.8	Less than 15.0 percent .....	43	37.1
No fuel used .....	-	-	15.0 to 19.9 percent .....	4	3.4
			20.0 to 24.9 percent .....	13	11.2
<b>SELECTED CHARACTERISTICS</b>			25.0 to 29.9 percent .....	4	3.4
Lacking complete plumbing facilities .....	4	0.5	30.0 to 34.9 percent .....	4	3.4
Lacking complete kitchen facilities .....	-	-	35.0 percent or more .....	7	6.0
No telephone service .....	9	1.1	Not computed .....	41	35.3

-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

## Appendix C

A Brief History of Blair County, Pennsylvania by Sylva Emersion

# A Brief History of Blair County

by  
Sylva Emerson

A hundred years before the chartering of Blair County, the territory now comprising the area was primeval forest. It is doubtful if any portion of the county had been cleared. It was densely covered with a great variety of trees - oak, pine, chestnut, hemlock, hickory and walnut. In these forests could be found elk, deer, bear, squirrel, rabbit and here and there an eastern buffalo. Mountain streams were filled with salmon, bass and trout. In the low lying areas, streams were filled with beaver who built dams which created swamps.

Some historical records indicate that there was a Delaware Indian village called Assunepachla at Frankstown, even though the land was occupied by the Delaware Indians, the ownership of the land was claimed by the Iroquois. Francois Etienne (Frank Stevens) for whom the village of Frankstown acquired its name, had a trading post at this location. Indians visited at certain seasons to trade for supplies. Conrad Weiser states in his journal of August 20, 1748 that he passed the location of Frankstown on that date and found no houses or cabins there. Land could not be legally owned by the whites prior to July 6, 1754 when the treaty was negotiated at Albany, N.Y. for the purchase of a large block of central Pennsylvania land from the confederacy known as the Six Nation - Oneida, Cayuga, Seneca, Mohawk, Onondaga and Tuscaroras. It was sold for four hundred pounds or about \$2,500. At this time land warrants were issued at Philadelphia to whites who wished to settle in the newly acquired territory.

Much of the travel from the east came by way of the Frankstown Path also known as the Kittanning Trail. Col. Armstrong marched his band of men along this trail in September of 1756 on their way to the Kittanning Indian village. This expedition was necessary to quell the savage Indian attacks on the settlers of the Juniata Valley. Located in the most mountainous regions of the Commonwealth of Pennsylvania, Blair County is estimated to cover five hundred-thirty square miles. Although not opened to settlement until 1754, a few squatters occupied sections of the land.

Cumberland County was formed in January of 1750 and covered the area from Lancaster and York Counties on the east to the western border of the State. On the ninth of March 1771, Bedford County was formed from the western half of Cumberland County and on September 20, 1787, Huntingdon County was created from a part of Bedford County. On February 26, 1846 by an act of the Legislature, Blair County became the fifty-ninth county in the Commonwealth of Pennsylvania. The territory was taken from the townships of North Woodbury and Greenfield in the County of Bedford and the townships of Allegheny, Antes, Snyder, Tyrone, Frankstown, Blair, Huston and Woodbury and a portion of Morris Township lying westward of the line run by William Reed from the County of Huntingdon. With these townships and the two existing boroughs of Hollidaysburg and Gaysport, the County of Blair began. Hollidaysburg, with the largest population, became the County seat. Townships formed since that time have

been Juniata from Greenfield in 1847; Logan from Allegheny and Antis in 1850; Taylor from Huston and North Woodbury in 1855 and Freedom from Juniata in 1857.

### **HAMLETS, VILLAGES, TOWNS, BOROUGHS & CITY**

**Hollidaysburg** is one of the older communities in Blair County. Founded by Adam and William Holliday, brothers, in 1768, it bears their name today. Both Adam and William had been to the area with Col. Armstrong's expedition in 1756. Adam settled on one side of the Juniata river and William occupied land on the other side. Many of the settlers coming to the area were Scotch-Irish. The village was a farming community until the opening of the Huntingdon, Cambria and Indiana turnpike, a narrow road for wagon travel, not to be compared to the turnpikes of today. By 1830, Hollidaysburg had grown to a hamlet of seventy-two people. The Juniata division of the Pennsylvania Canal was opened to Hollidaysburg in November, 1832 and the growth of the community increased rapidly by several thousand people. A grand celebration marked the occasion. By 1834, the Portage Railroad opened, thus connecting by train, canal and incline plane the cities of Philadelphia and Pittsburgh.

Incorporated as a borough on August 10, 1836, Hollidaysburg was at one time the hub of transportation in the area. Although Gaysport was contemporaneous with the development of Hollidaysburg, it was incorporated as a borough on April 21, 1841, and even though settled by William Holliday, it acquired its name from John Gay, a prominent civil engineer. The two boroughs were united by agreement on January 1, 1924.

A foundry was established in 1835 by Devine and Evans for fabricating iron materials and tools to be used on the canal and Portage railroad. It is still in business today under the name of The McLanahan Corporation. The County's earliest newspaper, "The Hollidaysburg Register" was established in 1836. When the new County of Blair was formed and Hollidaysburg became the County seat, Judge Jeremiah Black later became a Supreme Court Justice, an Attorney General and Secretary of State in the cabinet of President Buchanan. The first session of court was held on July 27, 1846 in the Methodist Episcopal Church on Walnut Street. The church was used until a court house could be constructed. A stone building adjacent to the church and owned by John Mahoney served as a jail.

On July 4, 1846, Daniel K. Reamey was appointed to construct the first court house and jail at the site of the present court house on Allegheny Street. The cost of the work was \$14,576.18. The jail was located at the rear of the court house. After a number of years, the first court house building became inadequate due to increased business and a contract was let for the removal of that building and the construction of a larger building by a Pittsburgh contractor, John Schreiner. The contract price was \$103,700. Since its construction in 1875-76, an addition was built and several annexes added, including the former school for girls, Highland Hall. A large addition has been constructed in 1999. A new prison, located between Mulberry and Blair Streets, was constructed in 1868-69 at a cost of \$100,000. Additions and improvements have been made during the past decade.

In 1905 the Berwind-White Coal Mining Company erected care repair shops just east of Hollidaysburg. These shops have been in continuous operation and employ many Hollidaysburg residents. About the same time, the Pennsylvania Railroad expanded its shops and yards in Hollidaysburg and extended their lines to other communities. Later in the twentieth century, the Samuel Rea shops were constructed which employ many persons from the entire area. They bear the name of a Hollidaysburg native who became a president of the Pennsylvania Railroad. James Industries, manufacturer of the Slinky toys located here in the 1960's. Hollidaysburg is largely a residential community, taking pride in its many beautiful homes and in its historical significance.

**Williamsburg** is another of the older communities in the County. It was a borough from 1829 to 1841 when the charter was forfeited. In 1893 it was reincorporated. Failure to elect borough officials was the reason for the forfeiture of the charter. Land was purchased by Jacob Ake in 1790. It contained three hundred-fourteen acres. Mr. Ake was attracted to the site because of its beauty and its big spring. By 1810 there were thirty-four houses in the village. The name of the village was changed from Aketown to Williamsburg to honor William Ake, the son of the founder. Jacob Ake established the first free school in the area. He donated the land, erected the building, hired the teachers and when the neighborhood children failed to attend school, he acted as truant officer.

By 1820 an inn was owned and operated by John Martin who was assessed with a distillery and one slave. This is the only record of slavery in Williamsburg. On the first of June in 1831, contract bids for work on the Pennsylvania canal between Huntingdon and Hollidaysburg were received at Williamsburg. Several thousand people attended and there were more than four thousand bids. This included work on fourteen dams, forty-three locks and seventy three sections. Completed in 1832, the canal was opened on November 28th and the packet boat "John Blair" left its berth in Huntingdon, proceeding westward. At Williamsburg a great celebration took place, greeting with music and musketry the prominent citizens aboard the boat.

Small businesses flourished in the village. By 1905 the Williamsburg Manufacturing Company's new plant was opened and was given the franchise to furnish light and power to the borough. The West Virginia Pulp and Paper Company purchased this company in 1906 and operated a paper manufacturing plant in the borough for many years.

The Blair County home for homeless children was located in Williamsburg. The United States Envelope Company was officially opened on January 1, 1965 in the borough. It employs a number of persons.

**Claysburg** was an early settlement at the eastern end of Greenfield Township. The first settlers were Valentine Lingenfelter and his two sons who were here about 1770. Shortly after their arrival, the Dively family settled here and soon to follow were Thomas Ives and John Nicholas. Following the Revolutionary War many settlers arrived from the east

and south. About 1804, John Ulrich Seth cleared some of the land and put up a saw mill and grist mill.

Dr. Peter Shoenberger settled one mile south of Claysburg and operated the Sarah Furnace at Sproul. The furnace operated for some few years and was unsuccessful. Thus there was no public works in the Claysburg area until the cobblestone road was built through town about 1906-07.

An early school was built near the limestone quarry, south of Claysburg about 1795. A second school was built in 1812. It was a log building with a clapboard roof and slab benches. James Lonham was the teacher. Rules were strict for teachers in those days. One of the rules was that gentlemen teachers may take one evening a week for courting purposes or two evenings a week if they went to church regularly. Teachers who performed their labors well and without fault for five years were given an increase of twenty-five cents per week in pay providing the Board of Education approved. Following the completion of the State road and the railroad in 1910, outside interest grew in the Claysburg area. The area of Sarah Furnace was now the site of a brick plant by 1911 and in 1913 a brickyard was constructed north of town. General Refractories Company who owned these brickyards employed about twelve hundred men and products were among the finest in the United States.

**Duncansville** lies along the route of the old Philadelphia-Pittsburgh turnpike. Once the town was a beehive of activities with the iron industry and received the nickname "Irontown" when forges, iron mills and foundries were the communities industries. Not to be ignored were the woolen mills, wagon works, grist mills and lime production. Ground was acquired and laid out by Samuel Duncan and Jacob Walters. Duncan named his plot west of the Blair's Creek, Duncansville while Walters land on the east side of the stream was named Walterstown. A bridge at the stream connected the two villages. There was considerable confusion and rivalry between Duncan's section of town and Walterstown. To settle the issue Duncan and Walters agreed to choose a common name. It was decided that they would meet on the bridge which separated the plots and by the toss of a coin decide that the entire area would be named for Duncan or Walters. A large crowd gathered on both sides of the bridge for the toss of the coin. Duncan won and thus Walterstown was part of Duncansville.

In the 1840's a forge was built which was later transformed into a rolling mill. By 1882 the iron industry was a booming business. In 1896 the rolling mill company began construction of a wire mill. When production flourished the mill produced more than four hundred kegs of finished nails daily. The mill closed in 1904. Another industry which flourished for many years in the community was the manufacturing of bricks. Duncansville was incorporated as a borough on March 4, 1891. About 1930 a large airport was established and existed for a number of years. One of the nations first air mail pick-up systems was initiated here whereby a plane could pick-up and dispatch mail by special device without landing the plane.

**East Freedom** was first established as Three Forges in Bedford County in February 1829. When Blair County was established, the name was changed to East Freedom. In the early days, it was an important center for travel and transportation. Now surrounded by a number of businesses and highways, it presents some of the most beautiful scenery in Blair County.

**Frankstown** is probably the oldest name of a town in the County. Legend says that it was named for Francois Etienne (Frank Stevens) who was of French descent and had a trading post there before white men lived in the area. Supplies and weapons were traded for meat and furs with the Indian tribes. By 1800 Frankstown contained about twenty houses and several taverns and was considered an important business center due to its location on the Huntingdon, Cambria and Indiana turnpike which was the main artery of transportation for mails and passenger traffic. An iron furnace was built in 1836 and was the main industry of the town, employing fifty men and producing five-hundred-fifty tons of pig iron per month. It was put out of blast in 1885 and dismantled.

**Martinsburg** is surrounded by a rich agricultural community in the heart of Morrison's Cove, one of the most beautiful and fertile valleys in the central part of Pennsylvania. Most of the early settlers were Dunkards of German origin who came from the Conococheague Valley. They came in groups and bought land grants and original deeds. Some names given to home sites were Richlands, Blooming Grove and Hatters Delight.

Mr. John Brumbaugh applied for a patent for fifteen hundred acres in 1785. He received the warrant dated September 7, 1792 which was signed by Richard and Thomas Penn. According to family tradition, Mr. Brumbaugh and his son-in-law, Daniel Camerer were driven out on their first visit to this section due to the news of an incursion of Indians. Later, his two sons-in-law divided the land between them with Mr. Camerer plotting the land on the eastside of South Market Street and Abraham Stoner laid out his plot on the westside of the street.

Martinsburg was incorporated in 1832. Although there is some confusion concerning the naming of the town, the markers at the edge of town state that it was named for Conrad Martin.

On May 6, 1872 a crowd gathered to see the first train come steaming in on the Morrison Cove Branch of the Pennsylvania Railroad. This was a great advantage for the people wishing swifter transportation to the various towns and the city. However, by August of 1934, their means of travel by train were shattered by the announcement that travel would be restricted to freight. Service would be totally discontinued in 1941. The Franklin High School and Institute was opened in 1860 as a college preparatory and ladies finishing school. This school had varied functions and has been known as Juniata Collegiate Institute and as an Indian school. Governor George Earle of Pennsylvania appeared in Martinsburg on October 22, 1938 at the opening of the Altoona-Blair County airport. Originally called the Cove Valley airport, this facility has undergone many changes and improvements over the years.

Today we see more improvements developing for future years. One of the finest features of Martinsburg is its Memorial Park.

**McKee or McKees Gap** played several roles in the history of the region. The town was named for George McKee who purchased the land about 1810 from George Myers who had built a grist mill and a saw mill in the Gap about 1797-98. Dr. Peter Shoenberger built a forge here in 1830 and his son, Edwin, expanded the business by establishing Martha furnace.

In the summer of 1863, the news went out that the Army of the South was about to invade Pennsylvania. They were expected to strike in the Gap area. Bells rang and horns blew to summon all men and boys who were not with the Union army to bear arms. Out to the Gap they flew to protect their homes and farms. This citizen's army had made no provision for feeding the men at the "front". Shovels and picks were used to set up breastworks at the Gap. By this time the gallant men were hungry and having no food provided, they raided the chicken houses and smokehouses of the nearby farmers. Hams and chickens were easily cooked over an open fire. But the small fires grew into larger fires and a forest of trees were accidentally set aflame. From this time on the citizen army was referred to as "The Chicken Raiders". Instead of coming up the valley, the Southern army met the Union at Gettysburg.

**Newry** owes much to Patrick Cassidy, its founder. He was born in Newry, Ireland in 1738. He came to America as an employee of a British officer when he was but fourteen years of age. He fought in the Revolutionary war on the side of the Colonists when he was in his late thirties. Returning from the war, he purchased about three hundred acres of land which included the present town of Newry from Samuel and John Gilbert. About 1787 he became a permanent resident on his land. He had become a proficient surveyor and laid out twenty-six lots in the original plot and later added fifty lots on the north and south sides of the village.

Newry was served by a branch line of the Pennsylvania Railroad for passenger and freight service for thirty years. During this time business flourished for a carpet weaving shop and a hat factory. Other enterprises were a wagon shop, tin shop, furniture store and a general store.

Two churches are in the borough and occupy land donated to them by Patrick Cassidy - St. Patricks Roman Catholic Church and the Lutheran church. In 1876 the town was incorporated as a borough. Today, at the southern end of the town, there is a large market open daily and a flea market open on weekends.

**Roaring Spring** received its name from the great spring which was at one time said to roar and could be heard a mile away. The spring still flows but in order to change the flow of water from the spring, several large stones were moved thus eliminating the source of the roar.



One of the earliest settlers was Edward Sanders who bought the property about 1776. He sold parts of the land to various individuals. Daniel Ullery purchased much of the land in 1780. Jacob Neff built and operated a grist mill here during the War of Independence. Mr. George Span operated a grist mill in 1821 and for a time the village was called Spang's Mills.

In 1864 Daniel Bare and his son moved to the village and established a mill and mercantile business. By 1865 they constructed the first paper mill. During the next year it was destroyed by fire and then rebuilt as a larger facility. Since Mr. Bare was a prominent citizen of the community, some individuals wished to change the name of the town to Baretown. However, when the name was changed in 1868, it was changed to Roaring Spring and on October 3, 1887, it was chartered as a borough. By 1886 the Blank Book Factory was built by Mr. Bare. Both paper mill and book factory remain active today. Roaring Spring is a thriving community.

**Bellwood, or Bells Mills** as it was once known, was founded by Edward "Neddy" Bell about 1800. A grist mill was built. About 1832 Edward Bell and his son, Martin became interested in the iron industry and built a furnace which they named for Edward Bell's daughter, Elizabeth. The ruins of this furnace are still visible today. Martin Bell devised a system of using escaping gasses from the iron furnace to give added power to the operation and secured a patent for the process. John Bell owned Mary Ann Forge and the Isetts owned Cold Spring Forge.

The Bells Gap Railroad, a narrow gauge road, was built and put into operation in 1872. Its main function was to bring coal and lumber to the main line of the Pennsylvania Railroad. The railroad extended from Lloydsville to Bellwood, a descent of eleven hundred feet in the nine miles of track. In the 1880's it was widened to standard gauge and by 1891 had been extended to Fordham. In 1892 it merged with other lines and became known as the Pennsylvania and Northwestern Railroad. Although abandoned a number of years ago, the bed of the railroad makes an excellent hiking trail with its deep gorges and mountainous slopes. It is truly a spot of beauty.

Incorporation of the Borough of Bellwood occurred on February 9, 1888. Trolley service was initiated into the borough on July 1, 1894. It was later replaced by bus service. Bellwood is a progressive community. During the past years many improvements have been made in the borough. A fine library has been built and provides excellent service to the community.

**Tyrone** is one of the youngest boroughs in the County of Blair, being established on July 27, 1857. It was named for County Tyrone in Ireland. It is said that early in the history of the area, John Logan, an Indian friend to the white man, lived here with his wife, Vastina, near the Big Spring. Vastina was a beautiful woman but a plague caused her death along with five of their six children. Logan remained in this location for some years. Jacob Burley was the first white man to build a home on the bank of Bald Eagle Creek. He became a merchant in partnership with the Rev. John Stewart.

The Pennsylvania Railroad came to Tyrone about 1850 and by 1856 the Tyrone and Pennsylvania Railroad took over the line. In 1868 the Pennsylvania Railroad established shops in Tyrone.

One of the catastrophes that happened in the area was the wreck of the Walter Main Circus train on Memorial Day 1893. Five miles north of Tyrone, the train coming from Houtzdale derailed at McCann's Crossing. Many of the wild animals were killed or escaped into the woods. Five men were killed and many others injured. Tyrone residents came to the rescue of those who needed food and shelter. The circus was reorganized, new equipment purchased, new personnel recruited and new animals bought by Walter Main with the assistance of Tyrone people.

The St. Patrick's day flood of 1936 affected almost all of the business district and more than half of the residential district. Floodwaters from three to sixteen feet roared through the main streets. Recovery began immediately. Channeling of the river and creek have done much to eliminate flooding in the future. Following World War II, more industry located in Tyrone. In the 1950's a hospital was constructed. The community continues its progress into the twenty-first century.

**Altoona** owes its existence to the Pennsylvania Railroad. In 1849, David Robeson owned a farm of two hundred and twenty acres located in what is now the heart of downtown Altoona. He had built a log home near the site of where the Altoona Post Office now stands. To the southwest of Mr. Robeson's farm was land owned by William Loudon and to the northeast the farm was owned by Andrew Green. The story is often told that when the railroad company became interested in the purchase of the land, a Mr. Cadwallader came from Philadelphia for the purchase of the Robeson farm. He represented a Mr. Archibald Write, Esq. who later transferred the land to his son, John. When Mr. Cadwallader arrived at the Robeson home, Robeson was engaged in butchering hogs. Summoning her husband for the negotiations, Mrs. Robeson found a letter which had been dropped by Cadwallader. Mr. Cadwallader, not noticing that he had dropped the letter, offered Mr. Robeson six thousand dollars for the farm. In the meantime, Mrs. Robeson, not knowing the source of the letter, opened it to see to whom it belonged. She discovered that the price offered for the farm was mentioned in the letter as the sum of ten thousand dollars. This information she communicated to her husband and the price offered was immediately improved to ten thousand dollars.

The rapid growth and development of the city can be attributed to the expanding interest of the railroad. Since the land lay at the base of the Allegheny Mountains and was at the end of the line in the earliest days, repair shops had to be built for cars and locomotives. The first trains in the area had to be taken to Duncansville, hooked onto the Portage railroad and hauled over the mountain by that means. The first cars to take this journey were on September 17, 1850. This was a tedious procedure. Engineering for the tracks over the mountain caused many problems. The elevation at the Robeson farm was 1,174 feet above sea level and an additional 984 feet were needed to reach the top of the Allegheny Mountains. Thus, the World Famous Horseshoe Curve and the Gallitzin

tunnels were laid out and opened in 1854, eliminating the trek to Duncansville and the use of the old Portage Railroad.

The town was laid out in lots and streets were named for the wives or sweethearts of the civil engineers; Emma, Virginia, Harriet, Adeline, Helen, Rebecca, Annie, Julia and Caroline. Due to some comic stories which came out of street names, the names were changed to what they are today.

The new village received the name of Altoona. Mr. Andrew Green had wanted the town to be named Greensburg and when it was not accepted, he laid out his streets at a different angle than Altoona streets and thus it remains today to the north east of Eleventh Street.

While the railroad remained the dominant industry, smaller industries grew to provide services to the railroad and people living in the community. Long before the coming of the railroad, the iron industry had flourished at the Allegheny Furnace. Elias Baker and his nephew, Roland Diller, had purchased the furnace in 1835 from the firm of Allison and Henderson who had built the furnace in 1811 and abandoned it in 1818. As man abandons, nature takes over. Reconstruction of the furnace was necessary and a village of furnace workers, iron ore miners, colliers, draymen, farmers and construction workers soon sprung up. Baker soon felt he was of sufficient means to erect a home "second to none in Pennsylvania and twice as good as any for the price". A Greek Revival architectural home was erected which still stands today. It is open to the public as a museum and is owned and operated by the Blair County Historical Society. The Bakers had interests in other industries such as the Glen White railroad and coal company, brick manufacturing, ganister rock and lumber. Thus, many of these products were used by the railroad in its everyday business operations.

As the city grew, a rolling mill was added, a silk mill, ice plant, planing mills, soap, broom and brush factories, harness and saddlers' shops, feed mills and retail shops. Persons with talents in other fields were imported from other areas to work for the railroad. Entertainment and recreation facilities were set up by the company. Several railroad bands were formed. A railroad YMCA and a Mechanics Library were built and staffed. Many churches were built and flourished in the city.

A grand hotel, known as the Logan House, was constructed (in the area of the Robeson farm) by the Pennsylvania Railroad in order to accommodate travelers on their journeys from Pittsburgh to Philadelphia. It had one-hundred-two rooms, two large parlors and an excellent dining room. It is said by many that the food was the best in the Commonwealth of Pennsylvania and the ice cream served was the best that money could buy.

A goodly number of the young men of Altoona were engaged in the military during the early years of the railroad as the Union forces were called upon to defend their freedoms against the southern army. By late summer of 1862, the cause of the North seemed to ebb, causing much concern of Gov. Andrew Curtin of Pennsylvania. He invited the governors of the various states to a conference at the Logan House to unite the

war effort and chart a course of loyalty to President Abraham Lincoln. It was deemed a success and a delegation was dispatched to Washington to deliver the message personally to President Lincoln. It is said that this support was largely responsible for the favorable turn of events for the Union cause.

By 1924 the population of Altoona was estimated at sixty-seven thousand persons and by 1944 the population had reached 82,000. During World War II, the military moved many troop trains and equipment by way of the Pennsylvania Railroad through the Altoona area. A canteen was set up near the Altoona station to serve refreshments to service men and women who were passing through town.

Following World War II, there was a program of action to find employment for returning service men and women known as "Jobs for Joes" which was successful in placing former military personnel in the workplace. Later another program was implemented for a revitalization of the area's business community after the decline of the railroad. Altoona looks to the future and celebrated their Sesquicentennial in 1999.

**Sinking Valley** is a scenic valley, lying between Canoe Ridge on the southeast and Brush Mountain on the northwest. It is not determined as to when the first people arrived in the valley. Some stories say the French mined lead here about 1750. By 1778 the House of Assembly learned about the lead and since it was a great necessity to procure the lead for the Revolutionary War army, General Daniel Roberdeau was sent to build a stockade fort to protect the lead miners from Indian and Tory attack. Under the direction of Major Robert Cluggage, lead was mined here for more than a year. Lead was sent by packhorse to Water Street where it could be sent by boat down the Juniata River. The lead being very heavy required many packhorses. Transportation was slow through the wilderness. Indian attacks were always feared. Many other persons from the area used the fort when there were alarms that the Indians might attack. In 1779 General Roberdeau abandoned the Fort due to difficulty in removing the lead and transporting it to the east. At that time many miners left the valley and a few returned after there was no longer the threat of attacks. Fort Roller was also located in the valley. Many of early families coming to the valley were the Stewarts, Kyles, Moores, Wilsons, McClains, McMullens, Dysarts, Burleys, Isetts, Bridenbaughs and Rollers.

The reason for the name of the valley is evident by the stream which flows through it. Due to the limestone formation, the stream sinks many times and reappears several miles further down the valley. The beautiful Arch Spring is one example. A cave is located about eight hundred feet above the spring. Water, disappearing into this cave is found to reappear nearly a mile below and flows under a natural bridge which is a perfect arch of rocks. The water is extremely frigid.

A number of very old homes are located here. It is unsurpassed for beauty in the spring when laurel blooms in abundance amid the rocks and narrow passages of the valley.

**Curryville** was founded as a railway freight and passenger station in 1872. Its principal business is dairy and feed products. It is located in the agricultural area of the County and provides produce used in many areas.

**Blair Four** is located in Catherine Township five miles east of Williamsburg. There was an iron furnace and limestone industry here. Remains of the furnace still remain.

**Blair Furnace** an iron furnace was located here. It was located at East Altoona in Logan Township.

**Barbara** is now known as Clappertown and is located in Huston Township and was established in an agricultural district. Mining of iron ore and a smelting furnace were located here.

**Beryl** is located in Allegheny Township near the village of Cross Keys and Carson Valley.

**Bennington** is located near the Cambria County line in Allegheny Township. An iron furnace was located here and a hundred men were employed prior to 1898. The Kittanning and Cambria Iron and Coal Companies operated mines in this area. A short distance away the railroad saw a disastrous wreck of the Red Arrow train in 1947.

**Blue Knob** is located in Juniata Township. It is adjoining the Bedford County line. The community was engaged in agriculture and lumbering for many years. A ski resort is now operated at Blue Knob.

**Canoe Creek** is located in Frankstown Township. The remains of the old limestone furnaces are here as a reminder that it was once an industrial site for the preparation of limestone to be used in the iron industry. A State Park is the recreational facility located here.

**Cove Forge** is located in Catherine Township about five miles east of Williamsburg. For many years people engaged in the iron industry lived here but it is basically an agricultural community.

**Culp** is located in Tyrone Township and named for a family of the district.

**Drab** is now known as Beavertown and is located in Huston Township on the Clover Creek highway between Williamsburg and Fredericksburg.

**East Sharpsburg** is located one and a half mile south of Roaring Spring.

**Elberta** was established as Bushman and changed to Elberta in 1906. It is about six miles from Altoona in the Sinking Valley area.

**Fostoria** is located along the main line of the Pennsylvania railroad near Tyrone.

**Ganister** is located in Woodbury Township. This was the site of Three- Mile Dam on the Pennsylvania canal. Persons working in the ganister and limestone quarries lived at this location.

**Glen White** began with the coming of the Glen White railroad which served the coal mines. The name was changed to Kittanning Point in 1872. The area was engaged in coal mining and the production of coke for iron furnaces.

**Charlotteville** is a small village in Antis Township near Tipton.

**Geeseytown**, named for the Geesey family, is located in Frankstown Township along the old Huntingdon, Cambria and Indiana Turnpike. It has an active fire company.

**Grazierville** is in Snyder Township along the Pennsylvania Railroad. It was formerly known as Kratzer.

**Henrietta** was originally called Leathercracker and lies in North Woodbury Township. The development of the iron ore mines and the smelting furnaces was responsible for the railroad moving into this section thus creating towns along its lines.

**Horrell** is located about three miles east of Hollidaysburg. Its only industry was the Atlas Powder Works.

**Isett** is in Catherine Township about five miles east of Williamsburg and is a rural community. It was originally established by persons interested in the limestone industry.

**Kittanning Point** lies within the bend of the Horseshoe Curve. At one time a post office was located here and a railroad station. Both have disappeared through time.

**Klahr** is located in Greenfield Township about two miles west of what was known as Sarah Furnace. Agriculture and lumbering are the principal occupations.

**Lakemont, South Lakemont, Lakemont Terrace** received their names from the lake in the area. Several of Elias Baker's ore mines were located here within the area of the present Lakemont Park. The land was donated by the Bakers to provide a recreational facility for public use. It became a trolley park in the 1890's and while no longer a trolley park, the amusement park still operates each summer and many activities are held at the Casino.

**Larke** is located three miles west of Williamsburg and is a rural community.

**Mines or Oremenia** is located in Huston Township. For many years the principal industry was mining and shipping of sand by way of the Springfield branch of the Pennsylvania Railroad.

**Ore Hill** is located three miles west of Roaring Spring. At one time this community was populated by employees of the mining industry. It is now an agricultural community.

**Poplar Run**, also known as Puzzletown is in the western portion of Freedom Township.

**Juniata**, a section of Altoona, was once named Kipple for Andrew Kipple who was a general foreman in the railroad shops. The name was changed to Juniata in 1904.

**Reservoir** which is to the south of Hollidaysburg was named for the large reservoir which supplied water to the Pennsylvania canal during the dry seasons. At the western end of the reservoir is **Catfish** which acquired its name from the large number of catfish caught in the reservoir and served to travelers at a nearby inn.

**Rover** was formerly called Springfield Furnace due to the iron furnace operated there by the Royers. After the discontinuance of the furnace operations, the community was engaged in agriculture and the limestone industry.

**Sabbath Rest** is located in Antis Township between Altoona and Bellwood. The name given to this community came from Martin Bell's invention making it possible to bank his iron furnace on Saturday night and not reopening until Monday without injury to the smooth operation of the business.

**Shellytown** was named for David Shelly and is located about six miles west of Williamsburg in Woodbury Township. It is a rich farming area.

**Sproul** is located about two miles from Claysburg in Greenfield Township. It was named for Governor William C. Sproul who was interested in the formation of the brick industry. A large brick manufacturing plant was operated here for many years.

**Tipton** is located in Antis Township and named for the Tipton family who were early settlers. It lies along the main line of the Pennsylvania Railroad. There was an airport here for many years and the site of the Altoona Speedway, which had a wooden track used for racing cars. The New Pig Corporation is now located here. The Pittsburgh Plate Glass Company, the manufacturers of safety glass, operate a plant in Tipton.

**Wertz** is located in Woodbury Township. Many men who worked in the limestone quarries lived here in the past. It is now a rural community.

**Wopsononock** was originally called Stains and is located on one of the highest points in the Allegheny Mountain range. At one time a large hotel and cottages were located here and were served by the Wopsononock Railroad which extended from Juniata to the Dougherty mines. A disastrous fire destroyed the hotel. Today, a number of cottages remain and the mountain top is dotted with the towers of radio and television stations.

**Yellow Springs** is located in Catherine Township. Formerly, travelers stopped here at a tavern where they could remain the night when traveling on the Huntingdon, Cambria

and Indiana Turnpike. Equipment and horses were exchanged here by stage coach and wagon drivers. Today it is a rural community. The stone house, built shortly after the Revolutionary War by the Kinkeads, still stands here.

*Blair County celebrated its Sesquicentennial in 1996. We have looked to our past with the knowledge that our ancestors have made our County what it is today. Now, we look forward to future plans which will carry us into the twenty-first century and new generations. We have great opportunities to carry Blair County forward in the coming years. We are proud of our past and are confident that in the future, as in the past, we are able to say, "We're Blair County Proud!"*



## Appendix D

### Cultural Resources GIS (CRGIS) Historic Site Detailed Summary Report

#### Appendix D.1

#### Abstract – Cultural Resources GIS

Cultural Resources GIS (CRGIS) Historic Site Detailed Summary Report:

**Archaeological Survey Information**

<b>Survey Information</b>	
ERNO	1991-3495-013-B
Title	Ph 1 Arch. Survey, Martinsburg Sewage Treatment Project, Blair County, PA
Date	04/01/1992
Agency	DER
Investigator	T. Koetje/IUP
Area	3.5 hectares
# of Sites	0
<b>Abstracts</b>	-

<b>Survey Information</b>	
ERNO	1986-0767-042-A
Title	Comp. Rpt. On a CR Survey of Texas Eastern Trans. Corp Row
Date	02/09/1982
Agency	FERC
Investigator	R.Houston/ GAI
Area	0 hectares
# of Sites	5
<b>Abstracts</b>	19810119042B.PDF

<b>Survey Information</b>	
ERNO	2006-6100-013-B
Title	Phase I Archaeological Survey, Proposed Bridge Replacement Project, Blair County Bridge 53, Brumbaugh road (T-353), Taylor Township, Blair County, Pennsylvania
Date	01/01/2007
Agency	FHWA
Investigator	P. Raber/ Herberling Associates. Inc.
Area	2 hectares
# of Sites	0
<b>Abstracts</b>	20066100013B.PDF

**Bridge Resource Information**

<b>Identification</b>	
BMS Number	07721303533053
Key Number	130898
Historic Name	Brunbaugh Road; County Bridge Number 16
Crossing	Plum Creek
<b>Location</b>	
Blair	Taylor Township
Address	Brumbaugh Rd., 2 Mi NW of Martinsburg
<b>General Characteristic</b>	
Predominate Material	Concrete

Number of Spans	1
Number of Main Spans	-
Overall Length	24
<b>Status</b>	
National Registry Status	Ineligible
Contributes	Unreported
<b>Historic Information</b>	
Years Built	1916
<b>Links</b>	-
<b>Comments</b>	-

<b>Identification</b>	
BMS Number	07016402700000
Key Number	130893
Historic Name	-
Crossing	Plum Creek
<b>Location</b>	
Blair	Taylor Township
Address	PA 164/ Ir 286; 1 mi E of Roaring Spring
<b>General Characteristic</b>	
Predominate Material	Steel
Number of Spans	1
Number of Main Spans	-
Overall Length	66
<b>Status</b>	
National Registry Status	Ineligible
Contributes	Unreported
<b>Historic Information</b>	
Years Built	1938
<b>Links</b>	-
<b>Comments</b>	-

<b>Identification</b>	
BMS Number	07200801000140
Key Number	130891
Historic Name	-
Crossing	Plum Creek
<b>Location</b>	
Blair	Taylor Township
Address	SR 2008; Sharpsburg
<b>General Characteristic</b>	
Predominate Material	Concrete
Number of Spans	1
Number of Main Spans	-
Overall Length	43
<b>Status</b>	
National Registry Status	Ineligible
Contributes	Unreported
<b>Historic Information</b>	

Years Built	1915
<b>Links</b>	-
<b>Comments</b>	-

**Historic Resource Information**

<b>Identification</b>	
Key Number	105489
Historic Name	Martinsburg Historic District
Resource Type	District
<b>Location</b>	
Blair	Martinsburg
Address	-
<b>Status</b>	
National Registry Status	Eligible
Contributes	-
<b>Historic Information</b>	
Years Built	1832, 1946
Alterations/Additions	-
<b>Physical Description</b>	
Style	Gothic Other Bungalow/ Craftsman Italianate
<b>Links</b>	-
<b>Comments</b>	Re-evaluation of National Register eligibility may be necessary due to the date of the initial evaluation. Please contact the SHPO for guidance.

**Historic Resource Information**

<b>Identification</b>	
Key Number	101197
Historic Name	Pennsylvania Railroad: Martinsburg Freight Station, Martinsburg Milling Company
Resource Type	Building
<b>Location</b>	
Blair	Martinsburg Borough
Address	Railroad Street
<b>Status</b>	
National Registry Status	Undetermined
Contributes	-
<b>Historic Information</b>	
Years Built	1898
Alterations/Additions	-
<b>Physical Description</b>	
Style	-
<b>Links</b>	-
<b>Comments</b>	PRR

**Historic Resource Information**

<b>Identification</b>	
Key Number	078874
Historic Name	Morrison Cove High School

Resource Type	Building
<b>Location</b>	
Blair	North Woodbury Township
Address	-
<b>Status</b>	
National Registry Status	Undetermined
Contributes	-
<b>Historic Information</b>	
Years Built	1907, 1917
Alterations/Additions	-
<b>Physical Description</b>	
Style	Queen Anne
<b>Links</b>	-
<b>Comments</b>	-

#### Historic Resource Information

<b>Identification</b>	
Key Number	101218
Historic Name	Hagey & Clapper Mill
Resource Type	Building
<b>Location</b>	
Blair	Martinsburg Borough
Address	-
<b>Status</b>	
National Registry Status	Undetermined
Contributes	-
<b>Historic Information</b>	
Years Built	1872
Alterations/Additions	-
<b>Physical Description</b>	
Style	-
<b>Links</b>	-
<b>Comments</b>	-

#### Sites Located adjacent to the Watershed:

##### Archaeological Survey Information

<b>Survey Information</b>	
ERNO	1993-4377-013-B
Title	Ph1 Cult. Resource Survey of Freedom Township S.R. 0036, Blair County PA
Date	07/01/1993
Agency	FHWA
Investigator	P. Raber et al/ Heberling
Area	25 hectares
# of Sites	-
<b>Abstracts</b>	-

**Archaeological Survey Information**

<b>Survey Information</b>	
ERNO	1996-8206-013-B
Title	Ph 1 Arch Survey S.R. 866, Sec 002 Huston, Woodbury, & North Woodbury Townships Blair County, PA
Date	05/01/1995
Agency	-
Investigator	R.Taylor et al/ Heberling
Area	0 hectares
# of Sites	-
<b>Abstracts</b>	19968206013B.PDF

**Bridge Resource Information**

<b>Identification</b>	
BMS Number	07003601203421
Key Number	130892
Historic Name	-
Crossing	Halter Creek
<b>Location</b>	
Blair	Taylor Township
Address	SR 164/ Ir 286; 1 mi N of Roaring Spring
<b>General Characteristic</b>	
Predominate Material	Concrete
Number of Spans	2
Number of Main Spans	-
Overall Length	100
<b>Status</b>	
National Registry Status	Ineligible
Contributes	Unreported
<b>Historic Information</b>	
Years Built	1930
<b>Links</b>	-
<b>Comments</b>	-

**Historic Resource Information**

<b>Identification</b>	
Key Number	101066
Historic Name	New Enterprise Stone and Lime Company
Resource Type	Site
<b>Location</b>	
Blair	Taylor Township
Address	-
<b>Status</b>	
National Registry Status	Undetermined
Contributes	-
<b>Historic Information</b>	
Years Built	1860
Alterations/Additions	-
<b>Physical Description</b>	

Style	-
<b>Links</b>	-
<b>Comments</b>	-

### **Historic Resource Information**

<b>Identification</b>	
Key Number	101534
Historic Name	Garver, Russell, Mansion
Resource Type	Building
<b>Location</b>	
Blair	Roaring Spring Borough
Address	701 Spang Street
<b>Status</b>	
National Registry Status	Undetermined
Contributes	-
<b>Historic Information</b>	
Years Built	1930
Alterations/Additions	-
<b>Physical Description</b>	
Style	Tudor Revival
<b>Links</b>	-
<b>Comments</b>	-

## **ABSTRACT**

A Phase I archaeological survey was performed for the proposed replacement of Blair County Bridge 53, carrying Brumbaugh Road (T-353) across Plum Creek in Taylor Township, Blair County, Pennsylvania. The ca. 0.2 ha (0.5 acre) area of potential effects (APE) was defined as the area subject to project actions, including grading and ground disturbance around the new bridge and cut and fill areas along the approaches. The APE lies within the Ridge and Valley physiographic province and the Frankstown Branch, Juniata River watershed (Watershed A) of the Upper Juniata River subbasin (Subbasin 11). The APE is situated to either side of Plum Creek, a second-order tributary of the Frankstown Branch of the Juniata River, in Morrison Cove, a broad limestone valley at the western edge of the Ridge and Valley physiographic province. Background data suggested a low potential for historic archaeological sites and a moderate potential for small prehistoric campsites

The Phase I survey included background research, a preliminary (Phase IA) soils/geomorphological investigation, and archaeological fieldwork. The Phase IA investigation involved the excavation of four backhoe trenches within the APE, and suggested that there was some potential for intact prehistoric archaeological deposits in the Ap/A and upper B soil horizons to the west of Plum Creek, but that alluvial sediments to the east had been deposited in high-energy events and heavily reworked. Three shovel tests 50 cm x 50 cm (20" x 20") in size and excavated into the top of the B horizon were excavated within the APE to the west of Plum Creek. These tests revealed soil profiles comparable to those described in the Phase IA testing. No artifacts other than a few recent items were recovered from the shovel tests.

The Phase I survey identified no archaeological sites within the APE. No further archaeological studies are recommended.



## Appendix E

### U.S.G.S. Geographic Names Information System Feature Class Terms and Abbreviations

## **U.S.G.S. Geographic Names Information System - Feature Class Terms and Abbreviations**

Airport	Manmade facility maintained for the use of aircraft (airfield, airstrip, landing field, landing strip).
Bridge	Manmade structure carrying a trail, road, or other transportation system across a body of water or depression (causeway, overpass, trestle).
Cemetery	place or area for burying the dead (burial, burying ground, grave, emorial garden).
Civil	political division formed for administrative purposes (borough, county, incorporated place, municipio, parish, town, township) with legally defined boundaries. See also Census and Populated Place classes.
Gap	Low point or opening between hills or mountains or in a ridge or mountain range (col, notch, pass, saddle, water gap, wind gap).
Populated Place (ppl)	Place or area with clustered or scattered buildings and a permanent place human population (city, settlement, town, and village).
Post office	An official facility of the U.S. Postal Service used for processing and distributing mail and other postal material.
Ridge	Elevation with a narrow, elongated crest which can be part of a hill or mountain (crest, cuesta, escarpment, hogback, lae, rim, spur).
School	Building or group of buildings used as an institution for study, teaching, and learning (academy, college, high school, university).
Summit	Prominent elevation rising above the surrounding level of the Earth's surface; does not include pillars, ridges, or ranges (ahu, berg, bald, butte, cerro, colina, cone, cumbre, dome, head, hill, horn, knob, knoll, mauna, mesa, mesita, mound, mount, mountain, peak, puu, rock, sugarloaf, table, volcano).

## Appendix F

### Natural Heritage Inventory Area Descriptions

## McKees Quarry Cave BDA

### Description

This is winter hibernation site for bats, including the small-footed myotis, a species of special concern in Pennsylvania. The numbers of bats documented here are relatively low, but the eastern myotis can be difficult to detect during surveys. Included within the Core Habitat Area is the area surrounding the cave within which bedrock disturbances may affect the cave.

During the summer, the bats that hibernate in the cave require habitat for roosting and foraging. However, little is known about the habits of the eastern small-footed myotis during its active phase (Best and Jennings 1997), so summer habitat areas cannot be identified at this time without telemetry studies tracking the animals' movements. In general, many bat species roost under the bark of trees, and forage along streams and forest edges. The suitable physical structures for roosting are most often found in mature trees or dead snags.

### Threats and Stresses

*Core Habitat Area:* the winter hibernation site can be threatened by disturbance in the cave during the months of November through April. The most common form of disturbance is human traffic. If bats are disturbed from hibernation, they can use up the stored energy reserves that are needed for when they emerge in the spring, causing them to die of starvation. Blasting or other activities that disrupt bedrock within the core areas may damage the structure of the cave, potentially making it unusable by the bats. Reduction of forest cover, especially along riparian corridors, may reduce habitat area for roosting and foraging for the bats.

### Recommendations

*Core Habitat Area:* blasting and other activities that will affect the bedrock should be avoided within this area so as not to damage the cave being used as a hibernation site. During the months of November through April, foot traffic or other disturbances in the cave or near its mouth should be avoided to prevent the hibernating bats from being disturbed. The Pennsylvania Game Commission's bat experts are monitoring this site and helping to develop appropriate management strategies to ensure the health and safety of the bat colonies.

Further assessment of what areas are being used as summer habitat by bats hibernating in the cave will be useful in guiding conservation of this population. Generally, maintaining and cultivating forest cover will increase the amount of available habitat for bats. It may be especially beneficial to develop a forested riparian corridor along the Little Juniata between the West Cave Hill site and the west slope of Brush Mountain. Such a corridor would provide good foraging habitat for the bats along the river, and also provide a travel corridor connecting them to a large, more contiguous

forested area for roosting. Along the two roads that cross the Juniata between West Cave Hill and Brush Mountain, a tall tree canopy on either side of the road can help to minimize bat road kills by encouraging the bats to fly higher above the road when crossing.

## **Lock & Loop Mountain LCAs**

### Description

Lock Mountain is transected at regular intervals by roads and rights-of-way, and thus the areas of contiguous forest habitat it currently contains are relatively small in comparison to others in Blair County. However, the Lock Mountain forest blocks were selected because there are several bat hibernation areas in the valley directly west of the ridge, and the forest along the ridge likely serves as summer habitat supporting the bats.

The Loop Mountain LCA is a large block of fairly contiguous forest. It has about 8,900 acres of core forest area, nearly the size estimated to be necessary to sustain viable populations of neotropical migrant birds (Anderson & Vickeray 2000). As the forest occurs across a mountain ridge it contains an elevational gradation of different forest types, ranging from mesic types near the base of the slopes to a dry, acidic oak-heath forest type along the ridgeline. The ridgeline forest is mature and in good condition and appears to have had little disturbance from quarrying in the past. There are also several natural scree boulder fields along the upper slopes.

### Threats and Stresses

Several small roads wind through the Loop Mountain LCA. Although they do not transect the entire block they do create a degree of fragmentation and edge habitat. The LCA is actually 10,700 acres in size, but only 8,900 acres of this area is core forest habitat. Lock Mountain is transected at the northern end of the area delineated as the Loop Mountain LCA by a road and a pipeline right-of-way, which interrupt the contiguity of this large forest block with the rest of the ridgeline. Further north several large right-of-ways cross the ridge as well.

### Recommendations

Reduction in the mileage of small roads in the Loop Mountain LCA will improve its habitat value for forest specialist species. Reduction of the number of roads and right-of-ways that transect Lock Mountain will improve the contiguity of the ridgeline, enhancing its value as wildlife habitat. The impact of rights-of-way and small roads as fragmenting features can be reduced by minimizing the width of these features, maintaining natural forest as close to the edge as possible, and allowing the tree canopy to extend out across the features.

## Appendix G

### Plum Creek-Stream Visual Assessment Protocol Summary Sheet

### STREAM VISUAL ASSESSMENT PROTOCOL SUMMARY SHEET

Date Assessment Conducted: September 23, 2009  
 Conducted by: Jim Eckenrode & Andy Gonsman

Stream Information: Plum Creek, Blair County, PA

Site	Chan. Width (ft)	Channel condition	Hydrologic alterations	Riparian Zone	Bank stability	Water appearance	Nutrient enrichment	Barriers to Fish Movement	Instream fish cover	Pools	Invert. habitat	Canopy cover	Riffle embeddedness	Total points	Factors Scored	Overall Score	Condition
PlumSS5	2	3	5	3	7	2	3	8	2	3	7	1	1	45	12	3.75	Poor
PlumSS4	5	7	7	7	7	7	5	10	5	5	6	1	2	69	12	5.75	Poor
PlumSS3	6	8	8	8	10	8	7	9	6	5	9	1	2	81	12	6.75	Fair
PlumSS2	9	4	7	7	5	8	8	7	7	4	8	7	8	80	12	6.67	Fair
PlumSS1	12	7	3	8	7	7	8	7	8	3	10	8	7	83	12	6.92	Fair
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
														0	0	0.00	0
<b>Total</b>	<b>34</b>	<b>29</b>	<b>30</b>	<b>33</b>	<b>36</b>	<b>32</b>	<b>31</b>	<b>41</b>	<b>28</b>	<b>20</b>	<b>40</b>	<b>18</b>	<b>20</b>	<b>358</b>			
<b># of Sites</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>60</b>	<b>12</b>		
<b>Average</b>	<b>6.8</b>	<b>5.8</b>	<b>6.0</b>	<b>6.6</b>	<b>7.2</b>	<b>6.4</b>	<b>6.2</b>	<b>8.2</b>	<b>5.6</b>	<b>4.0</b>	<b>8.0</b>	<b>3.6</b>	<b>4.0</b>	<b>71.6</b>		<b>5.97</b>	<b>Poor</b>

## Appendix H

Pennsylvania Fish and Boat Commission  
Fisheries Management Report (Plum Creek 711A)



**This work made possible by funding from the Sport Fish Restoration Act Project F-57-R Fisheries Management.**

Pennsylvania Fish and Boat Commission  
Bureau of Fisheries  
Fisheries Management Division

Plum Creek (711A)  
Fisheries Management Report

Prepared by  
D. Miko and J. Frederick

Fisheries Management Database Name: Plum Ck  
Lat/Lon: 40°21'07" / 78°24'23"

Date Sampled: July 2005

Date Prepared: November 2005

### **Introduction**

Plum Creek is a 12.1 km (7.5 mi) long stream located in sub-subbasin 11A, Taylor and North Woodbury townships, Blair County. Plum Creek begins at approximately 416 m (1,365 ft) elevation, 2.4 km (1.5 miles) south west of Martinsburg, Pennsylvania. The stream flows northwest to its confluence with Halter Creek near Roaring Spring, Pennsylvania at River Mile (RM) 2.7, 40°21'07" Latitude and 78°24'23" Longitude. Map coverage is provided by the Martinsburg and Roaring Spring Pennsylvania, United States Geological Survey 7.5 minute Quadrangles (Figs. 1 & 2).

Plum Creek has a 45.07 km<sup>2</sup> (17.40 mi<sup>2</sup>) drainage basin. Land use throughout the basin includes a mix of cultivated fields, fallow fields, pastures, forest, and rural residences. An active gravel quarry is also located within the basin. Agriculture, however, is the dominant land use in the areas directly adjacent to the stream. A search of the United States Environmental Protection Agency's Water Discharge Permit site based on the World Wide Web documented four permitted discharges directly into Plum Creek and one permitted discharge into an Unnamed Tributary to Plum Creek.

The underlying geology of this drainage basin is somewhat complex containing numerous formations from the Ordovician Period. Included in the geology are the following formations: Bellefonte, Axemann, Reedsville, Bald Eagle, Coburn, Nealmont, Snyder, Benner, Loysburg, Hatter, and Nealmont. The Reedsville and Bald Eagle formations include various siltstone, shale and sandstone conglomerates while the remaining formations are comprised of various limestone including dolomitic, fossiliferous, nonfossiliferous, shaly, and argillaceous limestone (Socolow 1980).

The Pennsylvania Department of Environmental Protection (DEP) Chapter 93 Water Quality Standards lists Plum Creek as Warm Water

Fishes (WWF). The WWF designation provides protection for the maintenance and propagation of fish species and additional flora and fauna, which are indigenous to a warm water habitat.

Plum Creek is divided into two sections for fisheries management purposes. Section 01 is 6.57 km (4.08 mi) long and runs from the headwaters to the State Route (SR) 0164 bridge near East Sharpsburg at RM 3.42. Section 02 is 5.51 km (3.42 mi) long and runs from the SR 0164 bridge near East Sharpsburg downstream to the mouth (Figs. 1 & 2).

### Methods

The examination of Plum Creek was conducted from July 6 through July 11, 2005 to quantify the wild brown trout *Salmo trutta* population documented in 2004 and to determine the spatial distribution of the wild brown trout population within Plum Creek. All procedures were carried out according to those outlined by Marcinko et al. (1986). Three representative sampling stations totaling 16.4% of the section length were sampled in Section 02 and one representative sampling station totaling 2.9% of the section length was sampled in Section 01. In all, 9.1% of the total stream length was sampled.

Physical characteristics, physicochemical values, aquatic macroinvertebrate communities, and fish communities were examined at all four of the stations surveyed. Aquatic macroinvertebrates were collected with a kick screen and by hand gleaning rocks. Macroinvertebrates were generally identified in the field to the familial level and assigned pollution tolerance index values according to a combination of those developed by or through Illinois EPA (1989), EA Mid-Atlantic Regional Operations Engineering, Science and Technology, Inc. (1990), Klemm et al. (1990), RMC Environmental Services, Inc. (1991), and PFBC field experience. Aquatic macroinvertebrates unidentified in the field were preserved in a solution of 90% isopropyl alcohol and brought to the PFBC Area 7 Fisheries Management office for positive identification.

The fish communities were sampled using a backpack electrofisher equipped with either a TAS generator and a Coffelt (BP-1C) variable voltage electrofisher set between 75 and 125 volts of alternating current or a Smith-Root model LR-24 battery operated backpack electrofishing unit.

### Results

#### *Station 0101*

Station 0101 was located 193 m downstream of the Brumbaugh Road (T-353) bridge at River Mile (RM) 3.89 (Table 1; Fig. 1). The 193 m long station averaged 3.2 m wide. The station was located in a fallow field, which provided no shade to the stream. Stream bank

erosion was light. The substrate consisted primarily of bedrock, rubble, and silt. Silt comprised much of the habitat in the pools. The station was comprised of short 0.20 m deep riffles separating medium to long pools up to 0.50 m deep. Overall habitat for adult fish was poor and was limited to the water depth in the pools and some overhanging grass.

Physicochemical parameters and their associated values measured on July 07, 2005 under low flow conditions were as follows: air temperature 25.0°C, water temperature 24.0°C, specific conductance 783 umhos, total alkalinity 240 mg/l, and total hardness 304 mg/l. Dissolved oxygen concentration was 11.1 mg/l (Table 2).

Aquatic macroinvertebrate diversity at Station 0101 was poor with 7 taxa in the collection (Table 3). The collection included one caddisfly family. None of the taxa collected was considered very intolerant of pollution. *Planariidae* (flatworm), an indicator of nutrient enrichment, was abundant at this station.

Four fish species were captured at Station 0101 (Table 4). Fish common in an environment transitional between coldwater and warmwater were collected and included blacknose dace *Rhinichthys atratulus*, creek chub *Semotilus atromaculatus*, white sucker *Catostomus commersoni*, and common carp *Cyprinus carpio*.

#### Station 0201A

Station 0201A was located 200 m downstream from a private lane bridge off of SR 2008 at RM 2.54 (Table 1; Fig. 2). The 305 m long station averaged 5.0 m wide. The stream flowed primarily through fallow fields. A small woodlot paralleled a portion of the station and provided partial shading to the stream. Stream bank erosion was light and the substrate consisted of boulder, rubble, and silt with filamentous algae present on the rocks. The station was comprised primarily of short to medium length riffles up to 0.40 m deep and medium to long pools up to 1.0 m deep. Habitat for adult fish was provided by the water depth in the pools and riffles, undercut banks, overhanging vegetation, and one small log jam.

Physicochemical parameters and their associated values measured on July 07, 2005 under low flow conditions were as follows: Air temperature 27.0°C, water temperature 19.5°C, specific conductance 604 umhos, total alkalinity 256 mg/l, and total hardness 324 mg/l. Dissolved oxygen concentration was 12.4 mg/l (Table 2).

The aquatic macroinvertebrate familial diversity at Station 0201A was fair with 11 taxa in the collection (Table 3). The collection included one mayfly family and two caddisfly families. No taxon was rated abundant at this station. *Rhyacophilidae* (caddisfly), considered very intolerant of pollution, was collected at this station. *Planariidae* (flat worm) and *Gastropoda* (snails) were collected at this station and were indicative of a nutrient rich environment.

The fish community at Station 0201A consisted of five unique species (Table 4). All of the fish species collected were either common to a coldwater environment or common to an environment transitional between coldwater and warmwater and included longnose dace *Rhinichthys cataractae*, white sucker, bluegill *Lepomis macrochirus*, hatchery reared rainbow trout *Oncorhynchus mykiss*, and wild brown trout *Salmo trutta*.

A total of 431 individual wild brown trout were captured during two electrofishing passes in this 305 m long station. Wild brown trout biomass and number of trout/ha were 132.66 kg/ha and 3,730 trout/ha, respectively (Table 5). Wild brown trout ranged in lengths from 50 mm to 449 mm total length (TL) with 57 (13.2%) being of legal length (175 mm TL) or greater and 16 (3.7%) being 300 mm or greater. Wild brown trout  $\leq$  124 mm TL comprised 86.8% (n=374) of the wild brown trout collection. The estimated number of legal length trout/mi was 348 with 90 trout/mi being  $\geq$  300 mm TL. One hatchery-reared rainbow trout between 300 mm and 324 mm TL was also collected at this station.

#### Station 0201B

Station 0201B was located at the Timber Ridge Lane bridge along SR 2008 (Plum Creek Road) at RM 2.06 (Table 1; Fig. 2). The 300 m long station averaged 8.0 m wide and closely paralleled SR 2008 for most of its length. Stream bank erosion was light with approximately the lower one-quarter of the western bank being rip rapped in association with the Timber Ridge Lane stream crossing and the state route corridor. The substrate consisted of boulder, rubble, and silt with some gravel also present in the substrate mix. Silt was present in the lower end of the pools and inside stream bends. Filamentous algae was present on the boulder and rubble substrate. The tree-lined east shoreline provided partial shading to the stream at this station. The station was comprised primarily of short riffles up to 0.40 m deep and medium to long pools up to 1.0 m deep. The water depth in the pools, overhanging trees, shrubs, and grasses, and some instream woody debris provided habitat for adult fish.

Physicochemical parameters and their associated values measured on July 05, 2005 under low flow conditions were as follows: Air temperature 24.0°C, water temperature 19.5°C, specific conductance 587 umhos, total alkalinity 240 mg/l, and total hardness 308 mg/l. Dissolved oxygen concentration was 10.8 mg/l (Table 2).

The aquatic macroinvertebrate familial diversity at Station 0201B was fair with 15 taxa in the collection (Table 3). The collection included one mayfly family and two caddisfly families. *Asellidae* (aquatic sowbug) were rated abundant at this station. No aquatic macroinvertebrates considered very intolerant of pollution were collected at this station. *Chironomini*, *Planariidae* (flat worm) and *Gastropoda* (snails) were collected at this station and were indicative of a nutrient rich environment.

Nine fish species were captured at Station 0201B (Table 4). Fish common in a coldwater environment to fish common in a warmwater environment were collected. Largemouth bass *Micropterus salmoides*, bluegill, pumpkinseed *Lepomis gibbosus*, and redbreast sunfish *Lepomis auritus*, all considered warmwater species, were rare in the sample with less than three individuals of each species collected within the 300 m long station. Wild brown trout were the only fish species collected at this station considered abundant with greater than 100 individuals collected in the first pass of this 300 m long station.

A total of 599 wild brown trout was captured during two electrofishing passes in this station. Wild brown trout biomass and number of trout/ha were 122.43 kg/ha and 4,051 trout/ha, respectively (Table 6). Wild brown trout ranged in length from 50 mm to 399 mm TL with 65 (10.9%) being of legal length or greater and 24 (4.0%) being 300 mm or greater. Trout  $\leq$  124 mm TL comprised 89.1% (n=534) of the wild brown trout collected. The estimated number of legal length trout/mi was 426 with 162 trout/mi being  $\geq$  300 mm TL. One hatchery-reared brown trout was also collected and was between 375 mm and 399 mm TL. Wild and hatchery brown trout could be differentiated from one another by fin wear and fin deformities and the relatively pale coloration of hatchery fish.

#### Station 0202

Station 0202 was located at the Township Road 365 (Weitzel Hill Road) bridge at RM 0.55 (Table 1; Fig. 2). The 300 m long station averaged 7.7 m wide. Tree-lined banks provided partial shading to this station. Stream bank erosion was considered light. Stream substrate consisted of boulders, rubble, and silt. Silt, presumably from upstream agricultural activities, was notable at this station and was most likely exacerbated by the presence of a small low-head dam and the lower gradient of this station. Filamentous algae was present on the boulder and rubble substrate. The station was comprised primarily of short riffles and medium to long pools up to 1.0 m deep.

Physicochemical parameters and their associated values measured on July 05, 2005 under low flow conditions were as follows: Air temperature 24.8°C, water temperature 20.0°C, specific conductance 592 umhos, total alkalinity 244 mg/l, and total hardness 312 mg/l. Dissolved oxygen concentration was 8.6 mg/l (Table 2).

Aquatic macroinvertebrate diversity at Station 0202 was fair with 13 taxa in the collection (Table 3). The collection included one mayfly family and two caddisfly families. No aquatic macroinvertebrate families were rated abundant and no pollution intolerant taxon was collected at this station. *Chironomini*, *Planariidae* (flat worms), and *Oligochaeta* (aquatic earthworms) were collected at this station and were indicative of a nutrient rich environment.

Ten fish species were captured at Station 0202 (Table 4). Fish common in coldwater, transitional, and warmwater environments were present in the fish community. In addition to wild brown trout, blacknose dace, longnose dace *Rhinichthys cataractae*, and white sucker were considered abundant at this station with greater than 100 individuals of each species collected during the first electrofishing pass in this 300 m long station. Pumpkinseed, redbreast sunfish, common carp, and rock bass *Ambloplites rupestris* were considered rare at this station with less than three individuals of each species collected during the first electrofishing pass.

A total of 534 wild brown trout was collected during two electrofishing passes in this 300 m long station. Wild brown trout biomass and number of trout/ha were 168.66 kg/ha and 3,851 trout/ha, respectively (Table 7). Wild brown trout ranged in length from 50 mm to 499 mm TL; 138 (25.8%) were of legal length or greater and 26 (4.9%) being 300 mm or greater. The estimated number of legal-length trout/mi was 969. An estimated total of 143 trout/mi were  $\geq$  300 mm TL. Trout  $\leq$  124 mm TL comprised 74.2% (n=396) of the wild brown trout collection. Five hatchery-reared brown trout between 250 mm and 524 mm TL and two hatchery-reared brook trout *Salvelinus fontinalis* between 225 mm and 274 mm TL were also collected at this station.

### Discussion

Based upon physicochemical values and the aquatic macroinvertebrate community, long-term water quality in Plum Creek was fair. Total alkalinity measurements indicated that the stream possessed sufficient buffering capacity against the effects of acid precipitation and runoff. Physicochemical values throughout the stream were indicative of the limestone geology. Water temperature was greatest at the upstream most station. Although stream bank erosion was considered light throughout Plum Creek, silt comprised a substantial portion of the substrate mix in the tail ends of the pools and along the inside bends of the stream channel. Agricultural activities located within the drainage basin and concentrated in the upper reaches of the stream, along with run-off from the roadways which paralleled Plum Creek, were contributing factors to the silt load. Within the lower reaches of Section 02 silt was reduced as a result of the presence of small woodlots and tree-lined banks.

Aquatic macroinvertebrate diversity generally increased from upstream to downstream except for a slight decrease at the downstream most station. Macroinvertebrate composition indicated a system that was moderately organically enriched with black fly larvae found at three stations. The pollution intolerant taxon *Rhyacophilidae* was collected at one station.

The fish species assemblage in Section 01 ranged from fish common in a transitional environment to fish common in a warmwater

environment. No trout were collected within Section 01. The downstream limit of Station 0101 was located directly upstream of a large coldwater spring, which appeared to be the first major source of coldwater to Plum Creek and would explain the absence of coldwater fish species in Section 01.

In Section 02 the fish species diversity steadily increased in a downstream direction with the addition of species more common in transitional and warmwater environments accounting for much of the increase. The relative abundance of the fish species collected in Section 02 of Plum Creek however, was greatest for coldwater fish species. Warmwater fish species were typically rare in the collection.

A dense wild brown trout population was documented at all three stations surveyed in Section 02. The mean Section 02 wild brown trout biomass estimate was 141.17 kg/ha (Table 8). These results were similar to the 2004 sampling effort at two stations, where the mean Section 02 wild brown trout biomass estimate was 138.19 kg/ha (Table 9). Estimates recorded in both years exceeded the Pennsylvania Fish and Boat Commission's minimum criteria (40 kg/ha and 0.1 kg/ha of brown trout less than 15 cm) for Class A wild brown trout waters. Low numbers of hatchery-reared trout, including rainbow trout and brook trout, were also found throughout Section 02 in 2005. The origin of the hatchery trout was unknown.

Mottled sculpin *Cottus bairdi* were only found at Station 0202. Their presence at this station may be the result of colonization from Halter Creek. Mottled sculpin may, in time, expand their range in Plum Creek. Mottled sculpin were slow to expand their range following introduction into Codorus Creek in Lancaster County being found only within 50 m of the original introduction point two years after the initial introduction (Kaufmann pers. comm.).

The current DEP Chapter 93 water quality designation of Warmwater Fishes is not sufficient to protect the documented coldwater fish species assemblage present in Section 02 of Plum Creek. Based upon the documented Class A wild brown trout resource in Section 02 the Pennsylvania DEP should consider a Chapter 93 upgrade to High-Quality Coldwater Fishes to provide adequate protection to this resource.

### **Management Recommendations**

1. The Pennsylvania Fish and Boat Commission should continue to manage Plum Creek under conventional statewide angling regulations.
2. The Pennsylvania Department of Environmental Protection should consider an upgrade to the Chapter 93 Water Quality Standards for Plum Creek from Warm Water Fishes to High Quality - Cold Water Fishes based upon the presence of a Class A wild brown trout population in Section 02.
3. The Blair County Conservation District should educate the landowners along Plum Creek about the benefits of stream bank fencing and riparian buffers and work with the landowners in accomplishing these tasks.



## Literature Cited

- EA Mid-Atlantic Regional Operations Engineering, Science and Technology, Inc. 1990. Freshwater macroinvertebrate species list including tolerance values and functional feeding group designations for use in rapid bioassessment protocols. Prepared for the U.S. EPA, Washington, DC.
- Illinois EPA. 1989. Biological stream characterization: a biological assessment of Illinois stream quality. Special Report #13, Illinois State Water Plan Task Force, Division of Water Pollution Control. Springfield, IL.
- Klemm, D.J., P.A. Lewis, F. Fulk, and J.M. Lazorchak. 1990. Macroinvertebrate field and laboratory methods for evaluating the biological integrity of surface waters. U.S. EPA, Cincinnati, OH.
- Marcinko, M., R. Lorson and R. Hoopes. 1986. Procedures for stream and river inventory information input. Pennsylvania Fish and Boat Commission publication, Bellefonte, PA.
- RMC Environmental Services, Inc. 1991. Post-diversion aquatic biology assessment for 1990. Prepared for the Philadelphia Electric Company, Philadelphia, PA.
- Socolow, A.A. 1980. Geologic Map of Pennsylvania. Commonwealth of Pennsylvania, Department of Environmental Resources, Bureau of Topographic and Geologic Survey 1980.

Table 1. Plum Creek (711A), Blair County. Station location, length electrofished, and average width in July 2005.

<b>Station</b>	<b>Downstream limit description</b>	<b>Length (m)</b>	<b>Ave. Width (m)</b>
0101	193 m DNS Township Rd 353 (Brumbaugh Rd) bridge	193	3.2
0201A	200 m DNS private lane bridge	305	5.0
0201B	Timber Ridge Lane bridge	300	8.0
0202	Township Rd 365 (Weitzel Hill Rd) bridge	300	7.7

Table 2. Physicochemical parameters and their associated values measured in Plum Creek (711A) in July 2005.

Parameter	Station			
	0101	0201A	0201B	0202
Date	7/07/05	7/07/05	7/05/05	7/05/05
Time (24 hour)	1430	1510	1347	1304
Air temperature (°C)	25.0	27.0	24.0	24.8
Water temperature (°C)	24.0	19.5	19.5	20.0
Specific conductance (umhos)	783	604	587	592
Total alkalinity (mg/l)	240	256	240	244
Total hardness (mg/l)	304	324	308	312
Dissolved oxygen (mg/l)	11.1	12.4	10.8	8.6

Table 3. Aquatic macroinvertebrate taxa collected from Plum Creek (711A) in July 2005.

Taxon	Station				PTI
	0101	0201A	0201B	0202	
Ephemeroptera					
Baetidae		X	X	X	7
Coleoptera					
Elmidae				X	8
Psephenidae			X	X	6
Trichoptera					
Hydropsychidae			X	X	4-8
Hydroptilidae	X	X	X		5
Philopotamidae				X	6
Rhyacophilidae		X			0
Odonta					
Coenagrionidae	X				9
Diptera					
Chironomini			X	X	10
Other Chironomids	X	X	X	X	0-10
Simuliidae		X	X	X	0-10
Hemiptera					
Corixidae			X		NA
Gerridae		X	X		NA
Veliidae			X		NA
Decapoda					
Cambaridae		X	X	X	6
Amphipoda					
Gammaridae	X	X	X	X	2-8
Isopoda					
Asellidae	X	X	*	X	8
Tricladida					
Planariidae	*	X	X	X	10
Class Oligochaeta				X	1-9
Class Gastropoda		X	X		1-9
Class Pelecypoda	X				NA
<b>Total taxa</b>	<b>7</b>	<b>11</b>	<b>15</b>	<b>13</b>	

X = Present at Station; \* = Abundant at Station. PTI = Pollution Tolerance Index. PTI ranges from 0 (very intolerant of pollution) to 10 (very tolerant of pollution). NA = not available. NC = no collection made.

Table 4. Fish species occurrence and relative abundance in Plum Creek (711A) determined by backpack electrofishing in July 2005.

Scientific name	Common name	Station			
		0101	0201A	0201B	0202
<i>Oncorhynchus mykiss</i>	Rainbow trout - hatchery		R		
<i>Salmo trutta</i>	Brown trout - wild		A	A	A
<i>Salmo trutta</i>	Brown trout - hatchery			R	P
<i>Salvelinus fontinalis</i>	Brook trout - hatchery				R
<i>Cyprinus carpio</i>	Common carp	X		R	R
<i>Rhinichthys atratulus</i>	Blacknose dace	X		P	A
<i>Rhinichthys cataractae</i>	Longnose dace		X	C	A
<i>Semotilus atromaculatus</i>	Creek chub	X			
<i>Catostomus commersoni</i>	White sucker	X	X	C	A
<i>Ambloplites rupestris</i>	Rock bass				R
<i>Lepomis auritus</i>	Redbreast sunfish			R	R
<i>Lepomis gibbosus</i>	Pumpkinseed			R	R
<i>Lepomis macrochirus</i>	Bluegill		X	R	
<i>Micropterus salmoides</i>	Largemouth bass			R	
<i>Cottus bairdi</i>	Mottled sculpin				P
<b>Total species</b>		<b>4</b>	<b>5</b>	<b>9</b>	<b>10</b>

Subjective Abundance Index (based on a 300 m long station):

A = Abundant (> 100); C = Common (26 - 100); P = Present (3 - 25);  
R = Rare (< 3) X = collected at station no rating of abundance determined.

Table 5. Estimated abundance and biomass of wild brown trout from Plum Creek (711A), using a Petersen estimator. Site located at River Mile 2.54 with a site Lat/Lon of 402034/782248. Site currently located within section 2. Survey Date: 7/8/2005.

Size Group	Population Estimate	Low 95% CI	High 95% CI	Estimated Number/Ha	Estimated Kg/Ha	Estimated Number/Km
50	80	40	175	525	1.05	262
75	363	297	442	2380	7.15	1190
100	60	40	92	393	2.36	197
175	1			7	0.59	3
200	6			39	4.92	20
225	18	10	34	118	20.33	59
250	16	7	40	105	22.23	52
275	8	3	19	52	15.08	26
300	4			26	11.28	13
325	6	3	16	39	18.62	20
350	4			26	14.82	13
375	2			13	8.26	7
425	1			7	5.97	3
Totals:	569			3730	132.66	1865

Table 6. Estimated abundance and biomass of wild brown trout from Plum Creek (711A), using a Petersen estimator. Site located at River Mile 2.06 with a site Lat/Lon of 402111/782300. Site currently located within section 2. Survey Date: 7/6/2005.

Size Group	Population Estimate	Low 95% CI	High 95% CI	Estimated Number/Ha	Estimated Kg/Ha	Estimated Number/Km
50	195	130	306	813	3.25	650
75	593	474	743	2471	22.25	1977
100	105	73	158	438	5.71	350
200	2			8	1	7
225	15	9	28	63	9.5	50
250	23	12	47	96	18.21	77
275	9	4	22	38	9.96	30
300	8	3	19	33	11	27
325	14	6	35	58	23.88	47
350	6			25	12.92	20
375	2			8	4.75	7
Totals:	972			4051	122.43	3242

Table 7. Estimated abundance and biomass of wild brown trout from Plum Creek (711A), using a Petersen estimator. Site located at River Mile 0.55 with a site Lat/Lon of 402115/782351. Site currently located within section 2. Survey Date: 7/6/2005.

Size Group	Population Estimate	Low 95% CI	High 95% CI	Estimated Number/Ha	Estimated Kg/Ha	Estimated Number/Km
50	268	175	429	1160	3.46	893
75	432	334	558	1870	16.84	1440
100	9			39	0.61	30
175	20	9	45	87	6.49	67
200	55	30	110	238	24.29	183
225	44	24	90	190	26.28	147
250	13	7	27	56	11.39	43
275	22	12	45	95	22.94	73
300	8	3	20	35	11.86	27
325	10			43	18.23	33
350	3			13	6.49	10
375	3			13	7.62	10
400	1			4	2.81	3
450	1			4	4.59	3
475	1			4	4.76	3
<b>Totals:</b>	<b>890</b>			<b>3851</b>	<b>168.66</b>	<b>2965</b>



Table 8. Mean abundance statistics for brown trout collected by electrobackpack in Plum Creek Section 02, section located within Pennsylvania drainage sub-subbasin 11A. Three site(s) (n) were used in this survey with site collection dates between 7/6/2005 and 7/8/2005.

EstYear	25mm Size Group	CPUE	Population Estimate	Est Num/Ha	Est Kg/Ha	Est Num/Km	n Sites
2005	50	51.9	181	832	2.59	602	3
2005	75	174.59	463	2240	15.4	1536	3
2005	100	37.76	58	290	2.89	192	3
2005	175	2.49	7	31	2.36	23	3
2005	200	7.99	21	95	10.06	70	3
2005	225	14.61	26	124	18.7	85	3
2005	250	10.99	17	86	17.27	57	3
2005	275	6.82	13	62	15.98	43	3
2005	300	2.92	7	31	11.36	22	3
2005	325	5.47	10	47	20.25	33	3
2005	350	3.97	4	21	11.41	14	3
2005	375	1.86	2	11	6.87	8	3
2005	400	0	0	1	0.94	1	3
2005	425	0.33	0	2	1.98	1	3
2005	450	0.27	0	1	1.52	1	3
2005	475	0	0	1	1.59	1	3
<b>Totals:</b>		321.97	809	3875	141.17	2689	

Table 9. Mean abundance statistics for brown trout collected by electrobackpack in Plum Creek Section 02, section located within Pennsylvania drainage sub-subbasin 11A. Two site(s) (n) were used in this survey with site collection dates between 06/02/04 and 06/03/04.

EstYear	25mm Size Group	CPUE	Population Estimate	Est Num/Ha	Est Kg/Ha	Est Num/Km	n Sites
2004	50	14.61	17	83	0.17	55	2
2004	175	6.4	6	30	2.34	20	2
2004	200	24.15	27	150	17.06	90	2
2004	225	22.71	25	143	20.38	83	2
2004	250	10.48	12	65	13.73	38	2
2004	275	5.7	7	33	9.91	22	2
2004	300	9.37	11	57	20.8	35	2
2004	325	8.91	10	48	22.12	32	2
2004	350	1.21	2	12	5.88	7	2
2004	375	0	1	5	3.7	3	2
2004	400	1.86	2	12	8.08	7	2
2004	425	1.25	1	5	5.04	3	2
2004	450	0.6	1	5	5.49	3	2
2004	500	0.65	1	2	3.49	2	2
<b>Totals:</b>		107.90	123	650	138.19	400	

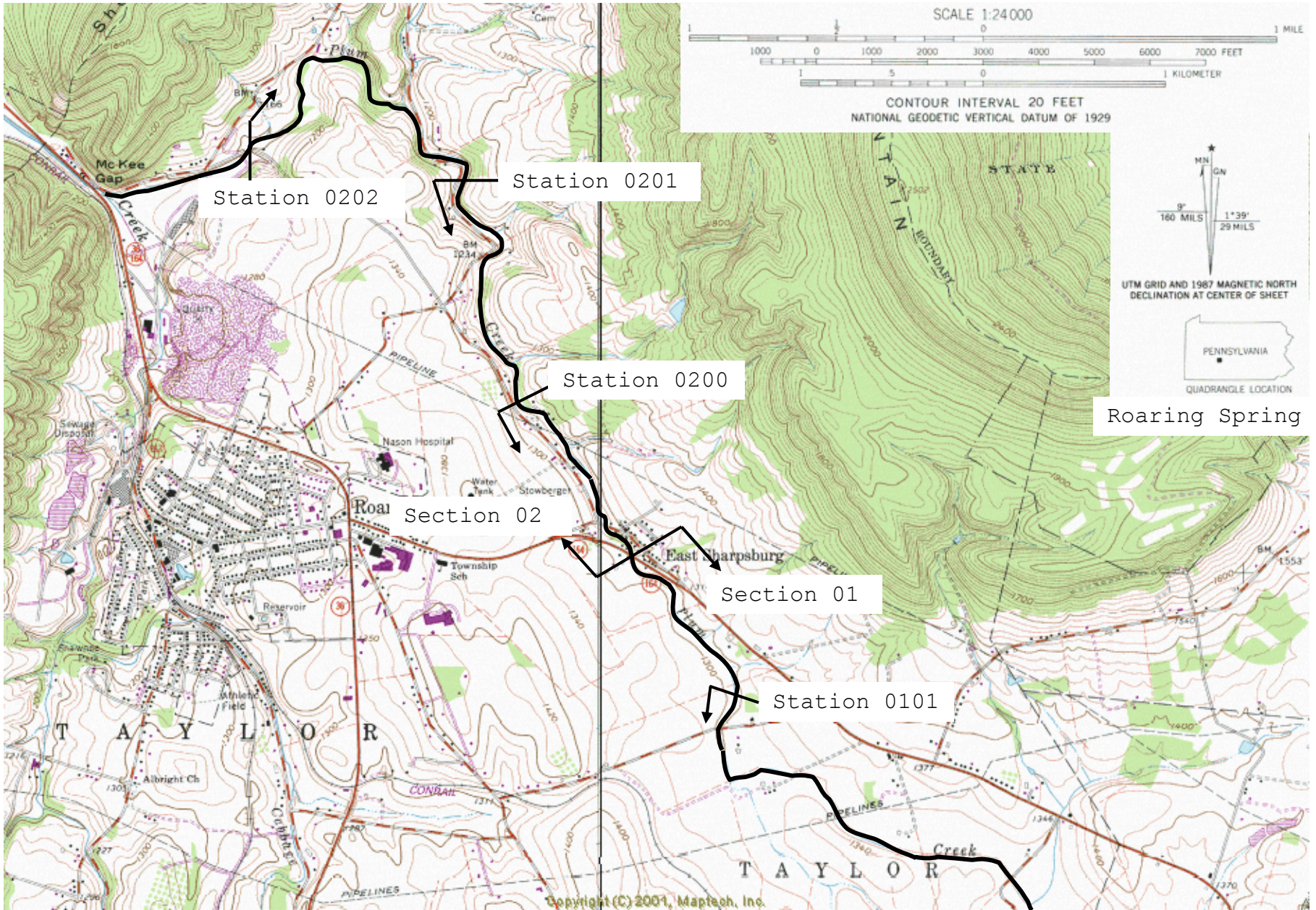


Figure 1. Location map for Plum Creek (711A), Blair County.

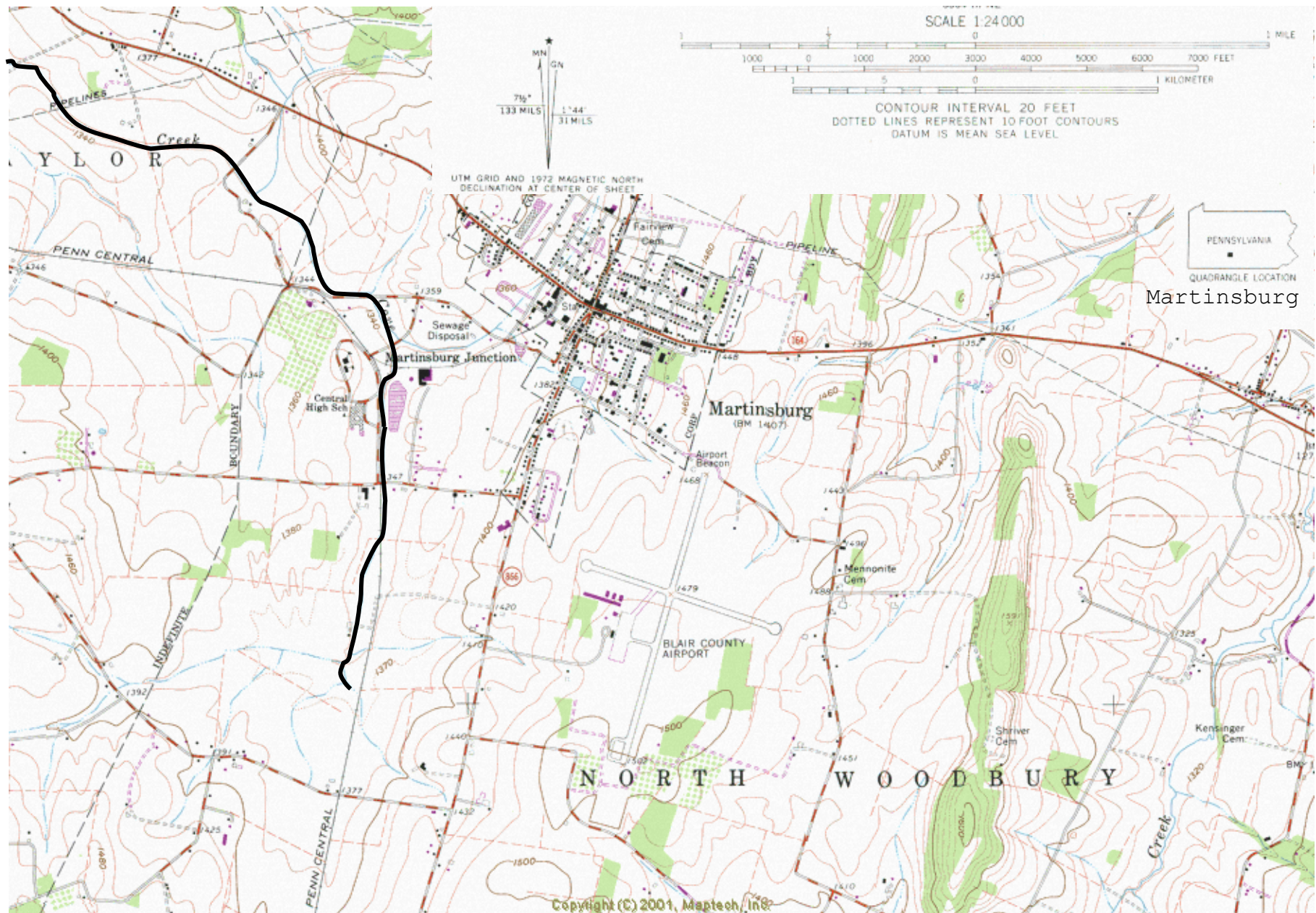


Figure 1. Location map for Plum Creek (711A), Blair County.