

2020 Chartiers Township Comprehensive Plan

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History of Chartiers Township

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 23, 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 glovemaker from Philadelphia. Peter was licensed by the English court in Lancaster County in 1730 to trade with the Indians in this area (Knestruck, 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). By 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 during times of high water. Coal had also become one of the main products of Chartiers Township, and continued to be 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 25cents a bushel. By 1876, 20 or more coal banks could be counted and with the coming of the railroads, mining became a big business (Knestruck, Observer Reporter, 11/23/68). The wealth of coal drew interest in the Township for its solid employment opportunities, though the work

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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 high school in the early 1940s. 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). More recent enrollment figures published by the Chartiers Houston School District state the district's current enrollment is 1,145 students.

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 (Knestruck, 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 23, 1908, two 50,000 barrel oil tanks were struck by lightning. 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

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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 30 cars are on display to the public. 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. This spur includes a new platform and canopy to service County Fairground visitors. The Pennsylvania Trolley Museum exceptionally preserves the historical significance of this once-vital form of transportation through the region. Plans are currently underway to construct a new Welcome and Education Center on the museum's East Campus.

In the early 1950s, 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.

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 miles north of the City of Washington and 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. 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

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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 Piatt Estates, Arabian Meadows, Summerfield Woods, and Arden Farms. Despite this, much of Chartiers' nearly 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 1970s and 1980s 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 it is permitted by the Department of Environmental Protection for 434 acres of landfill operation. 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 have a significant impact on the community. The easy access and proximity of these employment and commercial activities make the Township even more attractive as a place to reside. These centers provide employment, shopping, and cultural opportunities. However, their proximity continues to place growth and development pressures upon the Township. The availability of land in the area acts 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 growth.

In recent years, Chartiers Township has been an active setting for the oil and gas industry. The Marcellus Shale rock formation had long been known to hold tremendous amounts of trapped natural

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gas, however the technology to economically recover it was not available. Technological advances in deep directional drilling and hydraulic fracking paved the way for Pennsylvania's natural gas industry.

Since the initial wells were drilled in Pennsylvania, Chartiers has been the location of 24 well pads, which support 109 wells, the MarkWest Houston natural gas processing plant, and several transmission pipelines including Energy Transfer's Mariner East Pipeline and Shell's Falcon Ethane Pipeline. While this industry has created economic opportunities for some residents, the influx of domestic natural gas has created a saturated market with suppressed prices. New endeavors in this industry may be hindered by the oversupply and reduced price of natural gas.

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. Smart 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. Growth must be directed in a desirable manner to ensure the livability of the Township for generations of residents to come.

Demographic Profile of the Township

Background

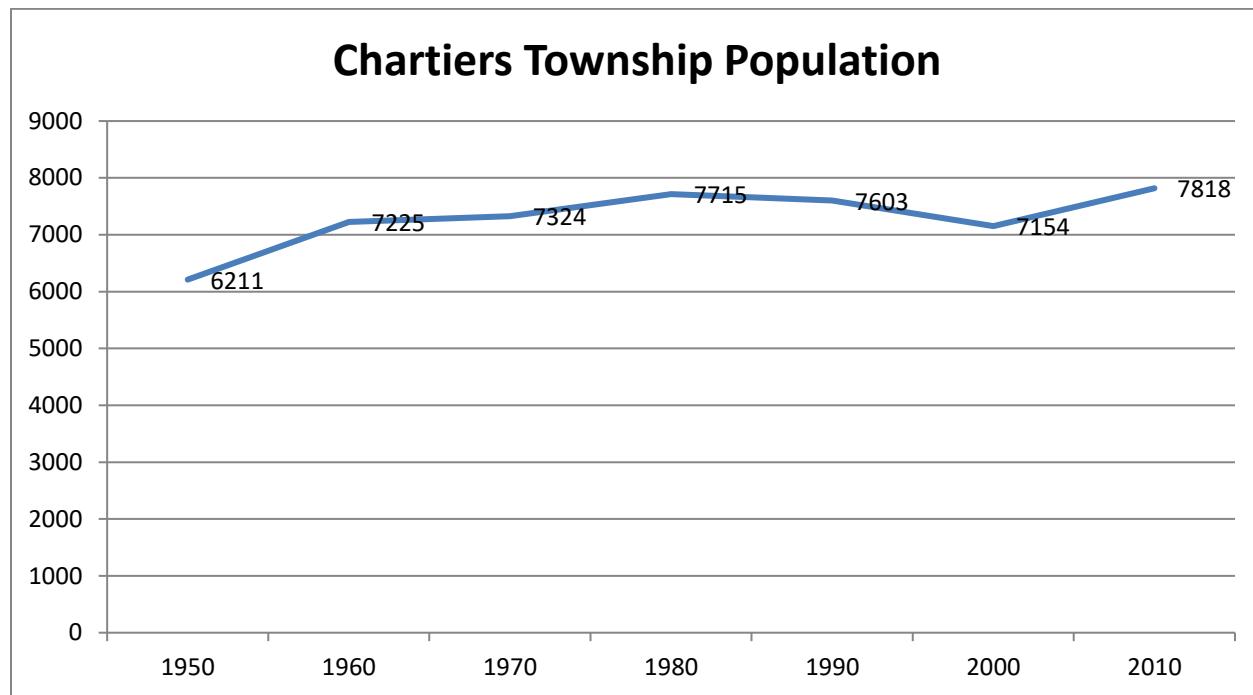
The demographics of the population of Chartiers Township will be examined in this section of the Comprehensive Plan. Demographic patterns are important to analyze when developing a comprehensive plan in order to examine past trends, present status and anticipated future demands. Unless otherwise noted, all data is primarily compiled from the United States Census Bureau and, in particular, the decennial Census. 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.

Population

The total population for Chartiers Township as of the 2010 U.S. Census was 7,818 persons. The 2018 U.S. Census Bureau Population Estimate Program estimates the population at 8,010. There are 3,759 males, equaling 48.1% of the population, and 4,059 females, equaling 51.9% of the population. The 2010 population of 7,818 persons represents an increase in total population since the last Census, and the 2018 Population Estimate Program illustrates additional growth. 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 until the 1980s. The Township experienced a population decline over the previous two decades (1990s-2000s), this trend was largely due to the closing of the Steel Mills within the region. However, this trend beginning to reverse, as the 2010 Census indicates an overall population increase of almost 700 persons.

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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. As a result of these factors, an increasing number of industries were located in the region. 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 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 1950s and 1960s, declined over the subsequent 40 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 since 1950 can be shown in the table below.

Township Population Percent Change

Year	Population	Percentage Change
1950	6,211	3.8%
1960	7,225	16.3%

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1970	7,324	1.4%
1980	7,715	5.3%
1990	7,603	-1.5%
2000	7,154	-5.9%
2010	7,818	8.4%

*US Census Data

As demonstrated in the table above, it is evident that the last period of significant population growth in Chartiers occurred during the 1950s through the 1970s experienced a steady increase. The decline of the 1990s and 2000s can be attributed to the aging population in Chartiers in combination with fewer people locating to the area; however, these figures are beginning to change as Chartiers experiences new residential growth and development. That growth continued through the 2010s as seen with the number of new homes built in Chartiers. The 2020 Census figures should reflect this growth.

Age

When a population ages, 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.” Until very recently, population decline was a major issue for Chartiers. With population figures increasing, the newer challenge will be managing growth.

Chartiers Township Population from 1990-2010 by Age

Age	Population 1990	Population 2000	% change1990- 2000	Population 2010	% change2000- 2010
0-4	429	331	-22.84%	349	5.44%
5-9	453	415	-8.39%	405	-12.72%
10-14	457	464	1.53%	405	-11.60%
15-19	431	381	-12.72%	417	5.44%
20-24	380	277	-32.70%	376	1.53%
25-34	1107	745	-35.74%	775	4.03%

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35-44	1110	1,147	3.33%	971	-15.34%
45-54	929	1,037	11.63%	1,279	23.34%
55-64	841	846	0.59%	1,192	40.90%
65-74	855	739	-13.57%	857	15.97%
75+	611	772	26.35%	881	14.12%

*US Census Data and Southwestern Pennsylvania Commission

As shown in the table above, the overall demographic makeup of the Township is changing. The Township is experiencing growth in many segments that had previously experienced years of decline. This is evident as the Township is experiencing growth with its youngest and oldest resident demographics. The Township is also experiencing substantial growth in middle age ranges between 35 and 64 years of age. The largest decrease over the previous Census is in the age range of 10-14, which is down 12.72 percent since 2000, however this can be attributed to the -22.84% drop in those aged between 0 and 4 years in the 2000 Census. Those residents over 65 have also increased substantially over the previous 10 years.

Median age, which can be traced over time and in contrast to larger reference areas, can accurately demonstrate the significance of the aging population in Chartiers.

Median Age 1970–2010 by Year

	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
2010	47.5	43.6	33.2	40.1	37.2
% change since 1970	50.32%	34.98%	4.08%	30.62%	32.38%

*US Census Data

From looking at the table above, it can be noted that the median age has been increasing over time in the Township. The percentage change in age since 1970 in the Township shows that Chartiers had been the fastest aging population in comparison to the county, state and nation of which it is a part. People

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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 the table below.

Age Brackets and Percentage Change 1970-2010

	Percent under 20	Percent 20-54	Percent 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%
2010	19.8%	42.8%	37.4%

*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 population segment within 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 years, special activities and programs should be established to ensure the quality of life for seniors in the Township.

Race

The racial composition of Chartiers Township is primarily homogenous with 95.0 percent of the population identifying themselves as white. The next largest racial group is African American at 2.8 percent, Asian 0.2 percent, 0.5 percent reporting as another race, and 1.2 percent reporting two or more races. These racial statistics are generally concurrent with Washington County but not necessarily with the Commonwealth of Pennsylvania or the United States as one can see in the table below.

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Chartiers Township Racial Composition

	White	African American	Native American	Asian	Another Race	2 or more races
Chartiers Township	95.0%	2.8%	0.0%	0.2%	0.5%	1.2%
Washington County	94.1%	3.3%	0.1%	0.6%	0.3%	1.5%
Pennsylvania	81.9%	10.8%	0.2%	2.7%	2.4%	1.9%
United States	72.4%	12.6%	0.9%	4.8%	6.2%	2.9%

*US Census Data

Household Characteristics

The types of households in the Township are evolving. The number of persons per household is declining. In 2000, the average household size in the Township was 2.45 persons per household. By 2010, the average household size dropped to 2.37 persons per household. Smaller household sizes reflect a 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. Part of this trend can be explained by changing family models, as demonstrated in the table below.

Household Characteristics 2000-2010

	2000	Percent	2010	Percent
Total households	2,814	100.0%	3,192	100.0%
Family households	2,005	71.3%	2,224	69.7%
Married-couple family	1,641	58.3%	1,743	54.6%
Female householder, no husband present	257	9.1%	337	10.6%
Non-family households	809	28.7%	968	30.3%

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Householder living alone	707	25.1%	834	26.1%
Householder 65 years of age and over living alone	373	13.3%	396	12.4%

*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 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.

Regional Population Shifts

Chartiers Township is bordered to the northwest by Mount Pleasant Township, to the northeast by Cecil Township, to the east by Canonsburg Borough, Houston Borough and North Strabane Township, to the southeast by South Strabane Township and to 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 the table below, which looks at the population change from 1980-2010 of these contiguous municipalities.

Regional Population Change from 1980-2010

	1980 Population	1990 Population	2000 Population	2010 Population	Percent Change 2000-2010
Washington County	217,074	204,584	202,897	207,820	2.43%
Canonsburg Borough	10,459	9,200	8,607	8,992	4.47%

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Canton Township	10,311	9,256	8,826	8,375	-5.11%
Cecil Township	8,923	8,948	9,756	11,271	15.53%
Chartiers Township	7,715	7,603	7,154	7,818	9.28%
Houston Borough	1,568	1,445	1,314	1,296	-1.37%
Mount Pleasant Township	3,612	3,555	3,422	3,515	2.72%
North Strabane Township	8,490	8,157	10,057	13,408	33.32%
South Strabane Township	7,389	7,676	7,987	9,346	17.02%

* 1986 Comprehensive Plan, Penn State Data Center, US Census

By looking at this table, 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 Canton Township. 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 continue to present additional development pressures.

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 both its current residents and potential future residents. Chartiers Township is likely to experience continued population growth in the 2020 U.S. Census, and there will be an increasing demand for dwelling units and land with the decreasing household size. Given larger lot sizes

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usually associated with suburban development, this can impact the development of land use and the need for additional infrastructure within the Township. To continue to facilitate growth, and to direct it in a desirable and responsible way, infrastructure improvements and expansions will need to be undertaken. In addition, 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:

- How to address new growth
- The aging of the current population
- The substantial population growth and development in nearby municipalities

Section I. Physical Environment and Natural Resources

1.01 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 subsistence, 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 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.

1.02 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

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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 un-sewered areas of the Township. As of the 1990 US Census data, only 59.5 percent of households were served by public sewage. Starting with the 2000 US Census, data collection for sewage disposal was discontinued. Given the amount of new housing developed with public sewage since 1990, and the Township's sanitary sewer service expansion projects, this percent should be higher than the 59.5 percent cited in the 1990 US 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 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

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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 general soil types in the Township are shown in Table 1.01 below:

Table 1.01 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

*Soil Survey of Greene and Washington Counties

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 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.

1.03 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 percent of the land in the Township is sloped at 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 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 25 percent begins to cause serious problems for development. The relatively steep and narrow nature of the valleys also

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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 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).

1.04 Mining

Chartiers Township's geologic history has been substantially impacted by underground mining activity. Approximately 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 2020.

Analysis of surface elevations and structure contours of the Pittsburgh seam indicates that 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 20 percent of the land in the Township can be considered as 'safe' from the possibility of subsidence damage: about seven percent which is not underlain by the coal seam and 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 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.

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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 1900s before it was abandoned and eventually residential development took place over the mine. In the 1980s 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.

1.05 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 received much attention in the nation's oil and gas industry and specifically in Washington County and Chartiers Township. However, the Marcellus Shale has been a known gas reservoir for more than 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 advances in drilling technology and the initial rise in natural gas prices attracted new interest in this previously untapped formation.

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 proppants 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 1,200 Marcellus wells in Washington County alone.

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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 one acre require a permit from DEP. Drilling operators must restore the land within nine months of drilling completion. Once a well is no longer producing, the operator must plug the well and restore the site within nine months of plugging the well. Wells cannot be drilled within 500 feet of structures, or within 300 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 were 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 were trying to “tie-up” large blocks of land with a lease. All of this activity had been exciting to landowners, as well as state and municipal leadership, who looked 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. One obstacle in the way has been the recent fluctuations in global natural gas prices. Many operators have suspended or sold off their investments in the area. Only time, and more information, will determine just how productive and lucrative the Marcellus may 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](#)).

1.06 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

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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 acres) 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 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 effect 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 water body 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

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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.

1.07 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

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(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 flood flows. 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.

1.08 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

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the Federal Emergency Management Agency (FEMA). Thus, this area of land has a one 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.

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. Throughout 2019 and 2020, the Washington County Commissioners have coordinated a floodplain analysis of the Chartiers Creek Watershed with the US Army Corps of Engineers. The purpose of this study is to model Chartiers Creek only (not the related tributaries), and provide recommendations for flood mitigation projects. The results of this study should be reviewed and considered by the Township.

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. 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.

1.09 Groundwater

Groundwater is defined as water under the surface of the earth in the saturated zone (PADEP, 2004). Groundwater is used every day 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.

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, storm water 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 of the number of households in the Township that 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,

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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 programs. Chartiers Township is in compliance with The National Pollutant Discharge Elimination System (NPDES) for stormwater discharges from municipal separate storm sewer systems.

1.10 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

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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.

1.11 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 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 II. Community Services and Facilities

2.01 Introduction

A review of a community's services and facilities is an important part of any Comprehensive Plan. This section examines the existing status and condition of facilities and services in the Township. It identifies the 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. 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. When adequately provided, they become a measure of quality of life. There is a positive view of life in the community, as the 2020 Township Survey results highlight with the majority of respondents (93.75%) checking either 'Satisfied' or 'Very Satisfied' with Chartiers Township as a place to live.

2.02 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 8:00 a.m. until 4:00 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 for municipal business and activities.

The Chartiers Township Community Center opened in 2014, and it is located off of Pike Street behind Arnold Park. This 9,800 square foot community facility was funded through grants and donations, and no local tax money was used to pay for its construction. The Community Center hosts a wide variety of recreation and fitness classes and programming. It is also available for rent by the community. Each year the community center hosts many private events including weddings, graduation parties, and fundraisers. The community center is run by the Parks and Recreation Department. Other facilities run by this Department will be reviewed in the Parks, Recreation, and Open Space section of this plan.

2.03 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 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
- UCC Board of Appeals
- 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 positions with the Township include the Treasurer, Planning Director/Zoning Officer, Township Clerk, Public Works Director, six Public Works employees, a Buildings and Grounds Superintendent, elected Tax Collector, Parks and Recreation Director, Police Chief, two Detectives, and ten Police Officers.

A Township website has been developed for further public information about the Township's administration and operations at www.chartierstwp.com. The Township also engages in various social media platforms to distribute information. In the 2020 Township survey, 85.36% of residents checked

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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 2.01.

Table 2.01 Satisfaction with Township Information

Level of Satisfaction	Percentage of Respondents
Very satisfied	32%
Satisfied	53%
Dissatisfied	11%
No opinion	4%

*2020 Township Survey

During the previous Comprehensive Plan update, 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 Township map and guide was produced in 2016 to address this need. The use and distribution of the Township map and guide, Township newsletter, Township website, and the Township social media pages is likely to increase the level of resident satisfaction for Township information.

2.04 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, sanitary sewer pipe repair and replacement, park maintenance, and general Township facilities repairs and maintenance. Currently, the Department is comprised of a Public Works Director, one foreman, and five laborers. In addition, the Department is equipped with the following vehicles and equipment: nine plow trucks, two pickup trucks, one sewer service box van, one bucket truck, an aerial truck, a paver, a roller, a front end loader, a backhoe, a tiger mower, and a sewer jetter.

In recent years the Public Works Department has expanded its scope of work to include the paving of Township owned alleys. Many of the Public Works Department’s responsibilities directly impact the conditions and safety of the roadways, infrastructure, and also the aesthetics of community facilities. All of the Department’s work is based out of a 75 foot by 350 foot garage and a 2,200 ton salt storage

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facility located at the municipal building complex. In the 2020 Township survey, 76% of respondents said they were either satisfied or very satisfied with the road services provided by Chartiers Township.

2.05 Zoning and Code Enforcement

The Community Development Office is responsible for reviewing site and construction plans, issuing building permits, inspecting construction sites and rental properties, and the enforcement of all building, zoning, subdivision and land development, and property maintenance codes and ordinances. Building inspection and Code Enforcement duties are delegated to two different third party consultants. These consultants coordinate all operations in conjunction with Township staff.

Currently, the Township administers and enforces the 2015 International Codes in accordance with the PA Uniform Construction Code. Consistent, objective, and prompt responses 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. In the 2020 Township survey, 54% of respondents said they were either satisfied or very satisfied with the planning and zoning services provided by Chartiers Township.

2.06 Police Department

Law enforcement is provided by the Chartiers Township Police Department, which is fully staffed with ten full-time officers and two detectives under the direction of the Chief of Police. The Department has officers on duty 24 hours a day, seven days a week, and 365 days a year. The Department is totally funded by the municipality and serves only Chartiers Township. The Police Department facility contains a squad room, traffic office, holding cell, locker room, offices, evidence room, booking area and garage.

The Department owns eight vehicles, two of which are on the roads at all times. The maximum response time to anywhere in the Township is approximately five minutes, which is down from the 15 minutes reported in the 1986 Comprehensive Plan. During each shift, the Township is divided into two zones, with one 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 primary function of the Department is to protect the public welfare and enforce laws. The Police Department participates in several community outreach programs, including time spent in the schools, with such programs as DARE, STARS and Stranger Danger. The Police Department also provides vacation home checks for residents. In the 2020 Township survey, 96% of respondents said they were either satisfied or very satisfied with the services provided by the Chartiers Township Police Department.

Training in the Department is mandatory for at least 12 hours a year for each officer. Future needs for the Department possibly include body worn cameras, police offices, and additional manpower. One major goal for the Department is to strive to get the community involved in the work that they do

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through such programs as “Crimewatch.” When residents see something that should be investigated, the Department encourages anonymous contact.

2.07 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 22 active volunteer firemen who train on a weekly basis and must initially train for 188 hours of basic firefighting training in order to serve the community as fire fighters. The Fire Department owns eight vehicles used for fire protection including: an American Clearance Lefranc aerial truck, Spartan fire engine, Kennworth tanker truck, Freightliner rescue truck, squad truck, brush truck, squad SUV, and a side by side off road vehicle. 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.

In recent years Chartiers Township instituted a 0.20 mill Fire Services Tax to fund the Volunteer Fire Department. The Township also annually contributes \$25,000 for the volunteer stipends. The Fire Department must still raise a substantial portion of its own funds. For other funding sources, the company conducts an annual fund drive, requesting donations from local residents and business owners, as well as other events.

The maximum response time for the company is approximately seven 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. In the 2020 Township survey, 92% of respondents said they were either satisfied or very satisfied with the services provided by the Chartiers Township Volunteer Fire Department.

2.08 Emergency Services

Washington County 9-1-1 serves all Washington County residents. It is responsible for dispatching 53 fire departments, including Chartiers Township, 12 emergency medical services, 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 supervisor position, two call taking positions, and seven dispatching positions. The center has the capability of communicating on 15 different frequencies, with full cross-patch and telephone-patch capabilities. The 9-1-1 Center provides 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 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

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the use of adjunctive equipment, the administration of medical fluids and condition stabilizing treatment.

2.09 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 minutes travel time from the most populous areas of the Township. The 104-bed facility has undergone several expansions such as a new ambulatory care center in 1996, the physical therapy department expansion in 2003, and the 11,200 square foot emergency department in 2006. Canonsburg General Hospital, along with the 400 employees and 235 physicians on its medical staff, primarily serves residents living in southern Allegheny and northern Washington counties. Through the 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 includes a medical staff of more than 350 primary care and specialty physicians providing a full range of medical and surgical care. The services and specialties offered at the hospital include cardiovascular diagnostics and surgery, orthopedics, neurosciences, women's health, cancer care, children's therapy, rehabilitation and advanced imaging, among many others. The STAT MedEvac helicopter and helipad offer immediate access to and from the facility. Washington Hospital has experienced steady growth, and implemented periodic expansion and renovations to meet the health care needs and services required by the community (Washington Hospital Website). These two hospitals meet the healthcare needs for the existing Chartiers Township 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 and the Allegheny Health System. Specialty care in the area is extensive, and the region hosts several specialty centers supported by these health systems.

2.10 Solid Waste Management

Garbage collection in the Township is privately contracted by each individual resident to one of three companies: Waste Management, Lemon Refuse and Republic/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 pickup program in the fall. At the present time, the Township is adequately served by these private garbage

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contractors for residential, commercial, and industrial uses and by the Township for its recycling efforts. In the 2020 Township survey, 71% of respondents said they were either satisfied or very satisfied with the recycling services provided by Chartiers Township. However, there were also several written comments provided requesting more frequent recycling collection.

2.11 Sewage Facilities

There are two public sewer systems serving Chartiers Township: The Canonsburg-Houston Joint Authority (CHJA) and the Washington-East Washington Joint Authority (WEWJA). The CHJA sewer sheds are located in the Eastern portion of the Township, while the WEWJA sewer sheds are located in the southern portion of the Township. The elevation change to the east of McClane Farm Road is generally the division point between the two drainage areas. Chartiers Township owns and maintains the sanitary sewer lines within the Township that flow to CHJA. The WEWJA owns and maintains the sanitary sewer lines that flow to their treatment plants.

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 6.0 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 2020 bond issuance by the CHJA, the sewer authority is entering a second phase of upgrades to their wastewater treatment plant. The proposed upgrades will include the addition of a new biowater pump station, rehabilitation of two biowater filters, a secondary clarifier pump station, two final clarifiers, a UV disinfection building, and the relocation of the outfall structure. These upgrades will improve the plant's effluent quality and increase the overall average daily flow capacity from 6.0 MGD to 8.4 MGD and 28 MGD of peak hourly flow during rain events.

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 Sewage Treatment Plant is permitted for 9.77 MGD. This treatment plant is located off of North Main Street near the Washington County Fairgrounds in the Township of South Strabane. The current plant is an extended aeration activated sludge process treatment facility that discharges into Chartiers Creek. As of the 2019 537 Plan revision, WEWJA is in the process of mapping all of its sewer facilities.

Between the two sewer authority service areas, several sewer districts have been created to facilitate sanitary sewer line extensions. These extensions include:

- 2007: Act 537 revision approved for the Route 18 corridor to convey sewage from Canton Township and Chartiers Township to WEWJA. Prior to this extension the WEWJA treatment plant underwent a multi-million dollar expansion. This project was completed in 2013.
- 2009: Act 537 revision approved for the Midland area of Chartiers Township. This project connected the Midland area directly to the Chartiers Interceptor to the CHJA treatment plant. This project was completed in 2015.

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- 2015: Act 537 revision approved for the McClane Farm Road area to connect 65 equivalent dwelling units (EDUs) to the existing WEWJA collection system and treatment plant. For future development, a downstream pump station will need to be upgraded in the near future. The McClane Farm Road project was completed in 2019.

Sewage service in the Township is of utmost importance, however financial resources to install sewage throughout the Township are limited. As of 1990, only 59.5 percent of households in the Township, were served by public sewers (2000 and 2010 Census data for sewage service was not available). The system currently serving the Township consists of two trunk lines; the first beginning at the intersection of S Country Club Road and Pike Street 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. In the 2020 Township Survey, approximately 31% 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 2.02. This is down from the 2007 survey where approximately 50% of respondents thought that water and sewer service should be expanded.

Table 2.02 Expansion of Water and Sewage Service to Promote Development

Water and Sewage Expansion	Percentage of Respondents
Yes	31%
No	32%
Not Sure	37%

* 2020 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 years as noted with the Route 18, Midland, and McClane Farm Road sewer projects.

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Future extensions 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 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 may be necessary. Sewer maintenance, upgrades, and development is a critical issue facing Chartiers, and it is currently being addressed by the Township through a systematic step-by-step process.

2.12 Water Service

Chartiers Township is served by the Washington District of the Pennsylvania American Water Company. According to the 1990 Census, 79.8 percent, of the Township reported being connected to the public water system (2000 and 2010 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.

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. PAWC has invested \$101 million in its treatment facilities since the last comprehensive plan update. Pittsburgh area facilities upgraded include the Hays Mine Station Treatment Plant which services southern Allegheny County and northern Washington County. In 2014 PAWC completed a \$5.5million upgrade to the Aldrich Treatment Facility in Elrama, Washington County. Both facilities supply water for this region.

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. Public funding can help mitigate the difference between the high cost and low return on some of these expansion projects.

2.13 Public School District

The Chartiers-Houston School District serves both Chartiers Township and the Borough of Houston. The School District covers approximately 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. Estimated enrollment for Allison Elementary, which serves grades K-6, is 595 students. Chartiers-Houston Junior-Senior High School, which serves students grades 7-12 is estimated to have around 550 students. As of 1985, total enrollment was at 1,367 students, and as of 2006-2007, school enrollment had decreased to 1,181 students. In 2010, 1,548 students were enrolled in the school district. Current enrollment districtwide is approximately 1,145 students. Even though the enrollment has fluctuated

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over the years, continued residential development will mostly contribute to an increased enrollment. The School District employs approximately 111 teachers, aides, and administration staff.

Allison Park Elementary School is located on McGovern Road and was originally built in 1953. It has been renovated and expanded several times including 1971, 1988, 1992, 2002, and 2009. The facility is 77,900 square feet and is located on 12 acres. The School District leases an additional 14 acres to the Chartiers Township Parks and Recreation Department.

Chartiers-Houston Junior/Senior High School, and administration offices, is located on West Pike Street. This facility was originally constructed in 1938, and it has been renovated and expanded several times including 1950, 1958, 1988, 1995, 2006, and 2012. The facility is 172,540 square feet and is located on 24.41 acres.

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 2016-2017 General Fund spending was approximately \$17,600,000. Revenues for the year ending June 30, 2017 were approximately \$18,300,000. While new development will create additional revenue, it will also create more costs for the school district particularly as it relates to residential development. The Chartiers-Houston School District, like many other school districts, must try to contain ever-increasing costs to maintain a fiscally sound school district. With mandates established by the Pennsylvania Department of Education, the budgeting process can be difficult. Approximately one percent of the revenue comes from the federal government, 55.9 percent from local government, and 43.1 percent from the state (CHSD Annual Financial Report 6/30/2017). According to the School District's Annual Financial Report, as prepared by their Auditor, the expenses for the 2016-17 fiscal year can be seen in the following Table 2.03:

Table 2.03 School District Expenses 2016-17

Expenditures	Amount	Percentage
Total Expenditures	\$17,603,906	100%
Instruction	\$9,142,824	51.94%
Support Services	\$6,160,684	34.99%
Operations	\$459,541	2.61%
Debt Service	\$1,840,857	10.46%

*2016-17 Chartiers-Houston School District Annual Financial Report

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.

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There is one 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 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 can be found in the City of Pittsburgh, with many nationally recognized programs such as the University of Pittsburgh, Carnegie Mellon University and Duquesne University, among others.

2.14 Public Library

The first library in Chartiers was founded in 1965 with a \$250 donation from the Allison Park Elementary School PTA. Since that time, the current library building was built in 1970 for \$250,000 at the site of the old Moninger Schoolhouse. The Chartiers-Houston Community Library serves the Township as a source of materials for educational, cultural and informational purposes, and is open 12-7 Mondays, Tuesdays, and Thursdays, 12-5 on Fridays, and 12-4 on Saturdays. The library is closed on Sundays and Wednesdays.

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 promote 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 some of its financial needs.

The library offers classes and programs for children and adults, along with preschool story time and special summer reading programs. Some of the equipment and resources the library has include 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 staffing, computers, and various building/facility improvements. In the 2020 Township survey, 80% of respondents said they were either satisfied or very satisfied with the library's services. 4% of respondents were not satisfied and 16% had no opinion.

2.15 Revenue and Expenditures

Revenues are essentially the municipality's income and can take several forms. Income in Chartiers Township is generated from property and earned income taxes, Arden landfill revenue, oil and gas royalties, 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, or 0.1).

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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. However, Chartiers Township has more diverse sources of revenue when compared to a typical Township. The actual total revenue amount for the Township in 2019 was \$3,961,207.98. The general fund breakdown of revenues for 2019 can be seen in the following Table 2.04:

Table 2.04 Actual Township Revenues 2019

	Amount	Percentage
Total Revenue	\$3,961,207.98	100.00%
Local Enabling Taxes	\$1,654,930.48	41.75%
Real Estate Taxes	\$695,795.07	17.57%
Government Shared Revenue	\$226,143.73	5.71%
Land Fill Revenue	\$802,274.02	20.25%
Permits, Fees, Licenses, and Miscellaneous Revenue	\$582,064.68	14.69%

*2020 Township Budget

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 risen steadily due to cost increases in various products, services, contractual obligations, 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 2020 general fund budget breakdown for expenditures can be seen in Table 2.05:

Table 2.05 Actual Township Expenditures 2019

	Amount	Percentage
Total Expenditures	\$3,684,392.41	100.00%
Police	\$1,441,767.05	39.13%
Fire	\$80,565.84	2.19%
Public Works (Including Highway Maintenance, Storm Sewer Maintenance, Vehicle	\$809,163.89	21.96%

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Operations and Maintenance, Sanitation and Recycling, and Snow/Ice Removal)		
Library	\$25,000.00	0.68%
Administration and General Government	\$451,745.52	12.26%
Parks and Recreation	\$18,208.77	0.49%
Planning and Zoning	\$303,863.94	8.25%
Other Expenditures (Miscellaneous, Insurances, Benefits, Principal and Interest, and Transfers)	\$554,077.40	15.04%

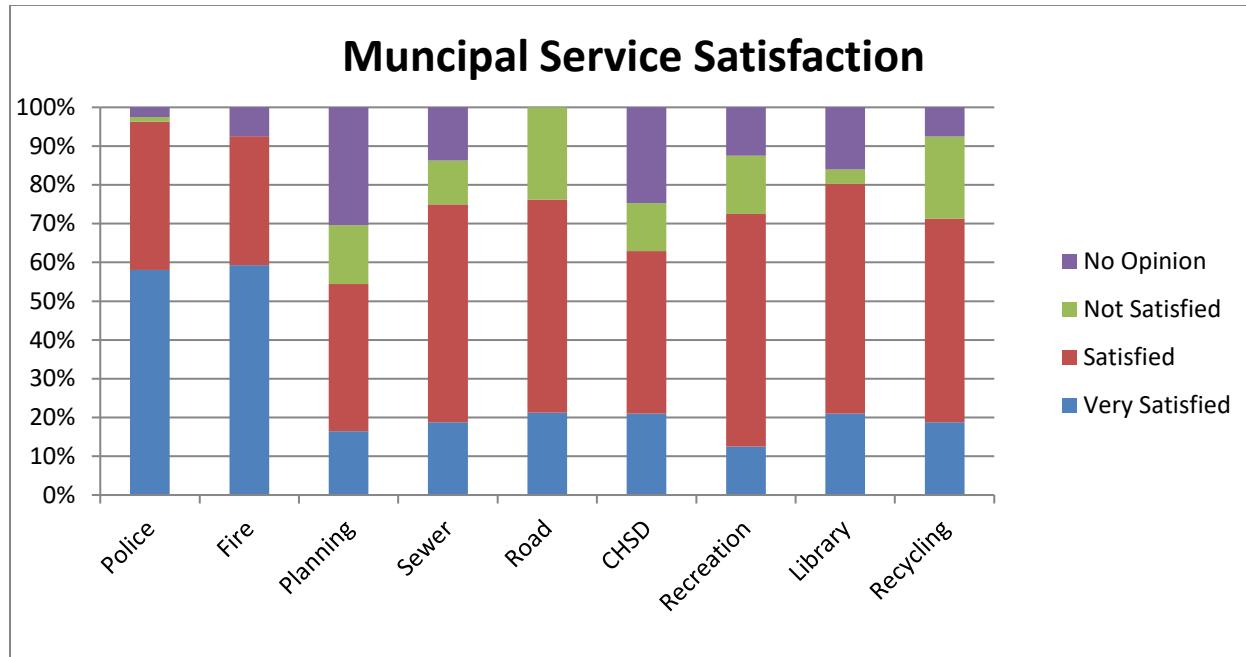
*2020 Township Budget

2.16 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 trend across the state, with the rising cost of services making it a necessity in many communities. In many communities across the state, 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.

In 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 (59.26%), the Police Department (58.02%) and Road (21.25%). The highest number of responses for services that received ‘Satisfied’ ratings included Recreation (60.00%), Library (59.26%), and Sewer (56.25%). The services that received the highest level of ‘Not Satisfied’ ratings included: Road (23.75%), Recycling (21.25%), Planning (15.19%) and Recreation (15.00%). On a positive note, all municipal services were marked with either ‘Very satisfied’ or ‘Satisfied’ on more than half the responses. When ‘Satisfied’ and ‘Very Satisfied’ responses are combined, the Police Department (96.30%), Fire Department (92.59%), and Library (80.25%) had the highest rating. The following Graph 2.01 illustrates the detailed responses to the question.

Graph 2.01 Municipal Service Satisfaction Survey



*2020 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, commercial, or industrial development, there will be a resulting increase in the demand for services, and provisions must increase accordingly.

There is a constant demand for updating, maintaining, and expanding the Township's facilities and services. The Township's ability to provide these services as needed (in a cost effective manner) will greatly depend on its ability to plan for their delivery. The goal for the Township 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. This should be done in 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 III. Parks, Recreation and Open Space

3.01 Introduction

The availability of park, recreational, and open space amenities can help provide an enhanced quality of life for residents in the Township and can also serve to attract new residents to the Township. Park and recreation facilities provide locations for residents to spend time, 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.

There are two 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.

3.02 Park Area and Recreation Facility Assessment

The Township has two municipal parks set aside for recreation in the Township: Allison Parkette and Arnold Park.

Arnold Community Park is 31 acres and is conveniently located on Pike Street. The Township has pursued upgrades over the last several years. The upgrades included new playsets, play surface, and gazebo. There is a large pavilion for rent with new picnic tables, a sand volleyball court, permanent trash receptacles, a sandbox, and a new grass field which was recently graded and seeded. Arnold Park also includes restrooms.

The previous Comprehensive Plan identified this site as a future home for a community center. The Chartiers Township Community Center opened in 2014. This 9,800 square foot community facility was funded through grants and donations, and no local tax money was used to pay for its construction. The Community Center hosts a wide variety of recreation and fitness classes and programming. It is also available for rent by the community. Each year the community center hosts many private events including weddings, graduation parties, and fundraisers.

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Arnold Community Park is in very good condition overall, and 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.

Allison Parkette is located on McGovern Road, adjacent to the Allison Park Elementary School, and is approximately 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. There is on-site parking which provides easy access to the playground area of the park. There is a batting cage area between the park and the baseball fields. There is also a picnic pavilion with picnic tables that can be rented from the Township. There is a basketball court and benches are interspersed throughout the grounds. Both parks will be adding new public notice signage for park rules, regulations, and notices.

Overall, Allison Parkette is in good condition. The park is adjacent to Allison Park School and single and multi-family residential areas. Access to the facilities is from McGovern Road.

The last recreational area in the Township is the Ullom Road property, which is undeveloped. The property is 62 acres and was deeded to the Township by the US Utilities Services Corporation for recreational purposes.

This section provides an overview of the park and recreation facilities in Chartiers Township. However, the actual plan for these facilities is addressed in the Chartiers Township Parks and Recreation Plan dated June 2016.

3.03 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 parks and one trail: the Cross Creek County Park, the Mingo Creek County Park, the Ten Mile Creek County Park and the Panhandle Trail. These parks 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

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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.

3.04 Parks and Recreation Board

The members of the Parks and Recreation Board are appointed by the Township Board of Supervisors for four-year terms and is comprised of nine 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 is for regular annual events that are held within the Township at Arnold Park and the community center. New and different events are added annually, but in the past events include: an Easter Egg Hunt, Community Day, Movie in the Park and Light-Up Night. Citizen involvement with the Park and Recreation Board is always encouraged and welcomed.

3.05 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 federal transportation budget. 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 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).

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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 several factors, including matching requirements, amount of funding request and the type of applicant. Both programs could be utilized for the rehabilitation of existing parks 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 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.

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.

3.06 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.

3.07 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 (29.87%) used the Township's park or recreational amenities monthly and weekly. A significant percentage, over 27 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 3.01:

Table 3.01 Frequency of Park or Recreation Field Use

Park or Recreation Field Use	Percentage of Respondents
More than once a week	10.39%
Once or twice a month	19.48%
Every other month	9.09%
Once or twice a year	33.77%

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We do not use	27.27%
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*2020 Township Survey

Additionally, during the Survey a large number of respondents (33.33%) said that they were not sure if the Township should undertake more recreation programs, although a substantial 41.03 percent checked 'Yes' to this question. The detailed responses to this question can be seen in the Table 3.02.

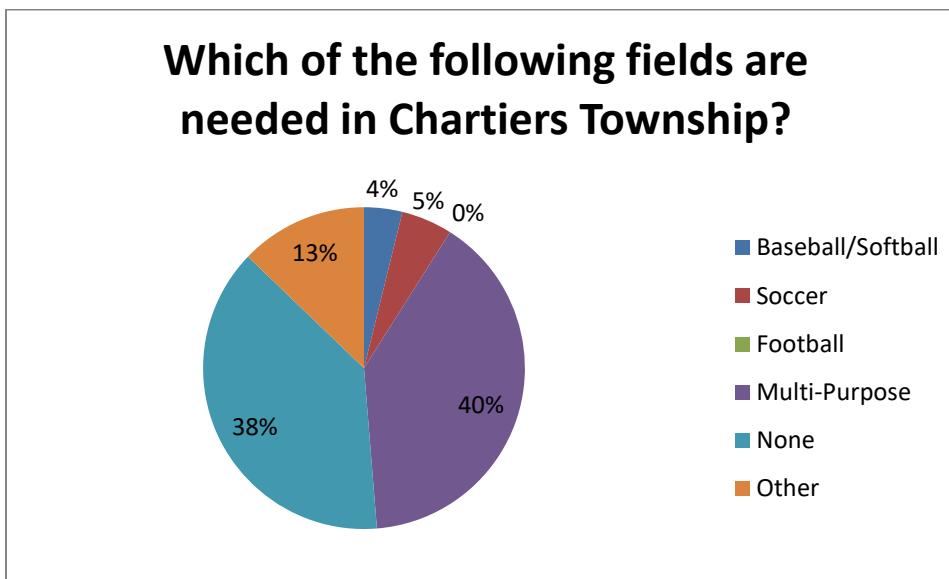
Table 3.02 More Recreational Programming

More Recreation Programming	Percentage of Respondents
Yes	41.03%
No	25.64%
Not Sure	33.33%

*2020 Township Survey

In the 2020 Township Survey, residents were asked their opinion of recreation field needs. 38 percent of respondents said no new fields were needed. Most respondents said multi-purpose fields were needed. The detailed responses to these questions can be seen in the following Graph 3.01. This data should be used to guide the future development of the Arnold Park field.

Graph 3.01 Recreational Field Needs



3.08 Recreation Amenities

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

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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 and programs can be gathered from written responses:

Recreation program needs:

- “For the whole family”
- “Senior center seems to focus on programs attractive to women”
- “Senior rec center and activities”
- “Weekend entertainment”
- “Widows are the loneliest group. Provide fellowship opportunities for widows”
- “AARP driving / youth group recreation”
- “bike trail along Chartiers Creek”
- “for swimming and other programs for seniors that we can afford”
- “investigation needed...Possibly a marathon or other activity/program

that could (1) promote Chartiers in a positive light (2) benefit residents (3) generate income”

- “night life for teens on weekend and summer”
- “playground, (keeping young adults busy & out of trouble)”
- “Teen-volunteer program that give them a credit in school” and “child recreational sports”
- “tennis courts”
- “trips” for seniors
- “volleyball-daytime exercise”
- “would be nice to have bocce courts”

Recreation Field Needs:

- “large walking trail”
- “Make sure you read this one and take into consideration Township without saying too expensive...never a problem with football expenses or \$1/2M baseball field”
- “multi-purpose field by library” and “walking trails along Chartiers Creek”
- “No more sports fields”
- “off leash dog park”

- “Only Twp with no basketball courts with fence and no tennis courts with fence”
- “Pickleball, basketball, tennis...you already have the above mentioned”
- “skateboard and frisby golf”
- “There is no recreation except for baseball fields”
- “walking paths – need resurfaced”
- “walking trail”

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Walking is an activity widely enjoyed by all segments of the population, and as seen from the above responses, walking trails are a desired and appropriate component of Township recreation amenities. Residents have responded positively as the Township has expanded its programming offerings. This need was identified in the previous Comprehensive Plan survey. The Township will need to manage the competing interests among the local youth sports organizations as demand for fields increases.

3.09 Open Space

Beyond its aesthetic and environmental value, the preservation of open space is a proven method of containing congestion and enhancing property values. 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. Aside from 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. 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.

3.10 Conclusion

The development and improvements of Arnold Park over the past ten years has been a positive step towards the provision of park and recreation amenities in the Township. The Township must continue to invest and improve the park and recreation amenities. Deficiencies in the provision of park and recreational amenities across the Township should be identified and fixed. Specifically, the Township should look to the 2016 Parks and Recreation plan for these decisions.

Chartiers 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 convenient open space and recreation amenities.

All park and recreation endeavors are publicly advertised in the Township's newsletter, including senior events held at the community 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.

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 (25.88 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. Trails could also be added to the Arnold Park property.

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.

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

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leadership necessary in identifying, developing, and financing these locations and facilities to enhance the leisure activities within its borders. 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 in the 2016 Parks and Recreation Plan, 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 IV. Housing

4.01 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.

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.

4.02 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 2010, 76 percent of the total 3,484 housing units were single-family units. Only 10.6 percent were multiple family dwelling units. Additionally, 6.7 percent of housing units were mobile homes. Table 4.01 illustrates in detail the composition of housing type from 1980, 1990, 2000 and 2010, so that these statistics can be contrasted over the past 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 4.01 Types of Dwellings 1980 -2010

	1980	Percent	1990	Percent	2000	Percent	2010	Percent
Single-family	2245	83.8%	2415	81.5%	2480	84.4%	2,648	76.0%

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Multi-family	314	11.7%	247	8.3%	210	7.2%	371	10.6%
2-4 units/structure	226	8.4%	198	6.7%	168	5.7%	168	4.8%
5-9 units/structure	77	2.9%	42	1.4%	42	1.4%	34	0.1%
10+ units/structure	11	0.4%	7	0.2%	0	0.0%	28	0.7%
Mobile home	119	4.5%	302	10.2%	248	8.4%	235	6.7%
Total	2678	100.0%	2964	100.0%	2938	100.0%	3,484	100.0%

*US Census

The above table shows how the distribution of housing type has changed since 1980. The overall percentage of single family homes dropped to 76.0 percent which indicates a shift toward multi-family dwellings. In spite of this movement, single-family dwellings are the most common form of housing in the Township. The median number of rooms per household in the Township is 6.1 rooms. In recent years, Chartiers has seen an increase in development of single and multi-family homes.

The Township must contain, and indeed should encourage a “fair share” of all housing types. Mixed-use high density residential and commercial could assist in diversifying current housing stock. In addition, encouraging development of over 55 or 65 retirement communities within the Township could serve to increase variety in housing stock and serve our aging population.

Because the Township is a suburban community, residential land uses should be of primary concern in this plan and subsequent development strategies. Table 4.02 illustrates the change over the past 30 years for the number of owner and rental occupied units as well as vacancies.

Table 4.02 Housing Occupation Characteristics 1980 - 2010

	1980 Number of units	Percent of Total	1990 Number of Units	Percent of Total	2000 Number of Units	Percent of Total	2010 Number of Units	Percent of Total

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Owner-occupied	2,122	79.3%	2,348	79.2%	2,399	85.3%	2,856	87.9%
Renter-Occupied	458	17.1%	503	17.0%	415	14.7%	392	12.1%
Vacant	98	3.6%	113	3.8%	124	4.2%	236	6.8%

*US Census

From the above table, one can see that the number of owner-occupied units has increased by 457 housing units over the past 40 years. The number of renter-occupied units has decreased by 23 units since 2000. The vacancy rate has slightly increased over the past 40 years though is still a ‘normal’ vacancy rate.

Overall housing demand has remained mostly stable since 2000, however we can see from recent developments that demand for high quality residential development in Chartiers is increasing. New developments such as Arden Mills, the Summit, Piatt Estates, Arabian Meadows, and Summerfield Woods will continue this trend, if not increase it, by the end of the decade. The ongoing economic recovery in the U.S. housing market should further fuel residential growth. Additionally, along with these socio-economic conditions, there is a desire of many to move to less developed and more rural settings, like Chartiers Township, with newer housing developments.

4.03 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 4.03 further details the year that housing units were constructed in Chartiers Township.

Table 4.03 Housing by Year Built

Year Built	Housing Units	Percentage of Total
2005 or later	297	8.5%
2000-2004	267	7.7%
1990-1999	270	7.7%
1980-1989	183	5.3%
1970-1979	533	15.3%

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1960-1969	337	9.7%
1950-1959	579	16.6%
1940-1949	140	4.0%
1939 or earlier	878	25.2%

*US Census

As can be seen in the above table, almost half (45.8 percent) of Chartiers Township's housing stock was built prior to 1959, making the maintenance of these homes an important issue for the Township. However, we see a substantial increase in houses built in the years 2000 or later; newer developments make up 16.2% of the Township's housing stock. The overall age of a community's housing stock, coupled with other demographic factors such as income levels can indicate the potential for deteriorating conditions. 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 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 4.04.

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Table 4.04 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	1964	1957
Canonsburg Borough	1950	1965
Canton Township	1968	1973
Cecil Township	1980	1958
Houston Borough	1939	1948
Mount Pleasant Township	1973	1954
North Strabane Township	1984	1974
South Strabane Township	1972	1978
Washington County	1962	1957
Commonwealth of Pennsylvania	1962	1958

*US Census

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.

4.04 Housing Values

Property values directly reflect the housing conditions within a community. The median value for owner-occupied units in the Township was \$142,900 in 2010, which is slightly higher than Washington County's median value of \$136,400 and slightly lower than the State's median value of \$163,200. Table 4.05 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.

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Table 4.05 Median Values for Owner-occupied Units and Median Rent for Renter-occupied Units

	Median Value for Owner-occupied Units in 2000	Median Value for Owner-occupied Units in 2010	Median Rent for Renter-occupied Units in 2000	Median Rent for Renter-occupied Units in 2010
Chartiers Township	\$91,900	\$142,900	\$510	\$709
Canonsburg Borough	\$76,400	\$117,700	\$435	\$676
Canton Township	\$84,700	\$106,300	\$435	\$600
Cecil Township	\$116,000	\$172,400	\$546	\$767
Houston Borough	\$78,300	\$142,900	\$426	\$709
Mount Pleasant Township	\$96,800	\$156,500	\$530	\$644
North Strabane Township	\$118,300	\$192,00	\$579	\$748
South Strabane Township	\$110,300	\$171,100	\$389	\$699
Washington County	\$87,500	\$136,400	\$423	\$604
Commonwealth of Pennsylvania	\$97,000	\$163,200	\$531	\$770

*US Census

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, 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, 1,447 of owner-occupied households in the Township had a mortgage.

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These rental figures 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 housing option and serve to diversify housing stock. To expand the supply of affordable rental stock, a viable option may include mixed use development in appropriate areas with proximity to jobs, transportation, and other community facilities.

The following Table 4.06 further illustrates the value of the housing stock in Chartiers Township:

Table 4.06 Value of Owner-occupied Units

	Number	Percent
Less than \$50,000	305	10.7%
\$50,000 - \$99,999	658	23.0%
\$100,000-\$149,999	558	19.5%
\$150,000-\$199,999	492	17.2%
\$200,000-\$299,999	449	15.7%
\$300,000-\$499,999	261	9.1%
\$500,000-\$999,999	107	3.7%
\$1,000,000 or more	26	0.9%

*US Census

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 45.7 percent of housing units valued above \$150,000. 2010 saw a great rise in higher value home development. 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. Several survey respondents raised concerns about the cost of new housing, which is a common observation with any new development.

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.

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4.05 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 87 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 12 percent of housing units are renter-occupied units in the Township. Table 4.07 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 4.07 Percentage Owner/Renter Occupancy and Vacant Units

	Owner-occupied Units	Renter-occupied Units	Overall Vacant Housing Units
Chartiers Township	87.9%	12.1%	6.8%
Canonsburg Borough	59.0%	41.0%	11.1%
Canton Township	77.2%	22.8%	15.0%
Cecil Township	88.1%	11.9%	9.2%
Houston Borough	50.9%	49.1%	3.1%
Mount Pleasant Township	85.6%	14.4%	6.8%
North Strabane Township	86.5%	13.5%	4.7%
South Strabane Township	67.1	32.9	5.8%
Washington County	77.2%	22.8%	9.7%
Commonwealth of Pennsylvania	70.6%	29.4%	10.8%

*US Census

North Strabane, Mount Pleasant and Cecil were the only municipalities that had a higher percentage of owner-occupied units. Likewise, those three municipalities were the only ones

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that had lower percentages of renter-occupied units. As of 2010, the vacancy rate for the Township was 6.8 percent. Generally, a vacancy rate between four and six percent is considered a healthy rate. Below four 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 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.

4.06 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 2010, 12.4 percent of households in the Township were comprised of one householder over 65 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. However, as witnessed with the newer developments in Chartiers, new construction tends to be less affordable.

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, particularly as the baby boomer generation reaches retirement. 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

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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 30 percent of its annual income on housing costs. Generally, when housing costs exceed 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 4.08 shows housing costs as a percentage of household income for Chartiers Township for home ownership and as rental costs.

Table 4.08 Monthly Owner Costs as a Percentage of Household Income

Percentage of Household Income	Number of Households	Percent of Total
Less than 20 percent	1614	57.32%
20 to 24.9 percent	473	16.80%
25 to 29.9 percent	134	4.76%
30 to 34.9 percent	97	3.44%
35 percent or more	498	17.68%

*US Census

The above table indicates that 57.32 percent of home owners in Chartiers spend less than 20 percent of their income on basic home ownership costs, including mortgages. This data can indicate either a growing amount of financial security within the Township, or a lower overall cost of home ownership. This can be derived from either low overall cost of living, or low housing values.

Table 4.09 Gross Monthly Rent as a Percentage of Household Income

Percentage of Renter Income	Number of Households	Percent of the Total
Less than 15 percent	49	17.3%
15 to 19.9 percent	18	6.3%
20 to 24.9 percent	52	18.3%

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25 to 29.9 percent	49	17.3%
30 to 34.9 percent	13	4.6%
35 percent or more	103	36.3%

* US Census

As shown above in Table 4.09, more than 103 of the renters in Chartiers are found to be spending over 36 percent of their incomes on basic rental costs. This indicates that many of those who rent in Chartiers do so at a greater monetary cost.

4.07 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.

4.08 Programs and Policies for Housing Development

The importance of agriculture to the Township was highlighted in the community survey results. Over 90 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 because agricultural land throughout the region has and will continue to be developed into residential subdivisions. Further discussion of this topic will be addressed in the land use section of the plan, but it needs to be stressed that the loss of agricultural land is most often a direct result of housing development.

In addition to the preservation of farmland, almost half (49 percent) of all survey respondents stated that the Township’s rate of residential development is too fast. While this will be discussed in the land use section as well, it is important to note this opinion of the Township’s residents. The rate of development is not easy to control, but the Township can examine infrastructure development policies which will directly affect land development.

4.09 Conclusion

Housing is an important element of the Township’s Comprehensive Plan because the Township has a strong residential character. Much of the Township’s residential development is over 50 years old and was created during the suburbanization that occurred in the municipalities nearby

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the Cities of Washington and Pittsburgh during the 1950s and 1960s during the post-World War II housing boom. The Township should support the continued stability of the existing housing stock and encourage new development to replace unsuitable and aging housing stock.

The goal for suitable existing housing in the Township should be to design strategies to ensure that it remains well-maintained and viable. Immediate attention and continued enforcement by the Township is needed to enforce local property maintenance codes to avoid ongoing dilapidation and the negative effects 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 could 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 healthy, vacancy rates are low and new development is occurring at a steady pace. 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. The 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. Livability concerns should be addressed.

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, but carriage/patio home units are being built as of recent years. 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.

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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 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. Transportation

5.01 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 1800s 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 years, the road network has primarily remained the same, with only the addition of local roads serving new developments.

Chartiers Township contains a total of 74.75 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 53.45 miles of the network, which is comprised of local roads and residential streets (according to the PennDOT liquid fuels allocation report). 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.

5.02 Regional Transportation Planning

Regional 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.

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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 county regions, 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 year period of investment and is updated every two 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 *2019-2022 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 2019-2022 TIP include the following as noted in Table 5.01:

Table 5.01 Transportation Improvement Projects for Chartiers Township 2019-2022

Project Name	Description	Project Funding	Years
Chartiers Creek #42 (T-697 Ullom Road)	Bridge Replacement Over Chartiers Creek	\$344,000	2019-2020
Chartiers Creek #30 (Valley Road)	Bridge Replacement Over Chartiers Creek	\$1,060,900	2021
Pike St @ Allison Hollow/Racetrack	Traffic Signal Enhancements at Intersection	\$46,000	2019 (Completed)

*Southwestern Pennsylvania Commission and PennDOT One Map

5.03 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. Table 5.02 shows ADT volumes for some of the major thoroughfares of the Township as compiled from PennDOT average traffic volume data.

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Table 5.02 Chartiers Township Traffic Counts

Roadway	Location	Base Year	Average Daily Volume
State Route 18	Between Oak Grove Road and Lynn Portal Rd	2018	8,000
Pike Street	Between Ryan Drive and Allison Hollow Rd.	2018	6,400
Pike Street	Between Racetrack Road and Buccaneer Drive	2018	8,200
Racetrack Road	Between I-79 Ramps and Pike Street	2018	11,000
Country Club Road	Between Clark Street and Pike Street	2018	7,000
N Main Street Ext	Between Country Club Road and Old Hickory Ridge Road	2018	9,200
State Route 519	Between Mount Pleasant Township and Kings Road	2018	4,300
N Main Street	Between Chartiers Run Road and Houston Borough	2018	3,600

*PennDOT

Many of the main thoroughfares of the Township have daily average volumes above or near 10,000 vehicles per day. Many of these corridors have high volumes due to recent residential development and increasing commercial development near the Township. The number of trucks using Township roads has also seen an increase, largely due to new energy development facilities.

Residents of Chartiers Township have a variety of issues and concerns surrounding transportation in their Township. From the community survey, residents chose “Accessibility to

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major transportation routes" as a top reason why they live in the Township. 65 percent of respondents felt that Township roads are developed and maintained in a safe and efficient manner while 18 percent felt that they were not maintained in such a manner (17 percent were undecided). 64 percent of respondents felt that there were roadways and circulation patterns that could be improved (9 percent said no and 27 percent said they were not sure). Written comments on roadway provided in the survey can be seen in Table 5.03

Table 5.03 Community Survey Responses

"Concerned with roadway erosion"	"Left turn arrow Allison Hollow to Pike Street"
"Multiple stop signs at Country Club and Main"	"Plowing in Winter done well but repaving no"
"Ross Street needs resurfaced"	"Some but not all roadways" (need improved)
"Safe walkways would be a major benefit especially in our scenic areas such as Allison Hollow Road"	"The plow trucks rip the curb every winter...The entrance to our street from Pike Street is pretty rough"
"Yes, with occasional noteworthy exceptions"	"You need to pick up litter and garbage along the roadways and do away with advertising signs all over the roadways"
"Stop sign at W Country Barn and Summit"	

*2019 Township survey

Residential and commercial development has traditionally occurred along the Pike Street, Racetrack Road, North Main Street Extension, and Allison Hollow Road corridors. Congestion on these roads is increasing as they dually function as both throughways and main streets with many un-signalized access points. Accident statistics from the Chartiers Township Police Department for some of the busy thoroughfares in the Township can be seen in Table 5.04:

Table 5.04 Accidents Statistics January 2009-December 2019

Roadway	Allison Hollow	Country Club Road	Henderson Ave. (Route 18)	Hickory Ridge Road	Pike Street	Western Ave.
Number of Accidents	78	86	125	109	182	142

*Chartiers Township Police Department

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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
- Un-signaled access points

The Township road system is maintained by a fully-staffed Public Works Department. The Township employs eight 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. In addition, as the Township develops and acquires more roadways and infrastructure, the Public Works Department will need to grow as well.

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.

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Previous plans and studies have suggested the Township investigate the use of transportation impact fees. Since the 2010 Comprehensive Plan update, the Township did investigate developing a Traffic Impact Fee Ordinance. However, the expected amount of development, the expected rate of development, the limited amount of potential impact fees collected, the existing transportation deficiencies, and the cost to implement the ordinance did not make the program economical feasible for the Township.

One such alternative for the Township is to negotiate partnerships with the development community. For example, during the planning phase of Piatt Estates, the Township partnered with the developer to construct a left hand turning lane along Allison Hollow Road. The Township funded and constructed the turning lane at the beginning of the project, and the developer proportionally reimbursed the Township as each lot was sold and developed.

The Township has also taken steps to better plan for development. In 2019 the Chartiers Township Board of Supervisors adopted Ordinance Number 384 as recommended by the Planning Commission. This ordinance required developers to plan for and mitigate the traffic impacts of their development “at their front door.” Developers are required to mitigate the impacts of development at their access points only.

5.04 Modes of Transportation

According to the 2010 Census, the average commute time to work was 21.3 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 Table 5.05 below:

Table 5.05 Means of Transportation in Contrast to Reference Areas

	Chartiers Township	Washington County	Pennsylvania	United States
Drive alone	85.6%	81.7%	76.5%	76.1%
In carpools	7.4%	9.1%	9.2%	10.2%
Use public transportation	0.2%	1.7%	5.4%	5.0%

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Walked	2.5%	3.2%	3.9%	2.8%
Use other means	0.9%	1.0%	1.3%	1.7%
Worked at Home	3.3%	3.3%	3.7%	4.2%
Mean travel time to work (minutes)	21.3%	25.7%	25.7%	25.4%

*US Census

From Table 5.05, 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 (Hill Church Houston Road). With fluctuating fuel prices and environmental benefits, in addition to less congestion, any steps to mitigate the reliance on single passenger commuting are valid and important.

5.05 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 GG&C Bus Company Inc. Pittsburgh Commuter Schedule. The bus service departs from the Chartiers Township municipal building six times every weekday and has two departures on Saturday. The return trip arrives at the Chartiers Township Fire Department another six times Monday through Friday and twice on Saturday. The GG&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 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. Any conversation about increased bus service should also include a conversation about parking. Given the suburban nature of Chartiers Township, increased usage could involve commuters utilizing a park and ride facility.

5.06 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 within 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 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 three local interchanges on Route 519, Racetrack Road, and Meadowlands. 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 and four 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.

5.07 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

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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 work 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. 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 VI. Economic Characteristics

6.01 Introduction

This chapter will examine the socio-economic characteristics of Chartiers Township in order to provide a baseline for future strategic economic development plans. 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 and assist in identifying avenues for future growth. Higher levels of income may indicate a need for larger housing units, greater expectation, a 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 related statistics of the Township's population, all of which have planning implications that should be considered as part of the comprehensive planning process.

6.02 History

The industrial significance of Chartiers Township and the greater 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 had deteriorated. 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. This trend continues into the 2010's with the development of the Southpointe Business Park, the expansion of the Meadowlands Racetrack & Casino, Tanger Outlets, and various industrial parks. Further job growth and economic opportunity can be expected in the Township.

Chartiers Township functions as part of the north-central Washington County business community. This region is part of the larger Washington County economy, which is an important component of the southwestern Pennsylvania and greater 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-

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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.*

6.03 Labor Force Participation

The labor force consists of persons who are 16 years or older and are currently employed or are actively seeking employment. As of the 2010 U.S. Census, Chartiers Township's labor force consisted of 3,946 persons. This number represents 60.5 percent of the Township's population that was over 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. Labor force participation for the Township over the past forty years is shown in Table 6.01:

Table 6.01 Labor Force Participation 1970 - 2010

	1970	1980	1990	2000	2010
Total Persons over age 16	5,033	6,063	6,203	5,845	6,476
Persons in Labor Force	2,751	3,440	3,483	3,114	3,946
Not in Labor Force	2,282	2,623	2,720	2,731	2,530

*US Census

Total employment for Chartiers Township stayed fairly constant from 1990 to 2010 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 16, while the 3,114 persons in the labor force in 2000 represents 53.3 percent of the population over the age of sixteen. 2010 saw an overall higher number of persons in the labor force and an overall lower number of those not in the labor force when compared with previous years. The labor force participation in 2010 was 60.9 percent, which is up from 53.3 percent in 2000. 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 among the lowest unemployment rate (5.3 percent) in comparison to larger reference areas of the US, the Commonwealth of Pennsylvania and Washington County. In

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2010, the nation had an unemployment rate of 8.7 percent, Pennsylvania had an unemployment rate of 7.9 percent and Washington County's unemployment rate was 7.1 percent. Table 6.02 shows the employment statistics for the Township, contiguous municipalities, Washington County, and the Commonwealth of Pennsylvania.

Table 6.02 2010 Percentage in Labor Force, Unemployment Rates, and Travel Time to Work

	Percentage of Population over 16 in the Labor Force	Civilian Percentage Unemployed	Mean Travel time to Work (Minutes)
Chartiers Township	60.9	5.3	21.3
Washington County	61.9	7.1	25.7
Commonwealth of Pennsylvania	63.2	7.9	25.7
Canonsburg Borough	65.2	7.9	23.1
Canton Township	63	8.3	21.5
Cecil Township	67.4	7.5	26.3
Houston Borough	64.7	13	21.6
Mt. Pleasant Township	64.7	5.5	26.8
North Strabane Township	66.7	5.3	25.69
South Strabane Township	56.2	5.5	23.7

*US Census

From Table 6.02 above, one can see that Chartiers has the second lowest percentage of persons over 16 in the labor force, which can possibly be attributed to a higher number of retirees within the Township. The Township's unemployment rate lies in the lower portion of the contiguous municipalities and is lower than the unemployment statistics for both the County and the State. The proximity to Allegheny County and 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. However, residents are increasingly able to find employment closer to home due to new economic developments in the region.

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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 6.03, labor force participation by industry can be seen since 1980.

Table 6.03 Labor Force Participation by Industry 1980 - 2010

	Number of Participants 1980	Number of Participants 1990	Number of Participants 2000	Number of Participants 2010	Percent change from 2000-2010
Agriculture, forestry, fishing and hunting and mining	167	137	67	110	64.18
Construction	197	243	294	307	4.42%
Manufacturing	977	625	473	446	-5.71
Wholesale Trade	60	161	83	172	107.23
Retail Trade	488	503	334	412	23.35
Transportation and warehousing	152	131	162	171	5.56
Information	**	**	82	29	-64.63
Communications , Utilities and Sanitary Services	72	74	**	**	NA
Finance, Insurance, Real Estate, rental and leasing	133	243	154	264	71.43
Professional, scientific, management, administrative and waste management	**	**	235	294	25.11

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Business Repair Services	96	123	**	**	NA
Education, Health, and Social services	571	687	586	782	33.45
Arts, entertainment, recreation, accommodation and food services	118	167	246	345	40.24
Public Administration	77	66	133	122	-8.27
Other services	103	176	132	267	102.27
Total	3,211	3,416	3,114	3721	

*US Census **Data not present

From Table 6.03, 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 farming, 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 40 years ago; today the figure is about 80 percent of all jobs 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 is 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, business, science, and arts' (32.7%), 'sales and office occupations' (26.9%) and 'production, transportation and material moving' (10.5%). The lowest percentage of occupations for all jurisdictions is 'natural resources, construction, and maintenance' (8.4% for

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Chartiers). Table 6.04 illustrates the percentage of the population in Chartiers Township and its surrounding jurisdictions, age 16 and over, who are employed in the various occupational sectors.

Table 6.04 Distribution by Occupation for Chartiers Township and Reference Areas

	Business, Science, and Arts	Service occupations	Percent sales and office	Natural Resources, Construction, and Maintenance	Production, transportatio n and material moving
Chartiers Township	32.7%	21.6%	26.9%	8.4%	10.5%
Washington County	33.3%	18.4%	25.2%	10%	13.2%
Common- wealth of Pennsylvania	35.5%	16.9%	25%	8.7%	13.8%
Canonsburg Borough	29.2%	25.1%	27.1%	6.3%	12.4%
Canton Township	24%	16%	25%	11.4%	23.7%
Cecil Township	40.1%	13.5%	28.2%	8.9%	9.4%
Houston Borough	28.3%	19.8%	25.7%	10.1%	16.1%
Mt. Pleasant Township	28.9%	27.7%	15%	15.3%	19.1%
North Strabane Township	43.3%	13.7%	28.5%	5%	9.5%

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South Strabane Township	43.9%	15.5%	24.2%	6.8%	9.5%
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*US Census

A large percentage of the Township's population engages in business and professional occupations. These positions typically require higher levels of education and/or experience and generally command higher wages. Sales and service occupations also provide substantial jobs for Township residents. The total employment for the Township for these two service sectors equals 59.6 percent of occupations. The total employment numbers for productive services equals 40.5 percent. The Township generally lies at the midpoint for percentages in each occupational category.

Top Industries in Washington County, PA (2nd Quarter 2020) – NAICS Industry Description

1. Elementary and secondary schools
2. Restaurants and other eating places
3. Individual and family services
4. General medical and surgical hospitals
5. Management of companies and enterprises
6. Support activities for mining
7. Machinery and equipment rental and leasing
8. Grocery stores
9. Oil and gas extraction
10. Executive, legislative and general government

*Pennsylvania Department of Labor and Industry Center for Workforce Information & Analysis

The top 25 employers in Washington County, 2020

1. The Washington Hospital
2. Crown Castle USA Inc
3. Wal-Mart Associates Inc
4. Monongahela Valley Hospital Inc
5. Giant Eagle Inc
6. Washington County
7. ANSYS Inc
8. Pathways of Southwestern PA Inc
9. PA State System of Higher Education
10. Canon-McMillan School District
11. State Government
12. Peters Township School District
13. 84 Lumber Company
14. Mylan Inc
15. The Perryman Company
16. Federal Government
17. Marathon Petroleum Logistics Svc
18. Trinity Area School District
19. Universal Electric Business LLC

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20. Ringgold School District
21. Equitrans Midstream Corporation
22. Sunny Days in Home Care LLC
23. Alex E Paris Contracting Co Inc
24. Lighthouse Electric Company Inc
25. Abarta Coca Cola Beverages LLC

*Pennsylvania Department of Labor and Industry Center for Workforce Information & Analysis

6.04 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 25 years and older have risen for both high school diploma and college degree attainment. Table 6.05 further exemplifies these trends:

Table 6.05 Chartiers Township Educational Attainment 1970 – 2010

	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%
2010	89.2%	22.5%

*US Census

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 2010 Census data in Table 6.06.

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Table 6.06 2010 Educational Attainment in Contrast to Reference Areas

	Percent with High school diploma or higher	Percent with Bachelor's degree or higher
Chartiers Township	89.2%	22.5%
Washington County	89.5%	24.7%
Commonwealth of Pennsylvania	87.9%	26.7%
United States	85.4%	28.2%
Borough of Canonsburg	89.5%	21.8%
Canton Township	89%	6.7%
Cecil Township	93.7%	34.5%
Borough of Houston	88%	11%
Mt. Pleasant Township	79.9%	15.4%
North Strabane Township	93%	38.6%
South Strabane Township	90.8%	29.2%

*US Census

Chartiers Township's high school education attainment levels are higher than both the state and national achievement levels. While the number of those in Chartiers with a bachelor's degree or higher has risen substantially from 2000, it is still below the state and national achievement level.

Chartiers residents' educational attainment levels have increased over time and efforts can and should be made to increase these levels further. In 2000, only 26.4 percent of those persons 18 to 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. For 2010, these numbers are substantially improved, as can be seen in the above table.

6.05 Income Characteristics

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 2013 constant dollars. This data represents the changes in prices for all goods and services over

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a specified period time illustrating median incomes in constant 2013 dollars. Once adjusted, the actual growth or decline in income in the Township can be measured.

Table 6.07 Household Median Income 1970 - 2010

	Median Household Income	Adjusted for Inflation into 2020 Dollars
1970	\$9,200.00	\$63,395.79
1980	\$19,434.00	\$65,064.93
1990	\$27,278.00	\$55,770.88
2000	\$37,679.00	\$58,142.18
2010	\$53,921.00	\$64,817.08

*US Census Data, BLS CPI Calculator

From Table 6.07 above, it is evident that real incomes in the Township were decreasing though not drastically. This was concurrent with national trends however and does not necessarily reflect directly on the economic well-being of Chartiers. The most recent decade has seen real incomes increase.

By contrasting median incomes for the Township to larger reference areas in 2010, 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 6.08.

Table 6.08 2010 Median Incomes in Contrast to Reference Areas

	Median Household Income	Median Family Income	Per Capita Income	Percent below Poverty Line
Chartiers Township	\$53,921	\$69,357	\$30,444	5.1%
Washington County	\$51,965	\$66,126	\$26,987	10.2%
Commonwealth of Pennsylvania	\$51,651	\$65,105	\$27,824	12.6%
Borough of Canonsburg	\$47,024	\$54,006	\$22,622	8.9%

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Canton Township	\$39,228	\$63,666	\$25,117	10.2%
Cecil Township	\$65,229	\$72,083	\$32,034	4.9%
Borough of Houston	\$39,412	\$55,870	\$22,827	13.3%
Mt. Pleasant Township	\$53,044	\$69,464	\$28,867	11.0%
North Strabane Township	\$68,568	\$85,293	\$32,395	3.7%
South Strabane Township	\$56,386	\$73,238	\$29,657	5.8

*US Census

Chartiers Township residents enjoy a moderate level of income. The Township income levels tend to be above both Washington County's and the Commonwealth of Pennsylvania's income levels. 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 2000 to 2010 to show the shifts of income in the area in Table 6.09.

Table 6.09 Income and Benefits Per Category 2000-2010

Income Level	2000 Number of Households	2000 Percent of Total	2010 Number of Households	2010 Percent of Total
Less than \$10,000	154	5.5	154	4.7
\$10,000-\$24,999	655	23.3	617	19.0
\$25,000-\$34,999	483	17.1	190	5.8

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\$35,000-\$49,999	511	18.1	578	17.8
\$50,000-\$74,999	614	21.8	599	18.4
\$75,000-\$99,999	229	8.1	387	11.9
\$100,000-\$149,999	141	5.0	500	15.4
\$150,000-\$199,999	30	1.1	96	3
\$200,00 or more	-	-	127	3.9

*US Census

By looking at the above table, one can see that almost 29 percent of households in 2000 were earning less than \$25,000 per year. This is substantially decreased from 1990 where the number was closer to 45 percent. By 2010, this percentage was down to 23.7 percent. In 1990, only 20 percent of households earned over \$50,000 per year while by 2000, the figure was up to 36 percent of the population earning above this amount. In 2010, we saw numbers increase to a total of 52.6 percent of households earning over \$50,000.

One critical change that has occurred in Chartiers since the 2000 census is a dramatic increase of high-income households present in the Township. As of 2010, 22.3 percent of households in Chartiers earned over \$100,000.

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 2010, the poverty level dropped a further .10 percent. In order to contrast this figure, reference areas poverty levels are shown in the following Table 6.10:

Table 6.10 Percent of Families Below Poverty Line by Year

	Chartiers Township	Washington County	Pennsylvania	United States
1990	7.5%	12.8%	11.1%	12.0%
2000	5.2%	6.9%	7.8%	9.2%
2010	5.1%	10.2%	12.6%	14.3%

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*US Census

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, because those groups below the poverty line are predominately women and children. Table 6.11 shows the poverty statistics for various types of households in Chartiers.

Table 6.11 Different Family Structures below the Poverty Line

	1990 percentage below the poverty line	2000 percentage below the poverty line	2010 percentage below the poverty line
Families in poverty	7.5%	5.2%	2.3%
Married couple families with children under 18 in poverty	8.1%	7.4%	1.3%
Females, with no husband with children under 18 in poverty	42.3%	20%	13%
Persons 65 in older in poverty	10.9%	4.1%	5.4%

*US Census

As one can see in the above table, female householders with no husband present are often those individuals who most frequently land 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 Township should focus on increasing economic quality of life and development.
- Solutions for the direction of the poverty statistics, specifically for children. Solutions may include education and training for single mothers or increased childcare for all families to enable them to find permanent employment.
- Chartiers could also encourage further economic development and coordinate on a regional level to increase economic opportunity based on the region's recent growth.

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6.06 Local Conditions

In the 2019 Township Survey, residents were asked to rate economic and job opportunities in the Township. 28 percent of respondents rated 'Fair' to this question. 32 percent of respondents answered this question with either 'Outstanding' or 'Good'. The detailed responses to this question can be seen in the Table 6.12.

Table 6.12 Economic and Job Opportunities in the Township

Economic and Job Opportunities	Percentage of Respondents
Outstanding	4.87%
Good	26.82%
Fair	28.04%
Poor	6.09%
Not Sure	34.14%

*2019 Township Survey

Residents were also asked if the Township should encourage more economic development and job creation in the community. 49% of respondents answered 'Yes' to this question. The detailed responses to this question can be seen in the following Table 6.13.

Table 6.13 Economic Development and Job Creation

More economic development and job creation	Percentage of Respondents
Yes	48.75%
No	20.00%
Not Sure	31.25%

*2019 Township Survey

By looking at the above survey results, it appears that Township residents are somewhat satisfied with 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 main-street commercial area. Most of the commercial businesses are located along Pike Street and Country Club Road. The Township has undertaken

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a beautification effort for the commercial corridor of Pike Street to improve its aesthetic appeal. The West Pike Street Overlay District ordinance requires new developments and renovations to consider various aesthetic requirements when implementing a project. Some of these aesthetics include building architectural features, improved lighting, pedestrian amenities, and landscaping. 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 encourage appropriate mixed-use development and 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 N Main Street. Future industrial development should be directed to these existing industrial sites and corridors.

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.

With the exception of the gas drilling industry, and the various industries that support this field, 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.

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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 complement 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.

6.07 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

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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 also 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.

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 could 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 VII. Land Use

7.01 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 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 also affirmed that smaller locations of commercial and industrial uses were important for employment and business opportunities in the Township. From the 2019 Township survey, the top three issues that residents identified as most important to the quality of life in the Township over the next ten years were "Retaining the rural nature of the Township," "Zoning to maintain property values," and "Open space preservation." 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 50 years, more development has occurred in Chartiers Township than in the previous 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,

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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 50 years.

The suburban landscapes, limited commercial areas, and industrial districts are the area's 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. Special land use controls will be needed 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 with 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.

7.02 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 7.01:

Table 7.01 Zoning Districts by Acreage

	Acreage	Percentage of Land
A-1 Agricultural Residence district	6,368.609 acres	40.71%
R-1 Residence district	1,288.22 acres	8.23%
R-2 Residence district	4,960.878 acres	31.71%
C-1 Commercial district	141.7422 acres	0.91%
C-2 Regional Commercial district	107.0645 acres	0.68%
I-1 Industrial District	2776.992 acres	17.75%

*Chartiers Township GIS

**West Pike Street Overlay District includes 39.30 acres of C-1 and I-1 property

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As illustrated in the above table, clearly the agricultural and residential 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: Residential, Commercial, Industrial, and Agricultural.

7.03 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 supporting 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.

Recent residential development additions include Arden Mills, Arden Farms, Arabian Meadows, Piatt Estates, and Summerfield Woods. These developments include a mix of single-family dwellings, duplexes, and townhomes. While families do occupy many of these homes, a significant amount of these dwellings have been built as patio homes which promote single floor living for older adults.

The zoning classification for the area is primarily residential. This category is divided into two groups: the R-1 Residence district 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 dwelling units per acre. There are two 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. 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 multi-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.

Given the significant density differences between older and newer developments in the Township, Township officials should consider the adoption of an R-3 Residence District. This new district could significantly help the residents who own homes or lots that were developed under older zoning regulations. For example, many vacant lots that develop today are subject to a 35-foot front yard building setback line even though the neighboring homes were

developed with 20 or 25-foot front yard building setback line. These owners are forced to awkwardly set back their home or seek a variance from the Zoning Hearing Board. Many applicants have expressed a concern about the time and expense to seek a variance. The setback regulations also become an issue for decks, pools, sheds, and other projects on these lots.

7.04 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 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 in 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 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.

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During previous planning processes, and through meetings with the Planning Commission and Township staff, the expansion of the existing Pike Street commercial district was discussed. This discussion led to the creation of the West Pike Street Overlay District in 2015. The overlay district focuses on improving the area with streetscape enhancements, such as sidewalks and street trees, along with architectural features and design standards on new or renovated buildings. The Planning Commission has previously expressed some support for expanding this commercial corridor and the overlay district. However, this support was contingent on an expansion plan that respects and supports the existing residential properties. A proposed expansion would be consistent with existing uses but should be done in a complimentary manner.

7.05 Industrial Uses

There is a solid industrial sector present within the Township and a few of these companies serve as major employers. 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 Road. 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 reflect the land uses more accurately and 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.

In recent years, the Township has received several rezoning requests to create additional industrial zoned property. The applicants discussed the need for additional space for offices, staging areas, and laydown yards. The requests focused on light industrial uses; however the neighboring property owners spoke in opposition citing the potential for heavier industrial uses. To address the concerns of the applicants and the neighboring owners, Township officials should consider the creation of a light industrial district to compliment the existing I-1 zoning. The light industrial district could focus on the lower intensity industrial uses to mitigate the conflicts and issues related to heavier industrial uses. Light industrial districts could also serve as a transition between existing industrial and residential properties. The creation of a light industrial district should happen within the existing industrial development corridors.

7.06 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

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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 2019 Township survey, a substantial majority of residents (90.01%) responded that the Township should encourage the preservation of farmland. Additionally, many survey respondents indicated that a reason they chose to live in the Township was the ‘Rural Atmosphere’ 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 towards the large landowner 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 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, was added to as recently as January 2018, and contains 53 parcels. Agricultural security areas are intended to promote more permanent

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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. Zoning regulations, agricultural security areas, and conservation easements are some of the methods that can be used to regulate development in these sensitive areas.

7.07 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), and the Zoning Ordinance (including Planned Residential Development (PRD) and Traditional Neighborhood Development (TND) provisions).

Municipal officials can apply these powerful tools to control how land can be developed or preserved to 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 and amended several times since its adoption. 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.

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

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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. The Township investigated an impact fee ordinance in 2014. However, the financial benefits of the ordinance did not outweigh the costs. Township officials should revisit this strategy if development pressures increase (particularly nonresidential development).

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 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).

7.08 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 inter-municipal planning and coordination with 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 nature includes traditional small lot housing around small commercial areas, urban centers, suburban residential subdivisions, and

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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 7.02 illustrates the population and housing unit densities for the Township in contrast to the surrounding municipalities, Washington County, and the Commonwealth of Pennsylvania.

Table 7.02 Reference Areas Population and Housing Unit Densities

	Population	Housing Units	Total land Area (square miles)	Population Density per Square Mile	Household Density per Square Mile
Chartiers Township	7,818	3,394	24.53	318	130
Washington County	207,820	92,977	857.09	243	99
Commonwealth of Pennsylvania	12,702,379	5,567,315	44,816.61	284	-
Canonsburg Borough	8,992	4,529	2.32	3893	1783
Canton Township	8,375	3,760	14.89	563	243
Cecil Township	11,271	4,858	26.34	429	172
Houston Borough	1,296	652	0.37	3154	1482
Mt. Pleasant Township	3,515	2,226	35.63	99	39
North Strabane Township	13,408	5,689	27.3	492	199

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South Strabane Township	9,346	4,506	23.1	406	185
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*US Census Bureau, SPC

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 map adopted July 18, 2016): The Borough of Canonsburg shares small sections of the Township's eastern boundary. The zoning classifications along the boundary include residential, commercial, and transitional designations. The R-1 Low Density Residential district permits single family uses. The R-2 Medium Density Residential district permits single family uses and medium density multi-family uses. The C-1 General Commercial district is for "general service commercial functions along major corridors." Lastly, the Transitional district in the Borough permits "a mixture of high density residential and commercial uses to serve as a transitional area between the Central Business District and the surrounding residential neighborhoods." 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 Urban 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 have 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 map adopted July 24, 2018): 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-I 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 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

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Industrial District authorizes over 50 permitted uses, conditional uses, and special exceptions. The adjacent land use in Chartiers Township is Industrial which is compatible with North Strabane's zoning districts.

South Strabane Township (Zoning map adopted June 23, 2009): 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 number 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 map adopted February 2018): Chartiers Township shares its northwestern border with Mount Pleasant Township. There several zoning districts along the border in Mount Pleasant Township including A-1 Agriculture, M-1 Light Industrial, R-H Neighborhood Residential, and B-1 Highway Commercial. 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 map (revised) adopted July 9, 2015): 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 A-1 district include agriculture, single-family homes, public parks and recreation, stables, kennels, and 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 the Canton Township R-2 zoning district is 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 residential uses in Chartiers, so significant development would have to be reviewed for compatibility.

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Cecil Township (Zoning map adopted May 17, 2000): Chartiers share its northeastern border with Cecil Township. Within the boundary are only residential uses 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, 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.

7.09 Policies 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 could consider adopting a Transfer of Development Rights program. This program could help to fulfill the Township's development and preservation goals while maintaining equity for its landowners. The Transfer of Development Rights requires "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 Area 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.

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 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.

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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 industrial 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, 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; and
- Preserve existing commercial and industrial 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 have been implemented 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 “main-street” 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 green space. The Township should use the best practices to identify key design elements and require that these be incorporated into development proposals. The West Pike Street Overlay District has created the zoning regulations to promote such development along this corridor, and the Township should consider implementing these regulations along other corridors in the Township.

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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.

7.10 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 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.

2020 Chartiers Township Comprehensive Plan

2020 Comprehensive Plan Survey

Background

In the spring of 2019, Chartiers Township conducted the 2020 Comprehensive Plan survey through the Township's spring newsletter. Approximately 3,708 newsletters were printed and mailed to the Township's residents, businesses, and property owners. Survey responses were collected through the summer of 2019 through email, USPS mail delivery, fax, and hand delivery. 82 responses were received resulting in a 2.21% response rate.

The Survey

The following survey questions were included in the 2020 Comprehensive Plan survey. This survey closely resembled the 2009 Comprehensive Plan survey so that the data could be compared.

1. How long have you lived in Chartiers Township?
 - Less than one year
 - 1-5 years
 - 6-10 years
 - 11-20 years
 - Over 20 years
2. What are the ages of the residents in your household? Please mark total number for each:
 - 0-10 years
 - 11-18 years
 - 19-25 years
 - 26-35 years
 - 36-45 years
 - 46-55 years
 - 56-64 years
 - 65+ years
3. Please rank the THREE most important reasons why you live in Chartiers Township.
 - Access to major transportation routes
 - Quality of housing
 - High level of municipal services
 - Affordable cost of living
 - Lot sizes
 - Employment opportunities
 - Lower taxes
 - Low crime rate
 - To be near friends and family
 - Rural atmosphere
 - Quality of school district
 - Lifelong resident
4. In general, how satisfied are you with Chartiers Township as a place to live?
 - Very Satisfied
 - Satisfied

2020 Chartiers Township Comprehensive Plan

- Dissatisfied
 - No Opinion
- 5. Please check your current level of satisfaction with the availability of information regarding Township services, projects, policies, and procedures
 - Very Satisfied
 - Satisfied
 - Dissatisfied
 - No Opinion
- 6. Should water and sewer service be expanded in the Township to encourage development?
 - Yes
 - No
 - Not Sure
- 7. If you left Chartiers Township, the reason would be...?
 - Retirement relocation
 - Lack of job opportunities
 - Change in family status
 - Too much development
 - Better housing opportunities elsewhere
 - Would not leave
 - Other

- 8. What is your opinion on the rate in the following type of development in Chartiers Township?
 - Residential Development
 - Too Fast About Right
 - Too Slow Not Sure
 - Commercial Development
 - Too Fast About Right
 - Too Slow Not Sure
 - Industrial Development
 - Too Fast About Right
 - Too Slow Not Sure
- 9. What ONE type of development would you like to see more of?
 - No new development
 - Assisted living or personal care homes
 - Multi-family apartments of townhouses
 - Residential houses
 - Industrial parks
 - Retail stores and smaller commercial buildings
 - Casual restaurants
 - Parks and open space
- 10. How would you rate economic development and job opportunities available in the Township?
 - Outstanding
 - Good
 - Fair
 - Poor

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- Not Sure
11. Should the Township encourage more economic development and job creation in the community?
- Yes
 - No
 - Not Sure
12. Should the Township encourage the preservation of farmland?
- Yes
 - No
 - Not Sure
13. Please rate the following municipal and local services:
- Police Department
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Fire Department
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - EMS
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Planning and Zoning
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Sanitary Sewer Service
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Water Service
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Road Maintenance
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - School District
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Recreation
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Library
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
 - Recycling
____ Very Satisfied ____ Satisfied ____ Not Satisfied ____ No Opinion
14. Are the Township roads developed and maintained in a safe and efficient manner?
- Yes
 - No
 - Not Sure
15. Are there roadways and circulation patterns that could be improved?
- Yes
 - No
 - Not Sure
16. How often does a member of your household visit a Township park or recreation field?
- More than once a week
 - Once or twice a month
 - Every other month
 - Once or twice a year
 - We do not use
17. Which of the following fields are needed in Chartiers Township (check one):

2020 Chartiers Township Comprehensive Plan

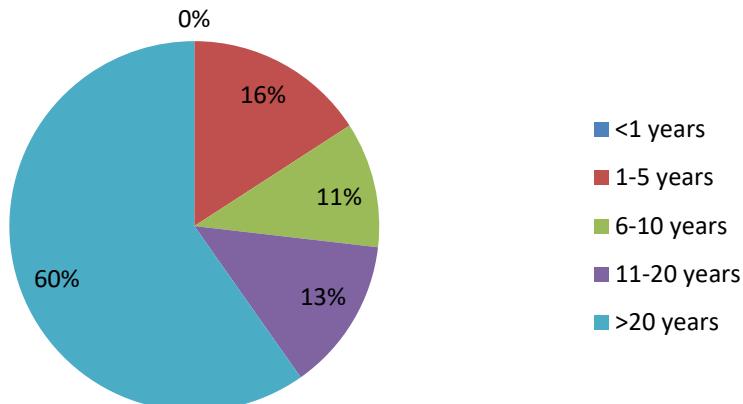
- Baseball/Softball Field
 - Soccer Field
 - Football Field
 - Multi-Purpose Field
 - None
 - Other: _____
18. Should the Township undertake more recreation programs for its citizens?
- Yes
 - No
 - Not Sure
19. What kinds of recreation programs are needed:
- Senior Programs
 - Adult Programs
 - Teen Programs
 - Child Programs
 - Not Sure
20. From the list below, check the THREE issues that are most important to the quality of life for the residents of the Township over the next ten years.
- Increased recreational opportunities
 - Support preservation of historic and cultural resources
 - Regional approach to planning and zoning
 - Regionalization or inter-municipal cooperation for improved services
 - Drug prevention programs
 - Increased fire and police coverage
 - Retaining the rural nature of the Township
 - Increased employment opportunities
 - Roadway improvement and maintenance
 - Recruitment of manufacturing firms to the region
 - Continuing education opportunities for adults
 - Expansion of the public sewage system to encourage development
 - Open space preservation
 - Zoning to maintain property values
 - Developing more affordable housing
 - Retaining and attracting youth and young professionals to the region
 - Providing services to area senior citizens
 - Planning for new development

Survey Responses

The 2020 Comprehensive Plan survey data was collected, inputted, and summarized in the charts graphs and charts below:

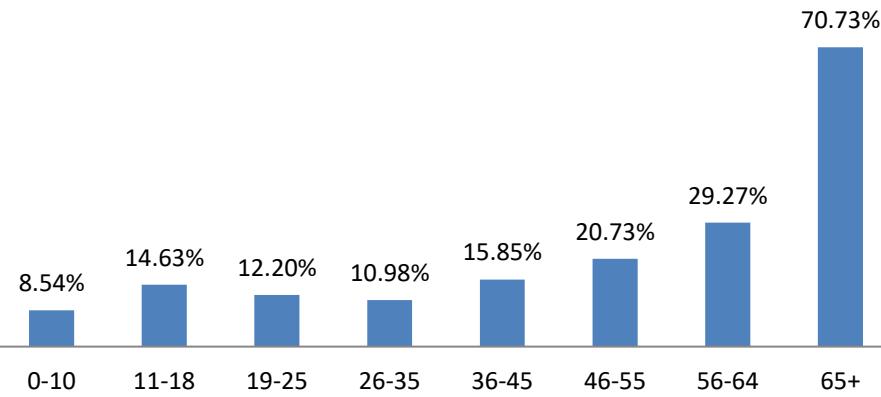
1. How long have you lived in Chartiers Township?

How long have you lived in Chartiers Township



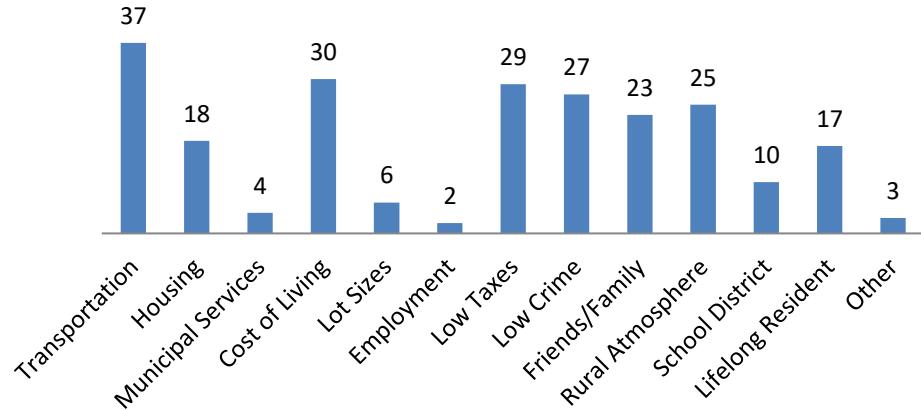
2. What are the ages of the residents in your household? Please mark total number for each:

What are the ages of the residents in your household?



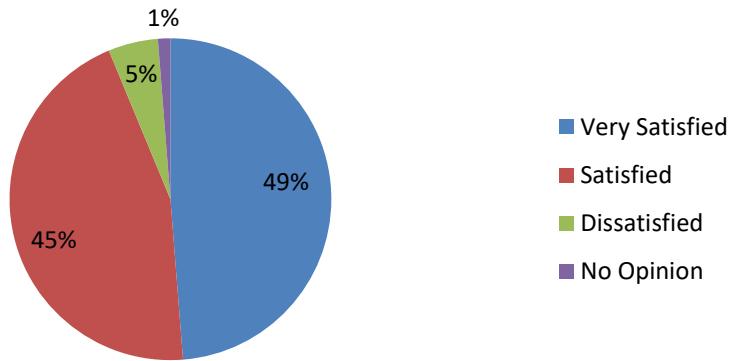
3. Please rank the THREE most important reasons why you live in Chartiers Township:

Most important reasons why you live in Chartiers Township (choose 3)



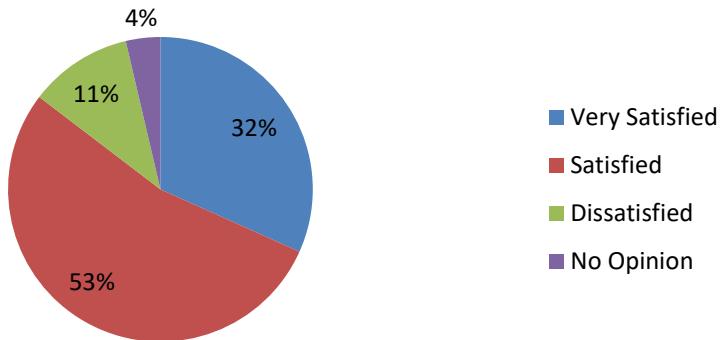
4. In general, how satisfied are you with Chartiers Township as a place to live?

How satisfied are you with Chartiers Township as a place to live



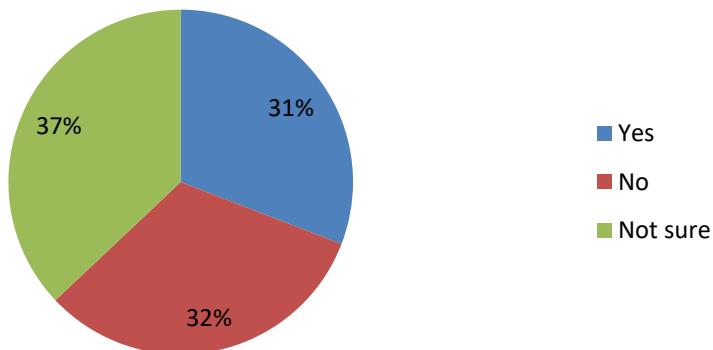
5. Please check your current level of satisfaction with the availability of information regarding Township services, projects, policies, and procedures:

**How satisfied with availability of information
regarding Township services, projects, policies,
and procedures**



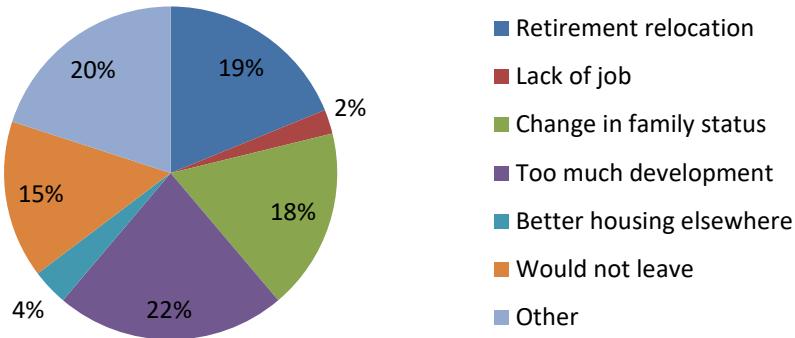
6. Should water and sewer service be expanded in the Township to encourage development?

**Should water and sewer service be expanded in
the Township to encourage development?**



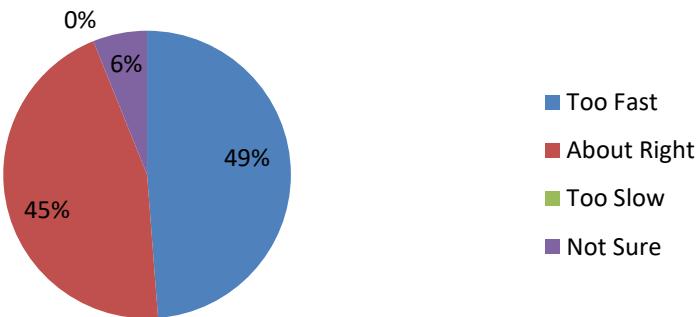
7. If you left Chartiers Township, the reason would be...?

If you left Chartiers Township, the reason would be...

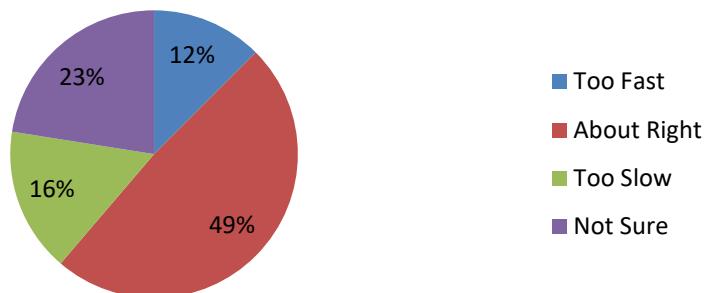


8. What is your opinion on the rate in the following type of development in Chartiers Township?

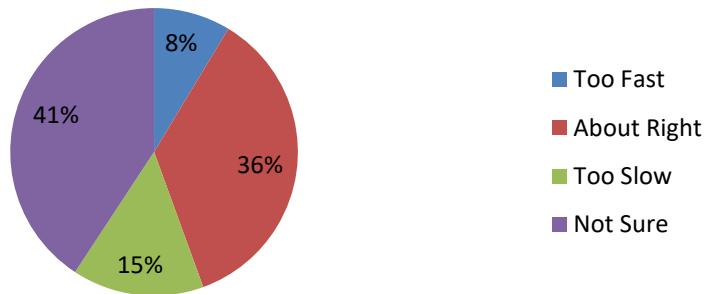
What is your opinion on the rate of residential development in Chartiers Township?



What is your opinion on the rate of commercial development in Chartiers Township?

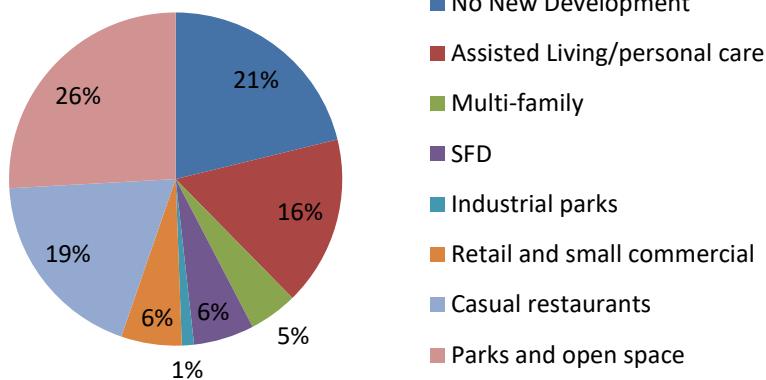


What is your opinion on the rate of industrial development in Chartiers Township



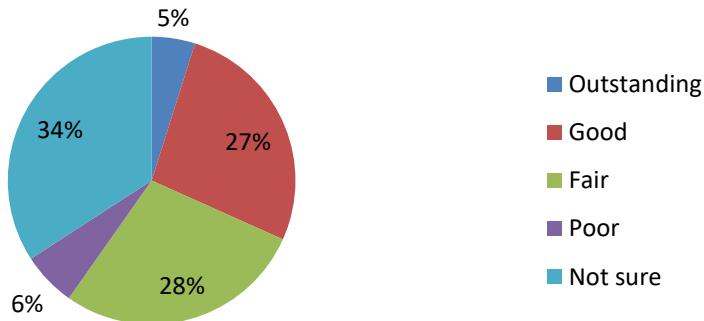
9. What ONE type of development would you like to see more of?

What one type of development would you like to see more of?



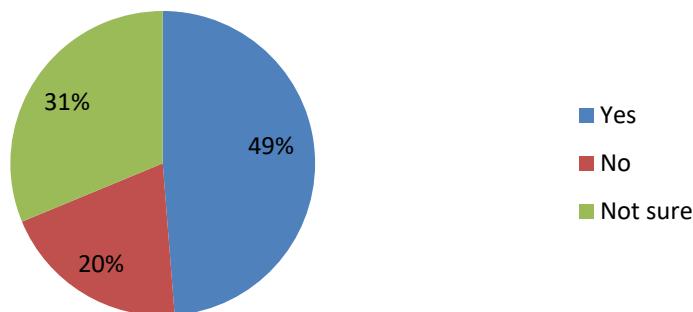
10. How would you rate economic development and job opportunities available in the Township?

How would you rate economic development and job opportunities in the Township?



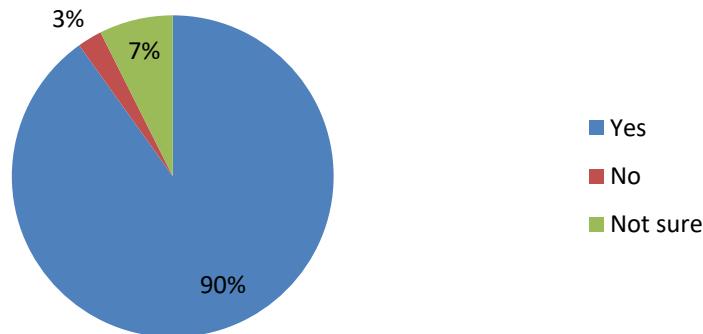
11. Should the Township encourage more economic development and job creation in the community?

Should the Township encourage more economic development and job creation in the community?



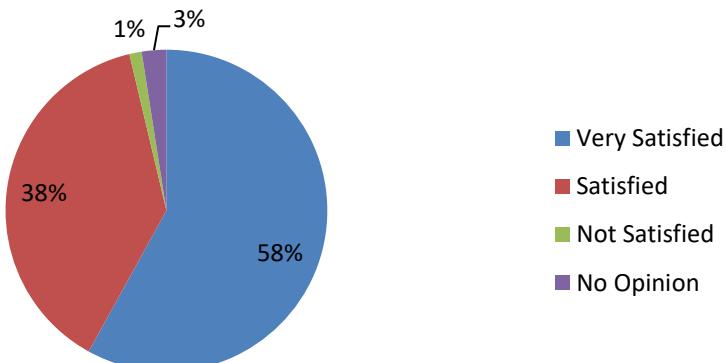
12. Should the Township encourage the preservation of farmland?

Should the Township encourage the preservation of farmland?

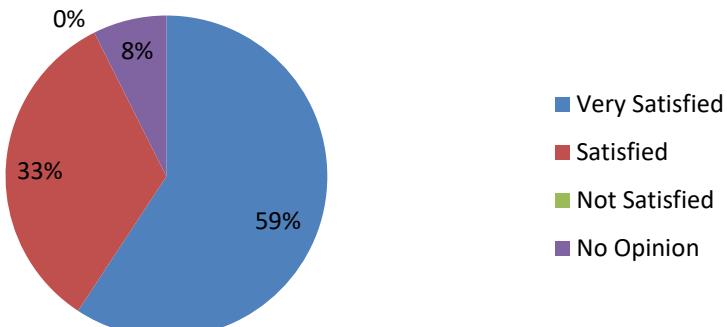


13. Please rate the following municipal and local services:

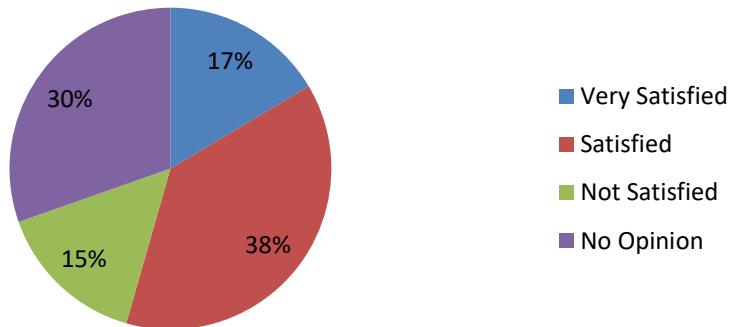
Please rate the following municipal service: Police



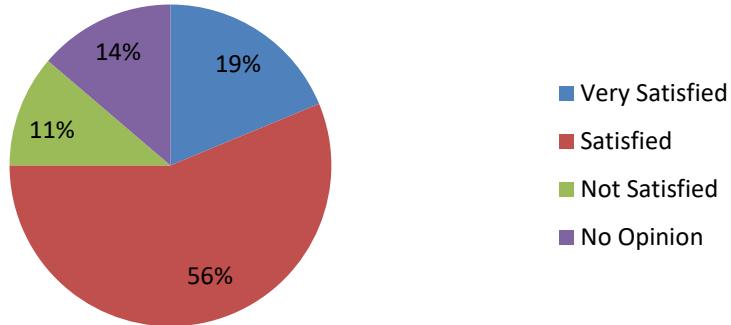
Please rate the following municipal service: Fire



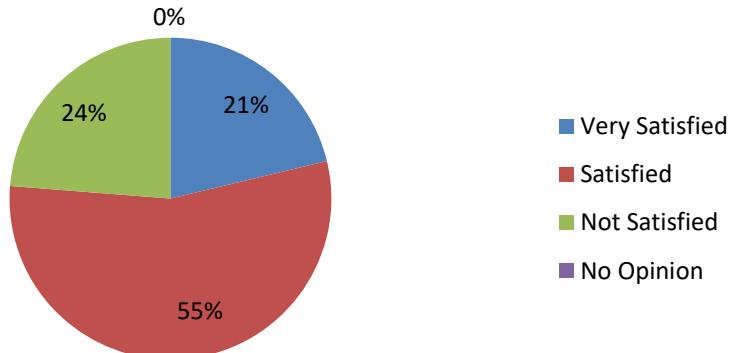
Please rate the following municipal service: Planning and Zoning



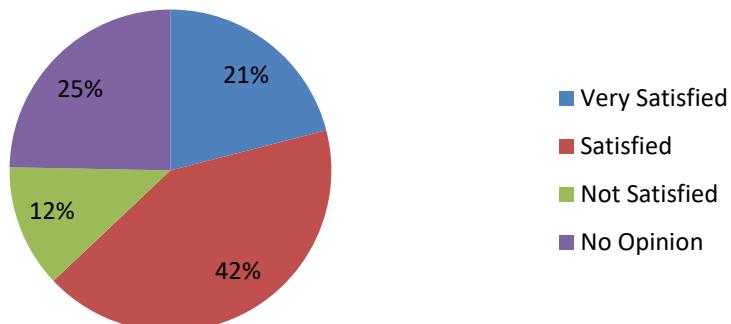
Please rate the following municipal service: Sewer



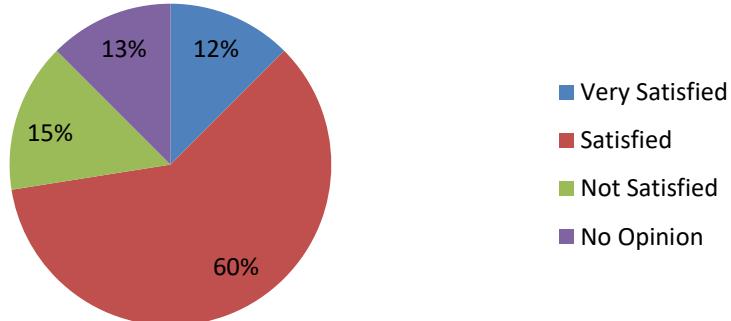
Please rate the following municipal service: Road



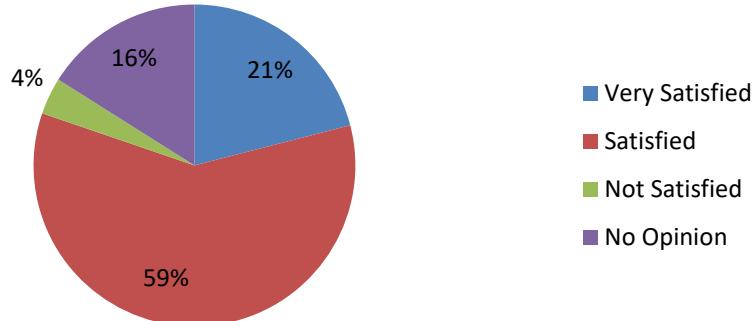
Please rate the following municipal service: CHSD



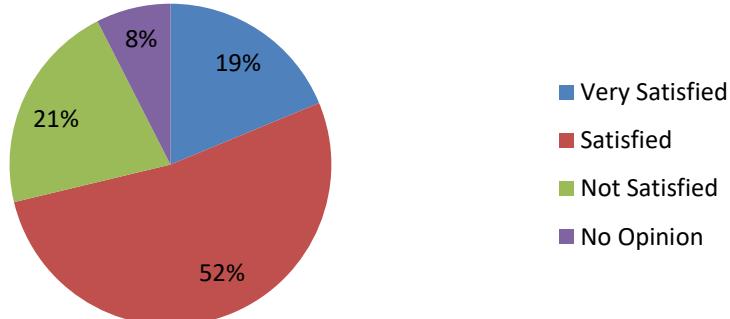
Please rate the following municipal service: Recreation



Please rate the following municipal service: Library

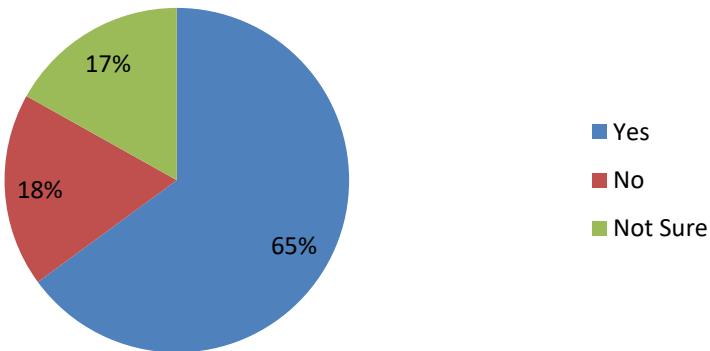


Please rate the following municipal service: Recycling



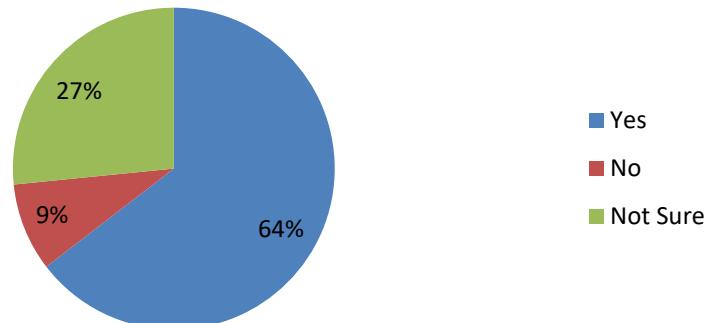
14. Are the Township roads developed and maintained in a safe and efficient manner?

Are Township roads developed and maintained in a safe and efficient manner?



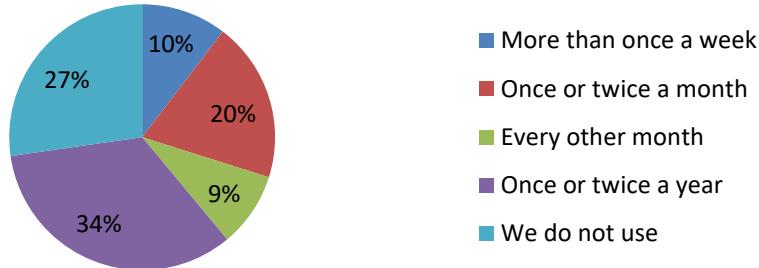
15. Are there roadways and circulation patterns that could be improved?

Are there roadways and circulation patterns that could be improved?



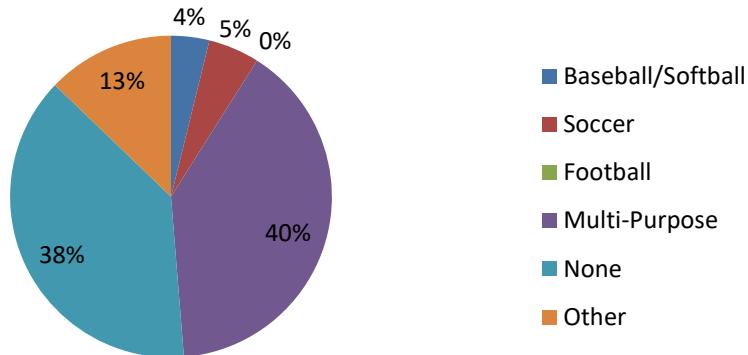
16. How often does a member of your household visit a Township park or recreation field?

How often does a member of your household visit a Township park or recreation field?



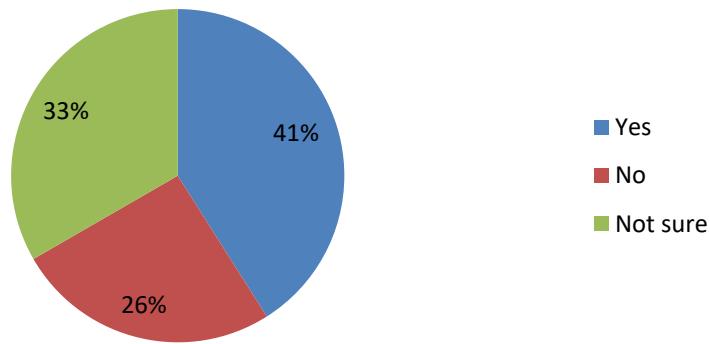
17. Which of the following fields are needed in Chartiers Township (check one):

Which of the following fields are needed in Chartiers Township?



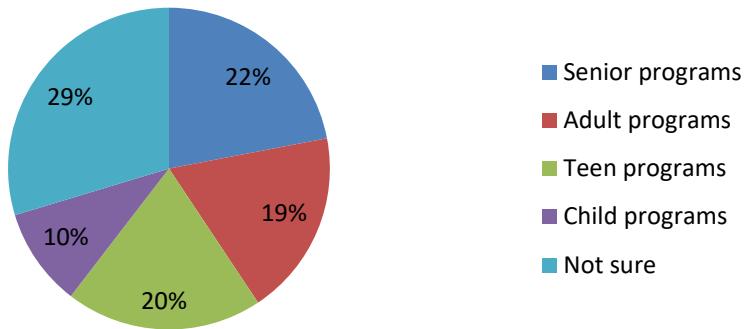
18. Should the Township undertake more recreation programs for its citizens?

Should the Township undertake more recreation programs for its citizens?



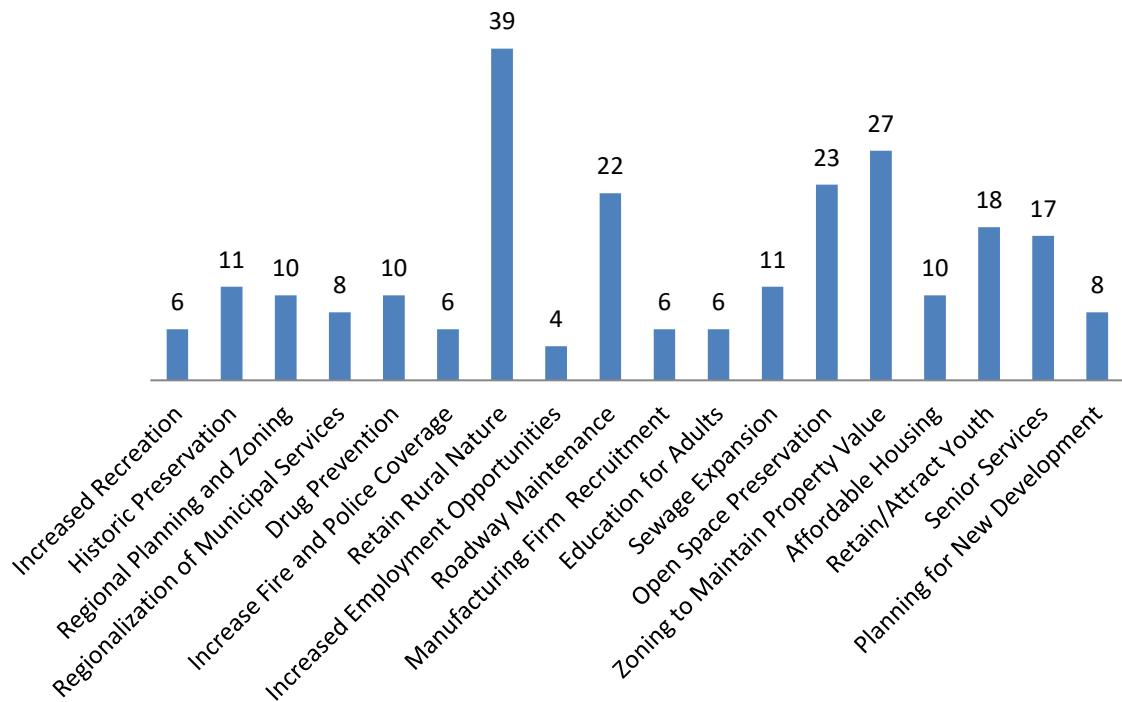
19. What kinds of recreation programs are needed:

What kinds of recreation programs are needed?



20. From the list below, check the THREE issues that are most important to the quality of life for the residents of the Township over the next ten years.

Most important issues to the quality of life for the residents of the Township over the next ten years (choose three):



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Survey Written Responses

The following written comments were received with the survey responses submitted to the Township. The comments were transcribed as received, and a notation was added to provide context for each comment (depending on the question and/or section of the survey):

- Commercial development: "development pike street in meadowlands"
- Economic development and job opportunities: "depends on what type of development & results thereof"
- Economic development and job opportunities: "I'm saying good because of opportunities surrounding the Township"
- Field needs: "does not apply"
- Field needs: "large walking trail"
- Field needs: "Make sure you read this one and take into consideration Township without saying too expensive...never a problem with football expenses or \$1/2M baseball field"
- Field needs: "multi-purpose field by library" and "walking trails along Chartiers Creek"
- Field needs: "No more sports fields"
- Field needs: "off leash dog park"
- Field needs: "Only Twp with no basketball courts with fence and no tennis courts with fence"
- Field needs: "Pickleball, basketball, tennis...you already have the above mentioned"
- Field needs: "skateboard and frisby golf"
- Field needs: "There is no recreation except for baseball fields"
- Field needs: "walking paths – need resurfaced"
- Field needs: "walking trail"
- Fire: "but could be better"
- General comment: "need ambulance service"
- General comment: "P.S. Regarding new fire protection tax – I thought the Meadows Casino was to contribute to local fire departments to offset loss of funds from fire department bingos that ended do to the casino"
- General comment: "Terrific survey...well worded and comprehensive"
- If you left Chartiers Township the reason would be: "age requiring other options"
- If you left Chartiers Township the reason would be: "air, light, and noise pollution"
- If you left Chartiers Township the reason would be: "health reasons"
- If you left Chartiers Township the reason would be: "healthcare"
- If you left Chartiers Township the reason would be: "lack of access to reliable internet, no cable tv available, flooding due to expanded development"
- If you left Chartiers Township the reason would be: "lack of sewer service"
- If you left Chartiers Township the reason would be: "nursing home"
- If you left Chartiers Township the reason would be: "people not taking care of their houses/yards"
- If you left Chartiers Township the reason would be: "school district politics"
- If you left Chartiers Township the reason would be: "smaller home"
- If you left Chartiers Township the reason would be: "too much traffic for the road size"
- If you left Chartiers Township the reason would be: "School District"

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- Important reason you live in the Township: Affordable cost of living “however, now the slabs are rolling in”
- Important reason you live in the Township: Affordable cost of living and low crime rate are “also important”
- Improve roadways and circulation: “Concerned with road erosion”
- Improve roadways and circulation: “left turn arrow Allison Hollow to Pike Street”
- Improve roadways and circulation: “multiple stop signs at Country Club and Main”
- Improve roadways and circulation: “plowing in winter” done well but “repaving – no”
- Improve roadways and circulation: “Ross Street needs resurfaced”
- Improve roadways and circulation: “some but not all”
- Improve roadways and circulation: “stop sign @ W Country Barn and Summit”
- Improve roadways and circulation: “the plow trucks rip off the curb every winter. The entrance to our street from Pike Street is pretty rough”
- Improve roadways and circulation: “Yes with occasional noteworthy exceptions.”
- Improve roadways and circulation: “You need to pick-up litter and garbage along the roadways and do away with advertising signs all over the roadways”
- Improve roadways and circulation: safe walkways would be a major benefit, especially in our scenic areas such as Allison Hollow Road. Walkway by the “waterfall” would connect regions of community into one”
- Issue important to the quality of life: “composting area for yard waste”
- Issue important to the quality of life: “ensure residents take care and upkeep of their property”
- Library: “needs more Township funding”
- Planning and Zoning: “on several local residential construction sites there have been 0 erosion control, inspections or code enforcement”
- Police: “outstanding”
- Rate of residential development: “causing flooding with run off”
- Recreation program needs: “For the whole family”
- Recreation program needs: “No more programs”
- Recreation program needs: “Senior center seems to focus on programs attractive to women”
- Recreation program needs: “Senior rec center and activities”
- Recreation program needs: “Weekend entertainment”
- Recreation program needs: “Widows are the loneliest group. Provide fellowship opportunities for widows”
- Recreation program needs: “AARP driving / youth group recreation”
- Recreation program needs: “bike trail along Chartiers Creek”
- Recreation program needs: “for swimming and other programs for seniors that we can afford”
- Recreation program needs: “investigation needed” “Possibly a marathon or other activity/program that could (1) promote Chartiers in a positive light (2) benefit residents (3) generate income”
- Recreation program needs: “night life for teens on weekend and summer”
- Recreation program needs: “None”
- Recreation program needs: “playground, (keeping young adults busy & out of trouble)”

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- Recreation program needs: "Teen-volunteer program that give them a credit in school" and "child recreational sports"
- Recreation program needs: "tennis courts"
- Recreation program needs: "trips" for seniors
- Recreation program needs: "volleyball-daytime exercise"
- Recreation program needs: "would be nice to have bocce courts"
- Recreation program needs: "Outdoor/indoor walking"
- Recreation program needs: "we should do a cost/benefit analysis"
- Recycling: "need more than one day a month"
- Recycling: "should be 2 times a month at least"
- Recycling: "too infrequent"
- Recycling: "should consider discontinuing per cost/benefit analysis"
- Retain and attract youth: "their tax income would then help support senior citizens"
- Sanitary sewer service: "too many septic tanks"
- Satisfaction as a place to live: "our road is barely passable and falling apart"
- Satisfaction as a place to live: "School District parents who graduated from district control "outsiders" from joining groups or sports or activities"
- School District: "too much sports need more education"
- Should the Township encourage more economic development and job creation: "already hard to find workers for existing jobs"
- Should the Township encourage more economic development and job creation: "depends on what kind"
- Township information: "Do not use facebook – want more information on website – especially timely Board minutes"
- Township information: "policies against barking dogs, parking on the street, and smoking out the neighborhood while burning garbage could be better communicated"
- Type of development needed: "Could take care of land better by Allison Hollow and Pike Street where the stream runs"
- Type of development needed: "I think the growth (residential) is about right"
- Type of development needed: "New homes/Ryan homes...they're not affordable"
- Type of development needed: "New housing is expensive and taxes are too high on them"
- Type of development needed: "one floor homes and tiny house communities"
- Type of development needed: "pool, walking trails, dog park"
- Type of development needed: "Redevelop Meadowlands Main Street Pike Street"
- Type of development needed: "Redevelop the area from Racetrack Road to Meadowlands interchange"
- Type of development needed: "walkable destinations"
- Water and sewer expansion: "For commercial & industrial development"
- Water and sewer expansion: yes "in some places"
- Water and sewer expansion: "should first be expanded to current homes (only after all existing homes serviced should new residential service be provided)"