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Mission Statement

The mission of the Moon Township Parks and Recreation Department is to advance recreation, parks and environmental stewardship efforts that enhance the quality of life for Moon Township residents.

The priorities shall be

- To develop programs, facilities and services that provide diverse and leisure recreational opportunities for all citizens
- To form community partnerships to support recreational and environmental programs and events
- To identify and propose opportunities for the conservation, preservation and acquisition of open space lands
- To aggressively pursue funding incentives, options and opportunities to supplement the expenditure of public funds.

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As municipals officials find it increasingly more important to plan for future growth and development, they are realizing that there are many factors that should be considered during their planning efforts. While many people think only of issues such as transportation, water, sewer, and emergency services (fire, police, ambulance) as the responsibility of municipal government, there are other equally important services. Providing and managing services such as recreation, parks, and open space are often neglected because of budgetary constraints or a lack of understanding the quality of life benefits associated with recreation activities.

Moon Township Recreation Facilities

- Moon Park
- Robin Hill Park
- Olson Park (undeveloped park)
- 5 Neighborhood Play lots
- ARL Amphitheater
- Airport Area Ice Arena
- Scally's Golf Center
- Bon Air Golf Course
- Montour Heights Country Club
- Baseball, Softball and Soccer Fields

Recreation, parks, and open spaces are important community facilities and services and are defined as:

- *Recreation*: the act of participating in experiences that result in achieving and maintaining the balance required for people to live fully and realize their full potential.
- *Parks*: areas of land set aside for public use, maintained for the enjoyment and recreational use of people.
- *Open Space*: an area left undeveloped, or mostly free of structures

These attributes are most often identified as key quality of life factors for people who are relocating or those who want to see improvements in their present community. The benefits (social, physical, economic, and environmental) of providing quality recreational opportunities along with ample parks and open space far outweigh the costs for the communities undertaking these efforts. One way to ensure that a community continues to develop and improve recreation programs, services, facilities, and natural / cultural resources is to complete a comprehensive recreation, park and open space plan.

PROJECT BACKGROUND

In December of 2003, Moon Township retained Mackin Engineering Company to complete a Comprehensive Recreation, Park and Open Space Plan. The plan was to reflect the community's wishes and direct the township's efforts to provide affordable and quality recreational opportunities. The scope of work included an inventory and analysis of existing conditions and the development of recommendations to enhance the township's current recreational facilities and programs.

The Recreation, Park and Open Space Plan incorporates the following environmental goals found in the Moon Township Comprehensive Plan (October 17, 2000)

- Protect steep slope areas, hillsides, stream valleys and flood prone areas from erosion, land subsidence and flooding.
- Conserve mature woodlands and encourage the use of native vegetation in new development projects.
- Reinforce community identity and activity through the coordinated development of public and semi-public facilities and amenities.

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PLAN PURPOSE AND GOALS

The primary purpose of developing a comprehensive recreation, parks and open space plan is to not only inventory and evaluate existing recreation facilities and programs, but also assess the recreational needs of township residents. In addition, the plan involves the analysis of the facilities and programs, administration, use, maintenance, and need for these facilities and programs. The implementation plan provides strategies to capitalize upon Moon Township's assets and identifies new sources of funding to expand the current recreational programs and facilities.

The Moon Township Comprehensive Recreation, Park and Open Space Plan provides specific strategies to help achieve the desired quality of life within the community. The following community development objectives provided the direction for the plan's recommendations and were developed in accordance with the Pennsylvania Municipalities Planning Code (MPC), Article III Section 301 (a) (1). This plan is an extension of the 2000 Moon Township Comprehensive Plan and efforts were made to ensure consistency between the two plans.

The Moon Township Comprehensive Recreation, Parks and Open Space Plan was developed to:

- Organize and motivate the individual governing bodies, educational facilities, and social organizations to plan collectively for the good of all;
- Establish new partnerships to ensure efficient use of resources and avoid the duplication of services;
- Identify and understand the recreation needs and desires of township residents in order to foster the desired sense of community;
- Capitalize on the natural resources and existing built environment to enhance the pedestrian network and create new alternative modes of recreation;
- Ensure that the recommendations and strategies contained within the plan are able to be implemented and are within the township's financial resources;
- Foster a working relationship between the Parks and Recreation Department and other groups within the township;
- Provide broad based recreation programs that appeal to all residents regardless of ability or interest;
- Preserve undeveloped open space and acquire vital lands through cooperation between the Moon Township Supervisors, Planning Commission, Parks and Recreation Department and Authorities;
- Assist developers in identifying land within the township that should be dedicated for recreation / open space.; and,
- Create an ordinance for the mandatory dedication of land for park and recreational purposes.

Following its adoption and subsequent implementation of the recommendations, the plan will direct future recreation efforts and development plans in a manner that adheres to sound land use policies. Achieving the community development objectives will require a sincere commitment from all Moon Township residents, business owners and the township supervisors. During the early part of the planning process, a mission statement was developed through input gained from public meetings, surveys, steering committee, and municipal officials, and will serve as a statement of the purpose used to initiate, refine and evaluate the activities undertaken by the Moon Township Parks and Recreation Department. The department is explained in more detail in the next section.

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MOON TOWNSHIP DEPARTMENT OF PARKS AND RECREATION

In 1963, the Supervisors of Moon Township addressed the issues of loss of parkland and providing new parks and recreational areas and facilities for the residents of the township by passing an ordinance establishing a park and recreation board (Ordinance No. 133, May 7, 1963). The board was given the authority to equip, operate and maintain the parks, recreational areas, and facilities. This ordinance as well as the updated ordinance (Ordinance No. 467) are located in Appendix G.

Moon Township Parks and Recreation Department Offices, Mackin 2003

One of the first duties of this newly created board was to find a site for a community park and to create recreational programs for the residents. A site was found in 1966 and consisted of approximately 105 acres (an additional 53 acres were purchased at a later date). Township staff and volunteers helped to develop the park and on July 4, 1967, the Moon Township Park and Recreation Board presented Moon Park to the Supervisors. After its opening to the public, many groups and organizations were formed that helped to provide recreation programs to township residents and a Trust and Agency Fund was created that allowed the Park and Recreation Board to accept donations for park development efforts.

In 1971, the township was offered an approximate 51 acre parcel of ground from the Nimick Family for use as a park. This property contained a large Georgian style mansion that had to be improved to meet Labor and Industry Standards in order to be used by the public. This responsibility was given to the Park and Recreation Board and after much hard work and extensive fundraising, the environmental and study center was opened at Robin Hill Park.
As the responsibilities increased for the Parks and Recreation Board, a full time professional Parks and Recreation Director was hired in 1974. This hiring allowed the department to oversee the collection of money and reservations for the park shelters in Moon Township, a previous function of the Parks and Recreation Board.

Over the next decade, the roles of the Park and Recreation Board and the Park and Recreation Director / Staff remained constant as they continued to provide programming and maintenance for the community's recreation facilities. In 1983, facing changing recreation needs and a growing population, the Board hired a consultant to complete the first Comprehensive Recreation, Park and Open Space Plan.

Today, the Recreation Board and the Township Recreation Staff are responsible for administering the recreation programs and activities in Moon Township as well as ensuring that the facilities are safe and easily accessible to township residents. Staffing includes a full-time program director and assistant program director, as well as seasonal positions.

COMMUNITY BACKGROUND

Located in southwestern Allegheny County, Moon Township is bordered by the Ohio River, Coraopolis Borough and Crescent Township on the north, Robinson Township to the east,

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Findlay Township and North Fayette Township on the south, and Beaver County on the west.

Moon Township, named from the crescent-like bend of the Ohio River on its northern boundary, was established on December 18, 1788 when an approximately 143 square mile area was created to reward officers and soldiers who had served in the American Revolutionary War. Today, Moon Township is approximately 23 square miles following the creation of seventeen boroughs and townships from the original Moon Township land.

DEMOGRAPHICS

Pennsylvania, includes both first and second class townships among its local government units. First class townships, of which there are presently 91 in the state, include the more urban townships located in the state's metropolitan areas while the second class townships (1,457 in Pennsylvania) are generally more rural. Moon Township is classified as a second class township.

For the purpose of this report, Moon Township's demographics were compared to the neighboring municipalities of Coraopolis Borough, Crescent Township, Findlay Township, North Fayette Township and Robinson Township as well as Allegheny County and the State of Pennsylvania. Comparisons were also made with the similarly sized municipalities of Cranberry Township in Butler County and Peters Township in Washington County.

Population

Moon Township's population has been growing since 1960, with the exception of a slight decrease from 1980 to 1990. This growth can be attributed in large part to the construction of the Pittsburgh International Airport in 1954, the construction of the new Pittsburgh International Airport in 1991, and the construction of business / industrial parks within the airport corridor.

Table 1-1: Population

	1960 Pop.	1970 Pop.	1980 Pop.	1990 Pop.	2000 Pop.	% Change (90-00)
Coraopolis Boro.	9,643	8,435	7,308	6,747	6,131	-9.1
Cranberry Twp.	3,596	4,873	11,066	14,816	23,625	59.5
CrescentTwp.	2,603	2,918	2,862	2,490	2,314	-7.1
Findlay Twp.	4,537	4,602	4,573	4,500	5,145	14.3
Moon Twp.	10,642	18,317	20,935	19,631	22,290	13.5
North Fayette Twp.	4,583	5,626	7,351	9,537	12,254	28.5
Peters Twp.	7,126	10,672	13,104	14,467	17,566	21.4
Robinson Twp.	7,935	10,158	9,416	10,830	12,289	13.5
Allegheny Co.	1,628,587	1,605,133	1,450,195	1,336,449	1,281,666	-4.1
Pennsylvania	11,319,366	11,800,766	11,864,720	11,881,643	12,281,054	3.4

Moon Township has the highest population of the municipalities in the study area with the exception of Cranberry Township. Most of the municipalities in the study area have experienced growth from 1990 to 2000. The only exceptions were Coraopolis Borough, Crescent Township and Allegheny County. Table 1-1 shows the population from 1960 to 2000,

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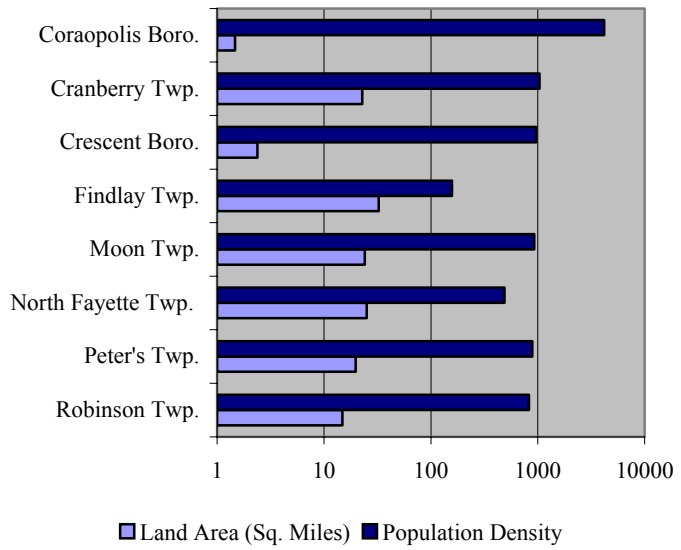
as well as the percentage change in population from 1990 to 2000.

The population trends between 1960 and 2000 show that Pennsylvania grew overall by 8.5 percent while the study area experienced a mix of growth and loss. As a comparison, Cranberry saw its population grow by over 550 percent over the 40 year period. Moon Township grew over 100 percent in the same 40 year period. In fact almost all of the municipalities have grown except for Coraopolis Borough and Crescent Township. Allegheny County overall is continuing to experience a population loss with a 21 percent decrease over the 40 year time frame.

This is very significant given the fact that all but two small communities in the study area are growing fairly rapidly while the county as a whole is declining.

Geographically, Moon is the sixth largest municipality in Allegheny County at 23.75 square miles. Moon Township has a population density of approximately 939 people per square mile. Figure 1-1 displays the population density of the study area municipalities.

Figure 1-1: Density



In 2000, the Southwestern Pennsylvania Commission (SPC), the metropolitan planning agency for the region, formally adopted the most recent Long Range Forecast, which includes population projections for the municipalities located in the nine counties that comprise SPC (Lawrence County was not added until 2003). The base year data are estimates for 1997 and the forecasts are for 2002, 2010, 2020, and 2025.
The Long Range Forecast, adopted on July 31, 2000, is the product of a national econometric model created by Regional Economic Models Inc (REMI), and reflects the following adjustments:

a. The REMI model uses 1995 as the last historical year and begins forecasting for the year 1996. The co-owner of the Pittsburgh REMI model, the University of Pittsburgh, University Center for Social and Urban Research (UCSUR), has calibrated the model to incorporate 1996 employment data.
b. 1997 total regional population was adjusted to match Bureau of the Census 1997 total population estimates. A proportional adjustment was then reflected in each post-1997 forecast year. This adjustment was also expressed in proportional adjustments to post-1997 regional employment totals based upon the 1997 population-to-jobs ratio.
c. REMI manufacturing employment forecasts have been adjusted to exclude employment at manufacturing non-production sites. Employment at these non-production sites has been reclassified to the “other” employment category.

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d. The REMI forecast reflects recent, planned, and proposed large economic development projects that are identified in the Long Range Plan. The data on economic development projects were current to December 13, 1999.
e. The REMI forecast reflects the impact of the transportation projects included in the Long Range Plan.

The regional forecast from REMI is allocated to traffic analysis zones using the SPC modeling procedure called MERLAM (Mature Economic Region Land Allocation Model). MERLAM employs statistical extrapolation of historical trends in various social and economic data and is weighted, in some cases, by characteristics of zones or municipalities. Since the forecast includes impacts of transportation user benefits from the SPC Long Range Plan and the effects of Long Range Plan economic development projects, the forecast explicitly assumes completion of the Long Range Plan (SPC Long Range Forecast, 2000).

As shown in Table 1-2, SPC forecasts show that all of the municipalities in the study area, as well as Allegheny County, will experience an increase in population between 1997 and 2025. As SPC is the regional planning organization, their population projections are the standard that is used by most municipalities and counties in Western Pennsylvania. The numbers that are projected do not always match with reality, however. As can be seen in the Table 1-2, SPC projected Moon Township to have 32,651 people in 2002. The township had 22,290 people in 2000, and has not increased by 10,000 people at this point. Therefore the SPC numbers should be used as a guide and should not be the only measure used in determining what Moon Township should offer in terms of parks and recreation to meet the needs of its population.

Table 1-2: Population Projections

	1997	2002	2010	2020	2025
Coraopolis Boro.	6,172	5,907	5,622	6,071	6,310
Cranberry Twp.	21,286	29,628	43,522	45,363	45,178
CrescentTwp.	2,386	2,343	2,308	2,492	2,583
Findlay Twp.	5,400	7,017	9,813	10,186	10,152
Moon Twp.	24,858	32,651	45,653	47,581	47,495
North Fayette Twp.	10,682	13,765	19,967	20,816	20,665
Peter's Twp.	16,140	20,104	27,282	28,132	27,980
Robinson Twp.	11,000	11,674	13,242	13,459	13,413
Allegheny County*	936,087	950,784	986,583	1,038,668	1,062,264
Pennsylvania	N/A	N/A	N/A	N/A	N/A

Source: SPC Long Range Forecast, 2000
*Not counting the City of Pittsburgh

Moon Township also created projections as part of their comprehensive planning process in 2001. The projection that was used for the plan was an ultimate build out population of 40,686.

The following assumptions were used in making this projection:

- Estimated population = [Total number of dwelling units constructed from 1990 to 1999 times 2.58 persons per household (1990 Census)] + 1990 population
- 25% of undeveloped land areas are suitable for development at current zoning allowances
- All developed land remains at current densities

Due to the fact that this process looked specifically at development trends in Moon Township, it is more likely that the township will grow in population similar to the projection done in 2001 for the Moon Township Comprehensive Plan.

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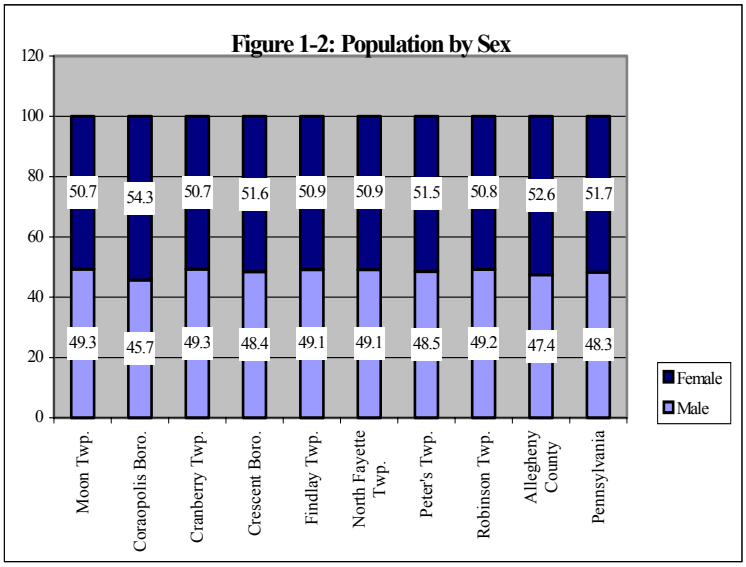
Sex

Figure 1-2 shows the breakdown of population by sex for the study area compared to Allegheny County and Pennsylvania. As would be expected, the breakdown is almost 50 / 50 for males compared to females for all the municipalities as well as Allegheny County and Pennsylvania. Coraopolis Borough has the largest difference with 54.3% of the population made up of females and 45.7% males.



Source: US Census Bureau, 2000 Census

Age

In determining municipal needs as well as residents' needs, an important factor to consider is the age of the population. The recreational facilities and services needed within a community and region are dependent upon the age of the population they serve. Table 1-3 illustrates the percentage of residents in the various age cohorts. The age cohorts are broken into four categories—pre-school, school age, working age, and retirement age.

Moon Township falls in the middle of the municipalities in the number of pre-school and school age children. The township also is the third lowest of the municipalities in terms of retired population. Moon Township should consider increasing youth facilities and programs due to the higher number of younger people living in the township.

Figure 1-3 depicts the median age (in years) according to the 2000 Census. At 37.8 years, Moon Township is lower than Allegheny County (39.6) and Pennsylvania (38.0) and ranks in the middle of the other municipalities in the study region.

Table 1-3: Age Cohorts

	Under 5 Years	5 to 19	20 to 64	65 & Over
Coraopolis Boro.	5.5	15.9	53.5	21.6
Cranberry Twp.	9.2	23.2	69.5	8.0
Crescent Boro.	6.4	19.9	54.3	15.0
Findlay Twp.	7.1	20.7	61.5	10.8
Moon Twp.	5.5	20.8	60.9	12.8
North Fayette Twp.	7.2	19.3	64.5	9.1
Peter's Twp.	6.7	24.5	56.1	13.0
Robinson Twp.	5.5	19.0	61.6	13.8
Allegheny County	5.5	19.1	57.7	17.8
Pennsylvania	5.9	20.7	57.8	15.6

Source: US Census Bureau, 2000 Census

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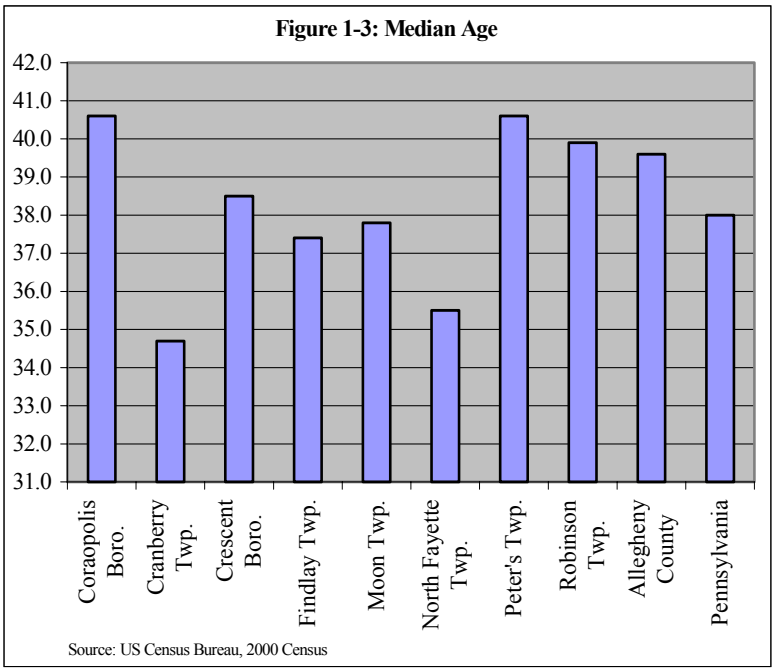

Race

Characteristic of southwestern Pennsylvania, Moon Township is fairly homogenous in terms of racial diversity. However, the township does have the highest percentage of Black or African American population (3.6%) of the municipalities in the study region, with the exception of Coraopolis Borough (12.4%). Allegheny County (12.4%) and the State of Pennsylvania (10.0%) also have a higher rate of black or African Americans that make up the total population. Table 1-4 displays the racial breakdown of the study region, the county and the state.

Table 1-4: Race

	White	Black or African American	Other *	Two or More Races
Coraopolis Boro.	85.0	12.4	1.0	1.7
Cranberry Twp.	96.8	0.9	1.7	0.7
Crescent Boro.	97.2	1.3	1.2	0.3
Findlay Twp.	96.2	1.6	1.3	0.9
Moon Twp.	93.2	3.6	2.3	1.0
North Fayette Twp.	94.0	2.6	2.8	0.6
Peter's Twp.	97.8	0.5	1.3	0.4
Robinson Twp.	95.2	1.9	2.2	0.6
Allegheny County	84.3	12.4	2.1	1.1
Pennsylvania	85.4	10.0	3.4	1.2

Source: US Census Bureau, 2000 Census
* Includes American Indian & Alaska Native; Asian; Native Hawaiian & Other Pacific Islander; and Some Other Races

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Households

Table 1-5 depicts the total number of households in 2000 compared with 1990. Moon Township has seen its number of households grow by 17 percent over the ten-year period. This is much higher than the county at –0.8 percent and the state at 6.3 percent, but it is also much lower than four of the townships in the study region (Cranberry at 60.5%, Findlay at 20.4%, North Fayette at 32.2 %, and Peter's at 21.9%). Moon Township does have the highest number of households, at 8,445, out of all the municipalities in the study area, however.

Table 1-5: Households

	2000 Total Households	1990 Total Households	% Change
Coraopolis Boro.	2,880	3,043	-5.4
Cranberry Twp.	8,352	5,203	60.5
Crescent Boro.	886	924	-4.1
Findlay Twp.	2,028	1,684	20.4
Moon Twp.	8,445	7,217	17.0
North Fayette Twp.	5,004	3,785	32.2
Peter's Twp.	6,026	4,943	21.9
Robinson Twp.	4,828	4,229	14.2
Allegheny County	537,150	541,261	-0.8
Pennsylvania	4,777,003	4,495,966	6.3

Source: US Census Bureau, 1990 and 2000 Census

The number of family households in 2000 compared with 1990 is depicted in Table 1-6. Family households are defined as a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family (http://www.census.gov/population/www/cps/cpsdef.html).

Table 1-6: Family Households

	2000 Family Households	1990 Family Households	% Change
Coraopolis Boro.	1,552	1,760	-11.8
Cranberry Twp.	6,559	4,135	58.6
Crescent Boro.	658	734	-10.4
Findlay Twp.	1,461	1,259	16.0
Moon Twp.	5,772	5,158	11.9
North Fayette Twp.	3,350	2,702	24.0
Peter's Twp.	5,089	4,271	19.2
Robinson Twp.	3,314	2,973	11.5
Allegheny County	332,237	358,317	-7.3
Pennsylvania	3,208,388	3,155,989	1.7

Source: US Census Bureau, 1990 and 2000 Census

The data for families is similar to that of households. Moon Township falls in the middle of growth of families, but the township has one of the largest numbers of total families in 2000 at 5,772. Cranberry Township is the only municipality with a higher number of families in 2000 at 6,559.

With a relatively low median age and high percentage of households and families, Moon Township is home to predominantly young families and will need to ensure that it provides recreation facilities and services to meet the needs of these individuals.

Marital Status

Table 1-7 provides information on the marital status for people age 15 and older for the municipalities in the study region, the county and the state. The five categories include never married, now married except separated, separated, divorced, and widowed.

Marital status in Moon Township indicates that approximately a quarter of the population has never been married while well over half of the population is married. In comparing these percentages to the surrounding municipalities, the percentages are very similar except in

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Table 1-7: Marital Status for population age 15 and older

	Never Married (%)	Now Married* (%)	Separated (%)	Widowed (%)	Divorced (%)
Coraopolis Boro.	30.0	44.7	3.5	10.9	11.0
Cranberry Twp.	18.0	69.9	1.3	4.9	5.9
Crescent Boro.	18.7	64.1	3.4	7.0	6.8
Findlay Twp.	22.4	59.2	2.5	7.7	8.2
Moon Twp.	24.7	61.1	1.3	5.8	7.1
North Fayette Twp.	24.9	58.6	1.4	5.2	9.9
Peter's Twp.	16.4	72.7	1.3	5.6	3.9
Robinson Twp.	24.9	60.7	1.5	6.3	6.5
Allegheny County	29.1	51.1	2.0	9.3	8.4
Pennsylvania	27.2	54.3	2.2	8.2	8.1

Source: US Census Bureau, 2000 Census
*Except Separated

Coraopolis Borough, which has a higher number of people never married (30.0%) and Peters Township, which has a very high number of married people (72.7%). Allegheny County and Pennsylvania have slightly lower numbers of married people, at 51.1% and 54.3% respectively, compared to Moon Township.
The remaining population in Moon Township is split between widowed (5.8%) and divorced (7.1%), with only a small percentage separated (1.3).

Disability Status

One area that is important to examine when planning for future recreation projects is the amount of disabled persons living in the community. According to the US Census, people were defined as having a disability if one or more of the following conditions were true:

- They were aged 5 or older and responded "yes" to a sensory, physical, mental, or self-care disability.
- They were aged 16 years or older and responded "yes" to a disability affecting going outside the home.
- They were between the ages of 16 and 64 and responded "yes" to an employment disability.

Table 1-8: Disability Status

	% Population 5 to 20 With a Disability	% Population 21 to 64 With a Disability	% Population 65 and over With a Disability
Coraopolis Boro.	*7.6*	*23.1*	*45.8*
Cranberry Twp.	*3.7*	*8.4*	*34.3*
Crescent Boro.	*16.0*	*13.8*	*35.0*
Findlay Twp.	*7.5*	*12.7*	*43.5*
Moon Twp.	*4.1*	*10.9*	*24.2*
North Fayette Twp.	*4.6*	*13.1*	*29.9*
Peter's Twp.	*4.4*	*6.9*	*27.8*
Robinson Twp.	*4.7*	*11.1*	*33.1*
Allegheny County	*6.5*	*15.8*	*38.7*
Pennsylvania	*7.5*	*17.5*	*39.4*

Source: US Census Bureau, 2000 Census

Table 1-8 shows the percentages of disabled persons by age. Moon Township has a relatively low percentage of disabled persons in all age groups and Moon Township has the lowest number of disabled persons in the 65 and over age group. The numbers for Moon Township are significantly lower in all age groups compared to the county and the state as well. The township should continue to provide facilities to accommodate disabled persons, but the need is not as great as it is in some of the surrounding areas.

Education

The educational attainment and income levels are typically related and provide a way to understand the dynamics of a community. Table 1-9 portrays the levels of educational attainment for each of the municipalities in the study area, the county and the state for all persons 25 years of age and older.

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Table 1-9: Educational Attainment for population age 25 and older

	Less than 9th Grade (%)	9th-12th Grade, No diploma (%)	High School Graduate (%)	Some College, No Degree (%)	Associate Degree (%)	Bachelor's Degree (%)	Graduate or Professional Degree (%)
Coraopolis Boro.	6.8	11.1	38.3	19.6	6.9	13.2	4.1
Cranberry Twp.	1.3	3.7	23.1	17.5	7.3	32.2	14.9
Crescent Boro.	4.8	10.7	44.3	18.7	7.5	8.4	5.6
Findlay Twp.	3.4	8.9	41.2	17	8.8	15.3	5.3
Moon Twp.	2.5	4.8	26.4	20.3	7.9	25.7	12.3
North Fayette Twp.	1.8	7.8	34.3	16.6	8.9	22.4	8.2
Peter's Twp.	2.1	3	22.2	16.6	6	32.8	17.3
Robinson Twp.	6.7	6.1	30.6	15.9	7.7	23.0	10.0
Allegheny County	3.7	10.0	33.9	17.0	7.1	17.3	11.0
Pennsylvania	5.5	12.6	38.1	15.5	5.9	14.0	8.4

Source: US Census Bureau, 2000 Census

When compared to the other municipalities in the region, Moon Township stands out as having a low percentage of population who have received less than a ninth grade education or didn't graduate from high school. At 2.5 percent and 4.8 percent, Moon Township is much lower than that of Allegheny County and Pennsylvania in these respective categories.

Conversely, it is not surprising that Moon Township also has a very high percentage of residents who have received either an Associate's Degree, a Bachelor's Degree or a Graduate or Professional Degree. The township is third highest of the municipalities in the study area in these categories and much higher than the county and the state.

Income

Table 1-10: Median Income

	Household Median Income	Family Median Income	Per Capita Income	% Families Below Poverty Level
Coraopolis Boro.	$32,321	$41,081	$17,595	6.4
Cranberry Twp.	$66,588	$74,113	$27,349	2.1
Crescent Boro.	$49,500	$52,267	$19,472	3.2
Findlay Twp.	$47,484	$55,930	$21,417	4.8
Moon Twp.	$51,173	$68,256	$26,457	2.2
North Fayette Twp.	$51,482	$58,804	$26,139	4.5
Peter's Twp.	$77,442	$86,661	$36,159	1.1
Robinson Twp.	$55,263	$66,807	$26,802	4.8
Allegheny County	$38,329	$49,815	$22,491	7.9
Pennsylvania	$40,106	$49,184	$20,880	7.8

Source: US Census Bureau, 2000 Census

With the relatively high percentage of the population who are educated, Moon Township has correspondingly high median income levels among its residents. Median income levels are shown in Table 1-10 for the following categories: household, family, and per capita.

The US Census Bureau defines a household as "including all the people who occupy a housing unit as their usual place of residence." A family is defined as being "a group of two or more people who reside together and who are related by

birth, marriage, or adoption." Typically, family incomes are higher than household incomes, as there are a large percentage of households comprised of only one person.

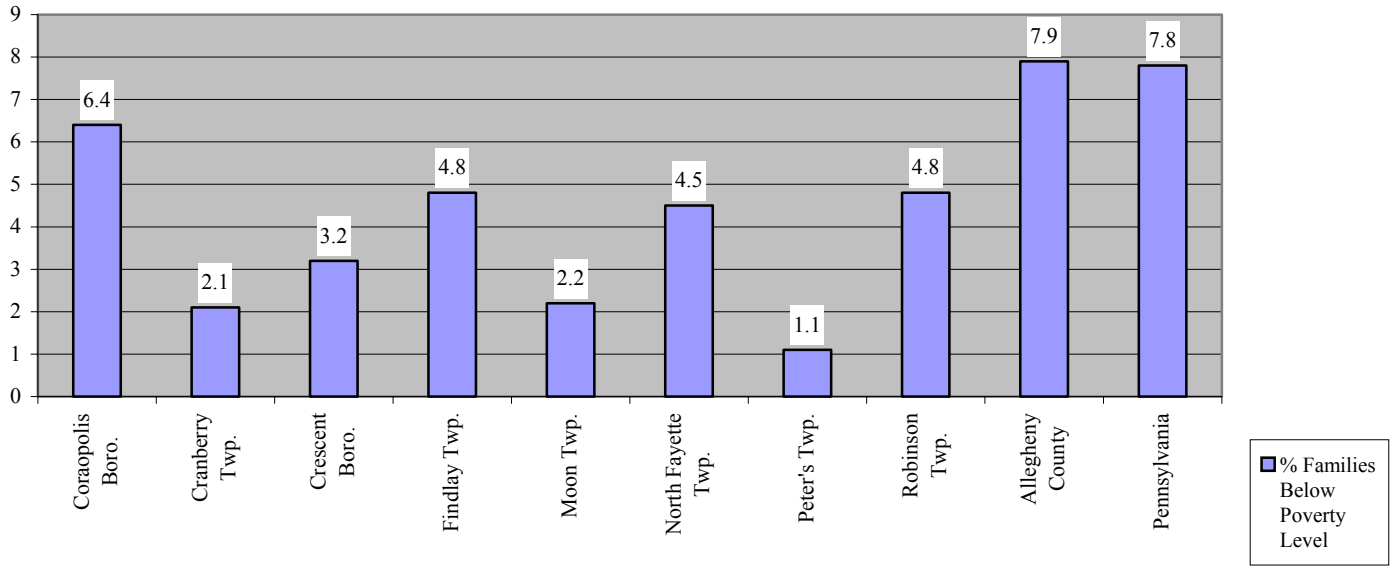
Median household incomes for the study area communities is highest in Peters Township ($77,442), Cranberry Township ($66,588) and North Fayette Township ($51,482), with Moon Township next at $51,173. All of these median household income levels are much higher than Allegheny County ($38,329) and the state ($40,106).

As would be expected, the median family income levels are higher than that of households, for each of the municipalities. Peters Township ($86,661), Cranberry Township ($74,113), and North Fayette Township ($68,804) have the highest figures in the study area, while Moon Township is just slightly below North Fayette Township with a median family income of $68,256. These numbers are all significantly higher than the county ($49,815) and the state ($49,184).
Moon Township ranks fourth in terms of highest per capita income levels ($26,457) in the study area. Moon Township is only slightly behind Robinson Township ($26,802) and is higher than the county ($22,491) and the state ($20,880).

Poverty
Poverty level is based upon the US Department of Agriculture's determination that one third of income is spent on food and the basis for the food cost is from a Department of Agricultural economy food plan. For the 2000 Census, the poverty level was determined at $8,350 / annually for persons who were 18 and over, and resided in the Contiguous United States and the poverty threshold for a family of four persons was $17,603.

Corresponding to high education and income levels, Moon Township has one of the lowest percentages of families living below the poverty level (2.2%). In fact all of the study area

Figure 1-4: Poverty Level



communities have a lower percentage of families living below the poverty level than Allegheny County (7.9%) and the state (7.8%). Figure 1-4 displays the percentage of families below the poverty level for the study area communities, the county and the state.

Having the luxury of high income levels and low poverty levels, Moon Township may consider user fees for some of its programs in order to supplement the cost of providing the programs. The township should consider waivers or special programs to help assist those residents that have a lower income level so that they can participate in recreational activities as well.

Household Vehicles

Table 1-11: Number of vehicles per household

	None	1	2	3 or more
Coraopolis Boro.	20.0	42.2	29.0	8.7
Cranberry Twp.	2.3	24.6	55.3	17.9
Crescent Boro.	3.4	33.4	47.1	16.1
Findlay Twp.	4.1	33.6	45.5	16.8
Moon Twp.	2.6	33.7	49.1	14.6
North Fayette Twp.	4.4	34.3	48.3	13.1
Peter's Twp.	2.3	24.6	55.3	17.9
Robinson Twp.	3.8	35.4	42.6	18.1
Allegheny County	16.2	39.4	34.3	10.0
Pennsylvania	12.8	34.9	37.5	14.8

Source: US Census Bureau, 2000 Census

The number of vehicles available to each household in the township may influence the locations of future facilities and programs. If a household has limited vehicles, it may be hard for residents to access parks and recreation facilities as public transportation is not always convenient or available

Table 1-11 shows that according to the 2000 Census, only 2.6% of households in Moon Township had no vehicles, which is similar to the other municipalities in the study area, with the exception of Coraopolis Borough (20.0%).
The county (16.2%) and the state (12.8%) have much higher percentages of households with no vehicles as well.

Even though there are a large percentage of households within Moon Township that have access to one or more vehicles, the township should take into account bus routes when planning recreational programs and activities.

ENVIRONMENTAL AND NATURAL FEATURES

Unique Natural Areas

Montour Run Valley LCA (Landscape Conservation Area) is located between Route 60 and Sharon Grade (Hassam) Road. Recently, residential development has dominated the LCA as numerous large residential neighborhoods have been built on the ridge tops. Mature forests are found on the western side of Montour Run and on the southern slopes of the Meeks Run Valley. The floodplain along Montour Run is the most disturbed part of the LCA. The development has fragmented the LCA into small pockets of wooded hillsides. Any new development will only increase the fragmentation and should be discouraged.

Moon Township Park is situated near the headwaters of Meeks Run, and is owned by Moon Township. This small, managed parcel is significant since it represents land that has been set aside

by the municipality as open space and as land that has the potential to be protected for its natural qualities. The township is encouraged to continue focusing acquisition efforts on those lands bordering the park in the Meeks Run Valley so that more of the large, contiguous forest in the LCA can be protected in the future. It must be noted that the Park is well developed and the protection of its natural qualities has been impacted by such development

The Montour Greenway Parcel M93-1 is situated to the southeast of Moon Township Park in the southern uplands overlooking Meeks Run and is an 80-acre parcel owned by Hollow Oak Land Trust (H.O.L.T.). The management intent of H.O.L.T. for this particular property is to protect the natural resources of the Montour Run valley. H.O.L.T. management has recently purchased two more parcels in the township. Future acquisition efforts should focus on enlarging the greenway and at the same time protecting more of the land encompassed by the Montour Run Valley LCA.

Floodplains

Whenever development occurs in close proximity to a stream, 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. FEMA floodplain mapping should always be consulted prior to approving any development within the region.

Floodplain overlay districts are created to restrict development within areas that are designated as flood prone areas. A floodplain is defined as any land adjoining a river or stream that has or may be expected to be inundated by floodwaters in a 100-year frequency flood. Regional approaches are encouraged when addressing watershed flood plain planning as watershed boundaries cross municipal boundaries. Sections 604, 605 and 609 of the MPC address floodplain management and zoning.

The Ohio River, Montour Run, and McClaren Run are the waterways in the township with recorded 100-year floodplains. Flaugherty Run and Montour Run are also known flood-prone areas. Excess stormwater runoff from residential areas will increase the frequency of flood events. Flooding could be reduced by the creation of detention ponds and wetlands.

Wetlands

Wetlands slow flooding by limiting the movement of water through the watershed, increasing retention time, and allowing water to infiltrate into the soil. When floodwaters recede, these wetlands function to gradually release stored water back into the waterway. Along with forested and riparian corridors, the root systems associated with herbaceous and scrub/shrub wetland vegetation anchors the otherwise unstable alluvial soils of the riverbank.

Wetlands serve several functions: water retention, sediment trapping, toxic material retention, flood flow alteration, wildlife habitat. Due to increased development in the region, wetlands are being impacted and loss of habitat and functions is a resulting factor. Efforts should be made to preserve and maintain these systems for future benefits. The creation of any wetlands in the township should be encouraged, as these areas are important in flood control and wildlife viewing.

CHAPTER 1—INTRODUCTION

Within Moon Township, a total of 20 wetlands are identified by NWI (National Wetland Inventory) and SPC (Southwest Pennsylvania Commission) mapping. The total acreage of these wetlands is nearly 28 acres. The majority of the wetlands are located in the headwaters of the townships streams.

Stream Corridors and Waterways

Bogg's Run, Mackin 2004

Development along streams can result in major impacts to the water resources of the township. Riparian buffers should be maintained and replanted where feasible and reasonable. The removal of riparian buffers impacts water quality, wildlife and aquatic habitat, stream bank stabilization, and aesthetics of the waterway. The streams in the township also suffer from excessive runoff from the residential areas that blanket the ridges.

The streams in the township all drain into the Ohio River. The Ohio River creates the northern township boundary and is a navigable waterway used for recreational boating and fishing. Montour Run is located in the eastern portion of the township and is the second largest watershed. Montour Run and Flaugherty Run are both stocked with trout. Meeks Run and McClaren run are two of Montour Run's larger tributaries. Thorn Run is located in the center of the township. McClaren Run is located in Western portion of the township; Boggs Run is its largest tributary.

Woodlands

Moon Townships woodlands are primarily deciduous trees of second and third growth. Woodlands are typically located on the sides of the steep slopes of the stream valleys. The two areas with the most remaining and least fragmented woodlands surround the Montour Run and McClaren Run watersheds. It is important to keep these areas free from development to provide places for wildlife and outdoor recreation.

Steep Slopes (25% or greater)

Slopes greater than 25% are located in the Montour Run, Narrows Run and McClaren Run watersheds. The steep slopes are important for Moon Township, as they are some of the last remaining "greenspaces". It is recommended to keep these slopes undeveloped.

Steep slopes across from Overlook Park, Mackin 2004

Land in excess of 15 percent begins to present challenges to development. Land over 25 percent should not be built upon and those between 15-25 percent should be built upon with extreme caution and they are particularly prone to landslides.