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Introduction

The Comprehensive Plan for Chartiers Township should ideally be the first product for the continuing foundation of the comprehensive planning process. A comprehensive plan should not only examine past land use and socioeconomic trends but should serve as a blueprint and future course of action for the Township to proceed over the next decade. Comprehensive planning presents an organized way or process of thinking about tomorrow. A comprehensive plan is a statement of a community's objectives for the future and its policies for attaining these objectives. The plan, once prepared and adopted, should be periodically reviewed and, if necessary, refined and should serve as an overall policy guide for the development of a municipality. It should be based on a statement of the community goals and objectives developed with the awareness of the natural, social and economic features of the community and the larger region in which it sits. An important power of local government is to plan for and guide the way land resources are used. All valuable resources must be used reasonably, economically and equitably to benefit both the property owner's interests as well as the general public. Typically, the local planning commission develops and recommends the plan to the governing body, which in turn adopts it by resolution as the basis for enactment of implementing ordinances to control and guide land use. The Comprehensive Plan then should be used as the starting point for a community development strategy.

In conceptual terms, the plan is an expression of the community's vision of the optimally desirable pattern of development at some specified time in the future. It is not intended to, nor could it, anticipate the numerous details and day-to-day decisions which, over an extended period of time, may produce adjustments to the course as originally set. The plan should, however, establish basic policy guidelines for the evaluation of decisions on land use, community services and related development issues. For a comprehensive plan to be a valuable tool in the decision-making process, it must balance the fundamental character and desires of the community against the necessary flexibility to adapt to changing current conditions.

Goals and community development objectives represent an important part of the plan and are a required section of any zoning ordinance. Community development goals and objectives should be the end product of a public planning process. They are developed primarily on the basis of the constraints, opportunities and needs made about the future in the background studies. In addition to being a statutory requirement, they should not only guide the policy decisions made in the

development of the plan, but may also be closely examined by the courts for intent should land use decisions be challenged. Objectives should be supported by sufficient analysis and documentation to defend the zoning or other land use ordinances of the community against legal challenges and charges of arbitrariness or unreasonableness. Preparing a comprehensive plan provides the most effective basis for the development of land use ordinances and provides documentation of why a municipality enacted certain restrictions. The plan and its objectives should serve as a guide during any decision-making process and as a basis for governing the future growth and development of the Township. The primary tools used by most municipalities to implement the comprehensive plan are the land use ordinances commonly devised as the subdivision and land development ordinance and the zoning ordinance. Codes can therefore be a vital link in achieving the goals of the comprehensive plan.

The legal aspect of the comprehensive planning process is devised in the Pennsylvania Municipalities Planning Code (MPC). While adopted by resolution of the governing body, the Board of Supervisors, the comprehensive plan is not an ordinance nor is it self-enforcing. Plans depend on zoning and other land use ordinances for their implementation. It is also intended that the plan provides a logical basis for the zoning ordinance. Article III of the MPC focuses on the comprehensive plan and section 301 sets up its preparation and basic elements. Basic elements of the comprehensive plan as devised by the MPC include: a statement of objectives of the municipality concerning its future development, a plan for land use, a plan to meet housing needs of present residents and of those individuals and families anticipated to reside in the municipality, a plan for the movement of people and goods, a plan for community facilities and utilities, a statement of the interrelationships among the various plan components, a discussion of short- and long-range plan implementation strategies, a statement indicating the relationship of the existing and proposed development of the municipality to the existing and proposed development and plans in contiguous municipalities and A plan for the protection of natural and historic resources. Through the MPC, the governing body has the power to adopt and amend the comprehensive plan. "In reviewing the proposed comprehensive plan, the governing body shall consider the review comments of the county, contiguous municipalities and the school district, as well as the public meeting comments and the recommendations of the municipal planning agency." (MPC, Article 111, Section 302)

The history of comprehensive planning process in Chartiers Township began approximately thirty-five (35) years ago. On December 1, 1974, the planning firm, Selck- Minnerly AIA transmitted the Chartiers Township Comprehensive Plan and Zoning Ordinance to the Chartiers Township Planning Commission. These documents comprised the total Comprehensive Plan and contained the basic

and detailed planning policy statements, the physical plan, implementation procedures and recommendations, a capital improvements program, and the zoning ordinance and map. It was recommended even then, “if the Township is to enjoy the benefits of long-range comprehensive planning, there must be a strong and positive local commitment to the plan and its related goals and objectives”. A renewed commitment to this process was completed again some twelve (12) years later with the second Comprehensive Plan for the Township. In December of 1998, the third Chartiers Township Comprehensive Plan was adopted. These documents will be referred to throughout this latest comprehensive planning endeavor as the “previous Comprehensive Plan(s)”. In part, many of the previous goals mirror the goals of the Comprehensive Plan today:

The overall goal of the comprehensive plan is to provide guidelines for the future development of Chartiers Township that are in accordance with the views of the Township’s governing body and residents. On this basis, the plan endeavors to present guidelines that are designed to initiate and sustain growth and development over an extended period of time. This does not indicate the encouragement of unrestrained and unregulated growth. Such a policy may produce some short-term benefits associated with the influx of capital into the community. However, if the Township wishes to attract quality development with long-range growth potential, land use patterns and development criteria must be carefully defined to protect community land values...The presence of a zoning and land development codes that protect property owners and is enforced strictly but fairly shows concern on the part of the Township for these values. With these ideals in mind, the goals and objectives toward which the comprehensive plan is aimed are as follows: To promote balanced growth of residential, commercial and industrial land uses in the Township. (1986 Comprehensive Plan)

Even today, to keep growth in balance is the best way for a municipality to continue to grow and flourish as a community with a solid tax base, good facilities and services, a stable employment base, commercial and recreational opportunities and an overall sustained high quality of life.

Any community planning should be a public process and successful community planning comes from citizen participation. A Township survey was conducted in November of 2007 to gain insight into the opinions, desires and needs of the residents of the Township. The responses to this survey are attached in the appendices of the plan. The survey results are referred to throughout the plan as a means of gaining community input. Additionally, in September of 2007, the Chartiers Township Planning Commission began the comprehensive planning process through a visioning session for the future of the Township. Community visioning is a strategic planning process by which residents envision their community’s desired future and develop the insight and means to achieve that future. Ideally, this process brings the community together as people recognize their shared values and purposes; creates a sense of ownership for the residents and serves as a foundation for the plan. The product of these discussions is a vision statement reflecting the values and identity of the community. This short statement describes what resident’s value about their community and how they would like their community to look in the future. This vision was developed throughout the comprehensive

planning process and a public Visioning Workshop was held in April of 2008. The vision for the Township was developed as follows:

Vision Statement: Chartiers Township is primarily a residential and rural community with a small-town atmosphere. The Township strives to provide progressive and forward-thinking leadership with a high level of municipal services and quality of life. It is accessible within the regional transportation network and encourages selective and controlled residential development and location-friendly commercial and industrial site development to provide solid employment opportunities to the community. The Township's objective is to maintain and preserve existing neighborhoods and agricultural uses while promoting a balanced growth of infrastructure and development. It promotes positive community involvement through a variety of social and recreational opportunities.

The Comprehensive Plan is comprised of the following sections including: History of the Township, Demographic Profile of the Township, Physical Environment and Natural Resources, Housing, Community Services and Facilities, Transportation, Parks, Recreation and Open Space, Economic Development and Land Use. Each of these sections focuses on past and current information as it applies to the major heading, which leads to a general goal under that heading. From these goals, objectives have been set as a result of input from the citizens of the Township, the Board of Supervisors, Township staff and the Planning Commission. The goals and objectives contained in this plan should represent the best interests of the residents in the area and their desire to preserve Chartier's unique character and quality of life. Each term can be generally defined as follows:

Goal: A goal is an ideal or optimally desired future state yet is abstract and is not easily quantifiable.

Objective: An objective is a more specified and detailed commitment that sets how a goal can be met.

Planning for the future growth and development of the community is the responsibility of the governing body and the planning commission. The comprehensive plan is the first step taken to carry out this responsibility. After a municipality adopts a comprehensive plan, there is a tendency to put the plan away and to consider the planning task complete. This is not and should not be the case as this plan should be the basis for the future direction of the Township. Following its adoption, the Board of Supervisors has a sound basis upon which to base the plan implementation activities. In addition to codes, other recommendations are made within the plan that will require other types of actions by the Board of Supervisors, Township Staff, Departments and Commissions. Local government should provide a framework for change. The comprehensive planning process represents a means of dealing with change to guide future growth and development. Without a framework or plan, the development process is reactive and can result in piecemeal uncoordinated

development. The Township can be better served by a proactive approach that addresses the Township's needs and opportunities in the future. The implementation of the community development objectives is the only way the plan can be successfully utilized for the good of the Township. The plan must have the support, understanding and cooperation of the citizenry, the Planning Commission, the Board of Supervisors and Township leadership to chart Chartiers Township's course into the future. (Pennsylvania Governor's Center for Local Government Services publication, *"The Comprehensive Plan in Pennsylvania"*)

Section I: History of the Township

1.3 Origins of the Township

As Chartiers Township updates its Comprehensive Plan, it is fitting to reflect on the Township's unique history, which is filled with events of a regional significance to Southwestern Pennsylvania. The historical character of Chartiers Township has been significantly influenced by its agricultural history, its natural resources such as coal and oil, and its location along major transportation routes. Chartiers Township is located in Washington County, Pennsylvania. The County was formed from part of Westmoreland County during the Revolutionary War period on March 28, 1781. It was the first County formed after the signing of the Declaration of Independence. The new County was quite large and contained what would later become Greene, Allegheny and Beaver Counties. (Washington County Comprehensive Plan, 2005)

Chartiers Township was erected by the Washington County Court of Quarter Session from the southern part of Cecil Township on March 23rd, 1790 with a petition from the inhabitants residing in its boundaries. The bounds of the Township were reduced in 1791 by the erection of Canton Township and Mt. Pleasant Township in 1808. After some adjustments, the Township has maintained its current boundaries since 1863. (Crumine, 1882) The name "Chartiers" is that of a French-American trader, Pierre Chartiere, anglicized to Peter Chartiers, who in 1743 came to the territory from Philadelphia and established a trading post on the stream now known as Chartiers



Creek. Peter Chartiers was the son of Martin Chartiere, a glovemaking from Philadelphia. Peter was licensed by the English court in Lancaster County in 1730 to trade with the Indians in this area. (Knestrick, Observer Reporter 11/23/68) The emergence of the Chartiers Valley Railroad and then the local interstate highways

mitigated the creek's use for transportation but its significance at the end of the 18th century is demonstrated in the name for the Township.

Colonel James Allison settled in the Township in 1774 as one of the first settlers on Chartiers Creek. He and his family were one of the twenty families who came to this area in that year, among whom were the Scotts, McDowells, Parks, Morrisons, Struthers, Norrises, and others. (Crumine, 1882) At this time, there was navigation on Chartiers Creek. The United States Congress declared this creek as navigable and in fact some local entrepreneurs used it as a point of shipping flour to New Orleans. (Funk, Observer Reporter, 6/29/2003) Colonial John Cannon, the founder of Canonsburg, loaded two boats with flour from his mill and shipped them to New Orleans via Chartiers Creek and the Ohio River. In 1793, the state legislature declared “Chartiers Creek a public highway for boats and rafts”.

When coal was discovered in Washington County in the 1880’s it was shipped down Chartiers Creek to the Ohio River in times of high water. Coal had also become one of the main products of Chartiers Township, and continued to be so for many years. Bituminous coal was first discovered in Washington County on the James Allison tract in about 1800. It was mined for a long time for domestic use and for blacksmith purposes at twenty-five (25) cents a bushel. By 1876, twenty (20) or more coal banks could be counted and with the coming of the railroads, mining became a big business. (Knestrick, Observer Reporter, 11/23/68) The wealth of coal drew interest in the Township for its solid employment opportunities, though the work could be dirty and dangerous. Soon the extraction and transportation of coal became more advanced and the need for workers escalated. Mining was the chief occupation, with mines in the Meadow Lands, Richhill, Arden, Midland and Westland areas. Early towns were Arden, Meadow Lands, McGovern, Shingiss, McConnells Mill and Gretna.

In 1850, the Township’s population was 1,677 persons and by 1900 it was 2,141 persons. In 1834, the Township was divided into seven districts, and in 1836, comfortable school houses were erected in each district. School funding in 1836 was \$876.15, but had decreased in 1837 to \$696.62. (Crumine, 1882) By 1880, there were ten districts with ten teachers and 369 students, and in 1908, there were twenty schools and 830 students. Average salary for a teacher was \$57.50 (males) and \$48.00 (females) in 1908. The Township began building its own highschool in the early 1940’s. Chartiers and Houston formed a jointure and the Chartiers-Houston School District had its first graduating class in 1956. (Herron, Jefferson College Times, “Houston High School”) By the 2005 and 2006 school year, Allison Park Elementary and Chartiers Houston Junior/Senior High School had 1188 students. (CCD Public School Data)

1.2 Significant Historical Sites and Events

Chartiers Township has been the site of significant historical events over the past three hundred years. The “Concord Coaches” stage coach line ran through the Meadow Lands on the Pittsburgh and Washington line, which function was later replaced by Chartiers Valley Railway, also located in the Township. The Chartiers Valley Railroad Company was begun in 1830 and was the second railroad project of its size in the United States. (Funk, Observer Reporter, 9/29/2004) The Railroad Company started to build rail lines from Pittsburgh in 1857, to Canonsburg in 1869, and finally to Washington in 1871. This railroad brought a great change in the valley as coal mines were opened and farmers could ship their produce and milk to Pittsburgh, and many other kinds of trade were carried over the new railroad. (Knestrick, Observer-Reporter, 12/16/68)

In 1886, Ewing Pump Station was erected by the Southwest Pennsylvania Oil Company and was located in the Meadow Lands. It pumped about 50,000 barrels of oil per day, to and from different points within a radius of thirty-five miles. (Connors, 1998) The total tankage stored at the station was about 2,409,000 barrels, contained in seventy tanks. On June 23rd, 1908, two 50,000 barrel oil tanks were struck by lightening. One tank exploded sending thousands of barrels of burning oil floating down Chartiers Creek, killing all vegetation and trees along the stream for a mile. The town was in danger of destruction by fire.

In 1911, the Washington County Fair Association was chartered, and the first fair exhibition was held at Arden Downs in the Township. The Hagan Stock farm at Arden was chosen to be purchased as the fair’s location due to its excellent race track. The farm had been used for training and racing horses, with complete facilities for horse boarding year round. The principal attraction of the fair at that time and for years to follow was this racing track. The fair has expanded over the years drawing thousands to view its agricultural events and exhibits and for traditional fair rides, entertainment, games and local food. Other events are also located at the fairgrounds throughout the year. The Washington County Fair has continued through the century as a growing and flourishing enterprise and continues as a showcase for the region’s agricultural enterprises.

The site of the Pennsylvania Trolley Museum is also located in the Township on the former Pittsburgh Railways Company’s trolley line to Washington, which was abandoned in 1953. This trolley system served as an important link for the South Hills of Pittsburgh and Washington County residents who traveled for work, shopping, and recreation. The Pennsylvania Railway Museum Association purchased a 2,000-foot section of railway line of the Pittsburgh Railways Company’s abandoned Washington interurban trolley line from Washington to Pittsburgh near the Washington

County Fairgrounds in Chartiers Township. On February 7, 1954, the museum's first three cars were moved to the site. The museum was opened to the public in June 1963, providing visitors with short demonstration trolley rides and an informal tour of the car house. Since then, using mostly volunteer help, new cars and facilities, including the Visitor Education Center, Museum store and Trolley Display Building, have been built and more than thirty (30) cars are on display to the public. Today a “spur” off the original section of trolley track has been built across the road to the County Fairgrounds to allow visitors to experience a ride on a restored trolley for a scenic 4-mile ride.



The Pennsylvania Trolley Museum exceptionally preserves the historical significance of this once-vital form of transportation through the region.

In the early 1950's, a one-room office building with garage was constructed for a municipal building. In 1993, the Board of Supervisors entered into a building project to renovate the existing Township Building and garages into administrative offices, tax offices and Police Department, and to raze a portion of the Fort Pitt Fixture Building to make room for a new meeting center and parking lot. The remaining section of the Fort Pitt building was steel-sided and houses the Public Works Department.

1.3 Present and Regional Setting

An important aspect of this Comprehensive Plan is to identify the key regional relationships that influence Chartiers Township and to determine the implications of these relationships for the future of the community. An understanding of a community's regional setting is important to the comprehensive planning process because it identifies the factors that influence the character and land use patterns of that community within the larger county and region. Regional relationships include social and economic ties as well as the provision of services such as transportation, schools, water and sewer service.

Chartiers Township is a 24.53 square mile municipality located in central Washington County, five (5) miles north of the City of Washington and twenty-five (25) miles southwest of the major metropolitan area of Pittsburgh. The Township is bordered on the northwest by Mount Pleasant Township, the northeast by Cecil Township, the east by Canonsburg Borough, Houston Borough and North Strabane Township, the southeast by South Strabane Township and the southwest by

Canton Township (see appendix, Regional Map). Along its southeastern border runs Chartiers Creek separating it from North and South Strabane. Regional access to the Township is provided by Interstate 79 with exits on to Route 519 and Racetrack Road and through Route 18. The Township is governed by a Board of Supervisors, with the assistance of municipal staff and Commissions, such as the Planning Commission and Zoning Hearing Board. The Chartiers-Houston School District services the educational needs of the Township in addition to the residents of Houston Borough.

Chartiers Township can be categorized as primarily a residential and agricultural community. Many seek rural parcels in the Township for the keeping of private horses, and farming is still a viable enterprise. There are many post World War II housing developments along with new residential developments, making it an attractive, well-maintained 'bedroom community'. A bedroom community can be defined as an area in which most residents live but do not work, similar to a "suburb" or an area that has a much larger residential presence than commercial. Residential development pressures have increased from nearby growth areas such as Peters Township, North and South Strabane and Allegheny County. New residential development in the Township over the



past ten years includes Arden Mills, The Ridgeview Plan and The Summit. Despite this, much of Chartiers' nearly twenty-five (25) square miles is still rural in nature. Together, this combination of suburban and rural lends the Township a uniquely hometown character. Most suburban development in the Township has and will occur on agricultural land and/or on wooded sites, both of which help establish the

character of the Township. If this kind of development is not carefully managed, not only will the character of the Township be drastically altered but other Township resources, both natural and cultural could be jeopardized.

The Meadow Lands is home to most of the commercial establishments in the Township. There are a number of light industrial sites between the Washington County Fairgrounds and Chartiers-Houston High School. Throughout the 1970's and 1980's the region suffered with the loss of traditional mining and manufacturing employment base. As some of these mining and industrial enterprises in the Township have closed, new industry has located in the Township, one such example being the Bucyrus National Headquarters. The Arden Landfill is located in the Township

and the Department of Environmental Protection has issued a major permit modification to Arden Landfill Inc., authorizing an expansion of the existing municipal landfill in Chartiers Township from 280 acres to 434 acres. Historically, the Township is best known for the two important cultural amenities of the Washington County Fairgrounds and the Pennsylvania Trolley Museum. These two resources and the events held at them should be utilized to promote the Township in the region.

Chartiers Township's resources and convenient location in the regional transportation network will likely attract increased development pressures. The Township's proximity to the retail development along Route 19/Interstate 79 from Allegheny County and the substantial development of the North and South Strabane corridor with Trinity Point, the Foundry, the Meadow Lands Racetrack and Casino and the Tanger Outlets will have a significant impact on the community in the upcoming years. The easy access and proximity of these employment and commercial activities will make the Township even more attractive as a place to reside. These centers provide employment, shopping and cultural opportunities, while their proximity will continue to place growth and development pressures upon the Township. The availability of land in the area will act as impetus for the attraction of development in the community. The lack of water and sewage service in many areas will be one of the few impediments to this growth.

Chartiers Township is now more than ever an attractive location for new residential, commercial and industrial enterprises. The Township has always been an important part of the social, agricultural and business enterprise in the region, and this legacy can be built upon for a solid future. Faced with development pressures, the Township is at an important juncture; development is necessary to provide homes and new employment opportunities, while it must be controlled to maintain a functional and attractive community. Sensible development should balance the economic, social, and land use priorities of the community and should enhance the quality of life for residents and businesses alike. As the Township moves forward into the next century, growth must be controlled in a desirable and sensible manner to ensure the livability of the Township for generations of residents to come.

Section II: Demographic Profile of the Township

2.1 Background

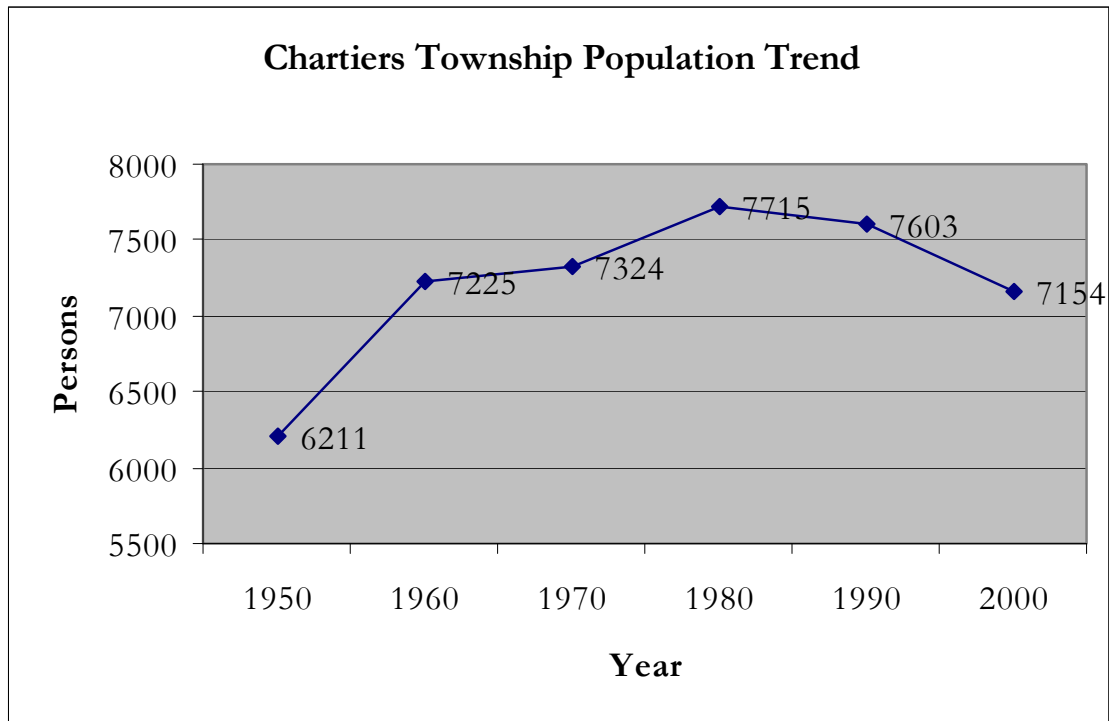
In this section of the plan, the demographics of the population of Chartiers Township will be examined. Demographic patterns are important to analyze when developing a comprehensive plan in order to examine past trends, present status and anticipated future demands. Unless otherwise noted, all data is primarily compiled from the United States Census Bureau and, in particular, the decennial Census over the past thirty years. Characteristics that will be reviewed include population, age, race and household information. In subsequent sections, other census information will be used to examine housing, income and transportation. There is a strong interrelationship between the Township's demographic composition and the elements of the Comprehensive Plan including land use, housing, transportation and recreation. This analysis provides the basis for future planning efforts for the service needs of the community's residents. The information that can be gained from the Census is invaluable to show what is happening precisely with the demographics of the population of the Township. As stated in the 2005 Washington County Comprehensive Plan, "Examining the population... will offer an insight into what elected officials will need to address regarding future infrastructure decisions and service demands." This examination will also include information relating to Washington County, contiguous municipalities, the Commonwealth of Pennsylvania and the United States, which can provide a local, regional and national comparison and lends additional context to Chartiers Township's demographics.

2.2 Population

The total population for Chartiers Township as of the 2000 U.S. Census was 7,154 persons. There are 3,436 males, equaling 48% of the population, and 3,718 females, equaling 52% of the population. The larger percentage of females in the population can typically be attributed to a higher life expectancy in women. The 2000 population is down from the 1990 population total of 7,603 persons and the 1980 population high of 7,715 persons. The 2006 population estimate, according to the US Census Bureau for Chartiers Township, is 7,228 persons. The 1960 population was reported at 7,225 persons and had grown to 7,324 by 1970. Chartiers Township had enjoyed this moderate rate of growth up until the 1980's. Though the Township experienced a population decline over the past two decades, this trend is likely reversing or soon to reverse with current population estimates and moderate population growth is likely to be expected, once again. The changing nature of the

population since 1950 in Chartiers Township can be seen in Graph 2.1.

Graph 2.1: Township Population since 1950



Chartiers Township's steady growth up until the 1990 Census can be attributed to the availability of cheap labor, land and natural resources during the last century, and as a result, the increase in industries locating to the area. The construction of I-70 and later I-79 further stimulated growth in the region. In the 1974 Comprehensive Plan, the Township was predicted to experience approximately a thirty (30) percent increase in its population by the end of the next century. "It is quite conceivable that an even greater growth rate may occur in the future as the various expressways are completed; the projected population of 9,300 for the end of the century may very well be quite conservative." (1974 Comprehensive Plan) Growth in the area proved to be much more insignificant than predicted and by 1990 and 2000, Chartiers Township actually experienced a population decline. One factor in the decline can be attributed to 'empty nest syndrome', as suburban communities that experienced heavy growth in the post-World War II era of the 1950's and 1960's, declined in the next thirty (30) years as the children of the Baby Boom generation, those persons born between 1945 and 1964, grew up and left these communities. Actual percentage change in population from 1960 can be shown in Table 2.1.

Table 2.1: Chartiers Township Population Percent Change

Year	Population	Percentage Change
1950	6,211	3.8%
1960	7,225	16.3%
1970	7,324	1.4%
1980	7,715	5.3%
1990	7,603	-1.5%
2000	7,154	-5.9%

*US Census Data

From the above table, it is evident that the last period of significant population growth in Chartiers was the 1950's though the 1970's experienced a steady increase. The decline of the past two decades can also be attributed to the aging population in Chartiers in combination with fewer people locating to the area.

2.5 Age

With the aging of the population, lower birth rates and higher mortality rates can be expected. Birth rates, mortality rates, and migration are the three factors that influence population growth and decline, and with an older population, two of these factors are drastically affected. This trend was noted in the 1986 Comprehensive Plan, "A closer breakdown of the population by age reveals a trend, which must be reversed if this growth is to continue; that trend being the rapid aging of the population of Chartiers Township. While this is a nationwide trend, in Chartiers Township the problem is particularly acute." Percentage of the total population in the various age brackets further exemplifies what is causing this aging. The changing nature of population in various age brackets can be seen in Table 2.2.

Table 2.2: Chartiers Township Population from 1980-2000 by Age Cohort

Age	1980	1990	% change from 1980- 1990	2000	% change from 1990-2000	Total Percent Change from 1980-2000
0-4	396	429	4.8	331	-22.8	-.16.4
5-9	492	453	2.0	415	-8.4	-15.7
10-14	632	457	-32.1	464	1.5	-26.6
15-19	686	431	-38.2	381	-11.6	-44.5

20-24	515	380	-28.2	277	-27.1	-46.2
25-34	998	1107	12.1	745	-32.7	-25.4
35-44	965	1110	21.0	1,147	3.3	3.3
45-54	920	929	-5.3	1,037	11.6	12.7
55-64	1014	841	-17.5	846	0.6	0.6
65-74	667	855	28.2	739	-13.6	10.8
75+	434	611	40.8	772	26.4	77.9

* US Census Data and Southwestern Pennsylvania Commission

From the above table, it is apparent that the demographic makeup of the Township is changing. By looking at the percentage change from 1980-2000 in the 0-4, 5-9, and 10-14 age groups, one can see a dramatic decrease in the number of children being born in Chartiers. When one looks at the 15-19, 20-24, and 25-34 age groups, there is even a more substantial decrease in residents in these age cohorts. It can be inferred that young people are leaving the Township for education, employment or other opportunity. The decrease in these age cohorts also affects the number of children being born in the Township, as these are the prime child-bearing years. The middle age cohorts from 35-44, 45-54 and 55-64 are somewhat stable, so it appears that once a resident selects the Township as a residence, they tend to stay through these years. The amount of residents 65 and older had substantially increased since 1980, and from 1990 Census data, it can be noted that this trend is still significantly occurring with the 75+ age group.

Median age, which can be traced over time and in contrast to larger reference areas, can accurately show the significance of the aging population in Chartiers. Median age in the Township is contrasted with reference areas in Table 2.3.

Table 2.3: Median Age 1970 – 2000 in Contrast to Reference Areas

	Chartiers Township	Washington County	Pittsburgh SMSA	Pennsylvania	United States
1970	31.6	32.3	31.9	30.7	28.1
1980	36.4	33.3	33.3	32.1	30.0
1990	39.9	37.5	34.6	35.0	32.9
2000	43.5	42.4	37.9	39.6	36.4
% change since 1970	37.7%	31.3%	18.8%	29.0%	30%

*US Census Data

From looking at Table 2.3, it can be noted that the median age is increasing in the Township. The percentage change in age since 1970 in the Township shows that Chartiers has been the fastest aging population in comparison to the county, state and nation of which it is a part. People nationwide are living longer than ever. The population is growing increasingly older due to the maturing of the Baby Boomer generation, lower fertility rates and increased life expectancy. These median ages are the highest they have ever been in history.

Percentages of the total population in the various age brackets can be summarized by showing the shifts in major age segments: those under the age of twenty, the working-age bracket from age 20-54, and the segment of the population over the age of 55. The shift in each age segment can be seen in Table 2.4.

Table 2.4: Age Brackets and Percentage Change 1970 - 1990

	% under 20	% 20-54	% 55 and over
1970	36.7	44	19.2
1980	28.6	44	27.4
1990	23.3	46.4	30.3
2000	22.2	44.8	32.9

* US Census Data

To summarize, the decrease in the percentage of those under the age of twenty and the increase of those over the age of 55 accurately depicts the aging of the population in Chartiers. This is concurrent with national trends, yet will affect Chartiers particularly acutely with its already aging population. Senior citizens are the fastest growing age group in the Township. Because of this, there should be a concerted effort by the Township to address their specific needs and interests. Programs such as handicapped accessible transportation and convenient medical and emergency services can provide a significant improvement in the quality of life for senior citizens. Since the aging trend is likely to continue for the next ten (10) years, special activities and programs should be established to ensure the quality of life for seniors in the Township. Accessible education and recreation programs can benefit and be utilized by all Township residents regardless of age.

2.6 Race

The racial composition of Chartiers Township is primarily homogenous with 95.9 percent of the population identifying themselves as white. The next largest racial group is African American at 4.0 percent, Native American at 0.4 percent Asian 0.2 percent, and 0.2 percent reporting as another race.

These racial statistics are concurrent with Washington County but not necessarily with the Commonwealth of Pennsylvania or the United States as one can see in Table 2.5.

Table 2.5: Chartiers Township Racial Composition

	White	African American	Native American	Asian	Another Race	2 or more races
Chartiers Township	95.4	3.7	0.1	0.1	0.1	0.6
Washington County	95.3	3.3	0.1	0.4	0.2	0.8
Pennsylvania	85.4	10	1.8	0.1	1.5	1.2
United States	75.1	12.3	1.0	3.6	5.5	2.4

*US Census Data

2.5 Household Characteristics

The types of households in the Township are evolving. The number of persons per household is declining. In 1990, the average persons per household in the Township was 2.57. By 2000, the average household size was 2.45 persons. Smaller household sizes reflect the rise in single person households, empty nesters and the decrease in the number of children and percentage of families without children. This can result in more housing units and land being needed to accommodate the same number of people. Traditional family models are changing, as one can see in Table 2.6.

Table 2.6: Household Characteristics 1990-2000

	1990	Percent	2000	Percent
Total Households	2,851	100.0	2,814	100.0
Family households	2,199	77.1	2,005	71.3
Married-couple family	1,842	64.6	1,641	58.3
Female householder, no husband present	271	9.5	257	9.1
Non-family households	652	22.9	809	28.7

Householder Living alone	602	21.1	707	25.1
Householder 65 years of age and over	302	10.6	373	13.3

*US Census Data

The above table shows that less people are living in family and married-couple households while non-family households are increasing. The US Census defines a household as all the people who occupy a housing unit as their usual place of residence. Household occupants can be classified as either 'family' or 'non-family'. Family households include a householder and one or more other household members who are related to the householder by birth, marriage or adoption. Non-family households are defined by the Census as a single household or a group of unrelated people living together in a household. There is also an increase in the number of single person households and householders that are over sixty-five (65) years of age. As stated above, one result of this can be an increasing demand for dwelling units and land for residential development. These trends are mirrored across the nation as a result of the changing structure of the family and the increase in non-traditional households. However, the majority of people in the Township still live in family households.

2.6 Regional Population Shifts

As stated earlier, Chartiers Township is bordered on the northwest by Mount Pleasant Township, the northeast by Cecil Township, the east by Canonsburg Borough, Houston Borough and North Strabane Township, the southeast by South Strabane Township and the southwest by Canton Township. The Township is at the crossroads geographically of some significantly, high-growth municipalities and areas with population decline. Washington County has had a moderate decrease in population since 1980, but some of these increasingly developing municipalities are adjacent to the Township. This can be demonstrated in Table 2.7, which looks at the population change from 1980-2000 of these contiguous municipalities.

Table 2.7: Contiguous Municipal and County Population Change from 1980-2000

	1980 Population	1990 Population	2000 Population	Percent Change
Washington County	217,074	204,584	202,897	-6.5
Canonsburg Borough	10,459	9,200	8,607	-17.7
Canton Township	10,311	9,256	8,826	-14.4
Cecil Township	8,923	8,948	9,756	9.3
Chartiers Township	7,715	7,603	7,154	-7.3
Houston Borough	1,568	1,445	1,314	-16.2
Mount Pleasant Township	3,612	3,555	3,422	-5.3
North Strabane Township	8,490	8,157	10,057	18.5
South Strabane Township	7,389	7,676	7,987	8.0

* 1986 Comprehensive Plan and Penn State Data Center

By looking at Table 2.7, one can see that significant growth pressures on the Township are occurring on the eastern bordering municipalities, including North Strabane, Cecil and South Strabane Townships. All of these municipalities are close to I-79 and/or have closer proximity to Allegheny County and its growth centers. Already built-up areas, such as Houston and Canonsburg Borough, experienced population declines as did the more rural Townships of Canton and Mount Pleasant. Chartiers already has experienced additional residential development and will continue to do so as the pressure to build new homes in the region continues. The Township's close proximity to the Meadow Lands Racetrack and Casino, the Tanger Outlets and the commercial development of Trinity Point and the Foundry will present additional development pressures. This growth has and will continue to happen; it is up to the Township to ensure that it occurs in a viable and controlled way.

2.8 Conclusion

The demographic profile provides an analysis of important characteristics of the population and will ultimately help inform this comprehensive planning process to establish a basis for planning decisions involving the development of Chartiers Township. It should be used to help establish guidelines for planning decisions involving the physical, economic and social development of the Township. If the Township is to remain a desirable place to live, steps must be taken to continue to offer those services and facilities desired by its residents. Not only



is Chartiers Township likely to experience moderate population growth in the future, but there could be an even greater demand for dwelling units and land with the decreasing household size. Given the rather large lot sizes usually associated with suburban development, this can impact the development of land use and the need for additional infrastructure in the Township, such as new roads or sewage service. Understanding the service needs of the resident population is crucial for the Township to make decisions regarding municipal services and facilities.

Paying attention to particular service needs and the corresponding ability of the community to financially support services will be instrumental in successful community planning by municipal leaders. Key issues demonstrated by the information analyzed in this section include:

- The changing trends of decreasing population; how to address potential new growth
- The number of young people leaving the Township
- The aging of the current population
- The substantial population growth in nearby municipalities

Data developed within the demographic section will be further discussed in the remaining plan sections, and the Comprehensive Plan's community development objectives should reflect many of the needs of the changing Township population. With proper foresight and planning, Chartiers Township will continue to be an attractive community to choose as a place to live.

Section III: Physical Environment and Natural Resources

3.2 Introduction

This chapter provides a description of Chartiers Township's environmental and natural features. Analyzing these significant resources which should be preserved within the Township is an important step in the development of the Comprehensive Plan. The environmental and natural features unique to the Township range from below surface bedrock to the treetops of woodlands. The pattern of development that has occurred over the recent centuries is the result of human activities which, to varying extents, have affected the range of natural and environmental characteristics. For planning purposes, the most relevant are geology and soils including mining, topography, surface waters (i.e. Chartiers Creek and wetlands) and floodplains and woodlands. They contribute to the Township's attractiveness, add value to its surrounding environment, and sustain its livability.



To guide the orderly and efficient growth of the Township, it is essential that the appropriate features of the natural environment be delineated, and that this information is integrated with all planning strategies. The purpose of this section is to provide a practical compilation of all available environmental data as an aid to planning in the Township. It is essential to identify these resources and develop recommendations for their protection and conservation. In addition, the developmental limitations that exist because of the presence of natural features, such as Chartiers Creek Watershed, or anthropogenic sources, such as mine subsidence, are essential in the planning for the future development of the community. Information relating to this section of the plan has been utilized from the previous two (2) Comprehensive Plans for the Township, the 2005 Washington County Comprehensive Plan and the 2006 Washington County Greenways Plan.

As is the case with most of southwestern Pennsylvania, development in Chartiers Township has been governed to a large extent by the physical properties of the land it comprises. Topography, soils, watercourses and the presence of coal have all exerted significant influence on development patterns

and will continue to do so. The factors listed above, in particular, direct primary development of the region into the stream valleys, which often contain not only the flattest land but also the potential for easiest development of overland circulation routes. All of these factors have had and will continue to have their own unique effects upon land use in the Township. This section of the plan will explain these effects, and in turn, relate them to future development in the Township.

3.2 Geology and Soils

Bedrock geology is largely unseen, and as a result, its influence on natural features is not always acknowledged. However, the influence is both important and pervasive, for the bedrock is the foundation of an area and has a substantial influence on the formation of soil type. Bedrock, along with the hydrologic cycle, is responsible for the changes in elevation, steep slopes and location of watercourses. A physiographic province is defined as a region in which all parts are similar in geologic structure, climate, relief, and have a unified geomorphic history. Chartiers Township is located in the Pittsburgh Low Plateau Section of the Appalachian Plateau province. This province covers much of western and southwestern Pennsylvania including all of Greene and Washington Counties and most of the other counties surrounding the region. Numerous, narrow and relatively shallow valleys characterize this province. The uplands are developed on rocks containing the bulk of the significant bituminous coal in Pennsylvania. Much of this coal has been historically mined in the Township.

The geological formations underlying the Township can be broken into two groups: Permian and Pennsylvanian, and Pennsylvanian. Each of these groups represents a different time period in the Earth's geologic history. Both of these groups have cyclic sequences of sandstone, shale and limestone with the base of coal. The geology of an area should be considered for several reasons, including its relevance on the Township's topography and soils. Perhaps most importantly, the geologic characteristics influence the efficiency with which septic tanks can be utilized for sewage disposal. This can be critical in areas where residential development is occurring in unsewered areas of the Township. As of the 1990 US Census data, only 59.5 percent of households were served by public sewage. This information was not required in the 2000 Census but has remained somewhat stable from the 1990 Census.

The make up of the soils and geology of a region has a large impact on the suitability of a site or area for development. Soils are a natural assortment of organic materials and mineral fragments that cover the earth and support plant life. The composition of soil changes slowly over time, due to weathering of rock and activity of soil organisms. As a consequence, soils vary with respect to depth

of bedrock and groundwater, mineral characteristics, texture and erosion. Soils determine the ability of a site to absorb and filter the effluent from septic systems, the suitability for the construction of foundations or other types of structures, the cost of building roads and the appropriate type of landscaping. Soils usually vary throughout a given profile and are rarely uniform throughout a site. Soil testing to determine the soil's permeability, bearing capacity, and drainage should be conducted on every development site for suitability with every development project, whether residential, commercial or industrial in nature.

In terms of planning efforts, soils are important in determining the suitability of a site for on-lot sewage disposal systems, development opportunities, and areas of high agricultural productivity. As stated in the 2005 Washington County Comprehensive Plan,

Soil is produced through the interaction of five natural forces: climate, plant and animal life, parent material, topographic relief, and time. The degree and influence of each of these factors differ from place to place and influence characteristics of the soil. General knowledge of the soil associations within an area is useful for planning. These associations can provide background information for determining suitable land uses for land tracts. In addition, this information is useful for watershed management, forestland management and community development.

The Soil Survey of Greene and Washington Counties by the United States Department of Agriculture and the Soil Conservation Service in cooperation with other agencies was issued in 1983. According to the General Soil Map in this publication, Chartiers Township is comprised of three (3) main associations of soil. The large majority of the Township is the Dormont-Culleoka association. Along Chartiers Creek is the Dormont-Culleoka-Newark Association, and small sections on the very western tip of the Township and the eastern tip by the Boroughs of Houston and Canonsburg are the Guernsey-Dormont-Culleoka Association. Each association on the general soil map is a unique natural landscape with a distinctive pattern of soils, relief and drainage. Typically, an association consists of one or more major soils and some minor soils, yet it is named for the major soils. The information is for general use rather than a basis for decisions on the use of specific tracts. Features of the three (3) general soil types in the Township are shown in the below table:

Table 3.1: Chartiers Township Soil Associations and Descriptions

Soil Association	Description
Dormont-Culleoka Association	Moderately well drained and well drained, deep and moderately deep, gently sloping to very steep soils; on hilltops, ridges, benches and hillsides
Guernsey-Dormont-Culleoka Association	Moderately well drained and well drained, deep and moderately deep, gently sloping to moderately steep soils; on hilltops, ridges, benches and hillsides

Dormont-Culleoka-Newark Association	Well drained to somewhat poorly drained, deep and moderately deep, nearly level to very steep soils; on hilltops, ridges, benches, hillsides, and flood plains
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*Soil Survey of Greene and Washington County

There are also numerous and scattered areas of Prime Farmland Soils throughout the Township, as identified by the Washington County Conservation District. These areas have a mixture of soil and landscape attributes that are best suited for agricultural purposes and include soils such as Brooke silty clay loam, Culleoka silt loam and Glenford silt loam located in the Township. Prime farmland soils are deep, well-drained, and level or nearly level and/or moderately sloped soils. For the purposes of this Comprehensive Plan, an exhaustive inventory of Chartiers Township's soils is not necessary. Detailed information pertaining to soil capabilities for agriculture and building purposes is available at the Washington County Conservation District.

In the region of southwestern Pennsylvania, the primary concern with regard to soils is that of stability. The Township, however, is not among those with great problems in this respect. The soils of the Township, which are primarily silt loams, some containing a high concentration of shale, are generally quite stable. Only three (3) small areas of the Township are considered slide prone, provided that reasonable care is taken to control erosion and to stabilize newly created cut and fill slopes. The primary concern of Chartiers Township regarding soils is their suitability for construction and the use of septic systems. Only about 0.2 percent of the area of the Township is considered to be 'suitable' for septic systems while a further 6.5 percent is classified as having 'moderate' limitations. This leaves 93.3 percent of the Township designated as 'unsuitable' for use of on-site sewage disposal systems. The reasons for the unsuitability of the soils vary between soil types. Some, particularly the shaly silt loam, allow effluent to pass through too rapidly, providing inadequate purification. Alternatively, some of the soils percolate too slowly, necessitating the allowance of prohibitively large areas for tile fields. Still other soils contain water tables that on the average are not far enough below the surface to permit purification prior to the effluent mixing with the groundwater. (Chartiers Township 1986 Comprehensive Plan)

Since it is unlikely that the areas of the Township which are currently remote from sewer service will be connected to a public sewage system in the near future, development regulation must be tailored to allow for alternative sanitary systems in these areas. Currently, the Township zoning ordinance requires a larger minimum lot size in areas of the Township not served by public sewers. This practice should continue, perhaps with a modification to the lot size limitation allowed if a site is found to be

suitable for an alternative method of sewage disposal, such as a sand mound, or if a developer can provide a system which will serve the entire development. This particular option would be useful as a part of the regulations for a planned residential development. In the case where such a system would not be provided, it would be essential to have septic approval as an integral part of the subdivision process in order to determine which lot area regulations should be applied.

3.4 Topography and Steep Slopes

Currently, development in Chartiers Township largely follows the pattern of location based along the stream valleys. Development has, therefore, been largely confined to construction in areas with direct access to the main roads. One of the primary factors causing this pattern is the natural topography of the Township, particularly as it relates to the areas around the road system. Approximately eight (8) percent of the land in the Township is sloped at twenty-five (25) percent (4:1) or greater. Not only are slopes of this magnitude considered undevelopable by most engineering definitions, their position in many cases restricts access to useable parcels beyond them. These areas offer development constraints in two (2) forms. First, the soils on such slopes are generally very unstable and subject to erosion and secondly, there is difficulty in installing and maintaining infrastructure systems and utilities, such as roads and public sewers in these areas. While there are technical solutions to engineering problems encountered on slopes, it is generally advisable to avoid development of such land and to allow it to remain in a natural state. These areas can provide open space opportunities, preserving the scenic qualities of the community and providing passive recreation opportunities.

The slope and soils present on steep slopes must be in balance with vegetation, underlying geology, and precipitation levels. If these steep slopes are actively used or the vegetation is removed, the soils become prone to erosion. In time, the adjacent slope areas must be crossed by roads in order to reach developable upland areas. For this reason, further “ribbon” development must be controlled to prevent the upland tracts from becoming landlocked. One method of accomplishing this is to regulate the subdivision of roadside properties by requiring that a right-of-way to the rear properties be dedicated as a condition of subdivision approval. This method permits the use of roadside land while preserving the potential usefulness of the more remote lands. Land with slopes in excess of twenty-five (25) percent begin to cause serious problems for development. The relatively steep and narrow nature of the valleys also strengthens the possibility of destructive flooding, particularly flash flooding, since surface drainage from upstream areas enter and flows through the valleys quite rapidly. This condition is aggravated when development in the valleys increases the runoff rate and/or disrupts existing flow patterns. For this reason, development controls requiring an analysis of downstream runoff capacity are recommended.

A positive aspect of the existence of slope areas is that they can provide visual breaks between developed areas. Controls already exist in the Township zoning ordinance prohibiting development of areas averaging twenty-five (25) percent slope or greater, except for recreation, timber harvesting and single-family residential uses, and then only under stringent conditions. These controls should ensure the continuation of visual buffers on slopes as the Township continues to develop. Furthermore, the irregular nature of remaining developable land encourages and even necessitates creativity in layout of new subdivisions rather than superimposing the classic “grid” development pattern on lands in the Township. Land development regulation should recognize this fact and could possibly include incentives (such as modification of density requirements) for such creative design solutions. (Chartiers Township 1986 Comprehensive Plan)

3.4 Mining

Chartiers Township’s geologic history has been substantially impacted by underground mining activity. Approximately ninety-three (93) percent of Chartiers Township overlays the Pittsburgh coal seam, the remainder of the Township having a surface elevation below that of the coal outcrop in that area. The localities in which the coal seam is not present lie primarily in the vicinity of Houston, the Chartiers Run Valley, Allison Hollow, and along the lower section of Plum Run. Virtually all of the coal in the Pittsburgh seam under Chartiers Township has been removed by either surface or underground means. Areas which were originally mined by the room-and-pillar or other similar methods in the pre-World War II era have now been completely undercut since the advent of retreat mining techniques and the continuous cutter. Most of this mining took place prior to 1980, and records from the Pennsylvania Department of Environmental Protection (PADEP) California District Mining Operations Office, show that no underground bituminous mines are actively operating in the Township as of 2007.

Analysis of surface elevations and structure contours of the Pittsburgh seam indicates that eighty (80) percent of the land in Chartiers Township is less than 300 feet above the coal seam. This is the elevation generally recognized as the limit below which the potential exists for surface damage due to underground mine subsidence. The PADEP defines mine subsidence as the movement of the ground surface as a result of the collapse or failure of underground mine workings. By this criterion, only twenty (20) percent of the land in the Township can be considered as ‘safe’ from the possibility of subsidence damage: about seven (7) percent which is not underlain by the coal seam and thirteen (13) percent which is more than 300 feet above the seam. (Chartiers Township 1986 Comprehensive Plan) In active underground mining methods, subsidence can occur concurrently with the mining operation

in a predictable manner; however, in abandoned mines, it is virtually impossible to predict if and when subsidence could occur. According to the PADEP, if a site or area has been undermined, there is always potential for mine subsidence. Currently, no methods exist to accurately predict the probability of an area to subside.

In 2004, the PADEP announced a project to protect local homes from subsidence damage caused by the former Allison Mine in the Township. The project involved grouting a portion of the mine to reduce the risk of subsidence damage to approximately 328 homes above the abandoned mine. The project cost 3.4 million dollars and was federally funded by taxes paid by the active coal-mining industry on every ton of coal mined. The mine was operated by the Pittsburgh Coal Company in the early 1900's before it was abandoned and eventually residential development took place over the mine. In the 1980's the mine roof began to collapse, causing damage to the homes on the surface. Subsidence from the Allison Mine has been a problem for residents of this area for many years.

The Township, developers and landowners should be cognizant of the implication of mine subsidence, and funding regarding its controls should be sought to reduce the risk of subsidence when necessary. Any person proposing new development in these areas should be advised of this condition and should, as a part of the permit process, submit an analysis of the subsidence potential of the site based on the most current information available from the PADEP California District Mining Operations Office. Particular attention should be paid to areas adjacent to the coal outcrop line, since it is likely that these areas have been strip mined. Problems associated with this activity include inconsistent settlement of backfill materials, highly expansive soils, or acidic soils caused by dumping of mine refuse. In addition, current and future landowners should investigate the possibility of obtaining subsidence insurance.

3.5 Natural Gas

In Pennsylvania, organic-rich shales can be found in almost all of the Paleozoic systems and some of these shales are the sources of the crude oil and natural gas found in Pennsylvania's sandstone and carbonate reservoirs. One shale unit in particular, the Middle Devonian Marcellus Formation has recently received much attention in the nation's oil and gas industry and specifically in Washington County and Chartiers Township. In reality, the Marcellus has been a known gas reservoir for more than seventy-five (75) years. 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. 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. As a result of the combination of these higher prices, recent technological advances and the development of large gas resources from black shales in other parts of the country, the interest in Pennsylvania's organic-rich shales has risen to a fever pitch within the state's oil and gas industry making this otherwise difficult gas play economical.

Extracting natural gas from the Marcellus Shale formation requires horizontal drilling and a process known as 'hydraulic fracturing' that uses far greater amounts of water than traditional natural gas exploration. Drillers pump large amounts of water mixed with sand and other proponents into the shale formation under high pressure to fracture the shale around the well, which allows the natural gas to flow freely. Once the hydraulic fracturing process is completed, the used water, often referred to as "frac fluid," must be treated to remove chemicals and minerals. Pennsylvania's Marcellus shale play began in 2003, when Range Resources–Appalachia, LLC drilled a well to the Lower Silurian Rochester Shale in Washington County. The deep formations did not look favorable but the Marcellus shale had some promise. Range drilled some additional wells and through experimentation with drilling and hydraulic fracturing techniques borrowed and revised from areas in Texas, they began producing Marcellus gas in 2005. Since then, the company has permitted more than 150 Marcellus wells in Washington County alone.

Oil and gas exploration and drilling is regulated by state oil and gas laws. The DEP is responsible for reviewing and issuing drilling permits, inspecting drilling operations and responding to complaints about water quality problems. DEP inspectors conduct routine and unannounced inspections of drilling sites and wells statewide. A mineral lease is a private contractual agreement between the owner of the minerals and the producer (i.e. a drilling or mining company). DEP recommends that landowners who are contacted by companies wanting to purchase or lease mineral rights consult an attorney who is familiar with oil and gas law before signing any documents. Drilling companies must identify where they plan to obtain and store the water used in their drilling operations and where the used frac water is to be stored and treated as part of the drilling permit application process. The DEP has created additional permit guidelines that create consistent rules for water usage and disposal in all areas of the state to ensure that surface water quality is not threatened by drilling operations. When applying for a permit, drillers must specify the sources and location of fresh water and the anticipated impacts of water withdrawals on water resources.

Erosion and sediment control plan requirements under state law apply to any earth disturbance activities including oil and gas drilling (Pa Code Chapter 102). Earth disturbances of over five (5)

acres require a permit from DEP. Drilling operators must restore the land within none (9) months of drilling completion. Once a well is no longer producing, the operator must plug the well and restore the site within nine (9) months of plugging the well. Wells cannot be drilled within two hundred (200) feet of structures, or within one hundred (100) feet of streams and wetlands. The locations of wells, access roads and related drilling operations are usually negotiated as part of the lease agreement.

Companies are paying top fees for leases and spending enormous amounts of money to drill Marcellus gas wells across the state. While gas leases have been around for many years, the amount of money offered per acre has created a flood of activity in the region as companies are trying to “tie-up” large blocks of land with a lease. All of this activity has been exciting to landowners, as well as state and municipal leadership, who look upon the Marcellus as a major economic boom for the region. The true value of the Marcellus organic-rich shale as a gas reservoir has yet to be determined. Drilling has begun in many counties and activity is expected to continue to grow. Only time, and more information, will determine just how productive and lucrative the Marcellus will become. More information and resources to landowners, communities and local governments can be obtained through the DEP and Penn State Extension. (DEP, “*Marcellus Shale FAQs*” and DCNR “*The Marcellus Shale*” Pennsylvania Geology Vol. 38, No. 1)

3.6 Watershed Inventory and Water Resources

The major landscape feature for water resource studies is the watershed boundary. A watershed is defined by the United States Environmental Protection Agency (EPA) as the area of land that catches rain and snow and drains into a marsh, stream, river, lake or groundwater. Rain that falls anywhere within a given body of water's watershed will eventually drain into that body of water. Watersheds are delineated based on topography and ridgelines. Every larger watershed, such as a river, is subdivided into smaller watersheds with creeks, streams and tributaries each having an individual watershed. “Because watersheds are defined by natural hydrology, they represent the most logical basis for managing water resources. Because water resources often cross municipal boundaries, strategies for their protection, require a great deal of coordination, cooperation, and communication within and between municipalities sharing the same watershed.” (Washington County Comprehensive Plan, 2005)

All of Washington County is within the Ohio River watershed, which has drainage of 23,487 square miles in Pennsylvania. The largest sub-watershed in Washington County is Chartiers Creek. The approximately 137 square mile (87,680 acre) Upper Chartiers Creek watershed is located in the central and north-central portion of Washington County and all of Chartiers Township, as do all or part of nineteen (19) other municipalities, lies entirely within this watershed. The watershed originates in Washington County near the city of Washington in South Franklin Township and flows north/northeast through Chartiers Township until it empties into the Ohio River in Allegheny County near McKees Rocks.

The Upper Chartiers Creek watershed includes the main population centers of Washington County with approximately 77,122 people living within the watershed. The watershed includes urban and suburban residential areas, extensive commercial and industrial development and the Arden Landfill in the Township. Its upper reaches flow through agricultural lands and rural areas that rely on septic systems south of the City of Washington. 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 as well as through several old and current industrial sites. Acid mine drainage (AMD) first becomes a major problem around Canonsburg. After mines are abandoned, drainage flowing from these sites often decreases the pH of streams and elevates the concentration of metals and suspended solids within the impacted waterway affected by the drainage. AMD remains one of the most significant sources of surface water impairment in the Commonwealth of Pennsylvania and in Chartiers Creek, due to the historic extensive underground mining that occurred in the region.

Many serious problems arise from AMD, including contaminated drinking water, plant and animal growth and reproductive problems and corrosion of infrastructure. AMD is both a severe ecological and economical problem. Other watershed pollutants include combined sewer systems, landfills, agriculture, stormwater runoff, old and new industrial sites, nuclear waste sites, PCB's and urban runoff. Factors such as development regulations that do not adequately protect the stream corridors could have an adverse affect on local stream quality. Chartiers Creek is one of the most complicated watersheds in Pennsylvania that experiences old and new pollution issues alike. For this reason, as well as others, it is important that the Township utilize all opportunities to coordinate planning for the watershed with adjacent and nearby municipalities. (Chartiers Creek Watershed Association Website)

The PA DEP classifies the Commonwealth's rivers, streams, and tributaries according to Chapter 93 Water Quality Standards. A Total Maximum Daily Load (TMDL) specifies the maximum amount of a

pollutant that a waterbody can receive and still meet water quality standards and allocates pollutant loadings among point and nonpoint pollutant sources. TMDL's address sediments to meet water quality standards and control quality problems. The PADEP has classified Chartiers Creek as a Warm Water Fishery (WWF), meaning that this type of stream maintains and propagates fish species and additional flora and fauna that are indigenous to a warm water habitat. According to the PADEP, TMDL's have been approved for Chartiers Creek and the watershed for metals, PCBs, and Chlordane.

The Chartiers Creek Watershed Association was formally organized in September of 1999 to enhance, protect and develop the ecosystem of the Upper Chartiers Creek watershed in Washington County. Membership in the Association is open to anyone living within the watershed, as well as individuals, businesses and organizations that own property or are actively involved within the boundaries of the watershed. Some issues of concern to the Township that are connected to this watershed include abandoned mine drainage; potential mine subsidence; flood prevention, which has been a recurring problem along Chartiers Creek and its tributaries; wetlands preservation, which is an essential part of the natural environment of the watershed; and lastly, the improvement of water quality in Chartiers Creek and its tributaries.

The Association is committed to undertaking activities to study the natural resources of the watershed; develop a program to improve and maintain the water resources of the watershed; promote local interest in natural resource conservation; involve local support to correct conditions that cause problems for the watershed; and identify federal, state, and local programs that would benefit the watershed. To achieve these goals, the Chartiers Creek Watershed Association is dedicated to working with the community and government to be a resource and forum for concepts in land development, on-site stormwater retention, watershed management and public policy concepts. (Chartiers Creek Watershed Association Website)

A joint water obstruction and encroachment permit should be sought from the PADEP for any and all stream crossings to minimize stream bank erosion, excess sediment deposition and degradation of in stream habitat. This permit would be reviewed by the PADEP, US Army Corps of Engineers, PA Fish and Boat Commission and the Washington County Conservation District. Following the proper permitting procedures can minimize the impact to water quality and aquatic habitat that could occur. Water quality monitoring will help to identify the quantity and degree of pollutants in Chartiers Creek and begin to focus on clean up efforts where needed most. Development along streams can result in major impacts to the water resources of the region.

Riparian buffers, which are areas of vegetation along the shore of a water body, are essential to good water quality and aquatic habitats and stabilize the stream channels and banks. Riparian buffers should be maintained and replanted where feasible and reasonable. These buffers maintain the integrity of the creek channel, reduce the impacts of upland sources of pollution and provide protection to fish and other wildlife. They also provide flood control and add to the visual character of the environment for the recreational creek user. Maintaining riparian buffers and encouraging the creation of new buffers where they do not currently exist is another way to maintain and improve water quality of Chartiers Creek and its tributaries.



3.7 Wetlands

Wetlands are an important component in the Township's hydrology. Over the past decade, the nation and state have recognized wetlands as a valuable natural resource. The US Fish and Wildlife Service's (USFWS) wetlands definition is adopted from the Service's publication *"Classification of Wetlands and Deepwater Habitats of the United States"*:

In general terms, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. The single feature that most wetlands share is a soil or substrate that is at least periodically saturated with or covered by water. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil.

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. (USFWS)

Wetlands serve many functions, including the passive treatment of acid mine drainage, sediment trapping, nutrient filtering, providing wildlife and aquatic habitat and controlling floodflows. The USFWS has developed a National Wetland Inventory (NWI). The NWI is not a complete record of all existing wetlands since it only documents the largest wetlands that can be documented by aerial photo. According the USFWS Online Wetlands Mapper, there are numerous, small scattered areas in the Township with Freshwater Emergent Wetlands and freshwater ponds. Hydric soils and the wetlands they support are worthy of protection for a number of reasons. Many wetlands provide critical

habitats for birds, amphibians and other wildlife and can provide essential habitat for fish. Virtually all wetlands serve to increase biological diversity. They play an important role in the hydrologic cycle by providing a place for the storage of excess water during storm and flood events mitigating their damage. Wetlands also improve water quality by serving as a filtering mechanism. As water flows through a wetland, it slows and drops much of its sediment and other contaminants which are taken up by wetland vegetation. Some wetlands are easily recognizable because the presence or influence of water is obvious. However, many wetlands are subject only to seasonal flooding and surface water may not be present for much of the year.

It is very important to protect these areas for the benefits that they provide to wildlife and in maintaining a sustainable community. For land planning purposes, the presence of hydric soils makes it very difficult to have on-site sewage facilities. Most hydric soils will fail percolation testing. Existing, undisturbed wetlands provide open space opportunities. Because of the difficulty in replacing these rare and valuable areas, development should be restricted if at all possible from these environmentally significant areas. Prior to development on a parcel of property, developers should conduct a wetland identification and delineation. A Joint Permit—US Army Corps of Engineers Section 404 Water Quality Permit and PADEP Chapter 105 Water Obstruction and Encroachment Permit—is necessary if any disturbance to a wetland area is planned.

3.8 Floodplains

Floodplains are important to the Township because they provide storage for excess stormwater during periods of flooding and are an integral part of a natural drainage system. A floodplain is defined as the maximum area of land adjoining a river or stream that has or may be expected to be inundated by floodwaters in a 100-year frequency flood as shown on the floodplain maps approved and managed by the Federal Emergency Management Agency (FEMA). Thus, this area of land has a one (1) percent chance of flooding occurring in any given year – also referred to as the base or 100-year flood. The standard Flood Insurance Policy defines “flood” as: “A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters from the unusual and rapid accumulation or runoff of surface waters from any source.” Floodplains hold back storm flows and reduce destructive flooding downstream. Also, floodplains provide an important linkage between aquatic and upland habitat. Floodplains in the Township lie primarily along Chartiers Creek, Georges Run along Route 18, an Unnamed Tributary along Allison Hollow Road, Chartiers Run along Route 519 and Plum Run along Main Street.

The Township participates in the National Flood Insurance Program and is in compliance with the Pennsylvania Floodplain Management Act. Causes of flooding are extreme amounts of precipitation, the ability of the soils to absorb moisture and the amount of impervious surfaces causing runoff. The topography near a waterway and the volume of water entering the area in question together determine the floodplain boundaries. The Flood Insurance Study, Flood Hazard Boundary, and Flood Insurance Rate Map are located on file with the Township. FEMA floodplain mapping should always be consulted prior to approving any development within the Township. As development increases, the characteristics of the 100-Year Floodplain can change. Flood management and insurance rates are coordinated through the National Flood Insurance Program. FEMA conducts routine flood insurance studies which investigate the severity and existence of flood hazards in an area. The results of these studies are then used to develop risk data that can be applied during land use planning and floodplain development. It should be noted that FEMA is currently updating regional floodplain maps due to the recent flooding that occurred as a result of Hurricane Ivan in September 2004.

Whenever development occurs in close proximity of Chartiers Creek and its tributaries, the developer must be aware of the designated floodplain. Buildings and other structures proposed within the floodplain should be either elevated or flood-proofed to, or above, the elevation of the floodplain. When floodplains are encroached by development, flooding increases, and life and property are threatened. With the development of floodplains, the absorption capacity of the watershed is decreased. Rooftops, parking lots and other impervious surfaces all contribute to increased surface drainage and flooding. Because of this, the Federal Insurance Agency has strict regulations on development within the floodplain. All development should adhere to any floodplain or stormwater management plans or reports completed for the Township. The development of floodplain overlay districts is a method that restricts development within areas that are designated as flood prone areas. Regional multi-municipal planning approaches are encouraged when addressing flood planning, as watershed boundaries cross municipal boundaries. Floodplains should be classified as a separate zoning district. This classification should regulate, restrict, or prohibit certain uses within the flood plain.

The effects of flooding can only be partially controlled, due to the irregularities of weather systems. However, the conservation of designated floodplains with minimal intrusion from development will enhance a waterways ability to store flood waters and discharge them gradually. Obviously, upstream conditions, which may or may not be under local jurisdiction, play a role in flood management. The purpose of floodplain regulations is the protection of life and property within flood prone areas.

Prohibiting new development and limiting the expansion of existing development within floodplains can help achieve this protection. Beyond the floodplain boundaries, rapid runoff is a major contributor to flooding situations. This is a factor that a municipality can control through land use regulations found in the Zoning Ordinance and Subdivision and Land Development Regulations. Requirements for new construction and improvements to existing development should encourage the establishment of dense planting areas, limiting the extent of impervious areas, preserving vegetation on steep slopes, retaining wetlands and managing stormwater runoff from development.

3.8 Groundwater

Groundwater is defined as water under the surface of the earth in the saturated zone (PADEP, 2004). Groundwater is used everyday for residential, agricultural and industrial needs. Many water quality issues are associated with groundwater, including natural and anthropogenic sources. The Washington County Watershed Alliance identified anthropogenic sources, such as abandoned wells, hazardous chemical wastes, malfunctioning septic systems and underground storage tanks and excess sediment deposits. However, Washington County is making steps toward cleaning up and protecting its groundwater supply as it was recently (October 2004) designated as a Groundwater Guardian Community by the Groundwater Foundation for its efforts to protect local groundwater supplies. (Washington County Comprehensive Plan, 2005)

Human impacts on groundwater are typically in one of two forms of pollution, point source and non-point source. Point source, or end of pipe, pollutants are identified and can be directly traced to one definable source (i.e., industrial discharges, stormwater discharges, combined sewer overflow discharges). All point source discharges require a National Pollutant Discharge Elimination System (NPDES) permit, established by Section 402 of the 1972 Clean Water Act. Typically, these pollutants include industrial discharges and sewage discharges.

Non-point sources (NPS) include all other forms of pollution. NPS pollution is the greatest source of water quality degradation within the US because it is difficult to measure and highly variable. These are sources that cannot be traced to a specific point of discharge or origin. NPS pollution is typically the result of adjacent land uses, including urban and storm water runoff, sedimentation, and abandoned mine drainage. Most of the groundwater in the Township is impacted in some form by urban development runoff, erosion and sedimentation. Sedimentation may result from sewage discharge, agricultural runoff, construction site encroachments, and stream bank erosion. Expanding sewage service can limit the potential for malfunctioning septic systems or wildcat sewer lines to

impact groundwater supplies. Because approximately 40 (forty) percent of households in the Township do not have municipal sewer service, this can become a significant potential for contamination. An excess of sediments can cause severe damage to aquatic life and systems. Stream channels accumulate sediments resulting in an increased potential for flood events, which in turn creates an increase in stream bank erosion.

Because of the rural character of the Township, agricultural land surrounds segments of Chartiers Creek and its tributaries, leading to pollution in the streams from agricultural practices. Pollution from unmanaged agricultural practices contributes to the degradation of the waterways and groundwater supplies. Fertilizers, manure, and pesticides from agricultural lands can contribute to heavy siltation, nutrient accumulation and suspended solids within stream and groundwater systems. In addition, unrestricted access of livestock to streams also creates harmful effects, stream bank erosion, sedimentation and excessive nutrient enrichment. Stream bank fencing is a simple way for landowners and farmers to stabilize the stream bank and improve water quality in the streams on their property and in other areas downstream in their watershed. It can prove beneficial to both the landowner and the environment.

To further control the NPS of Chartiers Creek and its tributaries, the Stormwater Management Act of 1978 (Act 167) mandates that municipalities prepare a storm water management plan that provides for the management of storm water based on the physical and hydrologic characteristics of the watershed. The Township is responsible to adopt and manage the plan on a watershed basis within its own political boundaries. Act 167 plans are designed to limit the negative effects of rain events on streams, groundwater, floodplains and storm sewers by controlling increased volumes and rates of stormwater runoff. Additionally, the Act 167 plan attempts to reduce the negative effects that stormwater runoff can have on water quality. Federal regulations enacted in 1999 require municipalities in urbanized areas to implement a stormwater management program by March 2003. Chartiers Township is in compliance with The National Pollutant Discharge Elimination System (NPDES) for stormwater discharges from municipal separate storm sewer systems.

3.9 Woodlands

The presence of woodlands, especially larger tracts, is important to the Township for both functional and aesthetic reasons. They offer protection from floods and erosion, while at the same time contributing to the depletion of stream flows. Forest soils are covered with decaying vegetation (i.e., leaves and twigs), which acts as a protective layer to the soil and reduces the possibility of

erosion caused by rain. This slows runoff from heavy rainfall, reducing downstream flood peaks. Woodlands provide habitats for wildlife and species diversity and offer recreational and educational opportunities for area residents. Woodlands maintain the level and quality of ground and surface water by absorbing various pollutants. They provide natural buffer areas around surface and watercourses which prevent siltation and help to minimize non-point pollution. In addition, woodlands help to clean the air, create windbreaks, cool the air in the summer, muffle noise and absorb odors. Finally, woodlands provide a scenic quality that helps to create the character of the community and enhance property values.

The agricultural legacy of the Township in part contributed to clearing portions of the land. However, Chartiers Township has retained several sections of extensive woodlands, an important



environmental attribute. According to the Washington County Greenways Plan, Map 5: Forest Resources, forested areas are interspersed throughout the Township. Along Route 519, centrally located in the Township, there is a substantial forested area of Oak and Hickory with an additional wooded area of Maple, Beech and Birch. This area extends east towards Chartiers Creek south of the Borough of Houston. Also, highlighted on the map is an area northeast of Plum Run in the northern section of the Township with an Oak and Hickory Forest. As stated above, other forested areas are scattered throughout Chartiers. To maintain these forested areas in light of increased development pressures, residential houses can be

clustered together to save open spaces in a development. Additionally, clustered development is designed to preserve the natural features on a site to promote sustainable development. This concept is known as conservation subdivision. It is a form of subdivision that allows development at the underlying zoning density of the tract, but requires the preservation of the primary natural features.

3.10 Conclusion

Many features of the natural environment are interrelated and the preservation or degradation of one of these features affects many others. Because of the environmental and aesthetic value of steep

slopes, the Chartiers Creek watershed, wetlands and woodlands, these natural areas are usually attractive and worth setting aside for open space or passive recreation. If this is not done, the development of these areas can destroy vegetation, disrupt wildlife by removing habitat, disturb the soils and water supply and reduce the amount of groundwater recharge that normally takes place within these areas. If stream corridors are encroached by development, the vegetation that can control the flow of precipitation into the stream is absent and stream flows become irregular. If impervious coverage is increased, this cycle is exacerbated as the rate of runoff is increased and snow and ice melt faster. In effect, the developed surfaces and the increased runoff that they cause result in a greater propensity for streams to flood, due to their inability to absorb the additional water.

Natural landscapes, such as forests, floodplains, and wetlands, are porous and act as natural filtering systems that help to carry rainwater and melting snow runoff gradually toward receiving waters. Developed areas, on the other hand, are nonporous and, as a result, the runoff contains sediment from development and new construction, toxic chemicals from automobiles and road salt, nutrients and pesticides from agriculture, and bacteria from failing septic systems which impact the biological processes that take place in the water resources. Additionally, because all water within a watershed is directly or indirectly related, any negative impacts to one affects the entire watershed. The quality of water in Chartiers Creek, its tributaries, the floodplains and wetlands, and the Township's groundwater supply is interrelated and integral for each of these natural resources.

As stated in the 2005 Washington County Comprehensive Plan:

Numerous areas, including both public and private lands, could be forged into dedicated areas through a variety of landowner agreements, easements, special programs ... or a combination of methods. Ultimately, areas set aside now will be the exemplary natural areas of the future, and if planned well and of sufficient size, and can become areas for biodiversity protection within the region. Forest lands, stream valleys and other natural areas will continue to be lost to development if no steps are taken to preserve them. Preserving and enhancing the ecological integrity of the region lies within the ability and commitment of the local governments, public and private agencies, citizens groups, and landowners to agree on specific conservation goals and work together to see them accomplished.

By examining the significant environmental features of the Township, the community can preserve those features that are necessary for the environmental stability of the Township. The Township needs to protect these natural resources to ensure an environmentally sound and ecologically balanced community and to maintain the environmental integrity for the future of Chartiers Township.

Section IV: Housing

4.1 Introduction

A review of the housing stock in Chartiers Township is an important element of the Comprehensive Plan and should provide an analysis of the significant characteristics of housing in the community. Attractive, affordable and well-maintained housing is an essential factor contributing to a desirable quality of life in the Township. This chapter is intended to give an overview of Chartiers Township's existing housing stock with steps to maintain it in good repair. It will also examine expected future housing trends and provide recommendations for future residential development. This chapter is divided into a profile of the existing housing stock, with an examination of current composition and future trends, followed by an overview of housing affordability within the Township and innovative techniques and programs related to new residential development. Most of the data in this section is derived from the US Bureau of the Census, 2000 Census of Population and Housing.

The composition, age, value, occupancy and affordability of the housing stock are key indicators of a municipality's vitality and help define the character of the community. The amount of housing unit types including single-family, multi-family and mobile homes, along with these key indicators, can provide insight into the physical character of the community and the potential demands on the Township for facilities and services. Furthermore, when compared to the characteristics of the



population, the housing stock composition can indicate how well the community is meeting its housing needs now and in the future. Therefore, analyzing housing trends for this section of the Comprehensive Plan is fundamental to making future sound land use decisions for the Township.

4.2 Composition

Chartiers Township can be characterized as a suburban residential community. In the Township, the housing stock consists of predominantly single-family housing units. The Census Bureau defines a housing unit as, “a house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as a separate living quarters, or if vacant, intended for occupancy as separate living quarters.” As of 2000, 84.4 percent of the total 2,938 housing units, or 2,480 units, were single-family units. Only 7.2 percent were multiple family dwelling units. Additionally, 8.4 percent of housing units were mobile homes. Table 4.1 illustrates in detail the composition of housing type from 1980, 1990 and 2000, so that these statistics can be contrasted over the past thirty (30) years. These statistics will help classify what type of dwelling units currently exist in the Township and will help evaluate what sort of residential development has occurred.

Table 4.1: Types of Dwellings 1980 -2000

	1980	Percentage	1990	Percentage	2000	Percentage
Single-family	2245	83.8	2415	81.5	2480	84.4
Multi-family	314	11.7	247	8.3	210	7.2
○ 2-4 units/structure	226	8.4	198	6.7	168	5.7
○ 5-9 units/structure	77	2.9	42	1.4	42	1.4
○ 10+ units/structure	11	0.4	7	0.2	0	0
Mobile home	119	4.5	302	10.2	248	8.4
Total	2678	100.0	2964	100.0	2938	100.0

*US Census Bureau

The above table shows how the distribution of housing type has changed since 1980. In general, the mix of housing types found throughout the Township became less diverse as the percentage of single-family units increased, though slightly from 81.5 to 84.4 percent, since 1990. Clearly, single-family dwellings are the most common form of housing in the Township. The median number of rooms per household in the Township is 5.7 rooms. The second significant trend that is occurring in the Township is the actual decrease in the number of multi-family units. What is remarkable about this trend is that across the United States, many communities are building this type of housing for a

myriad of reasons including space and decreased cost of the dwelling. Since Chartiers has the space for single-family development, multi-family developments have not increased but have actually declined by 104 units since 1980. Regardless, Chartiers should consider multi-family developments as a viable option for its aging population and also for its affordability for all residents. This trend was also documented upon in the 1980 Comprehensive Plan:

The number of multi-family dwelling units actually decreased by 50 units (from 1970-1980), or about 15% of the total, at a time when most developing communities are constructing multi-family dwellings at an ever-accelerating rate. Chartiers Township has historically maintained a high percentage of its housing in single-family units and certainly has enough vacant land currently available to sustain this trend for many years; however, it is vital that a percentage of new housing be devoted to multi-family development in order to maximize population stability with minimal requirements for new services from the Township.

This is still true for a Township that has to focus on meeting the present utility needs of the residents. Lastly, by law, the Township must contain “a fair share” of all housing types so this trend should be addressed.

While the Township’s population decreased by 449 persons, or 5.9 percent, between 1990 and 2000, the number of households increased by 2.7 percent. This trend is consistent with decreasing household sizes across the region and nation. Because the Township is a suburban community, residential land uses should be of primary concern in this plan. Table 4.2 illustrates the change over the past thirty (30) years for the number of owner and rental occupied units as well as vacancies.

Table 4.2: Housing Occupation Characteristics 1980 - 2000

	1980 Number of units	Percent of the Total	1990 Number of Units	Percent of the Total	2000 Number of Units	Percent of the Total
Owner-occupied	2,122	79.3	2,348	79.2	2,399	85.3
Renter-Occupied	458	17.1	503	17.0	415	14.7
Vacant	98	3.6	113	3.8	124	4.2

*US Census Bureau

From the above table, one can see that the number of owner-occupied units has increased by 277 housing units over the past thirty (30) years while the population has decreased by 561 persons. The number of renter-occupied units has decreased by forty-three (43) units since 1980. The vacancy rate has slightly increased over the past thirty (30) years though is still in a ‘normal’ vacancy rate

range.

Housing demand has remained stable since 2000. New developments such as Arden Mills and the Summit will continue this trend, if not increase it, by the end of the decade. Although the Township has experienced a population decline as of the 2000 Census, the trend is expected to stagnate or reverse. The Census predicts the 2006 population at 7,228 persons, up from 7,154 persons in 2000. The demand for newer housing, as a result of recent economic conditions and relatively low mortgage interest rates since 2000, should further fuel residential growth. Additionally, along with these socio-economic conditions, there is a desire of many to move away from older, densely-populated, and sometimes declining urban areas to less developed and more rural settings, like Chartiers Township, with newer housing developments.

4.4 Age of the Housing Stock

The age of existing housing is a critical factor to be considered when examining the Township's housing stock. The year of construction helps to analyze the condition as it provides useful information, including identifying housing maintenance needs, potential historical value and the current trends for housing development. Table 4.3 further details the year that housing units were constructed in Chartiers Township.

Table 4.3: Year Structure Built

Year Built	Housing Units	Percentage of Total
1990-2000	327	11.1
1980-1989	249	8.5
1970-1979	485	16.5
1960-1969	426	14.5
1940-1959	866	29.5
1939 or earlier	585	19.9

*US Census Bureau

As can be seen in Table 4.3, almost half (49.4 percent) of Chartiers Township's housing stock was built prior to 1959, hence, the maintenance of these home is an important issue for the Township. There was a high demand for housing after World War II with the post-war building boom of the 1950's and 1960's encouraged by federal housing policies and the 'baby boom'. The overall age of a community's housing, coupled with other demographic factors, such as income levels, can sometimes

indicate the potential for deteriorating conditions. The presence of dilapidated structures in the Township was noted on the Township survey as an area of concern for some residents. Blighted structures can lessen the attractiveness of the Township for current and future residents. The Township must be proactive in enforcing ordinances to remove any blighted, unsafe structures and to ensure that these older homes are well maintained and/or rehabilitated.

Additionally, the historical appeal of older homes should not go unrecognized. The unique aspects offered by different periods of architecture can serve to impart a sense of community and historical nature to the Township. These homes can contribute significantly to the character of the Township and can be a measure of its historical past. The only property in the Township on the National Register of Historic Landmarks is the John White house, a two-story sandstone house that still greets visitors at the Fairgrounds entrance. It was originally constructed in 1806 for John White Jr., who operated a grist mill on Chartiers Creek. The homestead and accompanying buildings supported the production of "John White Super-Fine" flour. The property was acquired by the Washington County Agricultural Fair Association in 1916.

It is now home to the Washington County History & Landmarks Foundation, and the foundation opens the building each year during Fair Week to greet visitors and to provide historical background information. (Washington County History and Landmarks Foundation) Other historic properties exist in the Township that should be documented. The important



architectural history of the Township can greatly contribute to the community's character, and the Township should consider undertaking a survey done by a certified preservation professional. The Township should also consider incentives, such as grants or low-interest loans, to promote housing rehabilitation and/or adaptive reuse of existing residences.

The age of the Township's housing stock can be contrasted to that of the surrounding municipalities, Washington County and the Commonwealth of Pennsylvania as seen in Table 4.4.

Table 4.4: Median Age of Housing Unit in Contrast to Reference Areas

	Median Year Built for Owner-occupied Housing Units	Median Year Built for Renter-occupied Housing Units
Chartiers Township	1960	1960
Canonsburg Borough	1942	1953
Canton Township	1967	1960
Cecil Township	1974	1955
Houston Borough	1940	1942
Mount Pleasant Township	1960	1942
North Strabane Township	1973	1964
South Strabane Township	1962	1970
Washington County	1957	1950
Commonwealth of Pennsylvania	1958	1955

*US Census Bureau

The age of the Township's housing stock is slightly newer than that of the County and the State in terms of median years built. The more urban areas of Canonsburg and Houston have earlier median years built as these towns were developed prior to the more rural outlying communities. Areas where there is newer growth include Cecil Township and North and South Strabane Townships, with later median years built for their housing units.

4.4 Housing Values

Property values directly reflect the housing conditions within a community. The median value for owner-occupied units in the Township was \$91,900 in 2000, slightly higher than Washington County's median value of \$87,500 and slightly lower than the State's median value of \$97,000. The table below further illustrates the Township's median value for housing units and for rent in contrast to the surrounding municipalities, the County and the State.

Table 4.5: Median Values for Owner-occupied Units and Median Rent for Renter-occupied Units

	Median Value for Owner-occupied Units	Median Rent for Renter-occupied Units
Chartiers Township	\$91,900	\$510
Canonsburg Borough	\$76,400	\$435
Canton Township	\$84,700	\$435
Cecil Township	\$116,000	\$546
Houston Borough	\$78,300	\$426
Mount Pleasant Township	\$96,800	\$530
North Strabane Township	\$118,300	\$579
South Strabane Township	\$110,300	\$389
Washington County	\$87,500	\$423
Commonwealth of Pennsylvania	\$97,000	\$531

*US Census Bureau

The Township's median housing unit value lies in the middle of its reference areas. Its median value is higher than the older, more urban areas of Canonsburg, Houston and more rural Canton Township, but its value is lower than the newer developing areas of Cecil, Mount Pleasant and North and South Strabane. In regards to rental statistics, Chartiers is the middle of its reference areas: lower than Cecil, Mount Pleasant, North Strabane Townships and Pennsylvania and higher than all other reference areas. Additionally, 50.4 percent of households in the Township had a mortgage with the median mortgage amount of \$285.00.

These rental statistics show that Chartiers enjoys moderate monthly rental costs combined with low rental vacancy rates, making rental housing attractive to both the renter and the developer or other resident interested in rental market opportunities. The Township should also promote the creation of rental units because they offer an affordable option for housing opportunities. To expand the supply of affordable rental stock, a viable option may include the development of apartments and the conversion of older homes and dwellings in combination (i.e., apartments over commercial units), in appropriate areas with proximity to jobs, transportation, and other community facilities.

The following Table 4.6 further illustrates the value of the housing stock in Chartiers Township:

Table 4.6: Value of Owner-occupied Units

	Number	Percent
Less than \$50,000	176	8.7
\$50,000 - \$99,999	991	48.7
\$100,000-\$149,999	575	28.3
\$150,000-\$199,999	213	10.5
\$200,000-\$299,999	52	2.6
\$300,000-\$499,999	13	0.6
\$500,000-\$999,999	7	0.3
\$1,000,000 or more	7	0.3

*US Census Bureau

Clearly, the majority of housing in the Township lies in the price range of \$50,000 to \$149,999, with few residences below \$50,000 and only 14.3 percent of housing units valued above \$150,000. These moderate property values are also an indicator of the aging of the housing stock. Very few newer housing developments are priced below \$99,999, where over fifty-seven (57) percent of the Township stock is valued below this price. As stated above, maintenance can be an important issue for older homes. The Township must be aware of the value of the homes in the community, as this is a direct indicator of the desirability of the housing stock, its influence on the tax base and bearing on the financial stability of the municipality.

4.5 Occupancy and Tenure

The Township needs to be aware of the number of occupied and vacant units within its municipal boundaries. “Occupancy and Tenure” defines the proportion of the housing stock that is occupied by the owner, occupied by renters or vacant. Occupancy and tenure can be another indicator of a community’s housing stability. Very high rates of renter occupancy and housing vacancies can be indicative of a community’s potential decline. The Township has a high rate of home ownership with over eighty-five (85) percent of the total housing units being owner-occupied. Owner-occupied units are a strong sign of a stable housing stock, since the owner is financially vested in the upkeep of the property. Over fourteen (14) percent of housing units are renter-occupied units in the Township. Table 4.7 shows the owner-occupied and renter-occupied housing units in Chartiers Township and compares them with that of the surrounding municipalities, the County and the State.

Table 4.7: Owner/ Renter Occupancy and Vacant Units

	Owner-occupied Units	Renter-occupied Units	Vacant Units
Chartiers Township	85.3	14.7	4.2
Canonsburg Borough	60.1	39.9	8.1
Canton Township	83.2	16.8	5.1
Cecil Township	85.7	14.3	5.3
Houston Borough	56.4	43.6	8.1
Mount Pleasant Township	86.4	13.6	5.1
North Strabane Township	89.6	10.4	4.4
South Strabane Township	76.4	23.6	3.6
Washington County	77.1	22.9	7.0
Commonwealth of Pennsylvania	71.3	28.7	9.0

*US Census Bureau

North Strabane, Mount Pleasant and Cecil were the only municipalities that had a higher percentage of owner-occupied units. Likewise, those three (3) municipalities were the only ones that had lower percentages of renter-occupied units. As of 2000, the vacancy rate for the Township was 4.2 percent. Generally, a vacancy rate between four (4) and six (6) percent is considered a healthy rate. Below four (4) percent is an indicator of too few housing units, which may lead to a higher demand for new housing and inflated prices. A vacancy rate of more than six (6) percent is an indicator of too many units, which may lead to a lower demand and/or deflated prices. Additionally, higher levels of vacancies increase the potential for deterioration and vandalism. Regardless, the Township continues to be a stable community, insofar as it has a high percentage of owner-occupied dwellings and a low vacancy rate.

4.6 Senior and Affordable Housing

Housing demands for the next century can be expected to change as characteristics of the population change. Of particular concern in municipalities that developed predominantly in the post-World War

II era is the aging of the population and the potential need for affordable and maintainable senior housing options. Additionally, there is a continuing decline in household size in Chartiers Township, down from 3.33 persons per household in 1970 to 2.45 persons in 2000. As of 2000, 25.1 percent of households in the Township were comprised of one (1) householder living alone. This trend of increasing one-person households is an indicator of the need for smaller housing units or apartments for these individuals.

One goal for the Township would be to focus on providing a variety of housing units that would be attractive to a mixed income range. The issue of affordable housing is complex and subject to many factors and market forces. Although the forces that drive the creation of new housing opportunities are largely regional in nature, many planning mechanisms and programs are left up to the Township under the Municipalities Planning Code (MPC). One specific tool could be the Planned Residential Development (PRD), which incites the private developer to develop large tracts that will combine clustering with a mixture of single-family and multi-family units. This type of development is attractive because it blends housing types. As shown in the statistics above, Chartiers enjoys a strong rental and housing market, making a development such as this desirable to the residents of the Township, while also meeting the need for multi-family dwelling types.

Housing affordability is a growing concern across the country, as the rising cost of housing exceeds incomes for many segments of the population. The Township should invest in opportunities and independent living arrangements for those with special housing needs, including the elderly and mentally and physically disabled. The Fair Housing Act requires the provisions of equal housing opportunities for everyone. As mentioned above, the housing needs of persons 65 years of age and older merit special consideration as they make up the fastest growing age group in the Township. The current growth of the elderly population foreshadows the even more significant growth that is to come when the 'baby boom generation' reaches retirement age after 2010. Oftentimes, many elderly persons continue to reside in single-family detached homes which they may find too large and too difficult to maintain, both financially and physically. While some may remain by choice, others remain due to a lack of alternative housing opportunities. Elderly persons wish to maintain their independence and many want to remain within the communities in which they have lived most of their lives, close to family and friends.

The Census Bureau evaluates the affordability of the housing stock by examining the cost of homes as a percent of household income. Affordability is measured as a percentage of income that occupants must pay for housing costs. Affordable housing, as defined by the US Department of

Housing and Urban Development, states that a household should have to pay no more than thirty (30) percent of its annual income on housing costs. Generally, when housing costs exceed thirty (30) percent of income, the cost of housing exceeds the amount the household income may afford and is considered an unreasonable burden. It is also an indicator of a need for more affordable housing in a community. Table 4.8 shows housing costs as a percentage of household income for Chartiers Township for home ownership and as rental costs.

Table 4.8: Chartiers Township Housing Costs/ Gross Rent as a Percentage of Household Income

Percentage of Household/ Renter Income	Number of Households	Percent of the Total	Number of Rental Households	Percent of Total for Rentals
Less than 15 percent	944	46.4	81	20.8
15 to 19 percent	325	16.0	34	8.7
20 to 24 percent	266	13.1	38	9.7
25 to 29 percent	168	8.3	25	6.4
30 to 34 percent	92	4.5	43	11.0
35 percent or more	239	11.8	35	9.0
Not computed			134	34.4

* US Census Bureau

As shown in the above table, more than sixteen (16) percent of the homeowners in Chartiers are found to be spending over thirty (30) percent of their incomes on basic housing costs. Twenty percent of renters are paying thirty (30) percent or more of their income for housing costs.

4.7 Infrastructure for Future Development

In order for Chartiers Township to properly guide residential development, it must focus on meeting all infrastructure needs, and development should occur in alignment with the availability of these utilities. Uncontrolled development of land can leave the Township without adequate streets, water mains, sewers or public facilities. Local governments can extend utilities and facilities to many more people than these facilities were initially designed to service, resulting in areas characterized by “sprawl”, disorderly and chaotic growth, followed by depressed economic values. Availability of

water and sewage infrastructure in the Township is one impediment to housing development. Although 2000 Census data was not published for water and sewage service, 1990 information can be used to show the availability of these important public utilities, since no significant expansion has occurred over the past decade. Sewage service in the Township is of utmost importance, as financial resources to install sewage throughout the Township is limited. As of 1990, only 1,706 households, or 59.5 percent of households in the Township, were served by public sewers. According to the 1990 Census, 2,262 households in the Township reported being connected to public water, representing over seventy-six (76) percent of households. Even though most households in the Township are connected, this only represents about twenty-five (25) percent of the land in the Township having direct access to public water service. These statistics indicate the need to extend public sewage and water service to outlying areas of the Township.

4.8 Innovative Techniques, Programs and Policies for Housing Development

The importance of agriculture to the Township was highlighted in the community survey results. Over eighty-four (84) percent of respondents responded that the Township should encourage the preservation of farmland and in the 'Quality of Life Issues' section the most chosen response was 'retaining the rural nature of the Township'. This is mentioned within this section, as agricultural land throughout the region has and will continue to be developed into residential subdivisions. (Further discussion of this will be addressed in the land use section of the plan). Much of the information relating to this section was gathered from the Pennsylvania Governor's Center for Local Government Services publications, specifically the "*Local Land Use Controls in Pennsylvania*" and "*Planning for Agriculture*" booklets.

One of the best methods for the Township to protect its valuable farmland is through non-exclusive Agricultural Zoning. The Municipalities Planning Code (MPC) addresses several issues directly related to agriculture, and new provisions have strengthened the position of agriculture within the planning and zoning processes. Non-exclusive agricultural zoning allows residential dwellings to be located in agricultural zoning districts, but strictly limits the number of such dwellings. In addition, non-exclusive zoning often allows for the construction of conditional uses if these uses are located on land of low quality for farming. Non-exclusive agricultural zoning can be accomplished through two methods: large minimum lot size zoning and area-based allocation.

To accomplish a reasonable mix of housing types, the MPC also authorizes use of alternative zoning techniques. The MPC contains provisions to promote flexibility in development, as well as

provisions authorizing increases in the intensity of a particular use based upon expressed standards in order to preserve open space or other natural features. These provisions can be utilized to encourage developers to build affordable housing. Alternative techniques include clustering, lot averaging and flexible building setback lines. Clustering involves the arrangement of residential building lots in groups through a reduction in lot area and building setback requirements. Lot averaging is similar to clustering, in that both methods allow some variation in minimum lot size regulations. Flexible building setbacks allows greater flexibility in the placement of the structure on a lot. Planned Residential Development (PRD) provisions encourage a variety of designs and types of housing arranged in an efficient manner on the land, thereby conserving land to use as common open space and for recreational purposes, and typically reducing the amount of infrastructure needed to serve the development. PRD regulations provide for flexibility in site and lot design. For that reason, these techniques enhance the opportunities for quality residential development, while at the same time reducing the cost of infrastructure and environmental impacts.

Conservation by Design is a state-wide program that encourages municipalities and developers to design residential subdivisions incorporating open spaces into the community. This conservation approach is a way to address the concern about the continuing loss and potential disappearance of farmland resources that are valuable in maintaining the rural character of the Township. Many rural communities threatened by suburban development are concerned with preserving their agricultural lands. As stated in the 'Planning for Agriculture' publication...

Municipalities may use Conservation by Design (some times referred to as Growing Greener) to protect agriculture and mature forests. The plan can be used to protect good quality soils for farms that could use them. The planned lots are uniquely adapted to the geography and surroundings, and often incorporate common natural areas that are valued by residents and the community. Implementing Growing Greener begins with planning on a municipal level to preserve open spaces, greenways and natural resources the community enjoys, and then designing subdivisions around those areas. Conservation by Design prevents municipalities from becoming faceless seas of suburbia, and allows them to keep the identifying characteristics of their areas.

The concept of transferable development rights is a recently authorized technique that can be used by a municipality to help make regulation of development more financially equitable to landowners. The Transfer of Development Rights (TDR) allows individuals to purchase and sell residential development rights from lands to concentrate development in planned areas. These rights may be sold to a builder who wishes to increase development densities in another area of the community considered more suitable for development. The development right can be transferred from one site to another, from an area to be preserved or protected to a receiving area where growth can be accommodated, is appropriate and desirable. The property owner whose land is being restricted would therefore be fairly compensated and the takings issue would be avoided. TDR's can create a

permanent preservation of the features it was enacted to protect such as farms, forests, open space and regional trails. Any zoning district which accommodates higher density land uses would be logical receiving areas that can support diversified housing development opportunities. Landowners receive financial compensation without developing or selling their land, and the public receives permanent preservation of the land. TDR's work well in areas with mixed land use, such as a town surrounded by farmland. It allows for populated areas to maintain their density and open areas to benefit from profits of development rights that are often the cause for developing farmland. The MPC, section 619.1, authorizes local governments to enact ordinances allowing the implementation of the transfer of development rights, and in the absence of such ordinance, the transfer of development rights is prohibited.

The Traditional Neighborhood Development (TND) attempts to recapture the small town character and town square atmosphere of a pedestrian-oriented setting by utilizing traffic calming design measures, such as narrow streets and on-street parking in proximity to housing, businesses and services. Sidewalks, parks and ample open space are essential elements to the success of the TND. This form of development can occur either as an extension of existing areas, as a form of urban infill, or as an independent entity. As with many of these alternative approaches to zoning, modifications to otherwise strict density and dimensional requirements may be necessary. Large sites are usually required along with some level of coordination with adjacent developments.

6.1 Conclusion

Housing is an important element of the Township's Comprehensive Plan since the Township has a strong residential character. Much of the Township's residential development is over fifty (50) years old and was created during the suburbanization that occurred in the municipalities nearby the Cities of Washington and Pittsburgh during the 1950's and 1960's during the post-World War II housing boom. The Township should promote the continued stability of the existing housing stock. While the housing stock in Chartiers is moderately valued, it is aging.

The goal for existing housing in the Township should be to design strategies to ensure that it remains well-maintained and viable. The presence of blighted or abandoned structures has been highlighted as an issue in the Township during the community participation process for this plan. Immediate attention and continued enforcement by the Township is needed to enforce local property maintenance codes to avoid ongoing dilapidation and the negative affects these properties can have on adjacent properties and neighborhoods. Residences that are occupied and well-kept lend to a

residential character that is attractive and desirable to current residents and future homebuyers, while maintaining the value of the Township's existing housing stock.

Chartiers Township has a rich history and historical properties in the Township should be recognized. A comprehensive building survey should be undertaken for the Township by a recognized preservation consultant. The survey could be the basis of a preservation plan containing policies designed to ensure that the Township's important historic structures are documented and retained. Zoning regulations should also be provided for the sensitive adaptive reuse of old houses that are no longer desirable as residential single-family housing units, but could become such uses as bed and breakfasts, multi-family units, etc..

The housing market in the Township is solid, when looking at the vacancy indicator and homeownership rates. Homeownership is viewed as positive in the planning process, due to the permanency and interest it invokes in its inhabitants to maintain quality housing units in which to live and invest, and should be promoted by the Township. The expectation is that the new housing market should remain steady through this decade with low mortgage interest rates and the continuing suburbanization of the region. The goal for housing is also to address the needs of the Township's future population. This Township should ensure the development of a range of housing types that will meet the needs of future residents and encourage infill development that is compatible with established development patterns.

The aging of the Township's population was highlighted in the Demographic Profile of the Township in the plan. The needs of this population should be addressed in regards to housing. A wide range of housing types should be considered for seniors, including individual carriage homes, independent multi-family units and assisted living and skilled care facilities. The current housing stock consists of predominantly single-family dwelling units, a trend not expected to change in the future. However, with this aging of the population and decreasing household size, the need for smaller, low-maintenance housing units, and the need for greater affordability in the housing market, alternatives to the conventional single-family detached dwellings should be considered. Additionally, while the municipality has the fortune to have existing land to develop, the Township has limited capacity to do so because of the lack of public water and sewage to support expansion into outlying areas.

Pennsylvania has begun to encourage municipalities to become more innovative in regards to new

development to promote a successful conservation design approach. The Comprehensive Plan's community development objectives should reflect these conservation techniques for the Township and should be one (1) tool used to conserve valuable farmland, environmentally sensitive areas and open space. Application procedures for a conservation subdivision should take into consideration resources and features that have a historic, scenic or environmental value. The overall result is a comprehensive approach to new housing development, preserving valuable natural features and optimally sustaining them through the development process.

Section V: Community Services and Facilities

5.1 Introduction

A review of a community's services and facilities is an elemental part of any Comprehensive Plan for a municipality. This section examines the existing status and condition of facilities and services in the Township. It identifies those community facilities and services available in Chartiers Township to maintain the health, safety and quality of life required by the residents and the business community. Community services for residents must be provided in an efficient and quality manner and need to be addressed when found lacking in some area. As stated in the 1986 Comprehensive Plan, "the analysis of the current community facilities present in a municipality can often tell much about why the area is or is not developing as it should. In order for the quality of life in the municipality to be high there must be a strong commitment on the part of the municipality to develop and maintain first class facilities."

The everyday life for the residents of the Township can be directly impacted by the community's ability to provide these mostly-public services. As a result, how they are managed is a key to the quality of life and community identity. The following Township services and facilities are analyzed to determine the type and level of service currently existing in the Township, to assess the adequacy of existing services by key Township officials and to identify which aspects of service may require improvements. The facilities and services addressed in this section include the following:

- Municipal Facilities
- Township Administration
- Public Works
- Zoning and Code Enforcement
- Police Department
- Fire Protection
- Emergency Services
- Health Care
- Solid Waste Management
- Sewage Facilities
- Water Service

- Public School District
- Public Library

All of these facilities and services are considered to be essential to the health, safety and general welfare of the residents and when adequately provided, become a measure of quality of life. There is a positive view of life in the community, as the 2007 Township Survey results highlight with the majority of respondents (91.78%) checking either 'Satisfied' or 'Very Satisfied' with Chartiers Township as a place of residence.

5.2 Municipal Facilities

The Township of Chartiers Municipal Center is located at 2 Buccaneer Drive, Houston, Pennsylvania and is open to the public for regular business hours Monday through Friday from 8:30 a.m. until 4:30



p.m. Although not centrally located in the Township, it is convenient to some of the major thoroughfares of Pike Street, Racetrack Road, Allison Hollow Road and Interstate 79. The center, constructed in 1993, was dedicated on July 18th of that year. The building project renovated the existing Township building and garages into administrative offices, tax offices, the Police Department, the

Public Works Department, a meeting center, and parking lot. The center sufficiently serves the Township well as the locale for municipal business and activities.

5.3 Township Administration

Chartiers Township is a Township of the second class as defined by the Pennsylvania legislature. In general, these Townships are more rural in character than other types of political subdivisions. Chartiers Township is governed by three (3) elected officials that form the Board of Supervisors. All members of the Board of Supervisors are elected for six-year terms. The Board of Supervisors appoints residents to the following advisory boards and commissions:

- Zoning Hearing Board

- Planning Commission
- Parks and Recreation Board

The Township also has an appointed Township Manager. The Manager is responsible for advising the Board of Supervisors on matters relating to the planning and operation of the Township. The Manager supervises implementation of policy and procedures as directed by the Board of Supervisors through the coordination and administration of all departments. The Manager is also responsible for the general fund and balancing the budget. Other salaried positions with the Township include the Treasurer, Building Inspector/ Code Enforcement Officer, Township Clerk, Public Works Director, seven (7) Public Works Employees, Tax Collector, Police Chief, two (2) Detectives, eight (8) Police Officers and a Janitor.

A Township website has been developed for further public information about the Township's administration and operation at www.chartierstwp.com. On the 2007 Township survey, almost eighty (80) percent of residents checked that they were 'Satisfied' or 'Very Satisfied' with the availability of information regarding Township services, projects, policies and procedures. Detailed responses can be seen in Table 5.1.

Table 5.1: Satisfaction with Township Information

Level of Satisfaction	Percentage of Respondents
Very satisfied	19.83
Satisfied	60.06
Dissatisfied	11.33
No opinion	7.08

*2007 Township Survey

During the Township Survey process, the idea was submitted for an informational brochure/"Welcome to Chartiers Township" pamphlet on existing programs, events, services, and relevant phone numbers to be available at the municipal center. A brochure such as this, in addition to the Township newsletter and newly added website, is likely to increase the level of resident satisfaction for Township information.

5.4 Public Works

The Public Works Department is responsible for general road improvements and maintenance. The Department is also responsible for winter road maintenance, storm basin and pipe repairs and cleaning, sewage pipe repair and replacement, park maintenance and street signs. Many of the Public Works Department's responsibilities directly impact the conditions and safety of the roadways and infrastructure and also the aesthetics of community facilities. During the public participation process for this plan, the enhanced beautification of local entranceways to the Township was discussed. This could include enhanced signage for the Township with plantings along well-traveled access points to the community, i.e. Racetrack Road and Pike Street.

5.5 Zoning and Code Enforcement

The Code Enforcement Officer/Building Inspector is responsible for reviewing site and construction plans, issuing building permits, inspecting construction sites and rental properties and enforcement of all building and zoning codes and ordinances. Currently, the Township administers and enforces the 2006 International Codes in accordance with the PA Uniform Construction Code which went into effect in June 2004. Consistent, objective and prompt response to code violations and requests for building permits are essential to positive community relations, as well as maintaining a standard of development that is desirable and safe. Zoning and code enforcement play a crucial role in the physical appearance of the community, as well as its economic viability and ability to attract new development. There would be a substantial benefit to the Township to move code enforcement from reactive, based upon problems and complaints, to proactive, based on addressing issues before they become problematic.

5.6 Police Department

Law enforcement is provided by the Chartiers Township Police Department, which is fully staffed with eight (8) full-time officers and two (2) detectives under the direction of the Chief of Police. The Department has officers on duty twenty-four (24) hours a day, seven (7) days a week, 365 days a year. The Department is totally funded by the municipality and serves only Chartiers Township. The Police Department facility contains the squad room, traffic office, holding cell, locker room, offices, evidence room, booking area and garage. The Police Department facilities are modern and sufficient in space for operations and staff.

The Department owns eight (8) vehicles, two (2) of which are on the roads at all times. Maximum response time to anywhere in the Township is approximately five (5) minutes, which is down from the fifteen (15) minutes reported in the 1986 Comprehensive Plan. During each shift, the Township is divided into two (2) zones, with one (1) officer patrolling each of the zones. The most common types of crime in the municipality are criminal mischief and domestic violence. Also noted was the increasing trend in speeding violations throughout the Township. This was attributed to the continued development of the region prompting commuters to use local Township roads as thoroughfares. The Department is also involved with two (2) state-wide programs to reduce aggressive driving and increase seat belt usage: Smooth Operator and Buckle Up PA.

The primary function of the Department is to protect the public welfare and enforce laws. Additionally, however, the Police Department participates in several community outreach programs, including time in the schools with such programs as DARE, STARS and Stranger Danger. The Police Department can also provide vacation checks. Future training in the Department is mandatory for at least twelve (12) hours a year for each officer. Future needs for the Department include speed detection equipment and continual additional manpower. Lastly, one major goal for the Department is to strive to get the community involved in the work that they do through such programs as “Crimewatch”. When residents see something that should be investigated, the Department encourages anonymous contact.

5.7 Fire Protection

Chartiers Township is provided fire protection by the Chartiers Township Volunteer Fire Department, conveniently located at 2450 West Pike Street, across from the municipal center. The primary service area is only the Township, but the company pools resources with other departments in surrounding municipalities for mutual aid. There are currently forty-eight (48) active volunteer firemen who train on a weekly basis and must initially train for 188 hours of basic fire fighting training in order to serve the community as fire fighters. The Fire Department owns five vehicles used for fire protection including: an American Clearance Lefrance Aerial truck, a Spartan Fire Engine, a Mack Tanker, a Ford Squad Truck and a Brush Truck. It also has an air compressor and a generator system. The Department can also be used as an evacuation center in an emergency and receives an average of 250 calls a year.

The Volunteer Fire Department receives annual funds from the Township’s General Fund, which is currently set at \$74,100. The Fire Department must still raise a substantial portion of their own

funds. For other funding sources, the company conducts an annual fund drive, requesting donations from local residents and business owners, weekly bingo and raffles. Maximum response time for the company is approximately seven (7) minutes. Future needs for manpower are constant. Fire school training and updated equipment is also continually needed. The existing Department is currently able to sufficiently meet the needs of Chartiers Township. All calls for the station are dispatched through the Washington County Control Center, which handles 911 calls for all Washington County municipalities. Throughout the region, there are concerns over the continued ability of fire departments to attract and maintain a sufficient volunteer base but, with Township employees serving as volunteer firefighters, it ensures more personnel availability.

5.8 Emergency Services

Washington County 9-1-1 serves all Washington County residents. It is responsible for dispatching fifty-three (53) fire departments, including Chartiers Township, twelve (12) emergency medical services, forty-four (44) police departments, and various County agencies. The 9-1-1 center receives approximately 1,000 phone calls and dispatches over 400 emergencies daily. The 9-1-1 center has one (1) supervisor position, two (2) call taking positions, and seven (7) dispatching positions. The center has the capability of communicating on fifteen (15) different frequencies, with full cross-patch and telephone-patch capabilities. The 9-1-1 Center also provides (twenty-four) 24 hour monitoring of several emergency management systems. (Washington County website)

Ambulance and Chair Ambulance Service and Canonsburg General Hospital Ambulance Service are the two (2) emergency medical services the Township uses as first response systems. Both providers offer both Basic Life Support (BLS) and Advanced Life Support (ALS) services. BLS units provide first aid and basic pre-hospital patient care and transport while ALS units provide enhanced pre-hospital care, including the use of adjunctive equipment, the administration of medical fluids and condition stabilizing treatment.

5.9 Health Care

Although no hospitals are located in the Township, several hospitals are located near Chartiers. Canonsburg General Hospital and Washington Hospital adequately serve the Township as primary care facilities. Serving the community since 1904, Canonsburg General Hospital is conveniently located near Interstate 79 on Route 519 in North Strabane Township, well under ten (10) minutes travel time from the most populous areas of the Township. The 104-bed facility, which includes a

(sixteen) 16 bed inpatient acute rehabilitation unit, was built in 1983. The hospital has undergone several expansions: in 1996 a new ambulatory care center was opened, in 2003 the physical therapy department was enlarged, and in 2006, an 11,200 square foot emergency department was added to accommodate increased patient volume. Canonsburg General Hospital, along with the nearly 200 physicians on its medical staff, primarily serves residents living in southern Allegheny and northern Washington counties. Through the West Penn Allegheny Health System, Canonsburg General Hospital is able to ensure that area residents have access to a complete continuum of medical and surgical services, with advanced diagnostic and treatment services accessible on both an inpatient and outpatient basis. The hospital has an active and growing ambulatory care center, along with emergency medicine services, a cardiac catheterization lab and an occupational medicine program. (Canonsburg General Hospital website)

Washington Hospital has served Washington County and the surrounding communities since 1897. The hospital is located in the City of Washington and has a 265 bed capacity with a sixteen (16) bassinet nursery and an eight (8) bed residential hospice. The hospital's medical staff includes more than 350 primary care and specialty physicians providing a full range of medical and surgical care. Recent additions to the hospital include an open-bore MRI, a sixty-four (64) slice CT scanner, electrophysiology services to treat heart irregularities and a pre-school for children with hearing impairments. A \$64 million dollar expansion project is underway on the hospital's main campus. The basing of a STAT MedEvac helicopter on a helipad offers immediate access to and from the facility. Lastly, the hospital has three (3) family practice centers in Canonsburg, Cecil, and Washington and medical centers in McMurray, Greene County and Burgettstown. (Washington Hospital Website) In the previous Comprehensive Plan, it was noted that with population growth, the establishment of a possible outpatient center could also be located in Chartiers. If the Township were to significantly develop, this could be a possibility for a growing population. Nevertheless, these two (2) hospitals meet the healthcare needs for the existing population.

Due to Chartiers' close proximity to the City of Pittsburgh, the Township is also adequately served by regional health care facilities. Health care facilities in the Pittsburgh region include the University of Pittsburgh Medical Center, West Penn Allegheny Health System and Pittsburgh Mercy Health System. Specialty care in the area is extensive, with assets including the Allegheny Cancer Center, Magee-Women's Hospital and Children's Hospital.

5.10 Solid Waste Management

Garbage collection in the Township is privately contracted by each individual resident to one (1) of

three (3) companies: Waste Management, Lemon Refuse and BFI Waste Services. Bulk collection is scheduled weekly. Solid waste is then transported to the Arden Landfill. Recycling service is provided by the Township through a contract with Waste Management and includes the recycling of glass, plastic, aluminum and newspapers. Pickup is once a month throughout the Township. Items are to be placed in a recyclable container that is provided by the Township. The Township also provides an annual leaf pick-up program in the fall. At the present time, the Township is adequately served by these private garbage contractors for residential, commercial, and industrial uses and by the Township for its recycling efforts.

5.11 Sewage Facilities

There are two (2) public sewer systems serving Chartiers Township: The Canonsburg-Houston Joint Authority (CHJA) and the Washington-East Washington Joint Authority (WEWJA). The Canonsburg-Houston Joint Authority Wastewater Treatment Plant (CHJA WWTP) had a rated capacity for annual average daily flow of wastewater of 3.941 million gallons per day (MGD) in 2005. The sewage treatment plant has a permitted capacity of 5.0 MGD on an annual average basis and discharges into Chartiers Creek directly adjacent to the plant. The Authority provides service to the Boroughs of Canonsburg and Houston and portions of the Townships of Cecil, Chartiers and North Strabane. According to the ACT 537 Sewage Facilities Plan Update, September 2006, the CHJA has a current service area population estimate of 30,220 persons with major growth being projected in the service area. The projected population for the year 2030 is 55,445 persons, with an increase in MGD to 8.30. The major findings of the Act 537 Sewage Facilities Plan Update 2006 includes these solutions for the projected 2030 wastewater conveyance and treatment needs:

- Increase the capacity of one manhole run in the Chartiers Creek interceptor
- Combine two manhole runs on the Brush Creek Interceptor and increase capacity
- Expand the Wet Weather Pump Station
- Undertake two (2) separate phases of improvement to the CHJA WWTP. Phase 1 will address the immediate need to optimize the treatment process and correct hydraulic problems. The second phase will provide facilities needed to treat average and peak wastewater flows above the current design capacity and provide upgraded facilities to meet the Preliminary Effluent Limits provided by the PADEP. The selected treatment alternative is the Biotower Activated Sludge Process.
- Adjust sewer rates to generate sufficient revenue to fund the proposed sewer system improvements and satisfy operation and maintenance requirements.

The estimated project cost of the above solutions is approximately \$27,000,000 in 2006 dollars.

Although further financial analysis is needed, implementation of the selected alternative will likely require initially increasing the sewer user rates to \$29.00 per EDU a month.

The Washington East Washington Joint Authority (WEWJA) treatment facility provides service to the City of Washington, the Borough of East Washington, and portions of North Franklin, Canton, Chartiers and South Strabane Townships. The WEWJA Wastewater Treatment Plant had an annual average daily flow of wastewater of 6.45 MGD in 2007. The sewage treatment plant has a permitted capacity of 8.5 MGD on an annual average basis. The projected flow for 2010 is 6.52 MGD. The WEWJA has recently completed a multi-million dollar upgrade and is capable of accepting sewage from a proposed Route 18 sewage extension into unserved sewer areas of Chartiers and Canton Townships. Over fifty (50) percent of the on-lot septic systems in this area are exhibiting symptoms of failure, which in many cases includes the direct discharge or leaching of septage onto public roads and into natural water courses. By preventing this discharge of septage and conveying it instead to treatment facilities, the proposed project is anticipated to protect water quality in the planning area. Additionally, this project is anticipated to act as an impetus for development in the area.

The project includes the construction of sewerage for the Route 18 corridor, which will begin at the end of the existing sanitary sewer system at the intersection of North Hewitt Avenue and Route 18 and will continue to Lynn Portal Road. The system will include the construction of a sanitary trunk interceptor, including a gravity collection system, at a total estimated project cost of five (5) million dollars. The Township has been designated as the entity to apply for funding, primarily through Pennvest, and is responsible for the physical and financial implementation through the completion and satisfaction of the debt service. WEWJA will operate and maintain each portion of the system as it becomes active in accordance with the existing service agreement. The anticipated schedule for this proposed project is a completion date of 2012, with a monthly user cost of \$60.50.

Sewage service in the Township is of utmost importance, as financial resources to install sewage throughout the Township are limited. As of 1990, only 1,706 households, or 59.5 percent of households in the Township, were served by public sewers. (2000 Census data for sewage service was not available) The system currently serving the Township consists of two trunk lines; the first beginning at McClane Farm Road and running northeastward parallel to the existing railroad, and Chartiers Creek to the Canonsburg/ Houston treatment plant. The other begins near the former RCA facility and runs southwest to the Washington/ East Washington treatment plant, serving the Arden Industrial Park. Residential customers are serviced by subsidiary systems branching off the northerly trunk line to individual lots. Aside from those areas connected to these two sanitary sewer

systems, the rest of the Township relies on individual on-site sewage disposal. In more rural communities, the provision of public water and sanitary sewer systems is oftentimes private and on-site. Some suburbanizing communities attempting to maintain their rural and agricultural areas deliberately limit the expansion of public water and sewage as a part of an integrated approach to preserving agricultural areas. On the 2007 Township Survey, almost half of survey respondents thought that water and sewage service should be expanded in the Township to encourage development. The detailed responses can be seen in the following Table 5.2.

Table 5.2: Expansion of Water and Sewage Service to Promote Development

Water and Sewage Expansion	Percentage of Respondents
Yes	47.59%
No	26.35%
Not Sure	23.23%

* 2007 Township Survey

The problem with the expansion of sewage service in the Township is that state and federal funding for such projects is limited and upfront costs of projects are often prohibitive for the Township to undertake. Township officials recognize the issues facing sewer development within the Township and are committed to proactively addressing issues and exploring options for financing their development. Some progress has been made over the past ten (10) years. There was a 2002 expansion of public sewage through the McClane Farm Road area to the Washington/East Washington collector and a force main improvement for the area. Additional sanitary sewer corrective work was completed in 2005, including replacing 530 LF on Silver Maple Street with a manhole, replacing 625 LF on Cummins Avenue and the rehabilitation of four (4) manholes on Hart Street and Cummins Avenue.

As stated in the previous Comprehensive Plan, the Township also looks for the normal expansion of the sewer system from new development. As new funding sources and grant money becomes available, the Township has a step-by-step priority list for areas and projects that include:

1. McClane Farm Road (2002)
2. Route 18 (2008-2012)
3. PA Route 519
4. Midland
5. Arden

Many of these projects would require substantial feasibility studies, engineering work and cost analysis before they could be undertaken. Furthermore, the capacity of the trunk lines must also be examined before any further load on the system is considered. With the current substantial development in the Meadowlands/Racetrack Road area of North Strabane, the need for improving the capacity of the Chartiers Creek interceptor and extending its useful life is necessary. Sewer maintenance, and when necessary upgrades and development, remains one of the most critical issues facing Chartiers and is currently being addressed through a systematic, step-by-step process by the Township.

5.12 Water Service

Chartiers Township is served by the Washington District of the Pennsylvania American Water Company. According to the 1990 Census, 2,262 households, or 79.8 percent, of the Township reported being connected to the public water system. (2000 Census data for water service was not available.) Even though most households in the Township are connected, this only represents about 25 percent of the land in the Township having direct access to public water service. All developed land uses outside the existing public water service area are served by individual private well systems. While water service is not quite as essential as sanitary sewer service for attracting development to the Township, there are limits, particularly in terms of providing fire protection and serving commercial and industrial users. Any water development in the Township is subject to cost-benefit analysis, as performed by the Pennsylvania American Water Company (PAWC). PAWC's sole source of water is the Monongahela River at Elrama and Pittsburgh.

Expansion of the current water system, as with the sanitary sewers, is hampered by the high initial cost and the relatively low likelihood of recapturing substantial amounts of the initial outlay in the short term after construction. The only significant water expansion over the past ten (10) years occurred at the intersection of Henderson Avenue and Welsh Road through the Arden area in 2001. The project was jointly funded through Penn American, Chartiers Township and local user assessments. The new line runs northwest on Henderson Ave. from Crossroads Rd. to the Mount Pleasant Township line and eastward along Welsh Road to Hickory Ridge Road.

The PAWC maintains treatment facilities on the Monongahela River capable of processing a maximum of 110 million gallons of water per day (MGD). The water supply is distributed for residential, commercial, and industrial uses. The Pennsylvania Department of Environmental Protection (PA DEP) and PAWC completed an assessment for the drinking water sources for the

area in May 2002 and no man-made contaminants had been detected in the surface water supplies. In 2005, the Pittsburgh, McMurray and Mon-Valley system facilities were awarded the “Five-Year Director’s Award” under the Partnership for Safe Water program administered by the U.S. EPA, PA DEP and other water related organizations. The award honors water utilities for achieving operational excellence by voluntarily optimizing their treatment facility operations and adopting more stringent performance goals than those required by federal and state drinking water standards. (PAWC website)

5.13 Public School District

The Chartiers-Houston School District serves both Chartiers Township and the Borough of Houston. The School District covers approximately twenty-five (25) square miles. The School District is comprised of two schools: Allison Park Elementary and Chartiers-Houston Junior-Senior High School, both located in the Township. Current enrollment for the 2006-2007 school years is 580 students at Allison Park Elementary, serving grades K-6, and 601 students at Chartiers-Houston Junior-Senior High School, serving students’ grades 7-12. As of 1985, total enrollment was at 1,367 students, and as of 2006-2007, school enrollment had decreased to 1,181 students. The School District also employs seventy-seven (77) teachers. Beginning in June 2007, the District began renovation at Allison Park Elementary School. The student/teacher ratio for the District is 15.2 which is consistent with the student/teacher ratio for the Commonwealth of Pennsylvania of 15 and the United States student/teacher ratio of 15.7. (National Center for Education Statistics)



The Chartiers-Houston School Board is the governing body of the School District. The Board establishes plans and policies to guide the educational system. The 2007-2008 General Fund Budget was adopted by the Board for the amount of \$14,056,533. As revenues continue to show a small increase in property values, the Chartiers-Houston School District, like many other school districts, must try to contain ever-increasing costs to maintain a fiscally sound school district. Due to new

mandates established by the Pennsylvania Department of Education, the budgeting process can be lengthy and stringent. (Chartiers-Houston School District Newsletter) The yearly amount spent per student for the District is \$10,269. Approximately three (3) percent of the revenue comes from the federal government, fifty-two (52) percent from local government and forty-six (46) percent from the state. (National Center for Education Statistics). According to the School District Newsletter, the expenses for the District can be seen in the following Table 5.3:

Table 5.3: School District Expenses

Expenses	Amount	Percentage
Instructional Support	\$8,159,852	58%
Plant Maintenance	\$1,590,006	11%
School Athletics/Activities	\$437,317	3%
Debt Service	\$1,259,432	9%
Administration/Board Services	\$1,470,626	11%
Student Transportation	\$739,000	5%
Community Services	\$50,300	1%
Budgetary Reserve	\$350,000	2%

*2007 School District Newsletter

According to enrollment projections prepared by the Pennsylvania Department of Education for the next ten (10) years, there is a projected decrease in the total enrollment for the District from 1,181 students in 2006-2007 to a total of 944 students in 2016-2017. According to the Washington County Comprehensive Plan, the projected enrollment will decrease to 800 students by 2015, which is in accordance with the decreasing enrollment trends also projected by the state. The validity of the projections may be unclear since small scale projections are often unreliable and can be quickly altered by any new development.

While the Chartiers-Houston School District is responsible for school planning, the Township needs to be an important partner in these efforts to communicate and plan for the community's future. With future development, the Township should require fiscal impact statements that analyze a development's impact on the School District and encourages developers to cooperate with the School District to acquire facilities and resources as needed. The physical plant itself for the Chartiers-Houston School District should be adequate to handle any growth in the Township over the next 10 years.

There is one (1) technical school, the Western Area Career and Technology Center, located in the Township on Route 519. The Center offers instruction in the following areas: auto mechanics, carpentry, cosmetology, culinary arts, electrical occupation and health care, among others. Within Washington County, there are two (2) schools for higher education including, Washington and Jefferson College in the City of Washington and California University of Pennsylvania in the Borough of California. Additional opportunities for higher education abound in the City of Pittsburgh, with many nationally recognized programs such as the University of Pittsburgh, Carnegie Mellon University and Duquesne University, among others.

5.14 Public Library

The first library in Chartiers was founded in 1965 with a \$250 donation from the Allison Park Elementary School PTA. Since then, the current library building was built in 1970 for \$250,000 at the site of the old Moniger Schoolhouse. The Chartiers-Houston Community Library serves the Township well as a source of materials for educational, cultural and informational purposes and is open Monday-Friday from 10-8 and 9-4 on Saturdays. There is a library director and six (6) other part-time library support staff. There are 8,468 persons for the population served by the library and 49,787 catalogue items. This represents 5.88 library items per capita, with a total circulation of 20,924 items.

The Chartiers-Houston library participates in the district library center program and is a member of the Washington County System which provides increased resources. Through Access Pennsylvania, the library can secure and utilize additional material.



The Friends of the Chartiers-Houston Community Library promotes the use and appreciation of this community asset through advocacy, volunteer services and fundraising. Volunteers are always needed at the library for organizing books, fundraisers and children's programs as well as annual events such as the book sale, the flea market and the Pumpkin Festival.

The Chartiers-Houston School District financially supports the Library along with support from

Chartiers Township, Houston Borough and the Washington County Commissioners. It also qualifies for Pennsylvania state funding. The Library holds fundraisers for approximately eighteen (18) percent of its financial needs. The library offers classes and programs for children and adults, with preschool story time and special summer reading programs. Some of the equipment and resources the library has includes computers with Internet access, copy and fax machines, a microfiche print reader, a public display case, a community room with tables and chairs for rent, vital statistics forms, voter registration forms and absentee ballots, income tax forms, audio books, video cassettes, records, periodicals, and of course, books for all ages. Future needs for the library include a full time librarian position, more laptop computers and the reorganization and remodeling of the existing facility with electrical system updates.

5.15 Revenue and Expenditures

Revenues are essentially the municipality's income and can take several forms. Income in Chartiers Township is generated from property taxes, Arden landfill revenue, government shared revenue, permits/fees and miscellaneous interest and earnings. Property taxes are based on assessed value and are expressed in millage (one-tenth of one cent). The property tax millage of nine (9) mills has not been changed since the 1995 fiscal year. Generally, municipalities collect most revenue through property taxes, and it is this revenue which funds the wide variety of community services and facilities provided to Township residents. Chartiers Township receives an equally significant amount of financial compensation towards its revenues from the Arden landfill. The total revenue amount for the Township in 2009 is \$2,840,653. The General Fund Breakdown of Revenues for 2009 can be seen in the following Table 5.4:

Table 5.4: Township Revenues 2009

	Amount	Percentage
Local Taxes	\$780,000	27.5 %
Land fill Revenue	\$600,000	21.1 %
Real Estate Taxes	\$570,000	20.0 %
Government Shared Revenue/Grants	\$147,113	5.2 %
Misc./ Interest	\$588,340	20.7 %
Permits/Fees	\$155,200	5.5 %

*Chartiers Township website

The general fund is the principal operating fund and accounts for many of the Township services

such as police, fire department contributions, library contributions, road improvements, engineering, parks and recreation and planning and development services. Revenue collected in Chartiers Township is also used to pay for Township salaries, equipment and operating costs. Township expenditures have also risen steadily in recent years, due to cost increases in petroleum products, utilities, building materials and road maintenance materials. Expense categories for the Township include: public safety, highway maintenance, administration, general government, building grounds and parks and debt service. The 2009 General Fund Budget Breakdown for Expenditures can be seen in Table 5.5:

Table 5.5: Township Expenditures 2009

	Amount	Percentage
Public Safety	1,085,517	38.2 %
Highways Maintenance	621,870	21.9 %
Administration	459,573	16.2 %
General Government	613,942	21.6 %
Building Grounds/ Park	19,500	0.7 %
Debt Service	40,251	1.4 %

*Chartiers Township website

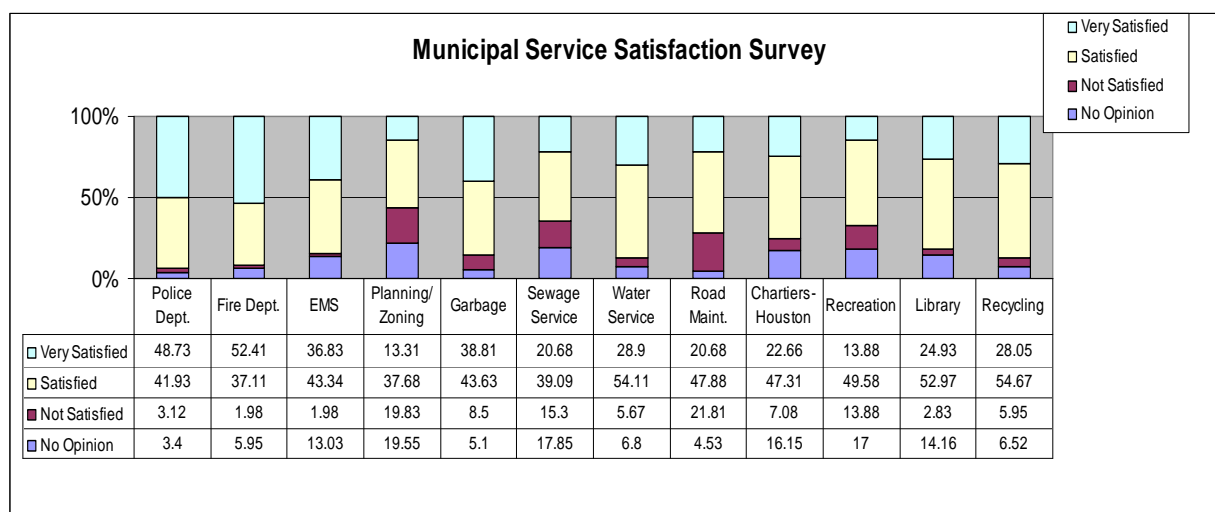
5.16 Conclusion

Chartiers Township is continually reviewing its operations to ensure that services are delivered in an efficient and economical manner. The provision of effective services includes the support of existing municipal services and the investigation of opportunities to expand and provide new services when feasible. The concept of regionalizing or consolidating services with adjacent municipalities and service providers has become a new trend across the state, with the rising cost of service provision making it a necessity in many communities. In many communities across the state, the level of financial support has begun to decrease, while equipment and service costs have risen. Many municipalities are forming partnerships to continue to provide the level of service that residents have come to expect in their communities.

On the Township Survey, residents were asked to check their level of satisfaction with specific municipal services. Highest levels of resident satisfaction where respondents checked 'Very Satisfied' were for the Fire Department (52.41%), the Police Department (48.73%) and Garbage (38.81%). The highest number of responses for services that received 'Satisfied' ratings included Recycling

(54.67%), Water Service (54.11%), and the Library (52.97%). The services that received the highest level of 'Not Satisfied' ratings included: Road Maintenance (21.81%), Planning and Zoning (19.83%), Sewage Service (15.3%) and Recreation (13.88%). On a positive note, all municipal services were marked with either 'Very satisfied' or 'Satisfied' on more than half the responses. The following graph and table illustrate the detailed responses to the question.

Graph 5.1: Municipal Service Satisfaction Survey



*2007 Township Survey

Ensuring the provision of community services and infrastructure and meeting resident's needs is an essential part of a community's growth or decline. The quality of these services greatly contributes to the quality of life in the Township. Services range from necessities such as water and fire protection, to quality of life enhancers, such as recreation or library services. Unguided growth in the Township is a sure method of overextending the adequacy of community service provisions. Adequate public facilities and service standards are necessary to help control the development process. Standards should ensure that land development is aligned with the provision of existing or new facilities or services. Provisions for transportation, water, sewage and educational facilities should guide the land development process with the availability and extension of existing public facilities. With any new residential and economic development, there will be a resulting increase in demand upon the Township, and services provision must increase accordingly.

In order to expand or improve Township facilities and services, there are a variety of private and public tools available. A variety of funding measures will make the best use of sources. There are two (2) methods to obtain private funding participation. Both exactions and impact fees provide a direct means of obtaining the funds needed for capital improvements to service new development. This ensures that new growth areas pay their share of the cost to the Township for providing water, sewage, roads and schools. Exactions are mandatory dedications of land or facilities in-lieu of fees. Impact fees are a direct payment to the Township for the provision of these services. Both serve as a means for local government to finance capital improvements associated with new development. These tools also help mitigate the negative impact on existing community residents to handle the increased service demand associated with new development.

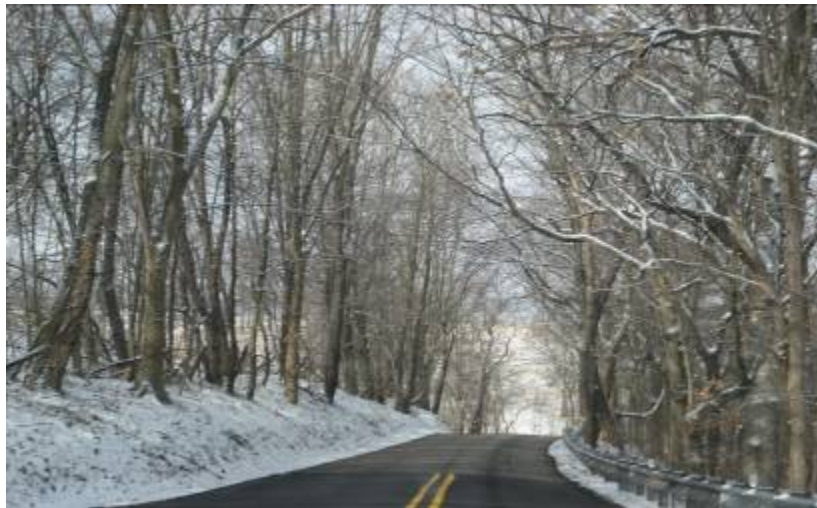
There is a constant demand for the updating, maintenance and expansion of the Township's facilities and services. The Township's ability to provide these services as needed and in a cost effective manner will greatly depend on its ability to plan for their delivery, whether independently or with other municipalities or service providers. The goal for the Township, therefore, is to maintain a tax base sufficient to provide efficient and effective services and facilities and to be responsive to future needs of the community in order to maintain a safe environment that enhances the Township's quality of life. The responsibilities of a local government are many and varied. Generally, the system of facilities and services is well-established in Chartiers Township, and with proper planning, will continue to meet residents' needs through the next decade.

Section VI: Transportation

6.1 Introduction

The Transportation section of the Comprehensive Plan is essentially the plan for the movement of people and goods throughout the Township. Transportation is a significant factor to analyze in the plan since it affects the daily life of most Township residents. This section will highlight regional transportation planning endeavors and existing conditions and circulation patterns in Chartiers. It will also inventory various elements of transportation, including traffic volumes, accident data, the road classification system and other transit options. Alternative modes of transportation, such as public transit and pedestrian and bicycle pathways, will also be discussed.

Just as Chartiers Creek and the railroad in the 1800's stimulated the growth of the Township, the Township's convenient location near the Interstate highways of 79 and 70 has continued the development of Chartiers through the 20th century. The regional transportation system has had a substantial influence on the development patterns in Chartiers. Although land use patterns and transportation networks have been well-established in the Township, long term planning strategies can be used to ease congestion by providing transportation alternatives.



As with land use in the Township, the majority of the roads in Chartiers are primarily rural and residential in character, with the exception of some of the main thoroughfares. Over the past ten (10) years, the road network has primarily remained the same, with only the addition of local roads serving new developments (see appendix: Road Map).

Chartiers Township contains a total of 77.51 miles of roads owned and maintained by the Township and State. The Commonwealth of Pennsylvania owns 21.3 miles of roads, which consists primarily of the highway and state route network, and Chartiers Township owns approximately 56.2 miles of the network, which is comprised of local roads and residential streets. With the Township facing new development in the region, it must also confront the issues associated with increased congestion and traffic safety. One objective for the Township is to lessen these constraints, thereby decreasing congestion and improving safety. Transportation planning and its coordination with land use will have a tremendous impact on the Township.

6.2 Regional Transportation Planning

Transportation planning requires a high level of coordination between multiple agencies and organizations. Transportation planning needs to be a cooperative effort for the most efficient system, due to the myriad of responsible organizations involved in the management and maintenance of transportation infrastructure. Public roads fall under the jurisdictions of federal, state, and local governments. Transportation planning for Chartiers Township is under the jurisdiction of the Pennsylvania Department of Transportation (PennDOT) District 12. PennDOT has designated the Southwestern Pennsylvania Commission, or SPC, as the region's forum for transportation planning and public decision-making.

SPC has the authority and responsibility to make decisions affecting transportation needs and to prioritize the use of all state and federal transportation funds allocated to the region. As the designated Metropolitan Planning Organization (MPO) for the ten (10) county region, including the Counties of Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington and Westmoreland, SPC must develop and maintain a Transportation Improvement Program (TIP). The TIP identifies the region's highest priority transportation projects, develops a multi-year program for their implementation, and identifies available federal and non-federal funding for the projects. The TIP covers a four (4) year period of investment and is updated every two (2) years through a cooperative effort of local, state and federal agencies, including participation by the general public. The prioritization of projects is an annual process, and Township officials should continue to monitor the condition of local roads and bridges in order to make recommendations for funding. Township coordination and participation efforts are continually needed to ensure an adequate transportation network. (Southwestern Pennsylvania Commission)

The *2007-2010 Transportation Improvement Program for Southwestern Pennsylvania* specifies the

transportation priorities for the region and includes reasonable estimates of both available funds and anticipated project expenditures. For each project, the TIP identifies the total project cost and schedule (by year) for each project phase, as well as the funding source. The projects for Chartiers Township on the 2007-2010 TIP include the following:

Table 6.1: Transportation Improvement Projects for Chartiers Township 2007-2010

Project Name	Description	Project Funding	Years
Trolley Car Barn: Phase II	This is a transportation enhancement project that will involve site work required for the Visitor Center/ Trolley Display area, Trolley Street and Parking Area	\$760,000	2007
I-79 Meadowlands Interchange	Add 2 Ramps	\$18,978,000	2008-2010
Pike Street/ Allison Hollow	Intersection Improvement	\$5,000,000	2007-2010
SR 1009/ 4049	Intersection Improvement including adding a left turn lane on SR 1009	\$700,000	2007-2009
Arden Bridge #1	Bridge Replacement	\$2,000,000	2007-2010
Chartiers Creek Bridge #40	Bridge Replacement (#51261)	\$220,000	2007-2008

*Southwestern Pennsylvania Commission

6.3 Existing Conditions and Local Issues

Traffic volumes are calculated as vehicle counts passing a point of a road over a specified period of time. Average Daily Traffic (ADT) is the total 24-hour traffic volume in both directions on a road segment for a typical weekday. Traffic volumes fluctuate throughout the year, with heavier volumes in the summer and lighter volumes in the winter. The following table shows ADT volumes for some of the major thoroughfares of the Township as compiled by SPC.

Table 6.2: Chartiers Township Traffic Counts

Roadway	Location	Date Count	Traffic Count
State Route 18	Between Oak Grove Road and Lynn Portal Rd	9/21/2006	8,521
Pike Street	Between Ryan Drive and Allison Hollow Rd.	6/6/2002	12,970
Pike Street	Between Racetrack Road and Buccaneer	6/6/2002	12,870

	Drive		
Racetrack Road	Between RR crossing and Hallam Street	6/4/2002	13,164
Racetrack Road	Between I-79 Ramps and Pike Street	11/16/2005	13,633
Country Club Road	Between Clark Street and Pike Street	6/6/2002	7,151

*Southwestern Pennsylvania Commission

Traffic volumes are increasing on many of these major thoroughfares. A traffic count on Racetrack road (between the I-79 ramps and Hallam Street) was completed in 1997, with a traffic count of 10,927 vehicles. As one can see from the table above, the number counted five (5) years later was up by over 2,000 vehicles. The new development of the Meadowlands Racetrack and Casino, the Tanger outlets and continued development of the North and South Strabane corridor will only further tax Township roadways.

Residents of Chartiers Township have a variety of issues and concerns surrounding transportation in their Township. From the community survey, almost a third (35.41 percent) of residents chose 'Accessibility to major transportation routes' as a top reason why they live in the Township. Over sixty-five (65) percent of respondents felt that Township roads are developed and maintained in a safe and efficient manner while over twenty (20) percent felt that they were not maintained in such a manner. Over fifty-three (53) percent of respondents felt that there were roadways and circulation patterns that could be improved. (6.32 percent said no and 34.84 percent said they were not sure). Of those roadways that residents felt needed improvement, the following table shows the approximate number of responses for given roadways and/or circulation patterns:

Table 6.3: Community Survey Responses

Number of Responses	Roadways or Circulation Patterns to Improve
Identified 25 or more times	Allison Hollow Intersection of Pike and Allison Hollow Intersection of Pike and Racetrack
Identified 10 or more times	Intersection of Pike and Country Club Racetrack Road Pike Street
Identified 5 or more times	McGovern Rd. Paxton Road (and bridge on) Arden Bridge

	Welsh (at Allison Hollow and Hickory Ridge)
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*2007 Township survey

As can be seen in the above table, the Allison Hollow, Pike Street and Racetrack Road corridors are all viewed as problematic by Township residents. As shown on the Table 6.1, Allison Hollow Road at Pike Street in the Township is currently undergoing the long-awaited project to realign that road with Racetrack Road at the Pike intersection to form a four-way intersection. The work includes moving Allison Hollow closer to a tributary of Chartiers Creek that runs along the road to accommodate the new intersection alignment, a new traffic signal and turning lanes on Pike Street and Allison Hollow. It will require realigning a portion of the tributary and installing a new box culvert. The \$3.4 million project will be completed by CH&D Enterprises of New Stanton. Pike Street is scheduled to be closed for approximately three (3) weeks while a box culvert is installed near the Meadow Inn. The culverts should alleviate a flooding problem in the area. Part of Pike Street near the intersection will be widened. The closure is expected to remain in place until October 2008. (Warco, Observer Reporter, 3/22/08)

Obviously, there is a high level of concern regarding transportation along the Pike Street, Racetrack Road and Allison Hollow corridors and its effect on both the development and overall quality of life within the Township. While residential and commercial development has traditionally occurred along these corridors, congestion on these roads is increasing as they dually function as both thoroughways and main streets with many unsignalized access points. Accident statistics from the Chartiers Township Police Department for some of the busy thoroughfares in the Township can be seen in the following table:

Table 6.4: Accidents Statistics January 2000-April 2008

Roadway	Allison Hollow	Country Club Road	Henderson Ave. (Route 18)	Hickory Ridge Road	Racetrack Road	Pike Street	Western Ave.
Number of Accidents	47	51	45	28	34	94	20

*Chartiers Township Police Department

Many of these accidents can be attributed to high traffic volumes, the amount of intersecting side streets and access points along these roadways and inadequate facilities for turning lanes. Other circulation and safety conditions throughout Chartiers Township that may continue to raise concerns among residents and Township administration and impede circulation include:

- Unimproved surfaces
- Roadway alignment problems
- Sight distance problems
- Dangerous curves
- Unsignalized access points

The Township road system is maintained by a fully-staffed Public Works Department. The Township employs seven (7) experienced employees along with seasonal employees. The Public Works Department is able to address most needs of the community, including winter road maintenance, paving repairs, street sweeping and replacement of street signs. With the rising costs of road resurfacing and paving products, the Township addresses road improvement projects on an as-needed basis.

A variety of longer-term alternatives, including opportunities for bicycle, pedestrian and public transportation are often needed to provide solutions for complex transportation issues. Improving connectivity between existing residential, commercial and industrial developments within the Township is important. The ability to drive, walk, or bike from one property to another is often hampered by the lack of an appropriate connection, whether an interior access lane, sidewalk or pathway. This further enforces the idea that the only way to reach a destination is through an automobile, even for very short distances.

Transportation planning is now encouraging alternative means to improve accessibility through “smart growth”. Smart growth encourages an integration of all modes of transportation in land use planning to improve mobility through a more innovative use of rights-of-way, including bicycle lanes, public transportation opportunities, pedestrian pathways, and access management strategies that reduce congestion and improve traffic flow while reducing potential conflicts with other vehicles or pedestrians. It promotes compact and efficient land use patterns and limiting where egress and ingress is allowed to maximize transportation efficiency. “The smart growth concept, applied in this manner seeks to integrate all modes of transportation with land use planning in an effort to improve mobility and foster well-planned communities.” (Washington County Comprehensive Plan, 2005)

Due to financial constraints, the rising costs of roadway materials and more restricted funding sources, the Township can no longer undertake the road construction projects and opportunities available historically. This does not mean that important projects are no longer possible but projects oftentimes are simply more modest in scope. One tool to assist in the financing necessary for

transportation development that is available to the Township is the use of impact fees. Any development, residential or nonresidential, over a certain size, can be required to perform a transportation impact study to determine what impact the development will have on the local road network. While these studies describe the various necessary and desirable road improvements, unless the Township has a traffic impact fee ordinance, the developer can only be held responsible for improving roads immediately adjacent to the site. Under Act 209, which was passed by the Pennsylvania Legislature in 1990, a municipality can impose a fee on a developer to make improvements to roads or intersections that the transportation study has determined are impacted by the development but are not adjacent to the site. The implementation of this impact fee would be a useful tool for funding necessary road improvements throughout the Township.

6.4 Modes of Transportation

According to the 2000 Census, the average commute time to work was 22.1 minutes for Chartiers residents. Although alternative modes of transportation, such as walking or bicycling are gaining popularity as a means of recreation and an energy-saving commuting alternative, many alternative modes of transportation require sidewalks and bicycle lanes to facilitate use. Generally, pedestrian and bicycle facilities are not provided throughout the Township. There is a growing demand for these facilities, especially with the rising cost of fuel and continued congestion on roadways in recent years. The Township should explore any opportunity for pedestrian or bicycle facilities development. The extension of the sidewalks and/or the development of alternative pathways and transportation methods will offer not only health benefits for pedestrians, but will also alleviate local traffic congestion by providing other means of access through the Township. Means of transportation by Township residents in contrast to reference areas are shown in the below table:

Table 6.5: Means of Transportation in Contrast to Reference Areas

Percent who:	Chartiers Township	Washington County	Pennsylvania	United States
Drive alone	86.5	82.5	76.5	76.0
In carpools	9.0	9.9	10.4	10.7
Use public transportation	0	1.3	5.2	4.8
Walked	2.4	3.2	4.1	2.9
Use other means	0.5	0.5	0.5	1.7

Worked at Home	1.6	2.5	3.0	3.9
Mean travel time to work (minutes)	22.1	25.6	25.2	25.0

*US Census Data

From Table 7.5, it can be seen that Chartiers' residents chosen mode of transportation is by automobile, usually driven alone. It is also shown that a smaller percentage of people in the Township carpooled to work and used public transportation than in the other reference areas. Also, a lesser percentage of people walked or worked at home than for other reference areas. One factor to explain the reliance on single passenger driving could be the nature of Chartiers as a 'bedroom community', a community where people live but do not work in the area.

The Township should encourage the use of the public transportation system, with more stops available to Township residents. The closest park and ride area in the Township is located at Interstate 79, Exit 43 Houston/Eighty Four on Route 519. An additional park and ride area could be viable since over thirty-two (32) percent of Township residents also work outside of Washington County. With rising fuel prices and environmental benefits, in addition to less congestion, any steps to mitigate the reliance on single passenger commuting are valid and important. The effect of this reliance on single passenger commuting has probably not been seen to the full extent because of the decline in the population in the Township. If Chartiers is to develop and attract some population growth, serious circulation problems in the Township could be anticipated.

6.5 Public Transportation

The Washington County Transportation Authority (Washington Rides) provides public transportation to the residents of the Township. Washington Rides' mission is to promote and provide high quality, cost-effective transportation to the citizens of Washington County and surrounding areas as appropriate, especially for older adults, persons with disabilities, veterans, and economically disadvantaged individuals, including those on Medical Assistance. The bus service readily accessible to the residents of Chartiers Township is the G G & C Bus Company Inc. Pittsburgh Commuter Schedule. The bus service departs from the Chartiers Township municipal building six (6) times every weekday and has two (2) departures on Saturday. The return trip arrives at the Chartiers Township Fire Department another six (6) times Monday through Friday and twice

on Saturday. The G G & C Bus Co. provides quality, full service transportation and works along with the Washington County Transportation Authority to provide modified door to door transportation to the residents of Washington County at little or no cost to the passenger. Lift van service is available on request. Transportation is provided free or at a low cost to senior citizens



through its shared ride program, persons with disabilities through an ADA complementary para-transit service, persons receiving Medical Assistance, low income persons who need a ride to work and veterans. With only one (1) bus stop in the Township, the lack of a more intensive bus system or any other form of public transit is indicative of the lower density of

development in the Township. This results in limited ridership, making a more extensive public transit system less feasible. The Township should advocate for increased bus service and encourage usage by residents.

6.6 Functional Classification System

The Federal Highway Administration's (FHA) functional classification system categorizes roads based on their design, capacity, and speed. Roads higher on the hierarchy are intended to carry greater volumes of vehicles for farther distances, while smaller, local roads are geared toward shorter, more locally-oriented trips. The majority of roads in Chartiers Township are owned by the Township and are not currently classified under the FHA system. In addition to Township roads, there are State roads and privately-owned roads. These state roads are of significant importance to the Township's ability to attract potential residential and commercial development to the area. The hierarchy of roads includes expressways and other limited access highways, arterials, collectors, and local roads. These can be further divided according to the urban or rural character of an area, principal and minor arterials or major and minor collectors.

The Functional Classification System organizes various roads in this hierarchy based on the service and function they provide. This system designates road segments based on average traffic volumes, trip length, roadway design and the relationship of the segment to other nearby roads. By using this

method, a logical and efficient roadway network can be established based on access and mobility. Accessibility refers to the level of control over traffic entering or exiting a roadway to or from adjacent properties. Mobility refers to the ability of a road to carry traffic volumes. These two (2) concepts are inversely related. For example, expressways emphasize a high degree of mobility but do not usually provide access to abutting properties. Local roads, on the other hand, primarily provide access to abutting properties, while discouraging the mobility of through traffic.

1. Expressway. The highest level of road classification is the expressway, which is a multi-lane highway with fully controlled access usually provided only at interchanges, while providing linkages on an interstate or interregional basis. Expressways handle the highest volumes of traffic at high speeds for the longest trip lengths. Expressways are designed for efficiency and usually traverse and connect metropolitan areas. Expressways in Chartiers Township include Interstate 79, with two (2) local interchanges on Route 519 and Racetrack Road. Area expressways include Interstate 70.

2. Principal Arterials are any major highways that move large volumes of traffic at relatively high rates of speed (45 to 55 miles per hour) with minimum interference. They facilitate traffic over long distances on an inter-county or interstate basis and connect urban areas, employment or commercial centers with outlying communities and employment centers. Access points are generally limited and controlled. Generally, principal arterials provide between two (2) and four (4) through lanes of travel, depending on traffic volume and land use intensity.

3. Minor Arterials interconnect with principal arterials. These roads provide services for trips of moderate length (3-5 miles) and have controlled access points. Minor arterials provide greater access to adjacent land than principal arterials and carry traffic within or between several municipalities. Further, they link other areas not connected by principal arterials and provide key connections between roads of higher classifications. The Washington County Comprehensive Plan has State Route 18, State Route 519 and State Route 980 in the Township listed as minor arterials.

4. A Major Collector provides a combination of mobility and access with a priority on mobility. Access points should be somewhat controlled on major collector roads. They carry fairly heavy traffic volumes at moderate rates of speed and connect municipalities and roads of higher classifications. A **Minor Collector** provides a combination of mobility and access, with a priority on access. They move relatively low volumes of traffic at lower speeds and direct it to arterials and major collector roads. They allow access to abutting property with little or no restriction. Generally, minor collectors accommodate shorter trips within a municipality. Minor collectors also provide

traffic circulation between and within residential neighborhoods. Examples of collector roads in the Township include Pike Street, Racetrack Road, Allison Hollow, and Country Club Road.

5. Local Roads have relatively short trip lengths with low travel speeds and provide direct access to adjacent land uses. They provide a link between property access and the collector road network. Through traffic should be discouraged from using local roads. Local roads make up the majority of Township-owned roads. They mainly handle slower, local traffic and are primarily used by the community's residents. Local roads have the highest emphasis placed on accessibility and the lowest emphasis on mobility.

6.7 Conclusion

Transportation is one of the most important factors impacting the future growth and development of Chartiers. Because of the Township's favorable location in the regional transportation network, significant development could be anticipated. Chartiers Township is a desirable residential community with quick and easy access to major transportation networks. With the close proximity to I-79 and I-70, residents can easily commute to the cities of Pittsburgh, Washington, and their suburbs. As far as commercial and industrial interests, these interstates allow excellent accessibility for any business choosing to locate within the area. Thus, Chartiers' viability as a regional commercial or industrial center is positive in regards to transportation networks being able to facilitate commerce to the region.



Although PENNDOT has the primary responsibility for the interstate highway system and many arterial roadways in the Township, the Township can be a strong partner in transportation planning endeavors. This can occur because of its role in identifying roadway improvements and its policies, which guide land use and development in the Township. The capacity of major arterials is key to any growth management of the Township and must be considered. With the new commercial and residential development in the region, the private sector will have to be part of the solution to transportation issues, including expansion of roadways, linkages and financing. Realistically, the

private automobile will continue to be the dominant mode of travel in the Township. Although most roadways are currently operating at acceptable levels of service, continued growth will undoubtedly require substantial extensions and improvements to the circulation pattern. The Township must be vigilant in its road development and maintenance in order to enhance transportation system and circulation throughout the Township and improve the area's competitiveness.

The Township's overall goal for transportation is to facilitate the safe and efficient movement of people and goods. Besides making improvements to facilitate the movement of automobiles, it is desirable to examine alternative methods of transportation, such as public transit and pedestrian or bicycles pathways. To the extent that these options can be utilized to offset the reliance of single passenger automobiles, road congestion can be mitigated. Intermodal facilities offer communities the opportunity to coordinate transportation activities and needs. Park-n-ride facilities and public transit are some of the methods that can be utilized through intermodal transportation planning. Public transit is an important mode of transportation decreasing roadway congestion. The Washington County Transportation Authority, along with the GG & C Bus Company provides transportation choices that can accommodate varying segments of the population. This is important for a community with an aging population. It is recommended that the Township works with the Washington County Transportation Authority and the GG & C Bus Company to support and increase the use of public transportation in the Township.

A basic bikeway or walkway facility along one of the main corridors could improve circulation and access in the Township. With this as a basis, in the future the Township could work toward an interconnected network of pedestrian and bicycle ways through the more developed commercial and residential areas of the Township. Connectivity between adjacent uses must go beyond vehicular connection if the Township is to promote improved circulation for bicycles and pedestrians. The ability for future residents to walk to adjacent neighborhoods and basic services, without the use of their automobile, requires that sidewalks be included in new developments. These sidewalks should be extended to adjoining neighborhoods, community facilities and other amenities.

The Township roadway system, including its highways, bridges and railways has helped shape the landscape of Chartiers Township. Coordination between the Township, County, and SPC is essential for planning the most efficient transportation system for the community. Technical and financial assistance is available from the State through various programs such as the Local Training Assistance Program (LTAP). LTAP provides a wide array of services, including technical assistance, training

sessions and updates on the latest technologies and innovations, usually at no cost to the municipality. Many of PENNDOT's programs support the smart growth initiative and provide funding for studies that coordinate transportation and land use. Transportation priorities for the Township are constantly evolving, and Township officials must be proactive and diligent to maintain current transportation resources and plan for tomorrow's transportation needs.

Section VII: Parks, Recreation and Open Space

7.1 Introduction

The availability of park, recreation and open space amenities can help provide an enhanced quality of life for residents in the Township. Park and recreation facilities provide locations for residents to spend time, usually outdoors, in active recreational pursuits or passively through undeveloped open space opportunities. As stated in the 2005 Washington County Comprehensive Plan, “Park and recreation facilities/activities have been shown to increase property values, attract business and industry, improve the overall health of the residents, and preserve the natural and cultural features of the area. The county officials understand these benefits and how they strengthen the economy and quality of life aspects.” This section of the Comprehensive Plan will provide an inventory of the existing park, recreation and open space amenities and facilities available in the Township, with an assessment of the condition of these facilities and the provision of regional park and recreation amenities. The administration of parks and recreation will be discussed with national park and recreation standards and park and recreation community survey results will be highlighted. Lastly, trail and open space opportunities will be discussed along with potential funding sources for their development.

There are two (2) types of recreational areas; those designed for active recreational uses and those that remain in a natural state to be used for passive recreational pursuits. The key is to ensure that these facilities offer the right combination of active and passive activities as demanded by the Township’s residents and visitors, regardless of age or ability. Active recreation facilities are typically designed with playground areas and climbers, swings, slides and so forth, or for athletic pursuits, such as baseball fields, tennis and basketball courts or swimming pools. Passive recreation is characterized by undeveloped open space with a lack of structured facilities. Examples of passive recreation include hiking, jogging, bicycling, bird watching, and picnicking. Recreation facilities and open spaces can range in size from large areas serving regional populations to small scale facilities serving a neighborhood.

7.2 Park Area and Recreation Facility Assessment

The Township has (2) two municipal parks set aside for recreation in the Township: Allison Parkette and Arnold Park. Both developed parks in the Township were observed through fieldwork

conducted during the planning process in May of 2008. The purpose of the fieldwork was to evaluate park areas and recreation facilities including a review of the overall condition and maintenance, the uses surrounding each site, the availability of parking and the ability to walk to the site.

Arnold Community Park is thirty-one (31) acres and is conveniently located on Pike Street. It has been recently developed over the past ten (10) years. There is a large pavilion for rent from the Township for \$75.00 with fifteen (15) picnic tables. There is a sand volleyball court and a fenced in multi-purpose field. There are benches, four (4) horseshoe pits, restrooms and a brick fire pit. There is also a large and small playset, four (4) swings and two (2) baby swings with a sand play area. There is also a wetland overlook area. Future plans for the location include a community center. One proposal is signage for the wetland area displaying native species of flora and fauna for sighting to provide passive recreational opportunities.



Another proposal for this park's development includes a buffered landscape area between the park and Pike Street to act as a visual, privacy and sound barrier from the busy thoroughfare.

Arnold Community Park is in very good condition overall while, some areas of it are still to be developed. Access to the park is provided from Pike Street, adjacent to the Chartiers-Houston Junior Senior High School. The rest of Pike Street in the vicinity is a mixed commercial and residential corridor. All structures and facilities within Arnold Park are properly maintained and offer inviting settings for recreation. Parking is provided on-site, and the park is easily accessible from the parking area. Arnold Park does contain security lighting and is easily identified with attractive signage along Pike Street. Park hours are clearly, identified but rules and regulations for the facility should also be added.

Allison Parkette is located on McGovern Road, adjacent to the Allison Park Elementary School, and is approximately fifteen (15) acres. It is owned by the Chartiers-Houston School District and is leased to the Township for a dollar a year. The main areas of the park include a play area and

baseball fields. At the play area, there is no signage, rules or regulations for the park and no security lighting. There is on-site parking which provides easy access to the playground area of the park. There is some newer red and yellow playground equipment with large, medium and small playsets in good condition. There are also two small red and yellow climbers in good condition. The remaining three climbers are older, rusty and need to be rehabilitated or removed. There are ample swings available at the playground but on each of the four swing sets, one swing is missing and all the swings and chains are old, rusty and need to be replaced. This area is owned and maintained by the School District and the Township should advocate for some of the equipment's rehabilitation. There is a batting cage area between the park and the baseball fields. There is also a picnic pavilion with ten (10) picnic tables that can be rented from the Township for \$50.00. The lower parking area near the pavilion should be resurfaced. There is a basketball court in fair condition and benches are interspersed throughout the grounds.

Overall, Allison Parkette is in fair condition, with some amenities in poor condition. The Township may consider working with the school district to improve this facility. The park is adjacent to Allison Park School and single and multi-family residential areas. Access to the facilities is from McGovern Road. The ball fields are generally in good condition. The basketball hoops are missing nets and could be refurbished. The pavilion is in good condition, but access to it is difficult from the lower parking lot. Thus, structures and facilities within Allison Park will require some capital investments and maintenance.

The last recreational area in the Township is the Ullom Road property, which is undeveloped. The property is 57.4 acres and was deeded to the Township by the US Utilities Services Corporation for recreational purposes. Due to a parcel donation giving this area improved transportation access, the Township should begin to plan for its intended use. There are currently no plans for its development, but Township officials and the Park and Recreation Board should work together and with the community to begin planning for the utilization of this property.

7.3 Regional Park and Recreation Facilities

Regional recreation facilities are available for residents within the Township and also in nearby areas. These facilities are provided by Washington County and the Commonwealth of Pennsylvania. The Washington County Children's Garden is located in Chartiers and is a public perennial garden designed for children to discover, explore and learn about their natural world. The garden consists of many raised beds and each one has a theme such as the Alphabet Garden, Mr. McGregor's



Garden, the Butterfly Garden, Herb Garden and Rainbow Garden. There is an area for children to dig and plant their own seeds and flowers. Special programs are scheduled on-site throughout the summer. The garden is open to the public and there is no charge to visit. The Washington County Fairgrounds in the Township hosts the Washington County Agricultural Fair, held annually to celebrate Western Pennsylvania

heritage, culture and community by providing entertainment, friendly competition and educational experiences. The historic Fair is where agriculture, industry, and recreation unite in a cooperative effort to portray the resources and accomplishments of the Washington County community. (Washington County Children's Garden and Agricultural Fair websites)

The Washington County Department of Parks and Recreation system is comprised of three (3) parks and one (1) trail: the Cross Creek County Park, the Mingo Creek County Park, the Ten Mile Creek County Park and the Panhandle Trail. These total 4,900 acres of parkland within the county. The county park system offers a myriad of amenities and facilities including pavilions, playground areas, nature and bicycle trails, and boating launches and docks, as well as recreation programs and special events. Additional nearby regional recreation facilities outside of the county boundaries include Raccoon State Park in Beaver County, Settler's Cabin County Park in Allegheny County and Point State Park in the City of Pittsburgh.

7.4 Parks and Recreation Board

The Parks and Recreation Board is appointed by the Township Board of Supervisors for four (4) year terms and is comprised of nine (9) members. The Board makes recommendations on all park related issues, including improvements, equipment and the scheduling of activities in Township parks. The main undertaking for the Board are five (5) annual events that are held within the Township at Arnold Park and the municipal center. The events include: an Easter Egg Hunt, Community Day, Concert in the Park, Movie in the Park and Light-Up Night. Citizen involvement with the Park and Recreation Board is always encouraged and welcomed.

Limitations to the development of park and recreational facilities and programs in the Township as identified by the Park and Recreation Board, include a limited budget and the lack of paid staff for the Township. Since the Board is comprised only of volunteers with no paid Township staff, with the exception of public works maintenance efforts, the opportunity for expanded efforts by the Board are limited. Additionally, the 2008 budget for recreational programming was under 2000 dollars a year. There are a significant number of grants specific to park and recreation development, but without the available resources to identify and apply for these programs, park and recreational facilities and programs can oftentimes be overlooked.

7.5 Park and Recreation Funding

The Pennsylvania Department of Conservation and Natural Resources (DCNR) provides funding for conservation and recreation programs covering local recreation, greenways, trails and open spaces. Whether it's rehabilitating a community athletic field, building a safer playground, preparing a watershed or greenways plan, developing an abandoned rail corridor or protecting a critical natural or open space area, the Bureau's Community Conservation Partnerships Program (C2P2) can provide communities with the technical assistance or grant funding to undertake these and other types of recreation and conservation projects. The Program is a combination of several funding sources and grant programs: the Keystone Recreation, Park and Conservation Fund (Key 93), the Environmental Stewardship and Watershed Protection Act (Growing Greener), and Act 68 Snowmobile and ATV Trails Fund. The Program also includes federal funding from the Land and Water Conservation Fund (LWCF) and the Recreational Trails component of the Transportation Equity Act for the Twenty-first Century (TEA-21). The C2P2 grant program is a tool for DCNR to partner with communities, nonprofit groups and the private sector to conserve Pennsylvania's valuable natural and cultural heritage and support community recreation and park initiatives.

DCNR partnerships involve greenways, open spaces, community parks, rail trails, river corridors, natural areas, indoor and outdoor recreation, heritage areas and environmental education. Agency programs are linked with other State agency efforts to conserve historic resources, protect water quality, enhance tourism, and foster community development. DCNR's Bureau of Recreation and Conservation provides a single point of contact for communities and nonprofit conservation agencies seeking state assistance through its C2P2 program in support of local recreation and conservation initiatives. This assistance can take the form of grants, technical assistance, information exchange and training. All of DCNR's funding sources are combined into one annual application cycle and process. Generally, all components require a match, usually fifty (50) percent of cash

contributions. The demand for DCNR's C2P2 funds has been steadily increasing, as communities seek to meet the recreation and conservation needs of residents for access to outdoor recreation, natural areas to enhance their overall quality of life, and the preservation of critical landscapes. (DCNR website)

Types of projects eligible for funding include: Community Recreation, Land Trusts, Rails-to-Trails, Rivers Conservation, Snowmobile/ATV, Heritage Parks, Land and Water Conservation Fund and Recreational Trails. The types of projects currently most applicable for the Township include:

- **Community Recreation Projects** are awarded to municipalities and include the rehabilitation and new development of parks and recreation facilities, acquisition of land for active or passive park and conservation purposes, technical assistance for feasibility studies, trails studies, conservation plans, site development planning, and comprehensive recreation, greenway and open space planning projects.
- **Recreational Trails Projects** develop and maintain recreational trails and trail-related facilities for motorized and non-motorized recreational trail use. Eligible project categories include: maintenance and restoration of existing recreational trails; development and rehabilitation of trailside and trailhead facilities and trail linkages; purchase and lease of recreational trail construction and maintenance equipment; construction of new recreational trails; and, acquisition of easements or property for recreational trail corridors.

DCNR determines which funding source is used to fund a project based on a number of factors, including matching requirements, amount of funding request and the type of applicant. Both of these programs could be utilized for the rehabilitation of Allison Parkette or the development of the Ullom property.

Additional methods for funding recreational maintenance and expansion include, capital improvement programs, rail-to-trails programs or "Friends of Parks" fundraising efforts. One method to reduce costs for recreational undertakings can be a park maintenance program with volunteer programs for park clean-up or facilitation of recreational activities.

To further encourage the creation of parks, several tools can be utilized:

- **Alternative Density Zoning:** This technique reduces lot size or consolidates lot layout in order to provide compensating amounts of open space within subdivisions.

- Subdivision or Zoning Regulation: Through these regulations, developers can be required to dedicate recreation or open space, or when park dedication would not serve Township needs, require a fee in-lieu of payment for parkland.

Oftentimes, a community will undertake a Comprehensive Park, Recreation, and Open Space Plan in order to assess the existing and future recreational and open space demands placed on the Township's facilities and services. Chartiers Township does not have a Comprehensive Park, Recreation and Open Space Plan to analyze the demand for parks and recreation and to better understand the complex issues and needs for this important municipal service. It could also address maintenance issues and the expansion of facilities and programs over time. Due to the financial and administrative limitations of the Township, it is unlikely that such a plan will be undertaken in the near future. A smaller scope strategic plan could be considered by the Parks and Recreation Board and Township staff. With this section of the Comprehensive Plan as a basis, it could undertake a park and recreation assessment by staff to evaluate for safety and maintenance issues, set goals for the short term (1-3 years) and outline strategies to achieve those goals.

The Township's goal for the development of park, recreation and open space should be to create recreational opportunities to serve the diverse needs and desires of Township residents and visitors. These facilities and assets should provide recreational and open space opportunities for all residents regardless of age, sex and ability and should enhance and complement each other. The first objective for the Township should be to maintain and enhance existing municipally-owned park and recreational facilities. Secondly, it should explore opportunities for the expansion of recreational and open space facilities and programs for residents of all ages and abilities. All efforts should be coordinated in partnership with the School District, county, and state to encourage full use of recreational assets, programs and funding sources.

7.6 Trail Opportunities

The Township currently does not contain any official greenway or trail networks. Trails and greenways provide passive recreation opportunities and green corridors of protected open space, as well as opportunities for exercise and fitness in the natural environment. The benefits of trails are significant to all segments of the population and could benefit residents and visitors alike. The Ullom Road property could be considered for the provision of a greenway and trail amenity for the Township. One objective for the plan would be to begin a basic trail system that would link commercial, recreational, scenic, and/or cultural assets to each other and the Township's

neighborhoods and centers. While many of the Township's residential neighborhoods provide sidewalk facilities within their particular subdivision, many areas lack connectivity between the neighborhoods. Sidewalks should be encouraged in all new developments.

Another form of connectivity can be found through the development of water trails. Water trails are recreational areas on creeks, lakes and rivers between specific points, containing access points for canoeing or boating. Water trails emphasize low-impact use and promote stewardship of the watershed's natural resources. Water trails found regionally include the Rivers of Steel Heritage Corridor. Chartiers Creek runs along Chartiers Township's entire southeastern border and could provide trail and greenway opportunities that are not currently present. No recreation or open space amenities utilize this water resource.

7.7 National Recreation and Park Association Park Classification System

The following park classifications offer a means by which the Township can categorize its existing parks and determine how well the park system measures up against these standards. The definitions also provide a framework within which to plan a well-rounded park system in the future. At the Township level, the National Recreation and Parks Association (NRPA) recommends the following categories of parks and open space as a way to organize the park and recreation resources found within a community. It shows the range of park types, service radius, definition, benefit and appropriate facilities.

Table 7.1: NRPA Park Classification System

Type/Size	Service Radius	Definition	Benefit	Appropriate Facilities
Mini-Park 0-5 acres	¼ mile service radius or single neighbor-Hood	Smallest park type; addresses limited recreation need	Provides close to home recreation	<ul style="list-style-type: none"> • Playground • Benches with well-developed park
Neighborhood Park 5-20 acre minimum	½ mile service radius or in walking-biking access	Provides access to active and passive recreation opportunities	Contributes to neighborhood identity; Establishes sense of community	<ul style="list-style-type: none"> • Play areas • Ball/game fields • Picnic area • Seating area • Pathways • Community gardens
Community Park 20-50 acres	½ -3 mile service radius; serves	Large park for active and passive	Variety of recreation opportunities for all ages and	<ul style="list-style-type: none"> • Variety of facilities • Space for organized,

	entire community	recreation; Accommodates large groups.	interests year round and all purpose; Accessible by walking or biking facilities with natural areas	large scale, high participation events <ul style="list-style-type: none"> • Fitness and wellness opportunities • Play areas • Organized sports facilities • Pavilions • Pools/Rinks
School Park	Acreage and service radius varies	Public school sites with recreation facilities	Combines two public entities for expanded year round recreation; Maximizes public resources in an efficient and cost effective manner	<ul style="list-style-type: none"> • Expands recreation opportunities • Youth-oriented game courts and ball fields • Play areas • Seating • Pathways
Sports Complex 30+ acres	Acreage and service radius varies; Consolidates sports fields and related facilities in a centralized location	Attracts visitors who stimulate local economy	Facility for single purpose use with well developed park and reasonably high visitation	<ul style="list-style-type: none"> • Ball fields • Spectator Areas • Concessions • Revenue generating
Private Park/ Greenways and Trails	Acreage and service radius varies	Ties park areas together to form a contiguous park environment.	Lands set aside for the protection and preservation of significant natural resources; Connects community and reduces auto dependency; Provides lifetime opportunities for people; Attracts visitors	<ul style="list-style-type: none"> • Multipurpose trails and pathways • Trailheads • Support facilities • Signage • Habitats, open space, and visual aesthetics • Opportunities for environmental education

Source: Park, Open Space and Greenway Guidelines, Mertes, James D. and Hall, James R., National Recreation and Park Association, 1995.

Allison Parkette falls into the school park category and Arnold Park falls into the community park category. Both parks require a vehicle for the majority of visitors and residents. There are no mini or neighborhood parks in the Township. Thus, access to parks presents a challenge to residents desiring recreation and open space opportunities close to home and within walking distance. Additionally, the Township does not contain any official greenways, trails or sports complexes.

7.8 Township Survey

During the public participation process, recreation-oriented questions were included on the Township survey to evaluate the community's desires and needs for parks and recreation. Residents were asked about their use of parks and recreation facilities and interests in future development. Residents were asked: *How often does a member of your household visit a Township park or recreation field?* A considerable number of residents (18.42%) used the Township's park or recreational amenities monthly and weekly. A significant percentage, over thirty-seven (37) percent, said that they do not use Township parks or recreation fields. There could be various conclusions drawn from this, from the age of respondents being less likely to use recreation amenities and/or the desired amenities are not present in the Township. The detailed responses to this question can be seen in the following table:

Table 7.2: Frequency of Park or Recreation Field Use

Park or Recreation Field Use	Percentage of Respondents
More than once a week	7.37
Once or twice a month	11.05
Every other month	6.23
Once or twice a year	33.99
We do not use	37.68

* 2007 Township Survey

Additionally during the Survey, a large number of respondents (45.04%) said that they were not sure if the Township should undertake more recreation programs, although a substantial 32.29 percent checked 'Yes' to this question. The detailed responses to this question can be seen in the Table 7.3.

Table 7.3: More Recreational Programming

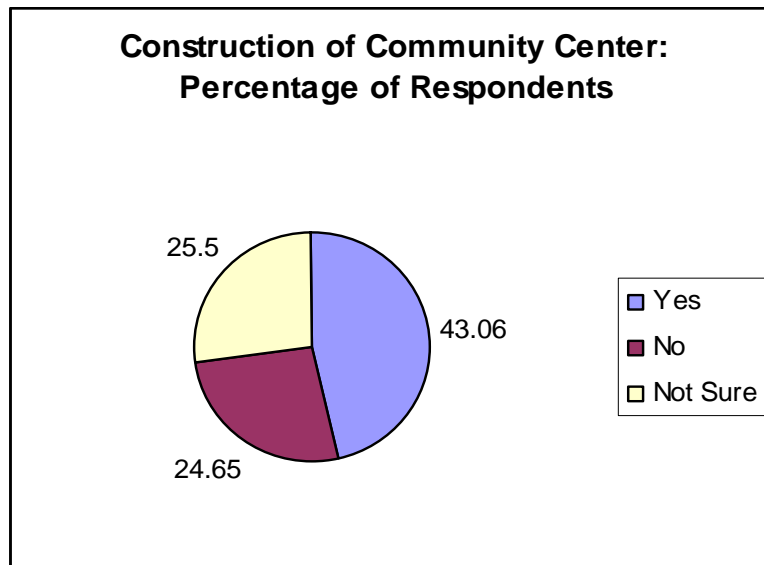
More Recreation Programming	Percentage of Respondents
Yes	32.29
No	16.71
Not Sure	45.04

*2007 Township Survey

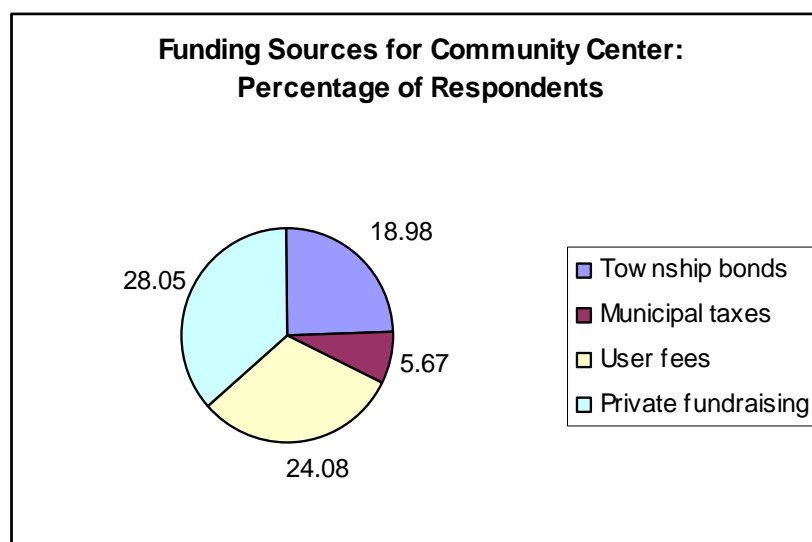
A significant number of respondents (43.06%) checked 'Yes' to the construction of a community

center, with varying opinions on how to pay for its construction. The detailed responses to these questions can be seen in the following two graphs: Graphs 7.1 and 7.2.

Graph 7.1: Construction of a Community Center



Graph 7.2: Funding for the Community Center



7.9
Amenities

Recreation

Recreation facilities provided within a community should meet the demand of the residents, community groups, and organized adult and youth sports leagues. The appropriate number of park facilities in a community should be based on the need as defined by current facility usage and local

trends in recreation activities. From the Township Survey, a better understanding of the community preferences for park and recreation facilities can be gathered from Table 7.4:

Table 7.4: Specific Park and Recreation Community Preferences for Development

Number of Responses	Desired Recreation Programs
Identified 20 or more times	Walking/ Nature/ Hiking Trails
Identified 10 or more times	Community Center Tennis Courts Children/ Teen Programs Senior Programs
Identified 5 or more times	Swimming Pool Ball fields Summer Concerts Complete Arnold Park

*2007 Township Survey

Walking is an activity widely enjoyed by all segments of the population, and as seen from the above table, walking trails are a desired and appropriate component of Township recreation amenities. In regard to other community preferences for recreation, most of the funding for the proposed Township community center has been acquired and the Township is proposing construction within the next two (2) years. The Township currently does not undertake any recreation programming, except for the five (5) special community events organized by the Parks and Recreation Board. It appears from the survey that Township residents would be interested in some structured, organized recreational programming for seniors and children. Additionally, there are no public swimming pools or tennis courts in the Township. Swimming and tennis are lifetime recreational activities and have important health and wellness benefits, especially for older adults. Youth softball and baseball are growing sports and demand on the use of fields is increasing. The Chartiers Township Athletic Association and Chartiers-Houston Soccer Association are active recreation organizations in the Township for boy's and girl's baseball, softball and soccer leagues.

7.10 Open Space

Beyond its aesthetic and environmental value, the preservation of open space is a proven method of containing congestion and enhancing property values. Although the Township has been given the property on Ullom Road, no steps have been taken to designate it as an open space available for

preservation and/or public use. With increasing development pressures, communities such as Chartiers should recognize the importance of preserving open space and take steps towards this objective.

Throughout this comprehensive planning process, the importance of open space to the residents of the Township has been highlighted. Much of this ‘open’ or undeveloped appearance comes from large tracts of land that are still privately held by residents, typically for agricultural purposes. These farms are developable under the regulations of their respective zoning districts. An inherent conflict exists between those who cherish this open space and those who may desire to develop their property. The implementation of the ‘growing greener’ principles can help to preserve this rural landscape, but will not save all of it. Furthermore, the Township would be remiss if it did not take advantage of every opportunity available to preserve these lands, which constitute a tangible legacy of preservation for the Township. While most of the privately-held open space in the Township is zoned for single-family detached dwellings, the development of this land would not only cause more congestion on local roads but also would create the need for the substantial expansion of infrastructure. Besides cost, open space provides incalculable environmental benefits. The benefits of the preservation of natural features found on open space parcels are valid and important.



Conservation easements are one method of preserving these large tracts from sprawl. The preservation and enhancement of natural resources is a primary aspect of creating a sustainable community. Realizing that it is impossible to preserve all of the remaining open space in the Township and recognizing that regulations can benefit the environment, the Township should consider the Mandatory Land Dedication or Fee-in-Lieu of provisions. Under Section 503.11 of the Municipalities Planning Code (MPC Act 247), a municipality’s Subdivision and Land Development Ordinance can contain provisions regarding the public dedication of land from a developer as a condition of plan approval or a fee-in-lieu of this dedication, provided that the municipality has an adopted recreation plan. It is envisioned that this chapter could function as this plan. The amount of the required land or fee is based upon the number of dwelling units or lots proposed for the

development. In order to satisfy the future need for neighborhood parkland, as described above, the Township should consider implementing this ordinance. This could supplement the Township's future costs associated with the acquisition and maintenance of recreational facilities, trails or open spaces.

7.11 Conclusions

The development of Arnold Park over the past ten (10) years has been a positive step towards the provision of park and recreation amenities in the Township. The Township must continue to work toward its complete development with the building of the community center. A final master site plan should be adopted to determine final future amenities for this area. Some deficiencies in the provision of park and recreational amenities across the Township have been identified. Specifically, the Township has no neighborhood recreation facilities. Neighborhood recreation facilities are important because they provide convenient recreation opportunities that are close to home and bike and pedestrian accessible. Although existing neighborhood parks are particularly lacking in the Township, future developments can be mandated to provide open space providing convenient open space and recreation amenities. Additionally, some organized recreation programs could be undertaken by the Township on a small scale, with the provision of a summer recreation camp for children and senior programming. All park and recreation endeavors should be publicly advertized in the Township's newsletter, including senior events held at the municipal center, the Chartiers Houston Athletic and Soccer Associations events and any effort toward the development (or preservation) of Township property for park and recreational purposes. All efforts must take place within the limits of the Township's fiscal constraints and must utilize all funding sources available to the Township.

As far as open space amenities, the Township does own the Ullom road property, though it has not been officially recognized as an open space by the Township. There is no official designation, signage, or parking by the Township declaring its ownership and intended use. This specific type of open space amenity and trail is particularly lacking in the Township. Chartiers should begin preliminary steps toward the designation of this property as a preserved open space with possible hiking trails. It will take strong leadership and dedication by the Park and Recreation Board and the Township to undertake this endeavor. Residents of the Township have expressed interest in the preservation of natural open space. During the survey process, residents chose 'park and open spaces' as the most desired type of development in the Township (37.4 percent of respondents chose

this answer). Other than preserving natural features and scenic vistas, open space can provide for a network of trails for hiking and/or bicycling. The Ullom property seems a likely location for this desired and environmentally valuable land use.

Recreational trails for hikers and bicyclists can take advantage of the natural features of an area, providing local opportunities for passive outdoor recreation. Trail and sidewalks within the more developed areas of the Township can also provide a network connecting destinations, allowing residents to walk or bike to community facilities, such as schools, parks and/or shopping. Along these pathways, the benefits of landscaping with trees and green spaces, particularly in areas of intense impervious coverage, can enhance the community aesthetics and would help to maintain the viability of older residential and commercial areas. All of these items were highlighted during the community participation process and should be considered as important and viable for the community.

Parks, recreation, and open space are essential to the health, general well-being and quality of life in the Township. Chartiers must play an active role in recreational planning to ensure that these lands are preserved for current and future generations. The Township must provide the leadership necessary in identifying, developing, and administering finances, location, and facilities to enhance the leisure activities within its borders. Through the Township Parks and Recreation Board, an evaluation of recreational facilities and programs is necessary to determine if available resources are meeting the community's recreational interests. A primary evaluation has been completed through this comprehensive planning process, yet periodic public reviews are necessary, and when deficiencies are noted, the Township should address those issues. It must be remembered that any recreational endeavors are subject to financing availability and viability. Through inventories, priorities can be established to meet demand. The Township should also ensure the availability of a variety of programs for people of all ages and for special groups such as senior citizens or the physically disabled. By implementing some of the objectives contained within this section, the Township could ensure that Chartiers has park, recreation, trail and open space amenities and facilities to serve generations of Township residents to come.

Section VIII: Economic Development

8.1. Introduction

This chapter will examine the economic characteristics of Chartiers Township's population. The economic characteristics for a municipality, such as labor force statistics, income levels and employment by industry, can help to define the character of an area. Higher levels of income may indicate a need for larger housing units, greater expectation and willingness to pay for increased Township services, and what types of industry offer employment opportunities in the region. The economic profile provides an analysis of the important characteristics of employment and income that will help to inform the planning process and will be used for developing economic development goals and objectives. Statistics highlighted include labor and occupational characteristics, educational attainment and income and poverty levels of the Township's population, all of which have planning implications that should be considered as part of the comprehensive planning process.

The industrial significance of Chartiers Township and the larger region began in the late 1800's, with mining and the production of steel and lasted throughout the 20th century. By the mid 1970's however, the industrial and manufacturing economic base for the region was deteriorating. Many manufacturing industries, including steel mills, closed, and thousands of people were left unemployed. The region experienced a population loss as many people moved to other areas in search of employment. Within the past decade, southwestern Pennsylvania, Washington County and Chartiers Township have begun to experience some economic revitalization. Most recent trends, both regionally and nationally, show an increase in service-related industries. For example, in 1970, the goods-producing sector accounted for 57.5 percent of Washington County's total employment with manufacturing having the largest employment base at 42.5 percent. During this period, the service sector accounted for only 8.4 percent of employment, with government at 1.0 percent. (Washington County Economic Development Strategy, 1999) By 2000, the services occupations had increased to 16.4 percent and government industries had climbed to 9.9 percent, while manufacturing had declined to 14.9 percent for the industry. With the development of the Southpointe Business Park, the expansion of the Meadowlands Racetrack, Casino and Industrial Park and the Tanger Outlets, further job growth and economic opportunity can be expected in the Township.

Chartiers Township functions as part of the northcentral Washington County business community. This region is part of the larger Washington County economy, which is an important component of the southwestern Pennsylvania/Pittsburgh economic region. As a nationally significant industrial and business location, Pittsburgh is the cornerstone of the region and has remained so economically and culturally for the past 200 years. From the city of Pittsburgh, economic development has moved southward to Washington County along I-79 to areas such as the Southpointe Business Park, the North and South Strabane corridor and into Chartiers Township. As stated in the 2005 Washington County Comprehensive Plan, the regionally significant I-79 corridor,

is noted for its available infrastructure and proximity to Allegheny County and high levels of residential, commercial and industrial growth. Due to the level of new development that has occurred within this corridor, much of the infrastructure network, i.e. roads, sewage, is at capacity and beginning to show signs of deficiency. Future development and transportation planning in this area should be coordinated to assure economic viability and minimize negative impacts on communities in the corridor.

8.2 Labor Force Participation

The labor force consists of persons who are sixteen (16) years or older and are currently employed or are actively seeking employment. In 2000, Chartiers Township's labor force consisted of 3,114



persons. This number represents 53.3 percent of the Township's population that was over sixteen (16) years of age. Persons not actively seeking employment, the institutionalized population, retirees and students are not considered to be part of the labor force. In 2000, 4.3 percent of persons were unemployed. The unemployment rate in Chartiers Township for 1990 was 4.0

percent, which had decreased from the 1980 unemployment rate of 6.7 percent. Thus, when looking historically, the Township has had a fairly stable unemployment rate. Labor force participation for the Township over the past thirty (30) years is shown in Table 8.1:

Table 8.1: Labor Force Participation 1970 - 2000

	1970	1980	1990	2000
Total Persons over age 16	5,033	6,063	6,203	5,845
Persons in Labor Force	2,751	3,440	3,483	3,114
Not in Labor	2,282	2,623	2,720	2,731

Force				
Unemployed	102	229	140	133

*US Census Data

Total employment for Chartiers Township stayed fairly constant from 1990 to 2000 in regard to percentage of the population participating in the labor force. The 3,483 persons in the labor force in 1990 represents 56.2 percent of persons over the age of sixteen (16), while the 3,114 persons in the labor force in 2000 represents 53.3 percent of the population over the age of sixteen (16). Lower numbers of labor force participants can also represent an increase in retired persons in the Township.

Another positive sign of employment opportunities for residents of the Township is that Chartiers has the lowest unemployment rate (4.3 percent) in comparison to larger reference areas of the US, the Commonwealth of Pennsylvania and Washington County. In 2000, the nation had an unemployment rate of 5.8 percent, Pennsylvania had an unemployment rate of 5.7 percent and Washington County's unemployment rate was 5.3 percent. Economists generally consider frictional unemployment, the period of time a person is between jobs, to account for 1.5 to 2 points of the unemployment rate. Census 2000 estimates for Chartiers Township indicate then that the unemployment rate is less than 2.5 percent, so the Township has solid employment opportunities for its residents. Table 8.2 shows the employment statistics for the Township, contiguous municipalities, Washington County and the Commonwealth of Pennsylvania.

Table 8.2: Percentage in Labor Force, Unemployment Rates, County of Employment and Travel Time to Work

	Percentage in the Labor Force	Percentage Unemployed	Percentage working outside of County of residence	Mean Travel time to Work
Chartiers Township	53.3	4.3	32.3	22.1
Washington County	58.9	5.3	40.5	25.6
Commonwealth of Pennsylvania	61.9	5.7	27.6	25.2
Canonsburg Borough	60.4	6.3	32.8	20.3
Canton Township	58.0	4.5	18.2	20.3
Cecil Township	66.3	3.3	63.4	26.3
Houston Borough	63.4	2.3	26.8	18.5

Mt. Pleasant Township	61.8	3.3	54.9	30.6
North Strabane Township	64.1	2.7	45.1	24.5
South Strabane Township	53.9	3.8	23.4	20.2

* US Census data

From Table 8.2 above, one can see that Chartiers has the lowest percentage of persons over sixteen (16) in the labor force, which can possibly be attributed to a higher number of retirees. Its unemployment rate lies somewhere in the middle of the contiguous municipalities and is lower than the unemployment statistics for the County and the State. The proximity to Allegheny County and/or Interstate 79 appears to increase the likelihood that a resident commutes for work outside the County. The mean travel time to work for the Township also lies within the middle of the reference area's commuting statistics. Many residents of Washington County often commute to Allegheny County and the City of Pittsburgh for employment opportunities.

Labor force participation in the Township can also be characterized by a "shift to services", indicating that the growing employment sectors have shifted from manufacturing to services, including sectors such as retail trade, finance, insurance and real estate, and arts, entertainment and recreation services. In Table 8.3, labor force participation by industry can be seen since 1980.

Table 8.3: Labor Force Participation by Industry 1980 - 2000

	1980	1990	2000	Percent change from 1980-2000
Agriculture, forestry, fishing and hunting and mining	167	137	67	-59.9
Construction	197	243	294	49.2
Manufacturing	977	625	473	-51.6
Wholesale Trade	60	161	83	38.3
Retail Trade	488	503	334	-31.56
Transportation and warehousing	152	131	162	6.6
Information	**	**	82	
Communications, Utilities and Sanitary Services	72	74	**	2.78 (to 1990)
Finance, Insurance, Real Estate, rental and leasing	133	243	154	15.79
Professional, scientific,	**	**	235	

management, administrative and waste management				
Business Repair Services	96	123	**	28.13 (to 1990)
Education, Health, and Social services	571	687	586	2.63
Arts, entertainment, recreation, accommodation and food services	118	167	246	108.48
Public Administration	77	66	133	72.73
Other services	103	176	132	28.16
Total	3,211	3,416	3,114	

*US Census Data

**not reported for this census

From Table 8.3, it can be said that Chartiers has experienced the shift to services that the southwestern Pennsylvania region, as well as the rest of the country, has experienced. The Bureau of Labor Statistics (BLS) divides the economy into the goods-producing sectors of mining, construction, and manufacturing, and the service-producing sectors that includes all other categories. Service-producing industries claimed more than half of all jobs over thirty (30) years ago; today the figure is about seventy (70) percent of the more than 107 million workers in the United States. Many reasons for this shift exist with primary contributions including the creation of technology with the increasing ability to substitute labor for capital in manufacturing and the subcontracting of firms. Technological and productivity advances in farming and manufacturing, which created more goods with less labor, have allowed people to work in these sectors to provide more education, health care, entertainment and financial services. Greater efficiency and technology has also encouraged the subcontracting of services and new levels of competition from banking to tourism. Additionally, the Internet further advances the trade of many services and as an economy gets wealthier, a rising share of income gets spent on these services.

Employment can also be divided by the occupational characteristics of the population. Chartiers Township and its surrounding jurisdictions are fairly consistent for the distribution of occupation. The largest number of residents by occupation for the Township include: 'management, professional and related occupations' (29.3%), 'sales and office occupations' (27.6%) and 'production, transportation and material moving' (15.5%). The lowest percentage of occupations for all jurisdictions is 'farming, fishing and forestry occupations' (0.2% for Chartiers). Table 8.4 illustrates the percentage of the population in Chartiers Township and its surrounding jurisdictions, age sixteen

(16) and over, who are employed in the various occupational sectors.

Table 8.4: Distribution by Occupation for Chartiers Township and Reference Areas

	Percent management professional and related occupations	Percent service occupations	Percent sales and office occupations	Percent farming, fishing and forestry occupation	Percent construction, extraction, and maintenance occupations	Percent production, transportation and material moving occupations
Chartiers Township	29.3	14.9	27.6	0.2	12.4	15.5
Washington County	29.3	16.4	26.5	0.3	11.6	15.9
Commonwealth of Pennsylvania	32.6	14.8	27.0	0.5	8.9	16.3
Canonsburg Borough	26.4	21.4	24.7	0.0	12.9	14.6
Canton Township	18.2	22.5	25.4	0.0	11.8	22.1
Cecil Township	35.8	16.1	26.9	0.2	11.1	10.0
Houston Borough	17.4	22.8	29.7	0.0	14.7	15.4
Mt. Pleasant Township	21.5	15.8	24.8	0.3	18.3	19.2
North Strabane Township	37.2	12.2	32.9	0.2	7.7	9.8
South Strabane Township	39.7	14.7	24.3	0.0	7.9	13.4

*US Census Bureau

By looking at the above table, it is a positive sign that the Township has a large percentage of management and professional occupations, since these positions typically require higher levels of education and/or experience with higher wages. Sales and service occupations also provide substantial jobs for Township residents. The total employment for the Township for these service sectors equals 71.8 percent of occupations. The total employment for all goods-producing sectors (farming, fishing, forestry, construction, extraction, maintenance and production, transportation and material moving occupations) equals over twenty-eight (28) percent of occupations held by Township residents. In regards to the reference areas, the Township generally lies at the midpoint for percentages in each occupational category.

The top twenty-five (25) employers in Washington County are as follows:

1. The Washington Hospital
2. Washington County
3. Monongahela Valley Hospital

4. Wal-Mart Associates, Inc.
5. California University of PA
6. Pennsylvania State Government
7. Giant Eagle Inc.
8. 84 Lumber Company
9. Canon McMillan School District
10. United States Government
11. Consol Pennsylvania Coal Company
12. Eighty-four Mining Company
13. Peters Township School District
14. Canonsburg General Hospital
15. Ringgold School District
16. Black Box Corporation
17. Mon Valley Foods, Inc.
18. Trinity Area School District
19. Coca-Cola Enterprises
20. Eat'N Park Restaurants, Inc.
21. Intermediate Unit 1
22. Pennsylvania Transformer
23. National Appraisal Services Corp.
24. Washington and Jefferson College
25. Washington Penn Plastics Co. Inc.

(Washington County Comprehensive Plan, 2005)

8.3 Education

Education is important to the Township in order to increase the marketability of the labor force and to secure and improve established income levels. It is important to ensure a variety of employment opportunities for all levels of education, and it should be determined if young people are leaving the Township in search of greater job opportunities. The Township can also explore its own continuing education programs for residents. With the increase in local retirees, it is predicted that these programs would provide high levels of interest and enrollment. Possibilities for such programs could include language or reading programs, employment skills improvement programs, health programs, or other how-to programs (such as web site design or tax filing). Since 1970, education levels for Township residents twenty-five (25) years and older have risen for both high school diploma and college degree attainment. Table 8.5 further exemplifies these trends:

Table 8.5: Chartiers Township Educational Attainment 1970 - 2000

	Percent with High School Diploma or Higher	Percent with Bachelor's Degree or Higher
1970	43.3	5.0
1980	60.5	9.0

1990	73.0	11.6
2000	79.1	15.1

*US Census Data

As one can see from the above table, the Township residents' education levels have consistently risen since 1970. These statistics may not be as promising as they appear, however, when they are compared with larger reference areas' educational attainments from 2000 Census data in Table 8.6.

Table 8.6: Educational Attainment in Contrast to Reference Areas

	Percent with High school diploma or higher	Percent with Bachelor's degree or higher
Chartiers Township	79.1	15.1
Washington County	82.6	18.8
Commonwealth of Pennsylvania	81.9	22.4
United States	80.4	24.4
Borough of Canonsburg	77.8	13.0
Canton Township	73.7	11.6
Cecil Township	87.2	24.9
Borough of Houston	77.5	8.9
Mt. Pleasant Township	87.6	12.3
North Strabane Township	85.3	27.3
South Strabane Township	86.4	25.3

*US Census data

Chartiers Township's high school education attainment levels are lower than for the US, the Commonwealth of Pennsylvania, Washington County, Cecil Township, Mt. Pleasant Township, and North and South Strabane Townships. Chartiers' high school education levels are higher than Canonsburg, Canton and Houston's levels. The percent of Township residents with a bachelor's degree or higher mirrors its high school comparisons, except that they are higher than Mt. Pleasant's bachelor degree rates. Once again, the percentage of residents with a bachelor's degree is higher than Canonsburg, Canton and Houston's bachelor's degree attainment levels. Interestingly, the level of education of attainment's direct influence on median income can also be illustrated later in this section. The Township resident's education is a resource that should be encouraged by the Township.

Thus, while Chartiers residents' educational attainment levels have increased over time, they still remain below many reference area levels. Even by 1980, this problem was addressed in the Comprehensive Plan. "Not only are large numbers of young people leaving the Township, but those that remain are not, in general, continuing their education at a rate comparable to known norms." In 2000, only 26.4 percent of those persons eighteen (18) to twenty-four (24) years of age were enrolled in college or graduate school in Chartiers in contrast to 36.7 percent of this age group in Washington County, and 39 percent in the Commonwealth of Pennsylvania. From this, it can be noted that Chartiers Township's rate of residents continuing their education after high school is lower than these reference areas. This should be a critical issue for the Township to address since educational levels affect many quality of life issues, such as income levels, poverty rates and employment.

8.3 Income and Poverty

Median income is the statistic that most accurately represents the given income of an area. When adjusted for inflation, the median income in Chartiers for each decade can be shown in 2008 constant dollars. By using the US Department of Labor, Bureau of Labor Statistics calculator to adjust for inflation using the Consumer Price Index (CPI). This data represents the changes in prices for all goods and services over a specified period time illustrating median incomes in constant 2008 dollars. Once adjusted, the actual growth or decline in income in the Township can be measured.

Table 8.7: Household Median Income 1970 - 1990

	Median Income	Adjusted for Inflation into 2008 dollars
1970	\$9,200	\$51,884
1980	\$19,434	\$51,607
1990	\$27,278	\$45,668
2000	\$37,679	\$47,879

*US Census Data

From the above table, it is evident that real incomes in the Township are decreasing though not drastically. This is concurrent with national trends however and does not necessarily reflect directly on the economic well-being of Chartiers.

By contrasting median incomes for the Township to larger reference areas in 2000, one can see a broader picture of how the residents of Chartiers are faring economically in relation to these surrounding areas. These comparisons can be seen in Table 8.8.

Table 8.8: Median Incomes in Contrast to Reference Areas

	Median Household Income	Median Family Income	Per Capita Income	Percent below Poverty
Chartiers Township	\$37,679	\$45,417	\$18,116	5.2
Washington County	\$37,607	\$47,287	\$19,935	6.9
Commonwealth of Pennsylvania	\$40,106	\$49,184	\$20,880	7.8
Borough of Canonsburg	\$31,184	\$42,793	\$17,469	5.8
Canton Township	\$31,625	\$40,014	\$15,420	10.6
Cecil Township	\$50,616	\$54,562	\$22,340	4.4
Borough of Houston	\$30,598	\$42,083	\$18,001	8.8
Mt. Pleasant Township	\$41,172	\$48,915	\$18,800	3.6
North Strabane Township	\$50,754	\$60,141	\$23,457	3.4
South Strabane Township	\$42,762	\$54,729	\$23,829	3.1

*US Census data

From the above table, it can be seen that Chartiers Township residents enjoy a moderate level of income. The Township income levels tend to be close to Washington County's income levels, but are lower than the Commonwealth of Pennsylvania's income statistics. Oftentimes, a lower cost of living can reconcile these lower incomes for the residents of the area. In comparison to the surrounding municipalities, Chartiers' income statistics tend to be higher than Canonsburg, Houston and Canton Township's income statistics and lower than Cecil, Mt. Pleasant, North and South Strabane's median incomes. The Township also has a lower percentage of persons below the poverty line than Washington County, the Commonwealth of Pennsylvania, Canonsburg, Houston and Canton Township.

The number of households between specified income levels can be shown from 1990 to 2000 to show the shifts of income in the area in Table 8.9.

Table 8.9: Income Brackets and Percentage Change 1990-2000

Income Level	1990 Number of Households	Percent of Total	2000 Number of Households	Percent of Total
Less than \$10,000	438	15.2	154	5.5
\$10,000-\$24,999	838	29.1	655	23.3

\$25,000-\$34,999	494	17.2	483	17.1
\$35,000-\$49,999	531	18.4	511	18.1
\$50,000-\$74,999	384	13.3	614	21.8
\$75,000-\$99,999	150	5.2	229	8.1
\$100,000-\$149,999	36	1.3	141	5.0
\$150,000 or more	9	0.3	30	1.1

*US Census Data

**Note: These incomes have not been adjusted for inflation

By looking at the above table, one can see that almost forty-five (45) percent of households in 1990 were earning less than \$25,000 per year. By 2000, this percentage was down to 28.8 percent. In 1990, only twenty (20) percent of households earned over \$50,000 per year while by 2000, the figure was up to thirty-six (36) percent of the population earning above this amount.

Although any percentage of persons below the poverty line is a critical issue, Chartiers has a lower poverty rate of 5.2 percent of families below the poverty level in 2000. In order to contrast this figure, reference areas' poverty levels are shown in the following table:

Table 8.10: Poverty Levels in Contrast to Reference Areas

	Chartiers Township	Washington County	Pennsylvania	United States
1990 percent of families below the poverty level	7.5	12.8	11.1	12.0
2000 percent of families below poverty level	5.2	6.9	7.8	9.2

*US Census Data

From this table, it can be seen that Chartiers has the lowest percentage of families below the poverty level in contrast to the above reference areas. While Chartiers has a relatively low poverty rate, it should still be a concern, since oftentimes those groups below the poverty line are predominately women and children. Table 8.11 shows the poverty statistics for various types of households in Chartiers.

Table 8.11: Different Family Structures below the Poverty Line

	1990 percentage below the poverty line	2000 percentage below the poverty line
Families in poverty	7.5	5.2

Married couple families with children under 18 in poverty	8.1	7.4
Females, with no husband with children under 18 in poverty	42.3	20.0
Persons 65 in older in poverty	10.9	4.1

*US Census Data

As one can see in the above table, female householders with no husband present are often those individuals who end up below the poverty line. Those households with children also have higher poverty levels. It does not appear that senior citizens are falling below the poverty line faster than other family units. Poverty statistics do appear to be improving for Township residents since 1990.

Critical issues that Chartiers should consider in relation to income and poverty include:

- the maintenance of Chartiers' moderate levels of income and low poverty rate; the Township should focus on retaining this solid economic quality of life with a lower cost of living.
- solutions for the direction of the poverty statistics, specifically for children. Solutions may include education and training for single mothers or increased child care for all families to enable them to find permanent employment.

8.4 Local Conditions

On the 2007 Township Survey, residents were asked to rate economic and job opportunities in the Township. Over forty-one (41) percent of respondents rated 'Fair' to this question. Only 15.87 percent of respondents answered this question with either 'Outstanding' or 'Good'. The detailed responses to this question can be seen in the Table 8.12.

Table 8.12: Economic and Job Opportunities in the Township

Economic and Job Opportunities	Percentage of Respondents
Outstanding	0.57
Good	15.30
Fair	41.36
Poor	14.73
Not Sure	25.78

*2007 Township Survey

Residents were also asked if the Township should encourage more economic development and job creation in the community. The majority of respondents (55.24%) answered 'Yes' to this question. The detailed responses to this question can be seen in the following Table 8.13.

Table 8.13: Economic Development and Job Creation

More economic development and job creation	Percentage of Respondents
Yes	55.24
No	17.56
Not Sure	24.36

*2007 Township Survey

By looking at the above survey results, it appears that Township residents do not believe the Township offers exceptional employment opportunities, though they are interested in the Township taking a more progressive role towards economic development and job creation. A variety of efforts by the Township could be undertaken to increase the Township's visibility as a favorable, desirable and thriving business location.

The Township does not have a traditional mainstreet commercial area. Most of the commercial businesses are located along Pike Street and Country Club Road. The Township could undertake a beautification effort for the commercial corridor of Pike Street to improve its aesthetic appeal, which could include improved lighting, benches or landscaped areas. Pedestrian amenities should be addressed, including crosswalks and new and/or improved sidewalk facilities. This area should be the focus of commercial and mixed-use infill development efforts. Zoning districts should incorporate regulations to allow appropriate mixed-use development and encourage commercial establishments. Current uses on Pike Street include some retail, casual restaurants, personal and business services, automotive repair shops and other service-related businesses. Industrial uses are primarily concentrated along Pike Street, Country Club Road, Route 519 and Arden Industrial Park. Future industrial development should be directed to these existing industrial sites, but primarily at the Arden Industrial Park and the North Pointe Industrial Park off of North Main Street Extension.

The Township currently does not have any staff or programming specifically directed toward economic development. There are, however, many economic and business development organizations active in Washington County, including the Washington County Chamber of Commerce, which was formed in 1881 and is the largest business organization in the County with over 800 members. Its primary objective is for business networking and economic development in Washington County. There are a number of events it co-sponsors along with the Washington County Economic Development Partnership (WCEDP). The WCEDP was developed in 1999 through a public/private initiative with the Washington County Commissioners, the Washington County Chamber of Commerce, and the Washington County Industrial Development Authority.

The purpose of the organization is to create a single point of contact for all economic development projects in Washington County and to coordinate all activities among the County's economic development agencies in conjunction with the Washington County Authority, the Washington County Council on Economic Development, and the Washington County Redevelopment Authority. Additionally, the Pennsylvania Department of Community and Economic Development has an extensive list of funding sources and programs available to assist in a myriad of economic development efforts. All of these organizations are involved in numerous economic development projects throughout the County. Their resources and expertise should be utilized by the Township.

The region's economy has shifted from the historical base of mining and manufacturing to service-oriented businesses. An objective for growing the Township's economic base is to ensure that these industries offer moderate to high paying jobs. It is often noted that some service industries provide lower paying jobs for semi-skilled workers. Some industry clusters to be fostered include technology and manufacturing sectors, which may demand higher skilled workers and corresponding support services. Strategies should be developed to encourage business growth, including site and infrastructure development and redevelopment and work force training and recruitment.

An economic development strategy for the Township could be initiated with the assistance of the local economic development organizations in the region. Attention must be given to attracting businesses that compliment the existing economic climate of the Township. Further analysis for an economic development strategy could include: an inventory of sites or areas needing improved infrastructure and/or access or parking; an analysis of vacant or run-down business locations appropriate for revitalization and marketing strategies for their reuse; specific standards for lighting, signage, and streetscape improvements that will create a visual appeal for development, and an analysis of public funding sources available to assist in economic development endeavors. Lastly, issues and/or obstacles impeding successful business growth and development in the Township should be identified.

To fully achieve a successful economic development strategy, employers must have a trained and available workforce. The presence of the Western Area Career and Technology Center provides a logical partner for the Township officials to



implement a workforce development strategy. A workforce development strategy should be created that identifies what types of industries/ businesses are likely to locate in the region in the future. Strategies can then be implemented that will support the development and encourage economic growth.

8.5 Conclusion

Considerable work has been completed throughout Washington County to address economic growth. Chartiers Township leadership should initiate contact and open communication with existing business and industry leaders, the Washington County Chamber of Commerce, Redevelopment Authority and other economic development organizations to ensure the Township takes a leadership role in all economic development efforts. Township officials should balance all economic development efforts with protection of the environmental, open space and agricultural resources in the Township. A strong regional approach to economic development with local coordination from the Township will be essential to maximize these economic development efforts.

Chartiers Township's accessible location, desire to expand economic development opportunities, and proximity to Pittsburgh suggests that the Township could potentially evolve into a thriving business area. To facilitate this vision, a position with the Township for an economic development practitioner could be established. The chief responsibilities of this position would be to serve as a liaison between the Township and local business community and as a point of first contact for potential investors. The officer would work to secure public funding from local, state and federal sources to serve as incentives to enhance commerce in the Township. The person would devise a multi-faceted campaign to aggressively market Chartiers as a lucrative place to do business and would also create an inventory database of all local businesses to measure the soundness and determine the structure of the small Township economy. Another option to be explored would be the creation of a chamber of commerce or other type of business consortium that could serve as a formal, structured on-going medium of communication among the Township's business leaders and Township officials and residents. The intent of this organization would be to provide local businesses with a forum to express concerns and exchange ideas and, hopefully, facilitate and foster a greater relationship and improved communication between the local business community, the local government and residents. This would also create a forum to amass public opinion on commerce issues. It is important for the Township to identify key market niches that present positive business opportunities for residents.

One obvious area for potential development would originate from the greater presence of seniors in the Township, leading to the development of firms that produce and supply goods and services catering to the Township's elderly. The Township must ensure that space is available for growing industries in the region, such as warehousing and possible high technology industries. The Township's accessible interstate location is favorable for location-oriented businesses such as trucking or distribution centers. Economic development endeavors should not only promote traditional industries but should encourage greater diversity and an expanded employment base. This helps to insulate employment and development of the Township from the normal business cycle fluctuations within a specific industry. By diversifying the Township's economic base, there will be greater community participation and employment opportunities with reduced commuting times and distances.

A "community commercial center", with services catering to the resident population, should be developed. This expansion of existing commercial locations, such as Pike Street or the Route 519 corridor, would help enhance the image of a self-contained community, while providing for a variety of jobs. The Township could actively promote small business opportunities and start-up incubators, with a variety of job possibilities. The economic life of the Township is closely tied to Pittsburgh, with its growing high technology and service industries. Chartiers should position itself to gain some of this growth, albeit with a guided hand. Health care is also strong in the region and provides stable employment opportunities. A satellite facility from one of the major hospitals would improve access to primary health care and would be well used by the aging population in Chartiers. Zoning should be enhanced for such a facility. The economic future of the Township is still unclear. Proactive steps are necessary to ensure a healthy balance between economic development and residential interests, and now is the time to plant the seeds to ensure Chartiers' economic prosperity

Section IX: Land Use

9.1 Introduction

The land use section is a significant component of the Comprehensive Plan and should serve as the Township's land use policy statement. Land is one of the most valuable natural resources in Chartiers Township and the way it is developed or preserved will substantially shape the community's physical surroundings. These valuable land resources must be used economically and equitably to benefit both the property owner as well as the larger community. An important power of the Township is to plan for and guide the way in which these land resources are used. The Pennsylvania Municipalities Planning Code (MPC) requires that a comprehensive plan provide a plan for land use. According to Section 301 of the MPC, a comprehensive plan should include, "provisions for the amount, intensity, character and timing of land use proposed for residence, industry, business, agriculture, major traffic and transit facilities, utilities, community facilities, public grounds, parks and recreation, preservation of prime agricultural lands, flood plains and other areas of special hazards and other similar uses." The ultimate goal for land use in the Township should be to enhance and protect the Township's natural resources, guide potential growth and development in appropriate areas and mitigate potential land use conflicts.

During the community participation process for the development of this plan, the existing rural-residential nature of Chartiers Township was highlighted and validated as the predominate land use of the Township. It was affirmed that smaller locations of commercial and industrial uses were important for employment and business opportunities in the Township. From the 2007 Township survey, the top three (3) issues that residents identified as most important to the quality of life in the Township over the next ten (10) years were 'Retaining the rural nature of the Township' (42.78%), 'Zoning to maintain property values' (32.29%) and 'Open space preservation' (31.16%). Growth in the Township was considered likely but should be



encouraged in chosen areas that are compatible with existing land uses. The ultimate vision for the Township is for the community to remain primarily as a rural and residential area, limiting future nonresidential development for the commercial convenience of the Township, with some office and industrial uses to ensure a healthy tax base.

Chartiers Township is still characterized by extensive amounts of rural landscape. Potential conflicts can exist when there are disparities between those who want to preserve this landscape and those who want to develop their land. The Township must make efforts to maintain the quality of life that makes the community desirable and gives it its sense of place. This chapter provides an inventory and analysis of current land uses that serves as a basis for analyzing future development patterns. This section should focus to build on the Township's existing strengths, preserve its valuable environmental and cultural land uses and promote guided growth in designated areas that are the most appropriate for it.

In the last fifty (50) years, more development has occurred in Chartiers Township than in the previous two hundred (200) years. Prior to World War II, the Township was almost entirely rural, with most homes on large tracts and most developed land being used for agricultural purposes. During the postwar construction boom, the eastern area of the Township was developed at suburban densities, especially along the Pike Street corridor into areas such as Midland, Moninger, McGovern and the Meadowlands. The Zoning Map is illustrative of the current development and land use patterns for Chartiers Township (see appendix). Chartiers Township's land use pattern has been well established over the past fifty (50) years.

The suburban landscapes, limited commercial areas and industrial districts are the areas best capable of accommodating new growth and development in the Township because of available infrastructure. Growth should be directed toward those areas where sufficient infrastructure is already in place to sustain more intensive forms of development. Developed corridors such as Pike Street, Country Club Road, Arden, Sections of Route 18 and Western Avenue are identified generally as areas for growth though will require special land use controls in order to improve their function and aesthetics. Any new development should be consistent with adjacent uses and character. The northern, western and central portions of the Township are typically more rural and agricultural in character. Located in these areas are farmlands with rolling topography, fields in various agricultural uses and scattered housing and agricultural related structures. This rural and natural landscape will require protective measures because of its value as an open space, environmental and agricultural resource.

9.2 Current Land Uses and Zoning

All zoning should be reflective of the existing land uses given that much of Chartiers Township's development patterns have been established. The breakdown of land use by zoning district can be seen in the Table 9.1:

Table 9.1 Zoning Districts by Acreage

	Acreage	Percentage of Land
A-1 Agricultural Residence district	6,465 acres	41.2%
R-1 Residence district	1,351 acres	8.6%
R-2 Residence district	4,957 acres	31.6%
C-1 Commercial district	112 acres	7.9%
C-2 Regional Commercial district	81 acres	5.9%
I-1 Industrial District	2,728 acres	17.4%

*Widmer Engineering

As illustrate in the above table, clearly the agricultural and residence districts are the predominate form of land use in the Township. The Zoning Ordinance and Comprehensive Plan divide the Township into the following land use categories:

9.4 Residential Uses

The eastern section of the Township is characterized by established residential development in such areas as Moninger Heights and McGovern with some neighborhood commercial along Pike Street. The area's land uses have been extensively developed primarily with small to medium size single-family houses and residential lots with support commercial establishments and some industrial land uses. During the comprehensive planning process, the continuation of Chartiers Township as a bedroom community was highlighted. Since the area has been developed for decades, the need for infrastructure repair, home maintenance and redevelopment may be necessary in some of these areas.

The zoning classification for the area is primarily residential. This category is divided into two groups: the R-1 Residence district, which principal uses includes single-family dwellings and mobile

homes on a single lot, and the R-2 Residence district. Single-family dwellings in the R-1 district must have a lot area of 22,000 square feet or at a density of approximately two (2) dwelling units per acre. There are two (2) R-1 districts in the Township, one which is located on the northern side of Route 519/ Western Avenue, primarily south of Johnson Road and west of Plum Run Road (see appendix: zoning map). The second R-1 area is on the western tip of the Township in the Gretna area. The R-2 zoning district is located primarily in the eastern portion of the Township near the Pike Street corridor with Kings Road as the Western boundary and along Ridge Avenue and the Chartiers Run area. The remaining R-2 zoning district is located on the southern portion of Route 18. The R-2 district allows the principal uses of a single-family detached dwelling, a mobile home on a single lot and a multi-family dwelling not part of a PRD. The minimum lot size is 22,000 square feet without public sewage and 9,000 square feet with public sewer for single-family development. For a multiple-family dwelling the minimum lot size is 6,500 square feet. There is currently a suitable amount of land available for future residential development in the Township.

9.4 Commercial Uses

Existing commercial development is located along some of the major roadways of the Township, yet the Township has a limited commercial zoning district. Most commercial uses are located along Pike Street and Country Club Road. Existing retail and service uses predominate in these areas and



similar future uses should be encouraged, as opposed to scattered commercial development. The concentration of such uses provides for opportunities to combine trips and reduce traffic congestion. The Pike Street and Racetrack Road intersection currently offers some concentration of commercial and municipal services. During the community participation process for

development of this plan, the need for a greater variety of retail business was discussed for food, products and other “basic needs” available in the Township. The character of this area could be greatly enhanced with current transportation improvements, the reuse of the Meadow Inn and streetscape enhancements. This area should ideally function as a central location for residents for dining, shopping and convenient commercial uses. With close proximity to I-79, the area’s crossroads location, the development along Route 19 and the North and South Strabane corridor, it

is envisioned that this area could develop as a local destination for commercial and office needs within the Township. The adjacent land uses along I-79 in North and South Strabane Townships include the major developments of the Meadowlands Racetrack, Casino and Business Park and the Tanger Outlets. Thus, this area would provide an extension of the concentrated commercial land uses.

This C-I Neighborhood Commercial Zoning district is located on the eastern side of Pike Street in a limited area and in a small section on the western tip of Route 18. As stated in the Township zoning ordinance the neighborhood commercial district should, “provide commercial and other permitted facilities to serve primarily the needs of the local residents and to provide for a mixture of residential and commercial uses in certain portions of the Township where a significant degree of such mixture already exists.” The principal uses for the district include residential, single-family detached dwellings and multi-family dwellings and various “neighborhood commercial uses.” These should include commercial and office uses with controls for high traffic volume developments such as drive-through restaurants or gas stations. Traffic calming measures, pedestrian links between the commercial development and limited ingress and egress should be used to eliminate the effects of strip commercial development along these heavily traveled roads. The additional C-2 Regional Commercial district is located on the southern side of Route 18. Permitted uses in addition to the C-1 permitted uses include automobile laundries, bus or railway stations, new automobile sales, furniture and household appliance stores, motel and hotels and storage garages.

During the public participation process and through the visioning process with the Planning Commission and Township staff, the expansion of the existing commercial district on the eastern side of Pike Street connecting it to the existing C-1 area was highlighted. The expansion of the C-1 district from Allison Hollow Road north on the west side of Pike Street was also discussed. Specific locations that the Chartiers Township Planning Commission highlighted to be considered for rezoning by the Township include:

Zone 1: On the eastern side of Pike Street to Hallam Avenue from First Street to Fourth Street.

Zone 2: The southern area of Racetrack Road to Fourth Street from the Chartiers Township line to Pike Street.

Zone 3: On the western side of Pike Street, the frontage parcels from Allison Hollow Road north to Silver Maple Street.

Zone 4: The eastern frontage parcels abutting Pike Street from Johnson Road to the existing I-1 district and north to Houston Borough.

The Planning Commission felt that due to current land uses and future land use scenarios, the Township should review the appropriateness of rezoning these locations from R-2 Residence to the C-1 Neighborhood Commercial zoning district.

This change from existing residential zoning to commercial is consistent with the land uses in the surrounding area. As discussed in other areas of the plan, streetscape enhancements such as sidewalks and street trees should be a part of any development that occurs along this corridor and would lay the basic groundwork for an aesthetically pleasing and quality commercial corridor. Some of the old houses may no longer be desirable as residential properties on Pike Street. To help maintain their viability, this C-1 area should preserve the residential houses but would allow for their conversion to office or limited commercial uses. This area should be periodically monitored and a dialogue should continue between residents and the Township to discuss what future land use changes, if any, should be addressed.

9.5 Industrial Uses

There is a solid industrial sector present within the Township and a few of these companies serve as major employers for the Township. There are various I-1 districts located throughout the Township. Industrial districts are located along Plum Run Road, Western Avenue, Pike Street, North Main Street extension and Arden. There are several existing industrial uses in the Township including Allegheny Ludlum, Bucyrus and Joy Mining Technologies, as well as land available for expansion particularly in the Industrial district in the western area of the Township. Principal uses in the I-1 district include various manufacturing companies, wholesale businesses, storage buildings and warehouses, research, testing and engineering laboratories, truck terminals and essential services. It was discussed during the planning process that there are many commercial uses located within the Industrial district in the Township. The zoning ordinance currently does not address these uses or their expansion. The zoning ordinance should be amended to address the industrial zoning classification for additional mixed uses to more accurately reflect the land uses of the district and should mitigate potential land use conflicts. Industrial development should be directed to the undeveloped land or sites that need to be redeveloped in existing industrial and/or business parks.

9.6 Agricultural Uses

The northern, western and central sections of the Township are mainly comprised of agricultural

land uses and the community's agricultural heritage is still reflected in the rural character of these areas. The agricultural district encompasses the most land area in the Township and has the largest need to be protected from extensive new residential development. During the community participation process, residents expressed a desire for the continued conservation of open space and identified with the rural landscape as the favored and desirable land use of the Township. In the 2007 Township survey, a



substantial majority of residents (84.42%) responded that the Township should encourage the preservation of farmland. Additionally, survey respondents indicated that the top reason they chose to live in the Township was the 'Rural Atmosphere' (49.58%) of the community. This area is characterized by agricultural lands and low density residential development. Agricultural lands found in these areas have been transitioning from the solely working farm category in recent times, toward large land owner tracts additionally maintained as properties for the space they provide. Many of these areas have experienced limited residential development pressures to date and though that pattern should be encouraged, there will likely be an increase in demand for new residential development in the Township. Sound development practices should be utilized for these more rural areas to preserve open space and to protect significant natural features and environmentally sensitive areas from development. Any limited future growth should preserve significant amounts of this open space and utilize clustering techniques.

The A-1 Agricultural Zoning district is located primarily in the central section of the Township and is the largest single zoning district in the Township. It covers extensive sections of the Township including areas of Brigich Road, northern Plum Run Road, Johnson Road, Ullom Road, Kings Road, Hickory Ridge Road and Welsh Road. It should be considered that the A-1 zoning district would only allow development pursuant to the growing greener program. A modified version of cluster development, known as a conservation subdivision, could provide the framework for future development in these areas. The conservation subdivision would allow development at the underlying density permitted by the zoning district, but only after a certain percentage of the lands are preserved. Development would be regulated by requiring that a certain percent of the buildable land (say 50%) would be preserved as permanent open space. Optimally, most of this open space would contain the environmentally sensitive or natural features such as steep slopes or wetlands.

Ideally, this open space would also be contiguous to open space on adjacent properties, to assist in the creation of continuous sections of open space in Chartiers Township. All environmental and natural features of Chartiers Creek and its tributaries should be protected during any development process. Land in the floodplains or on steep slopes should be used for limited passive development opportunities.

Two (2) additional tools addressing the protection of farmland in the Commonwealth of Pennsylvania are the Agricultural Security Area (ASA) and Agricultural Conservation Easement Purchase programs. Participating farmers in the ASA are entitled to special consideration from local and state government agencies and “nuisance” challenges, thereby promoting the continuing use of the land for productive agricultural purposes. Agricultural security areas are created by local municipalities in cooperation with individual landowners who agree to collectively place at least 250 acres in an agricultural security area. The Chartiers Township Agricultural Security Area was established in 1994 and was added to as recently as June 2001. It contains twenty (20) parcels of land totaling 4,062 acres of the over 65,000 acres of agricultural security farmland in Washington County. Agricultural security areas are intended to promote more permanent and viable farming operations over the long term by strengthening the farming community's sense of security in this land use and the right to farm. An agricultural conservation easement is an interest in land, which represents the right to prevent development or improvement of a parcel for any purpose other than agricultural production. The Pennsylvania Agricultural Conservation Easement Purchase Program was developed in 1988 to help slow the loss of prime farmland to non-agricultural uses. The program enables state, county and local governments to purchase conservation easements (sometimes called development rights) from owners of quality farmland. (PA Department of Agriculture)

The agricultural character and beautiful vistas of Chartiers were identified as a resource residents wanted to preserve. As such, agricultural areas and open space should be conserved and protected where possible. During the 2007 Township survey, the idea of a local farmers market was presented for the Township to support the community's farming pursuits and encourage the production of these local food sources. This market could be held bi-monthly during the growing season at either the municipal center or Arnold Park with little cost to the Township. Zoning regulations, agricultural security areas and conservation easements are some of the methods that can be used to regulate development in these sensitive areas.

9.7 Land Use Controls

In Pennsylvania, the power and responsibility to plan for land use lies exclusively with the municipality with respect to planning and land use controls to protect the public health, safety and general welfare. Responsibility for land use planning and regulating development is exercised through the authority granted to the Township by the MPC. The MPC is an “enabling” act which grants considerable leeway to a municipality in shaping its own planning and land use programs. The following are land use ordinances developed through the MPC to provide land use controls including the Official Map, Subdivision and Land Development Ordinance (SALDO), the Zoning Ordinance, Planned Residential Development Provisions (PRD) and Traditional Neighborhood Development Provisions (TND).

Municipal officials can apply these powerful tools to control how land can be developed or preserved and fulfill the goals of the Comprehensive Plan. Land use controls such as the zoning ordinance and the SALDO, are essential to maintain the orderly and timely growth of the community. A zoning ordinance establishes regulations regarding the use of land and the intensity of development that may occur on a particular parcel or parcels. The Township zoning ordinance was last updated in March of 1997. A SALDO contains requirements for the creation of new lots or changes in property lines and ensures that the new roads, water and sewer lines and drainage systems are constructed to municipal standards. The SALDO provides the legal measures to ensure that future subdivision and land development plans conform to the development goals of the community.

Following a review of the 1997 zoning ordinance and a thorough discussion with Township officials, the following deficiencies in the zoning ordinance were identified:

- The regulation of home occupations as a conditional use places an undue burden on business owners, residents and local officials. These occupations could be considered a permitted use if they meet certain criteria and a set of standards.
- Adult uses are regulated but no district is identified for their location.
- The location of the substantial number of commercial uses in the I-1 Industrial district should be reviewed and considered for inclusion and regulation in the zoning ordinance for the Industrial district.
- Review and clarify the section on temporary structures with the need for a permit
- Garages should be addressed as an accessory use.
- Update fencing provisions to regulate their location in front yards and update the use of fencing material and heights.

- Create an easy to use table for residents and potential developers for specific uses, the allowed districts, and lot and dimensional requirements.
- Review and update the sign ordinance
- The R-1 and R-2 zoning districts in the ordinance should be differentiated by title instead of generically as the R-1 Residence district and the R-2 Residence district (i.e. R-1, Low-Density Residential district or the R-1, Rural Residential district).

Failure to control development today creates poorly planned and constructed developments with problems which can persist for decades. Municipalities can require the developer to pay for public facilities located on the site if specific provisions and requirements are spelled out in the local ordinance. Even though many of these types of ordinances and provisions may appear to be complex, their adoption, implementation and enforcement further enhances solid community development. When properly adopted, administered and enforced, these codes can increase the quality of housing and overall land use and can also promote the rehabilitation of older sections of the community. Land use controls can be a vital step in the achievement of the goals of the community's Comprehensive Plan.

Growth, and the pace of growth, is among the factors to be weighed when deliberating whether to enact an impact fee ordinance. Such an ordinance represents just one more tool available to a municipality to promote orderly development. However, each municipality will have to make a cost-benefit determination to see if enacting an impact fee ordinance will likely be a net revenue producer over a given period of years. Land use planning with necessary updates to manage growth and development is constant but it is up to the Township leadership to enact and enforce land use controls.

The Governor's Center for Local Government Services is available to assist municipalities in their land use and planning endeavors. The Land Use Planning and Technical Assistance Program (LUPTAP) is a significant component of the Growing Smarter Action Plan of the Governor's Center for Local Government Services. The LUPTAP provides matching grants for municipalities preparing to develop and strengthen community planning and land use management practices. Similarly, municipalities that strive for general consistency between their comprehensive plan, the county comprehensive plan and local zoning ordinances also receive priority consideration. LUPTAP funding is one of the Center's most significant support programs and allows municipalities to use funds to develop new or update existing comprehensive plans and land use implementation ordinances. LUPTAP funds can also be used to develop or update zoning or subdivision and land

development ordinances, or to utilize advanced technology, such as GIS. (Dept. of Community and Economic Development booklet, “Land Use Controls in PA”)

9.8 The County Comprehensive Plan and Contiguous Municipal Land Uses

To successfully plan for land use, the Township must continually look beyond its municipal boundaries. The MPC mandates intermunicipal planning and coordination in regards to land use. The Chartiers Township Comprehensive Plan should be consistent with the goals, objectives and intent of the Washington County Comprehensive Plan. As stated in the 2005 Washington County Comprehensive Plan, the goal for the Comprehensive Plan will be to, “preserve scarce resources by enacting County-level policies for local elected officials to follow to encourage development that aligns with the smart growth principles and initiatives presently being supported by the Commonwealth.” Additionally, the County Comprehensive Plan reaffirms the land use character of Chartiers as illustrated in this section:

The residential development of Washington County shows the diversity inherent to its dichotomy of agriculture and heavy industry. The County residential natural includes traditional small lot housing around small commercial areas, urban centers, suburban residential subdivisions and farming homesteads. While trends in Washington County show a growing interest in the rehabilitation of boroughs, there remains a more significant trend towards the conversion of traditional agricultural areas to new housing subdivisions within many of the townships, especially those near the I-79 and US 19 corridor.

It is important for Chartiers Township to consider its planning goals and objectives within the context of the municipalities that surround it. In Section 301, the MPC requires that the existing and proposed development of the Township is compatible with the existing and proposed development and plans in the surrounding municipalities. The following table illustrates the population and housing unit densities for the Township in contrast to the surrounding municipalities, Washington County, and the Commonwealth of Pennsylvania.

Table 9.2: Reference Areas Population and Housing Unit Densities

	Population	Housing Units	Total land Area (square miles)	Population Density per Square Mile	Housing Unit Density per Square Mile
Chartiers Township	7,154	2,938	24.53	291.7	119.8
Washington County	202,897	87,267	857.09	236.7	101.8
Commonwealth of Pennsylvania	12,281,054	5,249,750	44,816.61	274.0	117.1
Canonsburg	8,607	4,144	2.32	3,703.5	1,783.1

Borough					
Canton Township	8,826	3,771	14.89	592.7	253.3
Cecil Township	9,756	4,005	26.34	370.3	152.0
Houston Borough	1,314	668	.37	3,581.7	1,820.8
Mt. Pleasant Township	3,422	1,348	35.63	96.0	37.8
North Strabane Township	10,057	4,156	27.3	368.4	152.2
South Strabane Township	7,987	3,444	23.1	345.7	149.1

*US Census Bureau

The population density for Chartiers Township and the surrounding municipalities varies widely. The more densely populated and urban areas of Canonsburg and Houston have a much higher population and housing unit density per square mile. Of the surrounding municipalities, only Mt. Pleasant had lower population and housing densities than Chartiers Township, in addition to Washington County and the State who have larger tracts of rural land. This is indicative of the rural nature of Chartiers.

A review of the surrounding land uses through the contiguous municipalities zoning ordinances is as follows:

The Borough of Canonsburg (zoning ordinance adopted 11/1/88): The Borough of Canonsburg shares small sections of the Township's eastern boundary. The zoning classification along the boundary include residential, commercial and industrial designations. The R-1 Low Density Residential district permits one and two attached dwelling units, municipal recreational uses and gardening. The R-2 Medium Density Residential district permits the R-1 permitted uses as well as townhouse dwelling units and garden apartments. The R-3 High Density Residential district includes the R-2 uses in addition to medium-rise apartments, apartment hotels, condominium apartments and public garages. The permitted C-2 General Commercial district uses include various retail establishments such as general merchandise, apparel stores, food stores, eating establishments and offices. Lastly, the Industrial district in the Borough permits various manufacturing uses, storage buildings and warehouses, and terminals. Canonsburg's zoning districts are of a mixed use and have been established adjacent to the Township for many years.

The Borough of Houston: The Borough of Houston and Chartiers Township are extensively interconnected with neighborhoods, road networks and the educational facilities of the Chartiers-Houston School District. The adjacent zoning districts along the boundary with the Borough of

Houston are the U-R Urbane Residence District, which permitted uses include one family detached dwellings, churches, schools and various municipal facilities and public service uses. The G-M General Manufacturing district is also adjacent to the Township and permits any lawful manufacturing or industrial use. These zoning districts are of mixed use but most of this area's land uses has been developed for many years. Any change or new development should be reviewed for compatibility due to the proximity of residential neighborhoods.

North Strabane Township (zoning ordinance adopted 7/25/06): North Strabane Township shares a portion of Chartiers Township's eastern boundary. The zoning districts in North Strabane adjacent to the Chartiers Township boundary include the C-2 and I-1 districts. The C-2 Regional Commercial district in North Strabane was created to "accommodate shopping, lodging, entertainment and supporting facilities that are regional attractions and tourist destinations in areas immediately accessible to the regional highway network or Meadowlands Racetrack". There are almost fifty (50) authorized uses in the district including various retail stores, business or professional offices, day care centers and vehicle rental, sales and service. The I-1 Industrial District authorizes almost thirty (30) permitted uses including automobile service stations, light manufacturing and warehousing distribution. The adjacent land use in Chartiers Township is Industrial which is compatible with North Strabane's zoning districts.

South Strabane Township (zoning ordinance scheduled to be adopted 12/08): South Strabane Township shares a portion of Chartiers' southeastern boundary. The zoning classification in South Strabane along the boundary includes residential, commercial and industrial designations. The R-2 Suburban Residential district's permitted uses include essential services, forestry, passive recreation, public buildings and single-family dwellings. The C-2 General Commercial district includes a substantial amount of permitted uses (almost fifty). The permitted principal uses include various retail stores, business offices, restaurant and bars and public buildings. The I-1 Light Industrial district authorizes various permitted uses including automobile service stations, high technology industries, light manufacturing and wholesale businesses. The adjacent zoning districts in Chartiers Township are primarily the C-1 and I-1 districts which are in accordance with South Strabane's zoning classifications.

Mount Pleasant Township (zoning ordinance adopted 10/26/06): Chartiers Township shares its northwestern border with Mount Pleasant Township. There are many zoning districts along the border in Mount Pleasant Township including the A-1 Agriculture, the R-1 Rural Residential, the R-3 Neighborhood Residential, the B-1 Highway Commercial and the M-1 Light Industrial. The adjacent

zoning districts for Chartiers Township include C-1, R-1 I-1 and A-1. This area is still primarily rural in nature except for some business located along the Route 18 corridor or in the Westland area. As the area develops, both municipalities should ensure coordination with their land use activities.

Canton Township (zoning ordinance adopted 4/8/1997): Chartiers Township shares its southwestern border with Canton Township. There are various zoning districts along the border including the A-1 Agricultural zoning district, the R-1 and R-2 Residential zoning districts and the C-3 Highway Commercial district. The intent for the A-1 Agricultural district in the Township is to “preserve productive agricultural land resources, to encourage conservation of environmentally sensitive land and to provide sites for low density residential use compatible with natural land features and constraints and agricultural pursuits”. Permitted uses in the district include agriculture, single-family homes, public park and recreation uses, stables, kennels or veterinary clinics. This area is adjacent to the C-2 Regional Commercial district in Chartiers and should be reviewed for compatibility and potential land use conflicts. The R-1 Suburban Residential district permits single-family dwellings, municipal facilities, home occupations and golf courses. The R-2 General Residential district includes the R-1 uses as well as the R-2 use of a duplex unit home. Much of these zoning districts are adjacent to the R-2 residential zoning district in Chartiers. The last zoning district in Canton is the C-3 Commercial Highway district with various permitted commercial uses. The area is adjacent to industrial and agricultural uses in the vicinity so significant development would have to be reviewed for compatibility.

Cecil Township (Unified Development Ordinance amended 10/8/2007): Chartiers share its northeastern border with Cecil Township. Within the boundary are only residential zoning districts of the R-1 Low Density Residential district and R-2 Medium Density Residential district. The Uses by Right in the R-1 district include farms, single-family detached dwellings, customary accessory uses, home offices and essential services. The Uses by Right in the R-2 district include single-family attached and semi-detached dwellings, two-family dwellings, multi-family dwellings and PRDs. The adjacent zoning districts in Chartiers Township are A-1 and R-2 which are similar with Cecil Township’s zoning classifications.

9.9 Innovative Techniques and Best Practices for New Development

The implementation of the innovative land use development techniques described below is considered particularly important to preserve farmland, open space and natural areas, to further a well-planned community and to guide future development. To protect the Township’s natural

resources, a mechanism in the development process should be provided so that environmentally sensitive and significant natural areas can be placed under a conservation easement for preservation or developed under a conservation design approach to create low impact, cluster developments to carefully locate new dwellings in an environmentally sensitive manner. Secondly, the Township should consider adopting a Transfer of Development Rights program. This program is necessary to fulfill the Township's development and preservation goals while maintaining equity for its landowners. Transfer of Development Rights require "sending areas" including agricultural and environmentally significant natural areas and "receiving areas". Receiving areas should be those areas within the water and sewer service area. The Township should also continue the development of its Agricultural Security program.

Another objective for the plan is the protection of cultural and historic resources to retain the unique features and heritage of the community as found in its natural and built environment for enjoyment by future generations. These sites and structures, such as the Washington County Fairgrounds and Pennsylvania Trolley Museum help the community to create an identity through an understanding of past traditions and fostering a sense of local pride. Protection and preservation of these important cultural and historic resources is an ongoing challenge, but will become more so in times of growth which could be experienced by the Township in the upcoming years.

Road improvements and the expansion of public sewage and water infrastructure will be the first step that must be taken by municipal officials if they desire to attract new housing development. Small cluster developments around open greenspace to create a neighborhood center with open spaces and interconnected sidewalk systems will help create walkable neighborhoods. The plan also encourages a mixture of housing types to increase diversity and affordability in its housing stock. One additional method to promote fiscal balance in development and to pay for needed infrastructure is through the use of a fiscal impact analysis and possible fees as a part of the development review process. Statements and studies will help the Township understand the impact new development will have on the provision of Township services, as well as the school district and County.

Chartiers Township is primarily a bedroom community, with limited nonresidential, tax ratable businesses. This has an impact on the tax base that supports needed facilities and services within the community. The Township seeks to balance residential and nonresidential development. Chartiers encourages the opportunity for guided development offering commercial, office and industry jobs within well-designed developments that will not only assist in supporting the needed services, but also reducing commuting and through-traffic on Township roads. The Township intends to achieve

this by expanding commercial opportunities through both new development and redevelopment. Small-scale opportunities can be appropriately placed throughout the Township through guided home occupations. Smaller-scale businesses have the opportunity to make a contribution to the economic viability of the Township and can more efficiently blend into existing areas with minimal impact.

The Township should endeavor to avoid “sprawl” in new development patterns. Sprawl is the spreading of low density, totally automobile dependent residential developments, commercial shopping areas and industrial parks. By avoiding sprawl, the Township can:

- Conserve the rural character and natural resources of the Township
- Protect scenic and open areas
- Reduce congestion on roadways
- Ensure the quality and livability of existing residential housing and neighborhoods
- Preserve existing commercial and industry employment centers to areas where adequate infrastructure exists to serve such uses.

Design guidelines should be incorporated into the development process in Chartiers. It is important to address the appearance of the public corridors and streetscapes within the Township, including the appearance of signage and other visual clutter that can detract from the scenic qualities of the Township. Landscaping and buffering standards should be used to enhance the existing environment and to provide buffering between incompatible uses, along street corridors and to screen parking lots. Rear alleys can also be utilized to buffer internal parking areas and to enhance building facades with curb appeal. Existing commercial development can be adaptively re-used and expanded into a more village type environment. A town center can be created with a traditional pedestrian-oriented streetscape by positioning buildings close to sidewalks to create a “mainstreet” area. The Township should encourage conversion or live-work units to enable a zero-commute and an opportunity to live above a shop, store or office. Additionally, the plan also promotes the provision of civic amenities such as benches, parks, bus shelters and the greenspace. The Township should use the best practices to identify key design elements and require that these be incorporated into development proposals.

Larger-scale development opportunities are most appropriately located in the commercial or industrially zoned areas. These areas are appropriate for well-designed business parks and mixed-use developments. This plan promotes the use of mixed-use developments, which permits the mixing of compatible commercial and office uses with residential uses within the Township. Infill

development or brownfield redevelopment is the adaptive reuse of existing land, by taking a vacant or underused existing building or site and converting it to a new use. Vacant buildings or lots can be reused to better benefit the community. Infill development can include residential, commercial or industrial sites. Any industrial development should be buffered from residential areas since intense uses such as heavy industrial activities do not lend well to contributing to a quality of life prized in residential areas.

9.10 Conclusion

The land use section is a culmination of the other elements of this Comprehensive Plan and reviews many issues and objectives highlighted in previous sections of the plan. Chartiers Township's land



use pattern is primarily based on its agricultural heritage and suburban residential development with some commercial and industrial uses. During the public participation process for the development of the plan, the importance of agriculture in the Township was repeatedly discussed and highlighted with the community's desire to retain its agricultural

heritage. These land resources shape the fabric of the Township and should be preserved for this reason.

The Township should encourage a growth pattern that gives priority to agricultural and natural resources, while concentrating growth in areas where the Township is prepared to support it, particularly those areas designated for water and sewer service. The development or preservation of land will have long-range implications. Specifically, how to maintain the desirable rural- residential character identified as a valuable asset by residents and still encourage smart growth and economic development. The Township must participate in regional planning efforts and coordinate its land use policies with adjacent communities to ensure that the Township land use efforts are generally compatible with neighborhoods in contiguous municipalities.

New and innovative techniques for land use such as mixed use and traditional neighborhood developments are essential elements if the Township is to reach its goals of being an attractive,

sustainable and viable place to live. Maintaining and enhancing the overall appearance of the Township is of the utmost importance for all types of development within the Township. Well-designed developments can improve the function and appearance of the Township and can help to mitigate existing negative impacts. This is especially important as the Township sets out to maintain its unique rural character while increasing mixed use opportunities. The ultimate goal for land use in the Township is to preserve its important rural and natural resources and to promote a sustainable and attractive growth pattern for the future of Chartiers.

Section X: Goals and Objectives

An essential component of the Chartiers Township Comprehensive Plan is the establishment of goals and objectives for each heading in the Plan. The purpose of the goals and objectives is to provide the overall policy direction for the Township and are required by the Pennsylvania Municipalities Plan Code, Section 606: Statement of Community Development Objectives. Goals should set the broad direction for Township policy, while objectives are measurable steps that must be taken to achieve those goals in order to realize the kind of community that Chartiers Township desires to be in the future. The list of the goals and objectives are categorized according to the major sections of the Plan and highlight issues identified in the Plan.

10.1 Physical Environment and Natural Resources

Goal: To preserve and protect Chartiers Township's unique and significant environmental and natural resources and promote sustainable development by restricting development in environmentally sensitive areas.

Objectives:

To amend the Subdivision and Land Development Ordinance to require an Environmental Impact Assessment and Mitigation Report for any development which impacts natural, scenic or environmental resources.

To limit construction on very steep slopes (greater than 25 percent slope) unless special construction techniques are used to mitigate impacts and improve standards for development on steep (15 to 25 percent slope) slopes to minimize disturbance.

To require any new development in undermined areas and/or in areas with mine subsidence potential to submit an analysis of the subsidence potential of the site based on the most current information available from the PADEP and investigate the need for obtaining mine subsidence insurance.

To require a joint water obstruction and encroachment permit from the PADEP for any and all stream crossings and wetland disturbances to minimize stream bank erosion, excess sediment deposition and degradation of stream habitats and wetlands.

To retain up to date floodplain information and limit development within the 100 year floodplain.

To only permit appropriate land uses that would not impede flood levels or flow of flood waters in order to protect their natural state and the water quality of water bodies, specifically along Chartiers Creek and its tributaries.

To require riparian buffers along all floodplains, wetlands and streams/ surface waters in the Subdivision and Land Development Ordinance.

To protect and preserve the Township's surface and ground waters from point and non-point source pollution and to maintain a quality water supply.

To manage development's impact on water resources, through the application of appropriate impervious coverage limits, conservation techniques and/ or vegetative enhancements and reforestation to match the underlying conditions of the specific site.

To support connections to the public sewer system where feasible or permit development only in areas clearly suitable for on-site sewage disposal systems to prevent water contamination.

To minimize the loss of topsoil through erosion and the subsequent sedimentation of streams through storm water management techniques that serve to recharge groundwater supplies and to adopt the DEP's best management practices for stormwater protection.

To maintain woodland resources through timbering plans for tree replacement to manage the removal of trees in the Township and to provide standards for tree preservation and replacement in the Subdivision and Land Development Ordinance.

To re-examine the building and impervious coverage standards in the Zoning Ordinance to guarantee that green space is preserved on individual lots and development tracts.

To continue and expand environmentally sound practices such as water conservation programs and recycling activities.

10.2 Housing

Goal:

To encourage a range of housing types that will meet the needs of the Township's residents, ensure that the value of the Township's existing housing stock and promote quality residential development in appropriate areas.

Objectives:

To ensure that the existing housing stock remains viable and desirable through code enforcement.

To draft landscape buffer requirements and subdivision regulations to ensure that residential in-fill development is compatible with existing development.

To provide regulations for the sensitive adaptive reuse of old houses that are no longer desirable as residential dwellings.

To promote the preservation of historic areas and structures through the identification of all potential historic resources in the Township, to secure the appropriate certification of historical significance of eligible resources and to develop opportunities and incentives for the continued use or compatible reuse of historic structures.

To promote quality affordable housing opportunities and support the rehabilitation or reuse of existing dwellings for affordable housing.

To encourage the development of lower maintenance senior housing and care facilities in the Township.

To guide future higher density residential development to areas in which public water supply and sewage can be provided.

To incorporate new techniques and design guidelines for residential development in the Township including Conservation Subdivision principals, Traditional Neighborhood Developments and Transfer of Development Rights programs.

To promote public education and support private actions which promote the protection of

environmental and historic resources.

To establish performance standards that require new residential development to be designed in a manner that preserves sensitive natural and cultural resources in order to preserve the rural character of the Township.

To design new developments to maintain the integrity of existing rural areas through low impact development techniques and the conservation of the natural setting of the land during and after development.

To encourage new developments that include bicycle and pedestrian facilities and connections to adjacent development, where possible.

To allow for a variety of housing types, such as multifamily, townhouse, and live/work units in the appropriate areas.

10.3 Community Services and Facilities

Goal: To provide efficient and effective municipal services for Township residents and businesses and be responsive to the current and future administrative, financial, public safety and community needs and to investigate opportunities to expand new services when feasible.

Objectives:

To ensure that the municipal facilities are fully utilized by the community and the Township administration remains available to the continued commitment for equitable and quality service provision throughout the Township.

To develop a timeline for officials to ensure the completion of the objectives included within this plan.

To maintain effective and communicative relationships between all departments, organizations, and interest groups throughout the community and to conduct an annual visioning session to review the goals and objectives of the comprehensive plan, to identify and recommend revisions and updates as necessary, and to ensure the implementation of the relevant objectives annually.

To develop an informational brochure/“Welcome to Chartiers Township” pamphlet on existing programs, events, services and relevant phone numbers to be available at the municipal center.

To continually identify opportunities to expand and provide new services in the Township.

To establish a program for the enhanced beautification of local entranceways to the Township including enhanced signage with plantings along well-traveled access points to the community, i.e. Racetrack Road and Pike Street.

To explore opportunities for the regionalization of service provision with adjacent municipalities to form partnerships to reduce costs and maintain cooperative intermunicipal relationships with these municipalities.

To establish a capital improvements program for infrastructure maintenance, improvement and expansion including roadways, signage, sewage and storm water needs through scheduled management and replacement.

To encourage proactive, consistent, objective and prompt code enforcement response to code violations and requests for building permits to maintain positive community relations, as well as to maintain a standard of development that is desirable and safe.

To implement and utilize an updated Township Geographic Information System (GIS).

To establish a dialogue with various public safety professionals to ensure the quality of provision of service and the public safety needs of the community including the police, fire department, EMS and healthcare services for the Township.

To work with all utility providers to ensure that they are meeting the current and future needs of the Township.

To support the Washington East Washington Joint Authority and Canonsburg Houston Joint Authority Act 537 Sewage facilities plans and continue to identify the necessary maintenance of sewage facilities in the Township.

To ensure and coordinate all development with the availability of public water and sewage, to support this infrastructure's expansion into the Township in appropriate areas and to encourage all existing and new land developments and subdivisions to be served by public water and sewage.

To coordinate and communicate with the Chartiers-Houston School District on all relevant issues.

To require fiscal impact statements that analyze a development's impact on the School District and other needed infrastructure and encourages developers to cooperate with the School District and Township to acquire facilities and resources as needed.

To incorporate the use of exactions and/or impact fees to help finance capital improvements associated with new development.

To continue to support the Chartiers Houston public library.

To coordinate all community service plans with various applicable outside agencies including the school board, sewage authorities, the library etc. to ensure that the Township is conveniently served by such services and to establish a dialogue with the local boards to provide input on the development of these relevant public facilities.

10.4 Transportation

Goal: To promote the ease of transportation through the Township by creating solutions to existing road and traffic problems and encouraging transportation alternatives to automobiles.

Objectives:

To continually address traffic management issues and needs in the Township as necessary and to participate in the Southwest Pennsylvania Commission Transportation Improvement Process to ensure an adequate transportation network.

To continue to maintain and improve traffic flow on signalized, non-signalized and unsafe traffic intersections.

To encourage future development to be designed to present the minimal negative impacts on the

road system and traffic patterns in the Township and to encourage the provision of through streets between new developments to promote improved road connections.

To provide pedestrian access in addition to vehicular access to new residential and commercial developments where feasible and to encourage an interconnected network of pedestrian and bicycle paths to support alternate mode of transportation connections.

To pursue ways to improve capacity within the existing road network through cooperation with PENNDOT and to continue to monitor the condition of local roads and bridges.

To provide a safe and efficient transportation system by coordinating closely with the PENNDOT, the Washington County Planning Commission and the Southwestern Pennsylvania Commission to ensure that the transportation needs are addressed in the Township.

To promote 'smart growth' initiatives that encourage an integration of all modes of transportation in land use planning to improve mobility through a more innovative use of rights-of-way, including bicycle lanes, public transportation opportunities, pedestrian pathways and access management strategies that reduce congestion and improve traffic flow while reducing potential conflicts with other vehicles or pedestrians.

To require new developments to perform a transportation impact study to determine what impact the development will have on the local road network.

To coordinate with the Washington County Transportation Authority to improve the existing public transportation service to provide alternatives to the automobile.

10.5 Parks, Recreation and Open Space

Goal: To create safe, well-maintained and enhanced passive and active park, recreational programs and opportunities to serve the diverse needs and desires of residents for all ages and abilities and to preserve tracts of open space.

Objectives:

To maintain and enhance existing municipally-owned park and recreational facilities and explore opportunities for the expansion of recreational and open space facilities and programs for residents of all ages and abilities.

To adopt a master site plan for Arnold Park including the final plans for the location and construction of the community center.

To advocate for the rehabilitation of Allison Parkette and to work with the school district to improve this facility.

To begin to plan for the utilization of the Ullom Road property and initiate a master site development plan.

To identify all potential sources of funding and partnerships for park, recreation, open space and trail improvements and development.

To promote citizen involvement with the Park and Recreation Board and explore any opportunities for expanded funding for its endeavors.

To ensure the availability of a variety of programs for people of all ages and for special groups such as senior citizens or the physically challenged.

To support regional recreation amenities and programming with Washington County such as the Washington County Children's Garden and the Washington County Agricultural Fair.

To contact the Department of Community and Natural Resources to discuss intended objectives for park, recreation and open space in the Township and discuss possible partnerships and/ or funding opportunities.

To implement a strategic plan including a park and recreation assessment by the Township and Park and Recreation Board to evaluate for safety and maintenance issues, set goals for the short term (1-3 years) and outline strategies to achieve those goals including the establishment of a capital improvement program for existing parks.

To coordinate all efforts in partnership with the School District, County and State to encourage full use of local and regional recreational assets, programs and funding sources, and to develop cooperative partnership with citizens, civic groups and business leaders to strengthen relationships and encourage volunteer involvement to improve these amenities for citizens.

To provide public access to Chartiers creek and to establish a continuous greenway and/ or trail along the Creek.

To promote an interconnected system of parks, facilities, neighborhoods and trails, when possible to link commercial, scenic and cultural assets to each other to provide a basic trail system that would connect these assets to the Township's neighborhoods and centers.

To explore the possibility of part time staffing to identify funding sources for park and recreational development and to administer the current park and recreation facilities, programs and services.

To identify and preserve natural areas and open space opportunities throughout the Township.

To encourage donations of land, development rights and conservation easements to the Township or land conservation groups.

To consider addressing future neighborhood recreation needs by adopting Mandatory Land Dedication or Fee-in-Lieu of provisions in the Subdivision and Land Development Ordinance to contain provisions regarding the public dedication of land from a developer as a condition of plan approval or a fee-in-lieu of this dedication.

To ensure all major residential developments have convenient and safe access to open space areas by encouraging private development to dedicate areas of subdivisions for open space and other recreational opportunities.

10.6 Economic Development

Goal:

To promote a strong, diverse local economy through a balanced tax base and expanded opportunities for economic development in the Township.

Objectives:

To continue to encourage neighborhood-oriented commercial development for the convenience of residents and to consider the expansion of the neighborhood commercial zoning district on the zoning map along the highlighted areas of Pike Street.

To encourage the redevelopment of vacant or underutilized commercial and industrial sites that are compatible with surrounding uses and to create tax incentives and/or abatements for individuals or companies for rehabilitation of these older and/or abandoned structures.

To promote the beautification and streetscape of the Township's existing commercial areas with improved pedestrian amenities and landscaping.

To provide concentrated areas for commercial uses that provide diverse goods and services in a convenient and efficient manner and to encourage new building to be constructed in clusters that create a streetscape and encourage interconnected sidewalks in commercial areas.

To support a variety of employment opportunities for all levels of education.

To explore the idea of a continuing education program for residents such as health programs or other how to programs.

To encourage resident's education as a resource that should be supported by the Township by providing an annual scholarship program for a local high school graduate's continuing education efforts.

To maintain or improve Chartiers' moderate levels of income and low poverty rates.

To utilize the resources and expertise of the Washington County Economic Development Partnership (WCEDP) and other regional economic development agencies and the resources of the Pennsylvania Department of Community and Economic Development.

To develop an economic development strategy that encourages business growth and site and infrastructure development and redevelopment.

To analyze public funding sources available to assist in economic development endeavors.

To develop a workforce development strategy that identifies what types of industries/ businesses are likely to locate in the region in the future and incorporate strategies to be implemented that will support their development and encourage economic growth.

To balance all economic development efforts with the protection of the environmental, open space and agricultural resources of the Township.

To explore the position within the Township for an economic development practitioner to serve as a liaison between the Township and local business community and as a point of first contact for potential investors.

To consider the creation of a chamber of commerce or other type of business consortium that could serve as a formal, structured on-going medium of communication among the Township's business leaders and Township officials and residents.

10.7 Land Use:

Goal:

To provide for growth in an orderly manner and in appropriate locations which will enhance the rural-residential character of the Township while still providing limited commercial and industrial uses for employment opportunities to support the tax base.

Objectives:

To balance all new development with existing land use patterns and to ensure the quality and compatibility of all development from conflicting land uses and overdevelopment.

To guide the location and intensity of development and to manage growth relative to the Township's ability to provide facilities and services, including water and sewage infrastructure, transportation capacity and police and fire protection.

To establish design guidelines for highly visible public corridor's development and redevelopment including standards for landscaping, lighting, streetscaping and access requirements and incorporating a design review into the development process.

To adopt planning standards and key design elements for commercial buildings and landscapes.

To support mixed use developments in commercial and industrial zones and upper story residential/conversion dwelling opportunities.

To identify locations for business and commercial development to improve the tax base and increase employment opportunities in the Township and to identify small scale commercial opportunities and permit no-impact home businesses in residential districts.

To encourage and support the redevelopment of existing or underutilized commercial and industrial sites or areas and to create incentives for developers to redevelop older, run-down properties.

To promote fiscal balance in development and to pay for needed infrastructure through the use of a fiscal impact analysis and possible fees as a part of the subdivision and land development review process.

To amend sign regulations in the zoning ordinance.

To proactively enforce ordinances to remove any blighted, unsafe structures and to ensure that older development is well maintained and/or rehabilitated and that any new residential growth is compatible with existing density patterns.

To consider the expansion of neighborhood commercial zoning district in the stated areas along the Pike Street corridor in the Township from R-2 Residence to the C-1 Neighborhood Commercial zoning designation to attract more economic development that is compatible with surrounding land uses.

To protect the Township's unique scenic, historic and natural landscape features by requiring flexible development design standards that adequately buffer sensitive natural, cultural and historic resources and to encourage efforts to conserve such features.

To employ density concentration techniques such as transfer of development rights (TDR), planned residential developments (PRD) and traditional neighborhood developments (TND) to curb sprawl.

To encourage the integration of sidewalks in both new and existing communities for improved access.

To establish a dialogue with adjacent municipalities regarding land use and development issues and to participate in coordination and cooperation with the surrounding municipalities and Washington County.

To encourage affordable housing options for older residents or “empty-nesters” who may desire smaller or lower-cost dwellings.

To incorporate traffic calming measures, pedestrian links between the commercial development and limited ingress and egress to be used to eliminate the effects of strip commercial development along heavily traveled roads.

To address the various commercial uses in the industrial district in the zoning ordinance to be amended for additional mixed uses to more accurately reflect the land uses of the district and to mitigate potential land use conflicts.

To revise the Zoning and Subdivision Ordinances in the A-1 Zoning District to only permit development pursuant to Growing Greener: Conservation by Design principles.

To promote the Agricultural Security Area (ASA) and Agricultural Conservation Easement Purchase programs to regulate development in agricultural areas and to consider adopting a Transfer of Development Rights program.

To develop a local farmers market for the Township to support the community’s farming pursuits and encourage the production of these local food sources.

To protect the environmental and natural features of Chartiers Creek and its tributaries during any development process.

To continually support the improvement and expansion of infrastructure in the Township available to existing and future development.

To incorporate landscaping and buffering standards to enhance the existing environment and provide buffering between incompatible uses, along street corridors and to screen parking lots.

Appendices