

Section 1.....Area Profile

A Plan for South Franklin Township & Green Hills Borough

The purpose of Part 1: Area Profile is to provide an overview of the Township of South Franklin and the Borough of Green Hills in order to generate a thorough understanding of current trends and conditions. The Area Profile is a “snapshot” of the communities and how the character of the municipalities has emerged and changed over time.

- ❖ **Historic Resources Profile**
- ❖ **Natural Resources Profile**
- ❖ **Demographic Profile**
- ❖ **Transportation Profile**
- ❖ **Land Use Profile**
- ❖ **Agricultural Profile**
- ❖ **Residential Development Profile**
- ❖ **Economic Development Profile**
- ❖ **Community Amenities Profile**

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Historic Plat Map of Franklin Township, from Caldwell's Atlas of 1876 (courtesy Tom Hart).

Historic Resources Profile

Washington County was established in 1781 to allow “the inhabitants of the area west of the Monongahela River to have more convenient courts and public offices, rather than the inconvenience and hardship of being so far remote from the seat of justice” (Preamble of Legislation creating Washington County, March 28, 1781). The County was divided further into 67 municipalities: 32 townships, 33 boroughs, and two cities. South Franklin Township first organized as part of Amwell Township in approximately 1781 as one of the original Washington County townships, but in 1788 Morris Township formed to the south; at the time, Morris included what is now South Franklin Township. Amwell was divided further four years later when Canton Township was founded in the north. In 1855, Franklin Township was formed from parts of Amwell, Canton and Morris Townships, and on February 8, 1892, Franklin Township divided into North and South Franklin Townships. Green Hills Borough was formed in 1978 when approximately 600 acres seceded from South Franklin Township. The Borough consists primarily of the Lone Pine Golf Club and was formed after South Franklin Township voters defeated a referendum the previous year that would have allowed alcohol to be sold in the dry Township.

The historical significance of the Project Area focuses mostly on transportation. Prosperity Plank Road, built by the Upper Ten-Mile Plank Road Company in 1851, served as the major north-south route for Washington County residents. The road connected the City of Washington to Prosperity (Morris Township) and was a toll road until 1906, when it was condemned and the toll discontinued. Today, Prosperity Plank Road is now Route 18 and Old Plank Road. Route 18 continues to be a major thoroughfare for residents of South Franklin Township as well as those of neighboring municipalities travelling to the City of Washington and surrounding attractions.

On April 7, 1949, the Washington County Airport was officially opened, located off Route 18 in northern South Franklin Township. Today, the airport consists of 365 acres with over 100 airplanes, eight corporate hangars, 37 T-hangers with approximately 40,000 annual take offs and landings and further expansion planned for the future. The Washington County Airport is the largest attraction and traffic generator in the Project Area.

Structures & Sites

Villages

Villages are unincorporated places within Pennsylvania municipalities, typically townships that have the density and characteristics of a small town or settlement but never incorporated into a borough due to size, funds, desire, etc. In many Southwestern Pennsylvania locales, villages were typically the result of mining, coke, or similar industrial corporations and were company-owned, with dense double-houses and usually a church and store. South Franklin Township is distinctive in that its villages are much older, and resemble the small agricultural villages of central and eastern Pennsylvania; typically, these settlements cropped up at important transit intersections and served as small hubs and places of commerce for an otherwise completely agrarian community. Usually they consisted of a general store, a dense clustering of homes, and a church or two. Lagonda and Van Buren are two such villages located in South Franklin Township.

Lagonda

Lagonda is the central settlement within South Franklin Township, enjoying a strategic location near the northern portion of the township, easily accessible to larger settlements such as the City of Washington. It was often the first settlement travelers would come to after leaving the city on the historic plank road to Prosperity (now largely followed by SR 18). Today, Lagonda is home to the Jolly Schoolhouse Pizza Restaurant, the South Franklin

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Township municipal building and park, Joe Walker Elementary School, and the South Franklin Volunteer Fire Department and Social Hall.

Van Buren

Van Buren is a small village settlement located along Route 18 in the southern part of South Franklin Township, originally home to the farm and tavern of the Goble family and later the Weirs, who in 1818 opened a store and post office (see *Map 1.5: Community Facilities & Utilities*). The town's location along Prosperity Plank Road enabled it to continue as a small settlement for many years. In very close proximity to Van Buren were two historic Presbyterian congregations that date back to the very early history of the Township. The first was a small branch of the Lower Ten Mile Presbyterian Church. This small group erected a brick building along the plank road (now Route 18) not far from Van Buren, "on the road from that place to Lone Pine." In 1825, the congregation of Lower Ten Mile built another brick house of worship, on the farm of a Mr. Jonas Condit, about five miles northwest of Amity, Pennsylvania. In the little graveyard on the lot where the church once stood rest several of the early settlers of the Township, including Jonas Condit, Luther Axtell, and James McFarland, (Crumrine, 1882).

Also nearby was one of the five branches of the historic Bethel Cumberland Presbyterian Church, originally founded in 1776 by the Rev. John McMillan in what is now Bethel Park, Pennsylvania. The congregation near Van Buren was organized in March of 1832 by McMillan's associate, the Rev. John Morgan, as the Upper Ten-Mile Cumberland Presbyterian Congregation. It was composed in part of Presbyterians from the Upper Ten-Mile Presbyterian Congregation in nearby Prosperity, Pennsylvania, which was founded by another McMillan associate, the Rev. Thaddeus Dodd. In 1833, the name was changed to Bethel, and by the turn of the twentieth century, it was the largest congregation of the Presbyterian denomination in the County, with a membership of over one hundred and seventy-five persons, (Crumrine, 1882). This church still thrives today and is located on Route 18 at the corner of Bethel Church Road (see *Map 1.5: Community Facilities & Utilities*).

According to the history of Washington County, South Franklin had six schools at the turn of the century that later became a part of McGuffey School District. As was typical of the time, most of these schools were small one-room schoolhouses. One was the Jolly School, which is still evidenced by the Jolly Schoolhouse Pizza restaurant. Today, the only school in the Project Area is the Joe Walker Elementary School, located on Route 18.

Famous People

Just as South Franklin Township's history is deeply rooted in transportation, so is its most famous person. Joseph Albert Walker was born in South Franklin Township on February 20, 1921. He lived on his family's farm and attended the Jolly School in his early years before going on to graduate from Washington & Jefferson College in Washington, Pennsylvania. Upon his graduation, Walker joined the U.S. Army Air Corps and served as a pilot in World War II. In 1945, he joined the National Advisory Committee for Aeronautics (NACA) Aircraft Engine Research Lab (AERL) in Cleveland, Ohio, first as a physicist but then as a test pilot. In October of 1958, the NACA was disbanded and the National Aeronautics and Space Administration (NASA) was born (<http://JosephAWalker.us>).

In 1963, Walker made two flights beyond 100 kilometers, the Fédération Aéronautique Internationale (FAI) threshold for space. This allowed him



<http://en.wikipedia.org/wiki/Image:WalkerE-6682.jpg>

to qualify as an astronaut under both U.S. Air Force and FAI rules and made Joe Walker the first person to enter space twice. In October 1964, Walker was the first to fly the Lunar Landing Research Vehicle (LLRV). Walker died on June 9, 1966 in a midair collision above the California desert during a group formation flight for a publicity photo. Joe Walker was inducted into the Aerospace Walk of Honor in 1991, and the International Space Hall of Fame in 1995. On August 23, 2005 NASA officially conferred Walker with astronaut's wings (http://en.wikipedia.org/wiki/Joseph_Albert_Walker).

National Register of Historic Places

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

Generally, properties have to be at least 50 years old to be eligible and criteria includes the quality of significance in American history, architecture, archeology, engineering, and culture. Listing in the National Register honors the property by recognizing its importance to its community, State, or the Nation. However, the following should be noted (www.nps.gov/history/nr):

- ❖ Owners of listed properties may be able to obtain Federal historic preservation funding, when funds are available.
- ❖ Federal investment tax credits for rehabilitation and other provisions may apply.
- ❖ Private property owners can do anything they wish with their property, provided that no Federal license, permit, or funding is involved.
- ❖ Federal agencies whose projects affect a listed property must give the Advisory Council on Historic Preservation an opportunity to comment on the project and its effects on the property.
- ❖ Owners have no obligation to open their properties to the public, restore them, or even maintain them, if they choose not to do so.
- ❖ Private property owners may object to the proposed nomination of their property to the National Register and if the majority of private property owners object, then the property cannot be listed in the National Register.



Farmhouse along Moore Road. (Mackin Photo 2008).

While 20 historic and cultural resources have been nominated for inclusion onto the National Register of Historic Places, including the Washington County Airport, the Pennsylvania Historic and Museum Commission has deemed

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only two sites eligible. The first is the Howard J. Clark farmstead, located on Plank Road, and is a brick two-story built in 1898 in the Queen Anne style. The second site is the Kelly House, also once a part of the Howard J. Clark farm and located at the junction of SR 18 and Goodridge Road. The brick two-story structure was constructed in 1860 in the Greek Revival Italianate style. A potential addition to the Register is the Walker House, located on Walker Road off SR 18, also of Greek Revival style and constructed in 1850. Currently its status is undetermined. Additionally, there are many historic farmsteads and homes in the Project Area, including the Miller - Moore Farm, the Batson Property, the Lowe House, the Reeves House, and many others throughout South Franklin Township (please refer to Appendix 2 for a current, though not comprehensive, listing of historic resources).

It should also be noted that the aforementioned sites are only the properties that have been surveyed at this point and that a comprehensive survey of all historic structures within the Project Area has never been undertaken. There are numerous farmhouses constructed prior to 1885 that still exist in the Project Area. Although many are much changed, they continue to contribute to the community's strong sense of agricultural heritage.

Cemeteries

During the early days of settlement, Western Pennsylvania pioneers tended to bury their deceased on their land; in many cases, this was simply because no established burial grounds existed, particularly in less settled areas such as Washington County. Churchyards and public cemeteries were rare in many parts of Western Pennsylvania well into the mid nineteenth century. As public cemeteries and churchyards proliferated, the custom of establishing family burial grounds began to decline, although many settlers continued to utilize the old farm cemeteries.



Historic cemetery along Old Post Road (Mackin 2008).

The Project Area has numerous burial grounds of this nature, some of which are unmarked and in deteriorating condition. Two known locations include a small pre-Revolutionary War burial site along the northern side of Old Post Road, just to the east of its intersection with Vista Valley Road, and a slightly larger burial ground just to the west of Deerfield Road, north of its intersection with SR 18. There are numerous other unknown or unnamed family plots in addition to these, as well as the historic Bethel Church burying grounds.

Natural Resources Profile

While stated earlier that transportation dictates land development and growth, the natural environment historically played an even bigger role by controlling transportation. Today, the natural environment continues to play a role in land use by limiting development due to the presence of certain natural features (i.e., streams, floodplains, etc.).

In addition, determining which environmental characteristics should be preserved is a central step in the development of a comprehensive plan. It is particularly important for the Project Area, which is predominantly rural in nature and attractive to new development to identify significant natural resources and develop recommendations for their protection and conservation, as well as to develop strategies to manage growth in a responsible and efficient manner.

Climate

Climate is important to land use planning in that it can affect land development methods and uses. Climate is usually defined as the “average weather over a period of years, which is typically a 30 year time period (World Meteorological Organization, 2006). The mean temperature for the project area is 50 degrees Fahrenheit (° F) with a maximum mean monthly temperature of 71.6° F in July and a mean monthly low of 26.8° F in January. Precipitation averages about 37.88 inches per year and is fairly evenly distributed throughout the year. July is the wettest month with an average of 3.76 inches per year and February is the driest month with 2.24 inches per year. Snowfall averages 25.2 inches per year with most of it falling between December and March. In addition, it is important to note that the Project Area has a very low disaster rating, and does not experience any significant amount of natural hazards such as tornadoes, hurricanes, earthquakes, floods, and so on.

Watersheds

The Project Area is fortunate to have abundant water resources for drinking, crop irrigation, and even recreational uses. Topography delineates drainage basins called watersheds. The US Environmental Protection Agency (EPA) defines a watershed as “the area of land that catches rain and snow and drains or seeps into a marsh, stream, river, lake, or groundwater,” (USEPA, 2004). Every river, stream, and tributary has an individual watershed. Larger watersheds are often subdivided into smaller ones. The entire Project Area is within the Ohio River watershed, which has a drainage area of 23,487 square miles in Pennsylvania (United States Department of the Interior, Geologic Survey). The Ohio River watershed is divided into five major sub-basins.

The southern portion of Washington County is located in the Monongahela River sub-basin, which drains 7,386 square miles. In addition, the Monongahela sub-basin is divided even further into sub-watersheds. *Map 1.1: Hydrology* shows the boundaries of the sub-watersheds in the Project Area.

Ten Mile Creek

Ten Mile Creek, together with South Fork Ten Mile Creek, comprise a watershed that has a total drainage area of 338 square miles. Ten Mile Creek begins in South Franklin Township and drains east for 65 miles where it empties into the Monongahela River at Millsboro. The Pennsylvania Department of Environmental Protection (PA DEP) has classified this stream as a Trout Stocked Fishery (TSF), meaning that this stream provides for the maintenance of stocked trout from February 15 to July 31 and maintenance and propagation of fish species and additional flora and fauna, which are indigenous to a warm waters habitat. No Total Maximum Daily Loads (TMDLs) have been identified for Ten Mile Creek. The Pennsylvania Fish and Boat Commission (PFBC) has officially approved this stream (from SR 18 downstream to SR 19) for “approved trout waters”, indicating that it meets the criteria qualifying

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it to be stocked with trout by the PFBC. These waters are closed for all fishing from March 1 to 8:00 a.m. on opening day of trout season.

A Department of Conservation and Natural Resources (DCNR) grant has been awarded to the Washington and Greene Counties Conservation Districts for the development of a River Conservation Plan for the following five watersheds: Ten Mile Creek, Pumpkin Run, Muddy Creek, Little Whiteley Creek and Whiteley Creek. Dates are not yet known as to when the development of this plan will commence.

Chartiers Creek

Chartiers Creek watershed has a total drainage area of 296 square miles. It originates in Washington County in South Franklin Township and flows north/northeast for approximately 30 miles until it empties into the Ohio River in Allegheny County near McKees Rocks at river mile 978.6. Chartiers Creek is classified by the PA DEP as a Warm Water Fishery (WWF). According to PA DEP's Internet website, TMDLs have been approved for Chartiers Creek and the watershed for metals, PCBs (Polychlorinated biphenyl), and Chlordane.

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

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

Its upper reaches flow through agricultural lands and rural areas that rely on septic systems south of Washington, in the Project Area. In South Franklin Township, the stream is impaired by nutrient runoff and insufficiently treated sewage. Upon entering Washington, the stream is degraded by industrial pollution, treated sewage, and city effects, including urban runoff. North of Washington, the stream passes through suburban commercial and residential areas of Pittsburgh as well as through several industrial sites. Acid mine drainage (AMD) first becomes a major problem around Canonsburg, which is located between Washington and Pittsburgh. The lower portion, as one approaches Pittsburgh, is lined with woodlands.

Chartiers Creek is one of the most complicated watersheds in Pennsylvania and experiences many pollution issues. It has one of the highest number of miles listed as impaired in the Commonwealth with over 84 percent of the sub-basin impaired (<http://www.dep.state.pa.us/DEP/DEPutate/Watermgt/WC/Subjects/WSNoteBks/WRAS-20F.htm>). Sources of pollution include AMD, combined sewer systems, landfills, agriculture, stormwater runoff, old and new industrial sites, nuclear waste sites, PCBs, urban runoff, flooding, and junk yard areas. Several municipalities within the Chartiers Creek watershed, which includes South Franklin Township, have adopted the Upper Chartiers Creek River Conservation Plan as a guidance document.

Floodplains

A floodplain is defined by the Environmental Protection Agency as the flat or nearly flat land along a river or stream or in a tidal area that is covered by water. Statistically flooding is expected to occur on an average of 1.5 years. Large, damaging floods occur once every 100 years, and truly devastating floods occur once every 500 years. Under natural conditions flooding is controlled by the landscape and weather, however human activities have been increasing the frequency of flooding. Concrete highways, parking lots, and roofs with impervious surfaces that do not allow filtration have been developed over areas that used to be forests, meadows, and wetlands with soils that soaked up much of the rainfall. Analyzing floodplain areas can play a vital role in determining future land use, as heavy commercial or industrial development is highly undesirable in flood prone areas and if development in a floodplain is left unchecked, can lead to disastrous consequences.

As illustrated on *Map 1.1: Hydrology*, the following streams / ponds have 100-year floodplains associated with them:

- ❖ Reservoir No. 4
- ❖ Chambers Dam
- ❖ Chartiers Creek, along SR 18
- ❖ Ten Mile Creek, along SR 221
- ❖ Fork Bane Creek, along Vista Valley Road

Both of these areas could prove to be important floodplains because of their strategic location within the Project Area. Much of the residential development in recent years has centered on these northern portions of South Franklin Township because of the proximity to the City of Washington. SR 18 is a major thoroughfare through the Project Area, making it a prime location for commercial or light industrial development; however, these environmental constraints must be kept in mind when evaluating future development potential.



The former Penn-American Water Company reservoir borders North and South Franklin Townships (Mackin 2008).

Ponds/Lakes

Ponds and lakes provide wildlife habitat and other environmental benefits, as well as provide aesthetic value to a community. In addition, lakes and ponds can be designed to manage urban runoff by retaining stormwater.

While not within the Project Area, there is one lake which borders the Project Area. Bells Lake is found in Morris Township near the border with South Franklin. Additionally, there is a former water company reservoir on the border of South Franklin Township and North Franklin Township, known locally as Dam No. 4, or Reservoir No. 4, and is not currently used as an active water supply reservoir. This area is classified as a High Quality Warm Water Fishery (HQWWF) by PA DEP, as shown on *Map 1.1: Hydrology*. Additionally, many of the farms and open space and meadows within the Project Area have small ponds for their

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scenic and recreational value as well as those that function very minimally to assist in irrigation or for animals or livestock.

Wetlands

Wetlands are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas (PA DEP, 2006). Three factors are recognized as criteria for wetland classification: the presence of hydric soils; inundation or saturated conditions during part of the growing season; and a dominance of water-loving vegetation (Environmental Laboratory, 1987). The US Fish and Wildlife Service (USFWS) has developed a National Wetland Inventory (NWI) as directed by the Emergency Wetland Resources Act of 1986. According to the NWI mapping, as shown on *Map 1.1: Hydrology*, there are a number of NWI wetlands located throughout the Project Area. It is important to remember that NWI is not a complete record of all existing wetland as it only identifies the largest wetlands that can be documented by aerial photography.

Geology

Pennsylvania is divided into numerous physiographic provinces. A province is defined as a region in which all parts are similar in geologic structure, climate, relief, and have a unified geomorphic history. The Township of South Franklin and the Borough of Green Hills are located in the Waynesburg Hills Section of the Appalachian Plateaus Province. The bedrock is mainly limestone and shale. Limestone and shale present problems and hazards; earth flows, debris flows, slumps, and rockslides. **Table 1.1: Project Area Bedrock Geology** shows province and geological periods located in the Project Area.

TABLE 1.1. PROJECT AREA BEDROCK GEOLOGY

Era	Period	Formation/Group	Description
PALEOZOIC (570-225 million years ago)	PERMIAN	<i>Greene</i>	Cyclic sequences of sandstone, shale, red beds, thick limestone, and thick, impure coal; base is at top of Upper Washington limestone.
		<i>Washington</i>	Cyclic sequences of sandstone, shale, limestone, and coal; includes some red shale; base is at bottom of Washington coal.
	PERMIAN AND PENNSYLVANIAN	<i>Waynesburg</i>	Cyclic sequences of sandstone, shale, limestone, and coal; commercial coals present; base is at bottom of Waynesburg coal.

Source: Washington County Comprehensive Plan, 2006.

Topography

Slope information identifies areas that are not suitable for specific development depending on the percent of slope. Steep slope development can impact watercourses by increasing stormwater runoff and sedimentation. Slopes greater than 25 percent are located throughout the Project Area. *Map 1.2: Development Constraints* illustrates the location of these slopes. Most of these areas are located along the southern portion of South Franklin Township, near Bells Lake and the border with Amwell Township. Other areas with slope greater than 25 percent

are located in the northeastern section of South Franklin Township, near the eastern border of Green Hills Borough. There is also a minimal amount of steep slopes in the northwestern portion of Green Hills Borough. It is worth noting that there are no regions with a heavy concentration of steeply sloped lands within the Project Area; most of the steep slopes show up on the map as “slivers” or “lines.” For this reason, the majority of steeply sloped land in the Project Area is located along high ridgelines.

Soils

Soils can play a role in determining land use because their strength and stability, as well as drainage, erosion, and any resource potential (i.e. for agriculture) can affect where and how development occurs. The Washington County Soil Survey identifies two different soil associations within the Project Area. A description and the location of these soil associations within the Project Area can be found in **Table 1.2: Project Area Soils**.

Soil Association	Description	Location
Dormont-Culleoka	Moderately well drained and well drained, deep and moderately deep, gently sloping to very steep soils; on hilltops, ridges, benches, and hillsides.	Throughout Project Area
Guernsey-Dormont-Culleoka	Moderately well drained and well drained, deep and moderately deep, gently sloping to very steep soils; on hilltops, ridges, benches, and hillsides.	Northwestern South Franklin Township
Dormont-Culleoka-Newark	Well drained to somewhat poorly well drained, deep and moderately deep, nearly level to very steep soils; on hilltops, ridges, benches, hillsides, and floodplains.	Along Ten Mile Creek

Source: Washington County Soil Survey (c/o Washington County Comprehensive Plan, 2006).

All three of these soil types lend themselves well to farming, particularly the less sloping area. However, some limitations include high water tables, occasional flooding, and a tendency for erosion, particularly in the case of the Dormont- Culleoka-Newark association.

As defined by the Natural Resources Conservation Services, the definition of a hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA, 2004). Hydric soils are important to identify because they indicate where potential wetlands may be located. Hydric soils have severe surface and subsurface draining problems, resulting in significant development limitations, including restricting the placement of septic systems. There is one true hydric soil in Washington County- Purdy Silt Loam, which is not found in the Project Area.

Prime agricultural soils are designated as bearing productivity rating of Class I, II, and III by the USDA Soil Conservation Service. Class I soils have few limitations that restrict their use for farming, and, therefore, are considered the best for agricultural purposes. Class II soils have some limitations that reduce the choice of plants (crops) or require moderate conservation practices. Class III soils have more severe limitations that reduce the choice of plants (crops), require special conservation practices, or both, and are included as prime agricultural soils by Commonwealth designation as agricultural soils of statewide importance. Soils not classified as Class I, II, or III are generally less productive and are often located in areas of floodplains, wetlands, or steep slopes and are often

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used for pastureland rather than for cropland. *Map 1.2: Development Constraints* illustrates the general locations of prime ag soils in the Project Area.

Ecological Habitats/Environmental Sensitive Areas

The Western Pennsylvania Conservancy completed the Washington County National Heritage Inventory (NHI) in 2000, which is a database designed to catalogue various elements of the natural environment, such as plant, animal, and mineral resources. The NHI identifies and maps lands that support native species biodiversity; endangered species and their habitats; exceptional or unique plants and animals; areas important for wildlife habitat, open space, education, scientific study, and recreation; areas undisturbed by human activity; and, potential habitats for species of special concern. The data gathered in the NHI provides information that can be used to base decisions related to development and preservation.

The classification of a Natural Heritage Area is based upon the ecological value of that particular site and the particular attributes of identified resources. The Washington County NHI categorizes five classifications of Natural Heritage Areas and suggested development restraints: Natural Areas (NA), Biological Diversity Area (BDA), Dedicated Area (DA), and Other Heritage Areas (OHA). There are no Natural Heritage Areas within the Project Area.

Another important natural resource identified by the Natural Heritage Inventory are managed lands such as State Game Lands (SGL). SGL #245 is located in the southwestern portion of the Project Area, as shown on *Map 1.2: Development Constraints*. SGL #245 is comprised of 3,653 acres and spans South Franklin Township and Morris Township. The Pennsylvania Game Commission was created in 1895 to manage wild birds and mammals throughout the Commonwealth. The Game Commission is funded by the proceeds received from hunting and fur-taker license sales, State Game Lands timber, mineral and oil/gas revenues, and a federal excise tax on sporting arms and ammunition.

Coal Resources

The Project Area is fortunate to have some of the largest coal reserves in the world, and certainly within the U.S. Both the nearby Enlow Fork Mine and Bailey Mine are among the top twenty largest mines in the country. Currently, the Commonwealth of Pennsylvania regulates mining through the PA DEP and the following statutes:

- ❖ Pennsylvania Act 418 of 1945, the Surface Mining Conservation and Reclamation Act,
- ❖ Act 31 of 1966, the Bituminous Mine Subsidence and Land Conservation Act,
- ❖ Act 1040 of 1968, the Coal Refuse Disposal Control Act,
- ❖ Act 219 of 1984, the Non-coal Surface Mining Conservation and Reclamation Act

The Project Area is located within the Main Bituminous Coal Field of Pennsylvania (DCNR, 2004). Reserves from the Upper Freeport Coal Seam and the Pittsburgh Coal Seam exist within the Project Area. Extensive areas of former mining activities are dispersed throughout the landscape. Coal resources within the Project Area are primarily high volatile bituminous coal.

Longwall Mining

The most highly productive underground mining method today is longwall mining, which allows the rapid and complete extraction of coal from a seam. Longwall panels can be 1,000 feet wide and 2 miles long. Longwall mining is most effective where the coal seam is of uniform thickness (as the Pittsburgh Seam tends to be) and where the seam has been unaffected by any previous mine activity. A dozen or more coal seams may overlie the Pittsburgh Seam at any given location. Because of the subsidence typically associated with longwall mining operations, the subsequent recovery of coal from overlying seams is effectively precluded.

Consolidated Coal Company (Consol) owns a large amount of property just outside the Project Area, in Morris and East and West Finley Townships, where a large network of longwall mines forms the Enlow Fork Mine. Enlow Fork is one of the largest underground coal mines in the United States and, in 2006, produced 10.7 million tons of coal. The nearby Bailey Mine also produced over 9.8 million tons of coal. Additionally, Consol owns a considerable number of acreage in the southern portion of South Franklin Township, totaling approximately 2,379 acres. The majority of this land is located in large parcels along Farmer Lane and Coal Lane and along SR 18, but they also own considerable acreage along Bedillion, Bethel Church, Winding, Old Post, Old Scales, and Vista Valley Roads. It is expected that longwall mining is an eventual goal for the Consol-owned properties.

Coalbed Methane

Coalbed methane (CBM), the natural gas from coal, is an emerging energy source that rivals conventional natural gas in composition and heating value. Historically a mining hazard, CBM is now extracted in many areas to improve mine safety and become a valuable part of the energy mix. It is also produced from abandoned mines and from coals too thin or deep to be mined. The most common use of CBM is in natural gas pipelines for domestic, commercial, and industrial fuel. Production occurs in coal-bearing rocks at depths ranging from approximately 300 to 1800 feet. Limited coalbed methane activities are occurring on some Project Area properties; however, no precise data is available at this time.

Oil & Gas Wells

With rising energy and fuel costs, there has been a recent renewed interest in developing oil and gas wells within the state of Pennsylvania. New technological advances have also made it easier to access previously difficult gas resources such as those located within the Marcellus shale. The Marcellus shale is a rock formation that underlies much of Pennsylvania and portions of New York and West Virginia at a depth of 5,000 to 8,000 feet and is believed to hold trillions of cubic feet of natural gas (PA DEP). This formation has long been considered prohibitively expensive to access but recent advances in drilling technology and rising natural gas prices have attracted new interest in this previously untapped formation.

Pennsylvania has an estimated 2.8 trillion cubic feet of natural gas reserves in the ground awaiting development (Pennsylvania Oil, Gas, and Minerals Association). In addition, Pennsylvania currently has approximately 14 million barrels of proved crude oil reserves remaining to be produced (Pennsylvania Oil, Gas, and Minerals Association). The Project Area is particularly rich in these resources, as it lies within the large swath of land to the west and north of the Allegheny Front, which is the main location of the state's largest and most productive oil and gas fields.

As shown on *Map 1.2: Development Constraints*, the majority of the Project contains shallow oil and gas fields; most predominant in the northern and central portions of the Project Area. According to the Pennsylvania Department of Environmental Protection, there are currently 64 oil and gas wells that are active, permitted, or in the process of applying for permits in South Franklin Township. There are no known active oil or gas wells in Green

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Hills Borough at this time (<http://www.ahs2.dep.state.pa.us/eFACTSWeb/default.aspx>.) In South Franklin Township, two Marcellus shale wells are in the process of being permitted. It is expected that due to the high demand for Marcellus shale drilling and the large quantities available in the region that Marcellus shale well drilling activity will greatly increase in the next ten to fifteen years.

While utilizing these resources can contribute significantly to state and local economies by providing jobs to residents and additional income to landowners, it can also pose a threat to rural communities. This next section briefly overviews some of the regulations currently in place for oil and gas wells; it should be noted that state law supersedes all municipal regulations for these resources, and that no municipality may enact any ordinances or regulations which will place greater restrictions on oil and gas wells than those that the State already provides.

Regulation

With passage of the Oil and Gas Act in 1984 (58 P.S. § 601.101 et seq.), Pennsylvania modernized environmental controls and resource management for development of crude oil and natural gas (<http://www.dep.state.pa.us/dep/DEPUTATE/MINRES/OILGAS/act223.htm>). Like previous laws, this Act required that the Commonwealth permit all new wells before drilling. In addition, it required registration of any existing wells not previously permitted and established bonding requirements as well. The PA DEP Oil and Gas Management Program develops and enforces regulations for the bonding, permitting, and registration of wells; environmental requirements for drilling operations, waste disposal, cementing and casing of wells; and proper plugging of wells upon abandonment.

Permitting

To drill a new oil or gas well in Pennsylvania, the operator must post a bond and get a well permit from the PA DEP. In the permit application, the applicant must show the location, proximity to coal seams, distances from surface waters and water supplies. Technical staff, in PA DEP's Regional Offices, reviews the permit application to determine whether the proposed well would cause environmental impacts, conflict with coal mine operations, or well spacing requirements. An oil and gas operator, who plans to drill a group of wells that will disturb five or more acres over the life of the project, must apply to PA DEP for a separate permit for storm water management. This "disturbed area" includes well sites and associated roads, pipelines, and storage areas to be constructed. The affected surface landowner and coal deep-mine operator have the opportunity to file an objection about the location of the well. If PA DEP's permitting staff find that no adverse impacts would result, the operator will receive a permit to drill the well.

Oil and Gas Well Bonds

Wells drilled in Pennsylvania after April 17, 1985, must be bonded. The bond is a financial incentive to ensure that the operator will adequately perform the drilling operations, address any water supply problems the drilling activity may cause, reclaim the well site, and properly plug the well upon abandonment. The bond amount for a single well is \$2,500; a blanket bond to cover any number of wells is \$25,000.

Demographic Profile

The demographic profile of the Township of South Franklin and the Borough of Green Hills provides an overview of the composition and socioeconomic status of the residents within both communities. Demographic trends are perhaps the single biggest factor in determining the policies and focus areas for a municipal comprehensive plan. If a community is seeing significant growth in population, it becomes important to assess where and how that growth will be accommodated, not only in terms of locations for land use, but also in terms of future needs in the areas of education as well as infrastructure elements including roads, sewer, water, emergency services, and the like. Preserving what makes the community unique becomes important, as does providing a plan for maintaining high environmental quality and preserving historic and cultural resources, all of which can be threatened by unplanned growth. If a community is losing population, on the other hand, the plan focus becomes on how to draw more residents into the community, how to attract and retain job growth, and how to spur commercial and residential development, or rehabilitate that which already exists. ¹

Land Area

Washington County is a large county in Pennsylvania, covering 861 square miles. The Township of South Franklin and the Borough of Green Hills are located in the south-central portion of the County.

- ❖ South Franklin Township is 20.7 square miles
- ❖ Green Hills Borough is 0.9 square miles

Population

2007 Estimates

The United States Census Bureau provides annual population estimates. The most recent estimates were completed in 2007 for the project area:

- ❖ South Franklin Township's population -- 3,813 (up from 3,796 in 2000)
- ❖ Green Hills Borough's population – 17 (down one from 18 in 2000)

Race

In 2000, there was limited racial diversity in the Project Area, with 99.8 percent of the population classified as white and the remaining percentage Black or African American residents. Comparing diversity between 1990 and 2000, the Project Area's racial composition has remained the same.

¹ Data in this section, unless otherwise noted, is from the United States Census Bureau's Decennial Census, Summary File 1 (SF 1) 100-percent data, and Summary File 3 (SF 3) data files. SF 3 consists of data on social, economic, and housing characteristics compiled from a sample of approximately 19 million housing units (about 1 in 6 households) that received the Census 2000 long-form questionnaire. Due to the small size of Green Hills Borough, in most instances data for the Borough is combined with Township statistics; only in instances where the numbers are statistically significant is Green Hills called out.

Density

A community that is experiencing growth might see a rapid change in density, going from about 150 or so persons per square mile, which feels rural and results in large expanses of open space and woodlands, to over 200 persons per square mile. If not managed correctly, an increase in density can make a community feel overdeveloped and result in a loss of open space and woodlands. According to the 2000 Census:

- ❖ South Franklin had 175 persons per square mile
- ❖ Green Hills 21 persons per square mile
- ❖ Washington County had 236 persons per square mile

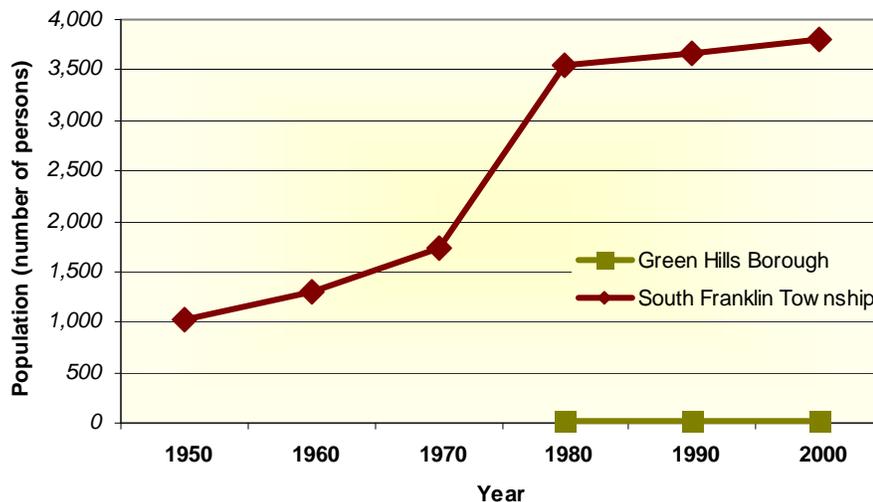
Trends

The Project Area has seen steady population increases as suburbanization and an improved highway system have made access to major employment centers quicker and easier. Chart 1.1 depicts population trends from 1950 to 2000.

- ❖ In 1950, South Franklin Township had 1,029 residents and increased to 1,730 by 1970.
- ❖ The largest increase occurred in the 1970's, when Township population increased from 1,730 to 3,540.
- ❖ Since 1980, the Township has experienced marginal increases in population.
- ❖ The population of Green Hills Borough has remained stable since its creation roughly 30 years ago.

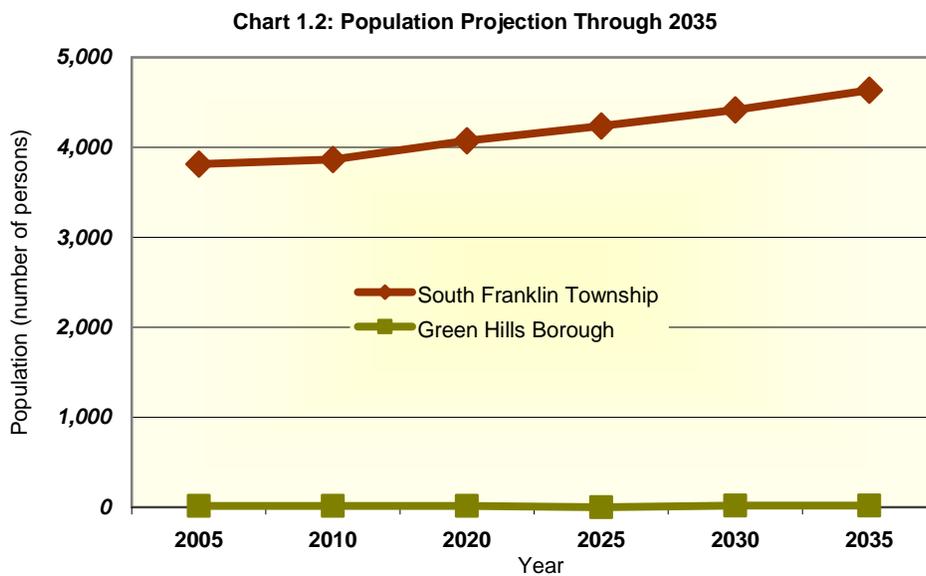
Much of the population gains are illustrative of the overall shift in American land use, from a primarily agricultural society to a primarily suburban and urban one. The population increase of the 1970's is also reflective of other regional shifts, as this was around the time that Washington County became a popular bedroom community for Pittsburgh workers along with the creation of the Washington County Airport in South Franklin Township.

Chart 1.1: Population Trends from 1950 to 2000



Projections

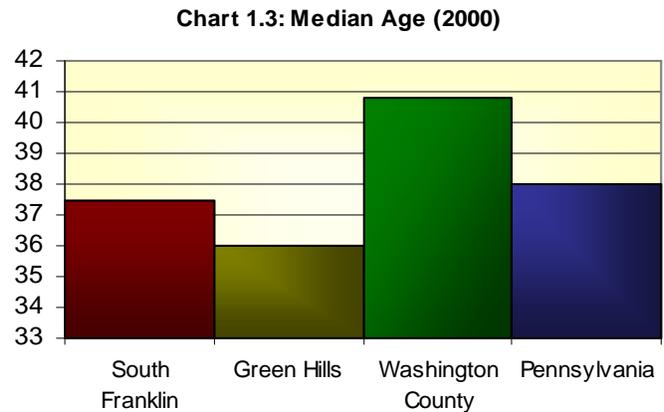
Population projections are helpful in comprehensive planning because they give a clearer idea of where the community is heading. The Southwestern Pennsylvania Commission (SPC) is the metropolitan planning agency for a ten-county region in southwestern Pennsylvania; including Washington County, along with Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, and Westmoreland. SPC adopted the Cycle 8 forecast on June 28, 2007, which includes population projections by municipality and county totals for 2010, 2020, 2025, 2030, and 2035; using 2005 estimates as the base year. It is important to note that many factors will ultimately influence population change, such as unforeseen economic growth or decline, new infrastructure projects, etc., and that a projection is not necessarily a hard and fast prediction of future population. Chart 1.2 depicts the projections for the Township of South Franklin and the Borough of Green Hills.



The Project Area is projected to continue gaining population. South Franklin Township is expected to reach nearly 5,000 residents by 2035. Green Hills Borough is expected to maintain a stable population; however there are plans for a new housing development within the Borough that would significantly increase the population in years to come.

Age

The age of a population plays an integral role in determining what type and level of municipal or social services are needed in a community. It is important to understand what age groups are growing and how that will impact the community in the future. One measure of age is median age, which divides the age distribution into two equal parts: one-half of the population falls below and one-half is above the median age. Chart 1.3 shows the median age for the Project Area in 2000, which is lower than Washington County and Pennsylvania. Green Hills's median age is just 36, although representative of just 18 residents.



Population characteristics can also be studied by examining age groups and how they change over time. Most communities want to attract young professionals as well as families with children. However, many communities throughout Pennsylvania are experiencing aging populations rather than an influx of new and/or young families. Primarily, this can be attributed to the Baby Boomer generation (those born between 1946 and 1960) reaching retirement age and thereby a larger percentage of communities' populations is past the child-bearing ages. Examining population changes within each age cohort from 1990 to 2000 will help to predict future needs associated with the growing / declining age groups.

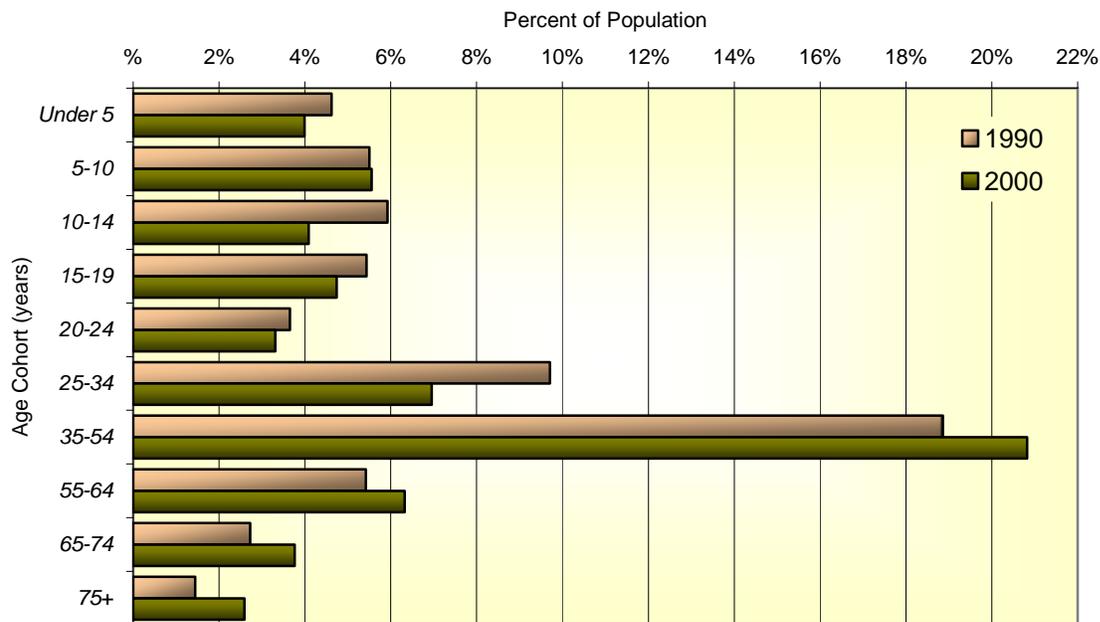
- ❖ **Preschool children (0 to 4 years)** – The presence of this age cohort is an indication of young families in the area. Services required by this group include day care, head start, playground facilities, and programs directed for preschool children such as story hours at libraries or preschool swim programs.
 1. Decrease of 7.9% (-21 persons)
- ❖ **Primary school (5 to 9 years)** – This age cohort is also an indication of young families in the area and requires heavy public expenditures for schooling and recreational facilities and programs, though different from that of preschool children because these children are older in age and participate in more organized athletics and activities.
 - Increase of 7.6% (24 persons)
- ❖ **Middle school (10 to 14 years)** – This age cohort is more mobile than their primary school counterparts, because they are more mature and may have the ability to walk or bicycle with minimal supervision. However, to travel long distances, this age group is still dependent upon their parents or guardians.
 - Decrease of 26.4% (-90 persons)
- ❖ **Secondary school (15 to 19 years)** – This age cohort is even more mobile than their middle school counterparts because of the driving age of 16. Those who can drive or know someone who can drive have significantly more mobility than younger children and thus are able to travel longer distances to access facilities and programs.
 - Decrease of 7.0% (-22 persons)

- ❖ Post-secondary school (20 to 24 years) – In areas outside of colleges and universities, this age cohort tends to be smaller, due to the percentage of people in this age group who leave the community to attend college or trade school. This group requires specialized commercial services, which they use as consumers and as a source of employment.
 - Decrease of 3.3% (-7 persons)
- ❖ Childbearing (25 to 34 years) – These cohorts as a whole are at a period in life where they begin their careers, marry, and have children. When communities focus on providing family-supporting jobs and housing for young families, this is typically the targeted age group.
 - Decrease of 23.6% (-132 persons)
- ❖ Child-rearing (35 to 54 years) – These age cohorts are generally well established, having a high percentage of homeowners, high incomes, and older children, and includes much of the younger Baby Boomer generation (those born between 1943 and 1960).
 - Increase of 17.7% (192 persons)
- ❖ Pre-retirement (55 to 64 years) – These age cohorts are generally in a transitional phase, becoming empty nesters but before retirement age. This group is generally well established, having a high percentage of homeowners, high incomes, and are less demanding of municipal services.
 - Increase of 24.4% (76 persons)
- ❖ Younger retired (65 to 74 years) – These age cohorts are eligible to retire but generally remains in good health. This group is well established, having a high percentage of homeowners, high incomes, are less demanding of municipal services, and tend to age in place, i.e. continue to reside in the same municipality. As this group ages, access may become an issue as eyesight and hand eye coordination deteriorate. Health care demands become an important issue for this group.
 - Increase of 47.1% (74 persons)
- ❖ Older retired (75 and over) – These age cohorts are likely retired, may be experiencing declining health, and like the younger retired, tend to age in place, i.e. continue to reside in the same municipality. They generally have declining incomes, an increase in single-person households, and changes in housing and healthcare needs.
 - Increase of 91.6% (76 persons)

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Chart 1.4 shows the change in percent of the population from 1990 to 2000 for each age group in the Project Area. Overall, the Project Area is losing population under the age of 35 while increasing in age groups over 35. This will affect the needs of the population in terms of services, housing types, etc. as well as the municipal budgets as more residents begin living on fixed incomes.

Chart 1.4: Change in Population by Age Cohort



Household Size

Analyzing household size is important in a comprehensive plan because it indicates how people are living now. If a household size is particularly high, it could indicate that families with children live within the community. If a community's average household size is small, it may mean that the community is attractive to younger singles or elderly residents, both of which tend to live alone or in couples and may desire smaller or multi-family style housing units.

South Franklin Township had 2.79 persons per household and while larger than the state (2.48) and county (2.44) averages, it is smaller than it was in 1990 (down from 2.98). This fact further illustrates the aging population of the Township and the demands associated with such.

Transportation Profile

As stated earlier, the Project Area's historical significance is in large part, due to transportation. Prosperity Plank Road served as the major north-south route for Washington County residents, connecting the City of Washington to Prosperity (Morris Township). Today, Prosperity Plank Road is now Route 18 and Old Plank Road. In addition, the Washington County Airport is located off Route 18 in South Franklin Township and is the largest attraction and traffic generator in the Project Area. Transportation dictates, perhaps more so than any other factor, where and how development occurs. It is vitally important during the planning process to analyze the existing transportation network, which is more than just roads, to determine how people and goods are moving within and throughout the region and what the impact is, or will be, on future development and growth.

Transportation Network

The overall transportation network for the Project Area is shown on *Map 1.3: Local Transportation*.

Functional Classification

PennDOT Functional Classifications are used to define the roadway inventory for the project area (PennDOT, Bureau of Planning and Research, 2003).

Interstate System

The Interstate System includes roadways that meet Interstate geometric and construction standards for future traffic. The Interstate System is the highest classification of arterial roads and streets. Interstates provide for the highest level of mobility, at the highest speed for long uninterrupted distances. These major highways consist of a multilane design to serve a large volume of traffic and provide limited access transportation facilities.

Within the Project Area, there are no interstates; however, Interstate 70 runs in an east-west direction in close proximity to the northwestern border of South Franklin Township.

Principal Arterial Roadways

Principal arterials provide statewide or interstate travel to urbanized areas. They provide integrated movements without stub connections. Design of the roadway usually consists of two (2) 12-foot lanes with 8-10 foot shoulders with speeds typically ranging from approximately 45-65 miles per hour.

Within the Project Area, there are no principal arterials.

Minor Arterial Roadways

Minor arterials link cities, larger towns and other traffic generators to provide integrated interstate and inter-county service. Minor arterials are mostly located in areas with greater population density. Design of the roadway usually consists of two (2) 12-foot lanes with 8-10 foot shoulders and with speeds typically range from 35-45 miles per hour.



SR 18 north of Lagonda (Mackin 2009).

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Within the Project Area, the only minor arterial is SR 18 north of its intersection SR 3008 at the village of Lagonda.

Rural Major Collector Roadways

Major collectors are roadways that provide connections within towns by distributing trips to small areas or neighborhoods. They provide for less mobility but more land access than arterials and are intended to convey traffic from medium travel distances (generally greater than one mile) and serve motorists between local streets and arterial roads. The design of major collectors usually consists of two (2) 12-foot lanes with 8-10 foot shoulders and design speeds of approximately 35 miles per hour or greater. Within the Project Area, the major collectors are SR 3008 (Jolly School Road) west of its intersection with SR 18, a portion of State Route (SR) 18, and State Route (SR) 221.



SR 221, looking south, at Vaneal Road (Mackin 2009).

Rural Minor Collector Roadways

Minor Collector roads enable moderate quantities of traffic to move between arterial and local roads. These roadways provide for an equal amount of mobility and land access, providing access to adjacent properties. Minor Collector roads are usually designed with two (2) 12-foot lanes, 4-10 foot shoulders, and design speeds of approximately 30 miles per hour.

Within the Project Area, some of the minor collectors are 3008 (Lagonda Road), east of its intersection with SR 18, SR 3009 (Cracraft Road), and SR 3029 (Pleasant Grove Road).

Local Roads

Local roads provide a high level of access to abutting land but offer limited mobility. The principal function of a local roadway is to provide direct access to adjacent properties, within a particular neighborhood, or to one of the other road types. Local roads are usually designed to be 20-22 feet wide (one lane in each direction) with 2-8 foot shoulders and design speeds of approximately 25 miles per hour. Some of the local roads within the Project Area include SR 3020 (Pikes' Peak Road), SR 3014 (Vaneal Road), and Mounts Road.

Traffic Volume

The Project Area experiences heavy traffic along its two major collectors on a daily basis using Annual Average Daily Traffic (AADT) based on PennDOT's Internet Traffic Monitoring System (ITMS). According to 2006 statistics,

- ❖ SR 18, northern border of South Franklin Township near Airport -- 8,200 vehicle trips a day,
- ❖ SR 18, along the border of Green Hills -- 5,700 vehicle trips a day
- ❖ SR 18, south of Green Hills -- 3,500 vehicle trips a day
- ❖ SR 221, south of the interchange with I-70 -- 2,500 vehicle trips a day
- ❖ SR 221, at SR 3014 (Vaneal Rd) -- 1,900 vehicle trips a day

These AADT numbers illustrate that for both collectors, the heaviest traffic is to the north, near the border with Buffalo and North Franklin Townships. This is due primarily to the Washington County Airport; access to the City of Washington, I-70, and I-79; along with other to major attractions and employment centers.

Transportation Funding

The Liquid Fuels Tax generates funding for road maintenance and construction at the local municipal level. The Liquid Fuels Tax Act 655, dated 1956 and as amended, provides all municipalities in compliance with the Department of Transportation's guidelines with allocations on April 1 of each year from the State's Motor License Fund (<http://www.dot34.state.pa.us/BMSInfo.aspx#1>). The Act provides that these funds be used for road and bridge construction, reconstruction and maintenance projects. The funds are based on ratios of mileage and population of the municipality to the state totals. That is, 50 percent is based on a municipality's local road mileage to the total local road mileage in the state, and 50 percent on the proportion of a municipality's population to the total population of the state. A municipality's local road mileage is verified by periodic road surveys conducted by PennDOT's Municipal Services Unit, which also assists the municipality in the appropriate use of the funds (i.e. eligibility, etc.).

In addition, municipalities also receive funding from PennDOT via the Road Turnback Program. The Road Turnback Program has formally existed since 1981, when Act 81 authorized PennDOT to transfer certain roads from the state transportation system to local governments. This action was the result of earlier studies that determined that certain highways could be better maintained at the local level than at the state level. Originally, Road Turnback was not allocated any funding, but Act 32 of 1983 authorized a restricted account for the program, providing money for improving roads in preparation for return to local ownership and for an on-going annual maintenance allocation of \$2,500 per mile as a statewide average to the new owner. In South Franklin Township, Old Scales Road is a "Turnback" road and receives \$4,000 per mile. Payments are funded through the Oil Franchise Tax. Transfers are voluntary, depending on satisfactory negotiations regarding the cost and extent of improvements required to make the road acceptable to the municipality.

PennDOT has also established the Agility Program to help local governments, school districts, fire companies, and public utilities with special projects related to transportation needs. Activities can include boom mowing, street sweeping, bridge cleaning, providing meeting facilities, graphics, and storage. PennDOT also works to remove litter and beautify roadways. Keep PA Beautiful is a PennDOT program that organizes volunteers to pick up trash and litter. PennDOT sponsors an annual clean up day, as well, which is held the last Saturday in April.

South Franklin Township maintains 39.1 miles of municipal roads; additionally, there are 5.84 miles of roadways maintained by the Commonwealth of Pennsylvania. According to the PennDOT report of municipal use of state funds, for the year ending December 31, 2007, South Franklin Township received \$121,616.08 from the Commonwealth for Act 655 funds, as well as an additional \$8,960 in Act 32 funds and \$1,973.38 in interest, totaling \$147,918.82. Of this, the Township spent \$138,817.74 on highway maintenance, construction, rebuilding projects, and agility projects. For 2008, South Franklin expects to receive \$134,468.09 in Act 655 money, an additional \$8,960 in Act 32 funding. Combined with the previous year's surplus, this would result in an expected \$152,529.17 available state funding for transportation.

Bridges

South Franklin Township currently maintains eight bridges. A list of the number and location of those bridges is below.

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- ❖ 1 on Verner Lane
- ❖ 3 on Old Plank Road
- ❖ 1 on Mounts Road
- ❖ 1 on Hiawatha Road
- ❖ 1 on Farmer Lane
- ❖ 1 on Moore Road

All of these bridges are currently open to traffic.

Airports

The Washington County Airport (AFJ) is located off of SR 18 on Moore Road in the northern part of South Franklin Township. The facility can accommodate 100 aircraft and has 37 T-hangers and 7 corporate hangars. The airport has over 300 acres and has an asphalt runway that is 5,000 feet in length. The full parallel taxiway system is fully lit for night operations. The airport has many technological advances including a partial electronic guidance system consisting of a Localizer, Distance Measurement System (DME) and Non-directional Beacon (NDB), a Remote Communications Outlet (RCO), an automated Weather Observation System, and an Instrument Landing System (ILS).

Washington County Airport is home to 94 aircraft, 70 of which are single engine airplanes, while 17 are multi engine aircraft. The airport is also home to five jets and two helicopters. The airport hosts approximately 110 operations per day. Roughly 60 percent of Washington County Airport's traffic is local general aviation while 24 percent is general transportation. Seventeen percent of the operations are used as air charter, while less than 1 percent is military use (FAA Airport Master Record for AFJ (Form 5010), effective 2007-07-05).

The Washington County Airport completed a Master Plan and Environmental Impact Assessment in February 2007 and is in the process of complete runway renovations, including the extension of runway safety areas and runway protection zones. The Master Plan suggestions include options for extending the present runway by 500 feet, 800 feet, or 1,200 feet. Other proposals for expansion include building a new terminal and hangars, constructing parallel taxiways, and an engineered materials arresting system to stop runaway planes.

Over the past 15 years, several projects have been completed to expand and improve the airport for business and recreational users. Both Special Project Grants and Capital Project Grants administered by PennDOT Bureau of Aviation have totaled over \$10,000,000 since 1988. In addition, the 2009-2012 Transportation Improvement Program (TIP) outlines road surface improvements on Jolly School Road in both South Franklin and Buffalo Townships. Reconstruction will also occur along Banetown Road from Plumsock Road to Cove Road in Amwell and South Franklin Townships (Southwestern Pennsylvania Commission).

Commuting Patterns

Where a person lives and works determines their commuting patterns. Length of commute as well as mode of transportation is dependent upon the location of residence and workplace along with the availability of alternative modes of transportation. The following was true for the Project Area according to the 2000 US Census:

- ❖ 88% of residents drove alone to work.
- ❖ 8% of residents carpooled to work
- ❖ 3% of residents worked at home.
- ❖ No residents reported taking public transportation or walking to work
- ❖ Average travel time to work:
 - 24 minutes for South Franklin
 - 15 minutes for Green Hills

There is no regularly scheduled public transportation service available in the Project Area. Residents may access public transportation in the City of Washington, via GG & C Bus Company, as well as other providers, or may use one of the alternative services offered by Washington County Transportation Authority. This alternative service is shared ride in nature and service is provided door-to-door. Programs offered include Senior Shared Rides, the Rural Transportation Program for Persons with Disabilities, Welfare to Work, the Medical Assistance Transportation Program, and the Veterans Transportation Program. Services are also available to the general public at full fare prices. The closest GG & C bus stops are located in downtown Washington at the intersection Main Street and Park Avenue (Cameron Stadium), or at the Jessop Place Park N' Ride on I-70. Buses that stop at these locations provide service both locally within the City of Washington and to the City of Pittsburgh via Canonsburg and Route 19. There are also a number of Park N' Rides available to residents; the most proximate ones are located along E. Beau Street in South Strabane Township, which provides access to I-70 as well as I-79, and one at the Jessop Place interchange on I-70 in Canton Township (http://www.commuteinfo.org/pr_wash.shtml).

Bicycle Trails and Pedestrian Pathways

Pedestrian Pathways

Currently, there are no sidewalks located within the Project Area. Recreational walking trails can be found in the South Franklin Township Park. Currently, the Subdivision and Land Development Ordinance does not require sidewalks in new developments, although it does recommend that the developer/applicant install sidewalks and crosswalks if "deemed necessary" for public safety by the governing body.

BicyclePA Routes

PennDOT has designated six cross-state routes for bicycle touring: four are north-to-south and two east-to-west (http://www.dot.state.pa.us/BIKE/WEB/tour_routes.htm). Two of these routes traverse Washington County near the Project Area: Route A and Route S. Route A stretches 199 miles from Erie to Greene County, just north of Morgantown, WV. The northern half is generally flat while the southern half is gently rolling to hilly. The northern terminus connects to BicyclePA Route Z and the Seaway Trail. In Washington County, Route A follows PA Route 19, and traverses Washington County in a north-south direction, not far from the Project Area's western boundary.

Route S is the longest BicyclePA Route, and it extends 435 miles from Washington County (east of Wheeling, WV) to Washington Crossing Military Park on the Delaware River in Bucks County, and skirts the metropolitan areas of Pittsburgh, York, Lancaster, and Philadelphia. In Washington County, Route S generally cuts through the North-central portion of the County to the east before taking a more southerly direction and follows Route 40 to the west of Washington. Route 40 is the closest that Route S gets to the Project Area.

Recreational Bike Rides

Information on local roads that are “bicycle friendly” has been gathered by the Western Pennsylvania Wheelmen (WPW), one of the largest bicycle organizations in Pennsylvania (<http://www.wpwbikeclub.org>). They have published a series of maps that includes approximately 170 different recreational bike rides in western Pennsylvania. The WPW rides generally follow roads with a lower than average traffic volume or traffic speed, moderate terrain and wide shoulders or other features that make them bicycle friendly. The WPW has mapped several routes within close proximity to the Project Area, including Tenmile Creek Ride and Prosperity 50 Mile Loop. Both routes use Route 18 as a primary route through the Project Area.

Washington County Greenways Plan Potential Trail Corridors

The Washington County Greenways Plan (2007) identifies recreational greenways and potential trail corridors. The potential trail corridors have not been found to be feasible but are identified because they provide connectivity and warrant further study. Trail feasibility studies are needed before a formal designation as a Proposed Trail could be made. There are no sponsors for these corridors and future projects likely will not advance until a sponsor steps forward. As such, these greenways are considered a long-term priority. There are three projects from the Washington County Greenways Plan in the Project Area.

The Washington to Waynesburg Corridor is identified as a potential trail corridor; located along an abandoned railroad right-of-way along the eastern border of South Franklin Township. This line follows the path of Chartiers Creek in a north-south direction connecting Washington to Waynesburg. A potential trail was proposed in the Greene County Greenways Plan that would connect the City of Washington to the Borough of Waynesburg, both of which are county seats. There currently is no sponsor for this trail.

The Washington County Greenways Plan also designates Chartiers Creek Water Corridor as a primary recreational greenway. The Chartiers Creek Water Corridor runs from South Franklin Township, west of the City of Washington, to Cecil Township and includes a high Bio-Diversity Area (BDA) and a notable BDA. Chartiers Creek experiences many different forms of pollution and increased access to the stream will increase awareness within a watershed considered a priority among the Washington County Greenways Steering Committee. The plan proposes two recommendations for the greenway:

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

The Washington County Greenways Plan also identifies the Ten Mile Creek Water Corridor as a secondary recreational greenway, though not in South Franklin Township.

Land Use Profile

Land use planning, in its most basic form, should address the simple questions of what, where, and how regarding land use and development within a given community. In the case of the Township of South Franklin and the Borough of Green Hills, both communities are recently developed communities that are seeing newer residential development interwoven among the existing agricultural land and open space, with older village settlements dispersed in between. This patchwork quilt of development can quickly get out of hand if not monitored closely; if development suddenly increases, both municipalities can face significant loss of rural character and unsightly development patterns. It is with the intent of preventing such a future, and providing for visually pleasing, sustainable growth, that this chapter will examine how land in the Project Area is currently being used.

Initial existing land use data was obtained from the Southwestern Pennsylvania Commission (SPC), which serves as the region’s metropolitan planning organization (MPO). SPC uses aerial flyover data to create Land Use Land Coverage Data (LULC). The Level III categories were used, which provide the highest level of detail for the SPC region. The land cover data was then field verified and updated to be more reflective of existing land use at the Township / Borough level, as shown on *Map 1.4: Existing Land Use*. **Table 1.3: Land Use** details existing land use for the Project Area by type, size (square feet and acreage) and percentage of the total. Just over half of the Project Area is classified currently as wooded / open space, indicative of the rural character of the region. The next largest land use classification is agriculture, comprising almost one-third of the total land area. Residential accounts for almost 15 percent; with the remaining area used for either commercial, institutional, industrial, parks and recreation, or golf course.

TABLE 1.3: LAND USE			
Land Use Category	Sq Ft	Acre	%
Agriculture	173,738,074	3,988	28.6%
Cemetery	200,504	5	0.0%
Commercial	1,169,905	27	0.2%
Golf Course	14,322,780	329	2.4%
Institutional	822,297	19	0.1%
Light Industrial	5,608,410	129	0.9%
Low Density Residential	72,146,774	1,656	11.9%
Medium Density Residential	13,897,915	319	2.3%
Parks and Recreation	1,069,282	25	0.2%
Wooded / Open Space	324,039,765	7,439	53.4%
Total:	607,015,705	13,935	100%

Source: SPC LULC; Field Verified & Updated by Mackin in 2008

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The following are the revised and updated definitions, based upon the original Southwestern Pennsylvania Commission definitions, for existing land use and should be used in conjunction with *Map 1.4: Existing Land Use*.

Agriculture

The agriculture category includes land covered by hay, wheat, grass or other vegetation of the like, including cropland, pastures, orchards, and groves. Agriculture accounts for about 28 percent of total land use in the Project Area. This makes it the second most common category in the Project Area.



Agriculture—Old Post Road (Mackin, 2009)

Cemetery

This definition includes identified cemeteries and burial grounds, although small churchyards are not included. There are three identified locations of cemeteries including Bethel Church Cemetery and an old family cemetery located on Old Post Road.



Cemetery along Old Post Road (Mackin 2008).

Commercial

The commercial category includes all commercial businesses, including retail, office, service, commercial strip development and shopping centers, and other types of uses. Within the Project Area, there is limited commercial land use, accounting for less than one percent of land area. Local commercial businesses include the Jolly Schoolhouse Pizza Restaurant, professional offices, storage units, etc.



Commercial—Jolly School Rd at SR 18 (Mackin, 2009)



Golf Course—Lone Pine Country Club (Mackin, 2009)

Golf Course

The Lone Pine Country Club Golf Course is reserved as its own land use category since it accounts for the majority of Green Hills Borough and 2.2 percent of total land use in the Project Area. Since it is a private golf course and not open to the public, it does not count as institutional.



Institutional—Joe Walker Elementary (Mackin, 2008)

Institutional

The institutional category includes land that is owned or operated by a government agency or nonprofit community service provider open for public uses with or without a fee that provides a service to the public, such as schools, parks, churches, and other facilities. In terms of land area, institutional uses account for about 5 percent of land use. Properties in this category include the Joe Walker Elementary School and a number of churches.



Light Industrial—Washington County Airport (Mackin, 2008)

Light Industrial

The light industrial category includes warehouses, large parking lots, and other types of light industrial uses. Within the Project Area, light industrial is found at the Washington County Airport, along Goodridge Road, and accounts for just one percent of land use within the Project Area.

Low Density Residential

Low density residential includes single-family homes that are located in a loose arrangement more widely spaced apart. Within the Project Area, approximately 14 percent of land is classified as such. Most of the low density residential can be found along the roadways and not part of larger housing developments. The existing homes within Green Hills Borough are classified as low density residential.



Low Density Residential—Mounts Road (Mackin, 2008)

Medium Density Residential

While the Project Area is almost entirely single-family detached residential structures, there is a notable difference in density from the traditional rural low-density areas to the larger-scale housing developments. Medium density residential includes single-family units in a tight spatial arrangement, such as a cul-de-sac type development. The medium density residential classification accounts for just over 2 percent of the total land area.



Medium Density Residential—Franklin Manor (Mackin, 2008)

Parks and Recreation

This definition includes all public parks and in the Project Area, is entirely comprised of the South Franklin Township Park. The Park is approximately 25 acres and is located off Old Plank Road.



Parks and Recreation – South Franklin Twp. Park (Mackin, 2008)



Wooded / Open Space—Chambers Dam (Mackin, 2008)

Wooded / Open Space

The wooded / open space category contains all land that is currently undeveloped and includes a mix of forestland, rangeland (shrub, brush, sparse trees, etc.), barren land, and other open space (including cemeteries). The open space category accounts for just below 50 percent of the total land in the Project Area. Also included in this category are State Game Lands #255, which is approximately 255 acres.

The majority of this land is unrestricted and could possibly become developed in the near future, particularly those portions located in the northern portion of South Franklin Township, where spillover development from North Franklin Township and the City of Washington is most likely to occur.

Previous Plans

South Franklin Township adopted its most recent Comprehensive Plan in 1973. The Plan addressed the community's needs in terms of housing, commercial development, infrastructure and utilities, environmental issues, and historic resources. Major recommendations from the Plan included the need to adopt a Zoning Ordinance and Subdivision and Land Development Ordinance in order to manage growth properly, provide opportunities for local business growth along the SR 18 corridor, support agricultural activities and farms, preserve the rural landscape, and supply residents with reliable utilities, including the provision of public water and sewage. Green Hills Borough does not currently have a Comprehensive Plan.

Land Use Controls

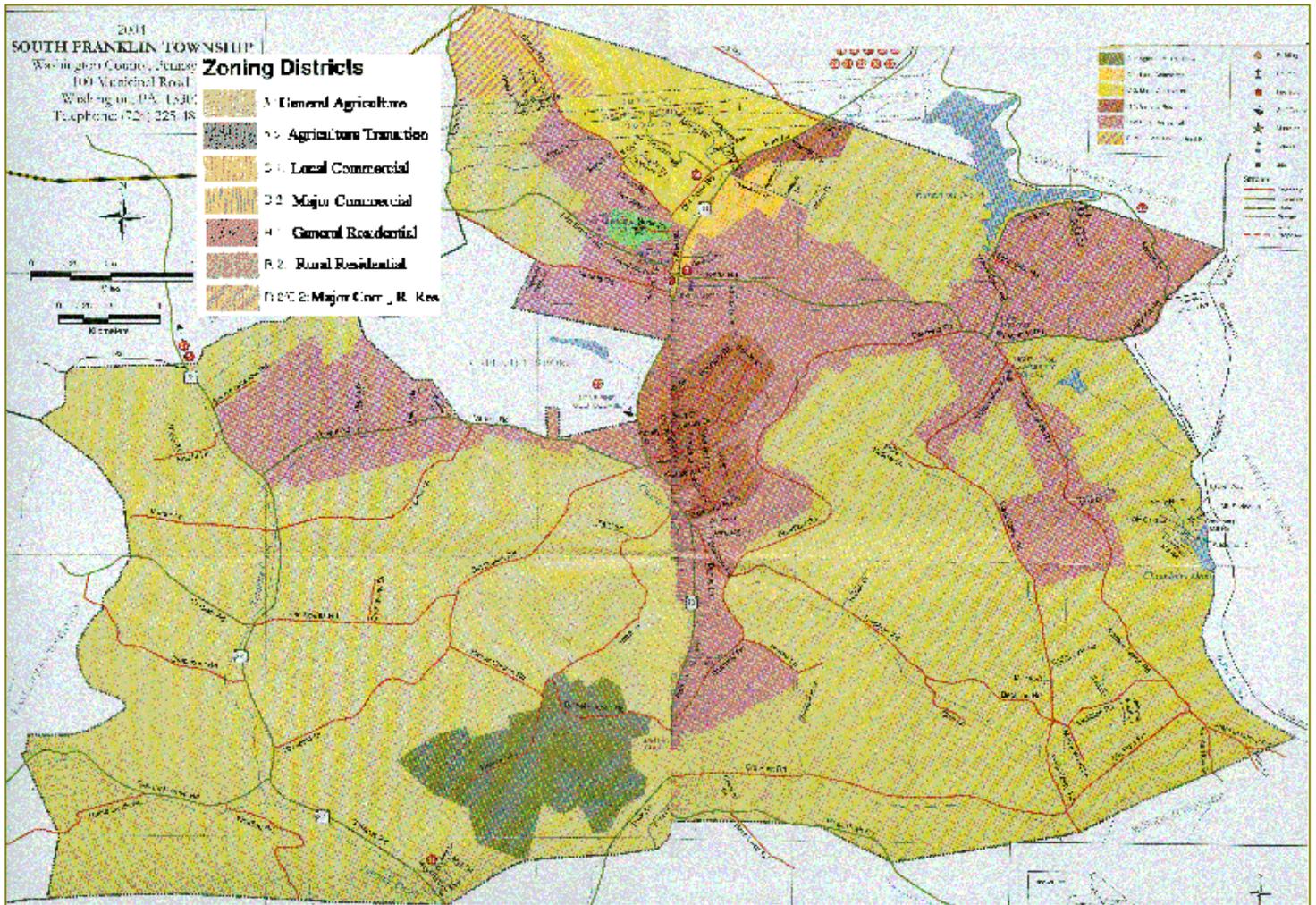
Land use controls are one of the most influential tools a municipality can use to control and regulate the way the community looks, feels, and functions. The Pennsylvania Municipalities Planning Code (MPC), Section 601, gives all municipalities the right to "enact, amend and repeal zoning ordinances to implement comprehensive plans and to accomplish any of the purposes of this act," (MPC). Zoning is a flexible and vital means of implementing a comprehensive plan- and in particular, the future land use map- because it allows a community to protect natural and man-made resources, and maintain the character of the community through orderly growth and development. It also assists in providing protections for the stability of present and future land use and community development. Regulations pertaining to permitted land uses, required setbacks, maximum allowable building heights, supplemental use regulations (typically pertaining to conditional or special exception uses), and regulations for accessory structures are all included in a typical zoning ordinance.

Zoning

Green Hills Borough does not currently have zoning. South Franklin Township enacted their Zoning Ordinance in 1988, with the most recent amendments in 2001. There are eight zoning districts, including two agricultural zoning districts, two residential zoning districts, two commercial districts, a floodplain overlay, and an airport overlay. The current zoning map is depicted on page 1-32; Figure 1.1: Zoning. Provisions for the districts are outlined on the following pages.

A Plan for South Franklin Township & Green Hills Borough

Figure 1.1: Current Official Zoning Map (Courtesy of South Franklin Township).



A-1 Agricultural District

Purpose: Provide for agricultural activities, together with low-density residential uses and additional public and semipublic functions as may be compatible. This district intends to maintain agricultural activities in conjunction with limited residential development and prevent encroachment by land uses not compatible.

A-2 Agricultural Transition District

Purpose: Provide for the continuance of existing agricultural and residential functions and accommodate a range of business and service activities related to emerging heavy commercial and industrial uses of land. This district intends to supplement and expand the economic strengths of the township while still offering protection to adjacent uses.

R-1 General Residential District

Purpose: Provide for moderate density residential land uses in areas of the township where such activity is already established or is most likely to occur.

R-2 Rural Residential District

Purpose: Provide for sites for low-density residential together with appropriate public and semi-public uses and accessory residential activities. This district is intended to provide for low-density, long term residential growth and preserve the characteristics of the existing neighborhood areas.

C-1 Local Commercial

Purpose: To provide for general shopping and business and professional facilities as a convenience for local residents and those of the surrounding vicinity.

C-2 Major Commerce District

Purpose: To provide locations for light commercial, service, and heavy commercial and related activities where sites are oriented to major highway systems and other transportation facilities. In particular, these provisions relate to the use of property near the Washington County Airport by providing for uses that will complement the Airport and strengthen the local economy.

FP Floodplain District

Purpose: Established to protect designated floodplain areas subject to periodic inundation by overflow from streams situated in or contiguous to South Franklin Township. This district is intended to control and limit those uses and activities that may cause or contribute to loss and destruction of life and property during periods of flooding.

Land use controls:

- ❖ Uses permitted in zoning districts that are within designated floodplain overlay areas must demonstrate that they do not obstruct flood flows
- ❖ Hospitals, nursing homes, jails or prisons, and mobile home parks are specifically prohibited

Airport District

Purpose: Restricts and regulates the height of structures and other objects, the density of residential development, and otherwise regulates the use of property in the vicinity of the County Airport by creating appropriate zones and establishing associated boundaries of such zones.

Pennsylvania protects and preserves aviation facilities within the Commonwealth through Act 164, Chapter 59, Airport Operation and Zoning (hereafter referred to as the "Airport Zoning Act"). The Airport Zoning Act requires ALL municipalities that have airport hazard areas within their boundaries to adopt, administer and enforce airport zoning regulations, under § 5912. Power to adopt airport zoning regulations, as follows:

"In order to prevent the creation or establishment of airport hazards, every municipality having an airport hazard area within its territorial limits shall adopt, administer and enforce, under the police power and in the manner and upon the conditions prescribed in this subchapter and in applicable zoning law unless clearly inconsistent with this subchapter, airport zoning regulations for such airport hazard area. The regulations may divide the area into zones and, within the zones, specify the land uses permitted and regulate and restrict the height to which structures may be erected or objects of natural growth may be allowed to grow. A municipality which includes an airport hazard area created by the location of a public airport is required to adopt, administer and enforce zoning ordinances pursuant to this subchapter if the existing comprehensive zoning ordinance for the municipality does not provide for the land uses permitted and regulate and restrict the height to which structures may be erected or objects of natural growth may be allowed to grow in an airport hazard area."

Map 1.6: Airport Aerial Surface Boundary shows the locations of the airport hazard areas in the Project Area as well as the location of the Runway Protection Zone (RPZ). In Washington County, Federal Aviation Regulations (FAR) Part 77: Objects Affecting Navigable Airspace for the Washington County Airport include the municipalities of Amwell Township, Buffalo Township, Canton Township, Green Hills Borough, North Franklin Township, South Franklin Township, and the City of Washington. The Washington County Airport Master Plan (2008) notes that South Franklin Township, in addition to Amwell Township, Buffalo Township, and North Franklin Township, have enacted airport hazard zoning while Green Hills Borough (along with the City of Washington and Canton Township) have not yet enacted airport hazard zoning (Kimball, pg. 8-4, 2008). Definitions for the FAR Part 77 surfaces and the FAA Safety Zones are as follows:

- ❖ **Primary Surface:** the primary surface is longitudinally centered on the runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of the runway. When the runway has no specially prepared hard surface, or planned hard surface, the primary surface terminates at each end of the runway. The width of a primary surface ranges from 250 feet to 1,000 feet depending on the existing or planned approach and runway type.
- ❖ **Transitional Surface:** Transitional surfaces extend outward and upward at a slope of seven (7) feet horizontally for each foot vertically (7:1) from the sides of the primary and approach surfaces. The transitional surfaces extend to where they intercept the horizontal surface at a height of 150 feet above the runway elevation. For precision approach surfaces, which project through and beyond the limits of the conical surface, the transitional surface also extends a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.
- ❖ **Horizontal Surface:** The horizontal surface is a horizontal plane located 150 feet above the established airport elevation, covering an area from the transitional surface to the conical surface. The perimeter is constructed by swinging arcs from the center of each end of the primary surface and connecting the adjacent arcs by lines tangent to those areas. The radius of each arc is either 5,000 feet for all runway ends designated as utility or visual or 10,000 feet for all other runway ends.

- ❖ **Conical Surface:** The conical surface is a surface extending upward and outward from the periphery of the horizontal surface at a slope of one foot for every 20 feet (20:1) for a horizontal distance of 4,000 feet.
- ❖ **Approach Surface:** Longitudinally centered on the extended runway centerline, the approach surface extends outward and upward from the end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach the approach slope of a runway is either 20:1, 34:1, or 50:1. The length of the approach surface varies, ranging from 5,000 feet to 50,000 feet. The inner edge of the approach surface is the same width as the primary surface, and it expands uniformly to a width ranging from 1,250 feet to 16,000 feet, depending on the type of runway and approach.
- ❖ Although the FAA can determine which structures are obstructions to air navigation, the FAA is not authorized to regulate tall structures. The FAA can only study structures that it is notified about. The FAA has the authority to determine which structures should be lighted or marked. Airport owners need to help identify possible obstructions. Under FAR Part 77, an aeronautical study can be undertaken by the FAA to determine whether the structure in question would be a hazard to air navigation. However, there is no specific authorization in any statute that permits FAA to limit structure heights. The FAA acknowledges that state or local authorities have control over the appropriate use of property beneath an airport's airspace.

Safety Zones are defined by FAA airport design criteria standards to allow for the safe and efficient operation of an airport. These Safety Zones include the Runway Protection Zone (RPZ), the Runway Safety Area (RSA), the Runway Object Free Area (OFA), and the Object Free Zone (OFZ). Each of these zones is discussed in the following sections. Safety Zone dimensions vary depending on approach visibility minimums and the type of aircraft using a runway. The FAA uses the Airport Reference Code (ARC) to relate airport design criteria to the operational and physical characteristics of the airplanes operating at each specific airport. The ARC has two components that relate an airport's design to its "critical" aircraft. The critical aircraft is defined as the most demanding aircraft that uses an airport on a regular basis (500 operations per year). The first component of the ARC, depicted by a letter, is the aircraft approach category as determined by the approach speed of the critical aircraft. The second component, depicted by a Roman numeral, is the airplane design group as determined by the wingspan of the critical aircraft.

- ❖ **Runway Protection Zone:** Runway Protection Zones (RPZs), formerly clear zones, were originally established to define land areas underneath aircraft approach paths in which control by the airport operator is highly desirable to prevent the creation of airport hazards or the development of incompatible land use. The RPZ functions to protect people and property on the ground. A Runway Protection Zone (RPZ) is an area that begins at a point 200 feet beyond the end of a paved runway or at the end of the runway for turf runways. The length of the RPZ extends 1,000, 1,700, or 2,500 feet depending on the category of runway and approach. The inner width of a RPZ is located closest to the runway end. Opposite this end is the outer width, which is the wider end. The inner width of a RPZ varies from 250 feet to 1,000 feet. The outer width of a RPZ varies from 450 feet to 1,750 feet. As with the length of the RPZ, the inner and outer widths of a RPZ are dependent on the runway category and approach. See *Map 1.6: Airport Aerial Surface Boundary* for the locations of these zones.
- ❖ **Runway Safety Area:** The RSA is a critical two-dimensional safety area surrounding the runway. RSAs should be cleared and graded and free of potentially hazardous surface variations. The RSA should be properly drained and capable of supporting snow removal, aircraft rescue and firefighting (ARFF) equipment, or an aircraft without causing damage to the aircraft. The size of the RSA is dependent upon the runway design category and approach. The runway design criteria are established by the critical or most demanding aircraft that operates on the runway on a regular basis. Taxiways also have similar safety

area requirements. These areas should not be cultivated, since a turf surface is needed to support aircraft and emergency vehicles.

- ❖ **Runway Objects Free Area:** The runway OFA is a two-dimensional ground area surrounding the runway. FAA standards prohibit parked aircraft and objects from locating within the OFA. The runway OFA extends beyond the runway end at lengths that vary from 240 feet to 1,000 feet, depending on the runway design category and the approach type. There are also taxiway OFAs.

Obstacle Free Zone (OFZ): The OFZ clearance standard precludes taxiing and parked aircraft and object penetrations, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function. The runway OFZ, when applicable; the inner-approach OFZ; and the inner-transitional OFZ comprise the obstacle free zone (OFZ). The runway OFZ is a defined volume of airspace centered above the runway centerline. The runway OFZ is the airspace surface whose elevation at any point is the same as the elevation of the nearest point on the runway centerline. The runway OFZ extends 200 feet beyond each end of the runway. Its width varies from 120 feet to 400 feet, depending on whether the runway is designed for small or large airplanes. The inner-approach OFZ is a defined volume of airspace centered on the approach area. It applies only to runways with an approach lighting system. The inner-approach OFZ begins 200 feet from the runway threshold, at the same elevation as the runway threshold, and extends 200 feet beyond the last light unit in the approach lighting system. Its width is the same as the runway OFZ, and it rises at a slope of 50 feet (horizontal) to 1 foot (vertical) from its beginning. The inner-transitional OFZ is a defined volume of airspace along the sides of the runway OFZ and the inner-approach OFZ. It applies only to runways with lower than three-quarters mile approach visibility minimums. There are numerous RSAs and OFAs at Pennsylvania airports that are Federally funded that do not meet specified FAA standards. In many instances, off-airport land acquisition is needed to bring airports into full compliance with the RSA and OFA standards. It is a major FAA objective to fund the outright ownership of the RFA, the OFA, and the extended runway safety area at all airports contained in the National Plan of Integrated Airport Systems (NPIAS). The FAA, as part of any runway enhancement project, strongly encourages airports to acquire in fee simple sufficient property interests to make the extended runway safety area and the OFA standard. Acquisition to provide the sponsor control over the RPZ is also recommended.

Subdivision and Land Development Ordinance (SALDO)

Green Hills Borough does not have a Subdivision and Land Development Ordinance. South Franklin Township enacted their SALDO in 1988 and recently amended it in 1996. It includes provisions for preliminary plans, final plans, subdivisions of three lots or fewer, improvements, requirements for submittal, fees, and street and property identification requirements. There are also Design Standards.

Agricultural Profile

As stated on page 1-28, agriculture is defined as land covered by hay, wheat, grass or other vegetation of the like, including cropland, pastures, orchards, and groves, and must be actively farmed. As such, agriculture accounts for about 27 percent of total land use in the Project Area. Agricultural lands are located throughout the Project Area, as shown on *Map 1.4: Existing Land Use*. While the dairy farm on Vista Valley Road may be the only large primary income producing farm recognized in the Project Area, agriculture is recognized as being vital to the local way of life and important to preserve for future generations.

Overall, the agriculture industry was very profitable for residents and it continues to be entrenched into the character and social aspect of Washington County. Unfortunately, it became much more difficult to earn enough money to continue to farm and many family farms have been sold. At the beginning of the twentieth century, Washington County had 539,435 acres of farmland (Marotta, p. 13, 1985). According to the 2007 Census of Agriculture, Washington County had 211,053 acres of farmland (2,023 farms), down 19% from 2002 when there was 261,139 acres (2,506 farms). Within Washington County, 47% of farms are cropland, 24% woodland, 22% pasture, and 7% used for other purposes. Average farm size has remained stable at 104 acres and each farm on average receives \$3,439 annually from the government in subsidies (USDA, 2007).

While the number or value of agricultural products produced in the Project Area is not tracked, it is for Washington County as a whole. Compared to the market value of all agricultural products sold, Washington County ranks 44th out of all 67 counties in Pennsylvania; 32nd in value of crops including nursery and greenhouse; and 42nd in value of livestock, poultry, and their products. According to the Washington County Planning Commission, compared to other Pennsylvania counties, Washington County ranks in the top ten as follows:

- ❖ 1st in sheep and lamb
- ❖ 2nd in the value of sales of sheep, goats, and their products
- ❖ 4th in forage (land used for all hay and haylage, grass silage, and greenchop)
- ❖ 4th in horses and ponies
- ❖ 5th in goats
- ❖ 5th in the value of sales of other crops and hay
- ❖ 7th in the value of sales of horses, ponies, mules, burros, and donkeys

The 2007 Census of Agriculture also tracks operator characteristics on farm operators. In Washington County, out of the 2,023 farm operators, 762 cited farming as their primary occupation compared to the 1,261 whose primary occupation was something other than farming. The average age of a principal operator was 58.5 years.

Approximately 87% of all farms in Washington County had less than \$20,000 in sales annually; of those, 37% of farms produced less than \$1,000 in sales. On average, farms had production expenses of \$16,631 per farm and once accounted for, actually had a net loss of income (USDA, 2007).

The Pennsylvania Municipalities Planning Code requires that agriculture be considered and promoted by governing bodies at both the county and local levels when undertaking any significant planning activity. In addition,

A Plan for South Franklin Township & Green Hills Borough

Pennsylvania legislators have recognized the challenges faced by the agriculture industry and have taken steps to strengthen and protect this important economic sector.

Right to Farm Act

The Right to Farm Act (RTF) is actually entitled Protection of Agricultural Operations from Nuisance Suits and Ordinances, but is known by its more popular nickname. Enacted in 1982, the Right to Farm Act protects Pennsylvania farmers against public nuisance claims through the practice of agriculture. The Right to Farm Act was enacted in response to nuisance laws from neighboring land owners who claimed that a farmer was creating a private or public nuisance by interfering with the property owner's use of their property or by threatening the public safety. The act limits the ability of private landowners to file suit by setting state-wide policy to "Conserve, protect, and encourage the development and improvement of its agricultural land for the production of food and other agricultural product" (DCED, 2006). In addition to limiting nuisance suits, the act prohibits municipalities from identifying farming practices as nuisances or restricting the sales of agricultural goods through zoning ordinances. Legislators addressed circumstances in which municipalities were knowingly passing ordinances that would be in violation of the Right to Farm Act by passing Act 38 of 2005, which allows further legal action against unauthorized ordinances (DCED, 2006).

Agriculture, Communities and Rural Environment (ACRE)/Act 38 of 2005

In 2005, the Pennsylvania Legislature passed the Pennsylvania Act 38, commonly referred to as ACRE. ACRE addresses two issues: (1) matters between unauthorized local ordinances and agricultural operations and (2) odor management for concentrated animal feeding operations. It also increased setback requirements. ACRE seeks to balance agricultural operations with the nuisance concerns of the community and was passed in response to pressures of development in conventionally rural areas, specifically issues between unauthorized local ordinances that attempted to regulate agriculture in areas preempted by the State through law or regulation.

Clean and Green

The Pennsylvania Farmland and Forest Land Assessment Act, also known as Clean and Green, is a tax program that assesses land based upon its use value not fair market value. The goal of the Clean and Green program is to preserve agricultural lands by reducing the tax burden on property owners. This land conservation program is an enrollment program where the property owner agrees to keep their land dedicated to agricultural use, agricultural reserve use, or forest reserve use for an indefinite period if the land is to be eligible for the lower property tax assessment level. Should a property owner elect to leave the program and convert their land then they may be obligated to pay back taxes along with interest.

Agricultural Use

The Agricultural Use (AU) category includes "land that is used for the purpose of producing an agricultural commodity or is devoted to and meets the requirements for payments or other compensation under a soil conservation program under an agreement with a federal agency. The term includes any farmstead on the tract; a woodlot; land that is rented to another person and used for the purpose of producing an agricultural commodity" (DCED, 2006).

According to the Washington County Tax Assessment Office, Green Hills Borough has 266 acres (41% of total land) enrolled in Clean and Green under AU; South Franklin Township has 4,476 acres enrolled under AU (33% of total land).

Agricultural Reserve

The Agricultural Reserve (AR) is for “noncommercial open space lands used for recreational and outdoor enjoyment...and open to the public for that use. The term includes any farmstead on the tract” (DCED, 2006).

According to the Washington County Tax Assessment Office, Green Hills Borough has 100 acres (15% of total land) enrolled in Clean and Green under AR; South Franklin Township has 773 acres enrolled under AR (6% of total land).

Forest Reserve

The Forest Reserve (FR) is for “land, 10 acres or more, stocked by forest trees of any size and capable of producing timber or other wood products. The term includes any farmstead on the tract” (DCED, 2006).

According to the Washington County Tax Assessment Office, Green Hills Borough does not have any land enrolled in Clean and Green under FR; South Franklin Township has 4,383 acres enrolled under FR (33% of total land).

Agricultural Area Security Law (1981)

The Agricultural Area Security Law was enacted to encourage landowners to commit to preserving agricultural lands and to protect these important land classifications from incompatible uses on neighboring lands. The law establishes the authority for municipalities to identify areas of 250 or more acres to be voluntarily enrolled as an Agricultural Security Area (ASA). Land within the district may be owned by more than one person and does not have to be contiguous. The municipality acts as a partner with the land owner to identify and establish ASA's and must follow such criteria as the land having soils compatible with agricultural purposes, applicability of the ASA to the local municipal comprehensive plan, the current agricultural use or improvement, and the anticipated trends for that land area. An ASA application process includes a proposal process, public notification, and a review of the ASA on a seven-year basis. Enrollment in an ASA provides limited protection against municipal regulations, eminent domain, and allows the landowner to participate in Pennsylvania's agricultural conservation easement program.

There are no ASAs located in the Project Area.

Sewer and Water Line Assessment Exemptions Act (1976)

The Sewer and Water Line Assessment Exemptions Act sets limits to which local farmers must comply with mandatory tap fees and other fees associated with the installation of water and sewer lines. The construction code act sets limitations on construction standards and does not apply these provisions to agricultural buildings.

Pennsylvania Construction Code Act (1999)

The construction code act sets limitations on construction standards and does not apply these provisions to agricultural buildings.

Residential Development Profile

Residential development accounts for 14 percent of all land use within the Project Area and therefore, is a vital component to the Multi-Municipal Comprehensive Plan. The Residential Profile provides a more in-depth look at the existing housing stock in South Franklin Township and Green Hills Borough. In this section, the United States Census Bureau, 2000 Census, was used to document the existing conditions related to housing.

Housing Type

Housing type refers to the number of units in a residential structure, in order to distinguish single-family homes, duplexes, multi-family homes, and mobile homes. Single-family housing is the predominant form of housing in both the Township of South Franklin and the Borough of Green Hills, accounting for 74 percent of all housing in both municipalities. Specifically, 1-unit detached structures are the most widespread. The second most common type of housing was mobile homes, accounting for nearly 24 percent of housing types in the Project Area. According to the Census, there are a few duplexes and multi-family units located within South Franklin Township; however this was not verified during field views.

Density & Development Patterns

Primarily, housing development within the Project Area is low density and follows a rural-residential pattern and style; homes constructed on large parcels of land, typically three (3) or more acres, and surrounded by open space, meadows, or woodlands. This lends a serene, scenic quality to the Project Area that is very appealing to many people. There are also a few areas that are classified as medium density residential – Franklin Manor and the numerous mobile home parks.

Franklin Manor

Franklin Manor is a housing subdivision located in South Franklin Township off SR 18, and accessed through Security Drive and Annuity Drive. There are approximately 187 homes in Franklin Manor, on about three-quarter acre lots. They are detached single-family, and constructed in phases beginning in 1969 and continuing throughout the 1970s.

Mobile Home Parks

Although the majority of the Project Area is rural residential or agricultural in nature, there are several mobile home parks located within South Franklin Township. As of 2008, there are nine in total, and include the following:

- ❖ Airways Mobile Home Park
- ❖ Brookhaven Estates
- ❖ Clearview Mobile Home Park
- ❖ Five Oaks Mobile Home Park
- ❖ Merchant Valley Mobile Home Park
- ❖ Ridgecrest Mobile Home Park
- ❖ Rosewood Manor
- ❖ Tarbuck Mobile Home Park
- ❖ Treehaven Mobile Home Park

New Development Plans

Currently, plans are underway to develop around Lone Pine Country Club, which makes up the majority of Green Hills Borough. This development, called Lone Pine Estates, will consist of 458 units that will include a combination of single-family homes, duplexes, and townhouses, built in a traditional style, on the golf course. The community also will include a swimming pool, children's pool, and exercise room to be built behind the clubhouse.

There are also plans underway to build a substantial residential subdivision in North and South Franklin Townships, around the former reservoirs (#3 in North Franklin and # 4 in South Franklin). The development will consist of a mixture of single-family detached dwellings, patio homes, and town homes, and when finished, may add an additional 900 housing units to the two communities. Tentatively, the development is named Lake-View Estates.



Lone Pine Estates in Green Hills Borough (Mackin 2008).

There are also plans in place for other smaller-scale developments in South Franklin Township. The most notable of these is located along SR 18, just south of that route's intersection with Jolly School Road and Lagonda Road. A subdivision plan for residential development received final plat approval from the Township but as of yet there has been no construction on the property. If developed, this property could possibly tie in to the existing Franklin Manor plan. Residential development could also occur on some of the open land between SR 18 and Deerfield Road, immediately adjacent to the already developed parcels along Patterson Road and Worth Avenue. Approval for development in this location has not been finalized, and it is unclear if a residential development will come to fruition, but it is possible.

Tenure

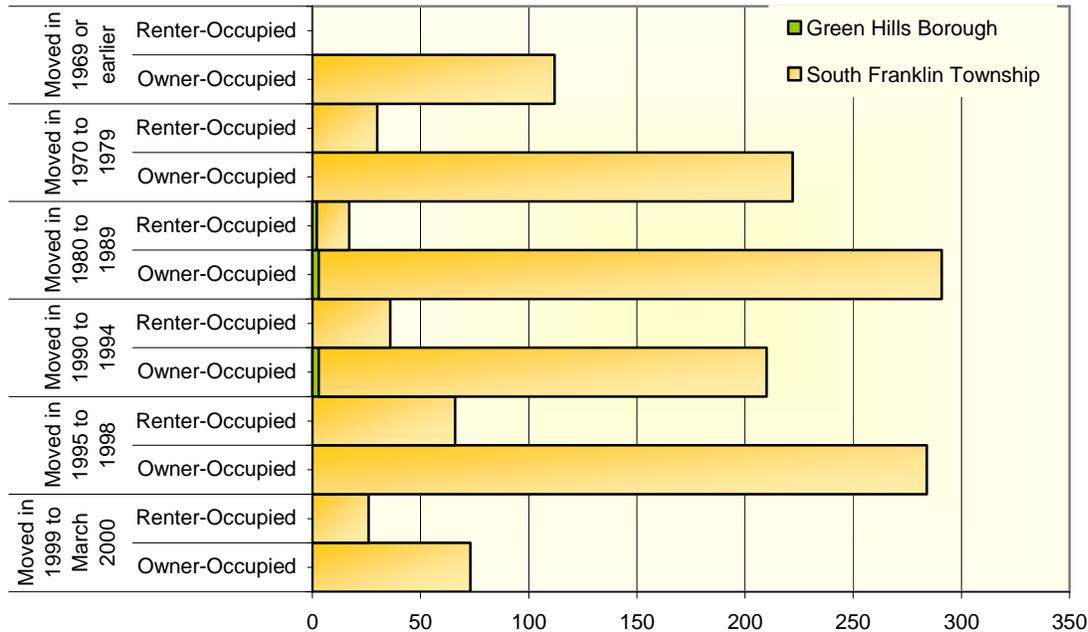
Housing tenure refers to the distinction between housing units that are occupied by their owners and those occupied by renters. Communities often prefer to have high percentages of their housing stock owner-occupied, as the common perception is that owners bring stability, wealth, and better home maintenance to neighborhoods than do renters. In the Project Area, there is a very high home ownership rate, with just over 87 percent of housing units owner-occupied in tenure. This is a much higher rate than the County and the State, which have typical rates of 77 percent and 71 percent, respectively. Renter-occupied units account for just 175 occupied units. Many of these rental units are mobile homes. It should be noted that these figures are from the 2000 U.S. Census and may not be entirely representative of actual conditions.

Although there have been significant losses in some of the younger generations in the Project Area, there is a surprisingly high percentage of younger homeowners. The largest proportion of homeowners in the Project Area is between 45 to 54 years of age; they comprise just over 30 percent of homeowners in the two municipalities. Those between the ages of 25 to 44 make up an additional 30 percent of the homeowners within the Project Area, and the elderly comprise the rest.

Residential Development Profile

As indicated by Chart 1.5, the majority of homeowners moved into their property in the 1980s, as well as the latter half of the 1990s. Most renters moved into their current residence (as of 2000) between 1995 and 1998. This is indicative of a relatively stable, although steadily growing, community.

Chart 1.5: Housing Tenure



Vacancy

In 2000, there were 91 housing units classified as vacant in the Project Area, for an overall vacancy rate of 6.2 percent; which was slightly lower than Washington County.

The U.S. Census counts units that are vacant for rent; for sale; rented or sold but not occupied; for seasonal, recreational or occasional use; and for other reasons. According to the Census, vacant homes within the Project Area were classified as follows:

- ❖ Vacant, other: 31 units; 34.1%
- ❖ Vacant, for sale: 29 units; 31.9%
- ❖ Vacant, for seasonal, recreational use: 26 units; 28.6%
- ❖ Vacant, for rent: 5 units; 5.5%

The Vacant, other category includes reasons such as the owner's personal reasons, use by caretaker or janitor, and settlement of estates. This category is hard to analyze due to the fact that the exact causes for the vacancy are not provided. The fact that more than one-third of the vacant homes in the Project Area are classified as such is not surprising, as this figure is comparable to that of Washington County (30%) and Pennsylvania (26.5%).

Units, for sale was the second largest category of vacant housing units, reflective of the fact that the majority of housing units are owner-occupied, single-family dwellings. An additional 30 percent of vacant housing was classified as seasonal, recreational, or occasional dwellings, which may be an indicator that many people have secondary homes in the Project Area because of its rural nature and access to recreation / hunting. In total, there were only five vacant rental units, signifying the small rental market. Within the Project Area, there were only 175 units renter-occupied.

Age

The age of housing structures can measure the physical quality of the housing stock in a community. Older homes, particularly those built before 1950, tend to indicate that a community may have deteriorating housing stock. It may also point to a lack of sufficient housing types for the various demographic groups within the community. The median year built in Green Hills was 1976, while for South Franklin Township the median year built was 1962.

As shown in Chart 1.6, the largest percentage of homes within the Project Area was built between 1970 and 1979. Between 1990 and 2000, there were an additional 307 homes built (21%), showing an active market for new homes in the Project Area.

Table 1.4 illustrates building permit data from 2003 to 2008. Residential permits fall into one of three categories: new single-family detached construction, new manufactured (also called modular) home construction, and mobile homes. The remainder of the permits were for a variety of residential activities, including pole structures, garages, barns, swimming pools, decks, and additions. The minimal amount of new residential construction can be contributed to the development constraints that the community faces, including lack of adequate sewage and water.

Chart 1.6: Age of Housing in Project Area

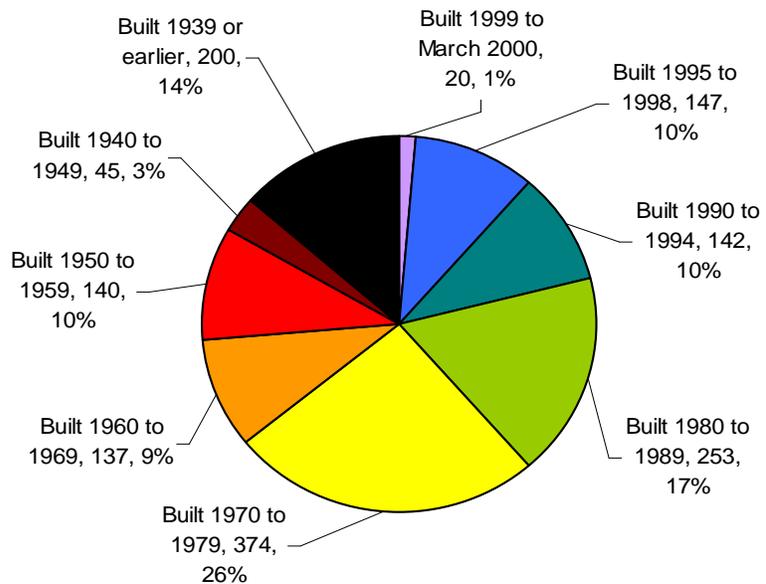


TABLE 1.4.: BUILDING PERMIT DATA 2003-2008

	Total	New Homes;	Modular / Manufactured Homes;	Mobile Homes;
2003	36	11	n/a*	n/a*
2004	34	4	2	1
2005	27	2	5	4
2006	28	6	n/a*	2
2007	32	5	1	3
2008	26	3	2	1

* n/a means no information available

SOURCE: South Franklin Township, 2009.

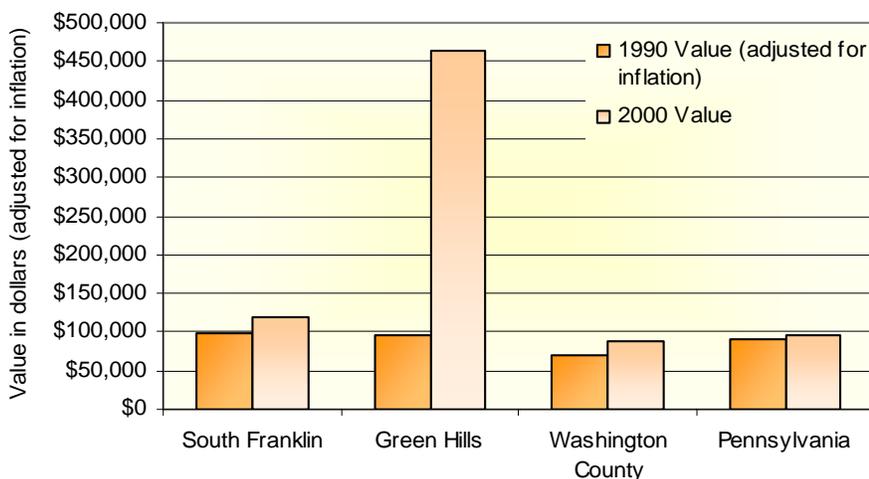
Condition

The condition of homes within a municipality is not tabulated or recorded by the U. S. Census and therefore is subjective. However, the condition of housing within an area oftentimes is a crucial factor in the attraction of new residents and so field views were conducted to provide an overview of housing conditions. With such a large percentage of homes in the Project Area constructed after 1970, it is not surprising that the majority of homes are sound, well-maintained, high-quality residences. There are however, some homes and areas where the structural condition is lacking and should be addressed. Age and deferred maintenance have detracted from the appearance of some of these structures, and if left unchecked, can pose health and safety threats.

Value

The average housing value in a community over time can be used to measure the socioeconomic level of the area. The Census defines value as “the respondent's estimate of how much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were for sale.” When comparing values in 1990 and 2000, the data

Chart 1.7: Median Housing Values, 1990-2000



in 2000 was collected at a sample basis whereas in 1990 it was collected for the entire community. The median value of owner-occupied housing units increased throughout rural Pennsylvania between 1990 and 2000, particularly in Southwestern Pennsylvania (Center for Rural Pennsylvania, 2006). The inflation rate for 1990 to 2000 was 1.315 (<http://www1.jsc.nasa.gov/bu2/inflateCPI.html>). Therefore, a home valued at \$100,000 in 1990 is worth \$131,500 in 2000.

As shown in Chart 1.7, in 2000, the median housing value was \$119,800 in

A Plan for South Franklin Township & Green Hills Borough

the Township of South Franklin and \$462,500 in the Borough of Green Hills. Washington County's median home value in 2000 was \$87,500, while Pennsylvania's was \$97,000. South Franklin Township saw an increase of just over 21 percent in median housing value between 1990 and 2000, comparable to the 25 percent increase Washington County witnessed but much lower than the statewide average of just under seven percent.

Economic Development Profile

Economic development refers to not only the existing conditions, challenges, and opportunities for business retention and expansion but it also refers to larger regional trends in employment, industry, and commuting and working patterns. Examining this data, and evaluating the potential for changes in the future, is an important barometer in measuring the quality of life within a community, and can also act as a tool for predicting future land use and housing needs. For instance, a change in the economic conditions of a community can drastically change living conditions, housing availability, and service demands. If a new business would relocate and attract new employees, the community would be called upon to increase services to meet rising demand. Hence, this section looks at workforce predictions and future trends, top employers in the region, and current conditions of the local economy.

Workforce Industry Projections

The Southwestern/Pittsburgh economic region includes Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington, and Westmoreland Counties. Allegheny County, with a population of 1,270,612 is the driving force behind the Southwestern Pennsylvania economic region. The Pennsylvania Department of Labor and Industry separates this region by Workforce Investment Areas (WIA). Washington County, in which the two Project Area municipalities are located, is a part of the Southwest Corner WIA, which includes Greene and Beaver Counties as well.

Table 1.5 shows the industry projections for the year 2014 for the Southwest Corner WIA. Healthcare and Social Assistance are projected to have the most employees and the highest growth rate at 17.3 percent. This projection reflects an aging population that will demand additional healthcare services, as well as reflect the overall national economic trend of a shift away from manufacturing and toward “eds and meds,” i.e. educational and medical sectors of the economy. Also increasing by more than ten percent in terms of employees and annual growth rate are Administrative and waste services; Arts, entertainment, and Recreation; Information; Educational Services; and Professional and technical services.

TABLE 1.5: 2014 INDUSTRY PROJECTIONS—SOUTHWEST CORNER WIA

Industry	2004 Estimated Employment	2014 Projected Employment	Annual Change
GOODS PRODUCING	32,080	29,320	-8.6%
Agriculture, Forestry, Fishing & Hunting	30	30	0.0%
Mining	4,190	3,430	-18.1%
Construction	8,560	8,890	3.9%
Manufacturing - Non Durables	1,340	1,100	-17.9%
Manufacturing - Durables	17,970	15,870	-11.7%
SERVICE PROVIDING	115,080	124,850	8.5%
Utilities	3,110	2,470	-20.6%
Wholesale Trade	4,840	4,950	2.3%
Retail Trade	19,120	19,480	1.9%
Transportation	5,720	6,000	4.9%
Information	2,230	2,500	12.1%
Finance & Insurance	3,380	3,630	7.4%
Real Estate & Rental & Leasing	1,100	1,170	6.4%
Professional & Technical Services	5,770	6,560	13.7%
Management Of Companies & Enterprises	980	1,000	2.0%
Administrative & Waste Services	4,450	5,090	14.4%
Educational Services	14,530	16,310	12.3%
Health Care & Social Assistance	20,950	24,580	17.3%
Arts, Entertainment & Recreation	2,590	2,920	12.7%
Accommodation & Food Services	10,940	12,010	9.8%
Other Services, Except Public Admin.	7,020	7,470	6.4%
Government	8,350	8,730	4.6%

SOURCE: US Census, 2000.

Washington County Top Ten Employers

Table 1.6 depicts the top ten private employers in Washington County. As the table illustrates, hospitals comprise a good portion of the top ten employers, although mineral extraction companies, as well as private firms engaged in professional and manufacturing services, round out the top ten.

TABLE 1.6: TOP TEN PRIVATE EMPLOYERS IN WASHINGTON COUNTY

Employer	Industry Sector
The Washington Hospital	Health Care
Monongahela Valley Hospital	Health Care
CONSOL Energy, Inc.	Mining
The Meadows Racetrack & Casino	Entertainment
Canonsburg Hospital	Health Care
84 Lumber Company	Building Supply Distributor
FedEx Customer Information	Parcel Delivery
All-Clad Metal Crafters LLC	Cookware Manufacturer
Bucyrus America Inc.	Mining Equipment Manufacturer
NCO Group Inc.	Receivables Outsourcing

SOURCE: Center for Workforce Information and Analysis, 2008.

Although none of these employers are located within the Project Area, many residents likely work for these employers. Within South Franklin Township, the largest employer is the Airport, although there are a few companies such as Lagonda Machine and some professional offices, which are also employers. Within Green Hills Borough, the major employer is the golf club. Guthrie and Belczyk, certified public accountants, are also located in Green Hills Borough.

Local Economy

Analyzing employment statistics is a useful tool for comprehensive planning because it can shed light not just on the state of the community's economy, but also on why people are moving into, or in some cases out of, the community. Communities with access to strong job markets, or with employment centers located within their own boundaries, are the ones who see the most success in attracting and retaining young people and families.

Labor Force

The Census Bureau defines a labor force as including "all people classified in the civilian labor force, plus members of the U.S. Armed Forces (people on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard). The Civilian Labor Force consists of people classified as employed or unemployed."

Table 1.7: Labor Force shows the percentage of the population who are in the labor force, whether civilian or Armed Forces, and employment status for 2000. The percentage of residents in the workforce was over 65 percent, higher than that of Washington County and Pennsylvania. Of the civilian workforce, 97 percent was employed; indicative of a strong, stable workforce.

TABLE 1.7: LABOR FORCE

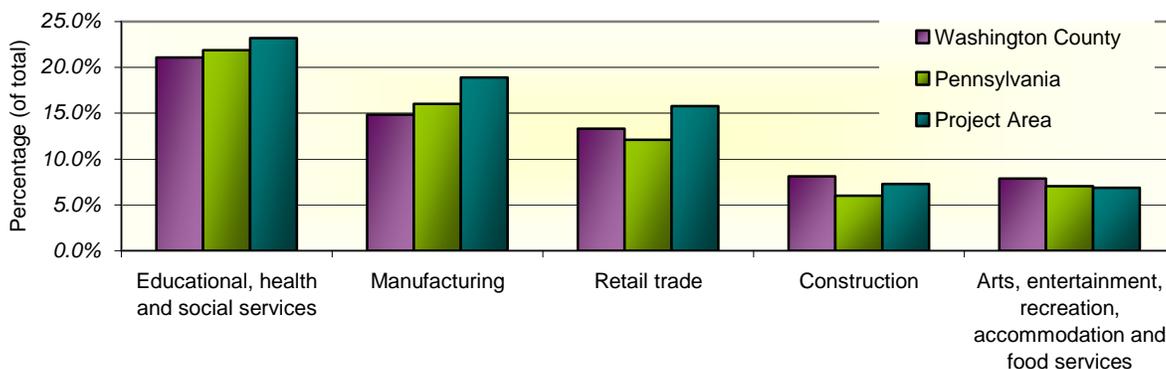
	Project Area	Washington County	Pennsylvania
In labor force:	65.6%	58.9%	61.9%
In Armed Forces	0.0%	0.1%	0.1%
Civilian:	100.0%	99.9%	99.9%
Employed	97.0%	94.7%	94.3%
Unemployed	3.0%	5.3%	5.7%
Not in labor force	34.4%	41.1%	38.1%

SOURCE: US Census, 2000.

Industry

The Census Bureau defines industry as “relating to the kind of business conducted by a person’s employing organization. For employed people the data refer to the person’s job during the reference week. For those who worked at two or more jobs, the data refer to the job at which the person worked the greatest number of hours.” Examining industry is particularly appropriate for comprehensive planning in Southwestern Pennsylvania because it is vital that in today’s economy, communities take full advantage of the shift in industrial work patterns. For years, industrial and manufacturing sectors were the backbone of the economy and labor force in Southwestern Pennsylvania, but today, the situation is different. Now white-collar service-oriented industries like education, health, and technology are the rapidly growing industries. Chart 1.8 shows that the top five industries for the Project Area are educational, health and social services; manufacturing; retail trade; construction; and arts, entertainment, recreation, accommodation and food services.

Chart 1.8: Top Industries in the Project Area for Employment

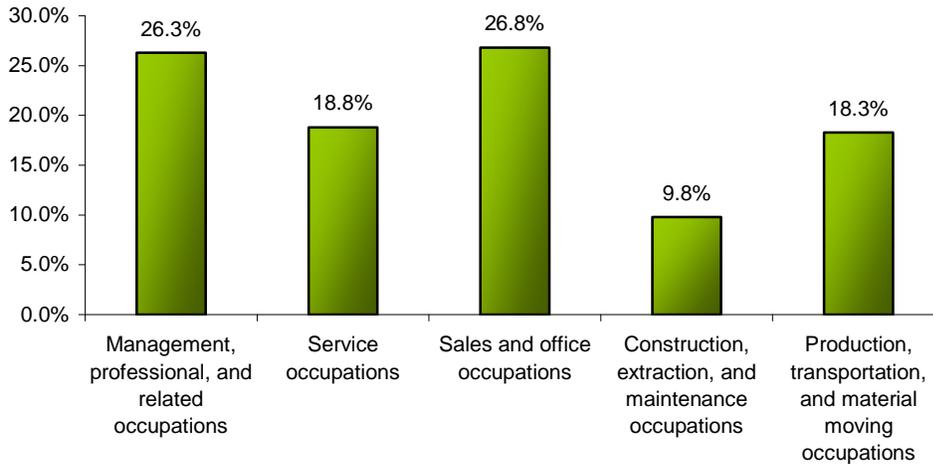


Occupation

Occupation data provide more detailed information than does industry data regarding employment. The Census Bureau defines occupation as “the kind of work the person does on the job. For employed people, the data refer to the person’s job during the reference week. For those who worked at two or more jobs, the data refer to the job at which the person worked the greatest number of hours.” Chart 1.9 depicts the occupation by type for the Project

Area. As shown, roughly half of all working residents are working in Management, Professional, and Related Occupations; or Sales and Office Occupations. Another 40 percent work in Service Occupations or Production, Transportation, and Moving Occupations. The remaining ten percent are in Construction, Extraction, and Maintenance Occupations.

Chart 1.9: Project Area Occupation by Type



Education

Educational attainment refers to the highest level of schooling that a person received. Usually higher educational attainment levels mean that a workforce is probably primarily white-collar, working in sectors like education, health, social services, and similar professional enterprises, and may be younger in age; lower educational attainment levels indicate that a workforce is more likely blue-collar, working in manufacturing sectors, and may be older, retired, etc. The Project Area registered the following educational attainment in 2000:

- ❖ High School Graduate (includes equivalency): 1,047 residents; 48%
- ❖ Some College, No Degree: 398 residents, 29%
- ❖ Associate (2-year) Degree: 219 residents, 10%
- ❖ Bachelor's (4-year) Degree: 317 residents, 15%
- ❖ Advanced Degree: 176 residents, 8%

With such a high percentage of residents with education past high school, the Project Area is poised to capitalize upon the growing industries discussed on page 35 that require college educations.

Workplace

The availability of jobs within a reasonable distance to residents' homes plays a vital role in determining where people live. **Table 1.8: Project Area Workplace** lists the places where the highest percentage of South Franklin and Green Hills residents work. The largest percentage of residents in the Project Area commute to the City of Washington (Washington County) for work. After that, surrounding townships, as well as South Franklin Township,

A Plan for South Franklin Township & Green Hills Borough

employ between 100 and 150 residents each. Only 2.6 percent of the Project Area population commutes to Pittsburgh.

TABLE 1.8: PROJECT AREA WORKPLACE, 2000

Workplace	# of Workers	% of Residents
City of Washington	357	20.1%
Chartiers Township	142	8.0%
South Franklin Township	134	7.5%
North Franklin Township	131	7.4%
Canton Township	117	6.6%
North Strabane Township	106	6.0%
South Strabane Township	106	6.0%

SOURCE: US Census, 2000.

Washington County has ten business/industrial parks located within its boundaries. The closest industrial parks to the Project Area are the Maiden Business Park/Detroit Site, which has 20 acres, and Meadowlands Industrial Park, with 110 acres. The Maiden Business Park is located within the limits of the City of Washington, along US 40/W Maiden Street, while the Meadowlands Industrial Park is located in North Strabane Township, along Route 19. It is likely that Project Area residents commuting to North Strabane Township are employed at this industrial park; North Strabane is home to many retail uses. Another of the County's largest employers- Millcraft Industries- is located in South Strabane Township, where 6 percent of Project Area residents are employed; there is also a significant amount of retail along the Route 19 corridor. In Chartiers Township, in addition to retail uses there is also a 50-acre business park, the Arden Downs Industrial Park (it also encompasses portions of South Strabane Township) where it is likely that some Project Area residents work. In addition, it is probable that many of the residents commuting to Canton Township are working in light industrial settings for companies such as the former Falcon Plastics. Those residents working within South Franklin Township are probably employed in some capacity with the Airport.

The airport poses an important economic development opportunity for the Project Area as it represents an area that is not only close to the more developed portions of the County, i.e. North Franklin Township and the City of Washington, but also because it offers the opportunity to develop aviation-related businesses and other light commercial or office space. Currently, the Redevelopment Authority of the County of Washington (RACW) has developed a vision for the airport and surrounding area that involves developing infrastructure that will support light industrial, commercial, and residential development. This includes making shovel-ready approximately 350 acres north of the airport runway. Part of a larger concept called Skypointe, it will bookend other ongoing projects, including lake-view housing development, totaling nearly 900 units, in both North Franklin and South Franklin Townships, as well as Lone Pine Estates in Green Hills Borough. Over the past 15 years, several projects have been completed to expand and improve the airport for business and recreational users. Both Special Project Grants and Capital Project Grants administered by PennDOT Bureau of Aviation have totaled over \$10,000,000 since 1988. As the largest economic generator in the Project Area, the Airport presents a key economic opportunity for the Project Area to capitalize upon.

Income

Income is like a barometer for a community: if incomes are high, it usually means that a community is stable and an attractive place for new residents and development. The per capita income of South Franklin Township in 1999 dollars was \$18,975, while in Green Hills it was \$124, 279. The median household incomes are displayed below, as per the 2000 US Census:

❖ South Franklin Township:	\$46,713
❖ Green Hills Borough:	\$94,239
❖ Washington County:	\$37,607
❖ Pennsylvania:	\$40,106

South Franklin Township had a higher median household income than Washington County and Pennsylvania. Statistically, Green Hills's median household income is more than double than that of all three; however it is because there are only seven (7) households in the entire Borough. As reported to the 2000 US Census Bureau, three households earned more than \$200,000 while two earned between \$75,000--\$99,999 and the remaining three earned between \$25,000--\$34,999.

Poverty

The poverty level is based upon the US Department of Agriculture's determination that one third of income is spent on food and the basis for the food cost is from a Department of Agricultural economy food plan. For the 2000 Census, the poverty level was determined at \$8,350/annually for persons who were 18 and over, and resided in the contiguous United States. The poverty threshold for a family of four persons was \$17,603 (<http://www.usda.gov/wps/portal/usdahome>). While the Project Area has a very low percentage of residents in poverty, it is important to examine what types of families and persons are living at or below the poverty level.

- ❖ South Franklin Township had 53 families living at or below the poverty level (4.7%)
 - 23 were families with a female householder, no husband present
 - 13 were families with children under 18 years
- ❖ South Franklin Township had 205 individuals living at or below the poverty level (5.4%)
 - 31 were 65 years of age or older
- ❖ There are no households, families, or individuals in Green Hills Borough living below the poverty level

Community Amenities Profile

Community amenities cover a wide variety of subjects, from municipal services, such as public safety, to public utilities, such as water and sewer. In this section, municipal services such as planning and code enforcement, fire and police, and other public services will be reviewed in order to identify any possible opportunities for meeting the future needs of residents in the Project Area. Community facilities, such as municipal buildings, libraries, schools, etc. are also identified and analyzed for potential needs. Public utilities, mainly water and sewer infrastructure are examined, including an examination of water supply and distribution, availability of public water service, and sewage and waste treatment in order to provide a plan for a reliable supply of water that takes into consideration current and future water resources availability and uses and limitations.

Municipal Government

There are four general types of municipalities in Pennsylvania: counties, cities, boroughs, and townships. Municipalities and school districts are classified according to population; based upon its 2000 population, Washington County is considered a county of the fourth-class. There are 66 municipalities located within the County, including 2 third-class cities, 32 townships, and 32 boroughs. Under Pennsylvania law, local governments are responsible for the administration of their municipality including such actions as tax levying and budgeting for the cost of municipal services.

Each class of municipality operates under its own code of laws, which dictates the governmental structure as well as the powers of the local government. The municipal code is the most important source of legislative powers granted to a municipal governing body, which include the County Code, Third Class City Code, Borough Code, First Class Township Code, Second Class Township Code and Public School Code.

There is also extensive general legislation applying to local governments. Some examples of legislative provisions outside the local government codes are real property assessment, local non-property taxation, municipal borrowing, real estate tax collection, intergovernmental cooperation, municipal employees' retirement, solid waste management, sewage facilities and planning and zoning. The following general laws affecting local governments both grant powers and impose restrictions.

- ❖ The Pennsylvania Municipalities Planning Code empowers municipalities to adopt comprehensive land use plans and enact zoning and subdivision and land development ordinances.
- ❖ The Pennsylvania Sewage Facilities Act regulates community and individual sewage disposal systems.
- ❖ The Solid Waste Management Act provides for solid waste collection and disposal.
- ❖ The Local Government Unit Debt Act establishes debt limits for local government units based on municipal revenues.
- ❖ The Sunshine Law requires public agencies to discuss and act upon agency business only at meetings open to the public.

Basic municipal information regarding the governing body, office hours, municipal departments, meeting times, etc. can be found in [Table 1.9: Municipal Information](#).

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TABLE 1.9: MUNICIPAL INFORMATION

	South Franklin Township	Green Hills Borough
<i>Contact</i>	100 Municipal Road Washington, PA 15301 724-225-4828 (office) sft@choiceonemail.com (email)	
<i>Website</i>	http://southfranklintwp.org/government.htm	n/a
<i>Hours of Operation</i>	Monday-Friday 8:30a.m. to 4:30 p.m.	By appointment only
<i>Governing Body</i>	Board of Supervisors (3 members) Elected to 6-year term	Mayor and Borough Council (3 members) Elected to 4-year term
<i>Municipal Meetings</i>	2 nd Tuesday of the Month 7:00 p.m.	n/a
<i>Employees</i>	Full-time: Secretary/Treasurer & Township Clerk Part-time: Zoning Officer	n/a
<i>Planning Commission</i>	Membership: 5 members (appointed) Meet: 3 rd Monday of the Month @ 7:30 p.m.	n/a
<i>Zoning Hearing Board</i>	Membership: 5 members (appointed) Meet: as needed	n/a
<i>Park and Recreation Board</i>	Membership: 6 members (5-year term) Meet: 3 rd Monday of the Month @ 7:00 p.m.	n/a
<i>Public Works Department</i>	39.1 Miles Township Roads 20.08 Miles State Roads	N/A
<i>2009 Millage Rate</i>	11.4 mills (real estate 9.7, fire tax 1.7)	5 mills
<i>2007-2008 McGuffey School District</i>	111 mills	111 mills
<i>Washington County</i>	21.4 mills	21.4 mills
<i>2007 Revenue</i>	\$712,255	n/a
<i>2007 Expenditures</i>	\$694,139	n/a

SOURCE: South Franklin Township, Green Hills Borough, 2008.

Governing Body

Green Hills Borough

Green Hills operates as a borough under the Pennsylvania Code regarding boroughs. The mayor is elected for a four-year term. The true governing body of a borough is an elected council, which normally consists of seven council members who are elected by the residents for four-year overlapping terms. Boroughs with populations of less than 3,000 may reduce the number of council members to three or five. Green Hills Borough has a Council of three members plus the Mayor, who maintains voting power, that meets on an as-needed basis. Council member terms are for four years.

South Franklin Township

South Franklin is a township of the second class and operates under the Pennsylvania Code regarding Second Class Townships. The governing body of second-class townships is composed of a board of three supervisors who are elected at-large by the public for six-year terms. Supervisors act as a legislative body with powers such as enacting ordinances and levying taxes; wield executive powers like enforcing ordinances and hiring employees; and are responsible for road maintenance, but they may also oversee police departments, sewer and water, utilities, and parks and recreation.

Council of Governments / Co-op Agreement

In 1972, the Pennsylvania state legislature passed Act 180, allowing municipal governments to cooperate jointly with each other in the performance of their powers and responsibilities. In 2001, the lawmakers approve Act 13, authorizing the state to recognize the groups as legal entities. Together, the laws allow formation of groups of municipalities and schools to pursue contracts, grants and other needs, and to enter, as a group, into state programs. South Franklin Township is currently a part of a cooperative agreement of several surrounding municipalities called ABDS. The other participating municipalities in the agreement are Amwell Township, Buffalo Township, and Donegal Township. As of right now, they meet on a monthly basis and share responsibilities (including staff and equipment) on various road work projects, mostly oil and chipping. However, the group is looking to expand upon ways to cooperate and may seek Council of Governments status in the near future.

Municipal Staff and Departments

Green Hills Borough

Green Hills Borough does not have a municipal staff or any departments, although the Borough does retain its own solicitor for legal purposes. For tax collection services, the Borough contracts with South Franklin Township's tax collector.

South Franklin Township

South Franklin Township has two full-time employees: a Secretary / Treasurer and a Township Clerk; and a part-time employee: the Zoning Officer. The Township also has five full-time public works employees, and has hired two part-time consultants to handle Franklin Manor sewage treatment.

The Secretary / Treasurer is appointed annually by the Board of Supervisors to carry out the policies of the Board. The various duties of this position, including but not limited to, are preparing the budget which is adopted by resolution by the Board annually, responsibility of all accounting and reporting of all financial activities of the Township, providing information to the Board for making office policy and administrative decisions, keeping

A Plan for South Franklin Township & Green Hills Borough

minutes, preparing all official records of the Township according to the township codes and acting as liaison with all entities and managing daily functions of the office (<http://southfranklintwp.org/government.htm>).

The Township Clerk is appointed annually by the Board of Supervisors to collect earned income taxes and fill in for the Secretary / Treasurer (<http://southfranklintwp.org/government.htm>).

The Zoning Officer is a part-time employee who is responsible for the enforcement of the Zoning Ordinance, issues building permits and makes required inspections. The Zoning Officer is also responsible for reviewing applications for special exceptions, conditional uses, variances and appeals to the Zoning Hearing Board and complaints from Township residents.

Planning Commission

The South Franklin Township Planning Commission is comprised of five members, appointed by the Board of Supervisors, who act in an advisory capacity to the Board. At the request of the governing body, the Planning Commission prepares and reviews comprehensive plans, reviews all requests for land development or subdivision, recommends changes to the Zoning Ordinance, and advises the Township concerning long-range planning. Because of the lack of public water and sewerage in many areas of the Township, the Planning Commission mostly oversees subdivisions or land development plans that are small in scale; often, it is a family member wishing to subdivide a larger parcel into a few smaller parcels for building and use within the family.

Zoning Hearing Board

The South Franklin Township Zoning Hearing Board (ZHB) is comprised of five township residents, appointed by the Board of Supervisors, who serve five year terms. Their duties are to hear requests for variances or special exceptions and to assure the fair and equitable application and administration of the Zoning Ordinance by hearing appeals on the Zoning Officers decision and granting relief from the literal interpretation of the ordinance in certain hardship situations. The Zoning Hearing Board meets on an as needed basis, which is typically two or three times per year.

Park and Recreation Board

The Park and Recreation Board is comprised of six township residents who are appointed by the Board of Supervisors. They serve a five-year term as an advisory committee to assess and plan the recreational needs of the residents and maintain and regulate the South Franklin Township Park.

Public Works Department

The South Franklin Public Works Department employs five full-time employees and has the following responsibilities:

- ❖ General maintenance and repairs (surface treatment, patching of potholes, and ditching as well as mowing right-of-ways) of 39.1 miles of Township Roads
- ❖ Winter maintenance for the Township Roads and an additional 5.84 miles of State Roads
- ❖ Maintains storm sewers
- ❖ Cleans culverts

Community Amenities Profile

- ❖ Addresses other infra-structure needs in the Township
- ❖ Equipment maintenance
- ❖ Buildings and grounds maintenance (Township and park buildings, park grounds)
- ❖ Works with other Townships, including Co-op / COG

The South Franklin Public Works garage is located on Old Scales Road. The Township does not have a capital improvements plan in place for acquiring new equipment or a road maintenance plan. [Table 1.10](#) lists the Public Works equipment by year, name / type, and condition.

TABLE 1.10: PUBLIC WORKS EQUIPMENT		
Year	Name / Type	Condition
2008	Ford 550 Pickup	New
2004	Ford 550 1 Ton Dump Truck	Good
2002	John Deere Tractor	Good
2001	International Dump Truck	Good
1999	John Deere Tractor	Good
1999	International Dump Truck	Good
1997	International Dump Truck	Good
1997	JCB Backhoe	Good
1994	Sweeper Broom	Fair
1994	Woodchuck Chipper	Good
1993	John Deere Payloader	Good
1989	Steel Wheel Roller	Good
1987	Massey Ferguson Boom Mower	Good
1977	Elgin Sweeper	Poor
1974	Athey Loader	Fair
1973	Austin Grader	Fair
Unknown	Ferris Riding Mower	Good
Unknown	Troy Built Riding Mower	Good

South Franklin Township Public Works Department, Phone Interview, 2009.

Municipal Buildings

Green Hills Borough

Green Hills Borough does not currently own any municipal buildings or property.

South Franklin Township

The South Franklin Township Municipal Building is located at 100 Municipal Drive in South Franklin Township. The complex consists of offices and a community center, as well as a cinder block garage building used to store equipment. The Township also owns two additional maintenance garages along Old Scales Road, and a metal storage building on Jolly School Road.

A Plan for South Franklin Township & Green Hills Borough

Budget Information

Green Hills Borough

Green Hills Borough collects a yearly tax from residents at a rate of 5 mills. It deposits the money from this tax into a general fund, or "community chest," that it uses to pay for the services of the solicitor, the tax collector, and contribute to the South Franklin Township Volunteer Fire Department.

South Franklin Township

South Franklin Township develops and adopts an annual budget to document funds received through taxes, fees, etc. as well as expenditures. Taxes levied by South Franklin Township on residents, businesses, etc. include the following:

- ❖ Real estate taxes, which includes a tax on land, dwellings (including mobile homes), in-ground pools, garages, and accessory structures
 - Local property tax (9.7 mills)
 - Fire tax (1.7 mills)
 - McGuffey School District (111 mills)
 - Washington County (21.4 mills)
 - Real estate transfer tax (1% on sale of property – ½% Township, ½% School District)
- ❖ Earned income tax, which is on 1% of gross earnings or net profit (½% Township, ½% School District) and paid by all working residents within the Township
- ❖ Per capita tax, which is a flat \$10.00 annual fee assessed on every Township resident
- ❖ Occupation tax, which is a flat \$10.00 annual fee assessed on every person working within the Township

Taxes and fees collected are used to provide funds to build and maintain roads and bridges; to build and maintain park and recreation facilities and to govern and administer state, county, and local mandates. In reviewing the South Franklin Township 2007 Municipal Budget, the following summary is provided:

- ❖ Total revenue was \$712,255, where more than \$500,000 is through taxes
 - The majority of tax revenue comes from earned income tax, with real estate taxes second
 - Cable television franchise fee provides approximately \$24,000
 - Building and pavilion rentals / deposits accounts for about \$10,000
 - Winter maintenance (paid by PennDOT) fees accounts for roughly \$10,000
 - Permit fees (zoning, subdivision, building & occupancy, etc.) account for just under \$3,000
- ❖ Total expenditures were \$694,139, leaving the Township with a surplus of \$18,116 for 2007
 - Public Works (employee wages, supplies, equipment, etc.) is the largest expenditure, accounting for \$268,700
 - Debt service is the second largest, at \$165,300 and covers Township insurance, workers compensation, disability, pension, unemployment, healthcare, etc.
 - General government expenditures approximate \$136,739 and include municipal staff (secretary, office assistant), utilities, office supplies, etc.

- Municipal services / public safety accounts for \$78,900, which includes expenses related to zoning and subdivision (Zoning Officer salary, public hearing expenses, etc.), fire department donation, fire hydrants / insurance, dog control, etc.
- Park, Recreation, and Library account for \$44,500, which includes costs related to parks and recreation maintenance, library donation, etc.

Municipal / Public Services

Public Safety

Neither South Franklin Township nor Green Hills Borough maintains a police department. Police protection is covered by the Pennsylvania State Police, Troop B, Washington Police Barracks.

Fire

The Borough of Green Hills and the Township of South Franklin are both served by the South Franklin Volunteer Fire Department (SFVFD), which was established in 1952 and located on Jolly School Road in South Franklin Township. The SFVFD has a service area of approximately 24 square miles and maintains Mutual Aid Agreements with the following municipalities/departments: North Franklin Township Volunteer Fire Department, Morris Township Volunteer Fire Department, Claysville Volunteer Fire Department, Taylorstown Volunteer Fire Department, and Washington County Emergency Management (HAZMAT).

SFVFD provides structural fire suppression, wild land fire suppression, airport rescue fighting (ARFF), basic life support, and vehicle rescue services. There are 35 volunteers, of which 23 are active. Calls are dispatched through Washington County 911 Center and in 2007, SFVF responded to 240 calls (Stakeholder Survey, SFVFD, 2008). Fire alarms were the most frequent type of call responded to (100 calls), and vehicle accidents and structure fires both the second most frequent type, with 36 calls each. The remaining calls include EMS calls, service calls, hazardous calls, other rescue calls, and brush / vehicle fires.

SFVFD owns and operates a fire station, social hall as well as equipment facilities. Funding for the department comes from auxiliary cash, weekly bingo, hall rentals, and other fundraisers and donations. South Franklin Township collects a fire tax and provides the revenue to the VFD, typically in the amount of \$24,000 annually. Green Hills Borough also maintains a contract with South Franklin Township Volunteer Fire Department for their services; they pay \$2,000 a year to the VFD.

An equipment maintenance plan is in place along with a plan for acquiring new equipment, funding dependent. Equipment owned by the department includes the following:

- ❖ Brush Truck 32, 2003, good condition
- ❖ Rescue 32 (HME), 2001, good condition
- ❖ Tanker 32 (2500 gallon), 1997, good condition
- ❖ Engine 32 (E-ONE), 1990, fair condition

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Currently, this includes plans to obtain grant funding for the replacement of Engine 32 and purchasing additional rescue equipment, including Hurst cutters and rams and a crash truck (ARFF) or foam trailer for better coverage of the Washington County Airport.

EMS

Ambulance & Chair Service out of Washington, PA provides emergency medical services (EMS) to South Franklin Township and Green Hills Borough.

Waste Management Services

A number of refuse collection companies provide services to the residents of South Franklin and Green Hills on an individual basis. They include Waste Management, Rozner Refuse, and NuWay Disposal.

Recycling

The Project Area does not currently offer or require municipal recycling, although several locations do take voluntary donations. Nearby Green Arc recycling centers in Greene County accept steel and aluminum cans, office paper, newspaper, corrugated cardboard, glass, and other items. Other proximate Washington County facilities are listed in [Table 1.11](#).

TABLE 1.11: RECYCLING RESOURCES & FACILITIES

Category	Name	Material Accepted	
Metals	General Alloys, Inc. 135 W. Wylie Ave. Washington, PA 15301	Aluminum (Cast & Steel)	Radiators & Heater Cores
		Aluminum Cans	Stainless Steel
		Brass	Electric Motors
		Copper	Transmissions
		Insulated Copper Wires & Cables	Steel
		Lead	
Household Items	Goodwill Industries 89 Jefferson Ave. Washington, PA 15301	Clothing	Small Appliances
		Furniture	Toys
	Washington City Mission 84 W. Wheeling St. Washington, PA 15301	Appliances	Furniture
		Clothing	Household Items
Paper	Penn Pro Manufacturing, Inc 1000 Sheffield St. Washington, PA 15301	Catalogs	Newspaper
		Glossy Magazines	Office Paper
		Magazines	Telephone Books
Glass & Plastics	Arden Landfill, Chartiers Twp. 200 Rangos Lane Washington, PA 15301	Aluminum	Colored Glass
		Clear Glass	Steel

SOURCE: Washington County Recycling Directory, 2003.

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Libraries

South Franklin Township and Green Hills Borough residents use Citizens' Library, located at 55 South College Street in downtown Washington (Citizens' Library, Phone Interview, 2008). The library receives funding from the state, Washington County, and a number of municipalities within the County. South Franklin Township donates \$2,000 annually to the Library.

The Reference collection consists of over 3,700 volumes along with online databases for magazines, journals, and reference material. There are also more than 300 magazines and periodicals available to users as well as CDs, DVDs, audio books, and slide programs. Citizens' Library also includes an extensive history and genealogy section, including microfiche copies of the Observer-Reporter dating back to 1808.

The Library offers free programs, including Sunday afternoon recitals, S.A.T. testing preparation, Noontime Book Reviews, Mystery Book Club, and theater trips. Special annual events include the spring Book Sale and the Holiday Arts Festival. There is a summer Bookmobile program that makes regular stops at school facilities in the McGuffey Area School District, including Joe Walker Elementary in South Franklin Township.

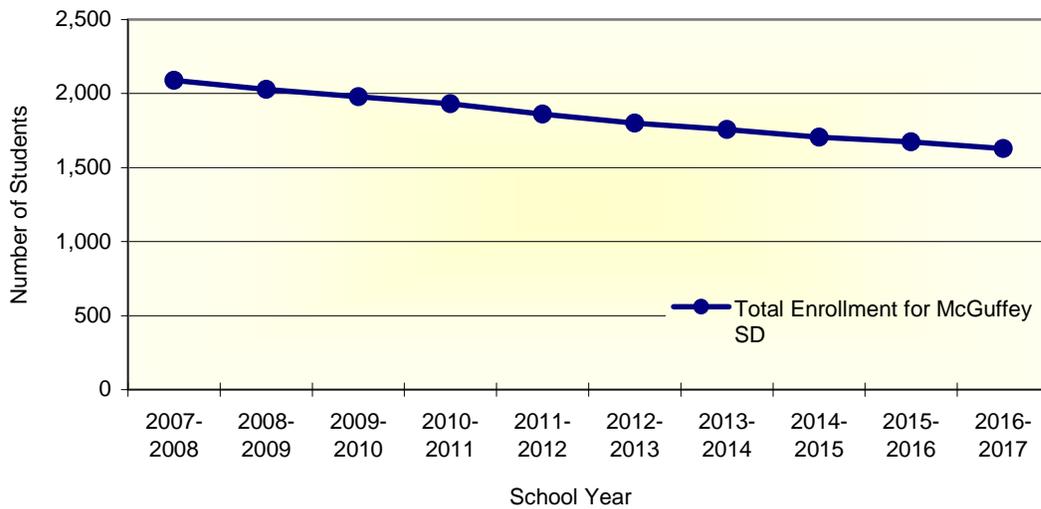
In addition, Project Area residents also enjoy access to the U. Grant Miller Library at Washington & Jefferson College. The U. Grant Miller Library's collection offers more than 200,000 items housed locally and 8,000 electronic journals and newspapers archived back several years available online. In addition, the U. Grant Miller Library also offers computer and Internet Access, as well as opportunities to utilize a digital classroom on the lower level.

Public Schools

McGuffey School District

Both South Franklin Township and Green Hills Borough belong to the McGuffey School District, along with Donegal Township, East Finley Township, West Finley Township, Morris Township, Blaine Township, and the Borough of Claysville. In total, McGuffey School District covers approximately 203 square miles but is sparsely populated (13,695 residents in 4,932 households). The 2007-2008 school year enrollment is 2,088 students. The Pennsylvania Department of Education maintains and annually updates school enrollment forecasts using birth rates, school and grade retention rates, and Census population data. Enrollment predictions for McGuffey School District show a declining enrollment over the next ten years, with enrollment dropping from 2,088 students to 1,629 students; nearly 22 percent.

Chart 1.10: Enrollment Predictions for McGuffey School District, 2007-2017



McGuffey School District is comprised of one high school, one middle school, and two elementary schools. Joe Walker Elementary (K-4) is located in the village of Lagonda, along SR 18, in South Franklin Township and is the only school located in the Project Area. Current enrollment for Joe Walker Elementary is approximately 300 students. If enrollment continues to decline, it may result in redistricting, particularly for the elementary schools. Joe Walker Elementary has already been reduced to K-4 rather than K-5 due to declining enrollment. However, if a lot of new development occurs within Green Hills and/or South Franklin, this could also result an influx of school-age children.

Public Infrastructure

Water

Community water supply systems can range from large regional systems (common in urban and suburban areas) to small systems (serving less than 3,300 persons), which may serve individual developments or mobile home parks. Smaller systems typically use groundwater for their water supply, while larger systems may use surface water. Water supply systems can be either public or private and can also be implemented on a municipal, multi-municipal, or county level (Local Governor's Services, 2000).

The Pennsylvania Municipalities Planning Code (MPC) allows for review and comment of water related plans. The local planning agency is authorized to conduct a water survey that takes into account pertinent components of the state water plan, river basin water resource plans, and local public water supplier plans, and to review and comment on the expansion of water lines if the municipality has adopted a comprehensive plan. The municipality is authorized to incorporate a water supply plan in their comprehensive plan.

Approximately half of the Project Area is served by public water. Pennsylvania-American Water serves Franklin Manor development, and major corridors (including SR 18, SR 221, Bedillion Road, Verner Road, and Moore, Vaneal, Deerfield, Vista Valley, Alamae Lakes, and Lagonda Roads). Please refer to *Map 1.5: Community Amenities*. As of 2009, Pennsylvania-American Water serves approximately 500 customers in South Franklin

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Township. There is no local ordinance for mandatory tap-in at this time. Pennsylvania-American Water operates the private system out of their McMurray office, with the plant located in Elrama. The Monongahela River is the primary source of water. There are no current plans for expansion or improvement, and Pennsylvania American Water reports no concerns with the source of water at this time (Pennsylvania-American Water Company, Phone Interviews, 2008-09).

Wells, springs, or cisterns serve the remainder of the Project Area.

Sewage

Domestic sewage and wastewater are treated and disposed of by various methods, ranging from large municipally-owned sewage treatment plants to community or individual on-lot disposal systems (OLDS), also called "septic systems," (PA DEP, 2006). Analyzing wastewater and sewage treatment is perhaps the single most important aspect of a comprehensive plan, particularly for a rural community, because without public sewage sustainable growth is nearly impossible. Planning where and when sewage will be extended is essential because development invariably follows sewage extensions, and provisions for the shape, type, and style of that development must be undertaken before any large-scale sewage extensions are planned. The Pennsylvania Sewage Facilities Act (Act 537) requires all municipalities to develop and maintain a sewage facilities plan that addresses sewage treatment and protects groundwater supplies. The Pennsylvania Department of Environmental Protection maintains a list of all completed Act 537 plans. As of February 2009, South Franklin Township has submitted their completed Act 537 to the Department of Environmental Protection (DEP). An in-depth discussion of the plan is located in Section 3: Needs Assessment. For the location of areas with public sewage access, please refer to *Map 1.5 Community Amenities*.

Public Sewage

Franklin Manor is currently the only major residential development of the Project Area with sewerage that is not a mobile home park (South Franklin Township Staff, Phone Interviews, 2008). Previously Franklin Manor was served by a private provider; however, in 2006 the Department of Environmental Protection ordered South Franklin Township to take over the facilities in Franklin Manor. There are approximately 174 customers served by this system, which was constructed simultaneously with the construction of the housing plan, beginning with Phase I in 1969-70. The wastewater treatment facility, which is located on Security Drive, is a 60,000-gallon a day plant, with average daily flows around 30,000 to 40,000 gallons a day; however, in heavy rainfall periods, the plant often washes out. It faces numerous problems and violations of its National Pollutant Discharge Elimination System (NPDES) permit. As part of its Consent Order, the DEP outlined specific milestones for upgrades and improvements to the plant and tributary sewer system that will ultimately bring it into NPDES compliance. As of early 2009, the Township has reached many of these milestones; however, in October of 2008, a portion of one wall of the equalization basin shifted because of pressure from a waterline break. The Township is making efforts to repair and provide additional support structures for the tank walls. For the remainder of 2009, the Township has plans to continue improvements and rehabilitations to Franklin Manor, and has borrowed \$125,000 as financing.

Other Wastewater Treatment Facilities

In addition to Franklin Manor, several other small portions of the Project Area maintain their own wastewater treatment systems (South Franklin Township Staff, Phone Interviews, 2008). This includes the Joe Walker Elementary School wastewater treatment facility, which serves the school and has a capacity of 4,500 gallons per day. Several mobile home parks also maintain their own systems, including Airways Mobile Home Park, Brookhaven Estates, Clearview Mobile Home Park, Ridgecrest Mobile Home Park, and Tree Haven Mobile Home

Park. These facilities range in size and capacity from 1,000 gallons per day (Ridgecrest) to 20,000 gallons per day (Brookhaven Estates). The average is 10,000 gallons per day.

Airways, Clearview, Treehaven, and Ridgecrest have had minor NPDES violations. Typical citations are for Operations & Management (O & M) or exceeding the limitations on effluent. It is worth noting that Brookhaven has not had an NPDES violation within the past ten years. There are no other major issues with the systems at this time, nor are there any planned improvements or expansions to the systems.

Septic Systems

The majority of the Project Area uses septic systems (South Franklin Township Staff, Phone Interviews, 2008). Septic systems are sewage systems located on the property of a private dwelling and are maintained by the homeowner. The sewage treatment process uses a treatment tank that holds solid waste and releases liquids where it percolates through the soil of an absorption field and is neutralized. Septic systems, when properly designed and maintained, provide acceptable sewage treatment options for people without access to public systems. However, if a septic system is not maintained properly it can fail thereby discharging raw sewage into the environment and endangering public health. Currently within the Project Area, there are a large number of properties with failures of on-lot septic system, much of which has resulted in seepage and pollution into the upper portions of Chartiers Creek. This is due primarily to the fact that the soils within the Project Area are not conducive to septic systems.

In 1977, eight townships in Washington County formed the Washington County Sewage Council (or WCSC). This council was established (according to Act 537) for the purpose of providing faster, more knowledgeable service for the property owners in each township. By combining their efforts, each township is able to lower the costs required to comply with the DEP's wastewater-related regulations. The success of the original council soon spread to other townships, boroughs, and municipalities in Washington County. Currently, the WCSC serves 42 municipalities in Washington County. In South Franklin Township, the WCSC typically handles issues with on-lot septic systems (WCSC, Phone Interview and E-mail Correspondence, 2008).

Telecommunications

In today's society, telecommunications are of the utmost importance. Adequate cable, phone, Internet, and cellular services are vital in ensuring that South Franklin Township and Green Hills Borough residents receive the best community services possible. It is also important in making sure that the Project Area remains competitive with other neighboring municipalities. Currently, the majority of the Project Area accesses Internet through dial-up connection only. High-speed connections are provided to particular areas by both Comcast (cable modem) and Verizon (high-speed DSL). These services are available to properties along portions of Lagonda Road, Jolly School Road, Vista Valley Road, Deerfield Road, and Alamae Lakes Road. High-speed access along these roads is concentrated in the Lagonda village area. In addition, residents throughout the entirety of the Project Area may also choose to utilize Internet services provided through satellite television providers. Verizon Fios service is not currently offered in the Project Area, although fiber optic cables have been installed along SR 18.

Cellular phone service in the Project Area is limited. Most providers (i.e., Verizon, Sprint, T-Mobile, etc.) offer adequate reception along SR 18 north of the South Franklin Township municipal complex. Cellular service south of this point is spotty to non-existent.

Parks & Recreation

An important facet of comprehensive planning in suburban or rural communities is the amount of park space and recreational opportunities available. Having ample park space and a variety of recreational amenities can be useful for two reasons. First, it is a necessary resource for residents, as it provides them with the opportunity to enjoy the natural beauty of the community and allows for social interaction between residents, as well. Second, it can be an important economic development tool for the community; in particular, if there is a trail or large state or county park, they can provide the community with the opportunity to capitalize upon and spur increased economic development. Furthermore, if a rural community plans to pursue growth and development, it may need to increase the amount of park space offered, or diversify the recreational amenities available. Preserving open space is also an important part of maintaining an adequate parks and recreation infrastructure network.

South Franklin Township Park

There is one park in the Project Area. It is located on Municipal Drive next to the Township building. There are approximately 23 acres in the park. Facilities include four ball fields (two upper ball fields and two lower ball fields), picnic areas, a playground, and a walking trail. The ball fields each have a concession stand. There is also a wood gazebo and two picnic pavilions. The public can rent the pavilions for a fee of \$125, with a deposit return of \$25 with compliance with rules and regulations. The playground equipment consists of a slide, playhouse, and tunnels. Attached to the municipal building there is also a community building, which is available for a fee of \$200, with a \$25 refund for compliance with rules and regulations. Currently, the park facilities consist of the following:

❖ Lower Area

1. 2 baseball fields with dugouts
 - Concession stand
 - Announcer's booth
 - Bleachers for each field
 - Dirt infill, no grass infield
2. Picnic pavilion
3. Playground with:
 - 2 swing sets
 - Merry-go-round (out of compliance)
 - Monkey bars (out of compliance)
 - Metal slide (out of compliance)
 - New play equipment with fall-safe material
4. 3 basketball courts
 - One fenced in and in good condition
 - Second one unfenced and in acceptable condition
 - Third one is in poor condition with overgrowth and broken pavement and no hoop net
5. Limited number of trash receptacles

6. Sand volleyball court in need of better boundary distinctions
 7. Batting cage
 8. Gravel drive which dead ends
- ❖ Upper Area
1. Gazebo in good shape
 2. Walking trail
 3. 2 baseball fields
 - No dugouts
 - Bleachers for each field
 - Concession hut
 4. Swingset

In addition to these facilities, the South Franklin Township also maintains 3.719 acres of ball fields on Walker Lane.

State Game Lands #245

The Commonwealth of Pennsylvania, under new State Game Lands use regulations (which went into effect on February 1, 2003), designates routes for non-motorized vehicles. Under the new regulations, anyone who rides a non-motorized vehicle, conveyance or animal on State Game Lands must do so only on designated routes. Such riding activities will not be permitted, except on Sundays or on roads open to public travel, from the last Saturday in September to the third Saturday in January, and after 1 p.m. from the second Saturday in April to the last Saturday in May. This does not apply to anyone lawfully engaged in hunting, trapping or fishing on State Game Lands. There are two designated routes within State Game Lands #245, which is located in the southern portion of South Franklin Township (<http://www.pgc.state.pa.us/>).

The first route is approximately 1 1/3 miles in length. This designated route begins at the first gated internal Game Land Road on the south side of Quaker Ridge Road in Morris Township when entering from the east. This route follows a Game Lands road approximately 1 1/3 mile to a Game Lands parking lot on Craft Creek Road.

The second route is approximately 3.5 miles in length. This designated route starts on the north side of Quaker Ridge Road and begins at the first parking lot after entering the Game Lands from the east. This route follows an internal road north to Game Land Road where it will pass another game land parking lot and will continue back down an interior road where it will end at a second parking lot on Quaker Ridge Road approximately 1/4 mile west of the parking area at the beginning.

State Game Lands #245 has a shooting range, which has facilities suitable for rifle practice, with 6 firing points at 100 yards. Currently, it is not equipped for handgun shooting. The ranges are open year-round, from 8 a.m. until sunset, except for Sunday mornings.

Lone Pine Country Club

Lone Pine Country Club is a premiere golf course that provides not only valuable recreational amenities to members but also adds greenery to the landscape (<http://lonepinecc.com/index.html>). Currently Lone Pine is a

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members-only course and country club. In addition to the course, there is also a golf shop and restaurant/lounge called the Grill Room. There are four levels of membership: Full membership (age 35+), Intermediate membership (Under 35), Social membership, and Limited/Non-Resident membership.

The original 18 holes were built in 1969, designed by Xenophon Hassenplug. The 12-acre practice facility complex consists of three large manicured and grassed tees; a practice sand trap; two practice putting greens; and a unique short game area complete with a practice pitching green.

Lone Pine changed from a golf course to a country club in January of 2006 in anticipation of the extras it will offer because of the development of Lone Pine Estates, which will include a swimming pool and exercise facility. Residents will be granted access to these facilities and will enjoy discounted rates for membership.