

2. Site analysis

Analysis of Fischer's Park is divided into an assessment of the parks facilities and amenities, its natural conditions, and circulation. Each of these areas are described below.



2.1 Park Assessment

Fischer's Park is made up of numerous components that existed when the Township purchased the property or has since installed and maintains. The components include restrooms, pavilions, the Arneht buildings, play facilities, trails, parking lots, site furnishings, and the dam. Each are described in greater detail below.

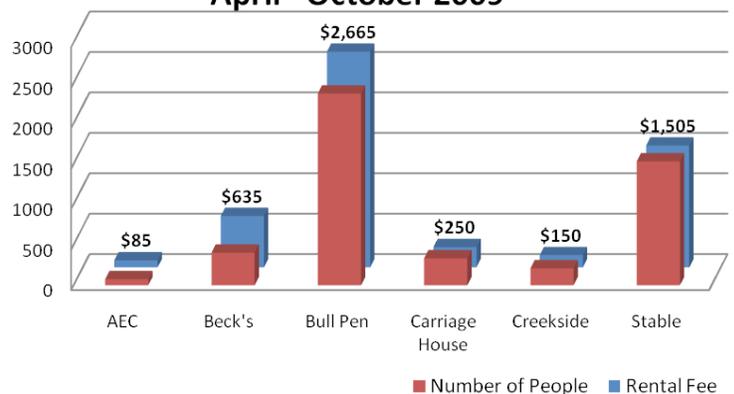
2.1.1 Restroom and Pavilions

Restroom facility – A men's and women's restroom is provided in a single building adjacent to the main parking area. The building is in generally good condition and provide adequate service for normal park use. The entrance to the bathroom is located behind a screening wall, which requires users to take an extra turn in entering the bathrooms. This extra turn encumbers entrance for those in a wheelchair. During movie nights, the facilities are insufficient to meet demand. There is also no family restroom. A soda vending machine is located next to the women's restroom.



Fischer's Park has six picnic pavilions available for use by the public. The township will rent pavilions to groups for up to 50% of the pavilion capacity leaving opportunity for impromptu use. The size and condition of each of the pavilions is discussed below. Rental usage is summarized in the graphic below.

**Fischer's Park Pavilion Usage
April - October 2009**



Bull Pen Pavilion – This is a relatively new Cedar Forest pavilion that is in excellent condition. It is 55 by 40 feet with a unit paver base and is outfitted with electric supply and approximately 14 unfixed picnic benches. The tables are new and in good condition.



Beck's Pavilion– Beck's is also a new Cedar Forest pavilion that is in excellent condition. It is slightly smaller, roughly 45 by 32 feet, with unit paver base and is outfitted with electric supply and eight picnic benches.



Stable Pavilion – The Stable Pavilion is one of the older pavilions in the park. It is located between the park path and the 5 – 12 year old playground. The pavilion is 105 by 30 feet and has an asphalt floor that is cracked and uneven. The roof is missing some shingles and hangs low, especially at its eaves, presenting a hazard to people who might hit their head. There are approximately 18 unfixed picnic tables that are older and should be replaced. The pavilion has an attached storage area that is roughly 20 by 30 feet.



Carriage House Pavilion – This pavilion is located adjacent to 5-12 year-old playground. It is 22 by 80 feet and is in fair condition. The roof is older and the poured concrete floor is cracked. It is anticipated that this pavilion will be demolished if the Bustard Road Bridge is replaced and the road is realigned. The pavilion has roughly 10 unfixed picnic tables that are older but are in fair condition.





Boathouse Pavilion – The Boathouse Pavilion is located near Towamencin Creek in the 100-year floodplain. The roof contains holes and is in poor condition. The concrete floor is cracked and uneven. The picnic tables are old. This pavilion is note well used, is in poor condition, and should be demolished.



Creekside Pavilion – This pavilion is in good condition. It is 22 by 50 feet and has floor of unit pavers and a stable roof. It has eight picnic tables that are older and should be replaced.



Observation Decks

There are two observation decks located in the park. Observation Deck #1 is north of the ball field and connects directly to unit paver path system. The deck is in good condition and provides built-in wooden benches and views of the woodlands. Observation Deck #2 is also in good condition, the area is overgrown with invasive plant species making it difficult to see the creek. It is located along the woodland edge west of baseball field.



Arneith Entertainment Center – The Arneith Entertainment Center provides a sheltered performance venue and is open to the large field area in the main park. It has concrete slab flooring and is in excellent condition. Audience members can sit in the grass area to enjoy performance. The field slopes slightly away from the AEC, which can making viewing a bit difficult since chairs lean backward. Access to the AEC is limited to those that can navigate the grassy area.

Township Native Plant Nursery – A nursery is located at the Metz Road service entrance to the park. The nursery consists of storage shed, temporary quonset hut, and fenced garden area. The area is also used for earthen materials storage.

2.1.2 Arneth Tract Structures

Ruth House – The Ruth or Hanks house is located on the northeast side of Kriebel Road. The property has a “lifetime lease” and will continue to be lived in during the lifetime of Mrs. Arneth or when the current occupant moves out. The Township maintains the exterior of the building, but the current occupant is responsible for repairs to the interior that are up to \$1,000. The Township is concerned about the interior conditions based on visual inspection of the house.

Upper Barn – The use of the upper barn runs with the lifetime lease of the Ruth House. The ground floor is open and currently used for storage and parking. The building is in very poor condition. It is overgrown and there are structural concerns. Estimates for repairing the structure were in excess of \$300,000 as reported in the 1998 Master Plan. Since this time no improvements have been made and the costs of restoration have surely gone up. There is also a safety concern as with any deteriorated building. Without a viable reuse, particularly one that would offset restoration costs, it is recommended that the building be demolished.





Arneth House – The Arneth house is located on the southwestern side of Kriebel Road. It is owned and maintained by Towamencin Township and is in fair condition. The Township rents it for residential use.

Lower Barn – The Lower Barn is adjacent to the Arneth House. It is in fair condition.



2.1.3 Play Facilities

(2) Swing Sets – A swing set is adjacent to the tot lot on a wood chip surface. The set contains two baby swings and four swings with flexible rubberized seats. The swing set is in fair condition. It is accessed off of the trail system but is not ADA accessible.

The second swing set is in poor condition. It is located in an isolated wooded area along Towamencin Creek (northwest section of park) and should be removed. It is not ADA accessible.

Playground #1 (2 – 5 yrs) Tot lot – The tot lot is located adjacent to the Carriage Pavilion. It contains an older play structure with ramps, slides, and interactive play features. The surface is a combination of wood chips and a deteriorated soft surface. The Township should do minimal repairs to this structure and plan to replace it with a new more functional and accessible tot lot.

Playground #2 (5-12 yrs) – The 5 -12 lot contains a play manufactured structure with slides, crawling tubes, climbing ladders, and similar features. The structure is in fair condition overall. It is on a wood chip surface, which is not ADA compliant and is degraded and worn out. A rubberized entrance is provided from the park's path system to the structure, but it is in poor condition.

Baseball Field – The ball field is full sized and in fair condition. Its solar orientation, roughly southeast, is not considered appropriate for ball field because of sun glare. It is used informally by park users. No programmed or league games occur on the field.



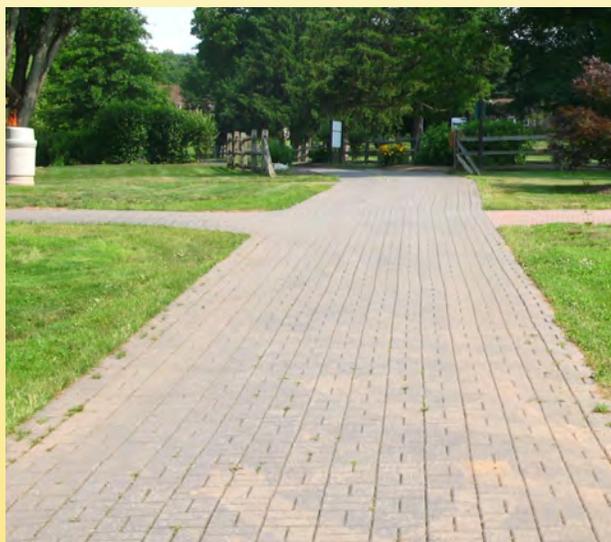


2.1.4 Trails

Four trail loops are identified in the park (shown in the picture to the left). The largest, Fischer's Loop, runs the perimeter of the park and is just over one mile. Maple Run, .46 miles, loops around the Arneth Center. Sycamore Circle, .59 miles, is in the western woodlands. Pine Run, .52 miles, is the park's southern section.

Unit Paver loop – There are roughly 3,000 linear feet of trail paved with unit pavers in the park. This surface is ADA compliant where slopes are not too steep. It is a very attractive surface and is generally in excellent condition. Continued maintenance is required to remove weeds and level or replace pavers that become loose.

Quarry Fines – Fisher's also has roughly 4,650 feet on stone dust trails. These trails pack as a hard surface and are ADA compliant where slopes are not too steep. Where the trail runs over steeper slopes stormwater washes away the upper layers of stone dust creating ruts. Stone dust must be added where this occurs. Alternatively, these short steep sections could be paved with asphalt to eliminate erosion.





Woodland / compacted earth – These paths are located along Towamencin Creek below dam and in the western woodlands. The paths along the creek are used by fisherman and others but are not heavily used. They are compacted earth and are fairly stable. Proposed riparian restoration efforts may limit use of the trails, but access to the creek should be maintained for fishermen.

The woodland trails crisscross the woodland areas. They are mostly compacted earth, but a few small wood bridges cross the perennial creeks. The entrances to the trails are clearly marked from the main trail system and the paths are clearly delineated. A few areas have side trails, which should be blocked with natural barriers such as fallen trees, to discourage continued use.

2.1.5 Park Site Furnishings

Drinking Fountains – Two water fountains are located in the park, and neither are ADA compliant. The fountain installed adjacent to the tot lot could be ADA compliant, but it was installed away from the trail instead of toward the trail as intended. The second fountain is located on the trail system between the Bustard Road entrance and the parking area.

Benches – Numerous benches are located throughout the park, mostly adjacent to the trails. Most benches are in good condition, but a number are installed on grass limiting ADA access.

Picnic Tables – There are approximately 65 picnic tables located under the park's pavilions. The tables in the Becks and Bull Pen Pavilions are in excellent condition. Tables in the other pavilions are older and a number should be replaced with new tables designed for ADA accessibility.



2.1.6 Dam

Originally part of the old mill race and mill, the dam has become a historic and aesthetic feature of the park. The dam creates a small pond area which provides an optimal fishing area and adds to the park aesthetic value. A small dam breach was observed by the Pennsylvania Department of Environmental Protection (PADEP) and recorded in their Dams and Waterways report during their inspection on June 24, 2008. As a result of this observation, an engineering inspection of the dam was conducted on September 25, 2008 by CMX. The report, which summarizes the dam inspection and repair recommendations, is located in the Appendix of this document. As stated in the report, the dam is observed to be in good condition with exception of the small dam breach at the right abutment. Two repair options were presented in the engineering report. Both included installation of rip rap and clearing vegetation. The breach is not serious and does not threaten the integrity of the structure.



2.2 Natural Conditions

Natural conditions refers to Fischer's Parks hydrology, topography, soils, geology, vegetation, and habitats. Each of these components is addressed below.

2.2.1 Hydrology - Creek Corridor

Towamencin Creek is a tributary to the Skippack / Perkiomen watershed which flows into the Delaware River basin via the Schuylkill River. EPA classified Towamencin Creek as an impaired waterway in 2004 due to algal growth

Creek flooding has been an ongoing problem in the Park as large areas are occasionally under water or are wet, thus limiting use and access to the creek's edge. The southern edge of the creek has little riparian buffer due to past and present maintenance practices. Mowing opens views to the creek and allows access to the edge, but has contributed to erosion and establishment of invasive plant species.

A number of small tributaries originating in the southern and southwestern sections in the park terminate into Towamencin Creek as well as drainage swales with stormwater runoff from Bustard Road.



Figure 1: 100-Year Floodplain



2.2.2 Topography

The site slopes towards Towamencin Creek on both sides of the Park with the steepest sections along the Creek banks and Kriebel Road. There are few areas significant slopes, areas with a 2:1 gradient, but the sloping terrain adds some interest and results in some trails that are not ADA accessible. Level areas of the park, 5% or less slope, are found in the floodplain in front of the Arneth Entertainment Center and in the agricultural field on the Arneth Tract. The ball field was leveled to create a flat playing surface. Wooded areas encompass much of the Park with areas in the southern section ranging in slope from 5 % to 15% while the northwestern woodlands are steeper with slope from 10% - 20%.

2.2.3 Geology

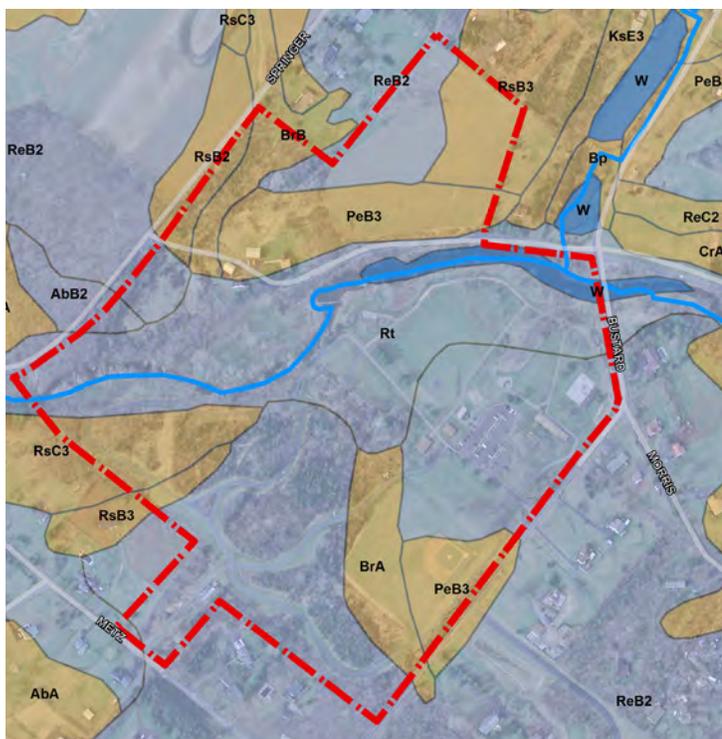
The entire of Fischer's Park is underlain by the Brunswick Formation, which consists of redish-brown shale, mudstone, and siltstone. Outcrop areas throughout the Brunswick Formation are interbedded with the Locktong Formation, which consists "principally of massively bedded medium- to dark-gray argillite interbedded with thin beds of gray to black shale, siltstone, and marlstone (Stanley M. Longwill, Groundwater Resources of the Brunswick Formation in Montgomery and Berks Counties (1965) PA Bureau of Topographic and Geologic Survey)." The formation yields ground water from wells at relatively high volumes sufficient for industrial and municipal use.

2.2.3 Soils

Soils range from highly erosive and flood prone loams along the creek to silt loams with shallow bedrock depth in the wooded upland areas. A large area above the dam is susceptible to flooding, reducing the area available for structured recreational facilities and buildings.

Soil locations in the park as illustrated the Park Soils map below. Hydric soils are shown in blue. Areas proposed for development are in the higher elevations of the park containing Penn silt loams. The proposed pedestrian bridge over the creek is located on Rowland silt loam and will require footings designed to be stable in these soils.

Figure 2: Park Soils



Soil Descriptions

Bowmansville silt loam

BrA (0 to 3 % slopes)

BrB (3 to 8 % slopes)

- Local Alluvium
- Moderate Permeability
- High Water Table and Ponding
- Severe Limitations for: landscape & lawns, roads & parking, athletic fields, and play areas -- due to wetness

Croton silt loam

CrA (0 to 3 % slopes)

- Slow Permeability
- Seasonal High Water Table
- Shallow to Fragipan
- Difficult to Establish Vegetation
- Severe Limitations For: landscape & lawns, roads & parking, athletic fields, and play areas -- due to wetness and seasonal high water table.

Penn silt loam

PeB3 (3 to 8 % slopes)

- Severely Eroded
- Permeable
- Shallow to Bedrock
- Bedrock at depth of 1-1/2 to 3 feet
- Severe Limitations for: landscape & lawns, and athletic fields -- due to erosion and shallowness to bedrock.
- Moderate Limitations for: roads & parking, and play area -- due to slope and shallowness to bedrock.

Eadington silt loam

ReA (0 to 3 % slopes)

ReB2 (3 to 8 % slopes)

- Moderately Slow Permeability
- Seasonal High Water Table within 2 to 3 feet of the surface
- Bedrock at depth of 3 to 5 feet
- Slight Limitations for: landscape & lawns, and play areas
- Moderate Limitations for: roads & parking, and athletic fields -- due to seasonal high water

Reaville shaly silt loam

RsB3 (3 to 8 % slopes)

RsC3 (8 to 15 % slopes)

- Severely Eroded
- Slow permeability
- Seasonal High / Fluctuating Water Table
- Bedrock at Depth of 1 to 3 feet
- Contains many Coarse Fragments
- Difficult to Establish Vegetation
- Severe Limitations for: landscape & lawn and athletic fields-- due to shallowness to bedrock, shale fragments, slope, and seasonal high water table.
- Moderate Limitations for: roads & parking and play areas -- due to seasonal high water table, slope, and shallowness to bedrock.

Rowland silt loam

Rt

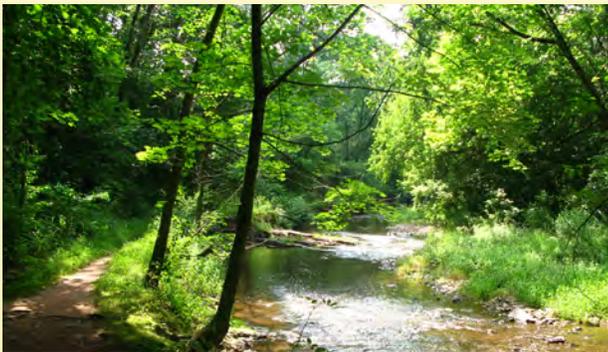
- Moderate Permeability
- Seasonal High Water Table
- Flooding
- Moderate Limitations for: landscape & lawns, athletic fields, and play areas -- due to seasonal high water table and flooding.
- Severe Limitations for: roads & parking -- due to flooding.

2.2.3 Vegetation

There are several vegetation types present within Fischer's Park as described below.



Lawns areas: Areas of manicured / maintained lawn exist in the southern / developed sections of the park such as the baseball field area, the Arneth Entertainment Center area, areas around the pavilions and playgrounds, and along much of the loop trail. Some of the lawn areas located above the dam lead up to the Towamencin Creek creating easy access to the Creek although these areas disrupt the riparian corridor of the Creek.



Floodplain Woodland: Areas adjacent to creek in western section of park contain a mix of Platanus, Acer species, and lack a native understory due to large amount of invasive species including Acer Platanoides, Rosa Multiflora, and Lonceria Japonica. A more in-depth survey of the riparian buffer can be found in the township stream corridor study.



Floodplain Meadow: This area is located along southern side of Towamencin Creek and below the Arneth farmstead and contains a mix of grasses and perennials. It is a mown area.



Woodland: Woodlands are largely found on the hillsides; northwest and southwest sections of the park. They include mixes of hardwoods such as Acer species, stands of Juniperus virginiana, and invasive species such as Acer platanoides, Rosa multiflora, and Lonicera japonica. Very little native understory exists attributed to deer browsing. The woodland is somewhat fragmented by the looping trails system, which discourages nesting and use of some birds, such as warblers.

Upland Meadow: This vegetation type includes areas north of Kriebel Road and is most suitable to farming, being the least affected by flooding. A large portion of this area is currently planted with corn during the growing season. Where agriculture and mowing has not occurred, a second successional growth of multi-flora rose, crabapple and cedar have been established.



Memorial Plantings: The Park contains a significant number of memorial plantings, mostly ornamental trees. Memorial plaques must be maintained against damage from mowing and park users and flags, flowers, and other offerings have to be removed. The Township should offset the extra expenses of maintaining memorial plantings by setting up a memorial maintenance fund and specifying the types and locations of trees to be planted.



2.3 Circulation

Fischer's Park's main entrance is located on Bustard Road, which is a collector road that runs roughly north-south through Towamencin Township. The parking area at this entrance contains 91 spaces including four ADA accessible spaces. The parking area is nicely planted with trees and stormwater drains into bioswales, which encourages water to infiltrate into the ground instead of in Towamencin Creek. An overflow parking area, immediately adjacent to and south of the existing lot was built in 2009. The new lot serves as an overflow parking area and has 72 spaces. It is also be a very "green" lot due to its pervious paving (porous asphalt), which water flows through, and bioswales, which collect stormwater and infiltrates it into the ground, similar to the existing lot.

Kriebel Road bisects the park, but does not currently provide access to the park. It is largely a commuter roadway. Traffic tends to travel quickly on the road and there are "blind spots"

making the road dangerous for pedestrians and cyclists. The intersection of Kriebel and Bustard Roads has poor sight distances due largely to the height of the Bustard Road Bridge.

Replacing the Bustard Road Bridge has been a desire of the Township for more than a decade. Bustard Road provides an alternative route south of the Northeast Extension of the Pennsylvania Turnpike. When there is an accident on the Northeast Extension, Bustard Road is heavily used as an alternative. Travel lanes narrow over the bridge and the Township is concerned that an accident on the bridge would result in enormous traffic problems in the Township.

Towamencin commissioned a study in 1998 that recommends realigning the bridge and approaches to the bridge on Bustard Road. This realignment would cut into Fischer's Park and require that the current tot lot and Carriage Pavilion get moved. The bridge is owned by the state. When the bridge is replaced, the Township should work with PennDOT on a design that calms traffic and discourages speeding.

The proposed township-wide trail system will connect to the park via an on-road trail along Kriebel Road. The Kriebel Road trail ties into Lower Salford Township to the west and will become off-road to the east. Connections are also planned to Evansburg State Park, which is only 1,200 feet away from Fischer's Park western border.

Fischer's Park has an excellent internal trail system used by walkers, joggers, dog walkers, cyclists, and others. This system is described in greater detail in the trails section of this report.

2.4 Accessibility Analysis

Fischer's Park is well used by residents and others for whom accessibility to trails, play equipment, and other facilities is a challenge. These users include children that attend Easter Seals School and go to the park, Easter Seals campers, older residents, and parents pushing strollers. Fischer's Park should accommodate these users as improvements are made in coming years. A clear understanding of the prevalence and dynamics of the region's disabled population will enable the Township to adequately program future improvements at Fischer's Park to best accommodate these citizens.

Statistics on the prevalence of disabilities among potential Fischer's Park users come from a few key sources, starting with the U.S. Census, synthesized by Cornell University's Employment and Disability Institute (EDI). These Census resources include the American Community Survey (2007) and Census 2000, which provide reliable information at the county and state level for all ages. Another source cited is the U.S. Department of Health and Human Resources' Child and Adolescent Health Measurement Initiative, which provides detailed statistics on a variety of disabilities, but only for children under 17 years of age and only at the state level. The Pennsylvania Department of Health is a good source for information by disability type at the county level for children under 17. Finally, the Pennsylvania Department of Education and PA State Data Center provide school district-level disability statistics also for children under 17. Between all of these sources and the variety of information they provide in terms of geography and age, we are able to gain a clear understanding of the occurrence of a variety of disabilities in the North Penn School District and Montgomery County. A full report on the disabled population is in the appendix. Key findings are summarized below.

Disability Prevalence Among All Ages

The percentage of men and women who reported a disability in Pennsylvania, according to Census 2000, is shown in Table 3.

Table 3: Percent Reporting Disability in PA, 2000

County	Ages		
	5-15	16-20	21-64
Bucks	4.5%	5.0%	7.8%
Chester	4.6%	5.4%	6.4%
Delaware	5.5%	6.3%	8.5%
Montgomery	4.2%	4.5%	6.3%
Philadelphia	6.7%	6.0%	13.9%

Source: U.S. Census, 2000

Table 4: Percent Reporting Disability in Montgomery County, 2000

Disability	Ages		
	5-15	16-20	21-64
Sensory	0.6%	0.8%	1.4%
Physical	0.5%	0.7%	4.1%
Mental	3.6%	3.6%	2.3%
Self-care	0.5%	0.4%	1.1%

Source: U.S. Census, 2000

Table 5: Percent in Pennsylvania Reporting Disability, 2007

Disability	Ages				
	5-15	16-20	21-64	65-74	75+
Sensory	1.1%	1.6%	2.8%	8.6%	21.4%
Physical	1.4%	1.9%	8.6%	20.2%	36.6%
Mental	6.1%	6.0%	5.1%	5.7%	15.1%
Self-care	15.1%	1.1%	2.6%	5.0%	13.1%
Go-outside home	N/A	2.1%	3.8%	7.5%	24.8%
Employment	N/A	3.0%	8.7%	16.5%	36.8%

As table 3 shows, the Census breaks down age cohorts into three categories. Disabilities are naturally more prevalent among senior citizens than young people, bringing the statistics in the Age 21 to 64 column higher than the other two. Montgomery County, in 2000, had the lowest percentage of citizens with disabilities in all age categories in Southeastern PA, with half the disability rate of Philadelphia for 21 to 64-year olds.

Table 4 shows that the most pronounced disability among young people in Montgomery County was mental. For both 5-15 year olds and 16-20 year olds, mental disabilities were more than 5 times more prevalent than sensory, physical, or self-care disabilities. However, this statistic reversed among adults 21-64. In that age category, physical disabilities afflicted the most number of people and mental disabilities dropped significantly compared to other age groups.

According to Table 5, disabilities in Pennsylvania varied significantly by age and type in 2007. Among the youngest age category, self-care disabilities had the highest prevalence at 15%. This occurrence then dropped sharply among the next age cohort. Mental disabilities continued to be the highest among all younger age groups until 65-74 year olds began experiencing physical disabilities. Mental and self-care problems remained relatively low among the highest age cohort of 75+.

The US Census and the American Community Survey provide compelling information about the number and percentage of disabled people in Towamencin Township and the area. Fischer's Park is well suited to provide for this portion of the population and is currently used by the Easter Seals Society clients and older township residents. Improvements to the park should enhance accessibility to further provide for this segment of the population.

