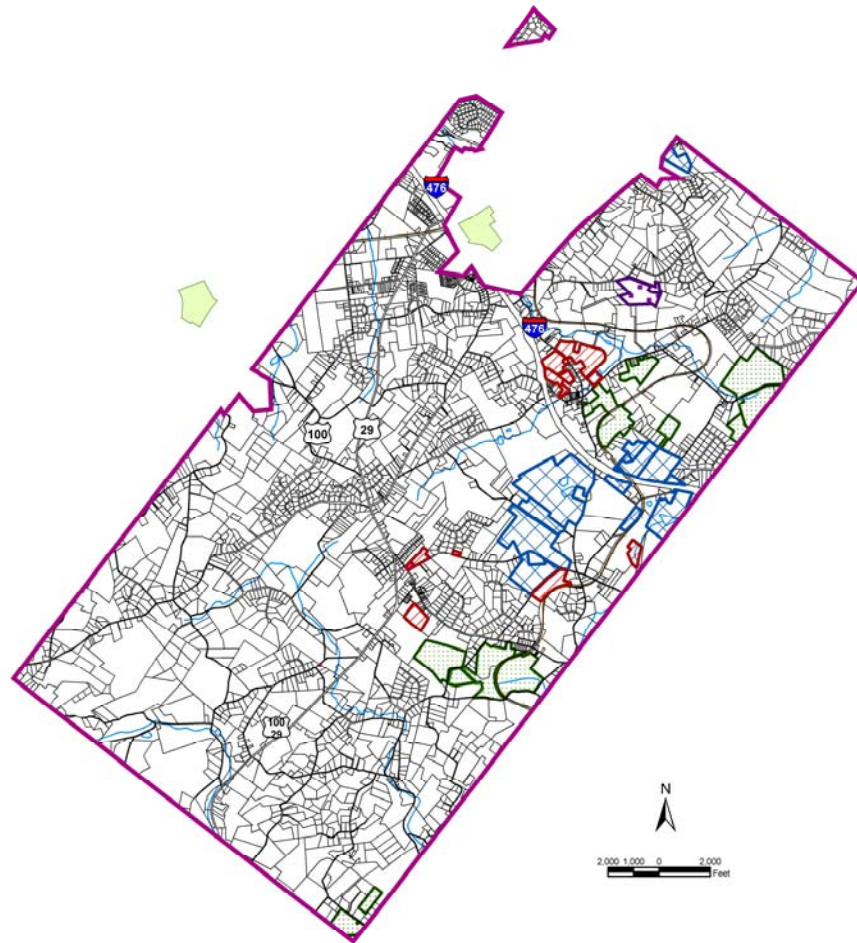


Upper Milford Township Park, Recreation, Open Space and Environmental Plan

Upper Milford Township, Lehigh County, Pennsylvania



FINAL
February 5, 2004

Upper Milford Township Park, Recreation, Open Space, and Environmental Plan

Upper Milford Township, Lehigh County, Pennsylvania

Plan approved: February 5, 2004

Upper Milford Township

5831 King's Highway South

P.O. Box 210

Old Zionsville, PA 18068

Phone: (610) 966-3223

Fax: (610) 966-5184

Website: www.uppermilford.net

E-mail: info@uppermilford.net

Township Supervisors

Susan J. Smith, Chairman

Daniel J. Mohr, Vice-Chairman

Keith A. Huyett, Supervisor (2003)

Henry Kradjel, Supervisor (2004)

Planning Commission

Henry Kradjel

John C. Seitz

Joyce Brown

Susan J. Smith

Ronald M. Guth

Dorothy Nicholas

Angelika Forndran

Brian Miller

Stan Schaffer

Recreation Commission:

Philip A. Vanim

Roselyn Parry

Robert Parry

Terry Schmeltzle

John S. Maxon

Charlene Sherman

Stan Shaffer

Township Manager

Daniel DeLong

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Executive Summary



In 1992, Upper Milford Township and the Wildlands Conservancy prepared a Park, Recreation, Open Space and Environmental Plan (PROSEP). To reflect changes in land development and land use, as well as need to create data for a geographical information system (GIS), the Township commissioned an update in Spring 2003.

The Township's Recreation Commission added one goal to the original goals established in 1992:

Seek to preserve the rural character and to protect natural and environmentally sensitive areas.

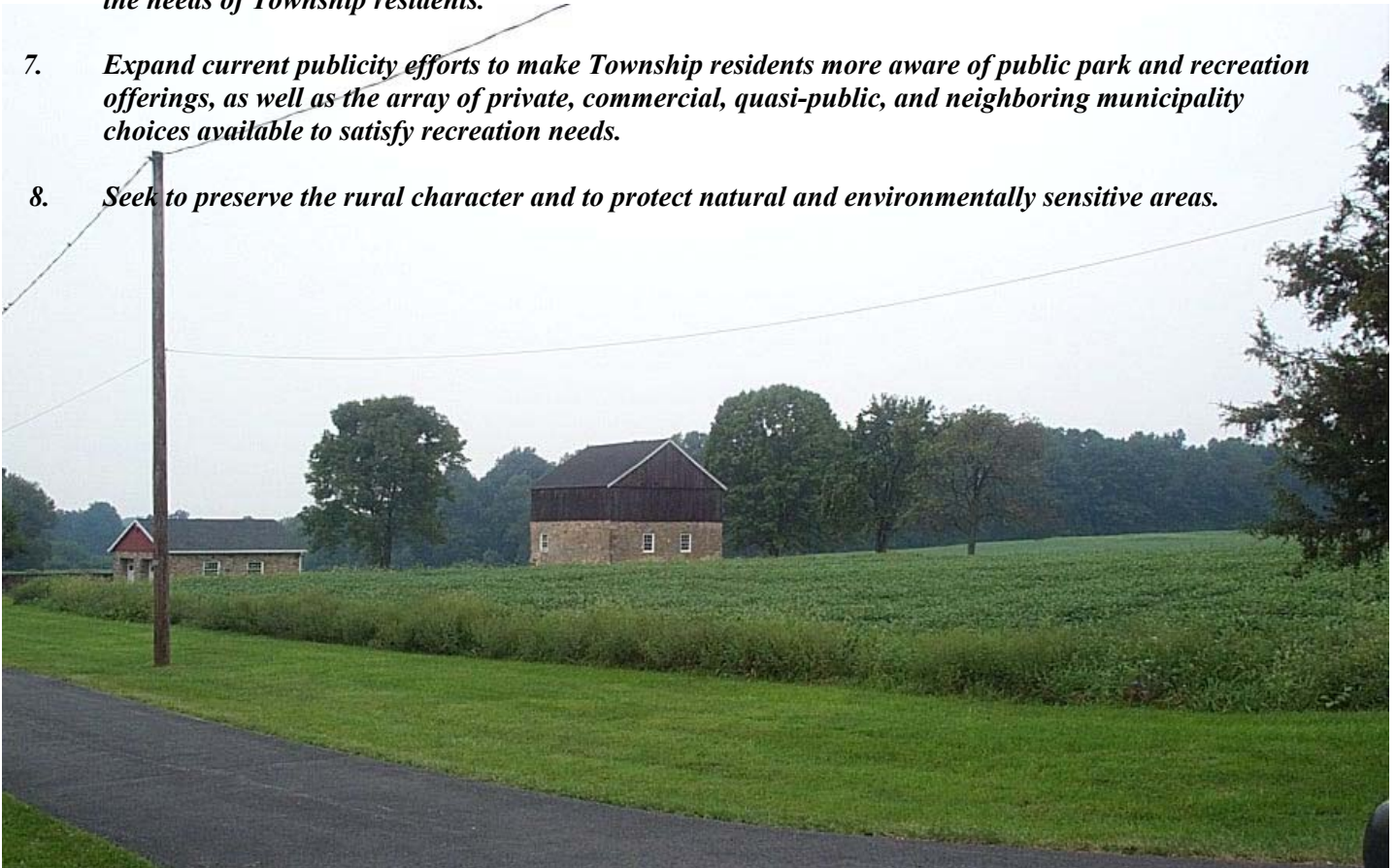
Township residents responded to a 2003 recreation needs survey confirming satisfaction with existing facilities and desire to preserve the rolling, rural landscape character of the Township.

The Township's two main active recreation facilities, Lenape and Jasper Parks, provide Township residents neighborhood and community level recreation needs. Both facilities provide playgrounds, ballfields, pavilions, concession stands, parking, restrooms and running water, and picnic areas. Jasper Park's archaeological site continues to be a 'hidden' gem in the Township, requiring action to preserve and educate residents about the site's significance to the regions history. Lenape Park overlooks surrounding farmfields which the Township should actively pursue for acquisition and preservation. The Fulmer Tract and Churchview Park provide land preservation and passive recreation opportunities to be developed. The County-owned Seem Seed Farm, preserves a significant agricultural landscape in the heart of the Township. Cooperative efforts between the County and the Township will need to flourish in order to protect this resource for agriculture and complimentary recreation activities.

The compilation and creation of many a GIS layers informs the Township to better review future land development applications and encourage environmental conservation efforts. Detailed inventory, analysis, and recommendations are included in this plan to assist the Township in planning and implementing park, recreation, open space and environmental protection initiatives over the next ten years.

Project Goals

1. *Organize and administer park and recreation services in a way which insures year-round attention to both current and newly proposed programming and facility initiatives.*
2. *Develop and operate a comprehensive program of recreation and park activities that continue the traditionally strong athletics component for youth while branching into other areas for more interest to the overall population.*
3. *Modernize existing facilities at Jasper and Lenape Parks to increase accessibility, improve signage and parking, rebuild, repair existing facilities, and take better advantage of untapped program potentials at each site.*
4. *Pursue a program of gradual expansion of the existing park system in order to preserve dwindling open space within the Township and maintain a balanced mix between sustained growth of the Township and the current rural quality of life.*
5. *Expand current volunteer efforts to maximize programming and upkeep of key park facilities in a cost effective manner.*
6. *Seek to utilize County, State, and Federal grant programs along with private and local municipal resources in order to help provide the funding necessary for a parks and recreation system that meets the needs of Township residents.*
7. *Expand current publicity efforts to make Township residents more aware of public park and recreation offerings, as well as the array of private, commercial, quasi-public, and neighboring municipality choices available to satisfy recreation needs.*
8. *Seek to preserve the rural character and to protect natural and environmentally sensitive areas.*



Project Methodology

Project Timeline

In March 2003, Upper Milford Township solicited proposals to prepare an update to their 1992 Park, Recreation, Open Space, and Environmental Plan. The Wildlands Conservancy, author of the 1992 study, was selected from four (4) proposals received to prepare the plan update. The project was initiated in April of 2003, and to be adopted in December 2003.

Site Reconnaissance

Throughout the planning process, the consultant conducted a number of field visits. These visits included both members of the Recreation Commission and/or the Township Manager. Site visits were completed on foot to note existing park features and amenities. A vehicle survey was completed to identify vistas, non Township owned recreational facilities, and general understanding of the Township landscape.

Public Comment

A. Press Release

Local newspapers, the Morning Call and East Penn Press, both covering Upper Milford Township, published a press release about the project prior to the mailing of the surveys.

A second press release was sent prior to presentation of the Draft plan. Both press releases are included in the appendix.

B. Committee/Public Meetings (six meetings)

Monthly meetings were held at the Township building each third Monday of the month, corresponding with the Recreation Commission's regularly scheduled times. Township residents were encouraged to attend the meetings to receive information and provide input on desired recreation improvements. Meetings were well attended by the Committee with participation of the Township Manager and Township residents.

C. Recreation Needs Survey

The Recreation Commission, with the consultant, prepared a written survey to solicit resident responses to current recreation issues. The survey was based on the previous 1992 survey, to monitor changes in resident responses. In May 2003, the Township mailed 3,927 surveys to Upper Milford Township households. Over a two-week period, 494 surveys (12.6%) were completed and returned to the Township. A tally of survey responses is included in the appendix of this report.

Geographical Information System

Geographic information systems, coined GIS, links written data or facts with geography by specifying locations on a map. Vast amounts of data become accessible for analysis and study quickly, compared to previous mapping overlay techniques. Information is organized in layers which can be turned on and off, depending on a particular study. Roads, streams, topography, soils, zoning, tax parcels, utilities, political boundaries, and other information can be reviewed individually or together. Updates and new releases of raw data are easily added. GIS provides the Township with expandable management tools for its parks and open space. This study transitions recreation and open space data to this management resource for the Township.

Goals and Objectives

The Committee reviewed the 1992 PROSEP goals and objectives and determined they remain valid for this study with the addition of a new environmental statement (#8).

Those goals are:

1. Organize and administer park and recreation services in a way which insures year-round attention to both current and newly proposed programming and facility initiatives.
2. Develop and operate a comprehensive program of recreation and park activities that continue the traditionally strong athletics component for youth while branching into other areas for more interest to the overall population.
3. Modernize existing facilities at Jasper and Lenape Parks to increase accessibility, improve signage and parking, rebuild, repair existing facilities, and take better advantage of untapped program potentials at each site.
4. Pursue a program of gradual expansion of the existing park system in order to preserve dwindling open space within the Township and maintain a balanced mix between sustained growth of the Township and the current rural quality of life.
5. Expand current volunteer efforts to maximize programming and upkeep of key park facilities in a cost effective manner.
6. Seek to utilize County, State, and Federal grant programs along with private and local municipal resources in order to help provide the funding necessary for a parks and recreation system that meets the needs of Township residents.
7. Expand current publicity efforts to make Township residents more aware of public park and recreation offerings, as well as the array of private, commercial, quasi-public, and neighboring municipality choices available to satisfy recreation needs.
8. Seek to preserve the rural character and to protect natural and environmentally sensitive areas.

Overview

Upper Milford Township

Upper Milford Township, founded in 1738, is located in the southwest corner of Lehigh County. The Township is bordered by Salisbury and Upper Saucon Townships to the northeast; Lower Milford Township to the southeast; Hereford Township, Berks County to the southwest; Lower Macungie Township and Macungie Borough to the northwest; and Emmaus Borough is carved out of the Township to the north. It is approximately 18.1 square miles, or 11,370 acres large, bisected by Routes 100 and 29 and the Northeast Extension (Rt. 476) of the Pennsylvania Turnpike. Most residents reside in single-family dwellings spread throughout the Township, separated by steep, wooded slopes or open agricultural farmland. Small concentrations of homes are in the villages of Zionsville, Shimerville, Vera Cruz, Old Zionsville, and Powder Valley. Most businesses can be found along State Routes 100 and 29. The wooded south mountain ridge is a predominate natural feature in the rolling landscape of Upper Milford Township.

Zoning

The Upper Milford Township Zoning Ordinances (ZO) and Subdivision and Land Development Ordinances (SALDO) were written in June 1985 and updated in June 1992. Subsequent amendments have been made to both documents. The Township is currently involved in a Joint Municipal Comprehensive Plan planning process with Lower Milford and Lower Macungie Townships and Alburtis, Macungie, and Emmaus Boroughs. The Township anticipates updating these ordinances in the next few years to address findings of several studies currently being completed.

A majority of the Township is zoned Rural Agricultural (R-A). South Mountain is zoned a South Mountain Conservation (SM-C) District. Small, concentrated, commercial districts dot the Route 100/29 corridor. Rural-Suburban Residential (RS-R), Suburban Residential (S-R), Commercial (C),

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and Industrial (I) Zones tightly congregate the northwestern corner of the Township, adjacent to Upper Macungie Township and Emmaus Borough municipal boundaries.

Land Use

Type	1988		2000		Change	
	Acres	%	Acres	%	Acres	%
Agriculture/Vacant	6,921.4	60.0	5,885.7	51.0	(1,035.7)	(15.0)
Residential	3,687.9	32.0	4,387.3	38.0	699.4	19.0
Transportation/Utilities/Communication	565.8	4.9	593.9	5.1	28.1	5.0
Wholesale/Warehousing	114.4	1.0	116.4	1.1	2	1.7
Public/Quasi-Public	87.2	0.8	90.7	0.8	3.5	4.0
Commercial	69.2	0.6	75.5	0.7	6.3	9.0
Parks and Recreation	66.1	0.6	361.8	3.1	295.6	446.5
Industrial	26.1	0.2	26.1	0.2		
TOTAL	11,537.4	100	11,537.4	100		

Lehigh Valley Planning Commission, Estimate Existing Land Use 2000

The following chart illustrates the specific properties used to determine the Parks and Recreation Land Use calculation:

Parks and Recreation Land Use

Site Name	Acreage		Type of park	Ownership
	Total	Active Rec.		
Burkhart Preserve	25.3	0.0	Land Preserve (conservancy owned)	Private Non-profit
Churchview Park	17.0	14.0	Community	County
Fulmer Tract	35.3	0.0	Open Space	Township
Indian Creek Golf Course	75.0	0.0	Regular Course	Private for Profit
Jasper Park*	26.7	10.0	Community	Township
LCCD Project	61.0	0.0	County Natural Area	County
Lenape Park*	12.1	12.1	Neighborhood Park	Township
Milford Park Bible Camp*	31.0	5.0	Church Camp	Private Non-profit
Mystic Chain Park*	3.4	0.0	Open Space	Private Non-profit
Shimerville Recreation	4.2	4.2	Golf Related	Private – for Profit
U. Milford Field & Stream Assoc.*	14.9	5.0	Sportsmen Club	Private Non-Profit
U. Milford South Mtn. Property	15.6	0.0	County Natural Area	County
Victory Valley Camp	40.3	10.0	Church Camp	Private Non-profit
(*1988 calculation)				
TOTAL Acreage	361.8	60.3		

Lehigh Valley Planning Commission, *Inventory of Parks and Other Outdoor Recreation Sites: May 2002*

Landscape Character

The Township is primarily a mix of single family residential and active agricultural intertwined by wooded hillsides. Winding narrow paved roads traverse the slopes and pass over small streams in every direction. Large tracts of land still dominate the landscape; however, small residential parcels are being carved out along major roads.

UMT Park and Recreation Overview

Upper Milford Township currently maintains three (3) active recreation parks totaling 55.79 acres within the Township. Additionally, the Township owns 43.34 acres of undeveloped open space. An active Recreation Commission meets monthly to discuss activities in the Township. The Upper Milford Youth Association is an independent organization which operates the athletic programs within the Township. The Township Manager, Recreation Commission, and Public Works Staff manage and maintain Township parks.

In 1991-92, Upper Milford Township retained Wildlands Conservancy to prepare a Township-wide Park, Recreation, Open Space, and Environmental Plan. Township Recreation Commission, staff, and supervisors have used this plan to assist in furthering the recreation opportunities within the

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community. Recent acquisitions, changes in development patterns, and resident desires, warranted updating the plan.

Cultural/Historic Sites

A Township Historical Committee meets during the year to discuss local history and events. The Township maintains a portion of the Indian Jasper Quarries. The other sites are privately owned.

Upper Milford Township has many cultural resources, of which the following have been identified:

Heussmann Residence	Klan Grist Mill and Dam
Church Horse Stable	Shelly's Saw Mill
Cunningham Home	Vera Cruz Railroad Station
Goodman Residence and Barn	Lime Kilns
Elmer Graber's Log Home	Lime Kilns
Haltzman Residence	Stahl Homestead
Old Zionsville UCC	Private Farmstead
Seem Residence	Indian Jasper Quarries (east)
Robert Smith Home	Indian Jasper Quarries (west)
St. Peters Union Church	Salem United Methodist Church
Upper Milford Mennonite Church	Mennonite Church School
Zion's Evangelical Lutheran Church	Zionsville Church School
Erwin Residence	Berg School (later St Peters Church School)
Cook Residence	Kriebel (Yoder's School)
Miller Grist Mill	Schwartz' School
Wolf Residence	Bildhaus (Brunner's School)
Leapson Residence	Kern's School
Wetherhold Residence	Ortts School
Private Residence	Koch's School
Snyder Residence	Miller Mill School
Grist Mill	Schantz's Mill School
Frey's Grist Mill	Powder (Schuberts School)
Vera Cruz Hotel	Geissinger School
Vera Cruz Store	Berger (Kemmerer School)
Vera Cruz-Dillinger Tunnel	Sigmund (Hampton's School)
Powder Valley School House	Vera Cruz School
Zionsville Railroad Station	

Cultural Resource Inventory

A Cultural Resource Inventory (CRI) is the first step in documenting the Townships rich history. Many of the sites listed above have been located in a GIS data set as part of this project. However, Upper Milford Township should complete a detailed written survey of all cultural resources in the Township and update the GIS data. The CRI will assist in monitoring these significant sites and in preserving these resources from loss. The CRI is important for land owners seeking to acquire state and federal grants and low interest loans, to upkeep and maintain their property.

Township Parks

Upper Milford Township owns three (3) active recreation parks and two (2) passive/open space parks. Lenape and Jasper Parks with a wide variety of active recreation opportunities are centrally located in the Township. Churchview Park contains a single loop, paved trail, originally intended for rollerbladers and bicyclists. The rest of Churchview Park, Fulmer Preserve, and the wetland tract are Township owned open spaces which currently are not improved for access.

Adjacent Parks

Parks outside the Township provide Upper Milford Township residents additional recreational opportunities. Macungie Memorial and Emmaus Community Parks are used by residents of Upper Milford Township as neighborhood and community parks.

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The 2003 Recreation Needs Survey respondents indicated Macungie Memorial Park as one of the most visited parks outside the Township. The swimming pool, bandshell, indoor basketball court, and active events calendar provide recreational opportunities not available in Upper Milford Township. The more populated sections of Upper Milford Township are close to Emmaus Community Park, which has a public swimming pool and yearly events. Kalmbach Park and Pool Wildlife Sanctuary offer nature trails and environmental education courses which are not currently provided in the Township. The Rodale Fitness Trail in Trexlertown, west of the Route 100 and 222 intersection, is a well-used facility providing a 1.3 mile paved trail and indoor velodrome. All of these facilities expand the recreational opportunities afforded to Upper Milford Township residents.

Demographics

Demographic Analysis

According to the U.S. Census Bureau, the Upper Milford Township population growth slowed in the 1990s. In 1990, the U.S. Census tabulated 6,304 residents in the Township, which showed a 24% increase of 1,209 residents from the 1980 Census. In 1990, one-quarter of working age residents (16 years of age or older) traveled 30 minutes or more to work. Only 225 residents worked in the Township and only 120 residents worked at home. Eleven percent (11%) of the population was over the age of 65. Children and teens made up 29% (1,846) of Township residents.

In 2000, the Township population increased by 585 residents or only 9%. The male to female ratio has remained almost split, 50/50. In 2000, 2,514 households were counted with 90% being owner-occupied. The average household size is 2.81 persons. The Township continues to maintain a working age population with only 12% being 65 or older. Children and teens make up 26.7 % (1,843) of Township residents, a decline in the overall number of children in the Township.

It is anticipated the Township resident population in the first decade of the 21st century will show an increase in growth. Land development plans for residential subdivisions have increased in the past few years. A decrease in the mortgage lending rates in 2002-2003 has sparked growth in the housing market for new home sales.

On February 23, 2003, the Lehigh Valley Planning Commission (LVPC) released **Municipal Population Increase Forecasts for Lehigh and Northampton Counties**. Bruce Newling's population forecast method estimates population growth based on an inverse relationship between population growth over a specific period of time and population density. In refining this forecast, the LVPC's calculations are based on zero urban population growth, subdivision activity, agricultural easements, and security areas and natural resources. The latter two (2) particularly impact Upper Milford Township, which contains several large farms under agricultural easements or county ownership (Seem Seed Farm) and limiting natural features.

POPULATION FORECAST 2000-2030

	2000 Census	2010 Forecast	2020 Forecast	2030 Forecast	2000-2030 Change	% Change
Upper Milford Twp.	6,889	7,161	7,370	7,531	642	9.3
Lower Milford Twp.	3,617	3,924	4,246	4,571	954	26.4
Lower Macungie Twp.	19,220	23,374	27,898	32,966	13,746	71.5
Emmaus Borough	11,313	11,313	11,313	11,313	0	0
Macungie Borough	3,039	3,039	3,039	3,039	0	0
Lehigh County	312,090	329,552	347,286	362,460	50,370	16.1

* 2003 LVPC Population Forecasts

According to these estimates, Upper Milford Township will see a slow rate of population growth compared to neighboring Townships and even the County as a whole.

POPULATION GROWTH 1980-2000, UPPER MILFORD TOWNSHIP

<i>Subject</i>	<i>1980</i>	<i>1990</i>	<i>2000</i>	<i>1980-2000</i>	<i>% Change</i>
<i>Total Population</i>	5,013	6,304	6,889	1,876	37.4
<i>Age under 19</i>	1,601	1,846	1,843	242	15.1
<i>Age 20-64</i>	3,004	3,906	4,201	1,197	39.9
<i>Age 65+</i>	417	552	845	428	102.6
<i>Median Age</i>	32.3	-	40.5	8.2	25.4
<i>Total Households</i>	1,644	2,196	2,514	870	52.9
<i>Average Household Size</i>	3.05	2.92	2.74	(0.13)	(4.2)
<i>Total Housing Units</i>	2,222	NA	2,576	354	15.9

* U.S. Census Bureau

Transportation

The development and growth of neighboring townships impacts Upper Milford Township roads. Vehicular traffic will continue to increase over the next decade. Primarily, State Routes 100 and 29 will increase in traffic through the Township. For pedestrians and wildlife, this will further create a crossing barrier. Other roads directly connected to this route will also be impacted as people search for the “quickest” route. The increased automotive use of Township roads directly impacts the safety of residents. A majority of resident workers travel beyond the Township for employment. In addition, employment centers (commercial and industrial areas) are concentrated along the Route 100 and 29 corridors. The Township should continue to work with the Pennsylvania Department of Transportation (PennDOT) to review road conditions, congestion, and safety concerns along these state maintained routes.

Development

A number of factors attribute to this slow growth. One, the economy of the 1990s did not facilitate a rapid growth in the housing market in this area. High mortgage rates and more readily available housing in neighboring Townships resulted in reduced growth in Upper Milford Township.

Secondly, the land in Upper Milford Township does not lend itself to traditional residential subdivision. Steep slopes, alluvial soils, and wetlands significantly impact lands available for development and in particular on-site septic systems. Most of the Township does not have access to public sewage, thus limiting land development. Future plans to provide public sewer for the villages of Vera Cruz, Powder Valley, Shimerville, Old Zionsville, and Zionsville could significantly impact these areas and their surrounds. If public sewer facilities/authorities are built, facility design should provide for the needs of the community and confine development to these village areas.

Study Criteria

The initial step in analyzing Township Parks and Open Space is to classify existing facilities. Park classification generally determines park facility resources, level of maintenance requirements, and resident service area. Existing township parks are classified and then analyzed to determine if they meet existing and projected needs.

1. Park Descriptions

- a. Neighborhood Park (Jasper Park and Lenape Park)
A neighborhood park provides basic recreation options for a limited, localized service area. The park can range in size from approximately 5 to 10 acres. The park generally will service a ¼- to ½-mile radius. Most park users are able to walk or bike safely between home and the park, requiring minimal parking and support facilities. The park may include some playground equipment, a ballfield/multipurpose field, a picnic table/small covered pavilion, and loop walking trail. Facilities often match those of interest or need of the immediately surrounding community.

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- b. **Community Park (Jasper Park and Lenape Park)**
A community park provides recreational options for a broader audience. The park can range in size from 20 or more acres. Typically, this park serves residents living a ½-mile to 3 miles away. Since most park users drive or bike to this facility, parking and support facilities are required. A community park usually includes playground equipment, baseball/softball fields, multipurpose fields, paved tennis and/or basketball courts, picnic tables and pavilion(s), and specialized recreation options. Support facilities include restrooms, potable water, and parking.
- c. **Linear Parks/Trails (none currently)**
A linear park often encompasses a trail system established as a thread linking several sites, neighborhoods, or features together. The system can be just a couple hundred feet to miles long. A system often includes trailheads or points of access. A trailhead typically includes parking, information in the form of signage or kiosk, restrooms, and potable water.
- d. **Specialized Facility (Churchview Park)**
A recreation facility provides a specific recreation activity. The facility often draws users beyond the local community and typically beyond the Township. The facility requires parking, restrooms, and potable water since most users are not within local walking distance.
- d. **Greenways (8-acre Wetland)**
Often the terms “greenways” and “linear parks” are used interchangeably. A very critical difference should be understood when defining recreation areas and open space in Upper Milford Township. Unlike a linear park, a greenway may not provide linear access or trails nor is it bound or defined by property boundaries. A greenway may simply be preserved open space, providing a conduit for natural systems. A typical greenway will include the riparian buffer of a stream. A greenway, unlike a linear park, may not necessarily be publicly owned. As a result, public and private partnerships develop to provide a cohesive linear green network through the community.
- e. **Open Space (Fulmer Tract)**
Open space is Township owned land which does not provide any active recreational facility. These parks preserve the community’s landscape character and protect valuable natural or cultural resources. Township ownership secures the property from being developed and provides total control over management. Service roads and trails are developed to aid in access, maintenance, and security of the site.

Parks, Open Space, and Pathways Classifications Table			
<i>Parks and Open Space Classifications</i>			
Classification	General Description	Location Criteria	Size Criteria
Mini-Park	Used to address limited, isolated, or unique recreational needs.	Less than a ¼ mile distance in residential setting.	Between 2,500 sq. ft. and 1 acre in size.
Neighborhood Park	Neighborhood park remains the basic unit of the park system and serves as the recreational and social focus of the neighborhood. Focus is on informal active and passive recreation.	¼ to ½ mile distance and uninterrupted by non-residential roads and other physical barriers.	5 acres is considered minimum size; 5 to 10 acres is optimal.
School Park	Depending on circumstances, combining parks with school sites can fulfill the space requirements for other classes of parks, such as neighborhood, community, sports complex, and special use.	Determined by location of school district property.	Variable-depends on function.

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Community Park	Serves broader purpose than neighborhood park. Focus is on meeting community-based recreation needs, as well as preserving unique landscapes and open spaces.	Determined by the quality and suitability of the site. Usually serves two or more neighborhoods and ½ to 3 mile distance.	As needed to accommodate desired uses. Usually between 30 and 50 acres.
Greenways	Lands set aside for preservation of significant natural resources, remnant landscapes, open space, and visual aesthetics/buffering.	Resource availability and opportunity.	Variable.
Linear Parks	Effectively tie park system components together to form a continuous park environment.	Resource availability and opportunity.	Variable.
Sports Complex	Consolidates heavily programmed athletic fields and associated facilities to larger and fewer sites strategically located throughout the community.	Strategically located community-wide facilities.	Determined by projected demand. Usually a minimum of 25 acres, with 50 to 80 acres being optimal.
Special Use	Covers a broad range of parks and recreation facilities oriented toward single-purpose use.	Variable – dependent on specific use.	Variable.
Private Park/Recreation Facility	Parks and recreation facilities that are privately owned yet contribute to the public park and recreation system.	Variable – dependent on specific use.	Variable.
Park Trail	Multipurpose trails located within greenways, parks, and natural resource areas. Focus is on recreational value and harmony with natural environment.	Type I: Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skaters. Type II: Multipurpose hard-surfaced trails for pedestrians, bicyclists/in-line skaters. Type III: Nature trails for pedestrians. May be hard- or soft-surfaced.	
Connector Trails	Multipurpose trails that emphasize safe travel for pedestrians to and from parks and around the community. Focus is as much on transportation as it is on recreation.	Type I: Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skaters <u>located in independent R.O.W.</u> (e.g., old railroad R.O.W.). Type II: Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skaters. <u>Typically located within road R.O.W.</u>	
On-Street Bikeways	Paved segments of roadways that serve as a means to safely separate bicyclists from vehicular traffic.	Bike Route: Designated portions of the roadway for the preferential or exclusive use of bicyclists.	
All-Terrain Bike Trail	Off-road trail for all-terrain (mountain) bikes.	Single-purpose loop trails usually located in larger parks and linear parks.	
Cross-Country Ski Trail	Trails developed for traditional and skate-style cross-country skiing.	Loop trails usually located in larger parks and linear parks.	
Equestrian Trail	Trails developed for horseback riding.	Loop trails usually located in larger parks and linear parks. Sometimes developed as multi-purpose with hiking and all-terrain biking where conflicts can be controlled.	

2. National Recreation and Park Association (NRPA) Review

In 1983, the National Recreation and Park Association published minimum recreation facility standards based on population. These standards reflect a few activities, leaving a majority of park amenities undetermined. Subsequently, it was found that these calculations, although creating a starting point for discussion, often provided results that did not relate to community needs. As a

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result, the 1995 NRPA removed population based standards and suggested utilizing community input to determine local recreation needs.

Recreation trends change over time and population growth most significantly impacts recreation needs. Population growth proportionally increases recreation demand in number of users and requested diversity.

The Township currently has 38.79 acres of active recreation, 17 acres of underdeveloped parkland and 42.9 acres of passive open space in addition to 435 acres of County open space. Generally, the National Recreation and Park Association recommend 6.25 to 10.5 acres of active open space per 1,000 residents. With 6,889 residents in the year 2000, the Township should have 43.06 to 72.33 acres. A projected population growth of an additional 642 residents by 2030 would equate 4.01 to 6.74 additional acres of open space being required. Subsequently, the Township's current 38.79 acres for open space is currently 4.27 to 33.54 acres below the National recommended standard, and by 2030, there will be an 8.91 to 40.28 acre deficit.

Upper Milford Township is primarily a rural community with clusters of dense development. As a result, using Township population data relative to National Standards is simply a guide. The most successful and direct method for determining park and recreation needs is to directly assess the community. Recreation Needs Surveys provide answers to past and present recreation needs and trends.

3. Lehigh County Parks - 2005

In 1990, the Lehigh Valley Planning Commission, with assistance from Wildlands Conservancy, prepared a park plan for Lehigh County – Lehigh County Parks 2000. An update was completed in 1997, expanding and revising the recommendations from the previous edition. The county plan identified and reviewed existing “close to home” parks for each municipality, including mini-parks, neighborhood parks and community facilities. The Plan recommended Upper Milford Township acquire 25 additional acres, based on the year 2010 population forecasts and a 6.25 acres per 1000 residents formula. In addition, the following recommendations were made:

a. Churchview Park

The county leased 17 acres to Upper Milford Township for 99 years. The land, improved by Upper Milford Township, reduced the active park land deficit to 8 acres. This assumed the park be developed to meet neighborhood or community recreation standards.

b. Potential Park and Open Space Sites

Between 1990 and 1996, LVPC reviewed sixty sites that were offered to the County for purchase. The review was based on a park site rating system of sixteen criteria, including tract size, suitability, cost, and access. Five sites were identified and rated in Upper Milford Township:

- | | | |
|--|------------|-----------|
| 1. Indian Creek Golf Course
(Chestnut Street) | 75 acres | rating 7 |
| 2. Fred Wallitsch Tracts
(6 th Street, border to Emmaus Borough) | 21.8 acres | rating 6 |
| 3. Kotanchick Property
(Churchview Road, east of railroad) | 38.1 acres | rating 5 |
| 4. Schnierlein Tracts
(2 nd Street, border to Emmaus Borough) | 2 acres | rating -4 |
| 5. Hoanzl Tract
(Sweetwood Drive, near Macungie Borough) | 21.4 acres | rating 10 |

None of these parcels rated very highly, with a possible score of 45. The negative number accounts for negative criteria, such as high cost/low user potential, legal use restrictions or hazardous site conditions. Neither the County nor the Township purchased any of these parcels. Never the less, these parcels have been identified on the plan for further consideration.

c. Greenways

Ten potential greenway systems were identified in Lehigh County. Portions of the South Mountain/Lehigh Mountain Greenway are within Upper Milford Township. The continuous woodland cover is not connected through Upper Milford, reflecting development and transportation corridors which pass through the South Mountain range in Upper Milford. South Mountain is a dominate landscape feature in Upper Milford Township and the surrounding Lehigh Valley. Wildlands Conservancy monitors large tracts of land currently under conservation easement in adjacent Upper Saucon and Salisbury Townships.

d. Rails-to-Trails

Although the active rail line in Upper Milford was not identified, the Plan strongly supports preservation of these linear corridors.

e. Seem Seed Farm

Lehigh County acquired 435 acres of farmland in Upper and Lower Milford Townships. In 1991, the Lehigh County Conservation District developed a demonstration project on 61 acres of the county land just south of the Pennsylvania Turnpike and east of Churchview Road. In 1994, Upper Milford Township signed a 99 year lease for 17 acres of the county land at the corner of Kohler and Churchview Roads to develop needed active recreation. The remaining land is actively farmed or covered in woodland. The Plan recommends further development of passive recreation near the existing two ponds. Picnicking and fishing are suggested as possible developed activities. This project is suggested to be developed and managed in conjunction with the Township. Since the property is county-owned, the facility would be available to all county residents.

Recreation Needs

1. 1992 Recreation Needs Survey

In 1991-92, Wildlands Conservancy mailed 2000 surveys to Township residents. Of the 500 responses collected (25% return), respondents chose bicycle trails, volleyball courts, basketball courts, nature trails neighborhood parks, and nature programs as the “most important” activities for outdoor recreation. A majority of respondents (55%) resided in the Township for more than ten years. Responding households comprised of approximately 40% under the age 25, 46% between 25 and 55, and 13% over 55. The Emmaus Community Park was the most frequently visited park by respondents, over any park in Upper Milford. Only 25% responded to using Township parks more than several times a year, yet 48% of respondents’ children use the parks more than several times a year. Location, activities, and programs rated high in attracting users to the park. A majority of respondents (61%) would pay additional taxes to improve Township parks.

2. 1999 Lehigh Valley Land Use Public Opinion Survey

The Lehigh Valley Planning Commission prepared, mailed, and tabulated a survey to 4,000 Lehigh and Northampton registered voters. A total of 1,078 surveys (27%) were returned. Generally, respondents noticed a decline in the quality of life in Lehigh County, attributed to increased crime and deterioration of Allentown Central District. Respondents (91.4%) agreed it is important to preserve farmland in the Lehigh Valley. When comparing this question to the LVPC 1988 survey, the response was up in 1999 by 9.8%. In 1999, almost 85% of the respondents recommended the County do more to preserve farmland. In addition, 86.7% agreed new industrial development should occur on previously developed sites or brownfields. Expanded development of parks and recreation facilities in the County was agreed by 68.2% of the respondents. These responses provide a County-wide sentiment to preserve open space and farmland. A complete summary of the results are available from the Lehigh Valley Planning Commission.

Upper Milford Township residents responded similarly in their 1992 and 2003 surveys.

3. 2003 Recreation Needs Survey

In 2003, Upper Milford Township mailed 3,927 surveys to Township residents. There were 494 surveys returned (13% return).

Summary/Findings

Overwhelmingly, respondents repeatedly expressed a desire for preservation of open space and rural landscape character. This response has directed the focus of this study towards open space preservation.

The following summaries are based on Township resident responses to the survey. A breakdown of survey responses is included in the report appendix. Please note, the number of responses to some questions will differ from total responses received resulting from multiple answers provided by several family members on a single survey or questions not answered:

Over 50% of the respondents have resided in Upper Milford Township for 16 years or more. With minimal new development occurring within the community, this would be expected.

Almost half (46%) of the respondents' households comprise of working age (20-55) adults. The remaining household members are under the age of 20 (29%) and at or nearing retiring age of 56 and older (24%). The respondent household age group membership corresponds to the 2000 U.S. Census age breakdown, confirming our survey does sample the Township residents proportionally.

When asked how residents felt about existing park and recreation facilities, 72% noted they were satisfied. In concert, when asked about open space and farmland preservation, 65% of respondents were satisfied with current preservation plans. This decrease in level of satisfaction from the 1992 survey does illustrate residents are concerned about open space preservation and the need to do more.

The respondents were asked to identify which facilities in and around the community they recently used in the past year. Jasper Park was visited by the most respondents but only by two (2) more than Macungie Memorial Park. Jasper Park provides the greatest diversity of recreation options at any one Township park. The numerous variety of events at Macungie Memorial Park each year would understandably entice Township residents to attend. Emmaus Community Park was selected third and was followed by Lenape Park. The Pool Wildlife Sanctuary and the Rodale Fitness Trail were both visited more than Churchview Park. The use of the Fitness Park and the Pool Wildlife sanctuary, both offering walking in conjunction with another activity (either fitness or education), is more desired by residents than simply a walking trail as provided at Churchview Park. With almost 25% of the respondents visiting Churchview Park, the need for places to safely walk is evident.

Facility location and recreation options are the two (2) top reasons residents visit Township parks. Jasper and Lenape Parks are located near concentrations of population, so their use, as expected, would be greater. However, residents access these parks both by walking and driving. If we remove a portion of the respondents who walk to Lenape and Jasper Parks, then a majority of respondents who drive to a park would visit Macungie Memorial more frequently than a Township park. Macungie Memorial does offer some facilities not offered at Upper Milford's Parks – swimming pool, band shell, indoor gym, and organized events.

Almost half of the respondents identified the Rural Landscape as their reason for living in Upper Milford Township. Family, friends, and the school district were the next two (2) reasons respondents cited for living in Upper Milford Township. This clearly illustrates the importance respondents place on the rural landscape character of Upper Milford Township.

A third of respondents would be willing to pay higher taxes to support improved or expanded recreational facilities. In addition, about a quarter of the respondents belong to an outdoor recreation organization.

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When asked to rank the importance of different activities, adults listed undeveloped open space as most important. Children ranked neighborhood parks just above undeveloped open space.

Almost half of the respondents selected Public Parks as the most frequently used source for recreation while a quarter choose a private source (at home play equipment). This would conclude, respondents do utilize and value the Township recreational facilities for outdoor recreation. While in urban settings it would be assumed residents rely on public parks and open space for outdoor recreation, respondents in Upper Milford confirmed their need for parks as well. One-third (1/3) of the respondents did express an interest and need for a facility similar to the Macungie Institute.

In response to the quality of life in their neighborhood, protecting open space, preserving environmentally sensitive areas, and requiring preserved open space of new developments were overwhelmingly selected. In addition, respondents wished the Township would do more to protect open space (72%), preserve farmland (76%), and protect sensitive areas (71%). Fifty-eight percent (58%) of the respondents believe the Township should do more for trails. No respondents felt the Township should do less for open space protection or protection of sensitive areas. This again reaffirms the desire to preserve the landscape character of the Township.

When asked to describe their ideal recreational facility, 2/3 of respondents selected open space and natural/wooded areas over active play areas, picnic areas, and a community center combined.

Respondents (264 verses 143) were in favor of creating an Environmental Advisory Committee (EAC). This is a positive initiative towards directing future development towards preservation of sensitive areas.

In conclusion, survey respondents overwhelmingly supported preservation of Upper Milford Township's rural landscape character.

Inventory and Analysis - Park, Recreation, and Open Space Facilities

Parks can generally be classified as either ‘active’ or ‘passive.’ Active recreation typically organizes two (2) or more participants to complete structured activities such as tennis, basketball, baseball, or soccer. These formal activities require specific playing surfaces to safely complete the activity. In contrast, passive recreation activities are often informally completed by individuals. Hiking, fishing, bird-watching, and picnicking require an undefined amount of space and minimal development. Upper Milford Township has five (5) park and open space facilities. Two (2) parks are developed and provide primarily active recreation components. The other three (3) parks are either underdeveloped (Churchview Park) or undeveloped (Fulmer Tract and 8-Acre Wetland).

The Township has economized its active recreational facilities by locating and combining park facilities to serve both local or neighborhood and wider or community park needs. Jasper Park and Lenape Park provide active recreation for Vera Cruz and Zionsville villages respectively. Narrow roads and absence of sidewalks and trails limits the walkable service area these two (2) major parks cover. Most residents living outside the ½-mile neighborhood service radius have to drive to any recreation facility. Both Lenape and Jasper Parks provide community park facilities for the entire Township with an acceptable 3-mile service radius.

It should be recognized that many residents living near Emmaus actually live within the ½-mile neighborhood park service radius for Emmaus Community Park. In addition, both Emmaus and Macungie Memorial Parks serve portions of Upper Milford for community recreation.

Generally, the Township currently provides for most community active recreation needs. As a result, Jasper and Lenape Parks should continue to accommodate growing needs for both neighborhood and community recreation needs. Some improvements to each park facility will fulfill existing and anticipated needs. For example, adding tennis courts and a basketball court to Jasper Park, expanding athletic facilities at Lenape Park, and grading a multipurpose field at Churchview Park will complement existing active recreation programs.

In anticipation of future population growth, the Township needs to actively pursue expansion of land holdings adjacent to their existing facilities.

In contrast, passive recreation opportunities have been developed on a limited basis and require attention. Developing a stronger passive recreation program at each facility is suggested. For example, constructing a loop walking trail at Lenape Park, developing basic improvements to the Fulmer Tract Preserve, and expanding uses at Churchview Park will begin to address current passive recreation needs.

The average life of a park, recreation, open space plan is approximately ten years. Recommendations for each park are separated into three categories: priority, short term, and long term. Priority recommendations pertain to issues which deal with user safety, low startup cost or pre-requisite for short and long term recommendations. Short term recommendations target small projects and/or more eminently required improvements. Long term recommendations reflect park projects which require significant planning and can be implemented as funding becomes available.

The following information documents present site features and recreational activities for each of the five (5) Township Park and Open Space Parcels. Recommendations for improvements and land acquisition follow each park description.

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Park Overview Chart

	<i>Lenape Park</i>	<i>Jasper Park</i>	<i>Churchview Park</i>	<i>Fulmer Tract</i>
location	Old Zionsville	Vera Cruz	Kohler and Churchview Roads	Vera Cruz
watershed	Hosensack Creek	Leibert Creek	Hosensack Creek	Leibert Creek
facility type	<i>Developed neighborhood/ community park</i>	<i>Developed neighborhood/ community park</i>	<i>Underdeveloped specialty park</i>	<i>Undeveloped open space</i>
use	active park	active/passive park	active park/farmland	farmland/openspace
size	12.1 Acres	26.69 Acres	17 Acres	34.9 Acres
level of maintenance	high	high	medium	low
facilities				
parking lot	160 / paved	70 / gravel	36 / paved	none
soccer fields	2	3	-	-
multipurpose field	1	-	-	-
paved tennis courts	3	-	-	-
paved volleyball courts	3	-	-	-
sand volleyball courts	2	-	-	-
net enclosed batting cage	1	1	-	-
baseball fields (chainlink fencing/bleachers/enclosed dugouts)	2	1 (90')	-	-
single play apparatus tot lot	1	1	-	-
paved basketball court	1	-	-	-
restroom facility (mens/womens)	M-2T & 1U / F-3T	M-2T & 1U / F-3T	-	-
concession building	1 (to be reconstructed 2004)	1	-	-
covered pavilion	1 (30' x 40')	2 (30' x 40')	-	-
picnic tables	14	23	-	-
water fountains	2	2	-	-
elevated grills	2	4	-	-
water spigot/hydrant	1	2	-	-
payphone	1	1	-	-
sets of horseshoe pits	2	1	-	-
play structure	1	1	-	-
spring rocking animals	3	3	-	-
swings	4	4	-	-
child swings	2	2	-	-
benches (concrete ends with wooden slats)	16	16	-	-
flagpole	1	1	-	-
kiosk	1	1	1	-
entrance gate	1	1	2	-
fence	split rail	split rail	split rail	-

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	<i>Lenape Park</i>	<i>Jasper Park</i>	<i>Churchview Park</i>	<i>Fulmer Tract</i>
fitness trail	-	1	-	-
soft trail	-	.25 mi	-	-
paved trail	-	-	0.5 mi	-
park sign	1	1	1	-
regulation sign	1	1	1	-
other sign	-	3 (quarry regulation)	-	-
other features	1 millstone	Native American statue	farmland	farmland
		jasper quarries	woodland	wetland
		woodland		pipeline
		small meadow		
other structures	small well pump shed	old restroom building	portable toilet	
topographical survey	X	X	X	X
park master plan				
				X

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Lenape Park

Location:	Old Zionsville
Address:	6102 Kings Highway South, Zionsville, PA
Description:	Lenape Park is classified as a community park, which also provides neighborhood park amenities for the village Old Zionsville. The facility is well equipped, providing Township residents with a diversity of recreational facilities.
Access:	Kings Highway South
Watershed:	Hosensack Creek, Cold Water Fishery
Boundaries:	North – Residences fronting Kings Highway Northwest – Old Zionsville United Church of Christ Cemetery West – Residences fronting Fountain Road South – Open Farmland East – Open Farmland A dense hedgerow planting borders the park to the west and south. A buffer planting of evergreen trees and flowering crabapples line the eastern border. Forsythia shrubs and split-rail fence border a portion of the northern property line.
Landscape Character:	The park is moderately sloping toward a small stream at the southern property line. Shallow sloping terraces accommodate play areas with short sections of steep slopes transition between terraces. Most of the site is maintained as open lawn, except for the hedgerows to the west and south. The grass is tall on either side of the small creek along the southern boundary.
Lot:	Square, flag lot – one (1) parcel
Size:	12.1 Acres
Soils:	CgC2 (Entrance/Parking lot) Chester gravelly silt loam , 8-15% slopes, deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building. MmB2 (Soccer fields) Montalto silt loam , 8 to 15% slope, deep and fine textured dark brown, well-drained surface soil, red subsoil, moderately erodable, fair agricultural soil. Depth to bedrock 2.5 – 10 feet, depth to high water table, 3+ feet, fair for building. GnB2 (Pavilion area, lower field) Glenville silt loam , 3-8% slope, deep well-drained dark-grayish brown silt loam, mottled subsoil, generally suitable for agriculture. Depth to bedrock 3-20 feet, depth to high water table, 1.5 feet, unsuitable for building with high water table. WsA (Hedgerow/stream) Worsham silt loam , 0-3% slope, poorly drained dark grayish-brown soil, with mottled subsoil. Slow permeability. Depth to bedrock 4-10 feet, depth to high water table 0 feet, unsuitable for building with high water table.
Level of Maintenance:	High (Facility components maintained to meet facility needs.)

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Facilities (Existing):	160-car paved parking lot 2 soccer fields 1 multipurpose field 3 paved tennis courts 3 paved volleyball courts 2 sand volleyball courts 1 net enclosed batting cage 1 (90') baseball fields (chainlink fencing/bleachers/enclosed dugouts) 1 (75') baseball fields (chainlink fencing/bleachers/enclosed dugouts) 1 single play apparatus tot lot 1 paved basketball court restroom facility (mens/womens) concession building (to be reconstructed 2004) 1 covered pavilion (30' x 40') 14 picnic tables 2 water fountains 2 elevated grills 1 water spigot/hydrant 1 payphone 2 sets of horseshoe pits play structure 3 spring rocking animals 4 swings 2 child swings 16 benches (concrete ends with wooden slats) 1 millstone well and small building enclosure flagpole kiosk entrance gate split-rail fence
Conditions:	
Parking lot:	Asphalt paved parking lot. Dead-end layout does not provide turn-around space. Drainage problem – water sheetflows from end of lot into existing concession building and path.
Entrance:	Narrow, paved, and curb-lined entrance. Entry sandwiched between existing two-story home and cemetery plots/graves. Access jointly used by residence to access rear parking area/garage and cemetery service access. Plantings at the entrance obscure views. Open culvert on western edge reduces turning radius.
Signage:	Small painted aluminum brown with white lettering signs are located at the entrance on Kings Highway.
Tennis Courts:	Chainlink fence is stretched. Rust stains evident. Asphalt surface cracked. Color coating faded.
Concession Building:	Comprised of several “add-on” improvements. Surrounding drainage problems occasionally flood building. Low roofline. Cracked concrete block.

Upper Milford Township Park, Recreation, Open Space, and Environmental Plan

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Restroom Facility:	White painted block with forest green trim. Modern, recently constructed building providing separate facilities for men (2 toilets/1 urinal) and women (3 toilets). Well water, on-site septic system, and electric services provided.
Basketball Court:	No fence enclosure.
Private Property Sign:	The placement of several orange and black “Private Property” signs along the western property line partially delineate an undefined property border.

Recommendations (Lenape Park):

Priority -

Entrance

- Remove existing plant material to clear sightlines.
- Replace drainage culvert to widen turning radius on western edge.
- Coordinate removal of large tree east of park entrance.

Property Line Delineation

- Install split rail fence along western park boundary near parking area.
- Plant a hedgerow using native plants to reinforce fence.
- Improve existing landscaping along northern park boundary to screen parking lot from residents and strengthen property line delineation.

Land Acquisition (see detail section below)

- Contact adjacent owners regarding park plan and objects.
- Prepare preliminary agreements.
- Explore funding options/apply for grants.

Signage

- Design signage standards for all Township parks.
- Install larger, two-sided sign at park entrance.
- Print a map of Upper Milford Twp. showing other parks and points of interest (post in Kiosk).

Funding

- Apply for funding to assist with park expansion – particularly Lehigh County Land Acquisition Fund.
- Transportation Enhancements Grants – sidewalk improvements along Kings Highway will improve park user safety and access.

Water Quality Testing

- Continue monitoring well water quarterly during the open seasons as directed by DEP.

Short Term -

Park Master Plan

- Update a site topographical survey.
- Prepare a detailed master plan identifying future park improvements.

Concession Building

- Remove and construct new concession building.
- Coordinate building layout/size with current users.
- Extend roof on one (1) side of the concession building to provide a pavilion for picnic tables (on concrete slab).
- Provide outside water spigots.
- Include separate play equipment storage, and maintenance equipment/supplies storage.

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Basketball Court

- Resurface paved court.
- Install fence enclosure to contain missed balls.

Tennis Courts

- Replace chainlink fence.
- Patch asphalt surface and recoat.
- Plant shade trees along east side (native trees – such as honeylocust and green ash).

Landscaping

- Add trees in and around playground to provide more shade.
- Widen riparian buffer along stream by reducing mowing, encourage native grasses/perennials.

Turn-around

- Reconfigure end of parking lot to include turn-around circle.
- Install Best Management Practices (BMPs) in the form of a detention basin in the center of the turn-around circle – direct stormwater drainage from parking lot to BMP (plant with stormwater management appropriate native plants).

Long Term -

Parking Lot

- Upgrade parking lot to meeting current Township standards.
- Install BMPs to control stormwater runoff (infiltration basins, bio-retention swales, pervious paving, etc.).
- Install trees and islands to reduce heat generated by the asphalt paving.

Walking Trail

- Install an ADA accessible perimeter walking trail. Trail surface should be primarily or entirely stone dust and graded to provide slopes less than 3%. Short sections with grades over 3% but less than 5% shall be paved to minimize erosion and trail maintenance.
- Coordinate path connections with the proposed concession/storage building and the parking lot, existing restroom facility and existing pavilion.

Playground

- Future playground equipment should provide for ADA accessibility.
- Excavate and replace fiber safety surface material.
- Install small covered pavilion adjacent to the playground with two picnic tables. Accommodate four (4) picnic tables (one ADA accessible).

Land Acquisition (Lenape Park):

Existing Entrance Improvement

Acquisition of parcels adjacent to the existing park entrance will not cost effectively provide for a wider park entrance. Cemetery plots on one side and an in-ground pool and fence enclosure on the other prevent widening the road in either direction. Other parcels on Kings Highway could provide space to enter the park; however, a significant grade change would require modifying the park layout, thus escalating construction cost and reducing parking space.

Park Expansion

Acquisition of land adjacent to Lenape Park will preserve open space surrounding Old Zionsville village, allow for a safer entrance into the park, and accommodate expansion of park facilities. Two (2) parcels have been identified as critical additions to the park. A physical connection to existing conservation easement lands is encouraged.

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- *Parcel One: This parcel is located east of the park. A single-family residence faces Kings Highway with the remaining land used for growing produce for a local market stand. Its frontage on Kings Highway could provide a much improved access into the park, although this would require major driveway improvements to connect to the existing parking areas. The land could be used to expand recreational fields in the future. In addition, by acquiring this parcel, the Township secures potential future use of the land for a community septic system absorption area. This could potentially save local residents huge expenses over the installation of a sewage system that would connect to Lehigh County Authority and the City of Allentown. The existing home could be subdivided from the parent tract and then rented, used by the township or sold.*

- *Parcel Two: This parcel is located south of the park. It is currently farmed with a small barn and stone house fronting Fountain Road/Chestnut Street (Route 29/100). The land gently slopes toward the park. The connection to Chestnut Street has the potential, with significant roadway improvements, including widening and installation of a turning lane, to provide better access into the park. The buildings could be subdivided from the parent tract and then rented, used for the Township, or sold. This parcel is directly connected to existing open space lands with conservation easements in place, and if acquired by the Township, would connect tracts of open space to form a sizeable area of preserved open space.*

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Jasper Park

Description: Jasper Park is a community park, which also provides neighborhood park amenities for the village of Vera Cruz. The facility is well equipped, providing Township residents with a complete complement of recreational facilities. Large mature trees shade over half the site.

Location: Vera Cruz

Address: 4960 Vera Cruz Rd North, Emmaus, PA 18049

Access: Vera Cruz Road

Watershed: Leibert Creek, High Quality Cold Water Fishery

Boundaries: North – Residences fronting Vera Cruz Road
West – PA Turnpike Northeast Extension
South – Residences fronting Vera Cruz Road and Main Road West
East – Residences fronting Vera Cruz Road and park access drive

A mature woodland dominates much of the site. An open hedgerow and cleared woodlands provide spaces for pavilions, restroom facilities, and concession building. A baseball field and play area are located in a clearing northeast of the woods. The northern and eastern boundaries are defined primarily by fragments of private property structures and plantings. A stone and mature vegetated hedgerow delineate the soccer fields from the adjacent park land and residences fronting Main Road West. A pine tree buffer screens the southern edge of the soccer field to adjacent parcels fronting Vera Cruz and Main Roads.

Landscape Character: The hilltop site gradually slopes away toward its property lines. Two-thirds (2/3) of the site is maintained as open lawn, with the wooded portion at the center of the site. The Girl Scout field, north of the wooded area, is mowed less frequently.

Lot: Irregular square – four (4) separate parcels

Size: 26.69 Acres

Soils: **ChB** (woodland) Chester very stony silt loam, 0-8% slope, well drained silt loam soil with large boulders and excessive stones throughout, .5-2 inches layer of black organic topsoil, slow runoff. Depth to bedrock 4-20 feet, depth to high water table 3+ feet, fair for building. Large stone quantity impractical for plowed crops, typically wooded areas.
CgB2 (turnpike boundary, soccer fields, concession, pavilion, and playground) **Chester gravelly silt loam**, 3-8% slopes, deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building.
CgD3 (Baseball infield) **Chester gravelly silt loam**, 15-25% slopes, deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building.
CgC2 (Baseball outfield and Girl Scout Field) **Chester gravelly silt loam**, 8-15% slopes, deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building.

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GnB (open field, fitness area) **Glenville silt loam**, 3-8% slope, dark grayish-brown silt loam upland soil with few rock fragments, mottled dark brown subsoil, fairly well suited for agriculture. Depth to bedrock 3-20 feet, depth to high water table 1.5 feet, unsuitable building site with seasonal high water table.

Level of Maintenance:	High (Facility components maintained to meet facility needs.)
Facilities (Existing):	70+ car gravel parking lot (undefined spaces) 3 soccer fields 1 net enclosed batting cage 1 (90') baseball fields (chainlink fencing/bleachers/enclosed dugouts) restroom facility (mens/womens) concession building old restroom building (gutted) 2 covered pavilions (30' x 40') 23 picnic tables 2 water fountains 4 elevated grills 2 water spigot/hydrant 1 payphone play structure 3 spring rocking animals 4 swings 2 child swings 16 benches (concrete ends with wooden slats) Native American Statue Fitness stations Walking trails +/- 5' wide (asphalt and stonedust) Volleyball (portable) grass Perennial border flagpole kiosk entrance gate jasper stone quarries well (water supply)
Conditions:	
Parking lot:	Gravel parking lot. A split rail fence partially defines the parking lot edge. Parking spaces are not delineated.
Entrance:	Three (3) adjoining residences share a narrow paved entrance drive with park users. A large hedge along the northern edge of the entrance separates the drive from the playground.
Turn-a-round:	The pavement is in poor condition – severely cracked.
Trails:	Sections of paved trail from the parking area to the ballfield is in poor condition – uneven and severely cracked.
Signage:	Small painted aluminum brown with white lettering park identification sign is located at the entrance on Vera Cruz Road.

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- Restroom Facility: White painted block with forest green trim. Modern, recently constructed building provides separate facilities for men (two toilets/one urinal) and women (three toilets). Well water, on-site septic system, and electric services provided.
- Court Recreation: Typically, a community and neighborhood park provides court recreation, however, Jasper Park does not currently provide any paved court activities. Limited space and potential archaeological significance precludes construction of this amenity on current park land.

Recommendations (Jasper Park):

Improvements target upkeep of existing recreation elements and preservation of archaeological artifacts.

Priority -

Signage

- Design standard signage for all Township parks.
- Install larger, two-sided signs at park entrance.
- Upgrade existing covered kiosk with map of Upper Milford Township showing other parks and points of interest.

Entrance Land Acquisition (see detail section below)

- Contact adjacent owners regarding park plan and objects.
- Prepare preliminary agreements.
- Explore funding options/apply for grants.

Funding

- Apply for funding to assist with park expansion – particularly Lehigh County Land Acquisition Fund.
- Transportation Enhancements Grants – sidewalks/trails in Vera Cruz Road will improve park user safety and access.

Riparian Buffer Restoration

- Inventory existing vegetation surrounding Leibert Creek.
- Remove invasive species.
- Plant native plants as necessary to re-establish a healthy vegetative buffer.

Water Quality Testing

- Continue monitoring well water quarterly during the open seasons as directed by DEP.

Jasper Quarries

- Establish Township policies in conjunction with county, state, and federal agencies in preserving this nationally significant resource.
- Survey the archaeologically significant portions of the park to record and monitor future changes to the landscape.
- Adopt policies addressing public access which limits site disturbance and preserves the landscape.
- Develop an educational program which informs the public of the site's natural resource and archaeological significance.

Short Term -

Site Survey

- Order a site topographical survey - a detailed plan of existing grades, vegetation, features, property boundaries, and roads - so as to plan future improvements.

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Park Master Plan

- Prepare a detailed master plan to direct future park improvements and assist in allocating future funds.

Play Area

- Replace lifted/deteriorated timber edging.
- Excavate and replace compacted and decayed fiber safety surface.
- Include ADA accessible equipment when upgrading.

Entrance Approach

- Re-design entrance to Penn DOT standards.
- Remove a section of the hedgerow, group the flagpole with the kiosk, so the park name painted on the pavilion is in the background and becomes the focus as one enters the park.

High Water / Wet Areas

- Determine extent of high water table along Leibert's Creek.
- Establish native riparian buffer.

Pavement

- Repave entry loop around Indian Statue "island" planting.
- Repave pedestrian walk from the parking area to the ball field. Expand paved surface to accommodate handicap accessibility for spectator seating.

Land Acquisition (see detail section below)

- Contact adjacent owners regarding park plan and objects.
- Prepare preliminary agreement.
- Explore funding options/apply for grants.

Long Term -

Court Recreation

- Purchase land contiguous to the park to construct two (2) tennis courts and a basketball court on previously disturbed (not archaeologically sensitive) sites.

Parking Lot

- Upgrade parking and entry circle to meet current Township standards.
- Install alternative stormwater management practices to control stormwater runoff (infiltration basins, pervious paving, etc.).
- Install trees and islands to reduce heat generated by the stone paving.
- Add car stops to delineate parking spaces.

Conservation Easement

- Place a conservation easement on the park to protect the archeological site. It would require that a certified archeologist and the Pennsylvania Historic and Museum Commission (PHMC) be notified.

Land Acquisition (Jasper Park):

Even though development surrounds Jasper Park, portions of adjacent parcels should be considered for purchase.

Parcel One: This parcel is located at the southern end of the existing soccer fields. Purchase a portion of this parcel to increase necessary greenspace. A maintenance/service access easement from Vera Cruz Road to this parcel would be recommended; however, paved access to this area would not be suggested. Purchase of the entire parcel includes the former Township Recreation Hall would require major road improvements offsetting any benefit to a second vehicular entrance.

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Parcel Two: The rear portion of this parcel is informally used by the park, as it currently divides the parking area from the soccer fields. Recommend purchase of the rear section of this parcel to secure contiguous land ownership.

Parcel Three: This parcel is directly north of the existing park entrance and drive. The parcel provides necessary space to widen the entrance drive and provide a greater park presence from Vera Cruz Road. A widening of the park entrance would accommodate space for pedestrians and future connections to the Fulmer Tract across the Road. A larger sign could be placed on Vera Cruz Road with the additional road frontage. The area behind the building could provide an area for tennis and basketball courts.

Parcel Four: The Pennsylvania Turnpike blasted through the center of the Jasper Quarries years ago, leaving a portion of this archaeological site on the west side of the now sunken highway. Two (2) parcels, not physically connected to the park, do have a strong historical connection to the park, and should be acquired to protect this valuable resource from further irrevocable damage. The site would be an ideal archaeological site, with limited access to study by permit only.

Parcel Five: The Township should contact the Upper Milford Field and Stream Association pertaining to future preservation of this tract. This parcel is adjacent to Parcel Four and includes additional woodland. Either a conservation easement or direct land purchase should be considered in keeping this property from further development or subdivision.

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Churchview Park

Description:	Churchview Park is a specialty park, providing an asphalt paved loop trail for cyclists and walkers.
Location:	Intersection of Kohler Road and Churchview Road
Address:	4602 Kohler Road, Zionsville PA
Ownership:	Lehigh County, under lease by Upper Milford Township for 99 years (lease originated June 1994)
Access:	Kohler Road
Watershed:	Hosensack Creek, Cold Water Fishery
Boundaries:	North – Churchview road, across from open farmland (Seem Seed Farm) West – Kohler Road, across from open farmland and woodland South – Large Track Residential East – Railroad Line
Landscape Character:	The entire site slopes to the lower southeastern corner of the site. Mature woodland hedgerows surround the southern and eastern boundaries. A large woodland bisects the site and separates the site into three (3) distinct areas. The northern section of the property, at the intersection of Kohler and Churchview is an open, gently sloping meadow. The southern open area is a large open lawn with a small detention basin in the southeastern corner.
Lot:	Rectangular lot – one (1) parcel
Size:	17 Acres
Soils:	CgC2 (Lawn area/parking area) Chester gravelly silt loam , (8-15% slopes) deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building. ChB (woodland) Chester very stony silt loam , (0-8% slope) well drained silt loam soil with large boulders and excessive stones throughout, .5-2 inches layer of black organic topsoil, slow runoff. Depth to bedrock 4-20 feet, depth to high water table 3+ feet, fair for building. Large stone quantity impractical for plowed crops, typically wooded areas. CgC2 (upper meadow) Chester gravelly silt loam , (8-15% slopes) deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building. CgD2 (upper meadow) Chester gravelly silt loam , (15-25% slopes) deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, steep for building. CgB2 (upper meadow) Chester gravelly silt loam , (3-8% slopes) deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building.

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Level of Maintenance: Medium (Facility components maintained to meet facility needs.)

Facilities (Existing): 36-car paved parking lot
asphalt paved loop trail
entrance gates
split rail fence
covered kiosk
portable handicap accessible restroom

Conditions:

Open lawn: The large open lawn area is surrounded by a paved asphalt loop trail.
The entire site is not utilized and the amount of activity is limited.

Recommendations (Churchview Park):

Churchview Park is an underutilized park parcel in the Township. Diversity in park activities and adjustments in park maintenance will increase park usage and justify annual maintenance costs.

Priority -

Site Survey

- Order a site topographical survey. A detailed plan of existing grades, vegetation, features, property boundaries, and roads will provide the basis for future planning and construction.

Park Master Plan

- Prepare a detailed Master Plan to plan for future park improvements and assist in allocating future funds for necessary and desired park improvements.

Events

- Offer the park to organizations for outdoor concerts, flea markets, festivals, etc. The Township could charge a fee to cover clean-up, etc., and extra parking could be in the field near Churchview Road.
- Provide additional restroom facilities (either temporary or permanent restroom/storage facility)

Multipurpose Field

- Re-grade lawn area to support a multipurpose field (Informal/practice field for soccer, football, or field hockey). This area is currently mowed regularly so the increased maintenance for the field would be minimal.

Plantings

- Remove deer browsed plantings to eliminate unnecessary maintenance.
- Install native, deer-resistant plants around parking area to reduce heat generated by the asphalt.
- Extend the hedgerow planting along Kohler Road in and around rocks. This planting will eliminate the tedious trimming currently required.

Maintenance

- Snow plow paved trail for winter use.

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Short Term -

Trail

- Expand the existing loop trail to the upper section of the park.
- Vary trail surfaces to encourage a variety of users and skill levels. A soft (stone dust) trail surface would contrast the existing hard asphalt trail. Maintain all soft trail surfaces to grades at or below 3% slopes.

Recreation Facilities

- Expand park facilities for greater recreational diversity.
- Construct an outdoor amphitheater for outdoor concerts or local acting performances.
- Provide restrooms and electric service to meet expanded park needs.

Landscaping

- Plan and install a plant arboretum, including an educational, self-guided tour with signage and plant labels.
- Replace the outer perimeter of trail with meadow grasses (less maintenance costs, attracts wildlife, adds interest).

Long Term -

Pedestrian Access

- Prepare a Township-wide trail plan to develop pedestrian connections between Township facilities. A trail south on Kohler Road could connect to and continue north on Kings Highway to Lenape Park. Great vistas can be enjoyed from the upper sections of Kohler Road and Kings Highway, making this a potentially enjoyable walking route. The trail would also provide many residents access to both Lenape and Churchview Parks.

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Fulmer Tract Park

Description:	Undeveloped park, located at the northern edge of Vera Cruz. In 1997, Harold G. Fulmer donated almost 35 acres to the Township for preservation.
Location:	Intersection of Vera Cruz Road and Quarry Road
Address:	3620 Quarry Road North, Emmaus, PA 18049
Access:	Vera Cruz Road and Quarry Road
Watershed:	Leibert Creek, High Quality Cold Water Fishery
Boundaries:	North - Quarry Road with residences and woodland across West – Vera Cruz Road and residences fronting Vera Cruz Road South – Main Road East, pond and residence East – woodland, stream Much of the land is tilled farmland, located on a small ridge. The land slopes steadily to the north and south. Edge of roads, fields, and hedgerows help to define some park boundaries; however, the actual parcel boundary is unclear in the landscape.
Landscape Character:	The park is moderately sloping to the north and south. Open fields with mature woodland hedgerows characterize most of the site. Double rows of majestic spruce and a cleared pipeline right-of-way contrast with the otherwise rural landscape.
Lot:	Square, irregular (two parcels)
Size:	34.9 Acres
Soils:	CgB2 (upper tilled field) Chester Gravelly Silt Loam , (3-8% slopes) deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building. CgC2 (upper tilled field) Chester Gravelly Silt Loam , 8-15% slopes, deep soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, fair for building. WgB2 (former pond/wetland) Washington Silt Loam (3-8% slope) well drained, deep, dark-brown silty clay loam. Depth to bedrock 4-60 feet, depth to high water table 3+ feet. Excellent agricultural soils. Cautious for building due to sink holes. CgD3 (eastern edge) Chester Gravelly Silt Loam , (15-25% slopes) shallow soils, well drained, runoff is medium to rapid, fair agricultural soil. Depth to bedrock 4-20 feet, depth to high water table, 3+ feet, steep for building. WsA (wetland/stream corridor) Worsham Silt Loam , (0-3% slope) poorly drained dark grayish-brown soil, with mottled subsoil. Slow permeability. Depth to bedrock 4-10 feet, depth to high water table 0 feet, unsuitable for building with high water table.
Level of Maintenance:	Low

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Vegetation:

Lawns	Fields leased to a local farmer. Open fields tilled.
Trees	Existing mature hedgerows – no maintenance

Facilities (Existing): No Site Improvements

Conditions: Actively farmed

Recommendations (Fulmer Tract Park):

This park is currently undeveloped. Recommendations correspond with the Fulmer Preserve Concept Plan.

Priority -

Park Name

- Sponsor a “park naming” contest (drawing, committee selection, etc.)

Signage

- Design standard signage for all Township parks.
- Install two-sided signs on Main Road East and Vera Cruz Road.

Entrance Land Acquisition (see detail section below)

- Contact adjacent owners regarding park plan and objects.
- Prepare preliminary agreement.
- Explore funding options/apply for grants.

Funding

- Apply for funding to assist with park expansion – particularly County Land Acquisition Fund.
- Apply for Transportation Enhancements Grants for sidewalks/trails in Vera Cruz Road which will improve park user safety and access.

Riparian Buffer Restoration

- Inventory existing vegetation surrounding Leibert Creek.
- Remove invasive species.
- Install native, deer-resistant plants to re-establish a healthy vegetative buffer.
- Coordinate with adjacent land owners on riparian buffer enhancements and proper maintenance.

Perimeter Boundary Survey

- Pin and flag park boundary to clearly delineate park lands.

Perimeter Buffer Planting

- Meet with adjacent property owners pertaining to buffer/hedgerow planting on park land.
- Plant buffer with native, deer-resistant plants to begin establishment.

Short Term -

Parking

- Construct a small parking area and bus turnaround to accommodate residents and school groups.
- Use Best Management Practices (BMPs) as an educational, demonstration park (bio-retention swales, infiltration basins, etc.).
- Design parking area to not impact the site.

Signage

- Develop and install interpretive signage or brochure explaining the site’s archaeological, cultural, and natural significance.

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Trails

- Construct trails around the perimeter of the park. Locate trail at grades under 5%.
- Contact Scout or youth organizations to assist in trail construction.

Long Term -

Funding

- Seek potential funding sources to build project elements, using conservation minded materials.

Boardwalk/Gazebo

- Construct wetland boardwalk and overlook gazebo.

Conservation Easement

- Place a conservation easement on the park to protect the archeological site. It would require that a certified archeologist be present for any ground disturbance and that the Pennsylvania Historic and Museum Commission (PHMC) be notified of any construction.

Land Acquisition (Fulmer Tract Park):

Parcel One: This parcel is located along Main Road East and includes a significant portion of Leibert Creek and the original dam. The property contains a home, trailer, and outbuildings. Interpretation of the ice industry in Vera Cruz can be told through the remnants of the dam. The house could be leased to a park caretaker or museum or nature center or others. The Fulmer Tract is very critical in defining the village edge.

Parcel Two: This parcel joins Parcel One and includes Leibert Creek. This parcel is currently undeveloped.

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Township Wetland

Description:	Undeveloped open space. A land-locked parcel, covered in woodland and dense vegetation with a small stream passing through the center.
Location:	Eastern Township boundary, south of Conservation District Demonstration project on the Seem Seed Farm lands
Address:	4191 Dillingersville Road, Zionsville, PA
Access:	None
Watershed:	Hosensack Creek, Cold Water Fishery
Boundaries:	Surrounding woodland and active farmland
Landscape Character:	Site is flat
Lot:	Rectangular, irregular
Size:	8 Acres
Soils:	GnB2 (upper areas) Glenville Silt Loam , (3-8% slopes) Silty clay loam. Seasonal water table at or near surface, depth to bedrock 3-20 feet, depth to high water table 1.5 feet, unsuitable for building. Aw (stream banks) Atkins Silt Loam , (0-3% slopes). Deep, poorly drained very dark gray silt and clay loam. Nearly level and within flood plain areas. Depth to bedrock 3-35 feet, depth to high water table, 0 feet, unsuitable for building.
Level of Maintenance:	None
Vegetation:	
Wetland	Existing overgrown – no maintenance
Facilities (Existing):	No site improvements
Conditions:	No improvements

Recommendations (Township Wetland):

This parcel is currently undeveloped.

Short Term -

Ownership

- This parcel was donated to the Township June 26, 1984 with the understanding the Township retain the parcel for at least 20 years. In the past 19 years, the Township has been unable to maintain or even utilize this parcel. The land-locked wetland site is not conducive for park development or improvements. Site inaccessibility further complicates access, maintenance, and management. Two options for the Township to consider include:
 1. Considering the Township's current liability and future maintenance costs, selling this parcel to an adjacent land owner, with the understanding it will never be developed, is an option to be explored. As part of the negotiation, the buyers may enter into a conservation easement for their entire parcel with Lehigh County. The monies from the

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sale of this parcel can be used to purchase other lands more critical to its park, recreation, and open space programs in Upper Milford.

2. In order to maintain the property, the Township should explore acquisition of land and/or access easements from the Conservation District Demonstration Park to the Township site. Much of this area is wetland and requires careful planning to not damage sensitive wetland habitats. In addition, access and parking to the Demonstration Project is currently deteriorated and would require improvements to facilitate expanded use.

Park Maintenance Inventory and Analysis

Facilities and Equipment Maintenance

Overview

During several site visits in the spring and summer of 2003, the Township parks were found to be well-maintained. Lawn areas mowed, edges trimmed, pavilions painted, play equipment working, restrooms functioning, and paved areas swept.

Lenape and Jasper Parks

Township staff maintains both park facilities. Most of the work is during the spring, summer, and fall, at which time two (2) additional employees are retained to assist with this work.

Churchview Park

The Township contracts maintenance of Churchview Park to outside sources. A private landscape maintenance company is contracted annually to mow and trim lawn areas. The upper meadow is cut by a local farmer for hay. The portable toilet is rented and maintained by a private company.

Fulmer Tract

The Fulmer Tract is leased to a local farmer who maintains the fields. The Township staff provides shoulder maintenance. There are no improvements at this facility at this time. Planned improvements will require added maintenance.

Wetlands Tract

No maintenance is performed at this site.

Staff

The Township has six (6) full time public works employees, one (1) full-time park “gate keeper,” and two (2) summer help staff.

Park maintenance tasks are completed in addition to other Township work, including road maintenance. In addition to weekly mowing, trimming, and cleaning, the summer assistance completes repairs and painting as necessary.

A full time “park keeper” daily opens and closes each park facility. All three (3) active parks have metal gates securing park entrances. The park gate keeper checks all parks and ensures all park patrons have left the facility prior to locking the gates at night. This is completed 365 days per year.

Equipment

The Township currently owns and maintains the equipment it requires to perform routine maintenance tasks. This includes:

- Mower and Trailer
- Tractor
- Trimmers
- Chipper
- Chainsaws
- Backhoe
- Dump Truck
- Pickups
- Boom Mower
- Street Sweeper
- Fertilizer/Pesticide Applicators
- Shovels, Picks, Brooms, etc.
- Trimmers, Lopers, Clippers

Most of the equipment is stored and maintained at the main Township facility. Small equipment (trimmers, rakes, shovels, etc.) are stored at Lenape and Jasper Parks. No storage is presently available at Churchview or Fulmer Tract.

Upper Milford Township Park, Recreation, Open Space, and Environmental Plan*Upper Milford Township, Lehigh County, Pennsylvania***Existing Maintenance – Task Summary**

	<i>Lenape Park</i>	<i>Jasper Park</i>	<i>Churchview Park</i>	<i>Fulmer Tract</i>
<i>Tasks performed by Township staff.</i>				
Pavilion cleanup	weekly	weekly	-	N/A
Restroom Open	seasonal	seasonal	seasonal	N/A
Restroom Checked	daily	daily	daily	N/A
Restroom Cleaned	3-4/week	3-4/week	-	N/A
Restroom Locked	seasonal	seasonal	N/A	N/A
Trash cans emptied	1/week	1/week	1/week	N/A
Gates opened and locked	daily	daily	daily	N/A
Courts swept	1/week	1/week	N/A	N/A
Court maintenance/surfacing	as needed	as needed	N/A	N/A
Play surface – raked and supplemented	annually	annually	N/A	N/A
Painting	annually	annually	N/A	N/A
Tree trimming	as needed	as needed	as needed	N/A
Shrub trimming	annually	annually	as needed	N/A
Lawns mowed	weekly	weekly	weekly	N/A
Playing Fields mowed	weekly	weekly	N/A	N/A
Fertilization	1/year	1/year	1/year	N/A
Field aeration	1/year	1/year	N/A	N/A
Weed control lawns	1/year	1/year	1/year	N/A
Herbicide (paths/infield)	3/year	3/year	N/A	N/A
Leaf pickup/removal	annually	annually	annually	N/A
Snow plowing	as needed	as needed	as needed	N/A
<i>Tasks performed by Others.</i>				
Restroom facilities	-	-	rented	N/A
Cleaned	-	-	weekly	N/A
Lawn mowing	-	-	weekly	N/A
Trimming	-	-	weekly	N/A
Tree care/removal	as needed	as needed	as needed	N/A
Field use	N/A	N/A	leased	leased

Recommendations

Equipment

Labor to complete routine maintenance tasks can be saved by purchasing critical equipment. Time spent currently to repair older equipment or time spent operating/moving this equipment could be reduced and time spent on other necessary tasks.

Aerator – The Township currently does not aerate. The Township should plan to purchase this equipment so it can perform this task twice annually. Field aeration is important in reducing athletic field compaction. A heavily compacted field can be a hazard to players as well as compromise turf quality.

Park Management/Assessment

Tree Replacement Program – In order to maintain a healthy woodland and vegetative cover, it is important to annually study the health of existing large trees. Species, age, and overall health and condition should be assessed and documented by a Township tree survey/report. This report provides a starting point for tree replacement. In conjunction with an overall master plan, future plantings can be installed to maintain a park's shade and landscape value. For example, large shaded areas for picnicking should be inter-planted with younger trees which will replace those trees currently covering the area.

Woodland Management – Groves of trees and hedgerows require maintenance and planning to ensure healthy vegetation. Invasive plants smother desired plants from establishing. Invasive plants should be removed immediately and areas re-inspected annually for any re-growth. The invasive plants tend to become a monoculture, creating poor environments for wildlife. A diversity of plant material provides food and shelter necessary for a healthy habitat.

Shrubs and Shrub Borders – Shrubs require regular trimming to maintain a manicured look which adds to Township maintenance costs. As shrubs and shrub borders are replaced or newly installed, shrub species should be chosen which do not require trimming except for the occasional grooming. Additionally, any existing shrubs that have enough space to grow to their natural size and shape should be allowed to do so.

Riparian Buffer Maintenance – The land and vegetation parallel on either side of a stream is considered its riparian buffer. The size of the buffer will depend on adjacent land uses, topography, vegetative cover, and soils. Ideally, the buffer should be as wide as possible, minimally 50 feet wide on each side.

A healthy riparian buffer will provide a number of valuable mechanics to a stream. A thick vegetative cover filters water sheet flowing across the land, prior to entering the stream. The trees shade and thus cool the stream, enhancing native aquatic life and reduces algae growth. The vegetation slows the flow of water runoff, reducing stream bank erosion. In addition, plant root systems stabilize banks reducing high water erosion.

Removal of invasive plants will be the first critical task in re-establishing a healthy native plant community. The linear stream corridor does not start or stop at the property line, so it is important to work with neighboring property owners in re-establishing a healthy plant community.

Staff

Based on the existing and anticipated work loads for park maintenance, an additional full time person is needed. This person should be hired to primarily perform park maintenance and management tasks.

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Park Maintenance/Management Staff Person - Generally, park maintenance tasks are completed to maintain operational park facilities. The outsourcing of portions of the work has reduced the need to hire additional staff. However, existing staff are unable to perform all maintenance tasks required. Specific tasks, such as aeration or field fertilization, should be completed twice annually instead of once annually. In addition, other management tasks have not been completed, such as riparian buffer management, tree inventory and assessment, and invasive plant species identification and removal. It is recommended, a park manager/maintenance person be added to the Township staff.

Tasks could include:

- i. Inventory invasive plants at Township parks.
- ii. Create invasive plant removal schedule.
- iii. Install native plants.
- iv. Oversee park improvements.
- v. Perform routine maintenance tasks.
- vi. Orchestrate volunteer work projects.
- vii. Assist with other routine public works projects.
- viii. Assist with environmental management

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Land Preservation/Open Space Inventory and Analysis

Township Landscape Character

It is difficult to summarize Upper Milford Township's landscape character with its vegetative, topographical, and architectural diversity. The woodland clothes an underlying rugged landscape of steep hills and narrow valleys. The woodland interrupts the long vista, surrounds the smoothly tilled field, hides the established homestead, and buffers the babbling stream. Patches of wetland meadows emerge from the woodland, creating natural openings in a wide valley. Carved from the woodland, the agricultural landscape winds and weaves its way through difficult terrain. Ribbons of rolling meadows and wavy fields of grain tie together a variety of landscape gems.

Every turn, every incline, and every stream crossing, affords an unanticipated view or feature of Upper Milford. Flat land does not exist in Upper Milford. Steep slopes, narrow stream valleys, and rolling hillsides flow from one to the next, like waves across a windblown pond. The land has won in this landscape, forcing humankind to develop as they have, already dictated with steep slopes, winding streams, and low-lying wetlands. Wet, steep, or heavily wooded areas remain undisturbed.

Narrow, winding roads traverse the terrain, accessing a wealth of diverse housing. The diversity of architectural style explains a story of development. For many farmsteads, the once dirt wagon trail is now a narrow, sharp turning road separating the house from its barn and outbuildings. Often, where large tracts of tillable land and meadows surround these buildings, the land remains in cultivation. The working farmsteads appear to be struggling, while the "restored farmsteads" are meticulous, as if out of a painting. Smaller farms, often nestled into a small wooded valley, are now surrounded with single-family homes on topographically delineated lots. In many instances, homes appear to huddle together, not with the rhythm of a small village, but rather the unplanned, informal gathering of family members not wanting to move far from home. Each home is distinctive. The irrational layout of development creates a chaos not similar to suburbia, yet each home on its own appears to be a direct descendent.

Several gems can be discovered during a driving tour of the Township.

The village of Powder Valley appears to be scrambling up the wooded mountainsides to escape the anticipated flood. Stone and wood homes hang on steep slopes, overlooking each other and the sinuous Indian Creek below.

In contrast, the Seem Seed Farm flows across the upper hills, overlooking the landscape beyond. Large plowed fields provide waves in the landscape, only limited by woodlands on the outer fringe.

Zoning Ordinance

The Upper Milford Township Zoning Ordinance enacted in June 1985, and revised in June 1992, defines "Environmental Protection" under Article 5. It is stated: "All uses shall be developed in a manner consistent with the preservation of the quality of the existing environment and of any natural amenities present on the site. All uses shall provide for the preservation and the minimum destruction of natural drainage areas, minimum grading and destruction of the ground surface, the preservation of substantial stands of trees and forested areas, and the preservation of attractive views and any other natural features existing on the site."

Development restrictions pertaining to natural site features include:

1. Nuisances prohibited.
2. Steep slopes in excess of 15%.
3. High water table.
4. Setback from streambank (50 feet).
5. Alluvial soils

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- a. Atkins silt loam
 - b. Atkins silt loam, local alluvium
 - c. Huntington silt loam
 - d. Linside silt loam
 - e. Melvin silt loam
 - f. Philo silt loam
 - g. Riverwash
6. Floodplain.

The Natural Lands Trust is evaluating the Township Ordinances pertaining to conservation design relative to Growing Greener principles. Their recommendations will assist the Township in updating their ordinances to better protect and preserve Upper Milford Township's unique and treasured landscape.

Opinion Surveys

Based on the findings of the Township 2003 Needs Assessment Survey, overwhelmingly respondents requested more action be taken to protect and preserve open space in the Township. A county-wide survey by LVPC found 85% of respondents felt more needed to be done to preserve farmland. In addition, about 70% of the respondents believed more parks, recreation facilities, and open space are needed. These results, both locally and county-wide, illustrate the realized need to take action in preserving open space and valuable resources.

Natural Areas Inventory

The Lehigh Valley Planning Commission prepared a Natural Areas Inventory in April 1999, identifying significant natural resources in Lehigh and Northampton Counties. Two sites of statewide significance were identified in Upper Milford Township and a third in neighboring Lower Milford Township.

1. Indian Creek Floodplain (County Ranked No. 3) includes both Upper Milford and Lower Macungie Township. Evidence of PA-Endangered animal species was observed in 1996. The plan recommends surveys be completed to define the extent of habitation.
2. Macungie Watershed (County Ranked No. 4) includes both Upper Milford and Lower Macungie Township. Fair to good quality Northern Appalachian Circumneutral Seeps Natural Community, supporting several species of state concern.
3. Hosensack Marsh (County Ranked No. 1) is in Lower Milford Township. Marsh and shrub swamp support fair to good quality population of PA-Endangered animal species. This is of importance to Upper Milford Township, as Hosensack Creek is supplied from Upper Milford Township.

All sites ranked 1 or 2 were recommended for immediate protection and or management of the site and the surrounding lands. Conservation easements and/or land acquisition of privately-owned lands are suggested.

Other recommendations include:

1. Protection of wetlands, water supplies, creeks, and reservoirs, reducing the impact of development on watersheds.
2. Encourage vegetative buffers with native plant species along waterways to reduce erosion and improve water quality.
3. Minimize encroachment on park lands which may disrupt native flora and fauna.
4. Review land development for its impact on the entire watershed, not just the immediate surrounds.
5. Suggest land development plans provide natural buffers between development and preservation areas.
6. Minimize the construction on or disturbance of slopes over 15%.

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7. Encourage good forest management practices in order to maintain healthy flora.
8. Protect and enhance archaeological resources.

Growing Greener

Released in 1996, Growing Greener is a state-wide conservation planning initiative designed to guide local municipalities in managing growth. Land conservation development regulations advantageously provide applicants and Townships alike fair and land-conserving development solutions. Open space lands are added to a Township-wide network each time land is developed, establishing and preserving a greenway without requiring land condemnation or costly acquisition. Applicants participating in the conservation design alternative still build the maximum number of homes under current zoning regulations, but in a less land-consuming manner. This reduces construction cost and preserves natural resources. The most essential component to the Growing Green approach is communication between landowner/applicant and the Township. Pre-application meeting, site visit, and sketch plan are encouraged at the initiation of the project.

Successfully managing growth involves maintaining the following tools:

- Update the inventory of important natural and cultural resources.
- Involve community participation in prioritizing resource protection.
- Establish policies for conservation and development.
- Initiate a dialogue with owners of significant resource lands.
- Strategize on acquisition and/or protection of the most significant resources.
- Manage public lands as an example of best land management techniques.
- Adopt regulations to guide preferred development patterns.
- Understand development is inevitable and mediate applicant needs with Township planning.

The planning practices of conservation design occur through awareness of the existing landscape. This report only starts the process to gather, assess, and determine how the landscape of Upper Milford Township will change in the future. The GIS mapping mechanically organizes collected data for analysis and presentation resulting in discussion and action. The information and data collected conditions the community to understand the complicated and intricate natural systems which should influence future land development.

Conservation Planning

Conservation planning is similar to cluster plan development with critical adjustments. The conservation plan would be a “by right” approval process, short cutting the conditional use process. There is no minimum lot size criteria for conservation planning. The calculation of preserved open space is a percentage of net buildable land area, ensuring preserved lands not just restricted by wetlands, floodplains, and steep slopes. Active recreation development in the open space would be limited. Significant reduction in allowable minimal lot size provides greater preservation of open space. A density disincentive actually discourages traditional cookie cutter design, by reducing lots per acre density. The Township may consider requiring conservation design on parcels identified on the Map of Potential Conservation Lands to ensure future greenway connections.

The Growing Greener approach to subdivision for land conservation planning is a four-step design approach which relates to the Township’s *Map of Potential Conservation Lands* and to the site specific, applicant’s *Existing Resources/Site Analysis Plan*.

A menu of density choices permits a landowner/applicant to decide development options. Options may include density-neutral, allowing equal density as permitted currently, greater number of lots in exchange for higher percentages of open space, and no delineated open space but at lower densities and larger lot sizes. These options may pertain to both residential and non-residential applications.

Environmental Advisory Council (EAC)

The Township is considering establishing an Environmental Advisory Council (EAC). An EAC provides a number of functions which assist Township staff, supervisors, and commissions in the preservation of natural resources within the Township. Once the EAC Ordinance has been adopted by the Township,

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appointed individuals form the council. The council reviews land development submissions for environmental issues and conformance to the Township's Map of Conservation Areas. Their advisory comments are provided to the Planning Commission and Supervisors to assist in their recommendations and approval of projects. In addition, the EAC may develop workshops, restoration, or cleanup efforts utilizing volunteer efforts to complete these projects. The EAC can apply for additional funds to support environmental improvement projects throughout the Township. Upper Milford Township residents appreciate the natural resources and rural landscape character that exists currently. The EAC focuses on the management, restoration, and preservation of these vital resources. It is strongly recommended the Township adopt and form an EAC to illustrate the Township's interest and desire to maintain a balanced landscape. The EAC could potentially be an expansion of the existing Leibert Creek Watershed Steering Committee.

Conservation Ordinances

The Natural Lands Trust completed a detailed review and assessment of Upper Milford Township's Zoning Ordinance, Subdivision and Land Development Ordinance (SALDO), 1992 Park, Recreation, Open Space and Environmental Plan (PROSEP) and Comprehensive Plan for compliance to Growing Greener recommendations. General and specific recommendations were made on April 9, 2003. The following general comments included:

- Supplement the Conservation Plan and the PROSEP with a Map of Potential Conservation Lands;
- Update the SALDO to require a context map, sketch plan, existing resources/analysis plan, site visit, four-step design process, and;
- Amend the Zoning Ordinance to enforce the conservation principles.

Conservation subdivision design strongly requires an open dialogue between the Township and the applicant from the onset, prior to sketch design stage.

A revised Subdivision and Land Development Ordinance would require:

- Context Map, illustrating natural and man-made features surrounding the site.
- Site Inventory, detailed identification and explanation of existing features.
- Site Visit, members of the Planning Commission walk the site.
- Conservation Plan, areas of conservation are determined prior to site development layout.
- Township-wide Connections, configure conservation lands that link with adjoining parcels.
- Density bonus, provided for open space improvements (trails, land donation, etc.).

An updated Zoning Ordinance would require:

- 'By-right' approval process for selecting conservation option.
- 50% buildable ground in protected conservation area.
- Disincentives, reduced 50% density for conventional development.
- Restrictive Covenant, protecting open space from future development.

Conservation subdivision design does not require large land acquisition or land owner charity.

Purchase Development Rights

The purchase of development rights is another term for purchasing a conservation easement which prevents future development of the land. The development rights are land uses sold to a third party for a sum of money to limit future uses on that land.

Transfer Development Rights

Local governments have the authority to transfer development rights from one portion of the community to another portion in order to permanently protect certain open spaces or agricultural and forest lands. Often this transfer of development rights permits an increase in developable density elsewhere. The transfer requires a conservation easement on the parcel which the rights are being taken and zoning relief for the parcel being developed.

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ASA – Agricultural Security Area

Approximately 975 acres or 8.5% of Upper Milford Township is enrolled in an Agricultural Security Area. This PA State Statute provides participating land owners protection from condemnation, enforcement of nuisance laws, and other ordinances which may prohibit or limit viable farming practices. Owners wanting to participate in State and/or County Agricultural Easement Programs must first participate in this program.

Land owners of viable agricultural land (contiguous or not, which at least 10 acres of each parcel or an anticipated \$2,000 gross income from each parcel) shall submit a proposal to the Township for inclusion in the agricultural security area, provided that such owner or owners own at least 10 acres of viable agricultural land to be in the area. Following public notice, the proposed lands are reviewed based on the Land Evaluation and Site Assessment (LESA) system by the Lehigh County Agricultural Land Preservation Board. If land passes the minimum acceptable standards, the land is granted this designation. All lands are monitored every 7 years. During the seventh year review, a land owner may submit in writing a desire to remove from this designation. Following 180 days, the parcel is then removed. The ASA designation does not protect land from future development.

Conservation Easements

A conservation easement is a legal written agreement between a landowner and third party, such as a land trust entity, who purchases certain land use rights from a property owner to protect that land from certain development. Landowners have rights associated with their property (i.e., to build structures, harvest timber, and cultivate fields) and these rights have a monetary value. Easements remove specific activities by selling or donating those rights in order to restrict future occurrence of these activities on a particular parcel. Easements transfer or limit specific rights from a particular parcel. The document “Using Conservation Easement to Preserve Open Space, A guide for Pennsylvania Municipalities” by the Heritage Conservancy and PA DCNR, explains the process in great detail. A sample agreement is included in the appendix.

A conservation easement placed on Township or County lands ensures the public is aware of significant future changes being made on municipally owned lands. An easement can be broken through a condemnation process, again increasing public awareness of proposed changes. The conservation easement can protect portions of a site from being developed. For example, the Jasper Quarries in Jasper Park are a significant archaeological feature and cultural resource. A conservation easement limiting disturbance in this area prevents future municipal officials from changing or destroying this area.

A recent example of how the conservation easement is necessary is the undesired uses suggested for the Seem Seed Farm. The Seem Family originally sold the land to the County understanding it would remain in agricultural use. The current County Commissioners narrowly approved entering into a purely agricultural land agreement over a proposal to convert portions of the property into a golf course. If a conservation easement had been established defining the land for agricultural use, the debate would have been avoided.

LCAG – Lehigh County Agricultural Easement

The Agricultural Conservation Easement Program protects viable agricultural lands in Lehigh County through the purchase of development rights. An agricultural conservation easement, a legal restriction on land development, limits land use to agricultural purposes. Landowners within designated Agricultural Security Areas can apply to sell perpetual conservation easements to Lehigh County and the Commonwealth of Pennsylvania. The State Agricultural Land Preservation Board established minimum requirements farmland tracts must meet to be eligible and considered for easement purchase. Each year, the Lehigh County Agricultural Land Preservation Board ranks eligible farmland preservation applications using a Land Evaluation and Site Assessment (LESA) system. Farms are chosen for preservation based on soil quality, proximity to other preserved farms, and other factors. As of fall 2003, Lehigh County has protected 158 farms, covering 14,114 acres, with perpetual agricultural conservation easements. It is the Lehigh County Agricultural Land Preservation Board (co-located with the Lehigh County Conservation District) which accepts and evaluates farmland preservation applications. Additional information may be obtained from the Lehigh County Agricultural Land Preservation Board Lehigh County Conservation District Office.

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Protected Farms in Upper Milford

Of the 158 farms protected in Lehigh County, 9 farms equaling 355.8 acres are protected in Upper Milford. The lands are located near the southeast edge of the township, bordering Lower Milford Township. These parcels have been identified and mapped on the primary conservation area map.

Seem Seed Farm

In 1992, Lehigh County purchased the Seem Seed Farm which is in Upper and Lower Milford Townships. The Seem Family sold its farm to the County at a reduced rate with the understanding the land would be used for farming and open space. The 453.5 acres of open fields, woodland and wetlands are located near German, Churchview, and Kohler Roads.

In 1991 and 1994, two portions of the land were used to create the Lehigh County Conservation Demonstration Project on 61 acres and 99 year lease of Churchview Park on 17 acres. Both projects supported recommendations from the *Lehigh County Parks -2000* study to expand the recreational uses of the Seem Seed Farm. The remaining portions of land are either cultivated or preserved open space.

The *Lehigh County Parks – 2005* study further encourages recreational uses of the land. Recreation uses compatible with active farming have co-existed for years on the Seem property. Many residents currently enjoy such recreational activities as: fishing, horseback riding, mountain biking, snowmobiling, tobogganing, cross-country skiing, hiking, dog walking and bird watching. These uses respect the active farming of the land by minimizing crop damage and respecting land conservation.

Until recently, Lehigh County leased the land to the Seem Seed Company. A recent request for proposals solicited potential leasee's and land uses for the property. After sorting through a wide variety of land use proposals (from farming to golf courses), the committee and later the County Commissioners, narrowly agreed to lease the land to Dennis P. Trexler Farms/Leroy C. Stahler, Inc of Center Valley for a period of 10 years. This agreement charges the leasee \$81 per acre for an annual fee of \$35,235 to Lehigh County.

Upper Milford Township residents need to cooperate with Lehigh County in safeguarding this resource. The multi-municipal comprehensive plan is currently studying options to preserve this area.

Act 319

Act 319, more commonly known as Clean and Green, provides real estate tax relief to owners of agricultural or forest land. Tax is based on "use value" rather than its "Market Value." Owners who maintain their land solely devoted to agricultural use, agricultural reserve, or forest reserve use receive preferential assessment. Lots must contain a minimum of 10 acres. Future change in land use may require payment of past taxes.

Covenant Act 515

Covenant Act 515 is an agreement between a property owner and the county, where the owner agrees not to change land use. These agreements are recorded with the Lehigh County Deed's office. Act 515 properties are assessed two ways. First, the property is assessed and taxed at standard rates, which are kept on file. Secondly, the land is assessed based on land quality and coverage, such as soils and vegetation. The land owner then pays the reduced property tax. If the owner develops the land for any use other than agriculture, the Act 515 Covenant is removed and the owner is required to pay the difference in property tax for the prior 5 years, and an additional 5% fee to the county.

Natural Resource Inventory (NRI) Map

The GIS mapping of natural resources evolves with the findings of new and unique habitats in the Township. Once these areas are identified, protection of these sensitive areas can be monitored. Often land developments do not have the background knowledge or time to search a site for these resources, so it is important the Township actively locate and monitor these areas. The NRI becomes a tool for owners and developers early on in the planning process to better understand their land as well as the surrounding landscape. Land development applications can then be sensitive to these areas as well as provide protective measures to ensure their viability once the project is complete.

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Watersheds

Upper Milford Township is divided by two (2) major watersheds, the Lehigh (approximately 60%) and the Schuylkill River (40%). These watersheds are subdivided into eight (8) major stream watersheds, many of which are headwaters to the contributing stream.

Major Watershed - Lehigh

Sub area – Little Lehigh

1. *Leibert Creek* – The headwaters start east of Shimerville and traverses around Vera Cruz, through Leiberts Gap to the Little Lehigh. Leibert Creek flows through portions of Jasper Park and the Fulmer Tract.
2. *Swabia Creek* – A branch of Swabia Creek begins in Upper Milford Township west of Route 100, near Macungie Borough.
3. *Mountain Creek* – The headwaters of Mountain Creek, which filters through Lower Macungie Township and Macungie Borough starts in the western edge of Upper Milford, near Sweetwood Drive. This watershed provides drinking water for Macungie Borough residents. A large parcel of woodland is currently owned by the Borough to protect this resource. Mountain Creek spills into Swabia Creek which then connects to the Little Lehigh Creek. Mountain Creek is not specifically state designated; however, it is a tributary to Swabia Creek.
4. *Miller Creek* – The headwaters of Miller Creek begin near the Route 100/29 split on the northside of South Mountain and proceed north.

Sub area – Saucon Creek

1. *Saucon Creek* – The headwaters to two (2) branches of the Saucon Creek start on either side of Brunner Road, near Mountain Drive. The Saucon Creek continues into Upper and then Lower Saucon Townships before spilling into the Lehigh River.

Major Watershed – Schuylkill River

Sub area – Perkiomen Creek

1. *Perkiomen Creek* – The headwaters of the Perkiomen Creek flow from and back to Hereford Township after making a u-turn in the southwest corner of Upper Milford. The creek follows Sigmund Road, Yeakel Mill Road, and Route 100/29 Chestnut Street. The Perkiomen Creek proceeds through Hereford Township, Berks County to Montgomery County where it eventually flows into the Schuylkill River, near Valley Forge Park.
2. *Hosensack Creek* – The headwaters of Hosensack Creek branch south of Zionsville and Dillinger Station, traversing south along the Township border and into Lower Milford Township near Scout Road. Lenape and Churchview Parks contribute to this watershed.
3. *Indian Creek* – The headwaters of Indian Creek begin near Indian Creek and Schantz Roads, just west of Shimerville. The watershed encompasses a large portion of the Township. The Indian Creek eventually flows into the Perkiomen in Upper Hanover Township, Montgomery County.

Water Resource Protection

The Watershed Conservation Program of the Natural Lands Trust provided an assessment of Upper Milford Township's current Zoning, Subdivision and Land Development Ordinances, and 1992 PROSEP relating to water resource protection in October 2003. Generally, the assessments found the current plans and ordinances do not adequately provide water resource protection. Since several watersheds have headwaters in Upper Milford, it is critical water resource management be addressed. Recommendations included:

1. Greenways – Designate floodplains, wetlands, hydric soils, and streams as a natural greenway corridor throughout the Township.
2. Innovative Stormwater Management – Adopt an updated stormwater management ordinance which addresses NPDES Phase II requirements (maximize groundwater recharge and filtration of water runoff, improving water quality).
3. Groundwater Recharge Zones – Locate and protect groundwater recharge areas to protect well water quality.

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4. Confine Animal Feeding Operations – Safeguard ground and surface water quality by adopting ordinances addressing Agricultural Industry and Animal Husbandry practices outlined by the PA DEP and other agencies.

The report further recommends the Township promote and clearly vision the “greenways – interconnected networks of open space centered around streams and wetlands throughout the Township – should serve as a system of ‘green infrastructure’ in which stormwater management, natural landscaping, and ecological restoration and management requirements are integrated in every land development project”.

Perkiomen Watershed (Portion of Schuylkill River Watershed)

The Upper Perkiomen Watershed Coalition, Natural Lands Trust, and the Pennsylvania Environmental Council completed the Upper Perkiomen Rivers Conservation Plan, which includes a portion of Upper Milford Township. The plan identified three (3) sites in Upper Milford Township with potential stream health concerns: a water warming from ponds at the headwaters of Indian Creek; decreased buffer and bank erosion issues along the Indian Creek near Route 100/29; and a mill dam, located on Indian Creek at the Upper Milford Township border. The plan recommends communities in the watershed permanently protect environmental features, retain traditional land development patterns, provide flexible standards for developers, and recognize the value for multi-municipal planning. Other plan recommendations include restoration and preservation of riparian buffers, conservation of woodlands, protection and restoration of wetlands, improvement of wastewater treatment and reduce single point discharge, planning for water supply needs, reduction of non-point source pollution, reduction of ponds and impoundments, education for landowners, identification of recreation opportunities, establishment of watershed wide programs, assistance to municipalities with GIS technology, support of the formation of Environmental Advisory Council, development of detailed inventories of flora and fauna in the watershed, and assembling of natural and cultural resource inventory.

The Upper Perkiomen Watershed Coalition as well as the Perkiomen Watershed Association are valuable resources and will assist Upper Milford Township in protecting its portion of the watershed.

Schuylkill River Watershed

The Schuylkill River is the largest tributary of the Delaware River Basin covering about 1.2 million acres and encompassing portions of 11 counties in southeastern Pennsylvania. In May 2001, the Conservation Fund, Natural Lands Trust, and the Patrick Center for Environmental Research of The Academy of Natural Sciences formed a partnership to develop a conservation plan for the entire Schuylkill River Watershed. The main objective of the study was to determine how to improve the water quality in the Schuylkill River Watershed. The report recommended 25 actions to be instituted throughout the watershed. The Schuylkill River is recognized and designated as both a State Heritage Corridor and a National Heritage Area. These two (2) designations provide funding to support projects within the watershed. Projects may pertain to both natural and cultural improvements within the watershed. A report on the state of the Schuylkill River Watershed identifies general issues related to water quality and provides steps to initiate awareness and education toward improving current watershed stresses.

Lehigh River Watershed

Lehigh River Watershed covers 1,345 square miles, including portions of 10 counties (Berks, Bucks, Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Schuylkill, and Wayne) and 108 municipalities. From its headwaters to the Delaware River confluence, the river is 103 miles long.

The Lehigh River has long been an active transportation corridor for wildlife, Native Americans, early settlers, industrialists, and outdoor enthusiasts. This rich history developed over years, capturing and redirecting the waters’ flow for progress and movement. In the late 1800s, industry and commerce grew along the banks of the Lehigh River, utilizing the river for a canal system to transport raw materials and completed goods from mines to market. The Lehigh River was the one river in America to be privately owned, until 1965. Today, the Lehigh River has transformed from an industrial past to a more natural condition.

The river still faces many challenges today. Rapid growth (urban sprawl), non-point source pollution, loss of critical habitat, loss of productive farmland, and abandoned mine drainage all impact the watershed.

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Haphazard development continues to consume thousands of acres of farm and forested land including the water flows handled by the river. Our major urban centers are in a state of degeneration. In 1999 and 2000 collectively, 2,916 acres in the Lehigh Valley (Lehigh and Northampton counties) were converted from open space to developed land. Between 1999 and 2000 alone, more than 15,000 new building lots were proposed for development. The population of the Lehigh Valley grew only 7.5% between 1991 and 2001, but land development increased at a rate of 23%. At the current rates, open space the size of Allentown (18.34 square miles) is converted into developed space every 6 years. The water-quality of the Lehigh River is impacted. Excessive stormwater continues to degrade vital riparian habitats. Agricultural non-point source pollution impacts our local waterways. Mine drainage from eight (8) abandoned tunnels continues to pour into tributaries of the Lehigh River and the main stem of the Lehigh River was placed on the 303(d) list for zinc. These issues need to be understood and solved at the watershed level.

In 1998, with support from The William Penn Foundation and private donations, as well as grants from the Department of Environmental Protection (DEP) and the Department of Conservation and Natural Resources (DCNR), Wildlands Conservancy undertook the *Lehigh River Watershed Initiative*. The initiative was an inter-disciplinary effort to direct all of the expertise of our organization toward the issues surrounding the Lehigh River Watershed. The decision to undertake the initiative was the outcome of a 5-year strategic plan developed in 1996 and adopted by the Wildlands Conservancy Board of Directors. To date, the Lehigh River Watershed Initiative has resulted in thousands of acres preserved, countless stream restoration projects completed, new and innovative educational programming, completion of watershed management plans, and the development of the strategic LRCMP.

Mountain bikers and rafters now replace the mules and barges of years past. Fishermen are now as plentiful as were the dams that once controlled the mighty Lehigh. The water quality of the Lehigh River has dramatically improved in recent years and people are starting to develop a sense of stewardship for the resource.

Little Lehigh Creek Stream Corridor Conservation Project

Completed in January 1994, the Wildlands Conservancy prepared for the Trexler Trust a detailed survey of the Little Lehigh Creek, its water quality and streambank condition. The Little Lehigh Creek Watershed covers 16 municipalities and crosses the Lehigh /Berks County border. A 'streamwalk survey' revealed significant erosion and sedimentation problems, maintenance and land management issues, and illegal dumping along the creek and its tributaries. Water quality spot tests were conducted at over 30 sites.

Leibert Creek Watershed Study

Upper Milford Township and Emmaus Borough are currently conducting a water quality and watershed assessment of the Leibert Creek Watershed. Funded by PA DEP, the 24 month long study will identify and alleviate non-point source discharge problems.

The headwaters of Leibert Creek are located in Upper Milford Township, flowing northerly through the Borough of Emmaus. Leibert Creek is hydro-geologically linked to the only remaining uncontaminated well in the Borough of Emmaus. This well (Well No. 6), located within 50 feet of Leibert Creek, provides public water service to 14,000 residents. Leibert Creek is a tributary to the Little Lehigh Creek, which provides the drinking water supply for the City of Allentown. Leibert Creek is an important part of Emmaus' park system and open space, including the Indian Creek golf course. While several studies have been accomplished on the Little Lehigh Creek, no previous studies have been exclusively done on Leibert Creek.

Project Goals are: to develop a GIS based document to regulate watershed focused land use planning, and to increase community awareness of non-point source pollution. Project recommendations will supply actions to limit such impacts, ultimately resulting in the formation of a watershed association for Leibert Creek.

A major step in accomplishing the project goals was to assemble a Steering Committee team comprised of a limited number of Municipal representatives, local citizens and a consultant. This proposed project focuses on filling data gaps in the water quality, flow regime and riparian corridors of the Leibert Creek. The Steering Committee will act as a catalyst for establishing a volunteer monitoring program designed to

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fill the data gaps. Based upon the analysis of the watershed assessment, recommendations will be made to protect and improve water quality. Several public meetings have been held, as well as a Watershed Awareness day to raise public awareness of the condition of the watershed and non-point source threats to it. The ultimate goal of this project is the development of a Restoration Plan that will identify threats and describe specific actions that will respond to their impacts on the stream. Continued monitoring after the assessment is completed will ensure that the proposed actions are meeting expectations. By using a GIS format for the Assessment and Restoration Plans, additional data collected can be easily incorporated into the assessment and analyzed by the watershed community.

Environmental results and benefits of this project will be:

- A comprehensive watershed assessment of Leibert Creek which is a tributary to the Little Lehigh Creek
- A GIS database for the Leibert Creek watershed available for public use
- A watershed restoration plan containing specific remediation strategies and cost estimates for these strategies
- Identification of possible sources of funding

Little Lehigh Creek and Saucon Creek Act 167 Plans

The Little Lehigh Creek Watershed and Saucon Creek Watershed Act 167 Plans determined inadequate management of accelerated runoff from development has increased flood flows and velocities. The increased flows and velocity have contributed to erosion and sedimentation, exceeded capacity of streams and storm sewer systems, undermined floodplain management and flood control measures, increased maintenance costs, and reduced groundwater recharge and general threats to public health and safety. The purpose of the ordinance is to minimize future damage to the watershed and promote public health safety and welfare by establishing criteria upon which new development must comply. The intent is to control accelerated runoff and erosion and sedimentation problems, preserve natural drainage systems, encourage groundwater recharge, maintain existing stream flows, preserve and restore flood carrying capacity of streams, and direct proper maintenance of permanent stormwater management structures. The Lehigh Valley Planning Commission as well as the Lehigh County Conservation District review stormwater management plans for compliance with the requirements of the Act 167 Plan.

Water Quality

Upper Milford Township includes the headwaters (the start of a stream) for several streams and rivers. Most of these have been state classified as high-quality, cold-water fishery streams. The high quality status is significant in realizing the importance the surrounding local land has on regional water quality.

1. Leibert Creek – high quality cold water fishery (HQ-CWF).
2. Hosensack Creek – cold water fishery (CWF).
3. Saucon Creek – cold water fishery (CWF).
4. Swabia Creek – high quality cold water fishery (HQ-CWF).
5. Mountain Creek – high quality cold water fishery (HQ-CWF).
6. Perkiomen Creek – high quality cold water fishery (HQ-CWF)
7. Indian Creek – cold water fishery (CWF).
8. Miller Creek - high quality cold water fishery (HQ-CWF)

Awareness, education, and restoration projects have been instrumental in restoring damaged areas. The Township must require applicants to preserve riparian zones through proper planning and environmental design, thus preventing future degradation. Upper Milford Township currently owns portions of land adjacent to the Leibert Creek as well as the headwater of the Hosensack Creek. Riparian buffer restoration and management should begin on Township lands, providing an example for residents to see first hand.

Riparian Buffer

The land surrounding these water sources is critical in maintaining a high water quality. The immediate area parallel to a stream is its riparian buffer zone and minimally should be 50 feet on either side of the stream bed. This area ideally includes a dense vegetative cover from tall grasses to brushy woodland edge to a thick woodland cover. The riparian zone is subsequently divided into three (3) major zones: stream bank, riparian forest, and herbaceous/grass filter. The vegetative layers filter non-point source pollution

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and sediment from the surface flow of stormwater runoff as it approaches the stream. This filtration process greatly influences the resulting water quality. Disturbance or removal of this filtering buffer significantly impacts a stream with increased flow rates, increased erosion or diminished filtration, and increased sediment and pollutants in the stream. Development and current aesthetic maintenance has removed much of this natural cleaning system. Mowing to the stream's edge, building homes, parking lots, and roads along a stream bank prevents vegetation from growing in these vital zones. The U.S. Department of Agriculture as well as the PA Department of Conservation and Natural Resources (DCNR) provide information on management and maintenance techniques. Inevitably, assessment of a buffer will require site specific recommendations based on physical conditions and constraints.

The buffer width and management of that buffer can significantly impact water quality. Stabilization of eroding small stream banks begins with shrubs and trees covering the banks and a 35 foot wide managed grass buffer. The 35 foot grass filter, on slopes less than 15%, will settle most sediment before entering the stream. The buffer will need to be extended to cover over 100 feet to effectively dissolve nutrients or pesticides from stormwater. Cold water fisheries, which concern all streams in Upper Milford, should be shaded completely to properly cool the water and minimize algae blooms, associated with warm waters. The greatest wildlife habitat benefits are found with heavily vegetated buffers over 300 feet in width. The increased width provides protection for animals with undisturbed interior forests. Riparian corridors provide critical corridors for wildlife movement across the region.

Soils

In 1962, the USDA Soil Conservation Service, in cooperation with Penn State University and PA Department of Agriculture, prepared the Soil Survey of Lehigh County, Pennsylvania, which maps, identifies, and describes the different soil types within the county. The soil delineations were prepared from aerial mapping flown in 1958.

The USDA is currently updating the soil types to be universal across the state. The Lehigh Valley Planning Commission classified high quality soils based on yields per acre. The Upper Milford Township Zoning Ordinance restricts development or filling activity on alluvial soils.

Flood Plain Areas

Understanding how floodplains enhance water quality and foster healthy habitats, justifies preservation and proper management of these areas. Floodplain areas within the Township have been identified on the primary conservation areas map. The Upper Milford Township Zoning Ordinance currently restricts development within 50 feet of any waterbody. A floodplain includes the stream channel, the floodway, and the adjacent fringe. The floodplain is based on watershed area, stream size, and surrounding topography. A functioning flood plain stores and conveys flood waters, recharges groundwater, and provides natural wildlife habitat. Floodplain vegetation filters debris, slows water flow rates, absorbs water, and reduces erosion, which is critical to surface runoff water quality. The existing Township ordinances strictly limit development in these areas. The Federal Emergency Management Agency (FEMA) has mapped the 100 year flood plain along stream corridors.

Wetlands

National Wetlands Inventory (NWI) developed by the U.S. Department of Interior is a starting point for wetland determination. NWI mapping uses stereo-photography to delineate these areas which are incomplete. Locating wetland limits or boundaries is critical in preventing development from damaging these sensitive habitats. The primary conservation areas include the NWI delineated wetlands.

Wetland determination finds areas that are wet lands. Wetlands are typically found in low areas or adjacent to streams or ponds. Areas of high water table, slopes where groundwater springs emerge, perimeters of streams or ponds, flat areas, or abandoned ditches or stream channels are all potential wetland habitats. The wetlands shown on the primary conservation areas plan are large scale and do not include all the wetland areas in the Township nor do they clearly define their limits. Each applicant must provide field determined delineated wetlands on their plans to prevent disturbance. A wetland delineation only provides the basic outline of a wetland area and does not include the upland watershed to this wetland area.

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The upland watershed often provides the water resource creating the wetland. Changes in upland topography, stormwater runoff, and vegetation can significantly impact a wetland without directly disturbing the delineated wetland. Buffers surrounding wetlands should be maintained to transition development to the natural wetland area. Post-development conditions should recreate overland flows and discharge quantities into the wetland buffer zone to minimize development impacts. Ideally, a buffer is a vegetative buffer, filtering the surface runoff before entering the wetland. Vegetative buffers should not be mowed lawn or manicured landscapes, but rather large meadows or young woodlands managed to eradicate invasive plants and foster native plant propagation. The buffer also filters out invasive plants, protecting the wetland habitat from non-native invasive plants.

Greenways

In 1998, the Commonwealth of Pennsylvania ordered a PA Greenways Study under Executive Order 1998-3. A February 2003 update identified spine greenways or linear trails which covered 50 miles in length and included two (2) or more counties. These spines provide state-wide linkages, which municipalities can implement local system connections. In 1999, Lehigh County completed a Natural Areas Inventory. The Department of Conservation and Natural Resources (DCNR) plans to develop a county-wide greenway plan in 2004 for Lehigh County. The website www.pagreenways.org is a clearing house of information for local communities concerning greenway networks across the state.

Upper Milford Township is partly in the Schuylkill River Watershed and Greenway, 1 of 21 state designated greenways/trails. The Delaware and Lehigh Canal corridor is a second greenway. The Township's watershed contributes to this historic transportation route. Upper Milford Township should identify Township greenway corridors and their long-term potential connections to statewide greenways.

Conservation Mapping

The Map of Potential Conservation Lands is the foundation for conservation area preservation. The map identifies a network of open space and greenways throughout the Township for conservation. The map does not delineate parcels for land acquisition but rather makes the Township and land owners aware of natural systems in a particular site and its connection to a larger green network. Natural systems are not confined by parcel boundaries, so this map outlines and connects these systems based on their natural boundaries.

Existing Protected Lands

The initial step in preparing a *map of conservation lands* requires identification of *existing protected lands* in the Township. Township, county, and privately owned lands which are secured open space have been identified. Upper Milford Township currently has 879 acres of open space (primary conservation areas), equating to 7.7% of the Township. These lands include Township parks and open space (107 acres), Lehigh County owned lands (387 acres), and private lands with conservation easements (385 acres). Most of the land is within the Leibert Creek and Hosensack Creek Watersheds, in the east-central portion of the Township.

Primary Conservation Lands

The primary conservation lands map locates natural systems which currently restrict development. These areas include: steep slopes, wetlands, floodplains, and flood prone soils. These areas account for approximately 14% (1,596 acres) of the Township and are disbursed throughout the Township.

Secondary Conservation Lands

The Secondary Conservation Lands Plan identifies natural systems plausible for open space preservation. These lands were identified based on soils, flood prone areas (undevelopable land), riparian buffers, view sheds, and future Township park and recreation acquisition. In addition, lands currently enrolled in the Agricultural Securities Act, as well as privately owned park and recreation areas, are included on the plan. These lands currently provide open space and could potentially be secured through future easement agreements. Other resources identified include buildable woodlands, significant farmland, cultural landscapes, scenic vistas, and other features based on soils, woodland cover, topography, floodplain, wetlands, and watersheds.

Potential Conservation Lands

The Potential Conservation Lands Map should coincide with the Township's official map and show the pattern of resources relative to undeveloped land. Combined data from the previously mentioned plans creates a greenway network of natural systems throughout the Township. Delineated conservation areas are not limited by parcel boundary nor developed or undeveloped parcels. Designated areas may be already developed or contain physical improvements, such as homes, buildings, pavement, etc. The plan does not suggest nor imply that these improvements be removed but rather to advise future development. A few connecting parcels, not identified under a particular natural feature, are noted as providing critical linkages.

The complex matrix of watersheds covering the Township is significant, especially since many headwaters start in the Township. The high-quality, cold-water stream designation further signifies the importance land conservation should play in maintaining the health of these resources. Water resource protection covers most of the Township and should be considered in every land development application. Impervious cover, stormwater, and sewerage can burden and even damage an otherwise sensitive ecology. Proper planning and management can reduce the impact of these necessary improvements to land development.

Township residents enjoy its current landscape character. According to the Township survey, residents want to see this landscape preserved. Unmanaged development may ultimately destroy the very resource that invites new residents. The potential conservation lands map establishes a framework encouraging or requiring future land development applicants to conscientiously protect the Township's greatest asset – its rural and natural landscape character.

Unprotected, Undeveloped, Unconstrained Lands

Seen by neighboring Townships and projected by LVPC population statistics, continued growth and development will surround Upper Milford Township. As a result, the landscape has changed and will continue to evolve from rural to suburban. The Natural Lands Trust recommends a map be prepared to illustrate lands most vulnerable to development.

The base map locates woodlands, open fields, moderate slopes and historic/cultural features, tax parcel boundaries, roads, streams, and watershed boundaries. Three (3) layers overlay this base. Layer one identifies lands protected (solid) and lands for potential acquisition (hatched). Layer two shows unbuildable lands limited by natural features such as steep slopes, wetlands, floodplains, and hydric soils. The third layer identifies lands, either wooded or of prime agricultural soils, and cultural and historic features worthy of conservation or preservation.

Upper Milford Township currently does not have public water or sanitary sewer systems. Areas adjacent to Emmaus Borough, such as Farview Farms and Mink Estates, are serviced by either Emmaus Borough Authority or Lehigh County Authority for water and sewer. The Buss Water Company services developments of Buss Acres and Deer Run. For the purpose of this mapping, only the Rural Agricultural Zoning District met potential development lands inventory requirements. The Zoning Ordinance requires a minimum lot size of 50,000 SF, excluding road rights-of-way, steep slopes (15% or greater), and floodplains.

Scenic Vistas

Every turn in the road reveals changing views of a rolling, rural landscape. From steep wooded mountainsides to rolling meadows to sinuous streams, Upper Milford Township's varied landscape is truly a treasure. Defining significant Township vistas is not easily accomplished. Most public views are provided from roads. The PA Turnpike (Route 476), the Route 100/29, Main Road East & West, and St. Peters Roads were selected in defining significant view sheds. Scenic views have been identified on a plan, showing point of view and extend to view. Many other views, not identified, exist and should be considered when applicants submit land development plans.

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Scenic Areas

Several scenic areas were identified in the 1990 Upper Milford Township Comprehensive Plan. Many of these areas remain areas of landscape beauty. A recent windshield survey of the Township revealed the following scenic areas:

1. Powder Valley and the southern portion of Indian Creek along Powder Valley Road
2. Corning Road, from the Lower Milford Township boundary to the intersection of Pine Tree Road.
3. Old Zionsville village area
4. Zionsville village area and Rock Road
5. Geissinger Road from Kings Highway to Carl's Hill Road
6. Vera Cruz Village Area
7. Indian Creek Road from Chestnut Street to Schantz Road
8. Kohler Road
9. Seem Seed Farm area – German Road, Churchview Road, Vera Cruz Road
10. Dillinger Station – Geho and Churchview Roads
11. Acorn Drive from Bleiler Road to the Lower Milford Township line
12. Brunner Road from the Upper Saucon Township line to South 5th Street
13. South 5th Street, from Main Road East to South Mountain Drive.
14. Kings Highway North from Macungie Borough line to Chestnut Street Intersection
15. Beck Road between Kings Highway and Chestnut Street
16. Scout Road

These areas depict typical landscape characters in Upper Milford Township. From wooded stream valleys to expansive views of rolling farm fields to small village centers, the landscape of Upper Milford is unique. These areas can be impacted by uncontrolled development. Care should be taken to preserve these areas by locating any proposed development out of view or within character to its surroundings.

Scenic Drive

Several areas have been noted on the Scenic Areas and Views plan as areas of particular scenic value. Combined with scenic views and identified cultural resources, a “scenic driving tour” would connect many points of interest, educating residents about their community. An increased awareness of areas with scenic and cultural value will encourage support for preservation efforts.

Watershed Protection

Most residents in Upper Milford Township obtain water from private wells. In addition, Emmaus Borough, Macungie Borough and Red Hill Borough obtain their water from reservoirs originating in Upper Milford Township. Protecting these water supplies is critical to communities beyond Upper Milford Township and Lehigh County. Efforts should focus on providing adequate buffering and limit of development in these critical zones, often beyond the property lines of the individual water authority. These organizations can be critical partners in supporting conservation projects in the Township.

Restoration/Preservation

Many respondents of the Recreation Needs Survey indicated they would volunteer for outdoor recreation activities. Community volunteers, coupled with local schools, universities, Township staff, and non-profit organizations, could work to accomplish the inventory, assessment, repair and maintenance of the Township's landscape. Restoration of an abandoned cultural site, re-forestation of a disturbed wetland, re-establishment of a cleared riparian buffer will collectively begin the preservation and healing process for the cultural and natural landscape. Local newspaper articles, a newsletter, website updates, and Township meeting announcements could further educate residents on efforts underway or initiatives requiring additional support. Identifying projects, assessing projects needs, and gathering support are critical efforts in organizing and managing Upper Milford Township's natural and cultural resources. An EAC could undertake this role as a leader in carrying these types of projects from beginning to end and overseeing the township's restoration and preservation efforts.

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Open Space Ownership and Maintenance

The Growing Greener model ordinance suggests four (4) basic open space ownership options:

Homeowner's Association (HOA) – A homeowner's association is a legally organized entity of property owners within a delineated area. Open space dedication to a homeowners association is not publicly owned and requires the association to ensure the maintenance and preservation of such land. The association, through collection of dues, operates to maintain the open space. Covenants and by-laws provide for the filing of assessments and/or municipal liens for non-payment of dues and/or maintenance costs. This option may be cost prohibitive for developments under five (5) units.

Township/County – The Township or County would take ownership and associated maintenance and management of the lands.

Land Trust – A non-profit agency owns, monitors, and maintains the open space. The trust is often funded by a donation provided with the land.

Individual Owner – The open space is owned in part or whole privately, much like a conservation easement, limiting land use. Open space lands useable for agriculture may be best combined to perpetuate this use. However, unusable lands, more suited to natural succession, could be owned by adjoining property owners, understanding particular land management techniques need to be followed in these areas. Private ownership should contain wording pertaining to proper maintenance of these areas, allowing the Township or other agency to monitor and regulate.

Acquisition

Township ownership of land affords the greatest control over land use and management. Land purchased for specific uses has typically been the mode for previous land acquisitions, such as active park development, Township offices, or public works facilities. More recently, municipalities have pursued the purchase of lands for preservation of natural resources, such as watersheds – public water resources, cultural landmarks, or natural features. Unless funds can be collected, the acquisition of land can be costly and prohibitive, even when a need arises. Funding sources are available to assist Townships in reducing this costly burden; however, even a match can be difficult to obtain.

Often proposed developments contribute lands to the Township. However, land contributions are often “left over” or piecemeal, and as a result Upper Milford Township has traditionally accepted a fee in lieu of land. From a maintenance and management standpoint, this has been a wise decision. With conservation planning, contributed lands will be more significant in size and worthy of Township consideration for ownership.

Another method of land acquisition is through donation. Previously, residents have donated lands to the Township to be preserved. The map of potential conservation lands will guide the Township to particular parcel owners with areas of importance. An open dialogue provides a conduit for presenting options and establishing benefits for owners and the Township together. Acquisition is only one of many options available to preserve open space.

Condemnation is a tool provided by the state which gives the Township the right to acquire land deemed of particular importance. This method is not recommended as it often creates an adverse relationship between owner and Township. The Township is the community of residents and should not be treated as a them verses us. Every effort must be made to work directly with property owners to reach an amiable solution.

Purchase and maintenance costs may prohibit Township ownership requiring alternate preservation techniques. Township land acquisition/ownership can be expensive, unless cost effective management and maintenance options are available. Lands donated to the Township require minimal upfront costs but may require significant maintenance costs subsequently. Long-term lease agreements of tillable land and pasture may provide minimal revenue and offset significant costs for routine maintenance by requiring the tenant to complete these tasks.

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Deed Restricted

Deed restricted lands often are privately owned lands with particular limitations as to the lands development or use. These restrictions can vary significantly. For Upper Milford Township, the Fulmer Tract is deed restricted to providing only passive recreation resources, understanding the land itself is archaeologically significant to the region.

Easement

An easement offers use and/or control of land that is owned by others. These lands limit what can be developed or maintained within the confines of the easement. An easement can include an entire parcel or simply a portion. Easements often are long-term and transfer with the deed.

Lease

A lease provides a short-term use of one's land. The owner maintains control of the site while the leasee uses the site. Time and use are often controlled by the agreement.

Zoning and SALDO Ordinances

Upper Milford Township should adopt the Growing Greener Ordinances for Conservation Development Design. Detailed recommendations are being prepared by the Natural Lands Trust.

Village Centers – Zoning Overlay Districts

Currently, small lot owners in Vera Cruz, Powder Valley, and Zionsville face growing problems with failing septic systems and threatened wells. In order to rectify the situation, an infrastructure of water and/or sewer is needed. A concern with providing public water and sewer is the resultant support for sprawl development. New systems should provide localized service within each village district. This will prevent undesired development beyond the village center and encourage infill development within the village. Public water and/or sewer infrastructure improvements would entice residents to improve these village areas.

In addition to localized water quality, failing septic systems also impact watersheds and neighboring streams. In Vera Cruz, Leibert Creek flows directly behind a number of homes. The Indian Creek flows through the village of Powder Valley, again potentially being impacted by failing septic systems. The 100 year flood plain, poor soils, septic system age, and dense development influence proper performance of a septic system. The construction of a public sewer system would prevent stream contamination from adjacent residents.

No particular zoning defines or impacts the villages identified on the Township's Official Map. In order to preserve the village character, the creation of an 'overlay zoning ordinance' for village zones would encourage new development and limit growth. An overlay ordinance provides land owners alternate zoning requirements with a different set of rules and regulations. The ordinance will require additional streetscape and façade treatments in order to obtain greater density and reduced setbacks. Together, the desired village size is contained and the character preserved. An overlay zoning district combined with infrastructure improvements will preserve the village character and improve the local environment by maintaining a growth boundary.

General Recommendations

Upper Milford Township needs to actively pursue preservation of interconnected, naturally sensitive, and agriculturally significant lands with the Township. Productive farmland, natural habitats, groundwater, stream water quality, woodland habitats, rural character, scenic road corridors, and public vistas are all susceptible to irrevocable damage if not identified and protected.

Recommended Actions:

- ***Utilize Conservation Mapping***

Existing Protected Lands

Primary Conservation Lands

Secondary Conservation Lands

Potential Conservation Lands

Scenic Areas and Cultural Sites



- ***Delineate Scenic Areas***

- ***Create a Historic/Scenic Touring Route***

- ***Protect Watershed Resources***

- ***Restore and Preserve Sensitive Natural Areas/Riparian Buffers***

- ***Recognize and Protect County-Designated Natural Areas***

- ***Update Zoning and SALDO Ordinances***

- ***Enhance Village Centers – Zoning Overlay Districts***

- ***Consider Kings Highway School Future***

- ***Develop a Township-wide Trail Plan***

- ***Establish Regional Trail Connections***

- ***Initiate a dialogue with Significant Parcel Landowners***

- ***Educate Residents about Township Natural and Cultural Resources***

- ***Acquire Parkland to Improve Parks***

Expand Active Recreation Opportunities



Lenape Park Recommendations

Priority -

Improve Kings Highway Entrance

Delineation Property Boundary

Explore Acquiring Adjacent Lands

Develop and Install Uniform Signage System

Apply for Funding/Grants

Monitor Well Water Quality



Short Term -

Prepare a Park Master Plan

Construct Concession Building

Improve Basketball Court

Improve Tennis Courts

Install Landscaping

Construct Vehicle Turn-around



Long Term -

Improve Parking Lot

Construct Loop Walking Trail

Improve Playground



Land Acquisition -

Park Expansion

Acquire land adjacent to Lenape Park to accommodate expansion of park facilities, preserve open space surrounding Old Zionsville village, and provide a safer entrance into the park.



Jasper Park Recommendations

Priority -

Develop and Install Uniform Signage System

Explore Land Acquisition (see detail section below)

Apply for Funding/Grants

Restore Leibert Creek Riparian Buffer

Monitor Well Water Quality

Preserve, protect and enhance Jasper Quarries



Short Term -

Prepare a Site Survey

Complete a Park Master Plan

Upgrade Play Area

Improve Entrance Approach

Resurface Pavements

Long Term -

Consider Court Recreation

Improve Parking Lot

Establish Conservation Easement

Land Acquisition -

Parcel One. This parcel is located at the southern end of the existing soccer fields.

Parcel Two. The rear portion of this parcel is informally used by the park, as it currently divides the parking area from the soccer fields.

Parcel Three. Parcel north of existing entry drive.

Parcel Four. The Pennsylvania Turnpike blasted through the center of the Jasper Quarries years ago, leaving a portion of this archaeological site on the west side of the now sunken highway



Churchview Park Recommendations

Priority -

Prepare a Park Master Plan

Encourage Events

Construct a Multipurpose Field

Install Plantings

Snow plow trails



Short Term -

Expand Trail

Add Recreation Facilities

Install Arboretum/Natural Area



Long Term -

Township Trail Connection



Wetland Site Recommendations

This parcel is currently undeveloped.

Short Term -

*Consider Alternate Ownership with continuous
Conservation Easement*



Fulmer Tract Recommendations

Priority -

Develop and Install Uniform Signage System

Explore Entrance Land Acquisition

Apply for Funding/Grants

Restore Riparian Buffer

Delineate Perimeter Boundary

Plant Perimeter Buffer (Hedgerow)



Short Term -

Install Parking

Develop Informational Signage

Create Trails



Long Term -

Construct a Boardwalk/Gazebo

Establish a Conservation Easement



Land Acquisition -

Parcel One. This parcel is located along Main Road East and includes a significant portion of Leibert Creek and the original dam.

Parcel Two. This parcel joins Parcel One and includes Leibert Creek. This parcel is currently undeveloped.



Public Works/Maintenance Recommendations

Equipment -

Purchase Aerator

Maintenance Management Tasks -

Initiate a Tree Replacement Program / Manage Woodlands

Reduce Laborious Maintenance Tasks

Maintain Riparian Buffer

Hire a Park Maintenance/Management Staff Person



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Based on the goals, the following specific recommendations are categorized by goal.

1. Organize and administer park and recreation services in a way which insures year-round attention to both current and newly proposed programming and facility initiatives.

Specific Goal

- a. Expand Township maintenance and management services (*see maintenance section*).

2. Develop and operate a comprehensive program of recreation and park activities that continue the traditionally strong athletics component for youth while branching into other areas for more interest to the overall population.

Specific Goal

- a. Kings Highway School
Begin a dialogue with the East Penn School District regarding future plans for the Kings Highway School. The Township should investigate potential uses and financial costs associated with the acquisition, improvement, and maintenance of the facility. Even if the Township should decline acquisition of the facility, its future use impacts the Township. Partnering with the School District in supporting favorable adaptive reuse of the facility is of Township interest.
- b. Historic/Scenic Touring Route
Upper Milford Township uniquely offers a diversity in cultural and natural resources. A circuit of significant views, sites, and features along a specified route would encourage awareness to these features and an appreciation to see them preserved. A preliminary touring route has been identified on the map of potential conservation lands. The tour should be developed and presented in a brochure and on the Township's website, providing a map locating the route and points of interest. Images and short paragraphs of text can explain important features and sites.

3. Modernize existing facilities at Jasper, Lenape, and Churchview parks to increase accessibility, improve signage and parking, rebuild, and repair existing facilities, and take better advantage of untapped program potentials at each site.

Specific Goal

See comments listed in individual park sections.

4. Pursue a program of gradual expansion of the existing park system in order to preserve dwindling open space within the Township and maintain a balanced mix between sustained growth of the Township and the current rural quality of life.

Specific Goal

See comments listed in individual park sections.

Township-wide Trail Plan

Survey respondents did identify a need for walking and biking trails in the Township. A trail plan will be involved and require resident participation as trails can be a sensitive issue. Concerns for safety, liability, and maintenance will need to be reviewed and addressed on a general and individual basis. A dialogue should be developed between trail users and landowners to identify key issues and resolve foreseen conflicts.

The existing road network along steep banks, stream embankments, and wetlands complicate road widening for sidewalks, trails, or shoulders in many places. Homes, barns, walls, and the like are occasionally built at the roads edge as well. This complexity of existing site conditions clearly indicates a need to develop a Township-wide trail plan to assist in future development and improvements. A plan will identify sections of trail which may be completely off-road,

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circumventing difficult or impossible areas. The trail plan must provide priority, short, and long term trail options, so a network can be started and established immediately. Once the trail plan is complete, new development, road projects, and funding can be used to complete trail sections overtime. The plan, completed in GIS, can identify and designate the complexity of each section. As trail sections are built, the connecting “difficult” sections become more manageable.

Regional Trail Connections

Commission a joint-municipal trail master plan with neighboring communities. Trail connections can become critical linkages in reducing traffic congestion on local and state roads as well as provide safe paths for residents to access community parks and open space both in and around the Township. A number of trails currently exist or are planned in the immediate area. Efforts should be made to provide linkages to these adjacent systems, providing a network of trails for resident use.

Linear Greenway (Long Term)

Initiate a dialogue between East Penn Railway, Inc. John Nolan (owner/operator) and the Township. The rail corridor is active and is anticipated to remain for some time. However, a right of first refusal should be sought with the land owner so the Township has the opportunity to acquire this land for future preservation and possible recreational use. Portions of the rail right-of-way may not be on land owned by the railroad, but rather occupy privately owned land with limited easement for rail use. The legal implications can be reviewed at the time of acquisition and negotiations will be required with all adjoining property owners. The potential to create a trail connection from Emmaus to East Greenville and the Perkiomen Creek would be a significant connection. A pedestrian/bicycle trail adjacent to the rail line, separated by a fence, should be explored as the rail remains active.

Seem Seed Farm

Recent proposals by potential land tenants illustrate a broad diversity of uses which may not necessarily meet local sentiment. The County has signed the ten year agricultural lease. However, planning to assess and determine the best future use of the land should be completed during this next ten year period.

Upper Milford Township should strengthen its dialogue with Lehigh County and the Farmland Preservation Board regarding future use of the 435 acres in Upper Milford Township. In order to avoid undesired uses, the Township needs to proactively coordinate with the County to safeguard this large agricultural holding. Neighboring residents have formed a Friends of the Seem Seed Farm with an interest in preserving the land’s agricultural use. Both the Township 2003 and Lehigh County 1999 resident surveys determined people want a rural landscape preserved in the Lehigh Valley, and here is an opportunity for the Township and County to uphold that consensus.

The concurrent writing of the multi-municipal comprehensive plan should direct future uses of these County owned lands, and their immediately surrounding areas, by supporting continuation of the agricultural landscape.

Milford Park and Victory Valley

It is recommended that Upper Milford Township actively pursue conservation easements on these parcels currently used for recreation. The easement would permit additions/expansion to existing or future programs, limit non-recreational programs, or provide the Township with a right of first refusal.

Other Lands

The Township should proactively establish a positive dialogue with the land owners and lands identified either in part or whole on the potential conservation land map. Easements, land donations, and land acquisition options need to be presented as options land owners have in creating a positive relationship. An established Environmental Advisory Council (EAC), along with the Township Manager, Supervisors, and county and state agency assistance, could coordinate these efforts and begin educating residents on the importance of their land to the Township’s greenway and environmental wellbeing (or health).

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5. Expand current volunteer efforts to maximize programming and upkeep of key park facilities in a cost effective manner.

Specific Goal

- a. According to the Township Needs Assessment Survey, 25% of the respondents would volunteer with park and recreation activities. The Township should identify those activities which could be offered with the support of volunteers and then solicit residents for support and assistance.
6. Seek to utilize County, State and Federal grant programs in order to help provide the funding necessary for a parks and recreation system that meets the needs of Township residents.

Specific Goal

- a. **Lehigh County Grants Program**
Lehigh County offers municipalities assistance in locating and preparing grant applications for projects. Their interactive website sorts hundreds of potential grants. The county's grant specialists will assist in preparing joint municipal grant applications. As grant requirements and application deadlines change, the county's grant assistance constantly updates their database. www.lehighcounty.org
 - b. **Transportation Grants**
The Pennsylvania Department of Transportation offers Enhancement grants for projects pertaining to pedestrian and bicycle trails, archaeology, historic preservation, landscape beautification, and similar projects all relating to surface transportation. These grants are offered bi-annually.
 - c. **State and Federal Grants**
A list of state and federal grants are summarized in the appendix of this report. The reader should understand that grant application processes, amounts, and deadlines change annually and the descriptions should be used as a guide to locate up-to-date information.
7. Expand current publicity efforts to make Township residents more aware of public park and recreation offerings, as well as the array of private, commercial, quasi-public, and neighboring municipality choices available to satisfy recreation needs.

Specific Goal

Gathering, organizing, and sending information about Upper Milford Township parks and recreation is an important task, necessary in encouraging support and participation. A Township park and recreation director would normally accomplish this task; however, Upper Milford, at this time, does not staff this position. The Park and Recreation Committee and Township Manager should solicit and direct volunteers efforts to supplement those tasks already being completed. If community support and interest increase, the Township may consider retaining part-time staff to manage the park and recreation facilities, news, and activities.

- a. **Township Website**
The Township recently established a website (www.uppermilford.net). This is the most economic and speedy way to provide Township residents information pertaining to Township parks and recreation. General park information, updates, events, and even reservation requests can be completed on-line.
- b. **Email List/E-Newsletter**
As internet and Email use increases, the affordability and reliability of providing information to targeted individuals is vastly emerging as the standard for communication and news. A quarterly or even monthly group Email or e-newsletter sent to interested residents is a fast, economical and user targeted method for disseminating information about Township park and recreation news. A link on the Township's website can allow residents to place their Email

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address on the list. Links in the newsletter can provide resources for additional information, contacts, and feedback - all within a few clicks and a few minutes.

c. Newsletter

The information in the Township Newsletter should be brief, providing pertinent facts. Information should include an interesting fact or 'breaking news,' current activities/events, meeting dates and times, additional information source, and contact information. A Special Edition section targeting park and recreation activities would be another option sent annually about upcoming yearly events.

Significant Parcel Landowner/Resident Education

A dialogue needs to be established with landowners immediately. The Township needs to provide information, educating the land owner the existing resource identified on their land. The Wildlands Conservancy could be a liaison between the Township and the landowner as well.

Appendix

Mapping

Existing Protected Recreation/Open Space

Zoning Land Use

Primary Conservation Areas

Secondary Conservation Areas

Secondary Conservation Areas – Land Cover

Map of Potential Conservation Lands

Watershed Boundaries on USGS

Press Releases

2003 Recreation Needs Survey Form

2003 Recreation Needs Survey Results

2003 Recreation Needs Survey Comments

Programming Meeting - List of Cards

Park Facility Inventory and Analysis Chart

Suggested Outdoor Facility Development Standards

Inventory of Local Parks, Recreation and Open Space

Information on Environmental Advisory Council

Conservation Easement Sample Agreement

Parks, Open Space, and Pathways Classifications Table

Data *(provided on CD to the Township)*

Digital photo files

GIS Data

Report – PDF file format

Potential Funding Sources

Bibliography

**MAP: EXISTING PROTECTED AREAS
UPPER MILFORD TOWNSHIP**

SEE MAP IN SEPARATE FOLDER

**MAP: ZONING LAND USE
UPPER MILFORD TOWNSHIP**

SEE MAP IN SEPARATE FOLDER

**MAP: PRIMARY CONSERVATION AREAS
UPPER MILFORD TOWNSHIP**

SEE MAP IN SEPARATE FOLDER

**MAP: SECONDARY CONSERVATION AREAS
UPPER MILFORD TOWNSHIP**

SEE MAP IN SEPARATE FOLDER

**MAP: SECONDARY CONSERVATION AREAS: LAND COVER
UPPER MILFORD TOWNSHIP**

SEE MAP IN SEPARATE FOLDER

**MAP: POTENTIAL CONSERVATION LANDS
UPPER MILFORD TOWNSHIP**

SEE MAP IN SEPARATE FOLDER

**MAP: UPPER MILFORD TOWNSHIP WATERSHED BOUNDARIES
USGS TOPOGRAPHIC MAP UNDERLAIN BY NATURAL ELEVATION DATUM**

SEE MAP IN SEPARATE FOLDER

PRESS RELEASE

Upper Milford Township to Unveil Updated Park, Recreation and Open Space Plan

Upper Milford Township, Lehigh County is unveiling a draft version of the recently updated Park, Recreation, Open Space and Environmental Plan at a public meeting on Wednesday, October 22, 2003 at 7:30 p.m. This project, coordinated by the Township's Recreation Commission and guided by Wildlands Conservancy, has been under development for the past five months and is an update of the Townships 1992 plan.

As land development continues to consume open space and increases the need for new or upgraded recreation facilities, the updated Park, Recreation, Open Space and Environmental Plan will assist the Township Officials and Planners in making informed decisions regarding future recreational needs and preservation of open space and environmentally sensitive areas. This plan coordinates with the current on-going Multi-Municipal Comprehensive Plan Update being completed by the Municipalities of the East Penn School District and Lower Milford Township.

The Township mailed questionnaires to all Township households, and were pleased with the total number of returned and completed questionnaires. The residents' input from the returned questionnaires is reflected in the content of the proposed plan.

The goals and objective of the plan are to:

- Organize and administer park and recreation services to insure year-round attention to current programming, newly proposed programming, and facility initiatives.
- Develop and operate a comprehensive program of recreation and park activities that continue the traditionally strong athletics component for youth while branching into other areas of more interest to the overall population.
- Modernize existing facilities at Jasper and Lenape Parks to increase accessibility, improve signage and parking, rebuild and/or repair existing facilities, and take better advantage of untapped program potentials at each site.
- Pursue a program of gradual expansion of the existing park system to preserve dwindling open space within the Township and maintain a balanced mix between sustained growth of the Township and the current rural quality of life.

- Expand current volunteer efforts to maximize programming and upkeep of key park facilities in a cost effective manner.
- Seek to utilize County, State, and Federal grant programs in order to help provide the funding necessary for a park and recreation system that meets the needs of Township residents.
- Expand current publicity efforts to make Township residents more aware of public park and recreation offerings, as well as the array of private, commercial, quasi-public, and neighboring municipality choices available to satisfy recreation needs.
- Seek to preserve open space and to protect natural and environmentally sensitive areas.

A copy of the Draft Park, Recreation, Open Space and Environmental Plan can be viewed from the Township website www.uppermilford.net. Or at the Municipal Offices, Kings Highway South and Churchview Road, Old Zionsville, PA, beginning October 8, 2003.

Residents are encouraged to either attend the public meeting or review the draft report and submit an e-mail or written comments to the Township by October 31, 2003. Received comments will be reviewed by the Recreation Commission in completing the final report.

PRESS RELEASE

UPPER MILFORD TOWNSHIP EMBARKS ON OPEN SPACE & PARK PLANNING

Upper Milford Township, guided by the Wildlands Conservancy, is embarking on a trail to evaluate its open space and landscape character. Two projects, one to update the Township's 1992 Park, Recreation, Open Space and Environmental Plan, and the other to prepare a concept park plan, will be conducted concurrently.

As land development continues to consume open space and increase the Township population, updating the Park, Recreation, Open Space and Environmental Plan will assist Township Officials in making informed decisions regarding future land preservation and recreational needs. This proposed plan update will also be coordinated with a current on going Multi-municipal Comprehensive Plan update being worked on by the municipalities within the East Penn School District. The Park, Recreation Open Space and Environmental Plan update will also provide computer based mapping to assist the Township in future planning, maintenance, and scheduling.

Upper Milford Township recently solicited proposals and selected Wildlands Conservancy, consultant for the 1992 study, to prepare the update and develop the concept park plan. The project will take approximately six months to complete. The Upper Milford Township Recreation Commission will be working with the consultant and the community during the process. During the week of May 19, 2003, a written survey will be sent to each Township residence, requesting their input on a number of park, recreation and open space issues. Residents who do not receive a survey in error are encouraged to call or stop by the Township office to receive one. All responses will be tabulated and used to assist the Recreation Commission, Township staff, Planning Commission, and Board of Supervisors in making recommendations for future planning.

In 1997 Harold Fulmer, a Township resident, donated a 35-acre parcel in the Leibert Gap near Vera Cruz to Upper Milford Township for open space. On a recent rainy Saturday morning, members of the committee walked the site to assess its current condition. Even with the drizzle and thick cloud cover, the site's sloping fields and densely wooded hedgerows invoked a warm welcoming sense of heritage and rural landscape beauty. Terry Schmeltzle, resident and member of the Recreation Commission, is excited to see the Township move forward in making the Fulmer Tract an accessible passive park for residents. The site's rich archaeological history will be preserved for generations to enjoy.

Programming meetings will be held at the Upper Milford Township Building on Monday May 19th and June 16th at 7:30 pm, providing an opportunity for residents' ideas to be heard.

A draft plan will be available in July or August 2003 for residents to review and comment. The final plan is to be completed in the fall.

Publish dates:

East Penn Press; May 21, 2003

Call Chronicle; May 16, 2003

Morning Call; May 14, 2003

UPPER MILFORD TOWNSHIP
P.O. BOX 210
OLD ZIONSVILLE PA 18068

RESIDENTS
UPPER MILFORD TOWNSHIP
IMPORTANT SURVEY

.....

UPPER MILFORD PARKS, RECREATION AND OPEN SPACE SURVEY

Upper Milford Township is updating its' 1992 Park, Recreation, Open Space and Environmental Plan. We are requesting your assistance by taking a few minutes to complete this survey. Information gathered from the completed surveys will be used to make recommendations toward future park, recreation, open space, and environmental initiatives within Upper Milford Township. Please complete the survey and return to the township building by Tuesday, June 3, 2003.

1. How long have you been a resident of Upper Milford Township?

☐ less than 1 year ☐ 1 - 5 years ☐ 6 - 15 years ☐ 16 - 30 years ☐ over 30 years

2. Please indicate the number of persons in your household in each of the following age groups:

<input type="checkbox"/> 0 to 7 years	<input type="checkbox"/> 20 to 25 years	<input type="checkbox"/> 56 to 65 years
<input type="checkbox"/> 8 to 15 years	<input type="checkbox"/> 26 to 35 years	<input type="checkbox"/> over 65 years
<input type="checkbox"/> 16 to 20 years	<input type="checkbox"/> 36 to 55 years	

3. Generally, how satisfied are you with the parks and recreation facilities available in Upper Milford Township?

<input type="checkbox"/> very satisfied	<input type="checkbox"/> somewhat dissatisfied	<input type="checkbox"/> not familiar with facilities
<input type="checkbox"/> somewhat satisfied	<input type="checkbox"/> very dissatisfied	

Comments: _____

4. Generally, how satisfied are you with open space protection and farmland preservation in Upper Milford Township?

<input type="checkbox"/> very satisfied	<input type="checkbox"/> somewhat dissatisfied	<input type="checkbox"/> somewhat satisfied	<input type="checkbox"/> very dissatisfied
---	--	---	--

Comments: _____

5. Please indicate which community or public or private facilities you and your household have used in the past year.

<input type="checkbox"/> Jasper Park	<input type="checkbox"/> Lenape Park	<input type="checkbox"/> Mystic Chain Park
<input type="checkbox"/> Seem Seed Farm	<input type="checkbox"/> Churchview Park	<input type="checkbox"/> Milford Park Bible Camp
<input type="checkbox"/> Pool Wildlife Sanctuary	<input type="checkbox"/> Shimerville Recreation	<input type="checkbox"/> Indian Creek Golf Course
<input type="checkbox"/> Rodale Fitness Trail	<input type="checkbox"/> Macungie Institute	<input type="checkbox"/> Victory Valley Christian Camp
<input type="checkbox"/> Emmaus Community Park	<input type="checkbox"/> South Mountain Preserve	<input type="checkbox"/> Kings Highway School Playground
<input type="checkbox"/> Emmaus Community Pool	<input type="checkbox"/> Lower Macungie Pool	<input type="checkbox"/> Conserv. Dist. Demonstration Park
<input type="checkbox"/> Alburtis Community Pool	<input type="checkbox"/> Kalmbach Memorial Park	<input type="checkbox"/> Macungie Memorial Park Pool
<input type="checkbox"/> Macungie Memorial Park	<input type="checkbox"/> other _____	

6. How often do members of your household use Township parks, recreation programs, and facilities?

<u>Children (0-12)</u>	<u>Youth (12-18)</u>	<u>Adult</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	several times a week
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	once a week
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	once a month
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	several times a year
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	once a year
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	never
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

7. What features influence your decision to use a Township park?

<input type="checkbox"/> proximity to my residence	<input type="checkbox"/> facilities available
<input type="checkbox"/> programs and activities	<input type="checkbox"/> other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township.

<input type="checkbox"/> Proximity to Shopping/Entertainment	<input type="checkbox"/> Property Value
<input type="checkbox"/> Proximity to Work	<input type="checkbox"/> Property Tax
<input type="checkbox"/> Access to Highways	<input type="checkbox"/> School District
<input type="checkbox"/> Rural Landscape	<input type="checkbox"/> Neighborhood/Community
<input type="checkbox"/> Family/Friends	<input type="checkbox"/> other _____

9. Would you be willing, as a resident of the Township, to pay more in taxes to support improved and expanded facilities and programs?

☐ yes ☐ no

If yes, how much per year? ☐ 0-\$20 ☐ \$21-\$50 ☐ \$51-\$100 ☐ over \$100

10. Are you a member of any organization or group involved with any type of outdoor recreation activity?

☐ yes ☐ no

If yes, what activity? _____

11. Please indicate with an A (adult) Y (youth) C (child) based on the relative importance to your family of the following potential or existing features of the Township park programs and facilities.

	Very Important	Important	Not Important		Very Important	Important	Not Important
Amphitheater/Stage				Neighborhood Park			
Archery/Target Shooting				Parking Facilities			
Arts and Crafting				Picnic Pavilion			
Arts Fest/Ethnic day				Ponds/Streams			
Baseball/Softball Fields				Recreation Center			
Basketball Courts				Racquetball/Handball Courts			
Bicycle Trails (level/paved)				Skating – Roller			
Bicycle Trails (mountain/dirt)				Skating – Ice			
Bocce Courts				Senior Citizens Activities			
Certified Youth Sport Coaches				Senior Citizens Center			
Community Center				Skateboarding			
Community Garden				Sledding/Tobogganing			
Cross Country Skiing				Soccer/Football Fields			
Dances, adult				Special Interest Classes			
Dances, teen				Sports League			
Dance Classes				Sports Workshops/Classes			
Equestrian/bridle path				Summer Day Camps			
Environmental Center				Swimming Lessons			
Fitness Trails				Swimming/Wading Pool			
Fishing				Tennis Courts			
Golf Course				Trails – Fitness/Jogging/Walking			
Golf Driving Range				Trails – Nature/Hiking			
Handicap Accessible Facilities				Undeveloped Open Space			
Historic Society Museum				Volleyball Courts			
Meeting Rooms				Weight/Exercise Room			

Other Facilities/Programs _____

12. How many miles does each working family member travel each day (total miles per day) to and from work?

1. _____ 2. _____ 3. _____ 4. _____

13. When thinking about the place closest to your home that you use most frequently for recreation activity, would you describe it as a:

___ Public Park	___ Public School
___ Health or Fitness Club	___ Homeowner's Association Recreation Space
___ Country or Social Club	___ Golf Course
___ Private – at home play equipment	___ other _____

14. Macungie Borough recently opened the Macungie Institute, a facility for community groups to gather. If Upper Milford Township provided a facility and/or building for community groups, would you or an organization in which you participate use such a facility for meetings/events/programs?

yes _____ no _____

If yes, please list potential group/organization _____

Type of Activity _____

15. When you consider the quality of life in your neighborhood, on a scale from 1 to 5 (where 1 is very important and 5 is not at all important), please choose how important each of the following statements are about park, recreation and open space areas.

___ Protecting open space from development
___ Making neighborhoods more attractive places to live
___ Preserving environmentally sensitive areas
___ Providing play areas for children and young adults
___ Creating areas where neighbors can get to know each other
___ Offering recreation facilities for adults and seniors
___ Requiring a minimum of 50% of new development sites to be preserved as open space

16. The Township continually must make decisions about developing recreation areas and facilities. They would also like your help in making these decisions. As you read the list of items, please determine if you think the Township should be DOING MORE, DOING LESS, or DOING ABOUT THE SAME in the future for this item. Or if you think the facility is not required in Upper Milford Township.

	do more	do less	do same	not required
a. Playgrounds	_____	_____	_____	_____
b. Tennis Courts	_____	_____	_____	_____
c. Swimming Pools	_____	_____	_____	_____

(Continued on next page)

		do more	do less	do same	not required
d.	Golf Courses	_____	_____	_____	_____
e.	Racquetball/Handball Courts	_____	_____	_____	_____
f.	Recreation/Community Centers	_____	_____	_____	_____
g.	Ballfields	_____	_____	_____	_____
h.	Bicycle Trails	_____	_____	_____	_____
i.	Jogging and Exercise Trails	_____	_____	_____	_____
j.	Basketball Courts	_____	_____	_____	_____
k.	Nature Areas/Trails	_____	_____	_____	_____
l.	Picnic Areas	_____	_____	_____	_____
m.	Open Play Areas	_____	_____	_____	_____
n.	Parking Areas	_____	_____	_____	_____
o.	Skateboarding Facilities	_____	_____	_____	_____
p.	In-line Skating Facilities	_____	_____	_____	_____
q.	Open Space Protection	_____	_____	_____	_____
r.	Farmland Preservation	_____	_____	_____	_____
s.	Protection of Sensitive Areas	_____	_____	_____	_____
t.	Other _____	_____	_____	_____	_____

|

17. If you could create the ideal recreational facility for your neighborhood, what percentage of that facility

- | | | | |
|----|---------------------------------------|---------|------------|
| a. | would be open space? | _____ % | |
| b. | would be natural/wooded? | _____ % | |
| c. | would be active play areas? | _____ % | TOTAL 100% |
| d. | would be picnic facilities/pavilions? | _____ % | |
| e. | community center? | _____ % | |
| f. | other _____ | _____ % | |

18. The Township tries to provide quality park and recreation services to all residents. It often has to make difficult choices on how to develop and operate parks. Would you encourage the Township to (circle the preferred opinion):

- | | | | |
|----|---|----|--|
| a) | 1. Develop more smaller parks used by neighborhood and community residents. | OR | 2. Develop fewer but larger parks that are used by all Township residents. |
| b) | 1. Maintain existing park and recreational areas. | OR | 2. Buy more park land in developing areas. |
| c) | 1. Begin developing vacant or undeveloped park lands. | OR | 2. Expand existing park and recreational areas. |

19. Have you ever participated as a volunteer at a public recreation area, facility, or program?

___ yes ___ no

20. Would you be willing to volunteer time to supervise or coordinate recreation programs within Upper Milford Township?

___ yes ___ no

21. Do you think that the Township should actively pursue the creation of an Environmental Advisory Committee?

___ yes ___ no

22. Would you be willing to participate as an active volunteer on an Environmental Advisory Committee?

___ yes ___ no

If you are willing to serve as a volunteer in any type of capacity please contact the Township at 610-966-3223 or email: info@uppermilford.net.

THANK YOU FOR YOUR COOPERATION AND PARTICIPATION – Please return by Tuesday, June 3, 2003.

A public meeting will be held at the Upper Milford Township Building on Monday, June 16, 2003 at 7:30pm

Wildlands Conservancy will gather participants' programming ideas for program planning.

The Upper Milford Township Recreation Commission welcomes your attendance.

No postage required

No postage required

Please refold the survey so the return address is facing outward.

.....
Staple or tape closed as indicated.

**Upper Milford Township
PO Box 210
Old Zionville, PA 18068**

STAPLE / TAPE HERE

UPPER MILFORD PARKS, RECREATION AND OPEN SPACE SURVEY – 2003 Results

1. How long have you been a resident of Upper Milford Township?

17 less than 1 year 80 1 - 5 years 117 6 - 15 years 126 16 - 30 years 125 over 30 years

2. Please indicate the number of persons in your household in each of the following age groups:

120 0 to 7 years 48 20 to 25 years 150 56 to 65 years

171 8 to 15 years 98 26 to 35 years 167 over 65 years

83 16 to 20 years 445 36 to 55 years

3. Generally, how satisfied are you with the parks and recreation facilities available in Upper Milford Township?

170 very satisfied 23 somewhat dissatisfied 83 not familiar with facilities

165 somewhat satisfied 13 very dissatisfied

4. Generally, how satisfied are you with open space protection and farmland preservation in Upper Milford Township?

122 very satisfied 88 somewhat dissatisfied 152 somewhat satisfied 56 very dissatisfied

5. Please indicate which community or public or private facilities you and your household have used in the past year.

214 Jasper Park

181 Lenape Park

55 Mystic Chain Park

43 Seem Seed Farm

108 Churchview Park

27 Milford Park Bible Camp

148 Pool Wildlife Sanctuary

53 Shimerville Recreation

87 Indian Creek Golf Course

121 Rodale Fitness Trail

58 Macungie Institute

22 Victory Valley Christian Camp

189 Emmaus Community Park

26 South Mountain Preserve

71 Kings Highway School Playground

84 Emmaus Community Pool

30 Lower Macungie Pool

16 Conserv. Dist. Demonstration Park

4 Alburtis Community Pool

61 Kalmbach Memorial Park

49 Macungie Memorial Park Pool

212 Macungie Memorial Park

___ other _____

6. How often do members of your household use Township parks, recreation programs, and facilities?

Children (0-12)

Youth (12-18)

Adult

42 26 56 several times a week

23 17 41 once a week

15 14 43 once a month

20 31 161 several times a year

5 8 55 once a year

10 8 56 never

9 11 17 N/A

7. What features influence your decision to use a Township park?

289 proximity to my residence

213 facilities available

147 programs and activities

___ other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 1.](#)

<u>13</u> Proximity to Shopping/Entertainment	<u>32</u> Property Value
<u>34</u> Proximity to Work	<u>38</u> Property Tax
<u>10</u> Access to Highways	<u>75</u> School District
<u>218</u> Rural Landscape	<u>42</u> Neighborhood/Community
<u>75</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 2.](#)

<u>11</u> Proximity to Shopping/Entertainment	<u>35</u> Property Value
<u>34</u> Proximity to Work	<u>31</u> Property Tax
<u>12</u> Access to Highways	<u>78</u> School District
<u>79</u> Rural Landscape	<u>39</u> Neighborhood/Community
<u>46</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 3.](#)

<u>22</u> Proximity to Shopping/Entertainment	<u>50</u> Property Value
<u>29</u> Proximity to Work	<u>24</u> Property Tax
<u>18</u> Access to Highways	<u>42</u> School District
<u>32</u> Rural Landscape	<u>65</u> Neighborhood/Community
<u>26</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 4.](#)

<u>28</u> Proximity to Shopping/Entertainment	<u>43</u> Property Value
<u>39</u> Proximity to Work	<u>23</u> Property Tax
<u>25</u> Access to Highways	<u>20</u> School District
<u>15</u> Rural Landscape	<u>42</u> Neighborhood/Community
<u>25</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 5.](#)

<u>34</u> Proximity to Shopping/Entertainment	<u>44</u> Property Value
<u>28</u> Proximity to Work	<u>28</u> Property Tax
<u>34</u> Access to Highways	<u>15</u> School District
<u>14</u> Rural Landscape	<u>26</u> Neighborhood/Community
<u>17</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 6.](#)

<u>22</u> Proximity to Shopping/Entertainment	<u>27</u> Property Value
<u>28</u> Proximity to Work	<u>28</u> Property Tax
<u>20</u> Access to Highways	<u>14</u> School District
<u>5</u> Rural Landscape	<u>17</u> Neighborhood/Community
<u>15</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 7.](#)

<u>36</u> Proximity to Shopping/Entertainment	<u>13</u> Property Value
<u>17</u> Proximity to Work	<u>14</u> Property Tax
<u>38</u> Access to Highways	<u>6</u> School District
<u>2</u> Rural Landscape	<u>19</u> Neighborhood/Community
<u>25</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 8.](#)

<u>23</u> Proximity to Shopping/Entertainment	<u>7</u> Property Value
<u>13</u> Proximity to Work	<u>22</u> Property Tax
<u>33</u> Access to Highways	<u>19</u> School District
<u>5</u> Rural Landscape	<u>15</u> Neighborhood/Community
<u>18</u> Family/Friends	other _____

8. Please identify (rank if more than one applies with 1 being most important and 9 being least important) for your household's reason in residing in Upper Milford Township. [Number that ranked number 9.](#)

<u>53</u> Proximity to Shopping/Entertainment	<u>11</u> Property Value
<u>29</u> Proximity to Work	<u>45</u> Property Tax
<u>35</u> Access to Highways	<u>25</u> School District
<u>6</u> Rural Landscape	<u>14</u> Neighborhood/Community
<u>32</u> Family/Friends	other _____

9. Would you be willing, as a resident of the Township, to pay more in taxes to support improved and expanded facilities and programs?

117 yes 264 no

If yes, how much per year? 52 0-\$20 74 \$21-\$50 32 \$51-\$100 19 over \$100

10. Are you a member of any organization or group involved with any type of outdoor recreation activity?

138 yes 307 no

If yes, what activity? _____

11. Please indicate with an A (adult) Y (youth) C (child) based on the relative importance to your family of the following potential or existing features of the Township park programs and facilities.

	Very Important	Important	Not Important		Very Important	Important	Not Important
Amphitheater/Stage	18	72	187	Neighborhood Park	152	113	60
Archery/Target Shooting	33	46	196	Parking Facilities	85	127	75
Arts and Crafting	20	81	155	Picnic Pavilion	97	133	81
Arts Fest/Ethnic day	37	133	131	Ponds/Streams	184	111	39
Baseball/Softball Fields	44	77	122	Recreation Center	65	99	105
Basketball Courts	29	74	129	Racquetball/Handball Courts	19	39	201
Bicycle Trails (level/paved)	94	123	79	Skating – Roller	29	46	184
Bicycle Trails (mountain/dirt)	52	80	130	Skating – Ice	35	72	158
Bocce Courts	6	26	225	Senior Citizens Activities	65	117	111
Certified Youth Sport Coaches	33	52	144	Senior Citizens Center	58	96	135
Community Center	56	102	119	Skateboarding	7	23	209
Community Garden	40	85	150	Sledding/Tobogganing	33	65	151
Cross Country Skiing	21	48	191	Soccer/Football Fields	49	61	130
Dances, adult	16	44	204	Special Interest Classes	35	75	160
Dances, teen	5	29	171	Sports League	50	55	134
Dance Classes	14	31	194	Sports Workshops/Classes	27	61	151
Equestrian/bridle path	30	33	200	Summer Day Camps	25	51	156
Environmental Center	56	104	119	Swimming Lessons	44	49	154
Fitness Trails	112	140	63	Swimming/Wading Pool	61	64	135
Fishing	71	96	121	Tennis Courts	47	93	129
Golf Course	46	62	179	Trails – Fitness/Jogging/Walking	170	114	46
Golf Driving Range	41	58	177	Trails – Nature/Hiking	165	103	48
Handicap Accessible Facilities	85	93	98	Undeveloped Open Space	261	58	32
Historic Society Museum	55	117	118	Volleyball Courts	38	92	131
Meeting Rooms	31	90	153	Weight/Exercise Room	46	62	175

11. Please indicate with an A (adult) **Y (youth)** C (child) based on the relative importance to your family of the following potential or existing features of the Township park programs and facilities.

	Very Important	Important	Not Important		Very Important	Important	Not Important
Amphitheater/Stage	6	17	45	Neighborhood Park	62	28	12
Archery/Target Shooting	11	22	44	Parking Facilities	18	23	19
Arts and Crafting	11	40	34	Picnic Pavilion	26	37	19
Arts Fest/Ethnic day	11	32	32	Ponds/Streams	55	22	11
Baseball/Softball Fields	45	39	21	Recreation Center	28	32	26
Basketball Courts	26	48	26	Racquetball/Handball Courts	8	13	52
Bicycle Trails (level/paved)	48	50	12	Skating – Roller	23	31	40
Bicycle Trails (mountain/dirt)	33	35	27	Skating – Ice	24	36	30
Bocce Courts	4	9	50	Senior Citizens Activities	5	7	38
Certified Youth Sport Coaches	28	35	26	Senior Citizens Center	1	3	47
Community Center	25	32	30	Skateboarding	24	25	48
Community Garden	9	14	40	Sledding/Tobogganing	29	37	27
Cross Country Skiing	10	14	43	Soccer/Football Fields	47	32	17
Dances, adult	0	3	42	Special Interest Classes	12	20	39
Dances, teen	10	35	41	Sports League	42	35	23
Dance Classes	6	13	46	Sports Workshops/Classes	15	33	35
Equestrian/bridle path	11	18	43	Summer Day Camps	22	30	39
Environmental Center	20	29	29	Swimming Lessons	32	24	32
Fitness Trails	32	30	18	Swimming/Wading Pool	40	23	31
Fishing	29	31	26	Tennis Courts	23	38	27
Golf Course	15	15	41	Trails – Fitness/Jogging/Walking	54	31	13
Golf Driving Range	11	18	37	Trails – Nature/Hiking	52	33	12
Handicap Accessible Facilities	21	20	30	Undeveloped Open Space	66	12	10
Historic Society Museum	12	24	40	Volleyball Courts	23	40	30
Meeting Rooms	5	16	43	Weight/Exercise Room	11	21	42

11. Please indicate with an A (adult) Y (youth) C (child) based on the relative importance to your family of the following potential or existing features of the Township park programs and facilities.

	Very Important	Important	Not Important		Very Important	Important	Not Important
Amphitheater/Stage	4	13	41	Neighborhood Park	75	24	6
Archery/Target Shooting	4	7	43	Parking Facilities	28	23	12
Arts and Crafting	12	36	25	Picnic Pavilion	31	40	12
Arts Fest/Ethnic day	9	29	29	Ponds/Streams	55	28	5
Baseball/Softball Fields	35	35	15	Recreation Center	30	28	21
Basketball Courts	21	36	17	Racquetball/Handball Courts	4	7	51
Bicycle Trails (level/paved)	43	40	10	Skating – Roller	20	32	34
Bicycle Trails (mountain/dirt)	19	26	29	Skating – Ice	20	38	26
Bocce Courts	1	6	49	Senior Citizens Activities	6	10	35
Certified Youth Sport Coaches	24	26	19	Senior Citizens Center	3	6	43
Community Center	20	28	24	Skateboarding	11	14	47
Community Garden	7	10	40	Sledding/Tobogganing	28	41	18
Cross Country Skiing	5	5	39	Soccer/Football Fields	40	30	15
Dances, adult	1	1	38	Special Interest Classes	10	27	29
Dances, teen	4	10	34	Sports League	42	26	18
Dance Classes	8	5	45	Sports Workshops/Classes	15	31	26
Equestrian/bridle path	6	9	43	Summer Day Camps	27	31	26
Environmental Center	12	29	26	Swimming Lessons	37	31	21
Fitness Trails	23	27	14	Swimming/Wading Pool	41	29	23
Fishing	23	31	25	Tennis Courts	22	27	22
Golf Course	10	9	41	Trails – Fitness/Jogging/Walking	52	24	8
Golf Driving Range	9	10	41	Trails – Nature/Hiking	57	24	11
Handicap Accessible Facilities	21	21	23	Undeveloped Open Space	64	13	7
Historic Society Museum	10	21	36	Volleyball Courts	18	31	26
Meeting Rooms	4	12	39	Weight/Exercise Room	8	17	39

1. 21.119 2. 11.938 3. 19.263 4. 11.900

- | | |
|---|---|
| <u>241</u> Public Park | <u>22</u> Public School |
| <u>63</u> Health or Fitness Club | <u>0</u> Homeowner's Association Recreation Space |
| <u>8</u> Country or Social Club | <u>48</u> Golf Course |
| <u>106</u> Private – at home play equipment | <u> </u> other _____ |

- Yes 121 no 249

Type of Activity_____

- 214 Requiring a minimum of 50% of new development sites to be preserved as open space

- 64 Requiring a minimum of 50% of new development sites to be preserved as open space

15. When you consider the quality of life in your neighborhood, on a scale from 1 to 5 (where 1 is very important and 5 is not at all important), please choose how important each of the following statements are about park, recreation and open space areas. [Ranked 3 on a scale of 1 to 5.](#)

- 30 Protecting open space from development.
- 84 Making neighborhoods more attractive places to live
- 45 Preserving environmentally sensitive areas
- 84 Providing play areas for children and young adults
- 97 Creating areas where neighbors can get to know each other
- 100 Offering recreation facilities for adults and seniors
- 67 Requiring a minimum of 50% of new development sites to be preserved as open space

15. When you consider the quality of life in your neighborhood, on a scale from 1 to 5 (where 1 is very important and 5 is not at all important), please choose how important each of the following statements are about park, recreation and open space areas. [Ranked 4 on a scale of 1 to 5.](#)

- 11 Protecting open space from development.
- 38 Making neighborhoods more attractive places to live
- 22 Preserving environmentally sensitive areas
- 45 Providing play areas for children and young adults
- 71 Creating areas where neighbors can get to know each other
- 46 Offering recreation facilities for adults and seniors
- 16 Requiring a minimum of 50% of new development sites to be preserved as open space

15. When you consider the quality of life in your neighborhood, on a scale from 1 to 5 (where 1 is very important and 5 is not at all important), please choose how important each of the following statements are about park, recreation and open space areas. [Ranked 5 on a scale of 1 to 5.](#)

- 18 Protecting open space from development.
- 56 Making neighborhoods more attractive places to live
- 20 Preserving environmentally sensitive areas
- 58 Providing play areas for children and young adults
- 102 Creating areas where neighbors can get to know each other
- 89 Offering recreation facilities for adults and seniors
- 46 Requiring a minimum of 50% of new development sites to be preserved as open space

16. The Township continually must make decisions about developing recreation areas and facilities. They would also like your help in making these decisions. As you read the list of items, please determine if you think the Township should be DOING MORE, DOING LESS, or DOING ABOUT THE SAME in the future for this item, or you think the facility is NOT REQUIRED in Upper Milford Township.

	do more	do less	do same	not required
a. Playgrounds	<u>110</u>	<u>10</u>	<u>280</u>	<u>36</u>
b. Tennis Courts	<u>66</u>	<u>16</u>	<u>250</u>	<u>99</u>
c. Swimming Pools	<u>97</u>	<u>8</u>	<u>160</u>	<u>166</u>
d. Golf Courses	<u>56</u>	<u>20</u>	<u>114</u>	<u>220</u>
e. Racquetball/Handball Courts	<u>46</u>	<u>16</u>	<u>102</u>	<u>236</u>
f. Recreation/Community Centers	<u>135</u>	<u>8</u>	<u>167</u>	<u>90</u>
g. Ball Fields	<u>73</u>	<u>5</u>	<u>280</u>	<u>50</u>
h. Bicycle Trails	<u>185</u>	<u>4</u>	<u>158</u>	<u>63</u>
i. Jogging and Exercise Trails	<u>185</u>	<u>3</u>	<u>183</u>	<u>41</u>
j. Basketball Courts	<u>65</u>	<u>6</u>	<u>250</u>	<u>79</u>
k. Nature Areas/Trails	<u>244</u>	<u>2</u>	<u>142</u>	<u>31</u>
l. Picnic Areas	<u>96</u>	<u>2</u>	<u>279</u>	<u>32</u>
m. Open Play Areas	<u>96</u>	<u>1</u>	<u>267</u>	<u>37</u>
n. Parking Areas	<u>49</u>	<u>7</u>	<u>278</u>	<u>60</u>
o. Skateboarding Facilities	<u>53</u>	<u>25</u>	<u>126</u>	<u>194</u>
p. In-line Skating Facilities	<u>60</u>	<u>17</u>	<u>147</u>	<u>174</u>
q. Open Space Protection	<u>303</u>	<u>0</u>	<u>97</u>	<u>17</u>
r. Farmland Preservation	<u>325</u>	<u>2</u>	<u>88</u>	<u>14</u>
s. Protection of Sensitive Areas	<u>301</u>	<u>0</u>	<u>109</u>	<u>13</u>
t. Other _____	<u> </u>	<u> </u>	<u> </u>	<u> </u>

17. If you could create the ideal recreational facility for your neighborhood, what percentage of that facility

a. would be open space?	<u>27.08</u> %	
b. would be natural/wooded?	<u>33.08</u> %	
c. would be active play areas?	<u>17.48</u> %	TOTAL 100%
d. would be picnic facilities/pavilions?	<u>11.92</u> %	
e. community center?	<u>8.68</u> %	
f. other _____	<u> </u> %	

18. The Township tries to provide quality park and recreation services to all residents. It often has to make difficult choices on how to develop and operate parks. Would you encourage the Township to (circle the preferred opinion):
- | | | | | |
|----|----|--|----|-------------------------------------|
| a) | 1. | Develop more smaller parks <u>123</u> OR | 2. | Develop fewer but larger <u>197</u> |
| | | used by neighborhood and | | parks that are used by |
| | | community residents. | | all Township residents. |
| b) | 1. | Maintain existing park and <u>223</u> OR | 2. | Buy more park land in <u>146</u> |
| | | recreational areas. | | developing areas. |
| c) | 1. | Begin developing vacant <u>124</u> OR | 2. | Expand existing park <u>190</u> |
| | | or undeveloped park lands. | | and recreational areas. |
19. Have you ever participated as a volunteer at a public recreation area, facility, or program?
- 200 yes 248 no
20. Would you be willing to volunteer time to supervise or coordinate recreation programs within Upper Milford Township?
- 107 yes 320 no
21. Do you think that the Township should actively pursue the creation of an Environmental Advisory Committee?
- 264 yes 143 no
22. Would you be willing to participate as an active volunteer on an Environmental Advisory Committee?
- 114 yes 290 no

Comments

*Residents wrote the following comments when they completed the 2003 Recreation Need Survey.
Comments are provided here for information and are in no particular order.*

- need for more walking trails
- need a long walking trail, more play equipment in neighbor's like Lower Macungie does
- Like degree of maintenance now! Would like to see more parks and recreation areas before development uses up space remaining!
- only know Jasper Park
- my use is light duty - the facilities for activities of my liking are limited
- it would be nice if the restrooms would be open at Lenape earlier in the season
- They are just fine. Leave them alone.
- could use a dog park
- well kept, ample choices
- would like to see upgrades to ball fields and snack stands
- not enough walking trails
- What about walkers? Road walking is dangerous.
- would like to see events (food festival, dog shows ...) in parks other than Macungie Memorial
- need functional concession stands and year-round bathroom facilities
- we really don't have the time in our schedules to use the facilities
- Well kept - No vandalism - Respect for facilities
- bathrooms are a mess, park areas like snack bars and pavilions need work
- we use Lenape Park each year for our family reunion
- leave Seem Seed Farm open for recreation
- the bike park could be developed more (something in middle for children)
- I like the skating park on Kohler Rd. I'd like to see a larger one.
- only familiar with Lenape and Jasper Parks
- getting in and out of Lenape Park traffic is bad
- nice and clean
- The parks are not "overdone," they are natural areas.
- unfortunately I haven't utilized the parks
- we have no reason to use any of these facilities
- I have been meaning to check out Churchview Park roller-blade facility
- they could make a path in the snow in winter (Church View Track)
- Glad to see parks being fixed up!
- put walking areas in parks - not in fields
- why does it take so long to get water running at Jasper Park
- rent high for pavilions and condition
- only know Jasper Park
- rentals are too expensive
- the snack shack @ Lenape is in dire need of demolition and rebuilding
- need more

- we could use some truly full-sized soccer fields
- the traffic coming in and out of Lenape Park should be addressed
- I will be calling the township to learn more
- noticed wasp and nest at Lenape Park (Summer 2002)
- I have never been in the walking/rollerblade park; although I know of it.
- We rented a pavilion last year and found it a total mess - the "care-taker" said he had no record it was rented!
- Lenape lower baseball field needs work
- a pool would be nice or a reduced rate to Emmaus pool
- was at Jasper Park twice "very nice park"
- I would like to see lights added to ball fields and courts
- no golf course, no swim pool, no library, no fitness center
- better bathroom facilities
- I would like to see more parks
- purchase Kings Highway School when available
- don't use any
- would love a larger park for young children
- we moved here in the winter time and still need to explore
- walking park on Kohler Lane should be a little bit more interesting with more trees near
- walkway + more meandering, it gets a little bit boring
- high use parks (i.e., Lenape) should be upgraded
- More hardwood forests and natural habitats needed!
- do not use any
- walking - Kohler Rd., Exercise Lenape + Jasper
- they should be open all year
- We need linear trails - these pocket parks with no safe non-automobile route on which to access the parks is not servicing the population!
- Too many baseball fields - don't need anymore, how about a youth center or swimming pool like Emmaus, Macungie, and Alburtis have?
- wish there was a pool at Lenape and lights at Churchview Park; also wish port-o-pot could stay all year
- Churchview park - nice if had gravel walking trail
- we utilize the Allentown park system
- very seldom make use of them
- more basketball courts
- have used them in the past and found them to be somewhat satisfied
- we have enough parks and recreation areas
- we no longer play tennis and our sons are adults
- our guests always tell us how clean they (parks) are
- no need for further parks
- I would like snow removal on Churchview Park track
- More soccer fields and baseball fields need grooming and the snack bar needs help!
- maintenance, Lenape Park, poor structure

- need more diverse types of youth fields so the kids don't need to travel so much
- Jasper - nice, Lenape - nice, Rodale ("new" on Kohler) - dissatisfied ("Boring"), Kalmbach - great, Emmaus pool - great, Mystic Chain – rundown
- bathrooms poor, need bike paths, soccer fields
- consider indoor gym; library
- We have enough; familiar enough to know where they are.
- I don't use them often but have been
- we have enough parks.
- not used
- only know of two parks: Jasper/Lenape
- Emmaus and Macungie are closer for me
- basketball court at Jasper Park
- not enough fishing facilities and no dog running areas
- have visited them on occasion but don't really use them
- the open space program need to be increased
- I question farmland re-zoned as rural/ag but not able to be used as farmland ag single purpose desegmentation if area is over 10 acres?
- I hope it stays this open, and development is held-off. We moved from Lansdale where there was such a building boom, the town lost its character
- unsure of township's policies on these issues
- So far so good. Those who have open space I hope will always keep it so.
- Look @ what Lower Milford has accomplished! 10% of their township protected!
- Need to retain Seem-Seedway farmland as farm oriented open space
- need to keep more open space
- prefer to keep Upper Milford as rural as possible
- Both government and citizens need to identify & save more of both open space & farmland
- I am appreciative whenever farms/open space are preserved.
- We should be concerned about our well being in the future and not have to many developments destroying + polluting our earth
- Not exactly sure where there is space protected
- Not happy about the 18 homes going up on Sweetwood Drive. (Craft Estates)? Prefer not to become an Upper Macungie (loads of development) The rules are great, the interpretation and enforcement need to be more consistent
- not familiar with it
- It seems like farms + open space are disappearing. We are unaware of the restrictions.
- We need to address this problem immediately to preserve our rural heritage and resources, otherwise we'll start to look like Lower Macungie Twsp.
- what protection?
- Too many new developments
- It seems like there is an increase in housing developments in the last two years making it a less desirable area for those already established here
- Golf course on Seem Seed Farm property for shame - Like where are the deer to go?

- more should be done
- would like to know more about it
- Save the Seem Seed farm!
- preserve current farmland
- there can never be enough
- I am appalled at the quantity of junked vehicles I have seen in the township. These are rusting hulks which are not only unsightly, but pollutants to the land. I have seen old vacated houses & barns which are unsafe to children who may play on these sites. I have seen and witnessed woodlands (private) being compromised and destroyed for profit & personal recreation. There are businesses that have parked autos that may be pollutants. I believe this is much more important than the number of parks & facilities we have! David R. Stout
- concerned about seem seed farm
- No more building houses
- There are federal and state programs for protecting farms, etc. I don't believe we need the township initiating more programs in this area
- Not sure what this is, but I'd like to keep as much open space as possible
- Please don't let UMT become another Lower Macungie Township
- provided seem seed farm is not developed
- save as much as you can
- Be more restrictive to housing developments
- I'm unaware of this program
- Keep as much as possible
- not familiar
- Are not familiar with the program
- Buy seem land !!!
- I hope it stays this way
- Stop building houses on farmland / if new construction is required, build cluster housing with parklands + playgrounds included with small neighborhood shopping to encourage walking + neighborliness
- would like to see more land locked in farmland preservation
- The farms all around me are disappearing. The farmers should have been helped into a farm preservation.
- Spend money to keep open space and preserve farmland
- not enough land is being preserved. There is too much development going on and too much car & truck traffic
- New development outside of Zionsville took too many trees down
- Please preserve more! Once the land is gone - it's gone forever
- Please work hard to keep what we have + improve the parks we have
- there is no protection of farmland because houses are being built everywhere
- Didn't know there was one
- Too many new houses on tiny lots!
- We need to keep + preserve the farmland + open space, once its gone you can never get it back. Don't like what Lehigh county is planning to do.
- The township has no business buying up private land with taxpayer's money!
- So much building
- Township needs to make a more concerted effort to preserve open space - adopt stricter zoning laws - increase minimum lot size. Do not want to become like Lower Macungie
- I'm not sure I'm well informed
- Should be more open space

- We'd like to see less development on farmer's farm land and more preservation of this valuable agricultural land. New housing in Upper Milford is growing too rapidly & is changing the rural character of our township
- If we don't work to preserve the space now, it will be too late. Don't wait!
- unfamiliar w/ these programs
- I am concerned about the future use of the Lehigh County (seem farm) tract. I would like to see it remain as open space with motorized vehicle being prohibited (dirt bikes, ATV's, etc.)
- Not familiar with plan
- Where is there farmland preservation?
- We love the way it was farmland
- Would like to see more farm land preservation. Also stricter requirements for building, i.e. 1 acre minimum lot size restrictions
- Not familiar with this concern to make a judgment
- The Upper Milford area has no protected wildland because the county commissioner threatens the one large area we have for now.
- Zionsville area being messed with in & around Vera Cruz Rd. Who would like it kept open & farmland not developed
- How can I learn more on this subject? I will e-mail my questions to the twsp.
- Concerned that development will infringe on open spaces
- Didn't know what protections are in place
- I hate to see all the lost farmland
- It seems most of the open fields are becoming developments, despite these new houses which should provide a great increase in tax base, taxes go up, while quality of life falls (road congestion/new traffic lights, etc.
- Not very familiar with area yet
- There has been much too much development
- I am concerned about the future of the former "seem seed" farm (county property) and would like to keep it the way it is
- It is essential!!
- I'm not familiar with program
- Don't need any farmland preservation
- don't know enough about it
- Not familiar with this
- The more land removed for open space and preservation the less taxable income
- Uninformed
- I need to become more familiar with policies
- not sure what the zoning calls for!
- Land not set aside for recreation per ordinance for were developments
- We should not be involved in space protection and farm preservation
- I don't know how it works or what it is
- Very concerned about the sale of old seem seed farm property owned by county. Great fishing, great recreation
- Need more energy behind this to retain our township's quality of life!
- I feel properties should all be 1 acre except in the villages
- Farm preservation? Building on wet lands, open fields, street lights - chem lawn - lawyers and money get many things
- not familiar

- What preservation? They're building houses on every inch of available land.
- developments are eating farmland, the animals, with less land, are causing more damage to plants and disease to humans. (Lyme disease)
- Based on what we can see when we drive around
- Unsure of programs and this sucks rates. Lots of development appears to be continuing
- Could be more open space protection
- Get on the ball before its too late + stop coddling developers
- Seem seed farm property should not be developed
- Too much new development = lowered (dangerously) water tables + cost of wildlife habitats & migration!
- need to raise taxes to fund presentation program - we can afford one small increase
- We would like to see the seem farm preserved the way it is a s open space & also as per the original agreement with the family. Would like to see more farmland preserved & farms protected by farmland preservation act.
- We don't need a motorcycle club on Churchview Rd. and Vera Cruz Rd. cornish!
- Too many homes coming into Upper Milford taking away all the land
- Very dissatisfied does not describe how I feel about this question; on a very "close to home" level (as in my backyard -literally!). In the last 18 years I have lived in this house. I have seen beautiful woodlands turned into mud and dust and beautiful birdsong turned into the loud and ugly sound of construction all for the "almighty buck"!
- I'd like to see the old seem farm preserved
- reinstate laws for cutting weeds. Both members of this household are under Dr.
- care for weed related allergies and health problems.
- We, along with our township neighbors, need a serious look at population density issues and infrastructural requirements before any more developments are allowed.
- Need more public hunting land.
- This was a rural community. Now farm land disappears to be replaced by huge homes.
- not knowledgeable enough to comment - I am supportive of open space & farmland protection
- Satisfied, but feel that zoning + land preservation regulations could be strengthened. And concerned about those applying for zoning changes.
- We don't know enough about this program.
- More land should be protected.
- I don't know enough about it
- Too many new homes being built
- no more development please!
- Lets keep it as beautiful as it is now!
- We must protect our open space + farm land, we have way too much developments going on now. More people; more problems and don't forget our water. If we have a drought it effects us all.
- Not familiar with the above.
- Our farm is preserved and I am a forest steward for our wood lands - more people should talk to neighbors etc. about the loss of land + encourage preservation
- Losing too many farms
- The preservation space located at Powder Valley road & Highfield drive

- is not well maintained. I realize they don't have money, but something should be done.
- Seed farm should be planted with trees and used as park. Need sidewalk along Churchview Rd. so children (and adults) can ride (or walk) to village and other developments.
 - Should work on more open space protection + farmland preservation
 - Too many new homes
 - not sure what the policies are
 - every farm seems to become houses, do we actually have this (farmland preservation)
 - We need to protect our farm lands
 - Less farm land and too many new home projects
 - We need to preserve more farmland + open space
 - Too many developments in the area
 - Too much development in this entire area and would hate to see our area become like Macungie!
 - We like the wide open country
 - Need to protect open land, i.e. seem seed farm for hunting / deer management
 - Keep the farmlands clean. Get rid of the dead cars containing acid and oil in the ground.
 - Please work to preserve as much open space and farmland as possible, even if it means higher taxes for us
 - Not aware of the preservation commitment. Would like information if possible. Thanks
 - I hope + pray it continues.
 - Is there any real substantial amount of land really set aside
 - Not satisfied when tax payer money is used
 - I don't know what the township is doing to protect our open space + farmland, but I sure hope you are doing enough
 - Don't know about the open space prot. Preservation
 - I think that the laws allowing building near or by ponds/streams & wetlands should be stricter. The water is polluted in old Zionsville already.
 - We need more preservation
 - Didn't like the "boathouse" going to the group home.
 - N/A
 - Too much building!
 - Don't know anything about it! What has been done?
 - Seem seed farm should be protected from development
 - I hear we might lose Seem Seed Farm to housing?
 - Keep developments out, vote yes for open space
 - Need more farmland preserved
 - concerned that it is disappearing

Upper Milford Park and Recreation

Goals

Previous PROSEP

1. Retain Rural Character
2. Respect Natural Environment
3. Land Use compatibility
4. Affordable housing
5. Adequate services (commercial/industrial)
6. Public facilities to meet need
7. Transportation system
8. Preserve historic sites
9. Community planning awareness
10. Land & energy conservation

Facts

1980 Census – 5013 residents

1990 Census – 6304 residents

2000 Census – 6889 residents

Size - 18 Square Miles

East Penn School District

Villages/Communities

Emmaus Suburbs

Old Zionsville

Shimerville

Vera Cruz

Zionsville

South Mountain

Powder Valley

Transportation

Route 100

Route 29

Route 100/29

Shimerville Road

Main Road (East and West)

Kings Highway

Vera Cruz Road

Saint Peters Road

Mountain Drive (5th Street)

PA Turnpike

Township Parks

Jasper Park

Baseball Fields

Pavilions

Restrooms

Soccer Fields

Parking

Trail

Garden

Native American Statue

Playground Equipment

Access "hidden"

Jasper Quarries

Lenape Park

- Baseball Fields
- Soccer Fields
- Tennis Courts
- Basketball Court
- Playgrounds
- Parking
- Poor Access
- Restrooms
- Concession
- Volleyball Courts
- Pavilion

Churchview Park

- Built 1996
- Parking Area
- Asphalt loop Trail
- Open lawn
- Adjacent Woodland

Fulmer Tract

- Open space - unimproved

8-Acre Wetland

- Open space – unimproved
- No access – land locked

County Parks

Seem Seed Farm

- Active farm
- Future use
- Open farmland
- Woodland
- Streams
- Buildings

Conservation Dist. Demonstration Park

- Wetland/woodland boardwalk
- Pond
- Demonstration fields
- Limited access
- Not marked/no signage

Other

Kings Highway School Playground

- Playground
- Baseball Field
- Parking

Mystic Chain Park

- Parking
- Enclosed Pavilion

Milford Park Bible Camp

Victory Valley Christian Camp

Shimerville Recreation Center

Mini-Golf Course

Shooting Range

Indoor Skate Park

Indian Creek Golf Course

Golf Course

Restaurant

Open Space

Agricultural Easements

Seem Seed Farm

Management/Maintenance

By Township

Turf maintenance – mowing, fertilization

Turf management – aeration, weed control

Schedule Pavilion rental

Schedule field use

Trash removal

Restroom cleanup

Repairs

Open/close parks

By others

Lawn maintenance contract – Churchview Park

Recreation Organizations

Baseball League(s)

Soccer League

Historic Society

Concepts

Needed Active Recreation

Community Swimming Pool

More Baseball Fields

Needed Passive Recreation

Hiking/Walking Trail

Birding Blinds

Nature/Environmental Center

Historic Society Museum

Land Use Strategies

More open space preservation

Expand Township park holdings

Fulmer Tract

Goals

Prepare Master Plan
Preserve archaeological artifacts

Facts

35 acre parcel
Edge of Vera Cruz
Vera Cruz Road
Quarry Road
Leibert Creek
Ice pond
Farmland
Hilltop
Near Jasper Park
Near Mystic Chain Park
Archaeological significance

Concepts

Walking Trail
Entrance
Parking

MEETING COMMENTS

Naturescape Trails
Trails based on skill Levels
Minimize Erosion

Schreiber Tract
No easy access
Leave it as it is
PPL Lands? – connections
Get Access
Photographic Inventory
Monitor Site

Circulation
New Concession Building
Locate New Facility
Purchase More Land – Expand
Park Activities 'Compact'
Treatment Facility?
Swimming Pool

Regulation Size Fields
Safe Access

Education
Significance of Site
Protect Township Treasure
Research & Education = Expansion
Fence – Boundary – Line w/ boulders

Land Back Wetlands
Document History
Interpretive Signage
Jasper Quarries Across T-pike
Mining – Woods – Production – Fields
Meadow – Outdoor Teaching Area Girl Scout Field

More Parking
Control Jasper Export
Brochure Handout @ Kiosk
Native American Input

Township Rec Center
Historical Society Museum
Rental Space
Community Center
Wedding Rec.
Who Facilitates/Coordinates?

Minimal Internal Roads
Multiple Parking Lots
Minimal "Hide Parking"
Pedestrian Safety
Limited Crossing of Pipeline
Preserve View from Top
Internal Views

Reserve for Future Parking
Bridle Path

Use with Jasper Park
Quarry Road Access
Wetland Boardwalk
Accessible Area

Interpretive Signage/Handout
Horse Trailer Parking/Access
Compatible Uses with Landscape
Re-create Native American "Landscape"
Remove Non-native Plants – Knof Weed, etc.
Ice Pond History – Inter.
No Horseback Riding
Deer Population Control
No Active Recreation
Passive Recreation
Soft Surface Trail

Difficult for Development – No Public Sewer/Water
Community Desire
Conservation Lands – Map
No Development
Land Type Controls Development
Preserve Open Space
Utilize Existing Facilities by Expanding vs. New Site/More Facilities
Walkability

No Buildings

Amphitheater
A Child's "Mini" Village
Woodland Picnic Grove
Sledding
Identify Property Line
Wildflower Meadows
Expand Woodland
Bike Use Park
Mountain Bike Use – Trail

Organize Services for Park and Recreation
Develop Recreation Activities
Modernize
Expansion
Max. Program
Grants
Awareness
Environmental Issues

Park Facility Inventory and Analysis Chart

Item	Lenape Park	Jasper Park	Churchview Park	Fulmer Tract		Total	Standard (2000 population)	Standard (2030 population)	Survey*	Difference	Recommended
Parking Spaces	(Paved)	(Gravel)	(Paved)			0	-	-	1		0
Multi-purpose Field	1	-	-			1			0		1
Paved Tennis Courts	3	-	-			3	3.44	3.77	0	-0.77	1
Paved Volleyball Courts	3	-	-			3	1.38	1.5	0	1.5	-1
Sand Volleyball Courts	2	-	-			2	1.38	1.5	0	0.5	0
Net-enclosed Batting Cage	1	1	-			2			-		0
Soccer Fields	2	3	-			5	0.69	0.75	0	4.25	0
Baseball Fields	2	1	-			3	1.38	1.5	0	1.5	0
Softball Fields	-	-	-			0	1.38	1.5	0	-1.5	1
Tot lot	1	-	-			1			1		1
Paved Basketball Court	1	-	-			1	1.38	1.5	0	-0.5	1
Restroom Facility	1	1	-			2			-		0
Concesion Building	1	1	-			2			-		0
Covered Pavilion	1	2	-			3			1		0
Picnic Tables	20	30	-			50			1		0
Water Fountains	2	2	-			4			-		0
Elevated Grills	2	4	-			6			-		0
Water Spigot/Hydrant	1	2	-			3			-		0
Payphone	1	1	-			2			-		0
Horseshoe Pits	2	-	-			2	3.44	3.77	-	-1.77	0
Play Structure	1	1	-			2			1		1
Spring Rocking Animals	3	3	-			6			-		0

Item	Lenape Park	Jasper Park	Churchview Park	Fulmer Tract		Total	Standard (2000 population)	Standard (2030 population)	Survey*	Difference	Recommended
Swings	4	4	-			8			-		0
Child Swings	2	2	-			4			-		0
Benches	6	6	-			12			-		0
Millstone	1	-	-			1			-		0
Well Pump Shed	1	-	-			1			-		0
Flagpole	1	1	-			2			-		0
Kiosk	1	1	-			2			-		0
Entrance Gate	1	1	1			3			-		0
Splitrail Fence	1	-	1			2			-		0
Native American Statue	-	1	-			1			-		0
Fitness Stations	-	1	-			1			1		1
Walking Trails	-	1	-			1			2		2
Perennial Border	-	1	-			1			-		1
Jasper Stone Quarries	-	1	-			1			-		0
Asphalt Paved Loop Trail	-	-	1			1			2		1
Golf Course						0	0.18	0.2	0	-0.2	0
Swimming Pool						0	0.34	0.38	0	-0.38	0

survey results summarized as 0 - not important, 1 - important, 2 very important

Suggested Outdoor Facility Development Standards

Activity Format	Recommended Size and Dimensions	Recommended Space Requirements	Recommended Orientation	Service Radius and Location Notes
Badminton	Singles – 17' x 44' Doubles – 20' x 44' With 5' unobstructed area on both sides.	1,622 sq. ft.	Long axis north-south	¼ - ½ mile. Usually in school recreation center or church facility. Safe walking or biking or biking access.
Basketball 1. Youth 2. High School 3. Collegiate	46' – 50' x 84' 50' x 84' 50' x 94' with 5' unobstructed space all sides.	2,400-3,036 sq. ft. 5,040-7,280 sq. ft. 5,600-7,980 sq. ft.	Long axis is north-south	¼ - ½ mile. Same as badminton. Outdoor courts in neighborhood/community parks, plus active recreation areas in other park settings.
Handball (3-4 wall)	20' x 40' with a minimum of 10' to rear of 3-wall court. Minimum 20' overhead clearance.	800 sq. ft. for 4-wall, 1,000 sq. ft. for 3-wall.	Long axis is north-south. Front wall at north end.	15-30 min. travel time, 4-wall usually indoor as part of multi-purpose building. 3-2 all usually in park or school setting.
Ice Hockey	Rink 85' x 200' (Min. 85' x 185') Additional 5,000 sq. ft. including support area.	22,000 sq. ft. including support area.	Long axis is north-south if outdoors.	½ - 1 hour travel time. Climate important consideration affecting no. of units. Best as part of multi-purpose facility.
Tennis	36' x 78'. 12 ft. clearance on both ends.	Min. of 7,200 sq. ft. single court area (2 acres per complex).	Long axis north-south.	¼ - ½ mile, best in batteries of 2-4. Located in neighborhood/community park or near school site.
Volleyball	30' x 60'. Minimum of 6' clearance on all sides.	Minimum 4,000 sq. ft.	Long axis north-south.	½ - 1 mile.
Baseball 1. Official	Baselines – 90' Pitching dist. – 60.6' Foul lines – min. 320' Center field – 400'+	3.0 – 3.85 A min.	Locate home plate so pitcher is not throwing across sun, and batter is not facing it. Line from home plate through pitchers mound to run east-northeast.	¼ - ½ mile. Part of neighborhood complex. Lighted fields part of community complex.
Little League	Baselines – 60' Pitching distance – 46' Foul lines – 200'	1.2 A min.		

Center field – 200'-250'

Field Hockey	180' x 300' with a minimum of 10' clearance on all sides	Minimum 1.5 A	Fall season – Long axis northwest or southeast. For longer periods, north/south.	15-30 minute travel time. Usually part of baseball, football, soccer complex in community park or adjacent to high school.
Football	160' x 360' with a minimum of 6' clearance on all sides.	Minimum 1.5 A	Same as field hockey.	15-30 min. travel time. Same as field hockey.
Soccer	195' to 225' x 330' to 360' with 10' minimum clearance on all sides.	1.7 – 2.1 A.	Same as field hockey.	1-2 miles. Number of units depends on popularity. Youth popularity. Youth soccer on smaller fields adjacent to fields or neighborhood parks.

INVENTORY – PARKS, RECREATION and OPEN SPACE

Open Space (Public owned, secure)

Seem Seed Farm (County)

Lot: 435 Acres

Location: Surrounding German, Church View, and Kohler Roads

Facilities:

Open Fields

Woodland

Farm Buildings

Status: Lehigh County has leased this facility to the Seem Seed Company for many years. Lehigh County recently accepted proposals for future land use. An agreement to lease the land to Dennis P. Trexler Farms/Leroy C. Stahler, Inc of Center Valley for a period of 10 years has been recommended by the steering committee and is to be voted on by the Commissioners before the end of this year. This agreement would charge the leasee \$81 per acre for an annual fee of \$35,235 to Lehigh County.

Recommendation: The Township should coordinate with the county to plan for future use of this land once this lease is ended.

Conservation District Demonstration Park (County)

Location: Church View Road, north of the Geho Road intersection

Facilities:

Elevated Boardwalk

Erosion Control Demonstrations

Pond

Status: This facility is underutilized and difficult to find and access. No easy access or parking is currently available. Signs have been vandalized or removed. The erosion control demonstration elements are only partially maintained.

Recommendation: This site offers a unique facility within easy access to many residents. Access, signage and parking would be needed improvements to revitalize this County owned facility. A county corrections project, the timber boardwalk, although showing signs of age, needs only minor repairs and regular maintenance.

Open Space (Private, secured)

South Mountain Preserve

Location: South Mountain Drive

Lot: 28.9 Acres

Facilities: open space

Recreation Facilities (Private, unsecured)

Kings Highway School Playground

Owner: East Penn School District

Location: Corner of Route 29/100 and Kings Highway

Lot: 5 Acres

Facilities:

Elementary School

Multi-purpose room, five classrooms and office space

Parking Lot

Swings

Play apparatus
Open Multi purpose area

Status: The District anticipates closing this school within the next couple of years.

Recommendation: Its convenient location, existing structures and play equipment and parking could provide community oriented opportunities for the community. The indoor recreation options made available by a facility like this would fill a current recreation need. The other rooms would support other organizations and groups in the Township, such as the historic society, scouting, large township meetings, etc.

Indian Creek Golf Course

Location: Chestnut Street, east of PA Turnpike.

Lot: 80 Acers

Zoning District: Suburban Residential District

Facilities:

18 hole golf course

Restaurant

Status: The Golf course is a privately owned parcel, spanning adjacent municipalities with convenient access to Chestnut Street and Cedar Crest Boulevard. The parcel contains a portion of the Leibert Creek and riparian buffer.

Concern: The facility is actively used, however growing development pressure may persuade a change in property use in the future.

Mystic Chain Park

Location: Main Road East, Vera Cruz

Lot: 6 Acres

Zoning: Rural Suburban Residential

Facilities:

Recreation Hall/Pavilion

Parking lot

Multipurpose Field

Status: The facility is privately owned by a local organization. Social events are held here regularly.

Milford Park Bible Camp

Location: 6541 Chestnut Street

Lot: 30 Acres

Zoning: Rural Agriculture

Facilities:

Large Dormitory

Playground

Volleyball Court (soft)

Swimming Pool

Basket Ball Court

Recreation Vehicle Parking/hookup

Parking Lot

Outdoor performance area

Status: Milford Park is an active summer retreat center for many denominations. Every Saturday and Sunday, the facility offers events and activities from May through September.

Shimerville Recreation Center

Location: Chestnut Street

Lot: 4 Acres

Zoning: Commercial

Facilities:

indoor shooting range,
miniature golf course,
indoor ramp park.
fastfood bar,
Arcade room
100x50-foot, 24-foot high ramp area

Status: Shimerville Recreation Center is a family-owned recreation center open seven days a week. The facility is well known for its indoor ramps, proving year-round recreation. The long term use of this facility is not known at this time.

Victory Valley Christian Camp

Location: 7472 Sigmund Road
Lot: 31 Acres
Zoning: Rural Agricultural
Facilities:

Swimming Pool
Victory Hall
Challenge Courses
Pavilion
Sledding
Ice Skating
Cabins
Camping
Multipurpose Fields
Horseback Riding
Parking

Status: Retreats, camps and classes are offered annually. The facilities are available for private rentals catering to specific requests/needs. Facility can accommodate up to 80 people.

Web information: <http://www.mbctv.com/victory/index.html>

Upper Milford Field and Stream Association

Location: Jasper Road
Lot: 14.89 Acres
Facilities:
Pavilion

Recreation Facilities Outside Township (Public, secured)

Bob Rodale Cycling & Fitness Park

Location: Trexlertown, Route 222, west of Route 100 intersection
Facilities:
1.3 mi paved trail
Pavilion
Lehigh Valley Velodrome (indoor cycling center)

Shelter House

Location: Fairview Street, Emmaus
Lot: 12.7 Acres
Facilities: Historic log cabin built in 1734 is listed on state and national historic registers. It received its name after providing refuge in case of Indian attack. It's original name, "Zufluchtshaus," meaning "safe house".

Macungie Institute

Location: Main Street, Macungie Borough

Facilities:

- Restored school building
- Classroom/meeting space
- Auditorium
- Historic Society Museum
- Kitchenette
- Parking

Status: Facility was purchased and restored by the Borough of Macungie. Space is available for meetings, conferences and indoor events. Funds generated from rentals offset operating costs.

Emmaus Community Park

Location: Emmaus Borough, Shimerville Road and 14th Street

Facilities:

- Pool
- Ballfields
- Basketball Courts
- Multipurpose Fields
- Changing Rooms/Concession Building
- Playground
- Picnic Pavilion
- Parking

Status: An active community park on the banks of Leibert Creek.

Lower Macungie Pool

Location: Brookside Road, Township Facility

Facilities:

- Pool
- Changing Rooms/Concession Building
- Parking

Status: An active summer swim program.

Alburtis Area Community Park

Location: Walnut Street, Alburtis Borough

Facilities:

- Pool
- Changing/Concession Building
- Baseball
- Softball
- T-ball
- Kickball
- Basketball
- Community Center
- Parking

Status: The Alburtis Area Community Center owns and operates the facility. An active swim program and recreational events occur during the summer season. A variety of events are offered to the community including dances, bingo, and special events.

Recreation Facilities Outside Township (Private, secured)

Macungie/Shoemaker/Eyer Schools Campus

Location: Southwest corner of Brookside and Buckeye Roads

Facilities:

Playground
Multipurpose Fields
Three school buildings
Parking

Status: East Penn School District operates and maintains the campus. The fields are actively used by school athletic programs.

Recommendations: Several large parcels of land surround the present school campus. These parcels surround Brookside and Buckeye Roads and are located in both Upper Milford Township and Lower Macungie Township. The lands are actively farmed and one is used for overflow events and parking from Macungie Memorial Park. Upper Milford Township, Lower Macungie Township and the East Penn School District should partner to preserve these critical lands.

Kalmbach Memorial Park

Location: Cotton Street, Macungie Borough

Facilities:

Renovated Barn/Classroom
Trails
Pavilions
Parking
Outdoor lecture area
Bird Blinds

Status: Kalmbach Memorial Park provides a variety of programs, workshops, lectures, historical programs, art classes, musical presentations, and a summer nature camp.

Macungie Memorial Park

Location: Macungie Borough

Lot: 42 Acres

Facilities: swimming pool
basketball courts,
tennis courts,
picnic pavilions,
ballfields,
a gymnasium,
banquet room and
meeting rooms.
Multipurpose fields
Parking
Bandshell
Playground
swings

Status: In addition to an active year round sports schedule, a number of well attended events such as the Das Awkscht Fescht (The August Festival), Antique Truck Show, the Wheels of Time Custom Car Show, dog shows, cruise nights, flea markets and more keep this park busy.

Pool Wildlife Sanctuary

Location: North of Emmaus Borough

Lot: 72 Acres

Facilities:

Wildlands Conservancy Offices
Nature Center
Parking
Trails

Status: The Wildlands Conservancy manages and operates a diversity of classes, programs, and camps available to the public. The facility and staff provide a critical resource to communities in the Lehigh watershed.

Macungie Memorial Park Pool

Location: Macungie Memorial Park

Facilities:

5 lane, 25 meter Pool
Changing Facility/Concession Building
Water Features
Kiddie Pool

Status: The facility was renovated in 2000.

Recreation Facilities Outside Township (Private, unsecured)

Roller Skating Rink

Location: Route 100, Lower Macungie Township

Facilities:

Indoor Roller Skating Rink
Parking

Status: N/A

EAC INTRODUCTION

What is an EAC? An Environmental Advisory Council is a group of 3-7 community residents, appointed by local elected officials, that advises the local planning commission, park and recreation board and elected officials on the protection, conservation, management, promotion and use of natural resources within its territorial limits. Municipalities are authorized to establish EACs through Act 177 of 1996, originally Act 148 of 1973.

EAC members devote time and energy to assist elected and appointed officials in protecting the environment. They can act on a municipal or multi-municipal level.

WHY ARE EACS A PRIORITY FOR PENNSYLVANIA?

Through the legislature, Pennsylvania has chosen to delegate much of its power to regulate land to the local government. As a result, the Commonwealth of Pennsylvania has 2,572 local governing bodies. The decisions these governing bodies make on a variety of issues, from land use designations to stream corridor protection, have direct impacts on natural resources within individual municipalities and beyond. EACs, as part of local government, work directly with municipal officials to help them make environmentally sound decisions - and protect the health and quality of life of our communities.

WHERE ARE THERE OTHER EACS IN PENNSYLVANIA?

There are over one hundred EACs in Pennsylvania and they are continuously being formed. Look at our interactive map to locate EACs across the state!

WHAT DO EACS DO?

In accordance with Act 177, EACs are authorized to:

- Identify environmental problems and recommend plans and programs to protect and improve the quality of the environment;
- Make recommendations about the use of open land;
- Promote a community environmental program;
- Keep an index of all open space areas to determine the proper use of such areas;
- Review plans, conduct site visits, and prepare reports for municipal officials; and
- Advise local government agencies about the acquisition of property.

WHAT DON'T EACS DO?

- EACs do not regulate; they are advisory only.
- EACs do not take the place of or compete with planning commissions or park and recreation boards; they augment and work closely with them.
- EACs are not activist or extremist environmental groups- they are part of the local government and accomplish the most when they work well with local officials.
- EACs do not compete with local grass-roots organizations, such as watershed associations.
- They are contact points and local government liaisons for these groups.

- EACs do not add bureaucracy to the local government- they have an organized procedure for participating in land use decisions.

WHY START AN EAC?

- While municipal officials have a high demand for their time and attention, an EAC can devote their full attention to environmental protection.
- EACs help municipal officials make environmentally sound decisions.
- EACs serve as liaisons to represent both the community and decision makers.
- EACs are a focal point for funding and raise money for projects.
- EACs engage residents, community volunteers, and the private sector in natural resource protection.
- EACs work on a multi-municipal level to reflect natural rather than artificial municipal boundaries.

Source: <http://www.greenworks.tv/eac/eacintro.asp>

SAMPLE CONSERVATION EASEMENT

GRANT OF A CONSERVATION EASEMENT

AND

DECLARATION OF RESTRICTIVE COVENANTS

This Grant of a Conservation Easement and Declaration of Restrictive Covenants (hereinafter referred to as the "Easement") is made and declared this day of _____, 2003, by and between _____, whose address is _____ (hereinafter referred to as "Grantor") and WILDLANDS CONSERVANCY, INC., a Pennsylvania non-profit corporation having its principal office at 3701 Orchid Place, Emmaus, County of Lehigh, Pennsylvania 18049-1637 (hereinafter referred to as "Grantee").

Recitals:

This Easement is entered into with reference to the following facts:

A. Grantor is the sole owner in fee simple of certain real Property in the County of, Pennsylvania more particularly described in Exhibit "A" attached hereto and incorporated herein by reference (hereinafter referred to as the "Property").

B. The Pennsylvania General Assembly in enacting the Conservation and Preservation Easements Act, Act 29 of 2001 (the "Act") has recognized the importance and significant public and economic benefit of Conservation Easements in its ongoing efforts to protect, conserve and manage the use of the natural, historic, agricultural, open-space and scenic resources of the Commonwealth.

C. The Property possesses silvicultural, natural, scenic and open space values (hereinafter referred to as the "Conservation Values"), the protection of which is of great importance to Grantor and to the people of, and which furthers the governmental conservation policies of, the United States of America, the Commonwealth of Pennsylvania, _____ County, and Township of _____ which include declarations that the public benefits from the preservation of open space (hereinafter referred to as the "Conservation Policies").

D. The specific Conservation Values of the Property are documented in an inventory of relevant features of the Property dated _____, _____, on file at the offices of Grantee and incorporated herein by reference (hereinafter referred to as the "Baseline Documentation"), which consists of reports, maps, photographs, and other documentation that the parties agree provide, collectively, an accurate representation of the Property at the time of this Easement, and which is intended to serve as an objective information baseline for monitoring compliance with the terms of this

Easement. The parties agree that the current use of, and improvements to, the Property are consistent with the Conservation Values intended to be preserved by this Easement.

E. Grantor desires to preserve the Conservation Values of the Property for the scenic enjoyment of the general public, to further the Conservation Policies, and to conserve and protect the Property from soil erosion, water pollution, development (residential or commercial or industrial) and other occurrences which might interfere with the beauty and unique character of the Property.

F. Grantor desires to impose certain limitations and restrictions on the use and development of the Property so that the Property's Conservation Values will be preserved.

G. Grantor intends that the Conservation Values of the Property be preserved and maintained by the continuation of similar land-use patterns existing at the time of this Easement that do not significantly impair or interfere with the Conservation Values.

H. Grantor further intends, as owner of the Property, to convey to Grantee the right to preserve and protect the Conservation Values of the Property in perpetuity.

I. Grantee is a publicly supported, tax-exempt nonprofit organization, qualified under Sections 501(c)(3) and 170(h) of the Internal Revenue Code of 1986, registered with the Bureau of Charitable Organizations of the Pennsylvania Department of State, whose primary purpose is the preservation, protection or enhancement of land in its natural, scenic, agricultural, forested, and/or open space condition.

J. Grantee agrees by accepting this Easement to honor the intentions of Grantor stated herein and to preserve and protect in perpetuity the Conservation Values of the Property for the benefit of this generation and the generations to come.

NOW, THEREFORE, for and in consideration of the mutual promises contained herein, and for the further consideration of the sum of One (\$1.00) Dollar in hand paid by Grantee to Grantor, the receipt and sufficiency of which is hereby acknowledged, the parties hereto, intending to be legally bound hereby, do mutually grant, convey, covenant, agree and declare as follows:

1.0 Recitals. The above Recitals are incorporated into, and do form a part of, this Easement.

2.0 Grant; Purpose. Grantor hereby voluntarily grants and conveys to Grantee, and Grantee voluntarily accepts, a perpetual conservation in gross for the purpose of preserving the Conservation Values of the Property furthering of the Conservation Policies, and conserving and protecting the Property from soil erosion, water pollution, and other occurrences which might interfere with the Property's Conservation Values, or with the beauty and unique character of the Property as it

exists in its current state, subject to the qualifications, terms and conditions hereinafter set forth.

3.0 Rights of Grantee. To accomplish the purpose of this Easement the following rights are conveyed to Grantee by this Easement:

3.1 To preserve and protect the Conservation Values of the Property;

3.2 To enter upon the Property at reasonable times in order to monitor Grantor's compliance with, and otherwise enforce, the terms of this Easement; provided that such entry shall not unreasonably interfere with Grantor's use and quiet enjoyment of the Property; and

3.3 To prevent any activity on or use of the Property which is inconsistent with the purposes of this Easement, and to require the restoration of such areas or features of the Property that may be damaged by any such inconsistent activity or use, pursuant to Section 9.0 and its subsections.

THE RESTRICTIONS IN PARAGRAPHS 4 AND 5 ARE NEGOTIATED WITH EACH LAND OWNER TO SUIT HIS/HER NEEDS.

4.0 Prohibited Uses. In order to accomplish the purposes of the Easement set forth in Section 2.0 above, Grantor hereby covenants and agrees with Grantee that, subject only to the exceptions set forth below, the Property shall remain in a natural and scenic state, subject to the qualifications, conditions and terms hereinafter mentioned, and shall not be the subject of residential, commercial or industrial Development. "Development" means the erection, installation, or placement of any Structure on, above or below the surface of the Property, whether or not affixed to the Property. "Structure" means any man-made object having an ascertainable stationary location. Any activity or use of the Property inconsistent with the purpose of this Easement is prohibited. In furtherance of, and without limiting the generality of, the foregoing, Grantor hereby declares and imposes the following restrictions upon the use and enjoyment of the Property:

4.1 No Development, including, but not limited to, the construction or erection of Roads, parking lots, water impoundments, pipe lines and poles shall be conducted or permitted on the Property, except for that described in Subsections 4.1 and 4.2, and their subsections, below. The term "Roads" means and includes any street, avenue, boulevard, road, highway, freeway, parkway, lane, alley, driveway and any other ways intended for vehicular or pedestrian passage, whether public or private, and whether or not improved with an Impervious Cover. "Impervious Cover" means any building, structure or other man-made feature that covers the ground and prevents the natural absorption of water or moisture into the soils. No commercial or industrial activity shall take place upon the Property. Exceptions described in Subsections 4.1 and 4.2, and their subsections, below are subject to the conditions described in Section 8.0 and its subsections. The use of the Property as a site for any utility installations, such as, but not limited to, electric generating plants, electric power substations, high-tension electric power transmission lines, gas reservoirs, sewage treatment plants, landfills, toxic or radioactive waste disposal sites, microwave relay stations, cellular telephone towers, telephone exchanges, or nuclear generating plants is prohibited.

4.1.1 Grantor may construct or build Roads or trails for the purposes of recreation, hiking, walking, safety, patrol, access to timber, fire prevention and to maintain the Property consistent with the terms of the Easement. No such roads shall have an Impervious Cover. Grantor may conduct customary and usual repair and maintenance of existing Structures and Roads.

4.1.2 Fencing is permitted provided it does not, in the sole judgment of the Grantee, destroy or impair the scenic enjoyment of the view by the general public.

4.1.3 No signs, billboards or outdoor advertising Structures shall be displayed on the Property other than one sign not exceeding two (2) feet by four (4) feet for each of the purposes listed in Subsections 4.1.3.1 - 4.1.3.4 below. Provided, however, that this Subsection 4.1.3 shall not limit the right of the Grantee to display on the Property, at its discretion, a marker or sign not to exceed one (1) square foot evidencing the ownership of the Easement granted herein, provided the same is approved by Grantor in writing.

4.1.3.1 To state the name of the Property and the name and address of the occupant;

4.1.3.2 To advertise an activity permitted under the provisions of this ;
and

4.1.3.3 To advertise the Property for sale or rental.

4.1.3.4 To warn against trespassing with signs which shall not exceed one (1) square foot each.

4.2 Subdivision of the Property is prohibited.

4.3 Quarrying, mining, excavation of minerals, sand or gravel, or disturbance of the level and contour of the ground is prohibited, except for normal conservation practices, including construction of ponds or wetlands, and for the construction, maintenance and repair of any Roads permitted on the Property.

4.4 Placement or dumping, of soil, trash, garbage, waste, sewage, sludge, or any unsanitary or offensive material on the Property shall be prohibited. Grantor may place reasonable amounts of fill in the course of activities permitted by this Easement, such as the placement of gravel for the maintenance of Roads, or placement of compost or mulch for maintenance of grounds, provided that such fill, compost or mulch is not unsanitary, offensive, toxic or hazardous.

4.5 No material shall be stored on the Property which may be hazardous to health or safety by reason of being toxic, poisonous or flammable except as may be used in the normal care and maintenance of a residence.

4.6 Timber lands shall be managed by Grantor and timber may be harvested, in both cases in accordance with sound forestry practices as described by the Pennsylvania Bureau of Forestry or its successor. Grantor is entitled to all proceeds from such harvesting.

5.0 Repair, maintenance, expansion and replacement. Normal repair, maintenance, expansion and/or replacement of existing Structures are permitted, subject to the following limitations:

5.1 No Structure existing on the Property at the time of creation of this Easement shall have its total square footage of area as existing at the time of creation of this Easement increased by more than twenty (20) percent by any means, nor shall its height exceed fifty (50) feet. Any increase in size or height, or the replacement of any Structure existing on the Property at the time of the creation of this Easement shall

require the written approval of Grantee. Such permission shall be given, unless grantee, in its sole judgment, determines that the Conservation Values of the Property will be diminished by such increase in size or replacement.

5.2 Replacement of any Structure existing on the Property at the time of creation of this Easement shall take place in the same location unless otherwise ordered by appropriate civil authority.

6.0 Extinguishment of Development Rights Intended. Grantor and Grantee intend by this Easement to permanently and irrevocably terminate and extinguish all development rights (except such rights as are specifically reserved to the Grantor by this Easement) that are now, or hereafter may be, allocated to, appurtenant to, implied, reserved or inherent in or to the Property, including by way of illustration and not of limitation Transferable Development Rights as that term is defined and authorized and implemented under the Pennsylvania Municipalities Planning Code, any amendments thereof, or any successor legislation addressing the subject of Transferable Development Rights. The parties intend and agree that such development rights with respect to the Property are hereby forever terminated and extinguished, and may not be used on, or transferred to, any portion of the Property as it is now or hereafter may be bounded or described, or to any other land use adjacent to the Property or otherwise, nor be used for the purpose of computing permissible lot yield or density of the Property or any other land.

7.0 Reserved Rights. Grantor reserves to himself, and to his personal representatives, heirs, successors, and assigns, all rights accruing from his ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not expressly prohibited herein and are not inconsistent with the purpose of this Easement. Grantor reserves the right to engage in, and to allow, legal hunting, fishing and trapping activities on the Property.

8.0 Notice of Intention to Undertake Certain Permitted Actions. The purpose of requiring Grantor to notify Grantee prior to undertaking certain permitted activities is to afford Grantee an opportunity to ensure that the activities in question are designed and carried out in a manner consistent with the purpose of this Easement. Whenever notice is required, Grantor shall notify Grantee in writing, by certified mail, not less than thirty (30) days prior to the date Grantor intends to undertake the activity in question. The notice shall describe the nature, scope, design, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit Grantee to make an informed judgment as to its consistency with the purpose of this Easement.

8.1 Grantee's Approval. Where Grantee's approval is required, Grantee shall grant or withhold its approval in writing within thirty (30) days of receipt of Grantor's written request therefore. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the purpose of this Easement.

9.0 Grantee's Remedies. If Grantee determines that Grantor is in violation of the terms of this Easement or that a violation is threatened, Grantee shall give written notice to Grantor of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the purpose of this Easement, to restore the portion of the Property so injured. If Grantor fails to cure the violation within thirty (30) days after receipt of notice thereof from Grantee, or under circumstances where the violation cannot be reasonably cured within a thirty (30) day period, fails to begin curing such

violation within the thirty (30) day period, or fails to continue diligently to cure such violation until finally cured, Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement for injury to any Agricultural and Conservation Values protected by this Easement, including damages for the loss of scenic, aesthetic, or environmental values, and to require the restoration of the Property to the condition that existed prior to any such injury. Without limiting Grantor's liability therefore, Grantee, in its sole discretion, shall, where practicable, apply any damages recovered to the cost of undertaking any corrective action on the Property. If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Grantee may pursue its remedies under this Section and its subsections without prior notice to Grantor or without waiting for the period provided for cure to expire. If Grantee does take such action, it shall so notify Grantor by certified mail within ten (10) days. Grantee's rights under this Section and its subsections apply equally in the event of either actual or threatened violation of the terms of this Easement, and Grantor agrees that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this Section and its subsections, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this Section and its subsections shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

9.1 Costs of Enforcement. Any costs, other than annual monitoring, incurred by Grantee in enforcing the terms of this Easement against Grantor, including, without limitation, costs of suit and attorneys' fees, and any costs of restoration necessitated by Grantor's violation of the terms of this Easement shall be borne by Grantor.

9.2 Grantee's Forbearance. Any forbearance by Grantee to exercise its rights under this Easement, in the event of any breach of any term of this Easement by Grantor, shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

9.3 Waiver of Certain Defenses. Grantor hereby waives any defense of laches, estoppel, or prescription.

9.4 Acts Beyond Grantor Control. Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from causes beyond Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes.

10.0 Access. No right of access by the general public to any portion of the Property is conveyed by this Easement.

11.0 Costs and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including the maintenance of adequate comprehensive general liability insurance coverage. Grantor shall keep the Property free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by Grantor. Grantor shall bear no ongoing costs, other than those embodied in Subsection 9.1 above, relating to the maintenance and monitoring of this Easement.

11.1 Taxes. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively "taxes"), including any taxes imposed upon, or incurred as a result of, this Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantee is authorized but in no event obligated to make or advance any payment of taxes, upon five (5) business days prior written notice to Grantor, in accordance with any bill, statement or estimate procured from the appropriate authority, without inquiry into the validity of the taxes or the accuracy of the bill, statement or estimate, and the obligation created by such payment shall bear interest until paid by the Grantor at the lesser of two (2) percentage points over the prime rate of interest from time to time published in The Wall Street Journal or the maximum rate allowed by law.

11.2 Hold Harmless. Grantor shall hold harmless, indemnify, and defend Grantee and its members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns of each of them (collectively "Indemnified Parties") from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, or judgments including, without limitation, reasonable attorneys' fees, arising from or in any way connected with: (1) injury to or the death of any person, or physical damage to any Property, resulting from any act, omission, condition, or other matter related to or occurring on or about this Property, regardless of cause, unless due solely to the gross negligence or willful misconduct of any of the Indemnified Parties; (2) the obligations specified in Section 11.0 and its subsections; and (3) the existence or the good faith administration of this Easement, including, but not limited to, the granting or denial of consents hereunder, the enforcement of this Easement or the forbearance from enforcement, and the reporting on or advising as to any condition on the Property.

12.0 Extinguishment. If circumstances arise in the future such as render the purpose of this Easement impossible to accomplish, this Easement can only be terminated or extinguished, whether in whole or in part, by judicial proceedings in a court of competent jurisdiction, and the amount of the proceeds to which Grantee shall be entitled, after the satisfaction of prior claims, from any sale, exchange, or involuntary conversion of all or any portion of the Property subsequent to such termination or extinguishment, shall be determined, unless otherwise provided by Pennsylvania law at the time, in accordance with Subsection 12.1. Grantee shall use all such proceeds in a manner consistent with the conservation purposes of this Easement, such as, but not limited to, acquisition of land or conservation easements.

12.1 Stipulated Value of Grantee's Interests; Proceeds. Grantor acknowledges that upon execution and recording of this Easement, Grantee shall be immediately vested with a real Property interest in the Property and that such interest of Grantee shall have a stipulated fair market value, for purposes of allocating net proceeds in an extinguishment pursuant to Section 12.0 and its subsections, equal to

the ratio between the fair market value of the Easement and the fair market value of the Property prior to considering the impact of the Easement (hereinafter referred to as the "Percentage") as determined in the Qualified Appraisal provided to the Grantee pursuant to Subsection 12.2. Upon submission of the Qualified Appraisal, the Grantor and Grantee shall sign an affidavit verifying the Percentage and record it as an amendment to this Easement. For the purposes of this Subsection, the Percentage shall remain constant. In the event Grantor does not claim a charitable gift deduction for purposes of calculating federal income taxes and/or submit a Qualified Appraisal, the Percentage shall be _____ (____%) percent.

12.2 Qualified Appraisal. In the event Grantor claims a federal income tax deduction for donation of a "Qualified Real Property Interest" as that term is defined in Section 170(h) of the Internal Revenue Code of 1986, Grantor shall provide Grantee with a copy of all appraisals (hereinafter referred to as the "Qualified Appraisal", as that term is defined in the Internal Revenue Code of 1986) of the fair market value of the Easement. Upon receipt of the Qualified Appraisal and this fully executed Easement, Grantee shall sign any Internal Revenue Service appraisal summary form, which accurately represents the situation, as prepared by and submitted to the Grantee by Grantor.

12.3 Condemnation. If the Easement is taken, in whole or in part, by exercise of the power of eminent domain, Grantee shall be entitled to compensation in accordance with the Act and the Eminent Domain Code as the same may be hereafter amended. Grantee shall use all such proceeds in a manner consistent with the conservation purposes of this Easement, such as, but not limited to, acquisition of land or conservation easements.

13.0 Amendment. If circumstances arise under which an amendment to or modification of this Easement would be appropriate, Grantor and Grantee are free to jointly amend this Easement in writing; provided, that no amendment shall be allowed that will affect the qualification of this or the status of Grantee under any applicable laws, including Section 170(h) of the Internal Revenue Code of 1986, as amended, or the Act, and any amendment shall be consistent with the purpose of this Easement, and shall not effect its perpetual duration. Any such amendment shall be recorded in the Office of the Recorder of Deeds of the County of _____, Pennsylvania.

14.0 Assignment. This Easement is transferable, but Grantee may assign its rights and obligations under this Easement only to an organization that is a qualified organization at the time of transfer under Section 170(h) of the Internal Revenue Code of 1986, as amended (or any successor provision then applicable), and the applicable regulations promulgated thereunder, and authorized to acquire and hold conservation s under the laws of the Commonwealth of Pennsylvania including qualification as a "Holder" under the Act. As a condition of such transfer, Grantee shall require that the conservation purposes that this Easement is intended to advance continue to be carried out, and Grantee shall obtain written proof (where appropriate) from the assignee that it is a qualified organization.

15.0 Subsequent Transfers. Grantor agrees to incorporate the terms of this Easement in any deed or other legal instrument by which they divest themselves of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee of the transfer of any interest at least twenty (20) days prior to the date of such transfer. The failure of

Grantor to perform any act required by this Section shall not impair the validity of this Easement or limit its enforceability in any way.

16.0 Estoppel Certificate. Upon request by Grantor, Grantee shall within twenty (20) days execute and deliver to Grantor any document, including an estoppel certificate, which certifies Grantor's compliance with any obligation of Grantor contained in this Easement and otherwise evidences the status of this Easement as may be requested by Grantor.

17.0 Notices. Any notice, demand, request, consent, approval or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

TO GRANTOR:

TO GRANTEE: WILDLANDS CONSERVANCY, INC.
3701 Orchid Place
Emmaus, PA 18049-1637

or to such other address as either party from time to time shall designate by written notice to the other.

18.0 Recordation. Grantee shall record this instrument in timely fashion in the office of the Recorder of Deeds of the County of _____, Pennsylvania and may re-record it at any time as may be required to preserve its rights in this Easement.

19.0 Subordination. At the time of conveyance of this Easement, the Property is subject to the mortgage identified in Exhibit B, attached hereto and incorporated by this reference, the holder of which has agreed by separate instrument, which will be recorded immediately after this Easement, to subordinate its rights in the Property to this Easement to the extent necessary to permit the Grantee to enforce the purposes of this Easement in perpetuity and to prevent any modification or extinguishment of this Easement by the exercise of any rights of the mortgage holder. The priority of the existing mortgage with respect to any valid claim on the part of the existing mortgage holder to the proceeds of any sale, condemnation proceedings, or insurance or to the leases, rents, and profits of the Property shall not be affected thereby, and any lien that may be created by Grantee's exercise of any of its rights under this Easement shall be junior to the existing mortgage. Upon request, Grantee agrees to subordinate its rights under this Easement to the rights of any future mortgage holders or beneficiaries of deeds of trust to the proceeds, leases, rents, and profits described above and likewise to subordinate its rights under any lien and to execute any documents required with respect to such subordination, except that the priority of any lien created by Grantee's exercise of any of its rights under this Easement prior to the creation of a mortgage or deed of trust shall not be affected thereby, nor shall this be subordinated in any other respect.

20.0 General Provisions. The following general provisions shall apply:

20.1 Controlling Law. The interpretation and performance of this Easement shall be governed by the laws of the Commonwealth of Pennsylvania, including, but not limited to, the Act as hereafter amended.

20.2 Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Easement shall be liberally construed in favor of the Easement to effect the purpose of this Easement. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purpose of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid. This Easement shall be construed and interpreted with the intention of conforming to the requirements of the Act, as hereafter amended.

20.3 Severability. If any provision of this Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

20.4 Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to this Easement, all of which are merged herein. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment that complies with Section 13.0.

20.5 No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

20.6 Joint Obligation. The obligations imposed by this Easement upon Grantor shall be joint and several.

20.7 Successors. The covenants, terms, conditions and restriction of this Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property.

20.8 Termination of Rights and Obligations. A party's rights and obligations under this Easement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

20.9 Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

20.10 Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

20.11 Merger Not Intended. Grantor and Grantee, intending to bind themselves and their respective heirs, administrators, personal representatives, successors and assigns, do hereby affirm and declare that if the Property and this Easement hereafter become vested in the same person, it is the parties' intention that the transfer of the Property or this Easement shall be under and subject to the terms of this Easement, that this Easement shall not merge into the fee, and that this Easement shall thereafter continue in full force and effect, enforceable according to its terms.

21.0 Notice of Coal Interests. The following notice is given to and accepted by Grantor for the purpose and with the intention of compliance with the requirements of the Conservation and Preservation Easements Act. Nothing herein

shall imply the presence or absence of workable coal seams or the severance of coal interests from the Property.

Notice

This Conservation Easement may impair the development of coal interests, including workable coal seams or coal interests which have been severed from the property.

Grantor

Date:_____

22.0 Authorization. This agreement is made by virtue of a resolution of the Board of Directors of Grantee, duly passed at a meeting thereof, duly and legally held on the _____ day of _____, 2003. The Grantee does hereby constitute and appoint THOMAS J. KERR, PRESIDENT, to be its attorney, for and in its name, and as and for its corporate act and deed, to acknowledge this Easement before any person having authority under the laws of the Commonwealth of Pennsylvania to take such acknowledgment, to the intent that the same may be duly recorded.

TO HAVE AND TO HOLD, unto Grantee, its successors and assigns forever.

IN WITNESS WHEREOF, Grantor has executed this Agreement, and Grantee has caused this Agreement to be signed by its PRESIDENT, and its corporate seal to be hereunto affixed, duly attested by its Secretary, the date first above written.

Witness

Grantor

WILDLANDS CONSERVANCY, INC., Grantee

ATTEST:_____
Secretary
(SEAL)

BY:_____
THOMAS J. KERR,
PRESIDENT

COMMONWEALTH OF PENNSYLVANIA)

COUNTY OF _____) : SS:

On this, the _____ day of _____, 2003, before me, a Notary Public, the undersigned officer, personally appeared known to me (or satisfactorily proven) to be the persons whose names are subscribed to within the instrument, and acknowledged that they executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal.

Notary Public
My Commission Expires:

I HEREBY CERTIFY, that the precise address of the grantor herein is:

(COMMONWEALTH OF PENNSYLVANIA)
: SS:
(COUNTY OF LEHIGH)

I hereby certify that on this _____ day of _____ 2003, before me, the subscriber, a Notary Public in and for said Commonwealth and County, personally appeared THOMAS J. KERR, PRESIDENT, the attorney named in the foregoing Indenture, and by virtue and in pursuance of the authority therein conferred upon him, acknowledged the said Indenture to be the act and deed of the said WILDLANDS CONSERVANCY, INC. to the intent that the same may be duly recorded.

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal.

Notary Public (SEAL)
My Commission Expires:

I HEREBY CERTIFY, that the precise address of the grantee herein is:

3701 Orchid Place, Emmaus, PA 18049-1637.

The undersigned holder of a Mortgage encumbering this Property, identified as _____, hereby consent to the terms of this Conservation Easement and agree that the lien of its Mortgage shall be fully subordinate to the rights of the Grantee to enforce this Conservation Easement, as more fully set forth in Section 19.0, incorporated by this reference.

Date: _____

Attest: _____ By: _____

Parks, Open Space, and Pathways Classifications Table			
<i>Parks and Open Space Classifications</i>			
Classification	General Description	Location Criteria	Size Criteria
Mini-Park	Used to address limited, isolated, or unique recreational needs.	Less than a ¼ mile distance in residential setting.	Between 2,500 sq. ft. and 1 acre in size.
Neighborhood Park	Neighborhood park remains the basic unit of the park system and serves as the recreational and social focus of the neighborhood. Focus is on informal active and passive recreation.	¼ to ½ mile distance and uninterrupted by non-residential roads and other physical barriers.	5 acres is considered minimum size; 5 to 10 acres is optimal.
School Park	Depending on circumstances, combining parks with school sites can fulfill the space requirements for other classes of parks, such as neighborhood, community, sports complex, and special use.	Determined by location of school district property.	Variable—depends on function.
Community Park	Serves broader purpose than neighborhood park. Focus is on meeting community-based recreation needs, as well as preserving unique landscapes and open spaces.	Determined by the quality and suitability of the site. Usually serves two or more neighborhoods and ½ to 3 mile distance.	As needed to accommodate desired uses. Usually between 30 and 50 acres.
Greenways	Lands set aside for preservation of significant natural resources, remnant landscapes, open space, and visual aesthetics/buffering.	Resource availability and opportunity.	Variable.
Linear Parks	Effectively tie park system components together to form a continuous park environment.	Resource availability and opportunity.	Variable.
Sports Complex	Consolidates heavily programmed athletic fields and associated facilities to larger and fewer sites strategically located throughout the community.	Strategically located community-wide facilities.	Determined by projected demand. Usually a minimum of 25 acres, with 50 to 80 acres being optimal.
Special Use	Covers a broad range of parks and recreation facilities oriented toward single-purpose use.	Variable – dependent on specific use.	Variable.
Private Park/Recreation Facility	Parks and recreation facilities that are privately owned yet contribute to the public park and recreation system.	Variable – dependent on specific use.	Variable.

Parks, Open Space, and Pathways Classifications Table (cont.)		
<i>Pathway Classifications</i>		
Classification	General Description	Description of Each Type
Park Trail	Multipurpose trails located within greenways, parks, and natural resource areas. Focus is on recreational value and harmony with natural environment.	Type I: Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skaters. Type II: Multipurpose hard-surfaced trails for pedestrians bicyclists/in-line skaters. Type III: Nature trails for pedestrians. May be hard- or soft-surfaced.
Connector Trails	Multipurpose trails that emphasize safe travel for pedestrians to and from parks and around the community. Focus is as much on transportation as it is on recreation.	Type I: Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skaters <u>located in independent r.o.w.</u> (e.g., old railroad r.o.w.). Type II: Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skaters. <u>Typically located within road r.o.w.</u>
On-Street Bikeways	Paved segments of roadways that serve as a means to safely separate bicyclists from vehicular traffic.	Bike Route: Designated portions of the roadway for the preferential or exclusive use of bicyclists.
All-Terrain Bike Trail	Off-road trail for all-terrain (mountain) bikes.	Single-purpose loop trails usually located in larger parks and linear parks.
Cross-Country Ski Trail	Trails developed for traditional and skate-style cross-country skiing.	Loop trails usually located in larger parks and linear parks.
Equestrian Trail	Trails developed for horseback riding.	Loop trails usually located in larger parks and linear parks. Sometimes developed as multi-purpose with hiking and all-terrain biking where conflicts can be controlled.

Funding

The following grant information was prepared by PA Greenways. These funding sources and others may be searched and reviewed on the Lehigh County Website Grant Database, <http://www.lehighcounty.org>.

Federal Funding Sources

Transportation Equity Act for the 21st Century (TEA21)

<http://www.istea.org/>

The former primary source of federal funding for greenways, the Transportation Equity Act of 1998 (TEA21), formerly the Intermodal Surface Transportation Efficiency Act (ISTEA) is currently up for reauthorization. Updates on the nation's surface transportation program scheduled for renewal in 2003. ISTEA provided millions of dollars in funding for bicycle and pedestrian transportation projects across the country. Federal Highway Administration and PennDOT utilized funding from many subsets of TEA21:

Surface Transportation Program (STP) funds

Transportation Enhancements Program

Transit Enhancements Program

National Recreational Trails Fund Act (NRTFA)

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

Transportation and Community and System Preservation Pilot Program (TCSP)

<http://www.fhwa.dot.gov/tcsp/>

The TCSP provides funding for a comprehensive initiative including planning grants, implementation grants, and research to investigate and address the relationships between transportation and community and system preservation and to identify private sector-based initiatives. The TCSP is a Federal Highway Administration program being jointly developed with the Federal Transit Administration, the Federal Rail Administration, the Office of the Secretary, the U.S. Department of Transportation, and the U.S. EPA. This program has been authorized \$20 million for 1999, and \$25 million is authorized for each of the years 2000-2003. States, Municipal Planning Organizations (MPO) and local governments are eligible to receive planning and implementation grants for projects that: reduce impacts of transportation on the environment, reduce the need for costly future infrastructure investments, and improve the efficiency of the transportation system. Projects involving partnerships among public and private sectors are given priority.

Community Development Block Grant Program

<http://www.hud.gov/progdesc/cdbgent.cfm>

The U.S. Department of Housing and Urban Development (HUD) offers financial grants to communities for neighborhood revitalization, economic development, and improvements to community facilities and services, especially in low and moderate-income areas. Several communities have used HUD funds to develop greenways, including the Boulding Branch Greenway in High Point, North Carolina. Grants from this program range from \$50,000 to \$200,000 and are either made to municipalities or non-profits. There is no formal application process.

Land and Water Conservation Fund (LWCF) Grants

<http://www.ncrc.nps.gov/programs/lwcf/>

This federal funding source was established in 1965 to provide park and recreation opportunities to residents throughout the United States. Money for the fund comes from the sale or lease of nonrenewable resources, primarily federal offshore oil and gas leases and surplus federal land sales. LWCF funds are used by federal agencies to acquire additions to National Parks, Forests, and Wildlife Refuges. In the past, Congress has also appropriated LWCF monies for so-called "state-side" projects. These "state-side" LWCF grants can be used by communities to acquire and build a variety of park and recreation facilities, including trails and greenways. These funds are distributed by the National Park Service to the Pennsylvania Department of Conservation and Natural Resources. They require a 50 percent match from the local project sponsor. In PA contact DCNR, Recreation and Conservation, 717-783-2659.

Area Development Programs

Grants from this program are typically awarded for the development of industrial parks, and other projects that contribute to job growth. Grants are awarded to municipalities, non-profit organizations and

institutions. In 1997, four grants were awarded, ranging from \$200,000 to \$500,000. A match of at least 50 percent is required and the project must demonstrate a relationship to the agency's strategic plan and a statewide strategic plan for economic development.

Conservation Reserve Program

<http://www.fsa.usda.gov/daftp/cepd/crp.htm>

The U.S. Department of Agriculture, through its Agricultural Stabilization and Conservation Service, provides payments to farm owners and operators to place highly erodible or environmentally sensitive landscapes into a 10-15 year conservation contract. The participant, in return for annual payments during this period, agrees to implement a conservation plan approved by the local conservation district for converting these sensitive lands to a less intensive use. Individuals, associations, corporations, estates, trusts, cities, counties and other entities are eligible for this program. This program can be used to fund the maintenance of open space and non-public use greenways along water bodies and ridge lines.

Wetlands Reserve Program

<http://www.nrcs.usda.gov/programs/wrp/>

<http://www.ngpc.state.ne.us/wildlife/wrp.html> - informational site

The Department of Agriculture also provides direct payments to private landowners who agree to place sensitive wetlands under permanent easements. This program can be used to fund the protection of open space and greenways within riparian corridors.

Watershed Protection and Flood Prevention (Small Watersheds) Grants

<http://www.epa.gov/owow/watershed/wacademy/fund/prevent.html>

The USDA Natural Resources Conservation Service (NRCS) provides funding to state and local agencies or nonprofit organizations authorized to carry out, maintain and operate watershed improvements involving less than 250,000 acres. The NRCS provides financial and technical assistance to eligible projects to improve watershed protection, flood prevention, sedimentation control, public water-based fish and wildlife enhancements, and recreation planning. The NRCS requires a 50 percent local match for public recreation, and fish and wildlife projects.

Rivers, Trails, and Conservation Assistance Program

http://www.nrcs.nps.gov/programs/rtca/ContactUs/cu_apply.html

The National Parks service operates this program aimed at conserving land and water resources for communities. Eligible projects include conservation plans for protecting these resources, trail development, and greenway development.

Local Government Funding Sources

Contact your local government for more information on the funding sources listed below.

Taxes

Greenways can be funded through sales tax revenues. One example of a community that is using sales tax dollars to fund bicycle and pedestrian facilities is Cobb County, Georgia, where citizens voted to implement a one percent local sales tax to provide funding for transportation projects. Over four years, Cobb County Department of Transportation will receive \$3.8 million of this sales tax revenue for bicycle improvements alone, to be used as a match for federal dollars. Another example is Oklahoma City, where voters approved a temporary \$0.01 sales tax, which generated millions of dollars for greenway acquisition and development.

Impact Fees

Impact fees are monetary one-time charges levied by a local government on new development. Unlike required dedications, impact fees can be applied to finance greenway facilities located outside the boundary of development. These fees can be levied through the subdivision or building permit process to finance greenways in Butler and Hamilton Counties.

Bond Referendums

Communities across the nation have successfully placed propositions on local ballots to support greenway development. The Charlotte-Mecklenburg County, North Carolina, area passed four consecutive referendums that generated more than \$3 million for greenways. Guilford County, North Carolina also passed a referendum that appropriated \$1.6 million for development of the Bicentennial Trail. Since bonds rely on the support of the voting population, an aggressive education and awareness program will need to be implemented prior to any referendum vote.

Capital Improvements Program

Some local governments have initiated a yearly appropriation for greenway and trail development in the capital improvements program. In Raleigh, North Carolina, greenways continue to be built and maintained, year after year, due to a dedicated source of annual funding that has ranged from \$100,000 to \$500,000, administered through the Parks and Recreation Department.

Private Sector Sources

Many communities have solicited greenway funding from a variety of private foundations, corporations, and other conservation-minded benefactors. As a general rule, local foundations and businesses will have a greater interest in and be more likely to fund local projects. These local sources should be approached first, before seeking funds outside the community.

Local Businesses

Local industries and private businesses may agree to provide support for development of greenways through:

- Donations of cash to a specific greenway segment
- Donations of services by corporations to reduce the cost of the greenway
- Implementation, including equipment and labor to construct and install elements of a trail
- Donations in the cost of materials purchased from local businesses which support greenway implementation and can supply essential products for facility development.

This method of raising funds requires a great deal of staff coordination. One example of a successful endeavor of this type is the Swift Creek Recycled Greenway in Cary, North Carolina. A total of \$40,000 in donated construction materials and labor made this trail an award-winning demonstration project. (Some materials used in the "recycled trail" were considered waste materials by local industries!)

Trail Sponsors

A sponsorship program for trail amenities allows for smaller donations to be received both from individuals and businesses. The program must be well planned and organized, with design standards and associated costs established for each amenity. Project elements which may be funded can include wayside exhibits, benches, trash receptacles, entry signage, and picnic areas. Usually, plaques recognizing the individual contributors are placed on the constructed amenities or at a prominent entry point to the trail.

Volunteer Work

Community volunteers may help with trail construction, maintenance, fund raising and a whole host of other activities. Potential sources of volunteer labor in Butler and Hamilton Counties could include local bicyclists, local historical groups, neighborhood associations, local churches, conservation groups, school groups, and local civic clubs such as Kiwanis, Rotary and Lions Clubs.

A good example of a volunteer greenway program is Cheyenne, Wyoming, which generated an impressive amount of community support and volunteer work. The program has the unusual problem of having to insist that volunteers wait to begin landscaping trails until construction is completed. A manual for greenway volunteers was developed in 1994 to guide and regulate volunteer work. The manual includes a description of appropriate volunteer efforts, request forms, waiver and release forms, and a completion form (volunteers are asked to summarize their accomplishments). Written guidelines are also provided for volunteer work in 100-year floodplains.

To better organize volunteer activity, Cheyenne developed an "Adopt-a-Spot" program. Participants who adopt a segment of trail are responsible for periodic trash pick-up, but can also install landscaping, prune trail-side vegetation, develop wildlife enhancement projects, and install site amenities. All improvements must be consistent with the Greenway Development Plan and must be approved by the local Greenway Coordinator. Adopt-a-Spot volunteers are allowed to display their names on a small sign along the adopted section of greenway.

"Buy-a-Foot" Programs

"Buy-a-Foot" programs have been successful in raising funds and awareness for trail and greenway projects across the country. Under local initiatives, citizens are encouraged to purchase one linear foot of the greenway by donating the cost of construction. An excellent example of a successful endeavor is the High Point (North Carolina) Greenway "Buy-a-Foot" campaign, in which linear greenway "feet" were sold at a cost of \$25 per foot. Those who donated were given a greenway T-shirt and a certificate. This project provided an estimated \$5,000 in funds.

Developer Dedications

Cary, North Carolina, has used a dedication program to acquire land for its greenway program. Other communities have used such programs to build facilities, such as sidewalks, trails and other amenities, as part of new development. The developer typically fronts the cost of these improvements and passes the costs along to home buyers.

American Greenways DuPont Awards

The Conservation Fund's American Greenways Program has teamed with the DuPont Corporation and the National Geographic Society to award small grants (\$250 to \$2,000) to stimulate the planning, design and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, building trails, and other creative projects. Grants cannot be used for academic research, institutional support, lobbying or political activities.

Pennsylvania Funding Sources

PennDOT

<http://www.dot.state.pa.us/>

PENNDOT's primary means of funding greenways projects is through the Transportation Enhancements Program that is part of TEA-21. Greenways projects with a tie to transportation, historic preservation, bicycle/pedestrian improvements, or environmental quality are eligible candidates for Transportation Enhancements funding. PENNDOT will receive \$40 million in funding for the fall 2001 funding cycle. \$32 million is available for projects selected by MPOs/LDDs and the remaining \$8 million is a set-aside for use at the Secretary's discretion and for projects of statewide significance. For more information contact Dante Accurti, 717-787-2838.

The Community Conservation Partnership Program

<http://www.dcnr.state.pa.us/grants.htm>

The State of Pennsylvania makes available grant moneys to municipal governments through this program to support greenway and park planning, design and development. Applications for these grants are due in October of each year, and a 50 percent match is required from the local project sponsor. The amount of maximum award varies with the requested activity. Planning grants are typically awarded \$50,000 or less. Land acquisition and construction grants range from \$150,000 to \$200,000. Small community grants are also available through this program for municipalities with populations less than 5,000. These grants can support up to 100 percent of material costs and professional design fees for recreational facilities. Grants for these projects are typically limited to \$20,000. The program had \$10-12 million allotted for the year 2000. For more information contact regional advisors: Southeast: Don Gephart & Fran Rubert (215) 644-0609, Northeast: Michelle F. Breslin & Dennis De Mara (570) 963-4157, Southcentral & Northcentral: Cindy Dunlap (Southcentral) Lori Kieffer Yeich (Northcentral) (717) 772-3839, Southwest: Kathy Frankel & Tracy Robinson (412) 880-0486, and Northwest: Mark Kulich (814) 871-4190.

Heritage Park Grants

DCNR makes grants available to promote public-private partnerships that preserve and enhance natural, cultural, historic and recreation resources to stimulate economic development through heritage tourism. Grants are available to municipalities, nonprofit organizations or federally designated commissions acting on behalf of the municipalities in a heritage park areas. Grants are awarded for a variety of purposes including feasibility studies; development of management action plans for heritage park areas; specialized studies; implementation projects; and hiring of state heritage park managers. Grants require a 25-50 percent local match. The program had \$2.75 million allotted for fiscal year 1999-2000. For more information contact Tim Keptner at 717-783-0988.

Land Trust Grants

The State of Pennsylvania DCNR can also award land acquisition grants for areas where rare or threatened species exist. Grants are made available to non-profit land trusts of land conservancies and require a 50 percent match. Award amounts will vary, and usually supported the acquisition of hundreds of acres of land. Applications are due in October of each year. Part of the Growing Greener Initiative, the program generally has a \$4 million allotment. For more information contact Fred Owen at 717-783-2663.

Rails-to-Trails Grants

The Rails-to-Trails Grants provide 50% funding for the planning, acquisition or development of rail-trail corridors. Eligible applicants include municipalities and nonprofit organizations established to preserve and protect available abandoned railroad corridors for use as trails or future rail service. Approximately \$1 million was allotted for the program for fiscal year 1999-2000. For more information contact Wilmer Henninger at 717-772-3704.

Urban and Community Forestry Grants

Can be used to encourage the planting of trees in Pennsylvania communities. Municipal challenge grants provide 50 percent of the cost of the purchase and delivery of trees. Special grants are available for local volunteer groups, civic clubs, and municipalities to train and use volunteers for street tree inventories, and other projects in urban and community forestry. The program's annual allotment varies but is generally around \$500,000. For more information contact Norm Lacasse at 717-783-0385.

The Recreational Trails Program (DCNR)

National Recreation Trails Fund Act (NRTFA) or Symms Act Grants. This source of funding is a subset of TEA-21, and is administered by DCNR. Funds from this program can be used for the acquisition of land and the construction of trail tread and trail facilities. Applications for this funding are due in March 1999. Land acquisition will require a 50 percent match from the local sponsor. Construction projects will require a 20 percent match from the local sponsor. The typical maximum award has been \$150,000. The program had \$1 million allotted to it for fiscal year 1999-2000. For more information contact Vanyla Tierney at 717-783-2654.

Rivers Conservation Program

This program seeks to maintain, restore, and enhance rivers throughout Pennsylvania. Non-profit organizations and municipalities may apply for grants above \$2500. Before being considered for river conservation, implementation, acquisition, or development projects, a grant applicant must have an approved river conservation plan. Part of the Growing Greener initiative, this program is allotted \$1 million annually. For more information contact Marian Hrubovcak at 717-787-2316.

Department of Community and Environmental Development

<http://www.inventpa.com/default.asp?path=Communities%20in%20PA/Community%20Resources/Community%20Resources.xml> - one step application for all DCED funding. DCED's mission includes four elements that each have a relationship to greenways: economic development, travel and tourism, technical assistance and community development. Each of DCED's funding programs is listed and described below.

Community Revitalization Program

This funding source, which ranges from \$5,000 to \$50,000, supports local initiatives aimed at improving a

community's quality of life and improving business conditions. The program had an \$84 million allotment for 1999-2000. For more information contact Oliver Bartlett at 717-720-7352.

State Planning Assistance Grant

This program provides funding to municipalities for preparation and maintenance of community development plans, policies, and implementation measures. The grant requires a 50% match and priority is given to projects with regional participation. The program had \$625,000 allotted for fiscal year 1999-2000. For more information contact Kerry Wilson at 717-783-1402.

Small Communities Planning Assistance

This grant is awarded to municipalities having a population of 10,000 people or less. The grant offers a no-match funding source that can be used to support neighborhood revitalization, economic development, community conservation and housing plans. Regardless of the project type, the grantee must demonstrate the project benefits low to moderate income residents. The program had \$250,000 allotted for fiscal year 1999-2000. For more information contact Kerry Wilson at 717-783-1402.

Communities of Opportunity Program

This program provides funding to prepare communities to be competitive in attracting, expanding, and maintaining businesses and providing affordable housing. The \$14 million program is open to municipalities, redevelopment and housing authorities, and nonprofit housing corporations. The program does not require a local match. For more information contact Diana Kerr at 717-787-5327.

Community Development Block Grants

This program provides financial and technical assistance to communities for infrastructure improvements, housing rehabilitation, public services, and community facilities. The program targets local governments and 70% of each grant must be used for activities or projects that benefit low to moderate income people. The program was allotted 7.5 million in fiscal year 1999-2000. For more information contact Scott Dunwoody at 717-787-5327.

Main Street Program

The Main Street Program provides grants to municipalities and redevelopment authorities to foster economic growth, promote and preserve community centers, creating public/private partnerships, and improve the quality of life for residents. The program has two components, a Main Street Manager and Commercial Reinvestment. The Main Street Manager component funds a staff position that coordinates the community's downtown revitalization activities. The Community Reinvestment component provides funding for actual improvement projects in the community. The Main Street Manager is partially funded for a 5-year period while the Community Reinvestment activities require a minimum of a 50% match. A business district action plan must be completed for eligibility in this program. The program had a \$2.5 million allotment for 1999-2000. For more information contact Diana Kerr, 717-787-5327.

PHMC

http://www.artsnet.org/phmc/phmc_frame.html

Keystone Historic Preservation Grants

Local governments and non-profit groups may apply for this grant that ranges in value from \$5,000 to \$100,000. A 50% local match is required and funds may be used for preservation, rehabilitation, and restoration of historic properties, buildings, structures, sites, or objects. The program was allotted \$1.75 million for fiscal year 1999-2000. For more information contact Bryan Van Sweden at 717-772-5071.

Certified Local Government Grants

Federal funding program limited to certified Local Governments for purposes of cultural resource surveys, technical and planning assistance, educational and interpretive programs, and national register nominations. The program includes a 40% local match that can be made with in-kind services, cash, or Community Development Block Grants. The program had just over \$80,000 allotted for 1999-2000. For more information contact Michel Lefevre at 717-787-0771.

DEP Growing Greener

Growing Greener is the largest single investment of state funds in Pennsylvania's history Growing

Greener directs nearly \$650 million over five years to the new Environmental Stewardship Fund. Growing Greener funds can be used for farmland-preservation projects; preserving open space; cleanup of abandoned mines, watershed planning; recreational trails and parks; and help communities address land use concerns. Eligible applicants include non-profit groups, counties, and municipalities. A local match is encouraged, but not required. For more information contact the Growing Greener Helpline at 877-724-7336.

Stormwater Planning and Management Grants

This program provides grants to counties and municipalities for preparation of stormwater management plans and stormwater ordinances. The program requires a 25% local match that can come in the form of in-kind services or cash. While greenways are not specifically funded by the project, they are excellent elements of a stormwater management system. This program is part of the Growing Greener Initiative. For more information contact Durla Lathia at 717-772-4048.

Nonpoint Source Management Section 319 Grants

Section 319 grant funding comes from the federal Clean Water Act. The grants are available to local governments and nonprofit groups for watershed assessments, watershed restoration projects, and projects of statewide importance. The grant requires a 60% local match and 25% of the construction costs of practices implemented on private land must come from non-federal sources. For more information contact Russ Wagner at 717-787-5642.

Environmental Fund for Pennsylvania

This fund is available to environmental, conservation, and recreation organizations for projects that improve the quality of life for Pennsylvania communities. For more information contact Tim Schlitzer at 215-545-5880.

Environmental Education Grants

This program uses a 5% set aside of the pollution fines and penalties collected in the Commonwealth each year for environmental education in Pennsylvania. There are eight different grant tracks with grants ranging from \$1,000 to \$20,000, most requiring a 20% match. Public and private schools, non-profit conservation/education organizations and county conservation districts may apply for the grants. For more information contact DEP at 717-772-1828 or by e-mail at DEPLearningCenter@state.pa.us.

Land Recycling Grants Program

Provides grants and low interest loans for environmental assessments and remediation. The program is designed to foster the cleanup of environmental contamination at industrial sites and remediate the land to a productive use. For more information contact DEP at 717-787-7816.

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