



**Official Comprehensive
Recreation & Open Space Plan**

Saucon Region

**Upper Saucon Township, Lehigh County &
Lower Saucon Township, Northampton County**

Adopted: October 24, 2006

RothPlan

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All maps presented within this Plan rely upon digital data of the Lehigh Valley Planning Commission's geographic information system. While the accuracy of this information is believed to be very high, it should only be used for community planning purposes and cannot be relied upon for definitive site survey delineation.

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Executive Summary

Lower and Upper Saucon Townships have made significant investments in park areas and recreation facilities. This Plan recommends continuing and strengthening these investments.

The citizen survey indicated a strong desire for open space protection, greenway and trail development, existing park area improvement and expanded promotion of recreation opportunities. A staff person whose time is dedicated to the work of implementing this Plan will make citizen desires a reality.

A shared full-time recreation, parks and open space director should be hired to effectively administer the park and open space areas, recreation facilities, programs and services for both Townships.

The citizen survey also indicated a major need for improved promotion of recreation opportunities. Many people did not know where parks were located or what recreation programs were offered. Concentrated efforts should be placed on making citizens aware of the park and open space areas, recreation facilities and recreation programs their tax dollars support. Better promotion will lead to citizen support for increased funding for open space protection and recreation and parks services. A joint guide to the Townships' recreation, parks and open space systems should be prepared to increase citizen awareness of the opportunities available to them. The guide should include a map of site locations, featuring all public parks and open space areas and recreation facilities and private ones that are open for public use, the facilities and amenities at each park and park rules and regulations. In addition, a regional recreation program guide which includes Township-sponsored recreation programs and special events and other program opportunities available within each Township's school district and its municipalities should be produced.

Improvements and enhancements to the facilities and amenities at existing Township neighborhood and community parks will help the parks better meet citizen's recreation needs. Correcting safety issues at Southern Lehigh Living Memorial Park, with Upper Saucon Township working with park user groups, is of particular importance. Southern Lehigh Living Memorial Park is a large private community park that receives heavy use by Township citizens and should be maintained at a higher standard of care. Partnerships with sports organizations should be continued and strengthened to build and maintain athletic fields in both Townships' parks. The region's outdoor swimming pools are operated by Hellertown Borough and the Southern Lehigh Pool Association. The Townships should help to establish a capital plan for repair and maintenance of the swimming pools and help research and secure funding.

A joint committee with representatives from both Townships and both School Districts should be formed to study the purchase and development of a joint community park centrally located to serve both Lower and Upper Saucon Township residents. DCNR grant funds should be applied for to hire a planning consultant to do a feasibility study and master plan for the purchase and development of the joint community park, with both Townships providing matching funds. Amenities to consider for the new park should include baseball, softball, soccer and multi-purpose fields, an artificial turf field, a band shell/amphitheatre, walking paths and facilities for self-directed recreation opportunities such as fishing, in-line skating and mountain biking. If a joint community park is not feasible, Upper Saucon Township should acquire land for a new community park located in the western portion of the Township.

Recreation programs and special events bring citizens into Township parks and schools to enjoy the facilities their tax dollars support. The Townships' top priorities should be to eliminate duplication of

resources and effort and pursue cooperation with other recreation providers. The formation of a regional recreation commission with the school district that serves each Township and the other municipalities within the district should be explored. A regional recreation commission would offer community recreation programs and special events for all ages.

To implement this Plan, the Townships must maintain the appropriate level of municipal fund and capital fund financial support and identify and pursue the income sources, partnerships and volunteer involvement needed to maintain existing parks, acquire parkland and open space areas, develop recreation facilities and provide recreation programs for citizens. The Townships are encouraged to develop a business sponsorship package for special events and park projects, prepare a gift catalog of needed park improvements, develop an adopt-a-park program to help with improvements to park areas and establish Township-wide "Friends of the Parks" groups. These would be membership-based organizations that can organize as a 501©(3) to raise funds and volunteer at events.

To ensure that park and open space areas and recreation facilities are well-maintained, safe and secure for visitors a park maintenance management plan should be prepared. This will establish minimum standards of care for park areas and recreation facilities with a seasonal written schedule of routine maintenance duties that must be performed to achieve the standards of care.

DCNR grants should be applied for to help pay for staffing, park improvements, trail planning and development and land acquisition. The DCNR regional recreation and parks advisor should be invited to visit the Townships, tour the park areas and meet with staff, elected officials and parks and recreation board members to discuss grant project funding for park feasibility studies, master plans, circuit rider director and peer-to-peer technical assistance.

Within the Saucon Region, the protection of open space has become one of the general public's greatest priorities. Attitudinal survey results conducted as part of this Plan confirm the public's strong preferences for the protection of nature and passive recreation opportunities. But the Region is experiencing tremendous development pressures, particularly for suburban residences. This Plan assembles a variety of techniques to actively pursue open space protection.

First the Plan inventories a variety of important natural and cultural features which can be used to suggest needed conservation areas through strengthened environmental regulations. Next the Plan reinforces the need for both Townships to engage in "smart growth" planning and zoning techniques that confine projected growth into compact neighborhoods that are fitted with a wide ranges of public facilities and services; this relieves development pressure in outlying conservation areas. In Upper Saucon Township, the Plan recommends that transferable development rights (TDRs) be used to tap new residential growth to compensate landowners who voluntarily sell their development rights and thereby protect valuable open space.

One innovation in this Plan involves the use of mandatory dedication procedures and laws to protect not just parklands, but open spaces. This approach will provide a steady flow of funds that can be used by each Township to purchase priority open space properties or offer compensation to landowners who agree to impose conservation easements upon valuable open spaces. Other landowners in rural areas often donate conservation easements on their land for altruistic reasons and/or federal income tax deductions. This Plan suggests methods to promote and assist in the use of conservation easements to protect open space.

Vast open spaces should be concentrated in outlying rural areas to offer sufficient mass for wildlife protection and to offer undisturbed natural settings. Other open spaces can be fitted within neighborhoods and offer close-to-home amenity and scenery. The Plan suggests that both Townships adjust development densities and review procedures to promote cluster developments that feature protected open spaces. As part of this technique the Plan advocates the installation of riparian buffers along watercourses as a means to improve surface water quality, localize wildlife habitats and offer streamside trails and greenways.

I. Introduction

A. Purpose of the Plan

Like any business, local governments need to chart future plans so that they can assure an efficient use of resources. Local governments are in the business of assuring public welfare and delivering public services. The preparation of a Comprehensive Recreation Plan provides a deliberate framework of information that can be used to make future decisions regarding the delivery of recreation services and the protection of important open spaces. In addition, this Plan, as a Regional Plan, will identify ways for Lower and Upper Saucon Townships and the Southern Lehigh and Saucon Valley School Districts to work together to make the Region a better place to live and play.

One definition of comprehensive planning is “the allocation of municipal resources toward municipal goals and objectives”; this definition embodies the essence of this study. This study first catalogs, maps and describes the Region's resources. These resources include many things, such as land, streams, roads, parks, neighborhoods, programs, schools, staff, maintenance equipment, finances, and so on. Analyses are performed to determine the capability of these resources to serve or accommodate recreation needs.

Next, a set of recreation goals are formulated. These goals establish a list of priorities that need to be addressed. Third, the goals are applied to the municipal resources, yielding a future scheme for the development of parklands and recreation programs. It also suggests means for conserving important natural and cultural resources.

Finally, implementation strategies are discussed and recommended that enable the Region to set in motion the analyses and information presented in the Plan. These strategies will involve those planning technologies currently available for use by local governments within the Region. In the end, any planning process is meaningless, unless its recommendations find application as part of the Region's business—the protection of public welfare and the delivery of public services.

B. How To Use This Plan

This Comprehensive Recreation Plan has been assembled to serve several important purposes. Principally, the Plan is aimed at assisting members of the governing bodies and staff of the two Townships and other local officials in the administration of the Region's recreation facilities and programs. Second, the Plan will investigate ways to protect important open spaces that contribute to the Region's natural and cultural character. Many action-oriented recommendations have been expressed throughout the Plan text; these recommendations have been ***italicized and printed in bold letters*** so that the decision-maker's attention is immediately drawn to them. The several maps within the Plan have also been carefully prepared and colored so that the information can be easily visualized. The

many analyses utilized throughout the study were devised to maximize utility of the findings. Step-by-step description of these methodologies have been furnished to enable the reader to gain a better understanding of the issue, and its planning implications. Finally, a detailed Table of Contents and Executive Summary appear at the beginning of the text, which provides quick reference to the appropriate sections of the study. All of these features will aid local decision-makers in their evaluation of future recreation proposals.

A second important function of this Plan is its collection of important information. The term “comprehensive” accurately describes the composition of this report; its contents are quite comprehensive. Accordingly, the Plan provides convenient access to a wealth of up-to-date information concerning its many interrelated factors. This information will serve, not only local and Regional officials, but service agencies, property owners, residents, business leaders, and prospective developers. The cataloging of existing conditions will also provide the groundwork upon which future Plan updates can be more easily accomplished.

Finally, the Plan conveys a set of policies regarding future recreation development within the Region. These policies are based upon the Region's goals and can be useful to local decision-makers. In addition, many of the recommendations of this Plan specifically respond to the wishes of the general public who were surveyed and heard at several “town meetings” during the Plan’s preparation. Therefore, the Plan incorporates extensive public input.

In summary, it is important for all of those persons involved and/or interested in the delivery of recreation services and/or the conservation of open space to read and understand this entire Plan, at least once. Then, local decision-makers should keep it handy when evaluating future development proposals, service adjustments or public investments. The Plan's format will avail considerable information, analysis and expertise without requiring its complete rereading. In the end, it is hoped that the Plan will become a powerful, yet practical, tool in local decision-making.

II. Study Goals



"If you don't know where you are going, any road will take you there!"

-An old saying

For any project to maximize its likelihood for success, it is important that goals be established to guide the efforts. This Plan and the Region's park and recreation services are no exception. The following lists goals that have been expressed for this Plan. This list is derived from information developed by the Study Committee and used to "bid" this project. In addition, a workshop meeting was held to discuss needs and wishes among the various participants.

As you may notice, some of these goals are rather general. This is due to the fact that, in some instances, the Region is just beginning to offer particular park and recreation services and does not yet have the experience to provide specific direction. On the other hand, the Region has a long history with other services and can readily articulate specific needs toward progress. For these reasons, this Plan will need to manage these varying levels of detail so that aggressive, but practical, recommendations can be formulated.

The following lists the goals of this Plan by several key components:

A. Planning Goals

1. Determine community preferences for recreation facilities and programs.
2. Ensure that recreation facilities and programs are accessible to all.
3. Conduct a thorough inventory of natural (e.g. woodlands, steep slopes, wetlands, farmlands, etc.) and cultural (e.g. historic sites and archaeological resources) features that contribute to the overall recreation experience within the Region and can be used to devise a defensible strategy for the preservation of open space.
4. Inventory existing parks and determine the level of service they provide to a particular locale or the Region. Identify deficiencies of existing parks and overcome known acute shortages of certain fields and courts.
5. Build upon the existing spirit of cooperation among the municipalities, the School Districts and the Saucon Valley Community Center.
6. Provide specific, prioritized actions to improve the region's recreation and parks facilities, programs and services, identifying who is responsible for implementation, target completion dates, estimated costs and potential funding sources.

7. Coordinate the findings of this Plan with the Region’s overall planning programs (i.e., municipalities and School District) and suggest needed adjustments to local land use policies that may present impediments to the creation of a successful park and open space system.
8. Identify revisions to local development policies that encourage developers to “partner” in the preservation of open space and the provision of needed parkland.
9. Assess the need for agricultural preservation techniques to be applied within the Region and estimate costs and potential funding sources for such methods.
10. Identify key areas for natural and cultural resource protection and estimate costs and potential funding sources for such methods.
11. Emphasize the importance of open space and natural resource protection as an integral component of preserving the Region’s natural and rural character.

B. Facilities Goals

12. Provide an objective system for the acquisition of new parks, the improvement of existing parks, and the maintenance of all parks to serve the Region’s growing population.
13. Provide a network of community level and linear parks on a Regional basis that shares existing and future facilities according to local recreation preferences. Avoid the creation and Regional ownership and management of small neighborhood or pocket parks.
14. Promote the creation of a network of open spaces that can deliver passive recreation opportunities to the doorstep of neighborhoods throughout the Region amid the Region’s rapidly-developing landscape. At the same time, offer animal “habitat-highways” through which wildlife can safely migrate locally.
15. In Upper Saucon Township, focus a “high” level of recreation service reflecting the dependence of adjoining “built-out” and rural municipalities (Coopersburg and Lower Milford) who rely in large measure on the facilities developed within the Township.
16. In Lower Saucon Township, develop a high level of recreation service to supplement those existing facilities within Hellertown and of the Saucon Valley School District that currently serve Township residents.
17. Seek to link parks, schools and other activity centers with linear parks, streamside buffers and sidewalks. Investigate the feasibility of creation of a rail-trail along the SEPTA line, which is currently idle and the Liberty Bell Trolley line.

18. Conceptually plan for streamside buffers within the Townships as a means of improving water quality and recreation opportunities with particular emphasis on use along the Saucon Creek which traverses the Region.
19. Acknowledge the supportive role and facilities that DeSales and Lehigh Universities offer to the Region but do not rely upon these facilities for the normal day-to-day recreation needs of residents within the Region.
20. Provide a short, medium and long-term Capital Improvement Program that includes facility/area name, descriptions of proposed improvements, estimated development costs and proposed funding sources.

C. Administration and Public Involvement Goals

21. Evaluate the effectiveness of the policies and procedures used to administer recreation and park programs, facilities and services.
22. Identify how the Townships cooperate with each other, their citizens, parks and recreation board members, the school districts, community organizations and businesses to provide parks and recreation facilities, programs and services.
23. Develop strategies and recommendations to strengthen existing relationships and recommend new partnerships to provide parks and recreation facilities, programs and services.
24. Examine the Region's public relations efforts and recommend improvements to encourage use of parks, facilities and programs.
25. Involve citizens to identify the Region's recreational programming, parks and facility, and open space needs and priorities.
26. Determine Americans with Disabilities Act compliance with respect to publicly-accessible open space, park facilities, recreation programs and services.
27. Implement long range and perpetual methods for the protection and maintenance of open space.

D. Personnel Goals

28. Describe and analyze the roles and responsibilities of staff and volunteers involved in the provision of recreation and park services for the Region.
29. Recommend the level of staffing (paid and volunteer) and the organizational structure needed to effectively administer recreation and park facilities, programs and services, and implement plan recommendations in the Region.

E. Maintenance Goals

30. Assess the current maintenance program, risk management practices and safety efforts.
31. Recommend the appropriate level of maintenance for current and future parks, and publicly-accessible open spaces within the Region.

F. Financing Goals

32. Describe and analyze the current recreation and park budget and financial management process.
33. Describe existing user fee policies governing recreation programs and facilities, then make recommendations for change.
34. Identify a variety of potential funding sources for parks and open spaces within the Region.

G. Recreation Program Goals

35. Complete an inventory of the Region's recreation services and programs.
36. Analyze recreation programs and services and recommend new programs needed to address the Region's existing program deficiencies, provide programming to underserved groups and close gaps in service.

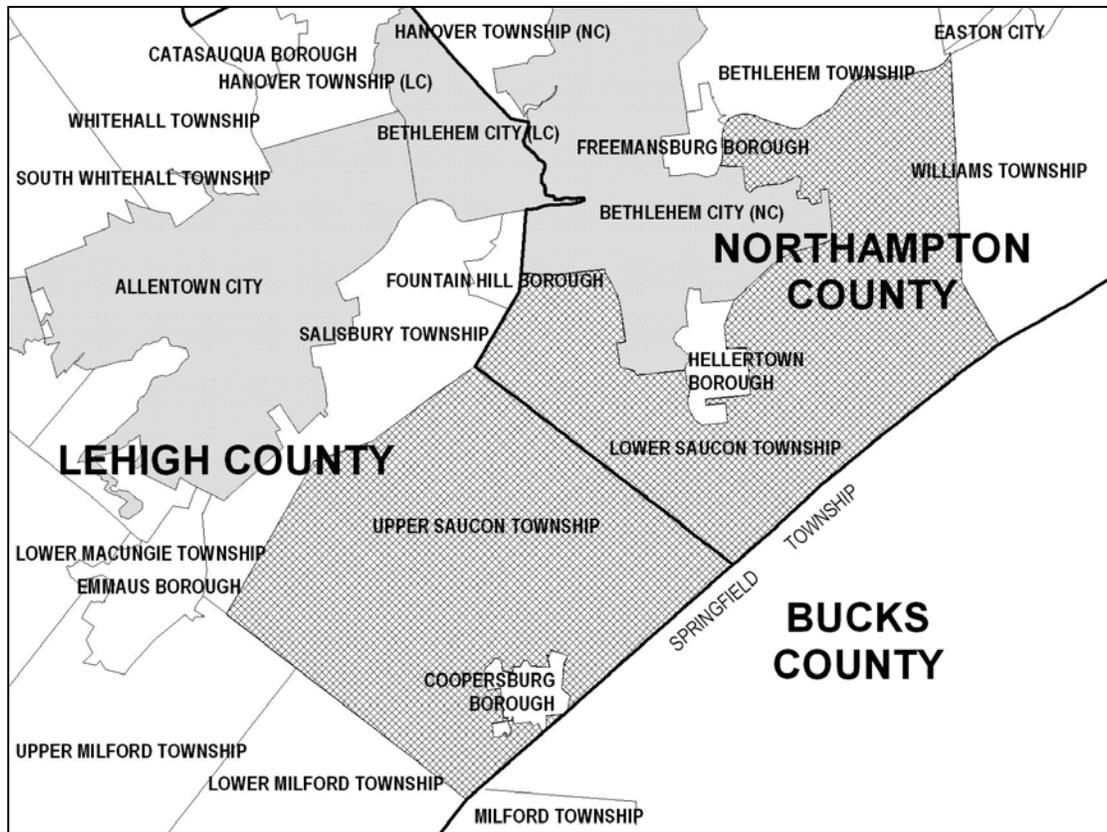
III. Community Background

A. Regional Setting

The Saucon Region is comprised of Lower and Upper Saucon Township, and is situated in the Lehigh Valley in eastern Pennsylvania. The Region straddles the Lehigh/Northampton County lines with Upper Saucon Township in Lehigh County and Lower Saucon Township in Northampton County.

The Saucon Region contains a total land area of 49 square miles with Upper Saucon Township being slightly larger. The Region's boundaries are primarily determined by man-made lines, with the exception of the northeastern border of Lower Saucon Township following the Lehigh River. The Region is contiguous to the following municipalities:

- **North** – Bethlehem City (NC), Hellertown Borough, Freemansburg Borough, Bethlehem Township and Easton City;
- **East** – Williams Township and Springfield Township (Bucks County);
- **South** – Milford Township (Bucks County) and Lower Milford Township; and,
- **West** - Upper Milford Township, Salisbury Township and Fountain Hill Borough.



The Region (Lower Saucon Township) also adjoins the City of Bethlehem and is close to the City of Allentown. This urban proximity has greatly influenced the Region with strong and steady development pressures and the need to provide considerable infrastructure (e.g. public utilities and roads).

As part of the Greater Lehigh Valley metropolitan area, residents of the Saucon Region enjoy excellent access to many of the large metropolitan areas of the eastern United States. Routes I-78 and PA 309 pass through the Region and provide direct access throughout the Greater Lehigh Valley and connection to the larger New York and Philadelphia metropolitan areas. In addition, many other nearby important regional roadways directly connect the Lehigh Valley to other nearby cities such as Reading and Harrisburg.

B. Local Governments

The following provides summary descriptions of those municipal agencies and personnel involved in the delivery of park and recreation services within the Region, more detailed descriptions of these agencies and their duties will be presented later in this Plan in Chapters 5 (Administration) and 6 (Personnel).

GOVERNING BODIES – Within Pennsylvania, local governments are ruled by their governing bodies and oversee all functions of the municipality. The governing body has final authority concerning all planning, zoning and land development functions. More specifically, the governing body also administers all public services, including parks and recreation, and therefore decides whether to require dedication of new parkland or accept payment in-lieu thereof. All recommendations from other local advisory bodies (i.e., Planning Commission, Recreation Board, Environmental Advisory Board, staff, and etc.) are evaluated by the governing body before a final decision is rendered. Finally, as elected representatives, the governing body is ultimately responsible to the citizens of the municipality. The governing bodies hold regularly-scheduled meetings, which are advertised and open to the general public. With respect to this Plan, the governing bodies will be required to adopt this Regional Parks, Recreation and Open Space Plan after public hearings, and then implement its recommendations through appointed officials and its other local agencies and staffs.

Both **Lower Saucon and Upper Saucon Townships**, are Townships of the second class. **Lower Saucon Township** is governed by its 5-member **Council** who serve 4-year staggered elected terms and meet twice per month. The Township operates as a Council-Manager Optional Plans form of government under PA Act 62. **Upper Saucon Township** is governed by its 5-member **Board of Supervisors** who serve 6-year staggered elected terms and meet twice per month.

PLANNING COMMISSION – To assist in the development and implementation of local planning functions, State law enables the governing bodies to appoint a local planning commission. Each municipality has a seven-member commission whose members are appointed to serve four-year terms. These local Planning Commissions are responsible for advisory review and recommendations upon subdivision and/or land developments, zoning map and/ or text amendments, conditional uses, and comprehensive plans. As an official

advisory function under State law, such reviews are conducted at publicly-advertised hearings, held monthly. Therefore, the Townships' planning commissions will be required to hold public hearings for this Regional Comprehensive Parks, Recreation and Open Space Plan, which will then be forwarded to the respective governing bodies for final adoption.

PARK & RECREATION BOARD/COMMITTEE – To assist in the development and implementation of local park and recreation services, each municipality has an appointed Park & Recreation agency. In Lower Saucon Township it is known as the Park & Recreation Board and has 5 members who serve 1 year terms and meet once each month. In Upper Saucon Township it is known as the Park & Recreation Committee and has 7 members who serve 5-year terms and meet once per month. This group also conducts various recreation activities.

ENVIRONMENTAL ADVISORY COUNCIL – To assist in the identification and protection of significant environmental resources within Lower Saucon Township, the Council has appointed this 10 member EAC; 7 members have voting authority while 3 do not. Each member serves a 3-year term and the group meets once each month. Upper Saucon Township has no such agency at this time. The EAC also advise the Council on how best to use/manage open spaces.

HISTORICAL COMMITTEE – To assist in the identification and protection of significant historic resources within Lower Saucon Township, the Council has appointed this 5 member group, including the Township Historian. Each member serves a 1-year term and the group meets once each month. Upper Saucon Township has no such agency at this time.

MUNICIPAL STAFF - There are key municipal staff that assist in the daily operations of each of the Townships, as listed below:

LOWER SAUCON TOWNSHIP STAFF POSITIONS	
Position Title	Responsibilities/Duties
<ul style="list-style-type: none"> • Township Manager 	<ul style="list-style-type: none"> • Responsible for day-to-day operations of Township; • Direct contact with Council; • Direct communication between Council and public; • Supervises Assistant Manager; • Responsible for budget development and implementation.
<ul style="list-style-type: none"> • Assistant Township Manager 	<ul style="list-style-type: none"> • Directly assists the duties of Township Manager; • Supervises the clerical and administrative staff; • Human resources director; • Prepares Council agenda;
<ul style="list-style-type: none"> • Receptionist 	<ul style="list-style-type: none"> • Assists with telephone and walk-in inquiries; • Assists with clerical duties;
<ul style="list-style-type: none"> • Zoning Officer 	<ul style="list-style-type: none"> • Enforces Zoning Ordinance • Staff liaison to Zoning Hearing Board and Planning Commission
<ul style="list-style-type: none"> • Zoning Administration Clerk 	<ul style="list-style-type: none"> • Assists with duties of Zoning Officer
<ul style="list-style-type: none"> • Director of Finance 	<ul style="list-style-type: none"> • Responsible for day-to-day account management • Processes invoices and payments • Monitors the budget
<ul style="list-style-type: none"> • Finance Clerk 	<ul style="list-style-type: none"> • Assists with duties of Director of Finance
<ul style="list-style-type: none"> • Director of Public Works 	<ul style="list-style-type: none"> • Oversees the maintenance and repair of Township roads/bridges • Oversees the maintenance and repair of Township parks
<ul style="list-style-type: none"> • Crewmen (10) 	<ul style="list-style-type: none"> • Perform labor on maintenance of Township roads/bridges/ parks.

<ul style="list-style-type: none"> • Chief of Police • Sergeant • Corporal • Investigator • Full-Time Patrolmen (10) • Part-Time Patrolmen (6) • Police Administrative Clerk • Police Clerk/Typist 	<ul style="list-style-type: none"> • 24-Hour patrol and criminal investigation • Coordinates DUI Program with two neighboring municipalities • D.A.R.E. Program at Saucon Valley School District • Bicycle Officers • Tobacco Enforcement Program • Seatbelt Checkpoint Program • K-9 Program • Shadow Day/Internship/Ride-Along Program
UPPER SAUCON TOWNSHIP STAFF POSITIONS*	
Position Title	Responsibilities/Duties
<ul style="list-style-type: none"> • Township Manager & • Assistant Township Manager 	<ul style="list-style-type: none"> • Preparing plans and programs to attain objectives approved by the Board of Supervisors • Attending and participating in municipal meetings • Preparing the annual budget and long term fiscal plan • Hiring, promoting and discharging employees • Preparing, recommending and implementing a capital improvements program • Coordinating and overseeing the activities of all municipal departments • Directing and supervising the daily work of the administrative staff
<ul style="list-style-type: none"> • Director of Community Development, • Assistant Director of Community Development, • Building Inspector, • Sewage Enforcement Officer, 	<ul style="list-style-type: none"> • Administer the Subdivision and Land Development Ordinance (SALDO) which includes receiving land development plans and scheduling Planning Commission meetings • Distribute plans to Township consultants for review for consistency with various Township regulations • Review plans and supporting documents submitted for approval • Maintain Township files for Subdivision & Land Development projects • Suggest changes to, and work with the Planning Commission to prepare amendments to the SALDO • Maintain the data base for all properties in the Township • Respond to inquiries regarding SALDO and other planning issues
<ul style="list-style-type: none"> • Director of Finance, • Accounting Supervisor, • Accounts Payable/Payroll Clerk, • Accounts Receivable/Purchasing Clerk, • Utility Billing/Pavilion Rentals, 	<ul style="list-style-type: none"> • Reporting and recording all financial transactions, • Providing accurate annual statements, • Performing budgetary assistance to the Township Manager, • Performing internal auditing, • Monitors revenues and expenditures, • Additional functions include payroll, accounts payable, and purchasing activities.
<ul style="list-style-type: none"> • Police Department • Chief of Police • Police Clerk • 17 full-time officers (two of whom are investigators), • One K-9 unit 	<ul style="list-style-type: none"> • 24-hour patrol services and crime investigation, • Participates in a regional DUI task force, • Sponsors a local D.A.R.E. program, • Oversees a community service program for first time juvenile offenders.
<ul style="list-style-type: none"> • Superintendent of Roads, • Ass't. Superintendent Roads • 7 road crewmen 	<ul style="list-style-type: none"> • Repair and reconstruction of Township roads • Snow and ice control on Township roads • Posting traffic and street signs • Maintenance and upkeep of Township owned facilities including the Township Park • Storm sewer and drainage work • Managing the leaf drop-off center on Liberty Road

* Taken from Township website

C. Municipal Budget Information

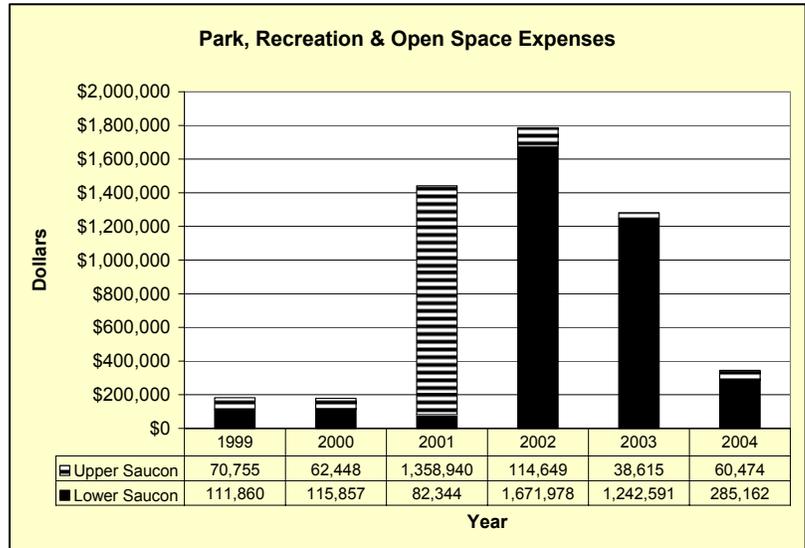
The following table depicts the park and recreation expenses recorded for each Township for years 1999 through 2004:

As can be seen, Lower Saucon Township's expenses roughly double those of Upper Saucon Township over the last six years. In both Townships, recorded expenses were highly variable with a few years (2001-2003) of extraordinary investment when new parklands were acquired.

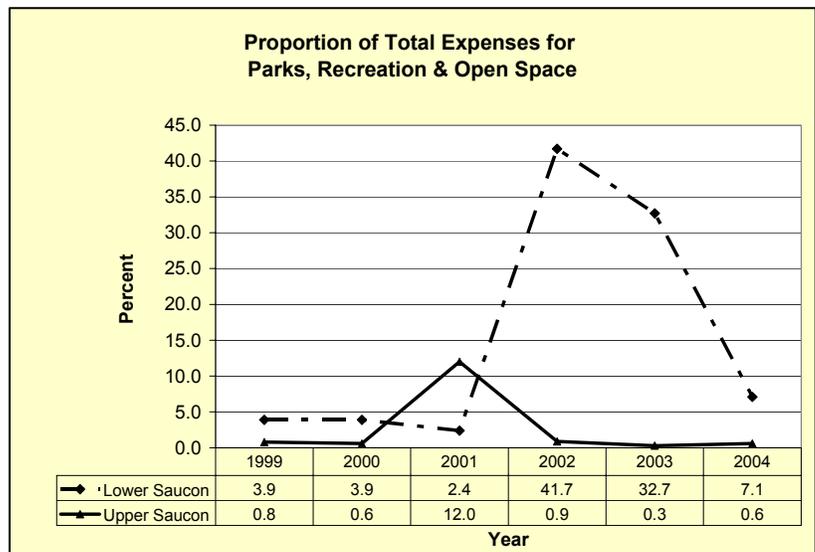
Absent these special years, park, recreation and open space expenses averaged less than \$200,000 in both Townships in 1999 and 2000. This figure rose to about 345,000 in year 2004; this increased level should be expected to continue as the Townships' demands for services grow.

Lower Saucon Township's proportion of park and recreation expenses is generally greater within the Region. Aside from year 2001 when it developed its Community Park, Upper Saucon Township's expenses have averaged 0.6% of its total budget. Conversely, Lower Saucon Township's expenses have averaged 4.3% of its

total budget in years when major capital improvements did not occur. These proportions should stabilize and become more equitable as a Regional approach evolves.

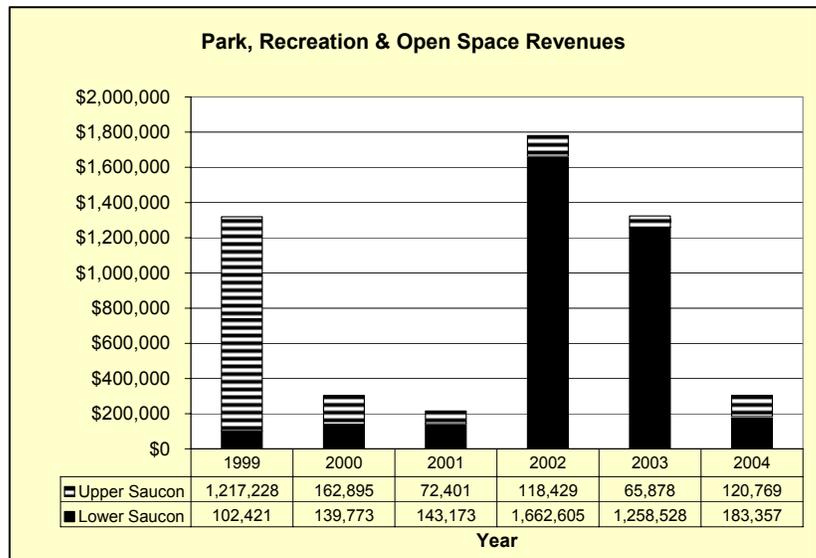


Average & Total Expenses 1999 thru 2004			
Municipality	Average Expenses	Total Expenses	% of Region
Lower Saucon	\$584,965	\$3,509,792	67.3%
Upper Saucon	\$284,314	\$1,705,881	32.7%
Region	\$869,279	\$5,215,673	100.0%

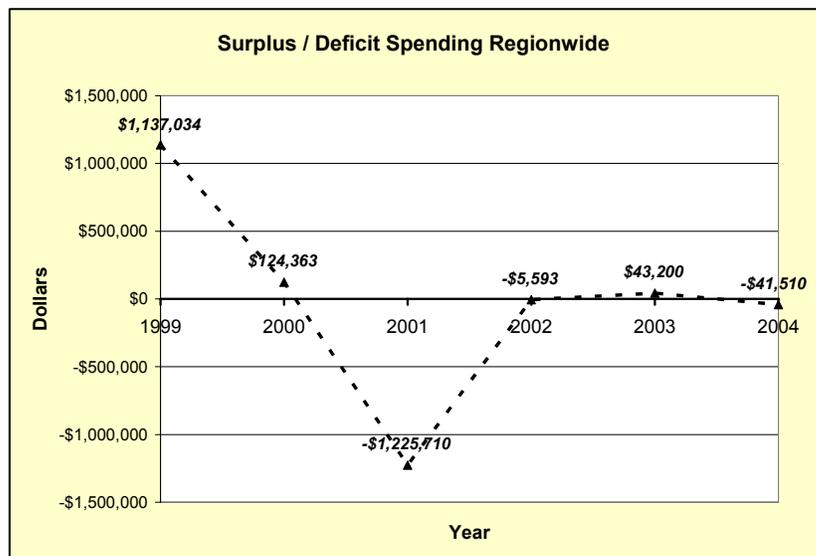


The combined park, recreation and open space revenues from both Townships generated \$5,247,457 over the last 6 years. Like with expenses, Lower Saucon Township accounts for about 2/3 of the total revenue, much of which was used for the major capital expenses presented above. In those years when major revenues were not received for capital projects Lower Saucon Township averaged \$142,181 and Upper Saucon Township averaged \$108,074 in park, recreation and open space revenues. As a regional approach to the delivery of these services occur, revenues should equalize based upon each of the Townships' populations.

By comparing revenues and expenses reported earlier, the following charts the Region's total deficit spending for park, recreation and open space over the last six years. During the first 3 years the Region had huge swings in surpluses to deficits again relating to the large capital projects undertaken in both Townships. Absent these unusual years (1999 & 2001) the Region has, on average, accrued \$30,115 more than it has spent per year.



Average & Total Revenues 1999 thru 2004			
Municipality	Average Revenues	Total Revenues	% of Region
Upper Saucon	\$292,933	\$1,757,600	33.5%
Lower Saucon	\$581,642	\$3,489,857	66.5%
Region	\$874,575	\$5,247,457	100.0%

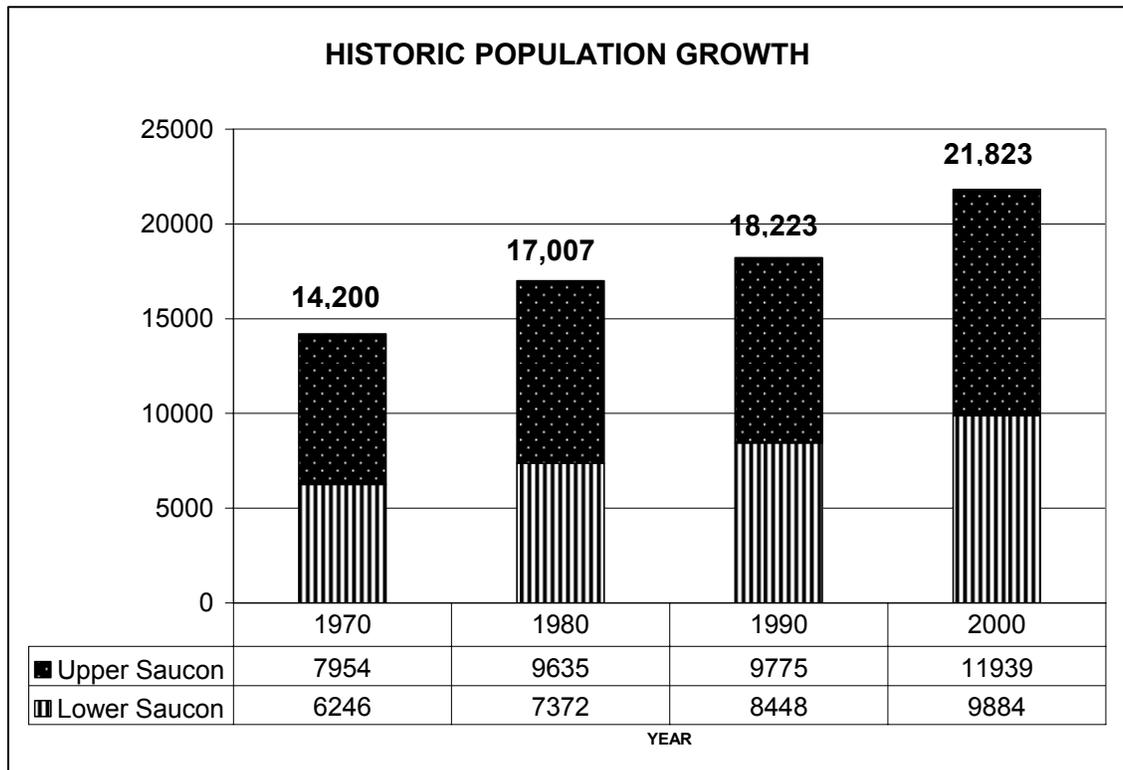


Each Township has demonstrated ability to manage its financial resources over time. This Plan will provide specific guidance that will enable the Region to deliver a high level of service to an increasing population in a cost-effective manner.

D. Historic Population Growth

The allocation of municipal resources, including recreation, must consider the population to be served. Obviously, the overall size of a population is related to the amount of recreational services and parklands that must be provided. In addition, particular groups within the population have different recreational needs. Finally, as an area develops, its amount of open space diminishes and this often causes urgency to provide for protected open spaces for passive activities. This section will present past, current and expected population statistics in order to determine the Region’s recreational service demand. In addition, a description of socioeconomic characteristics will be presented.

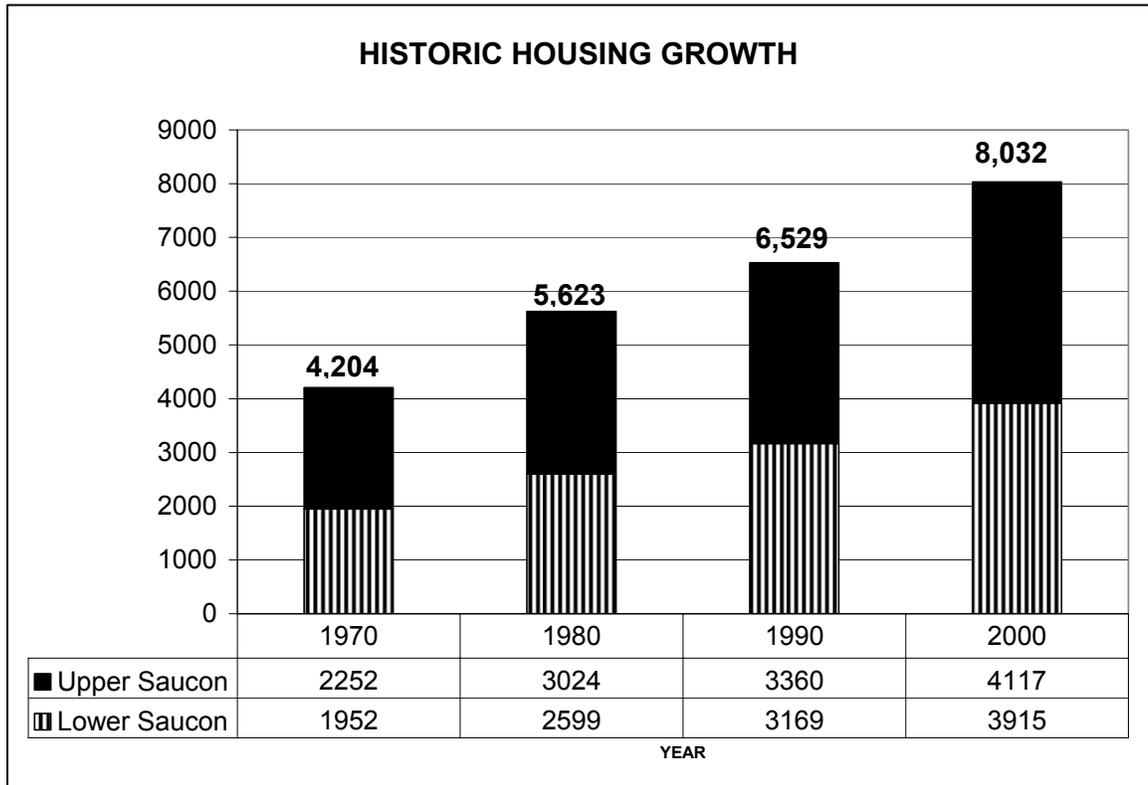
The historical growth pattern of an area provides insight as to the growth that might be expected in the future. The following table lists the amount of population growth that has occurred over the last 30 years within each municipality and the Region.



From the above graph, several trends are visualized. First, the Region has realized fairly steady growth since 1970, averaging 1540 new residents each decade. During the 1980s, Upper Saucon Township’s population grew by only about 1.4 percent, apparently due to sluggish housing market as reported within the Lehigh County Comprehensive Plan. However, Lower Saucon Township did not suffer the same reduction during that decade. Overall the Region exhibits population growth in-line with national trends toward suburbanization which is more a function of in-migration than natural increases due to higher birth rates.

E. Historic Housing Growth

In addition to population growth, another important consideration when projecting how fast an area will grow relates to its number of housing units. The following table lists the number of housing units within each municipality since the US Census Bureau began reporting such information in 1970.



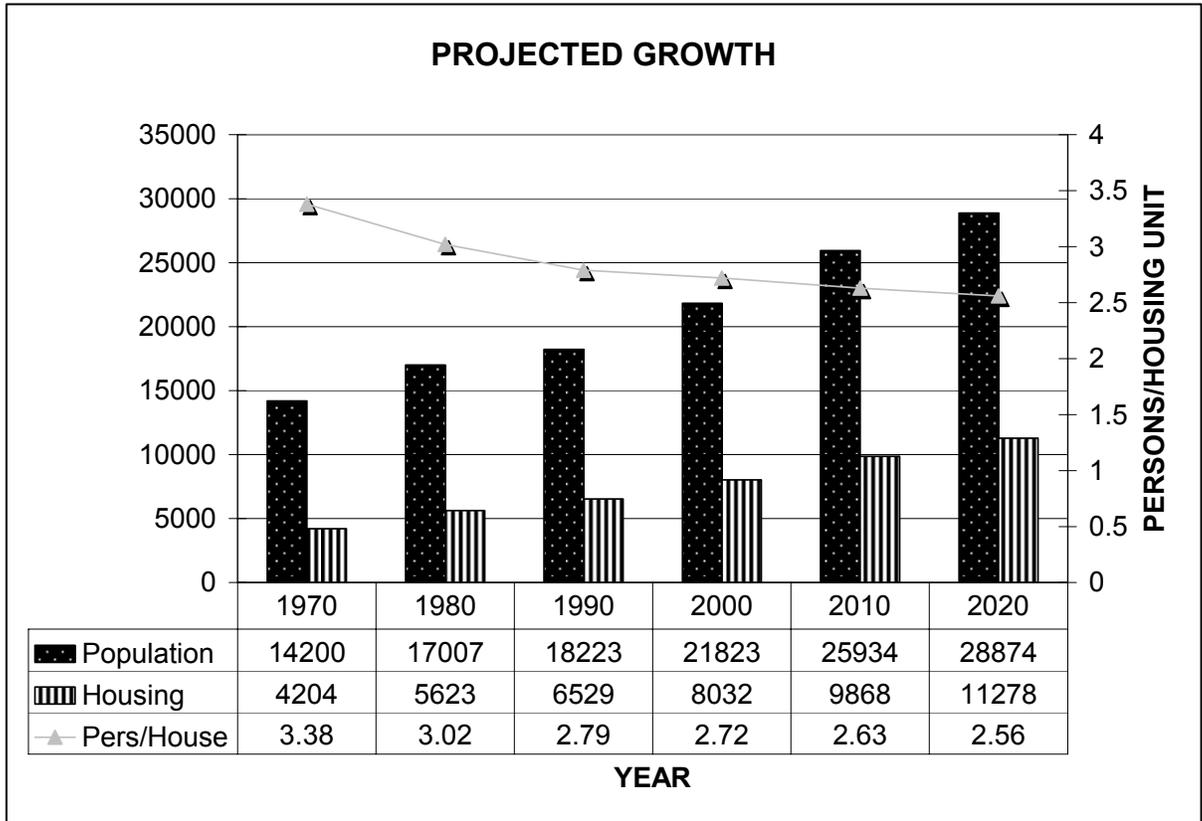
Unsurprisingly, the number of housing units exhibited similar growth trends as the population within the Region. However, the rate of housing growth is greater than that of population. This occurs because fewer people are living together, as family sizes have decreased and more people are living by themselves. To illustrate this phenomenon, consider Upper Saucon Township's population and housing growth during the 1980s. While the population only grew by 1.4 percent, its housing stock expanded by 11.1 percent. Although only 140 new residents moved in, 336 new housing units were added. Over the last 30 years, population and housing stocks both grew within the Region, but the housing stock grew at a faster rate. This trend has occurred nationally for many decades. It is important that population and housing projections for the Region take into account this trend so that adequate growth area, open space and parklands can be acquired.

In addition, both Townships recorded the following housing growth rates between the years 2000 and 2005 based upon the number of building permits issued for new dwelling units:

Number of Building Permits Issued for New Dwelling Units 2000 - 2005		
Lower Saucon Township	Upper Saucon Township	Saucon Region
399	732	1131

F. Population and Housing Projections

By using a linear extrapolation technique applied to both population and housing stock trends between 1970 and 2005, the following projections are derived; these will form the basis of future growth area and service needs for the Region:



The following table depicts the results of the same projections performed for each of the Region's municipalities:

	2000	2010	2020
Lower Saucon Township Population	9,884	12,273	13,783
Lower Saucon Township Housing Units	3,915	4,649	5,319
Lower Saucon Township Persons/Housing Unit	2.52	2.64	2.59
Upper Saucon Township Population	11,939	13,661	15,091
Upper Saucon Township Housing Unit	4,117	5,219	5,959
Upper Saucon Township Persons/Housing Unit	2.89	2.62	2.53

The following tabulates the net changes projected for each municipality by decade:

Projected Net Changes Per Decade 2005-2020			
Municipality	Lower Saucon	Upper Saucon	Region
Population	+1510	+1430	+2940
Housing	+670	+740	+1410
Persons/Unit	-0.07	-0.09	-0.08

G. Other Socio-Economic Characteristics

The following tabulates socio-economic data that describes the Region and its respective municipalities that is available for the Year 2000 US Census of Population & Housing:

Age Profile					Comments
Age Group	Lower Saucon Township	Upper Saucon Township	Saucon Region	Lehigh & Northampton Counties	
Under 5 years	553 (5.6%)	632 (5.3%)	1,185 (5.4%)	5.8%	Generally, the Saucon Region has a larger percentage of teenagers and mature adults than the combined Lehigh and Northampton Counties; however, the Region has fewer young adults and seniors. In turn, the Region's median age is 1.4 years older than that of the combined Counties, despite having fewer seniors. The Region also generally has a slightly larger percentage (0.9%) of children through age 19 than do the Counties. Upper Saucon Township has more children and young adults while Lower Saucon has more mature and senior adults.
5-9 years	677 (6.8%)	823 (6.9%)	1,500 (6.9%)	6.8%	
10-14 years	702 (7.1%)	897 (7.5%)	1,599 (7.3%)	7.1%	
15-19 years	600 (6.1%)	1,106 (9.3%)	1,706 (7.8%)	6.8%	
20-24 years	369 (3.7%)	730 (6.1%)	1,099 (5.0%)	5.8%	
25-64 years	5,538 (56.0%)	6,358 (53.3%)	11,896 (54.5%)	52.0%	
65+ years	1,445 (14.6%)	1,393 (11.7%)	2,838 (13.0%)	15.8%	
Median age	41.1 years	38.7 years	39.8 years	38.4 years	

Gender Profile					Comments
Gender	Lower Saucon Township	Upper Saucon Township	Saucon Region	Lehigh & Northampton Counties	
Male	4,910 (49.7%)	5,962 (49.9%)	10,872 (49.8%)	48.4%	The Saucon Region, like Lehigh and Northampton Counties, has a greater number of females than males; however, the ratio is much closer within the Region. The Region has far less gender disparity than the combined Counties which have 3.2% more females than males.
Female	4,974 (50.3%)	5,977 (50.1)	10,951 (50.2%)	51.6%	

Racial Composition & Hispanic/Latino Origin					Comments
Race	Lower Saucon Township	Upper Saucon Township	Saucon Region	Lehigh & Northampton Counties	
White	9,561 (96.7%)	11,594 (97.1%)	21,155 (96.9%)	88.9%	The Saucon Region has less racial diversity than do the Counties. Less than 3% of the Region's residents describe themselves as other than "White." Asians comprise the largest minority, but account for only slightly more than 1% of the Region's population. Lower Saucon Township exhibits the greater diversity (3.3%) within the Region, but still considerably below that of the counties as a whole which have a combined minority population of about 11.1%. Similarly, the Region has far fewer residents of Hispanic/Latino origin than the counties. The Region has about 1.7%, while the County has 8.6%.
African American	55 (0.6%)	83 (0.7%)	138 (0.6%)	3.2%	
Native American	16 (0.2%)	7 (0.1%)	23 (0.1%)	0.2%	
Asian	119 (1.2%)	135 (1.1%)	254 (1.1%)	1.8%	
Pacific Islander	6 (0.1%)	1 (0%)	7 (0%)	0%	
Other	68 (0.7%)	48 (0.4%)	116 (0.5%)	4.3%	
Bi-racial	59 (0.6%)	71 (0.6%)	130 (0.6%)	1.6%	
Hispanic/Latino	253 (2.6%)	128 (1.1%)	381 (1.7%)	8.6%	

Housing & Household Characteristics					Comments
Characteristics	Lower Saucon Township	Upper Saucon Township	Saucon Region	Lehigh & Northampton Counties	
Group Quarters	68 (0.7%)	872 (7.3%)	940 (4.3%)	3.1%	Upper Saucon Township's concentration of college students at DeSales Univ. causes the Region to have a higher proportion of residents within group quarters than the counties. The Region has slightly fewer families with children than is typical in the counties. Only 1/3 of the proportion of rental housing units is found within the Region when compared throughout the counties. The Region's vacancy rate is also less than that of the combined counties'.
Family w/children	1209 (32.4%)	1479 (37.3%)	2,566 (34.9%)	33.7%	
Rental Units	425 (11.4%)	318 (8.0%)	743 (9.6%)	29.1%	
Vacant Units	180 (4.6%)	147 (3.6%)	327 (3.3%)	5.2%	

Education & Income Characteristics					Comments
Characteristics	Lower Saucon Township	Upper Saucon Township	Saucon Region	Lehigh & Northampton Counties	
High School Grads	87.7%	88.2%	87.9%	80.9%	The Region's educational attainment levels are significantly higher than in the combined counties, particularly for 4-year college graduates. Per capita income is also greater within the Region by almost 1/3 of that earned within the combined counties. Poverty within the Region is less than 1/4 that recorded for the combined counties.
College Grads (4-yr)	34.7%	36.6%	35.7%	22.3%	
Per Capita Income	\$30,280	\$27,606	\$28,817	\$21,667	
Below Poverty Level	244 (2.5%)	201 (1.8%)	445 (2.0%)	48,499 (8.4%)	

H. Regional Fiscal Health and Major Employers

The Region’s location central to the Lehigh Valley provides access to a large metropolitan area and its economy. Consequently, both Lower and Upper Saucon Township have evolved primarily into “bedroom communities” for nearby cities and employment centers. While both Townships possess commerce, industry and institutional employers, such local employment is secondary in magnitude to the opportunities found beyond the boundaries of the Region in adjoining municipalities.

Unemployment rates within both Townships are low as are those found throughout both Lehigh and Northampton Counties. This metropolitan area has a thriving economy that offers ready employment. The following compares labor force employment statistics for the Region, its host Counties and the State as reported in the 2000 US Census:

Location	Employment Rate	Unemployment Rate
Lower Saucon Township	61.8	1.6
Upper Saucon Township	59.3	2.8
Lehigh County	61.2	2.8
Northampton County	60.2	2.9
Pennsylvania	58.3%	3.5

As can be seen the Lehigh Valley exceeds employment rates when compared with all of Pennsylvania. Upper Saucon Township’s lower employment rate within the Lehigh Valley relates to the number of college-aged students who reside there and not a lack of employment opportunities.

As described above, most residents within the Region travel for work to nearby metropolitan areas and employment centers. The following compares commuting statistics for the Region, its host Counties and the State as reported in the 2000 US Census:

Location	Average Commute Travel Time
Lower Saucon Township	25.7 minutes
Upper Saucon Township	24.4 minutes
Lehigh County	22.1 minutes
Northampton County	24.2 minutes
Pennsylvania	25.2 minutes

As these statistics reveal, it is common for residents to travel some distance for employment across the Lehigh Valley and State, and the Region is no exception. In any event, the Region’s residents have ready employment, and as reported earlier, their incomes are well above County averages. Therefore, local officials can act confidently to offer park, recreation and open space programs with assurance that residents can afford a reasonable level of cost associated with such services.

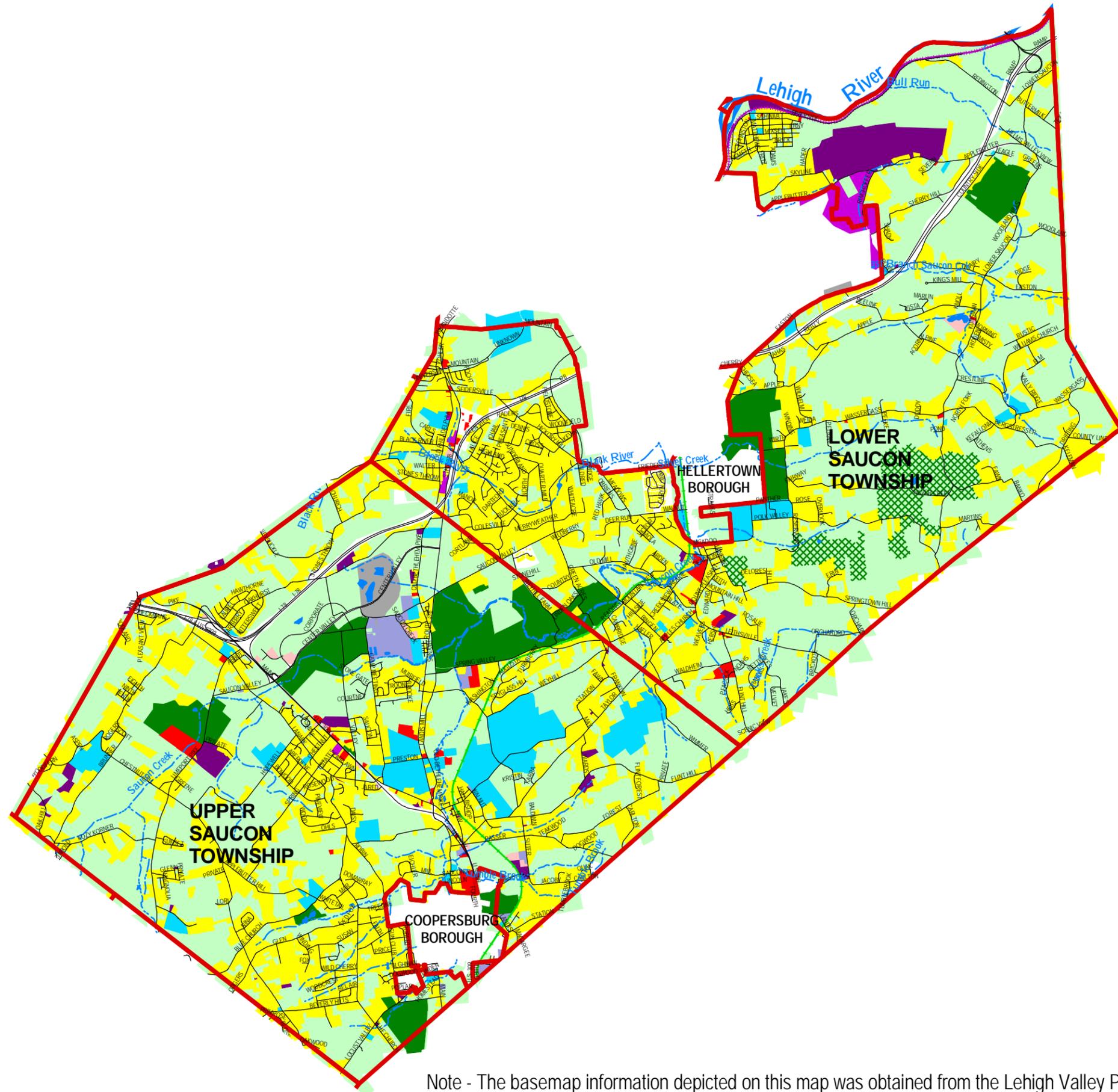
I. Existing Land Use

Overall, the Region's character has undergone massive change during the last half century. The Lehigh Valley, like most metropolitan areas, has experienced considerable out-migration from the urban areas into the suburbs. Both Townships' proximity to the nearby cities have created accelerating development pressures that extend into large portions of the Region. This has produced large suburban neighborhoods and widely scattered rural residences. Despite these pressures and resulting developments, local officials hope to retain areas with rural character and preserved open spaces.

The Existing Land Use Map on the following page depicts the development patterns of the Region and its existing character based upon the Land Use Field in the Parcel Layer of Geographic Information System Data (Release 3.0) provided by the Lehigh Valley Planning Commission. The following will describe each of the land use categories depicted:

- Public/Quasi Public – This category depicts uses like churches, schools, parks, cemeteries, post offices, municipal offices, libraries, utilities, police/fire/ambulance stations, and other publicly- owned or operated uses. The largest of these uses includes DeSales University, the Girl Scouts property, and the public school campuses.
- Parks/Outdoor Recreation – The Region has a wealth of public and private golf courses which comprise most of the area within this category. In addition, the Saucon Valley Living Memorial Park is also designated in this category.
- Agricultural & Vacant – Farming and vacant lands are widespread throughout the Region with particular concentration in the eastern 2/3 of Lower Saucon Township. This category includes farming activities of all kinds plus related residences.
- Residential – This category depicts a wide range of homes including detached, duplexes, townhouses and multi-family units. Densities also vary and range from rural areas to high density neighborhoods.
- Offices – This category reflects a few scattered office buildings.
- Commercial – The Region's retail businesses are depicted within this category. Many of these uses occur as highway development along PA Route 309. Larger commercial uses include veterinarians and kennels, shopping centers, and a racquet club.
- Manufacturing/Industrial – This category depicts industrial uses that involve processing operations. The largest of these uses occur in north-central Upper Saucon Township with Aldi, Inc., and Stabler Land Company sites.
- Warehousing/Distribution – This category depicts industrial uses that involve storage and distribution operations. By far the largest of these is the Bethlehem Steel site located straddling the Lower Saucon Township and Bethlehem City boundary.
- Transportation/Communication/Utilities – This category depicts uses utility lines, communication towers, parking lots, storage tank fields and landfills. The largest of these uses is the IESI PA Bethlehem Landfill located in northern Lower Saucon Township.
- Limestone/Dolomite Mining – This reflects existing mining operations.
- Hellertown Parcels – This category identifies significant holdings of the Borough within Lower Saucon Township which protect the Borough's public water source wells.

Saucon Region Existing Land Use



- EXISTING LAND USE**
- Public/Quasi Public
 - Parks/Outdoor Recreation
 - Agricultural & Vacant
 - Residential
 - Offices
 - Retail/Commercial
 - Manufacturing/Industrial
 - Warehousing/Distribution
 - Transportation/Comm/Util's
 - Limestone/Dolomite Mining
 - Hellertown Parcels



6000 0 6000 Feet



Note - The basemap information depicted on this map was obtained from the Lehigh Valley Planning Commission

J. Natural & Cultural Features

Recreation and open space planning, like community planning, must inventory natural and cultural resources, if it is to match needs with resources best able to accommodate them and protect community identity. For example, the acquisition of steeply-sloped lands for future ball field construction would be impractical. Similarly, to ignore some unusual and outstanding physical or cultural feature in the planning for future recreation amenities represents a lost opportunity to enhance community pride and identity. For these reasons, a variety of natural and cultural features have been inventoried, as follows. Much of the information contained in this chapter is derived from various data layers of the Geographic Information System Data (Release 3.0) provided by the Lehigh Valley Planning Commission. Such data is depicted on the Natural Features Map and the Cultural Features Map contained within this chapter.

PRIME FARMLANDS

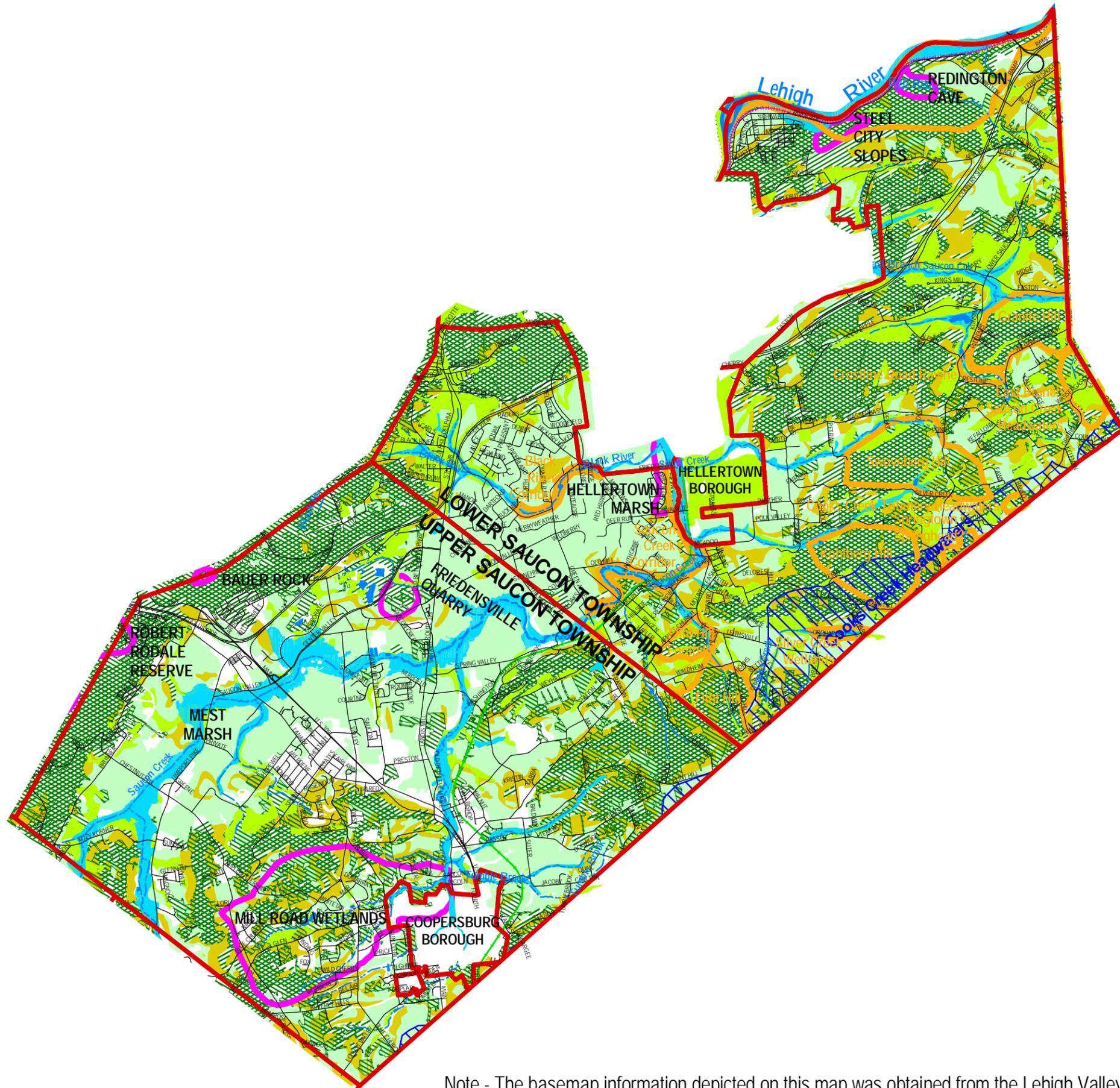
Section 604.3. of the Pennsylvania Municipalities Planning Code requires municipalities to develop zoning ordinances that “preserve prime agriculture and farmland considering topography, soil type and classification and present use.”¹ The United States Department of Agriculture (USDA) rates all soil suitability for agricultural purposes and assigns a numerical rating from Class I to Class VII. **Prime farmland** soils are those soils with an agricultural rating of Class I or II. In addition, the USDA considers Class III soils to be of **Statewide importance** to agriculture. The USDA describes prime agricultural land as “the land that is best suited for producing food, feed, forage, fiber and oilseed crops.” It possesses the soil quality, growing season and water supply needed to economically produce a sustained high yield of crops when it is treated and managed using acceptable farming methods. Prime farmlands are rich in chemical nutrients, have good permeability to air and water with few rocks, are well-drained but resistant to erosion, and have relatively flat topography. Prime farmlands produce the highest yields with minimal inputs of energy and economic resources, and farming them results in the least damage to the environment. The USDA encourages all levels of government and private individuals to effectively use these valuable resources to meet the nation's food and fiber needs.

The low-lying flat lands contain the Region's Class 1 & 2 prime agricultural soils while the foothills tend to have more Class III soils of Statewide importance. Unfortunately, the soils most suitable for agricultural purposes are also those most suitable for development, creating competition between these uses for these soils, and resulting in the loss and fragmentation of the most productive farmlands. Certainly many valuable farmlands have been lost within both Townships but some remain, particularly in Upper Saucon Township.

It is noted that 12 farms within Upper Saucon Township are contained within a designated Agricultural Security Area and about 273 of these acres are subject to restrictions associated with Agricultural Easements from the Lehigh Valley Agricultural Preserve Board. These areas are depicted on the Cultural Features Map. ***In addition to these State farmland preservation programs, local officials from Upper Saucon Township should consider devising a zoning strategy that enables local farmers to continue their***

¹ PA Municipalities Planning Code, Act 247, as amended, Section 604.3.

Saucon Region Natural Features



- Class 1 & 2 Prime Farmland
- Class 3 Farmland
- Steep Slopes
- Floodplains
- Wetlands
- Woodlands
- Habitats
- Exceptional Value Watershed
- Natural Resource Areas



Note - The basemap information depicted on this map was obtained from the Lehigh Valley Planning Commission

active farming operations with unnecessary interference from suburban neighbors. New development should impose substantial setbacks for buildings, fences and vegetation from adjoining farmlands and new residents should be “put-on-notice” that Township Officials intend to act with preference regarding the impacts of “normal farming operations” in accordance with the Right-to-Farm Law of Pennsylvania. Such standards can be integrated within a cluster approach to residential development to successfully accommodate both different land uses in close proximity.

Active farming operations offer little opportunity for the acquisition and development of recreation facilities like parks and trails because farmers don't usually need permission to continue their operations. Similarly, farmers generally resist public access to their properties for reasons of liability and nuisance. **For these reasons, it is important for local officials to understand these practical limitations when devising an open space strategy as applied in agricultural areas.**

Finally, the installation of riparian buffers along watercourses in active farmlands can have a dramatic effect on local surface water quality. Soil erosion from plowed cropland and uncontrolled livestock pasturing can quickly and severely degrade surface water quality. **Farmers with large-scale concentrated feeding animal operations or those interested in obtaining a conservation easement should be required to install and maintain suitable riparian buffers along all watercourses on the farm.** More information on this subject is contained later in this Chapter.

STEEP SLOPES

The identification of steep slopes is important for several reasons. First, steep slopes are unusable for many active recreation facilities, like ball fields and courts. However, steeply-sloped areas are also difficult to farm and develop with urban land uses. As a result, steep slopes tend to be undisturbed and wooded. Such natural settings can provide valuable passive conservation areas that can be easily integrated within an overall open space system. The Natural Features Map depicts considerable area associated with steep slopes within the Region. Both Townships should seek to minimize development density upon steeply-sloped areas by focusing required growth elsewhere and limiting permitted development density upon steep slopes.

WOODLANDS

Closely associated with steep slopes are the Region's considerable woodlands. Within Lower Saucon Township, large concentrations of woodland are found upon Granite, Kirchberg, Kohlberg and Swoveberg Hills, and along the Lehigh River. Within Upper Saucon Township, concentrated woodlands are located on Southern Mountain, Applebutter, Flint and Saucon Hills.

Recent amendments to the Pennsylvania Municipalities Planning Code (MPC) specifically enable local governments to protect significant woodland areas by preventing intensive development in those areas and/or engaging development review procedures that conserve these important natural features.

Benefits of Woodlands Protection

1. Slows erosion by stabilizing steep slopes and stream banks through extensive root systems.
2. Aids in storm water management and replenishment of aquifers by promoting groundwater recharge.
3. Aids in purifying groundwater by filtering runoff and reducing sediment wash caused by erosion.
4. Provides important wildlife habitat areas, particularly when large, unbroken areas of forest cover or linkages to other blocks of woodland can be maintained.
5. Offers excellent passive recreation opportunities, such as hiking, horseback riding, photography, hunting, and camping.
6. Helps reduce the level of air pollution by absorbing airborne pollutants and producing beneficial carbon dioxide.
7. Moderates climatic conditions by providing wind-breaks and shade from direct sunlight.

Reforestation and tree preservation requirements can require that a majority of existing trees in proposed subdivisions or land developments be maintained or replaced, except those whose removal is necessary for the proposed structures and required improvements.

Woodland Protection Measures

1. Tree removal setbacks adjacent to streams.
2. Tree removal limitations in steep-sloped areas and in and near natural habitat areas.
3. Maintenance of wildlife corridors.

The Townships should consider the adoption of other protective measures for woodlands, such as limiting the removal of trees adjacent to streams, in steep sloped areas, and in or adjacent to identified natural habitat areas. In addition, developers as well as woodlot managers should be encouraged to maintain established wildlife corridors in the form of linkages to other wooded areas. ***Municipal officials should consider the adoption of zoning and subdivision and land development standards limiting the removal of trees in sensitive areas, and encouraging the preservation of wildlife corridors.***

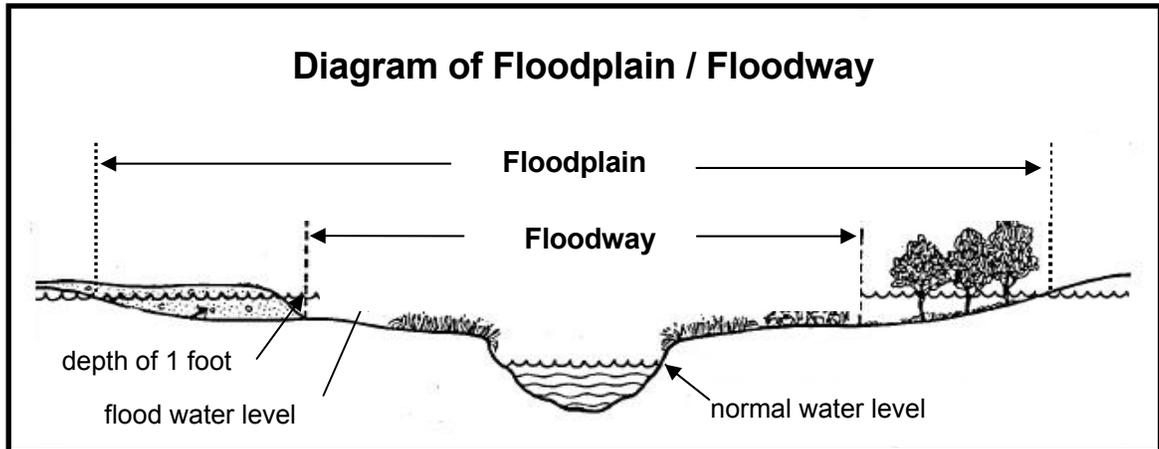
However, the MPC also requires every municipality to permit forestry uses by right in every zone within the Commonwealth and the Region has experienced repeated timbering.² ***Both Townships should ensure that forestry uses are adequately regulated. Along with typical forestry regulations, the Region should require applicants to evaluate the potential for deer impact to prevent or severely restrict the re-growth of trees.***³ More information and a model ordinance on this subject are contained in the Recommendations Chapter of this Plan.

² Morris Arboretum of the University of Pennsylvania, Natural Resources Inventory of Lower Saucon Township, Northampton County, Pennsylvania. August 28, 2000, pg. 7.

³ Ibid,7.

FLOODPLAINS

A floodplain is an area of land adjoining a water source, such as a river or stream, that is subject periodically to partial or complete inundation by the water source. The floodplain consists of the **floodway** and the **floodway fringe**. The floodway is the stream channel plus an additional area that must be kept free of encroachments to avoid an increase in flood heights. The floodway fringe is the remaining portion of the floodplain within which encroachments must be limited.



Flooding can result in the loss of life and property, health and safety hazards and significant public expenditures for flood protection and relief. Floodplains also often contain valuable prime farmlands and wildlife habitats. Floodplain protection safeguards the public health, safety and welfare, while protecting natural resource values.

Floodplain areas within the Region have been identified by the Federal Emergency Management Agency (FEMA). Local governments which regulate development and fill within flood hazard areas qualify to participate in the Federal Flood Insurance Program. Flood hazard areas have been identified for the Township, which participates in the Federal Program.

Benefits of Floodplain Protection

1. Protection of life, health and safety.
2. Protection of property.
3. Protection against surface water pollution.
4. Protection against soil, crop and wildlife habitat loss.
5. Reduces/eliminates need for public expenditures.

Federal floodplain mapping denotes estimated 500-year floodplain boundaries, areas within which there is the probability that flooding will occur once in 500 years. These areas are identified on the *Natural Features Map*. The presence of alluvial soils may also be used to identify additional areas subject to periodic inundation. The latest Soil Surveys for the Counties identify the following alluvial soil types for the Region and their respective characteristics:

ALLUVIAL SOILS CHARACTERISTICS*		
Soil Symbol	Soil Name	Slope (%)
Bo	Bowmansville – Knauers silt loam	0-3
Ho	Holly silt loam	0-3
Lv	Linded loam	0-3
Me	Middlebury silt loam	0-3

* Alluvial soils reported do not include those associated with urban development.

The delineation of alluvial soils generally provides wider floodplains than those identified by FEMA; this is an option for increased protection against flooding. The Region’s alluvial soils have been depicted as part of the Floodplain upon the Natural Features Map contained earlier in this Chapter. Upper Saucon Township with its broader and more level limestone landscapes have more extensive and wider floodplains within the Region, particularly along the Saucon Creek. ***Future planning should avoid development of floodplains and/or alluvial soils. Such areas also produce natural opportunities for passive recreation pursuits and wildlife highways.***

WETLANDS

Wetlands are areas that are regularly inundated or saturated long enough to produce the particular types of vegetation associated with ***swamps, bogs and marshes***. While there are several definitions of wetlands used by regulatory agencies, all definitions require the presence of hydrophytic plants (plants that grow in wet soils), hydric (wet and anaerobic) soils, and the presence of water at or near the surface at some part of the growing season.

Recently, much attention has been focused upon the importance of wetlands. All wetlands have value, although their value is highly variable. Wetlands support an abundance and diversity of life unrivaled by most types of environments. The many benefits wetlands provide are summarized in the adjoining inset.

Benefits of Wetlands
1. Provide food and habitats for an abundance of animal life.
2. Are breeding, spawning, feeding, cover, and nursery areas for fish.
3. Are important nesting, migrating and wintering areas for waterfowl.
4. Act as natural storage areas during floods and storms.
5. Act as groundwater recharge areas, particularly during droughts.
6. Purify ground and surface waters by filtering and assimilating pollutants.

Wetlands within the Region have been identified using the U.S. Department of the Interior's National Wetlands Inventory, derived from high altitude aerial photograph interpretation of surficial features commonly associated with wetlands. This inventory tends to identify the larger wetland areas only. These include a combination of scattered palestrine and riverine wetlands. Palestrine wetlands are ponds and small lakes, while riverine wetlands are associated with rivers, streams, runs, creeks, and brooks.

The latest Soil Surveys completed for the Counties by the Natural Resources Conservation Service identify hydric soils which can also indicate the presence of wetland areas. The following hydric soils within the Region have been depicted as wetlands on the Natural Features Map contained earlier in this Chapter.

HYDRIC SOILS CHARACTERISTICS		
Soil Symbol	Soil Name	Slope (%)
Ad	Alluvial land, coal overwash	NA
BaB	Baile silt loam	2 - 8
BeA	Bedford & Lawrence silt loam	0 - 3
BeB	Bedford & Lawrence silt loam	3 – 8
BeB	Baile extremely stony silt loam	0 – 8
Bm	Barbour and Middlebury soils, high bottom	NA
BtA	Binkerton silt loam	0 – 3
BtB	Binkerton silt loam	3 – 10
CmA	Comly silt loam	0 – 3
CmB	Comly silt loam	3 – 8
CrB	Croton silt loam	3 – 8
GnA	Glenville silt loam	0 - 3
GnB	Glenville silt loam	3 - 8
Ho	Holly silt loam	NA
LaB	Ladig extremely stony silt loam	0 – 28
LaD	Ladig extremely stony silt loam	8 – 25
Rv	Riverwash	NA
UrA	Urban land	Nearly level
UrC	Urban land	sloping
UtB	Urbana silt loam	2 - 10

A variety of laws have been passed to protect wetlands. Infill and development in larger wetlands are now regulated by the U.S. Environmental Protection Agency and subject to both State and Federal permitting processes. Careful local planning, education, and the incorporation of protective standards into local subdivision and land development ordinances could extend further protection to the Region's smaller wetlands as well as to land areas immediately surrounding wetlands. **Future planning should avoid development in areas with wetlands or hydric soils.**

- | Wetland Protection Measures |
|--|
| 1. Modifications to road maintenance practices(e.g., salt and de-icing chemicals). |
| 2. Homeowner education (e.g., application of yard chemicals). |
| 3. Development setbacks. |
| 4. Limitations on land uses. |
| 5. Filter strips. |
| 6. Environmental Impact Assessment. |

Lower Saucon Township has extensive low-lying areas that contain wetlands. These combined with adjoining steep slopes and woodlands produce vast expanses of area with significant environmental sensitivity that should be protected from intensive development. These conditions are particularly prevalent in the southeastern half of the Township. Upper Saucon Township's wetlands are smaller because of the primary porosity of its underlying limestone geology.

While these floodplains and wetlands present obvious obstacles for development, they offer opportunity for parks and open spaces. Their connection could provide a means for pedestrian travel across the Region. Of particular interest is the juxtaposition of the Saucon

Creek and the inactive North Penn Railroad line. These generally parallel linear features offer real promise in the development of a high-quality rail trail from Hellertown, through Lower Saucon Township and into Upper Saucon Township.

Future linear park development along these floodplains and wetlands is encouraged, however, future park improvements within floodplains should not include any building or structures, or fences and equipment, that might collect flood-borne debris during flood inundation. Local officials should establish planning and design review procedures that will enhance the identification and conservation of wetlands. Such procedures can be inserted into zoning and subdivision and land development ordinances, and can dovetail with existing State and Federal permit requirements. Any future park improvements in and around wetlands should be accomplished in a manner that is compatible with this sensitive natural resource. For example, no grading or impervious coverage should be allowed which would degrade existing vegetation or inhibit the movement of water, plants and animals. Furthermore, special maintenance plans should be implemented to facilitate a diverse natural habitat that can offer valuable recreation amenity and environmental benefit. More discussion regarding this topic is presented in Chapter V of this Plan.

NATURAL HABITATS & OTHER SIGNIFICANT NATURAL FEATURES (PNHP)

As an area is converted from its natural to a manmade state, the delicate balance of the local ecosystem is often disrupted. This imbalance degrades or strains the environment's ability to support varied forms of plant and animal species. In turn, local species become threatened or endangered. State and Federal agencies have become increasingly concerned over the protection of local natural habitats as a means of protecting wildlife diversity. The protection of these habitats can also serve other equally important functions, like the control of erosion, the recharge of groundwater, the attenuation of pollutants, the abatement of noise, dust and glare, and the provision of valuable, passive recreation opportunities. For these reasons, all levels of government and other conservation-oriented groups have become involved in the protection of these habitats.



Information for this section was obtained from the Pennsylvania Natural Heritage Project (PNHP). This inventory represents an ongoing process that cumulatively updates and refines data regarding rare, endangered, or otherwise significant natural features. This inventory uses some 800 sources of information to map, describe and disseminate facts about important natural features.

It is the policy of PNHP not to release detailed site specific information about significant natural features for general exposure to the public. This protects the features from persons who become curious and attempt to locate and collect such features. Instead, PNHP will provide generalized locations of known or historic natural features occurrences.

The Natural Areas Inventory for Lehigh and Northampton Counties ranks sites based on their rarity, quality, and threats or management needs of the site. The PNHP identifies eight habitat sites within the Region that are summarized as follows and keyed to their depiction on the Natural Features Map:

Important Natural Areas/Habitats within the Region

Sources:

*Lehigh and Northampton Counties Natural Areas Inventory Summary (1999);
Outstanding Geologic Features of Pennsylvania (1979)*

Site Name (GIS acreage)	Description/Notes	Management Strategies
Bauer Rock (15 acres)	This outstanding geologic feature is located along Upper Saucon Township's northwestern border. It consists of a mass of dark to light banded Pochuck gneiss that rises about 40' above the adjoining ridge that has resisted erosion due to fewer joints and cracks. From atop this feature a panoramic view of the Saucon Valley can be viewed to the north.	None listed
Friedensville Quarry (76 acres)	This site contains a population of PA-Endangered plants (SP533) that are in fair condition.	The landowner has agreed to protect this portion of the site from development.
Hellertown Marsh (138 acres)	This is grassy marsh located straddling the Saucon Creek and the inactive North Penn Railroad line connects the Borough of Hellertown and Lower Saucon Township. The site supports three plant species that are threatened within PA (SP522A, SP522B & SP527). The site also has excellent habitat for reptiles and amphibians.	Maintenance of the tree/shrub cover and the site's existing hydrologic regime are important for survival of these species. The site is partially within the Hellertown Borough Park.
Mest Marsh (19 acres)	This is a locally significant cattail marsh of several acres with adjoining swampy floodplain along the Saucon Creek. It provides habitat for numerous birds, reptiles and amphibian species. Open marsh habitat of this quality is rare in Lehigh County. The site has potential for rare species.	None Listed
Mill Road Wetlands (1449 acres)	This expansive site encompasses a series of wetlands adjoining an unnamed tributary of Tumble Brook on the northwest side of the Borough of Coopersburg. An animal of special concern (SA539) was observed here in 1987 which may still occur here.	Further surveys are encouraged to determine if the species is still here.
Redington Cave (51 acres)	This limestone cave is formed at the base of a cliff on the south side of the Lehigh River along Bull Run in northern Lower Saucon Township. A single rare/imperiled animal (SA501) was observed here in 1998.	The site is partly located upon property owned by the City of Bethlehem.
Robert Rodale Reserve (664 acres)	This large site extends slightly into northwestern Upper Saucon Township on South Mountain. It features a maturing second growth forest that supports a fair to good quality Northern Appalachian Circumneutral Seeps Natural Community (NC617) that is home to two plants of special concern (SP523 & SP546). This site has a variety of natural elements that because of its proximity to the greater Allentown area has particular biodiversity and recreation value.	Prevention of fragmentation of the forest will benefit all species. The site is partly owned by the City of Allentown and the Wildlands Conservancy.
Steel City Slopes (56 acres)	This locally significant area rises steeply along the south side of the Lehigh River. The forested north facing site supports moderate herb diversity and extensive rock outcrops are habitat for ferns and other herbs.	The site is partly owned by the City of Bethlehem.

In addition, Lower Saucon Township commissioned a separate field study performed by the Morris Arboretum of the University of Pennsylvania that was completed in August, 2000. This study identified 10 additional areas in which conservation efforts should be focused important natural resources. In addition, local officials have identified three other areas of local interest for protection as follows:

Important Natural Areas within Lower Saucon Township	
<p><i>Source:</i> <i>Natural Resources Inventory of Lower Saucon Township, Northampton County, Pennsylvania (August, 2000)</i> <i>Identified by Lower Saucon Township Officials*</i></p>	
Site Name	Description/Notes
Black River Corridor	Black River flows through a landscape of moderately grazed pastures, meadows, fragments of floodplain forest, and lawns between Surrey Road and the Hellertown Borough boundary. This area yielded the highest number of reptile and amphibian species of any area surveyed with 14 species. The high species richness along this riparian corridor makes it significant. Black River lies in the most heavily developed section of the township, maintaining the continuity and diversity of riparian habitat along the stream corridor is essential to protecting the diversity of reptile and amphibian species in the future.
Cooks Creek Tributary Headwaters	This site lies at the headwaters of a tributary of Silver Creek in the Cooks Creek watershed. A rocky, wooded hillside grades into swamp forest from which a tributary of Silver Creek flows down the hill into Springtown. A vernal pond in a woodland setting provides a breeding site for wood frogs, spotted salamanders and other amphibians. A total of 13 reptile and amphibian species and over 100 birds have been observed at the site. Unfortunately the diversity of plant species is being adversely affected by high deer numbers, a browse line is very evident throughout the forested areas. Many shrub and herbaceous species are in a suppressed state and may be extirpated from the site if deer density remains high.
Crestline Road Ravine	An unnamed tributary of the East Branch Saucon Creek forms a rocky ravine at the southwest end of Granite Hill north of Crestline Road. Augmented by springs and seeps, the stream flows through a very scenic wooded valley. Adjacent slopes at the west end of Granite Hill are covered with a red oak-mixed hardwood forest community. Although we were permitted to walk only the lowest part of the ravine, it was clear that this site should be a high priority for preservation.
East Branch Saucon Creek Headwaters	This area, at the eastern edge of Lower Saucon Township, consists of extensive wetlands which are part of the headwaters of the East Branch Saucon Creek. The mosaic of springs, seeps, streamlets, forested wetlands, and intervening upland forest provide a variety of habitats for wood frogs, spring peepers and other amphibians that live and breed in the vernal ponds and wetlands. Wetland community types range from small sedge-dominated wetland openings to forested swamps with a dense ground cover of skunk cabbage. Several natural vernal pond~ and manmade ponds are also present.
Flint Hill*	These areas have been identified of significant local value by local officials. They possess a combination of sensitive environmental and scenic features.
Flint Hill Foothills*	
Flint Hill Ravine*	
Granite Hill	Of all the hills in Lower Saucon Township, Granite Hill offers the greatest natural habitat diversity with its rocky spine and extensive north-facing talus slope. Although several houses have been located on the top of the hill, most of the hill remains in a natural condition. The rock- covered upper slopes grade into forested lower slopes that extend to the East Branch of the Saucon Creek below. Despite some timber harvesting in the past, the forest is healthy and intact with a fair diversity of species present in the shrub and wildflower layers. A healthy shrub layer is present as deer browse has not been so severe as to alter the forest structure. The rocky ridge top supports plant species such as Allegheny-vine (<i>Adlumiafungosa</i>) and herb robert (<i>Geranium robertianum</i>) not seen elsewhere in the township. Forest community types present include: red oak-mixed hardwood forest, dry oak-mixed hardwood forest, and birch-blackgum rocky slope woodland (pike 1999).

Important Natural Areas within Lower Saucon Township

Source:

Natural Resources Inventory of Lower Saucon Township, Northampton County, Pennsylvania (August, 2000)
*Identified by Lower Saucon Township Officials**

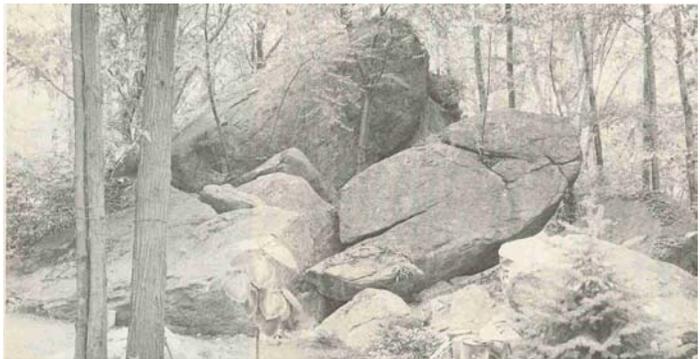
Site Name	Description/Notes
Kohlberg Hill	<p>Kohlberg Hill on the Bucks/Northampton County line includes a large contiguous forested area. Both the north and south sides of the hill also contain important headwaters areas and water sources for municipal use. The south side of Kohlberg Hill is part of the Cooks Creek watershed, several areas of springs and seeps supply water to tributaries of the Silver Creek that joins Cooks Creek in Springtown, Bucks County. Several residents along Springtown Hill Road draw their domestic water directly from springs on the slopes of Kohlberg Hill. The Hellertown Authority owns land, including a site known as Reservoir Park, on the north side of Kohlberg Hill which is in the watershed of Polk Valley Run, a tributary of the Saucon Creek. Reservoir Park is listed as one of 22 selected birding areas in the Lehigh Valley (Morris et al. 1984). The extensive forested slopes of Kohlberg Hill provide nesting habitat for a high diversity of birds including Ruffed Grouse, Pileated Woodpecker, Acadian Flycatcher, Kentucky and Worm-eating Warblers, Black-billed and Yellow-billed Cuckoos, Oven Bird and Scarlet Tanager. Wetland areas of seeps, tussock sedge marsh, streams, and impoundments provide habitat for a diversity of reptiles and amphibians. Plant diversity is also fairly high, 14 species of ferns were identified in the Reservoir Park vicinity during a May visit. Deer browse has been excessive in some areas but not throughout.</p>
Lehigh River Corridor	<p>Wooded slopes and forested floodplains along the Lehigh River in the northern part of the township should be protected. Although a cleared swath interrupts the continuity where Route 33 crosses the river, this area still represents a significant forested riparian corridor. Downstream lies Hugh Moore Park in Easton and across the river is the wooded corridor along the Lehigh Canal Towpath. The river corridor is listed as a hot spot for bird diversity in the Lehigh Valley (Morris et al. 1984). Osprey, orioles and many other nesting and migratory species are seen regularly. Other wildlife including river otter also use the area (Bill Sweeney, Environmental Education Specialist, Jacobsburg State Park, personal communication). A variety of riverine turtles were observed along the river bank and islands during the herpetological survey including painted turtle, map turtle, common snapping turtle, and the non-native red-eared slider. A survey of fish species in the river indicated 7 species present in the vicinity of Lauback Island near Steel City, however the diversity may be higher as the depth and current were too great for a comprehensive survey with the equipment available. Redington Cave, which houses a bat colony (Cameron 1.999) is located on the east side of Bull Run near its mouth. The forested slopes support a variety of habitats including rocky outcrops where turkey vultures nest and hillside wetlands of springs and seeps that provide water to Bull Run. Several plants of special concern are present. Other plants that are locally uncommon include stands of the native rosebay rhododendron (<i>Rhododendron maximum</i>), the colorful rock harlequin (<i>Corydalis sempervirens</i>), and the attractive red and yellow native columbine (<i>Aquilegia canadensis</i>). Bull Run appears to have been impacted by runoff from Interstate 78 as the lower portion of the creek below the highway crossing is severely scoured compared with the portion of the creek immediately above the 1-78 crossing.</p>
Saucon Creek Corridor	<p>Saucon Creek enters Lower Saucon Township from Lehigh County and flows through a golf course, residential area and along agricultural land. From the mouth of Polk Valley Run north to Friedensville Road it forms the township boundary with Hellertown Borough. It is the most substantial waterway in the township other than the Lehigh River. The creek contains fairly good numbers of native brown trout and 13 other fish species making it a popular area for fishing. Bird diversity is also good, a Great Blue Heron rookery is located along the creek just upstream in Lehigh County and herons forage along the creek throughout the area. Limestone outcrops are prominent in the vicinity of Old Mill Road and the golf course, where the ruins of lime burning kilns can also be seen. Recent construction activity has caused severe erosion and siltation in the creek corridor and may have triggered the recent formation of a new sinkhole in the old mill race. The presence of a riparian buffer of native, or partially disturbed native vegetation is an important feature of the Saucon Creek corridor. Although impacted by non-native invasive species including multiflora rose (<i>Rosa multiflora</i>), shrub honeysuckle (<i>Lonicera morrowii</i>), obtuse-leaved privet (<i>Ligustrum obtusifolium</i>), Japanese knotweed (<i>Polygonum cuspidatum</i>), garlic mustard (<i>Alliaria petiolata</i>) and dame's rocket (<i>Hesperis matronalis</i>), the vegetated buffer strip also contains many native floodplain plants and functions to filter runoff from adjacent lands and protect the stream banks. Between Walnut Street and Friedensville Road, protected lands on the west side of the creek lie opposite Hellertown Marsh, the site of an important natural wetland community noted in the county natural areas inventory (Cameron 1999). Every effort should be made to protect and/or restore a forested riparian buffer along the entire length of the Saucon Creek in the township.</p>

Important Natural Areas within Lower Saucon Township

Source:
Natural Resources Inventory of Lower Saucon Township, Northampton County, Pennsylvania (August, 2000)
 Identified by Lower Saucon Township Officials*

Site Name	Description/Notes
Silver Creek Wetlands (Cooks Creek Watershed)	Located along Silver Creek in the Cooks Creek watershed is an area of open sedge fen/marsh/wet meadow characterized by tussock sedge (<i>Carex stricta</i>), sweet flag (<i>Acorus calamus</i>), cat-tail (<i>Typha latifolia</i>), and scattered clumps of willow (<i>Salixsericea</i>) and shrub dogwoods (<i>Cornus amomum</i> and <i>C. racemosa</i>). Spring, seeps and associated rivulets flow through the downstream part of the site, closer to Orchard Road, recent ditching along the road may have affected the flow of water in the marsh by creating a channel directly into the creek. The site, which extends into Bucks County, contains populations of two state threatened plants. It also provides habitat for a diversity of reptiles and amphibians, 5 species were recorded during surveys. An important feature of this site is the connectivity it offers with marsh and wet meadow habitat located downstream in Bucks County. Too often wetlands like this become separated from similar habitat with the result that isolated reptile and amphibian populations are too small to be viable breeding units over the long term.
Swoveberg Hill	Native red oak-mixed hardwood forest covers most of the rocky slopes of Swoveberg Hill. Although the shrub layer has been somewhat browsed, a multilayered forest structure is present except where the forest is still recovering from a recent timber harvest, suggesting that hunting pressure is sufficient to prevent severe over browsing. The Hellertown Water Authority owns land on the south slope of Swoveberg Hill including a reservoir surrounded by conifer plantations. Several vernal ponds are also located on the water authority lands which extend across Lower Saucon Road and on the south side of Banko Lane. The north side of the hill contains several areas of springs and seeps which are the headwaters of Silver Creek in the Saucon Creek watershed. An artificial pond fed by springs is located mid-slope, outflow streamlets join tributaries of Silver Creek. Several vernal ponds and wet depressions are located along the base of the hill on the north and east sides. The forest on the north side contains an excellent stand of native red oak-mixed hardwood forest grading into successional tuliptree forest in some areas and a dry oak-mixed hardwood forest in the steepest, rockiest parts. Portions of the forest are gradually recovering from a timber harvest about 10 years ago. Three plant species of special concern are present on the forested lower slopes on the northeast side of the hill; however, selective deer browse threatens one of them.

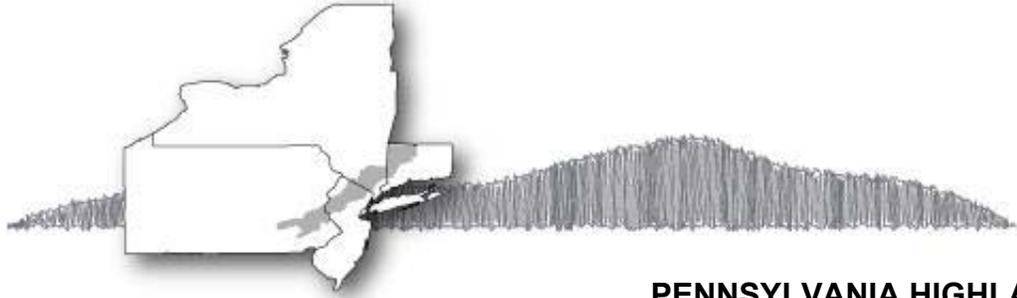
These special natural features deserve to be preserved and protected from any indiscriminate development, by engaging development review procedures that are aimed at conserving them. Both Townships should require developers to submit statements regarding the impact of any proposed development occurring near any of these features and also on those



Bauer Rock – Outstanding Geologic Feature
 Source: PA Geologic Survey

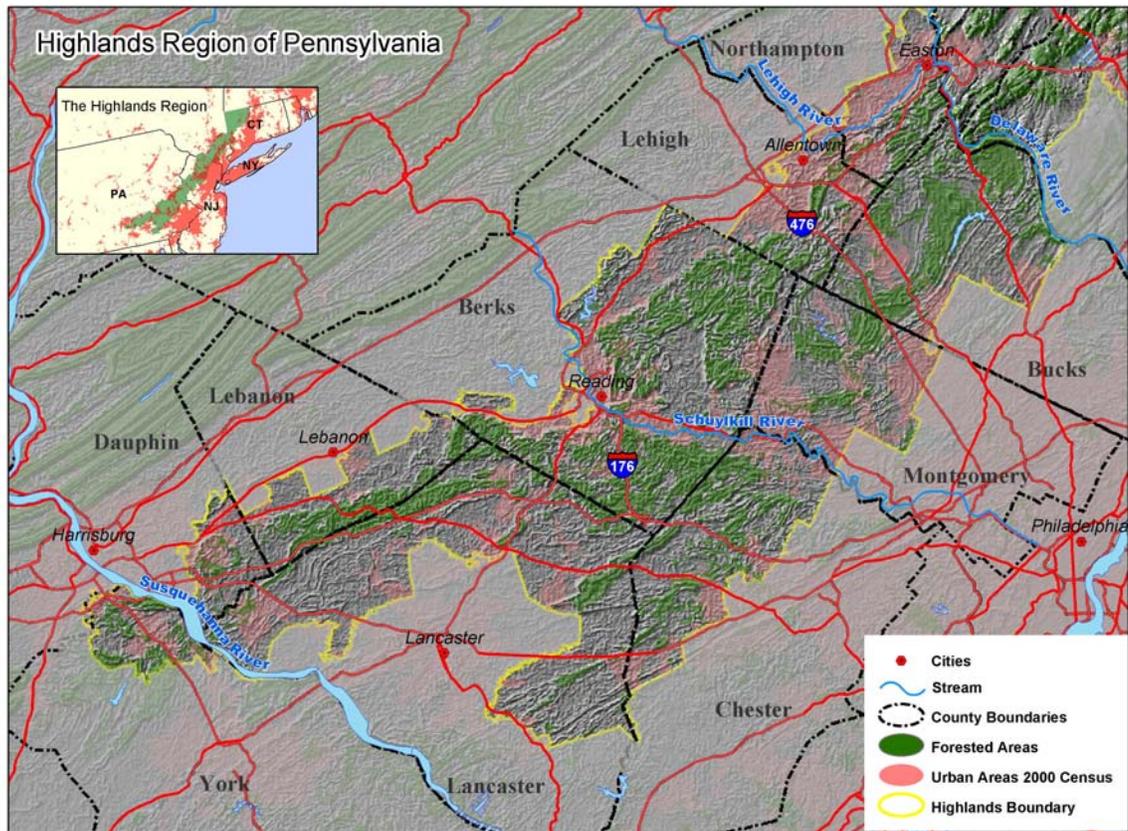
habitats that are common to the Region. For it is these habitats that will become rare and endangered if indiscriminate development continues to ignore their presence and importance. Similarly, future park and trail construction should seek to protect these sites from degradation and over use.

Along with statements of impact, developers should also be required to engage qualified professional expertise regarding any special maintenance practices that need to be implemented that will respect the survival needs of these species.



PENNSYLVANIA HIGHLANDS

The Highlands Conservation Act authorizes the Secretary of the Interior and the Secretary of Agriculture to financially assist several states (including Pennsylvania) in the preservation of high priority highland areas. Appropriations total \$10,000,000 each year from 2005 through 2014 to be used in 50% matching grants submitted by each state's governor for worthy land conservation partnership projects. Within Pennsylvania, the Highlands extend from Northampton and Bucks Counties, where they adjoin the New Jersey Highlands across the Delaware River, southwest to Conewago Falls on the Susquehanna River. The Highlands separate the historically rural, and by now heavily urbanized, counties in the Philadelphia metropolitan area, Bucks, Montgomery and Chester, from the Great Valley Counties of Northampton, Lehigh, Berks, Lebanon and Dauphin. Lancaster County nestles in its own fertile basin, framed by Highlands on the northwest, north, and east. Along this broad, irregular spine of ridges and hills, one can trace the boundaries joining all ten of the Highlands' Counties. More rugged and less fertile than the lands that border them, the Highlands discouraged the plow, and despite repeated exploitation for timber and fuel, they retain large tracts of forest.



Because of its proximity to many of the Commonwealth's eastern and central urban centers, this large land area is under exceptional pressure from urban expansion.

Residential development, reflecting the desire of urbanites to have a home in a suburban setting, is common in this region. Expanding commercial and industrial development is also occurring on lands that in their not to distant past were actively engaged in commercial agriculture. Conversion of the remaining forest and agricultural lands to other uses will have a major impact on the character of this region and the sustainability of its natural resources.

U. S. Forest Service Studies in the Highlands - The USDA Forest Service has been engaged in the Highlands since 1990, when the first study of the New York and New Jersey Highlands was initiated; the Forest Service completed an updated study in 2002. The regional study has been the basis for legislation in New Jersey to protect the Highlands, and for land conservation activities in New Jersey and New York. The goals and strategies set forth by the regional study have also informed private groups and municipal councils in their co-operative efforts.

The study of the New York-New Jersey Highlands identified the region's resources and indicated areas of high conservation value. The study then examined patterns of land-use change, developed a model for predicting future change, and assessed the impacts on regional resources likely to result from land-use change.

Study of the Pennsylvania Highlands - The Highlands Conservation Act of 2004 authorizes federal assistance to the Highlands states for land conservation projects; it assigns to the USDA Forest Service responsibility for expanding the Regional Study to cover the Highlands in Connecticut and Pennsylvania. The overarching questions addressed by the study are: What are the natural resources of the Highlands, where are they located, and what are the implications of continued land use change for the resources?

The study will include a resource assessment. The objective of the resource assessment is a thorough description and evaluation of the natural resources in the Highlands. A set of resource evaluation maps that cover the Pennsylvania Highlands Region, and a composite Conservation Values Assessment map to identify areas of high conservation value will be produced. A report describing the data, the assessment process, and the results will accompany the maps.

The study will be led, and largely carried out, by a team from the Pennsylvania State University School of Forest Resources; they will focus on an assessment of five natural resource categories: water, biodiversity, recreation and open space, farmland, forestland. With the aid and cooperation of the Pennsylvania Department of Conservation and Natural Resources, the Forest Service will organize public listening sessions and work group sessions to be held periodically during the course of the study, with the purpose of enabling citizens and stakeholders to meet the study team, learn about what they are doing, and voice their suggestions or opinions regarding the study and the region.⁴

Regional Officials should monitor this process to ensure that any recommendations align with local objectives for the protection and conservation of the Township's sensitive and valuable natural features. Then once local highlands have been assessed, the Region should package land conservation partnership projects and submit these to the PA DCNR for consideration by the Governor and the Federal government.

⁴ Email from Edward Boyer, PA Highlands, June 21, 2005.

SPECIAL PROTECTION WATERS

The Federal Water Pollution Control Act of 1972 was passed to “restore and maintain” the chemical, physical and biological integrity of the Nation's waters.⁵ To implement this Federal mandate the PA Department of Environmental Protection (DEP) established water quality standards (Chapter 93 of the DEP Rules and Regulations). As part of these standards, the State has designated some 12,500 miles of rivers and streams as “special protection waters.” These special protection waters are divided into the following two categories, and impose considerable protection from land uses and other projects or activities that could result in surface water degradation.

“High Quality Waters - A stream or watershed which has excellent quality waters and environmental or other features that require special water quality protection. High Quality Waters are to be protected as they exist. Water quality can only be lowered if a discharge is a result of necessary social and economic development and all existing uses of the stream are protected.”⁶

“Exceptional Value Waters - A stream or watershed which constitutes an outstanding national, state, regional, or local resource, such as waters of national, state, or county parks or forests; waters which are used or projected for use as a source of water supply; waters of wildlife refuges or State game lands; waters which have been characterized by the Pennsylvania Fish Commission as wilderness trout streams and other waters of substantial recreational or ecological significance. Exceptional Value Waters are to be protected at their existing quality because they have outstanding ecological and/or recreational values. The social and economic justification procedures do not apply. Water quality in Exceptional Value Waters simply cannot be degraded.”⁷

The Pennsylvania Department of Environmental Resources has identified the Cooks Creek Tributary watershed within the Saucon Region as an Exceptional Value Watershed which extends into adjoining Bucks County. As is often the case, high quality and exceptional value watersheds often originate in undeveloped woodlands. As the Natural Features Map reveals, much of this area is in forest cover.

It is vital that these areas be kept free of widespread cultivation and development. The steep slopes, rocky soils and thick forest cover in these areas will surely help. But, in addition, the mature tree cover also helps to keep erosion down and keep the hydrologic cycle intact. ***Lower Saucon Township should target these uplands for conservation uses. Furthermore, any logging activities in this area should be subject to rigorous application of woodland preservation and conservation techniques; these should be included within the Township's Zoning Ordinance.*** While recent amendments to the Municipalities Planning Code require every municipality to provide for forestry-related uses by right in every zone, the municipalities can still impose suitable conservation and management requirements to ensure that environmental impact is reduced.

⁵Pennsylvania Department of Environmental Resources, *Local Protection of High Quality Streams* (Harrisburg, PA: June, 1981) p. 1.

⁶Ibid., p. 3.

⁷Pennsylvania Department of Environmental Resources, *Local Protection of High Quality Streams* (Harrisburg, PA: June, 1981) p. 3.

Further downstream within the valleys, each Township should promote the use of streamside riparian buffers which have been shown to protect, and even rejuvenate, surface water quality. An extensive discussion of these buffers is presented in later in Chapter V of this Plan.

HISTORIC SITES

Historic preservation can provide educational opportunities regarding historic lifestyles and architectural styles. Well-maintained historic areas can create a sense of unique identity that stimulates civic pride and economic vitality, and, in some instances, can become a basis for tourism. Furthermore, many municipalities make use of local historic buildings for offices, interpretive and educational services, and public meeting or special events facilities. Local officials and residents recognize the value in conservation and rehabilitation, restoration or adaptive reuse of historic resources as a means of providing a glimpse into the past.

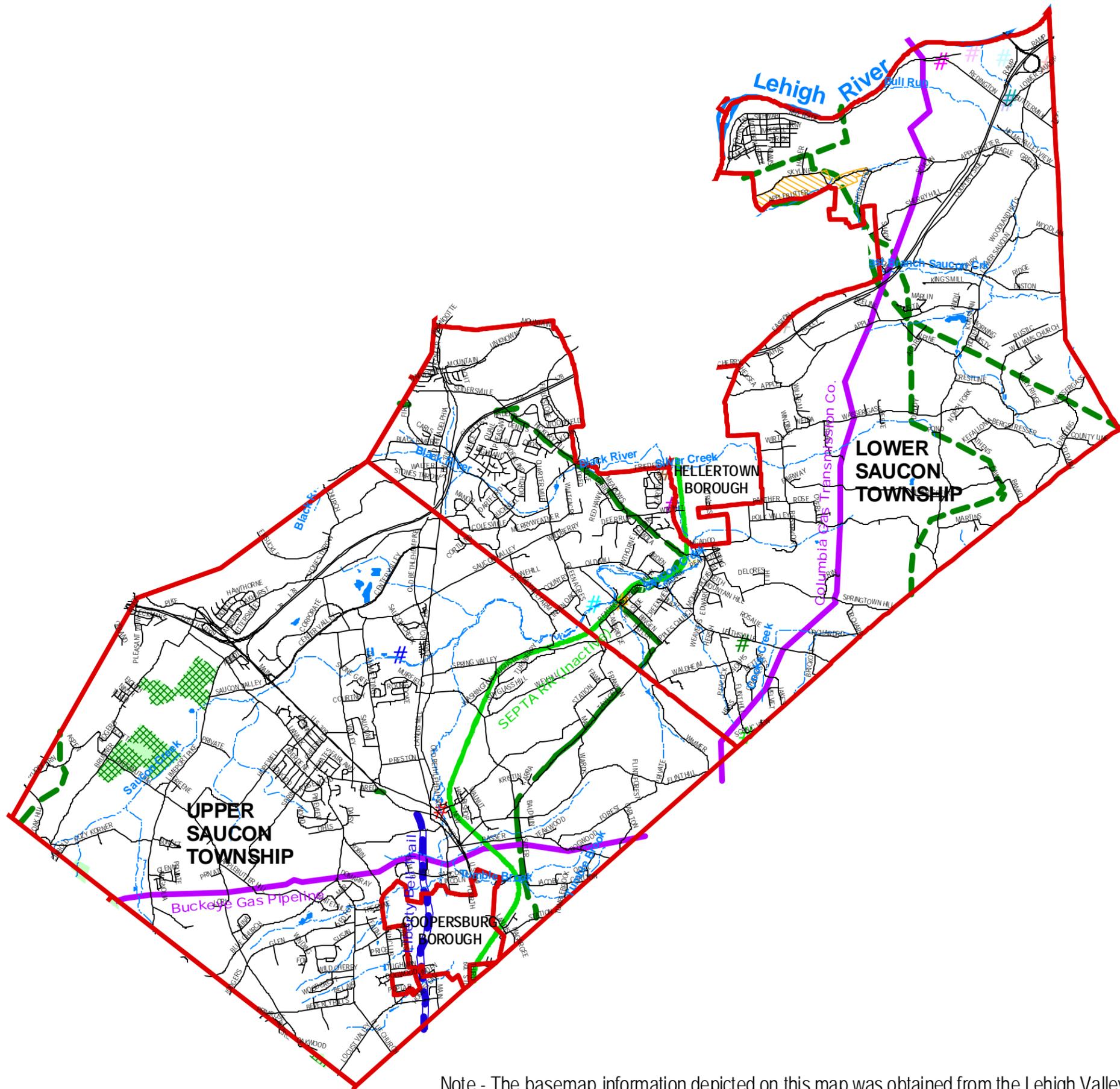
The Region, like much of southeastern Pennsylvania, is fortunate to possess a rich cultural heritage. Today, this heritage is apparent from the many older farmsteads, barns, churches, mills and bridges that are located within the outlying rural areas of the Townships. However, only two historic sites have been formally identified within the Region.

First, the Centennial Bridge located along Station Avenue over the Saucon Creek is listed on the National Register of Historic Structures. This stone bridge was constructed in 1876 at a cost of \$1,200.00 between the Village of Center Valley and the then growing settlement around the Center Valley Station of the Northern Pennsylvania Railroad on the east side of the creek. The bridge facilitated residential and commercial expansion of the village.



Centennial Bridge over the Saucon Creek, the Region's only Nationally-Registered Historic Site

Saucon Region Cultural Features



-  APPLEBUTTER RD HISTORIC DISTRICT
- HISTORIC SITES**
-  Anthony Oberly Farm
-  Centennial Bridge
-  Church/Cemetery/Schoolhouse
-  Ehrharts Mill
-  Farm (Flint Hill Rd)
-  Farm (Rte. 412)
-  Lutz-Franklin School
-  Friedensville Zinc Plant
-  Heller Homestead
-  Lime Kiln
-  Lime Kilns
-  Oberly Farm
-  Redington Steel Works
-  Site No. 3
-  Skibo Property
-  Stone Arch Bridge
-  Weis Store
-  Agricultural Easements
-  Agricultural Security Areas
-  Liberty Bell Trolley
-  RRs (inactive)
-  Utility R.O.W.s
-  PP&L R.O.W.s



Note - The basemap information depicted on this map was obtained from the Lehigh Valley Planning Commission

Second, the Ehrhart's Grist Mill Historic District on Old Mill Road in Lower Saucon Township is also listed on the National Register since 1987; however, this site fell victim to a devastating fire in June, 1995. The site had contained the original milling equipment used when the mill was first constructed in the mid 1800s, by Joseph Ehrhart. An adjoining feed store, three houses, barn, bake oven, two smoke houses and a 138 year old iron Pratt truss bridge with a wooden plank deck still remain.

Next a component of the former Joint Planning Commission Lehigh-Northampton Counties Regional Recreation & Open Space Plan is entitled the "Inventory of Historic Structures and Sites." This inventory draws from many public and private sources and generally includes field verification. However, the mapping associated with this inventory does not provide sufficient detail to definitively locate such sites; therefore the depiction of these sites should be viewed as generalized when examining the Cultural Features Map of this Plan. The following summarizes identified sites:

Historic Sites within Lower Saucon Township	
Name	Description
Lime Kilns	2 double kilns near Saucon Creek
Ehrharts Mill Complex Historic District	See above description
Farm	Flint Hill Road & Highpoint Drive.
Farm	Off Route 412 south of Hellertown
Oberly, Anthony, Farm	North side of Redington Road
Oberly, J. Farm	North side of Redington Road west of Island Park Road.
Redington Steel Works: Proving Grounds	South Bank of Lehigh River
Site No. 3 Farmhouse, outbuildings & barn	Helms Rd. east side of T-406; 500 feet south of LR48090
Skibo property	Skibo Road; 210 West Walnut
Stone Arch Bridge	On Meadows Road just west of SR 412
Church/Cemetery/Schoolhouse	Church built in 1751
Lutz-Franklin Schoolhouse	One of finest 1-room schoolhouses
Lime Kiln	Abuts TR 406
Heller, Michael, Homestead	1892 Friedensville Road
Weis Store	Reading & Bingen Roads
Applebutter Road Historic District	Applebutter & North Easton Roads
Historic Sites within Upper Saucon Township	
Name	Description
Friedensville Zinc Plant	Company founded in 1855

Clearly the Region contains a wealth of other historic resources that remain yet uninventoried and unprotected. Local Officials from both Townships should recruit and support local historic preservation experts who have an interest and/or institutional knowledge of their Township's historic resources. These experts should be able to devote considerable time to conduct a thorough inventory. Then with a definitive inventory, the Township/County can nominate such resources for inclusion in the National Register for Historic Places and/or the Pennsylvania Register for Historic Places.

Next, the Townships can create historic districts that include the creation of an Historical Architectural Review Board (HARB) to oversee building activity within designated historic districts. Once this local historic district has been created, the Township can legally regulate the architectural and visual elements of proposed developments better than attempting to deal with these issues through zoning and subdivision/land development

review procedures. The Townships should consider the creation of local historic districts (under PA Act 167) if they wish to provide the highest level of legal protection to its historic sites.

However, an effective historic preservation program does not necessarily require a strict program of architectural control like that associated with an Historic Architecture Review Board. Some municipalities are not ready for such a rigorous approach and have adopted more voluntary approaches.

First, they clearly designate historic sites and widely publicize their existence. Next, they adopt an “overlay zone” that requires a “waiting period,” during which would-be developers and property owners are encouraged to meet and “rub elbows” with local or County historic preservation experts, before they substantially alter or demolish an historic site. Oftentimes, this meeting will give the experts a chance to present other suitable building options that are more consistent with the site’s character and will enhance the property’s value. In other instances, the waiting period gives the community the opportunity to devise other adaptive reuse options for buildings that are proposed for demolition. In either event, such worthwhile efforts require some commitment on the part of local municipalities to take the next step toward historic preservation.

Another intermediate approach to historic preservation is the Historic Conservation District. Often established as an overlay district, an Historic Conservation District is designed to preserve and enhance the character of a neighborhood or Township by encouraging infill development and new construction that respects the context of the existing built environment and its appearance. New construction and demolition are the activities regulated most frequently in conservation districts. The municipal zoning officer usually handles administration.

The conservation district varies from the historic architecture review board district in that exterior change to existing buildings is usually not a regulated activity. A conservation district could be an alternative to a historic district, in the sense that, it does not focus primarily on the historic architecture and its character-defining features but rather the cultural significance of an area. The emphasis is to preserve the physical character of an area (i.e. the farmscapes or the Townships’ historic villages).

Local officials are encouraged to consider the benefits of these voluntary approaches and gauge public reaction. The following list some of the actions that can better incorporate historic preservation within the Township.

Successful historic preservation involves more than a mere compilation of data. Rather, it should recognize the importance of its historic defining features and indicate how those features relate to the future by:

- 1. Establishing realistic goals to implement suitable preservation guidelines and standards. Realistic goals should be established that are adopted with considerable public scrutiny and support (make sure that goals are achievable);***
- 2. Identifying individual resources and districts based on the survey that could***

be eligible for the National Register of Historic Places and apply for listing in the Register;

- 3. Adding regulations into the zoning ordinance which will help achieve historic preservation goals, like the review of demolitions; design guidelines for infill construction; Historic Overlay Zones; incentives for adaptive reuse, rather than demolition, etc.;**
- 4. Updating existing zoning regulations to resolve conflicts with historic preservation goals, like incompatible uses, excessive setbacks, required off-street parking, reduced lot coverage, etc.; and,**
- 5. Developing partnerships with community groups and organizations to facilitate a public education initiative about local history and the historic resources in the municipality.⁸**

ARCHAEOLOGICAL RESOURCES

Like historic sites, archaeological resources provide a glimpse into an area's distant past. In the case of archaeology, this past refers to times before local historic records were kept, or prehistoric times. Archaeological resources can provide valuable artifacts and remains, or simply information that can assist in the identification, dating and understanding of prehistoric cultures. Many times, archaeological sites are surveyed merely to verify the presence of a prehistoric culture at that location. Once this information is known, the actual evidence of such culture (artifacts and other objects) becomes less important. Such sites might then provide interesting themes for local conservation areas. To identify important archaeological resources, information was obtained from the Pennsylvania Historical and Museum Commission, (PHMC) Division of Archaeology and Protection. At this time the PHMC is unwilling to release its data but are determining proper procedures for municipal requests. At such time as this information becomes available, it will be incorporated into this Plan.



Then, local ordinances should require the protection and/or surveying of significant archaeological resources. Developers should coordinate preliminary site surveys with the PHMC prior to the substantial excavation or development of a site. The mapped archaeological resources areas should be used as a “triggering” mechanism for some archaeological investigation prior to development. The construction of parklands within these areas should also investigate their archaeological significance prior to disturbance. Any “finds” within the Region could be used as a basis for cultural exhibits of artifacts or information about prehistoric inhabitants; these make terrific themes for local parks.

⁸Letter from Carol E. Wilson, Historic Preservation Specialist to Harry Roth

INACTIVE RAIROAD / TROLLEY LINES

Southeastern Pennsylvania Transportation Authority (SEPTA) has currently rail-banked a railroad right-of-way that was originated by the North Pennsylvania Railroad during the 1800s. Presently SEPTA is considering re-establishment of use of this line which became inactive in 1981. SEPTA is considering the restoration of passenger rail service to upper Bucks County and Philadelphia. Specifically this service would terminate in Shelly (between Coopersburg and Quakertown) where a park-and-ride lot would be constructed for commuters. While this specific proposal does not directly affect the Region, some advocate extension of the line on to the City of Bethlehem.

However, the City's recent efforts to obtain the needed right-of-way for a linear park reduce the feasibility of such a route.⁹ At this time, SEPTA policies suggest that this line is not available for linear park development and that potential re-activation could occur. ***Township Officials should monitor ongoing transit planning and seize any opportunity to acquire this right-of-way should SEPTA change its position and decide to abandon this line.***

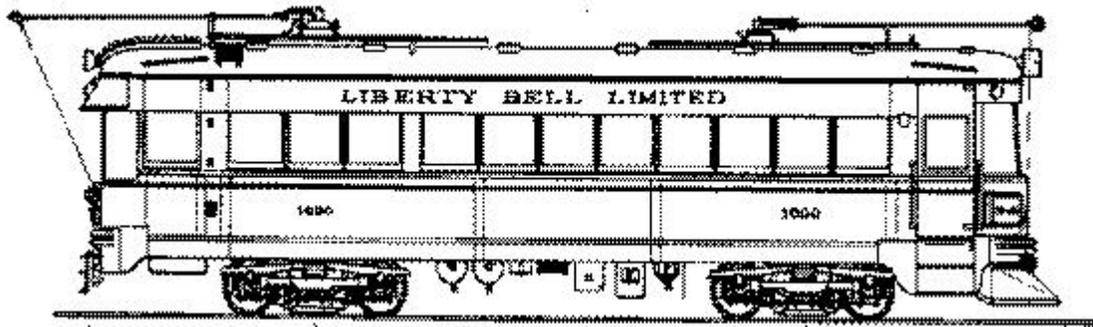
The Liberty Bell Trail is a regionally important trail proposed for Montgomery and Bucks Counties. The Liberty Bell Route was an interurban trolley, or electric streetcar, that ran from Philadelphia to Allentown from around 1900 to 1951. The Lehigh Valley Transit Company that operated the trolley named it the Liberty Bell Route because a branch of the trolley tracks followed Bethlehem Pike, which was the route used to transport the Liberty Bell to a safe place in Allentown in 1777 during the British occupation of Philadelphia. Therefore, the namesakes for the trail are both the Liberty Bell and the Liberty Bell Route trolley. The historical significance of the Liberty Bell Route is coupled by the fact that it was one of the most popular and successful systems during the era of electric streetcar operation.



Like other interurban trolleys, the Liberty Bell Route was comprised of two types of trackage. Segments in the urban centers basically shared the streets, as the tracks were laid in the streets themselves. Where the trolley passed through the countryside between the urban centers, the tracks used independent rights-of-way.

Segments of the Liberty Bell Route right-of-way still exist. In some cases, the corridor is still intact as a separate parcel. In Upper Saucon Township and other areas, the corridor is now part and parcel of adjacent properties. Stretches of the corridor also still remain as a swath of linear open space, an ad-hoc greenway suitable for trail use. Some portions of the old trolley bed have already been converted into a trail. For example, Hatfield Borough in Montgomery County has developed much of the trail through its municipality. Perkasio Borough in Bucks County has also developed part of the trail through one of its municipal parks, Lenape Park. Where the trolley ran within or alongside public streets, there is largely no visible remnant of the former alignment. Other structural vestiges of the trolley infrastructure, such as generator houses, substations, bridges and their abutments and train stations, still exist.

⁹ Comprehensive Plan, Lehigh Valley Planning Commission, 2004. pgs 77-78.



The Liberty Bell Trail is currently in the planning stages. A State-funded feasibility study has been prepared with Montgomery and Bucks Counties which is currently under review by the PA DCNR. This feasibility study recommended the development of a 25-mile long trail from East Norton Township, Montgomery County to Quakertown Borough, Bucks County. Next individual municipalities will be responsible to develop construction plans and begin actual construction. County and State funds are available for these efforts.

Because the trolley discontinued service in 1951, the former rail corridor has undergone changes over the past 50+ years. Fortunately, significant lengths have been “protected” as an intact corridor for utility service, thereby presenting itself as an opportunity for a rail-to-trail project. However, other sections of the route have been converted as adjacent land uses and new development slowly encroached into the corridor. Where the trolley once operated in conjunction with the streets, that former space has since been absorbed into the cross section of the streets and is used today by motorists. Given these conditions, it is expected that the proposed Liberty Bell Trail will be constructed as a hybrid path-bike lane-sidewalk network in which its entire distance is comprised of interconnected segments of independent trail right-of-way and segments of on-road facilities (i.e., bike lanes or wide shoulders) for bicyclists coupled with sidewalks for pedestrians.

The trail’s tie into the regional network of mass transit services provides additional ways for people to travel from origin to destination without using their automobile. The Liberty Bell Trail will link together diverse communities. It will provide a close-to-home, linear recreation facility usable by people with varied interests. The trail will offer a gentle grade and be available for multiple purposes. Everyone from the young to the elderly and the able-bodied to the physically challenged will be able to benefit from the trail.

The Liberty Bell Trail will supplement the transportation network of the region. It will be more than simply a recreation facility; it will also be a transportation corridor for pedestrians and bicyclists. The trail will link together residential areas, employment centers, office parks, shopping districts, historic sites, parks, and schools; especially when considered in the context of being part of a larger trail system being developed in the region. This connectivity will enable people to reach more places using non-motorized transportation.¹⁰

Local officials from Upper Saucon Township believe that the segments of this historic trolley line are situated upon properties that offer excellent opportunities to re-establish

¹⁰ <http://www.montcopa.org/parks/LibertyBell.htm>, and April 6, 2005 telephone conversation with David Clifford, Open Space Planner for Montgomery County, PA. (610)278-3887.

the right-of-way for trail purposes. ***As developments are planned along this route, the incorporation and development of this trail should be a local planning priority; it will also add significant amenity to each new subdivision as the trail grows.***

Township Officials should also initiate a trail feasibility study with adjoining Springfield and Richland Townships in Bucks County to extend the trolley line southward to connect with the segment currently planned to end in Quakertown Borough, Bucks County. This would offer a truly regional connection that extends over 30 miles into Montgomery County and would link with many activity nodes along the way.

MAJOR UTILITY RIGHTS-OF-WAY

Pennsylvania Power and Light (PP&L) – Contact: James Andrew, PP&L Right-of-Way Agent, PP&L, Phone 484-634-3268. Several easements and company owned properties traverse the Region as shown on the Cultural Features Map. According to Mr. Andrew, these easements vary widely in width and are associated with high-voltage overhead electrical transmission lines. PP&L reviews requests for use in and around such easements on a case-by-case basis at a cost which is typically \$700. In the past PP&L has approved local trails that follow their easements when such trails do not interfere with the company’s responsibility to operate and maintain these transmission lines.

Buckeye Partners, LP Contact: Linda E. Conrad, Right of Way Specialist, Buckeye Pipe Line Company, P. O. Box 368, Emmaus, PA 18049. Phone 484-232-4404.“ Buckeye owns and operates two pipelines, a 16-inch-diameter pipeline which was laid in 1952 and a 20-inch-diameter pipeline which was laid in 1974, which lie parallel to each other and cross Upper Saucon Township in the APPROXIMATE location as shown on the map you provided (Cultural Features Map). The pipelines carry refined liquid petroleum products, such as gasoline, heating oil and kerosene. The width of the easements varies across the individual properties in Upper Saucon Township, depending on the right of way negotiated with the each property owner when the pipelines were laid. However, Buckeye’s customary easement width is 25 feet on either side of each pipeline.”¹¹ “Buckeye has developed a set of restriction specifications that will:

1. reduce the risk of damage to our pipeline and related facilities;
2. ensure unencumbered access to our right-of-way and pipeline facilities and the availability of adequate workspace for routine maintenance, future inspection, and/or repair work on our pipeline; and
3. enable the effective corrosion protection of our pipeline.

“All such activities and projects that are performed near Buckeye’s pipeline facilities are subject to formal review by Buckeye prior to issuance of final written approval. Depending on the scope of the project and its impact on Buckeye’s pipeline facilities, additional engineering requirements and protective measures may apply. The requirements are not only the policy of Buckeye, but comply with regulations set forth by the United States Department of Transportation, Safety Regulations, 49 CFR, Parts 192 and 195. We want to be a good neighbor, but to do so requires us to act responsibly in protecting our right-of-way and preventing damage to the pipeline system. While we want to make every effort to accommodate your desired use of your property, our responsibility for public safety is paramount. Through proper planning and

¹¹ March 16, 2005 letter from Linda E. Conrad, Right-of-Way Specialist for Buckeye Partners, LP.

communications, we can ensure the safety and integrity of our pipeline system and the welfare of our neighbors.

“1.0 General Guidelines

- 1.1 *The safety of the pipeline must be considered at all times. No attempt to probe for or engage in any construction activities which might damage the pipeline is permitted.*
- 1.2 *Before any preliminary field work or construction begins in the vicinity of Buckeye’s pipeline, a determination of the exact location and elevation of the pipeline must be made. To coordinate this procedure, please contact our local Field Operations Supervisor at the Buckeye facility nearest to your proposed project. See Attachment 1 for a listing of Buckeye’s facilities and telephone numbers.*
- 1.3 *All proposed drawings/plans must be submitted to Buckeye's Right of Way and Engineering Departments for review to determine to what extent, if any, the pipeline or right-of-way will be affected by the proposed construction and/or development. These drawings/plans must be prepared in strict compliance to Buckeye Specification “Requirements for Submission of Design Plans” (see Attachment 4).*
- 1.4 *When any construction activity is conducted in or around our pipeline right-of-way, Buckeye’s On-Site Inspector must be present at all times. **NO WORK SHALL TAKE PLACE WITHOUT A BUCKEYE ON-SITE INSPECTOR PRESENT.** For this free service, contact our local Field Operations Supervisor at the Buckeye facility nearest to your proposed project.*
- 1.5 *The Crossing Party shall contact Buckeye for re-marking of a pipeline if the existing markers are inadequate for any reason, including disturbance due to construction activities. Note: Federal law prohibits the removal of pipeline markers.*
- 1.6 *The Crossing Party shall not burn trash, brush, or other items or substances within 50 feet of the pipeline.*
- 1.7 *The Crossing Party shall not store any equipment or materials on the right-of-way.*
- 1.8 *During routine or emergency maintenance on the pipeline, the cost to restore approved surface improvements (e.g., pavement, landscaping, sidewalks, etc.) shall be the responsibility of the Crossing Party.”¹²*

Buckeye also has an extensive set of restrictions that apply to particular improvements and construction activities.

Columbia Gas Transmission Company Contact Mark Brodt, Phone 540-465-6441. According to Mr. Brodt, Columbia Gas Transmission Company has one 50-foot-wide right-of-way associated with a 14-inch underground high pressure natural gas steel pipeline. This right-of-way was acquired in the 1940s when the pipeline was originally installed and is scheduled for replacement within Northumberland County in the next few years. This pipeline is part of the transmission network that stretches from Maine to the Gulf of Mexico serving the eastern United States.

Mr. Brodt explains that the Company has policies aimed at complying with all local, state and Federal laws. Therefore, the Company prefers activities along the pipeline that minimize disturbance and introduce impediment to normal maintenance activities.

¹² March 16, 2005 letter and email from Linda E. Conrad, Right-of-Way Specialist for Buckeye Partners, LP.

Specifically, the Company prefers right-of-way crossings that are perpendicular to the alignment, have natural surfaces and avoids any structural improvements. Any proposed trail along this right-of-way would require submission to the Company for approval according the Company's development guidelines that follow:

Notify Columbia before construction begins

Columbia must be notified according to the state law before construction begins in the vicinity of its facilities. This notification shall be made through the appropriate state One-Call notification service, but follow up contact should be made with the local Columbia Gas Transmission office.

No construction or excavation activities of any kind, including blasting, shall be done on Columbia's right of way area before Columbia personnel have established the actual location of all affected facilities and the limits of the right of way. Columbia personnel must be present during any construction or excavation activities.

Excavation near pipelines/buried facilities

No excavation shall be made on the pipeline right of way without prior notification to Columbia through the state One-Call notification service. Subsequent follow-up must be made to Columbia to seek approval for the proposed construction. Approved excavations above, below or within three-feet of either side of the pipeline shall be dug using hand tools.

Crossing pipelines with heavy equipment

Columbia may require heavy equipment operators to install mats, dirt pads, or other approved protective materials to adequately protect Columbia pipelines from potential damage by heavy equipment crossing the right of way. All proposed road crossings of buried facilities must be evaluated by Columbia personnel. Any additional over-burden must be removed after construction unless otherwise directed by Columbia personnel.

Blasting plans must be approved

Any blasting proposed within 300 feet of Columbia facilities must be submitted to Columbia in advance along with a blasting plan outlining such proposed activity. No blasting may begin unless and until Columbia provides written confirmation that it does not object to such blasting. Any modifications to the blasting plan must also be submitted to Columbia for review and should not be implemented unless and until Columbia provides written confirmation that it does not object to such modifications. The blasting contractor may be required to monitor and record seismic shock at the facilities.

Allow adequate clearance for directional drilling

Any directional drilling or boring proposed under Columbia's buried facilities must be submitted to Columbia for review and approval. Adequate clearance must be maintained from Columbia's facilities and additional excavations may be required to ensure adequate clearance. As-built plans are required for all borings.

Maintain up to 300-foot clear area around storage well heads

Property owners or developers must notify Columbia of any proposed construction or excavation within 300 feet in any direction of a natural gas storage well. For safety, Columbia reserves the right to object to any such proposed activities or placement of objects closer than 300 feet to a storage wellhead.

Construction requirements within a right of way

The requirements listed below are minimum guidelines for construction in the vicinity of Columbia pipeline rights of way to protect public safety and the integrity of Columbia's facilities. A review of individual plans and property rights may reveal more specific requirements.

1. *The existing cover over pipelines and rights of way, which is normally a minimum of 36-inches and a maximum of 48-inches, shall be maintained. The minimum earth cover over pipelines at all street and road crossings, including the adjacent ditch line, shall be 36-inches; 60-inches minimum cover shall be maintained at stream and river crossings.*
2. *Above-ground or below-ground structures or obstructions of any type shall not be placed within the easement area of any pipeline, which generally extends 25 feet on each side from the center of the pipeline, or as defined in the applicable right of way or land rights agreement.*
3. *Pipeline easements shall not be shared longitudinally with other utilities. All water valves, curb boxes, manholes, etc. must be outside the easement. Other utilities which cross Columbia pipelines must do so at or as near 90 degrees as practical and with a minimum of 12-inches vertical clearance. Any crossing not installed below Columbia's pipelines must have prior written consent from Columbia (Location of Buried Facilities Form – Form 1050-P17). All crossings (excluding single telephone and single television drops) of Columbia facilities by cable and/or wire utilities, including but not limited to electric, fiber optic, telephone, and television lines crossing Columbia's pipelines must be encased with a minimum of 2-inch Schedule 80 PVC pipe. For safety reasons, electric and fiber optic lines shall also be surrounded with a minimum of six inches of concrete or encased with 4-inch minimum diameter, .250-wall, coated steel pipe for the full width of the right-of-way. Metallic warning flags shall also be buried above all cable, wire utility, or fiber optic lines crossing a Columbia right-of-way. All crossings must be approved by Columbia before installation begins.*
4. *Roads shall cross pipelines at or as near 90 degrees as practical, but at angles not less than 45 degrees. The entity constructing the street must pay for any measures required by Columbia to protect its pipeline(s). Such protective measures shall be designed and/or approved by Columbia personnel.*
5. *Paved areas, such as parking lots, shall not be allowed over the easement unless the pavement can be altered so as not to impact the safe and reliable operation and maintenance of Columbia's pipeline. Concrete paving in Columbia's right-of-way, except for sidewalks and curbs, is prohibited. Consequently, all plans for pavement within a Columbia right-of-way must be submitted and approved by Columbia personnel before paving can begin.*
6. *Septic tanks and leach fields should be placed so they drain away from the pipeline where practical. In no case shall they be placed in the easement area.*
7. *The right-of-way may be planted in lawn and small shrubs (less than 5 feet tall) or may be used for normal agricultural purposes. However, shrubs will not be allowed within 5 feet each side of the pipeline. Shrubs greater than 5 feet tall and trees, including fruit or nut bearing trees of any kind, are prohibited within the right of way.*
8. *Fences that block visual inspection or interfere with access to Columbia's facilities are prohibited within Columbia rights of way. Fences permitted by*

Columbia to cross its rights of way must be designed with 12-foot gates centered on the pipelines and must cross at or as near to 90 degrees as possible.

State One-Call Notification Services Call Before Digging

Pennsylvania: 1-800-242-1776

For more information, call the appropriate Columbia representative.

Pennsylvania: 1-540-465-6429¹³

¹³ April 6, 2005 email from Mark Brodt, Right-of-Way Specialist for Columbia Gas Transmission Co.

IV. Recreation & Parks System Profile

The Recreation and Parks System Profile provides an inventory and assessment of the existing conditions in Lower and Upper Saucon Townships related to:

- A. Recreation Administration
- B. Park Land and Recreation Facilities
- C. Recreation Programs
- D. Park Maintenance and Security
- E. Finances

A. Recreation Administration

Recreation and parks services in Lower and Upper Saucon Townships are a priority for local government, and citizen involvement is encouraged and welcomed.

Recreation and Parks Volunteers - A five-member Park and Recreation Commission was appointed by the Upper Saucon Township Board of Supervisors for five-year terms by Resolution 99-23. This advisory commission's goal is to ensure that Upper Saucon Township has a comprehensive recreation and parks system. Resolution 99-23 increased the size of this Commission to seven members. A Township staff person serves as a liaison to the Park and Recreation Commission and attends its monthly meetings. The Commission is a member of the Pennsylvania Recreation and Park Society (PRPS), the statewide association for recreation and parks boards and staff.

The Park and Recreation Commission is responsible for planning, organizing and administering most of the Township's recreation programs and events. The Park and Recreation Commission also makes recommendations to the Board of Supervisors on:

- Planning, laying out and maintaining parks, recreation facilities and programs.
- Policies and procedures for the use of recreational facilities by residents and non-residents, athletic and sports associations, and the Southern Lehigh School District, including setting fees and scheduling activities and events.
- Such other related matters as are determined by the Board of Supervisors.

The Lower Saucon Township Parks and Recreation Board consists of seven members who are appointed annually. Each member may serve four consecutive one year terms. Ordinance 76-4 created this advisory board, which is responsible for making recommendations to the Township Manager concerning recreation programs and facilities and park area acquisition and development. The Township Manager serves as the staff liaison to the Parks and Recreation Board. The Board is a member of PRPS.

Recreation and Parks Staff – Upper Saucon Township has three full-time staff members whose work focuses on park maintenance. They report to the Superintendent of Roads.

However, in 2005 the number of staff may be cut back if mowing is contracted out. Seasonal part-time workers help to maintain the park in the spring and summer months. The road department staff assists with major projects.

Lower Saucon Township does not have any staff dedicated solely for parks and recreation. Employees from the 11-person public works department are scheduled for parks work as needed. Two employees are assigned to park duties during the summer months.

Public Relations and Marketing Efforts - Upper Saucon Township publishes a quarterly newsletter that is mailed to all homes and businesses. Each issue contains information on recreation and parks facilities and activities. The Township has its own website, www.upperrsaucon.org. The website features a community calendar which includes the recreation and community events sponsored by the Township. A park map, rules and regulations and fee schedule for use of Upper Saucon Township Community Park facilities are included. Pavilion rental applications can be downloaded from the website. The Allentown Morning Call newspaper is utilized to promote recreation events, as are area television and radio stations.

Lower Saucon Township also publishes a periodic newsletter which is mailed to all homes and businesses. The Township website, www.lowersaucontownship.org contains photos and information on each park area.

Policies and Procedures - Upper Saucon Township residents have priority use of its park areas and recreation facilities. Where fees are charged, non-residents pay twice what residents pay. If less than 50 percent of the attendees at an event are Upper Saucon Township residents, the non-resident fee applies. The fees vary by facility. A comprehensive fee schedule, list of rules and regulations for use, and rental forms are in place. The picnic pavilion is rented, as are sports fields for athletic tournaments, games and practices. Facility use is scheduled by the Assistant Township Manager/Finance Director. Field rentals for Township-based youth sports groups are available for the season at no charge. However, the youth sports groups are charged \$5 for each non-resident participating in a sports program. Township-based adult sports groups are charged a minimal fee of \$100 per season for field use. A certificate of insurance is required for all teams, leagues and organizations reserving sports fields. Facility scheduling is not computerized. Rental forms can be downloaded from the Township website; citizens are not able to schedule use of a facility on-line. The number of rentals and estimated attendance figures are kept. The local Kiwanis Club operates the park snack bar.

Park pavilion permits and ball field rental contracts are available at the Lower Saucon Township office. The Township Receptionist schedules facility use. Reservations for field use and pavilion use are taken beginning on the first Monday in February. Pavilion rental fees are \$100 for residents, plus a \$50 deposit. Non-residents are charged \$150, plus a \$50 deposit. Alcoholic beverages are permitted. Lower Saucon Township does not charge Saucon Valley youth sports groups for use of its fields. Others reserving fields are charged \$175/\$200 per year when there is representation on the team by a Saucon Valley resident. Non-residents are charged \$200. Proof of insurance is required. Residents are able to rent the Seidersville Hall building for private functions. Fees are charged for its use. It also serves as an overflow site for Township meetings, and the Saucon Valley Community Center conducts a senior citizen program and yoga classes in the building.

B. Park Land and Recreation Facilities

The citizens of Lower and Upper Saucon Townships have a variety of recreational areas available for public access. These include private, municipal and school district facilities.

Total Acreage - Lower Saucon Township contains 900.1 acres of parkland, recreation and open space areas. 106 of these acres are owned by the Saucon Valley School District and 209.7 acres are owned by the Township.

Upper Saucon Township contains 2,387 acres of parkland, recreation and open space areas. 134 of these acres are owned by the Southern Lehigh School District and 368 acres are owned by the Township.

The two Townships contain seven golf courses, most of which are open to the public. The nine-hole Tumblebrook Golf Course is owned by Upper Saucon Township. One miniature golf course is located in Upper Saucon Township.

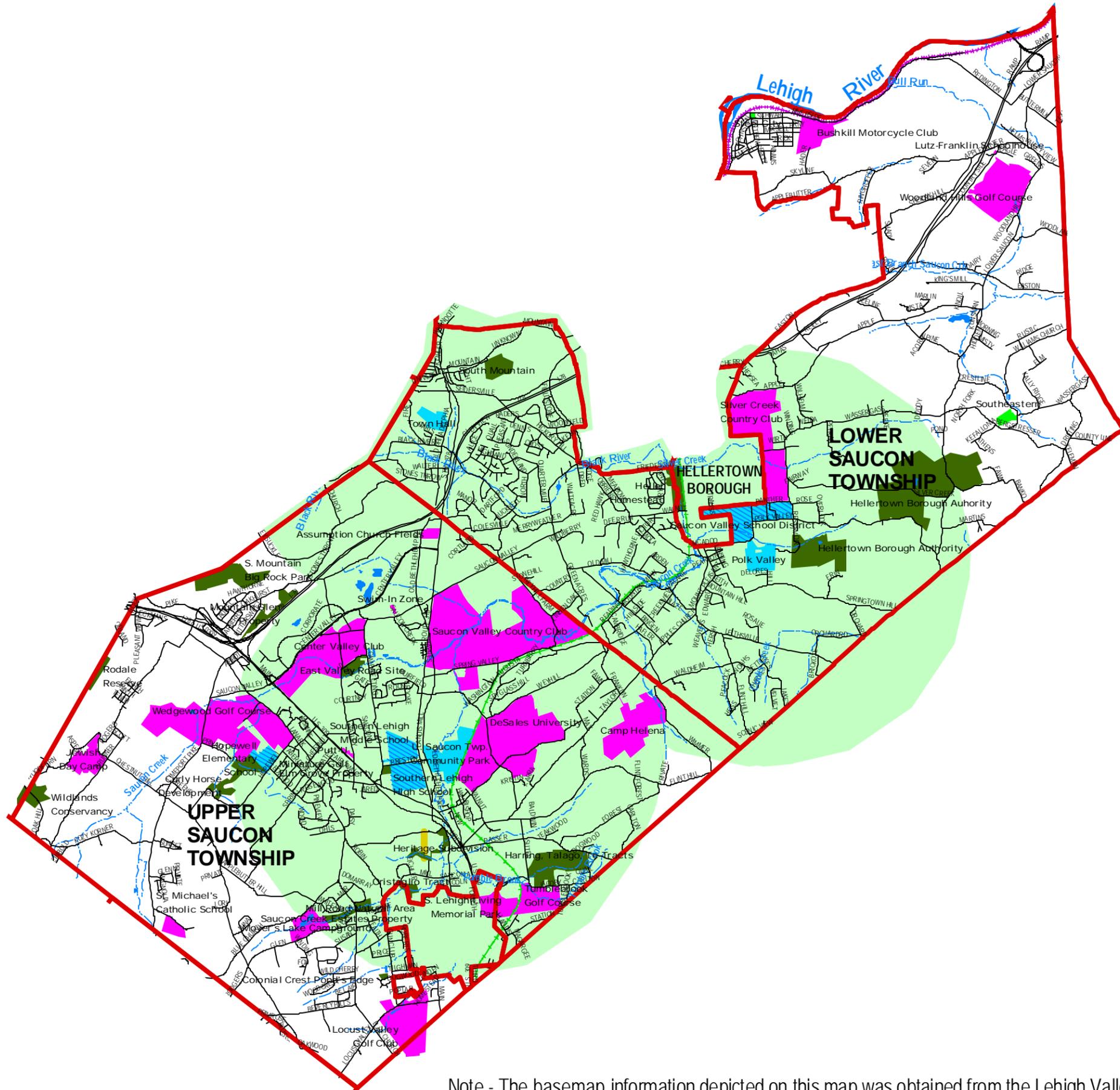
A large private community park, Southern Lehigh Living Memorial Park, is partially located in Upper Saucon Township. This is an active use park, with lighted ball fields, tennis courts, snack bars, picnic pavilions and outdoor swimming pool among its facilities. The 160-acre Camp Helena, a Girl Scout property; the 56-acre Jewish Day Camp, owned by the Allentown Jewish Community Center; and a small privately-owned campground, Moyer's Lake, are also in the Township. The 312-acre DeSales University campus has indoor and outdoor recreation facilities that are mainly available to its student population. A large portion of Lehigh County's South Mountain Big Rock Park, a natural resource area, is also within the Upper Saucon Township boundary.

Lower Saucon Township owns three historic properties, the Heller Homestead, Lutz-Franklin Schoolhouse and Old Mill Bridge. The City of Bethlehem's 38-acre South Mountain Park, the Hellertown Public Library, Lost River Caverns and the Hellertown Borough Authority property, a 206-acre natural resource area are all located within Lower Saucon Township.

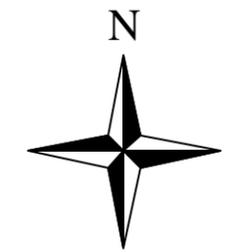
Residents must travel outside of the Townships to access most commercial recreation facilities. Bowling alleys, ice and roller skating rinks, and health clubs are located within a 10-mile drive. Public libraries that serve residents are located in Upper Saucon Township and the City of Bethlehem.

Park Classification System - Table 1 presents the National Recreation and Park Association (NRPA) park classification system. It shows the range of park types, their benefits, appropriate facilities and maintenance levels. Table 2 lists the Township park areas by classification and the acreage of each site. Table 3 lists the total acreage of parkland by classification.

Saucon Region Parks Map



- PARKS**
- Neighborhood
 - Community
 - School
 - Natural - Open Space
 - Private - Special Purpose
 - Greenways & Trails
 - Community Park Service Area



6000 0 6000 Feet



Note - The basemap information depicted on this map was obtained from the Lehigh Valley Planning Commission

Table 1 Park Classification System				
Type/Size/Service Radius	Definition	Benefits	Appropriate Facilities	Maintenance Level
Mini-Park 0-5 acres ¼-mile service radius	Smallest park type, addresses limited recreation need.	<ul style="list-style-type: none"> ▪ Provides close-to-home recreation 	<ul style="list-style-type: none"> ▪ Playground ▪ Benches, seating area 	High level of maintenance associated with well-developed park and playground and reasonably high visitation.
Neighborhood Park 5-15 acres minimum ½-mile service radius	Focus of neighborhood; in walking/biking distance of visitors.	<ul style="list-style-type: none"> ▪ Provides access to basic recreation opportunities ▪ Contributes to neighborhood identity ▪ Establishes sense of community 	<ul style="list-style-type: none"> ▪ Play areas ▪ Ball fields ▪ Game courts ▪ Picnic area ▪ Seating area ▪ Pathways ▪ Community gardens 	High level of maintenance associated with well-developed park and reasonably high visitation.
Community Park 20-50 acres 2-mile service radius	Large park for active and passive recreation; serves residents community-wide. Accommodates large groups.	<ul style="list-style-type: none"> ▪ Variety of recreation opportunities for all ages and interests ▪ Space for organized, large-scale, high-participation events ▪ Family destination ▪ Fitness and wellness opportunities 	<ul style="list-style-type: none"> ▪ Play areas ▪ Organized sports facilities ▪ Pavilions ▪ Permanent restrooms ▪ Lighting ▪ Amphitheaters ▪ Pools ▪ Rinks ▪ Parking 	Moderate level of maintenance associated with moderate level of development.
School Park Acreage and service radius varies	Public school sites with recreation facilities.	<ul style="list-style-type: none"> ▪ Combines two public entities for expanded year-round recreation. ▪ Maximizes public resources ▪ Expands recreation opportunities 	<ul style="list-style-type: none"> ▪ Youth-oriented game courts and ball fields ▪ Play areas ▪ Seating ▪ Pathways ▪ Lighting 	Moderate level of maintenance associated with moderate level of development.
Sports Complex 30+ acres	Consolidates sports fields and related facilities in a centralized location.	<ul style="list-style-type: none"> ▪ Economy of scale ▪ Improved management ▪ Attracts visitors who stimulate local economy 	<ul style="list-style-type: none"> ▪ Ball fields ▪ Lighting ▪ Spectator areas ▪ Restrooms ▪ Concessions ▪ Landscaping ▪ Parking 	State-of-the-art maintenance applied to high quality facilities; associated with high visitation; tourism.
Private Park/Special Purpose Facility Acreage and service radius varies	Single purpose use, owned by for-profits, nonprofits or government; often available only for members.	<ul style="list-style-type: none"> ▪ Provides special focus recreation opportunities ▪ Contributes to community 	<ul style="list-style-type: none"> ▪ Depends on purpose 	High level of maintenance associated with well-developed park and reasonably high visitation.
Greenways and Trails Acreage and service radius varies	Tie park areas together to form a contiguous park environment.	<ul style="list-style-type: none"> ▪ Connects community ▪ Reduces auto dependency ▪ Improves air quality ▪ Contributes most desired recreation facility for people ▪ Attracts visitors 	<ul style="list-style-type: none"> ▪ Pathways-multipurpose ▪ Trailheads ▪ Support facilities ▪ Signage 	Lowest level of maintenance. Focus on trailheads and trail safety.
Natural Resource/Open Space Area	Lands set aside for preservation of significant natural resources, landscapes, open space and visual aesthetics.	<ul style="list-style-type: none"> ▪ Protects resources ▪ Provide wildlife habitat ▪ Offer opportunities for environmental education 	<ul style="list-style-type: none"> ▪ Trails ▪ Signage ▪ Support facilities 	Lower level of maintenance.

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

Table 2 Parkland by Classification					
Lower Saucon Township					
Neighborhood Parks	Community Parks	Greenways and Trails	School Parks	Natural Resource/ Open Space Areas	Private Parks/ Special Purpose Facilities
South-eastern Park (10.9 acres)	Town Hall Park (27.6 acres)		Saucon Valley School Campus (106 acres)	Hellertown Borough Authority (206 acres)	Woodland Hills Country Club (160 acres)
Steel City Park (1.4 acres)	Polk Valley Park (48.4 acres)			Heller Homestead Park (11.7 acres)	Bushkill Motorcycle Club Track & Hill Climb (58 acres)
				South Mountain Park (38 acres)	Heller Homestead (2.2 acres)
				Snyder Ave Property (2 acres)	Silver Creek Country Club (225 acres)
					Lutz-Franklin Schoolhouse (1.1 acres)
Upper Saucon Township					
Neighborhood Parks	Community Parks	Greenways and Trails	School Parks	Natural Resource/ Open Space Areas	Private Parks/ Special Purpose Facilities
	Upper Saucon Township Community Park (73.3 acres)	Heritage Subdivision (.25 acres)	Southern Lehigh High School (58 acres)	South Mountain Big Rock Park (51 acres)	Camp Helena (160 acres) Jewish Day Camp (56 acres)
			Southern Lehigh Middle School (50 acres)	East Valley Road Site (15 acres)	Moyer's Lake Campground (22 camp sites)
			Hopewell Elem. School (26 acres)	Rodale Reserve (9.6 acres)	DeSales University (312 acres)
				Heritage Subdivision (16.4 acres)	Tumblebrook Golf Course (71 acres)
				Curleyhorse Development (36 acres)	Wedgewood Golf Course (195 acres)
				Mountain Glen Property (22 acres)	Locust Valley Golf Club (123 acres)
				Harring, Talago, Te Tracts (90.1 acres)	Saucon Valley Country Club (735 acres)
				Mill Road Natural Area (10 acres)	Center Valley Club (191 acres)
				Oristaglio Tract (10 acres)	Swim-In Zone
				Elim Grove Property (3.9 acres)	Putt-U Miniature Golf Courses
				Saucon Creek Estates Property (9.9 acres)	Assumption Church Fields
				Colonial Crest Pond's Edge (.8 acres)	St. Michael's Catholic School Fields
				Wildlands Conservancy (30 acres)	Southern Lehigh Living Memorial Park (32 acres)

Table 3 Township Total Parkland Acreage Per Park Classification							
Township	Mini-Parks	Neighborhood Parks	Community Parks	Greenways and Trails	School Parks	Natural Resource/Open Space Areas	Private Parks/Special Purpose Facilities
Lower Saucon Township	0 acres	12.3 acres	76 acres		106 acres	257.7 acres	446.3 acres
Upper Saucon Township	0 acres	0 acres	73.3 acres		134 acres	304.7 acres	1,875 acres

Park Area and Recreation Facility Assessment - The purpose of this assessment of park areas and recreation facilities is to evaluate the recreation opportunities in terms of meeting community needs. The goal of the assessment is to determine if current recreation needs are being met and to project how the system should change to meet the future recreation needs. The Townships' existing public park areas and recreation facilities have been assessed to determine how they could be improved or expanded, and what changes must be made to comply with safety and accessibility standards. Areas of each Township that need facilities will be determined as well as strategies for linking facilities with a greenway and trail network.

The analysis of park areas and recreation facilities was conducted by:

- Conducting on-site fieldwork.
- Evaluating park area and recreation facility conditions.
- Considering the results of the key person interviews.
- Assessing the distribution of parkland throughout the Townships.
- Exploring trends and community needs in recreation facilities by gathering information through the public participation process.

Seven factors guided the park area and recreation facility assessment in Lower and Upper Saucon Township. They included:

- 1) Amount of parkland
- 2) Configuration of parks
- 3) Location of parks
- 4) Connection between parks
- 5) Recreation facilities
- 6) Park conditions
- 7) Park area and recreation facility trends

Amount of Parkland – The National Recreation and Park Association (NRPA) recommends that each municipality have ***a minimum of*** 10.5 acres of local parkland for every 1,000 residents. The draft of the Comprehensive Plan, The Lehigh Valley...2030, prepared by the Lehigh Valley Planning Commission, also utilizes this NRPA standard for developed park space and recreation facilities for municipalities in Lehigh and Northampton Counties. However, based upon the results of the attitudinal surveys presented in Chapter IX of this Plan and the Region's overall park, recreation and open

space goals, each Township within the Saucon Region wishes to exceed these minimum standards by providing 15 acres divided equally of local parkland and open space per 1000 population. Each Township adopts the following needed parkland acreage standards which are consistent with NRPA guidelines:

Each Lower and Upper Saucon Township Park Acreage Standards	
PARK TYPE	MINIMUM ACRES NEEDED PER 1000 POPULATION
Community Park	7.5 acres
Natural Resource Parks and Open Spaces	7.5 acres
Total	15 acres

From the preceding chart, it can be seen that 15 acres of local public parkland should be provided for each 1,000 persons within each Township of the Region.

Table 4 compares the parkland acreage standards for these park types based on 2000 census population figures and forecast populations to the actual acreage currently available within each municipality.

Table 4 - Parkland Acreage/Standards Analysis						
Lower Saucon Township						
Park Type/ Current Acreage	Required Acres/2000 Population (9884)	2000 Deficit (-) Excess (+)	Required Acres/2010 Forecast Population (12,273)	2010 Deficit (-) Excess (+)	Required Acres/2020 Forecast Population (13,783)	2020 Deficit (-) Excess (+)
Community Parks 76 acres	74.2	+1.8	92	-16	103.4	-27.4
Natural Resource Parks & open Space 257.7 acres	74.2	+183.5	92	+165.7	103.4	+154.3
Totals 335.5 acres	148.4 acres	+185.3 acres	184 acres	+149.7 acres	206.7 acres	+127.0 acres
Upper Saucon Township						
Park Type/ Current Acreage	Required Acres/2000 Population (11,939)	2000 Deficit (-) Excess (+)	Required Acres/2010 Forecast Population (13,661)	2010 Deficit (-) Excess (+)	Required Acres/2020 Forecast Population (15,091)	2020 Deficit (-) Excess (+)
Community Parks 73.3 acres	89.5	-16.2	102.5	-29.2	113.2	-39.9
Natural Resource Parks & open Space 304.7 acres	89.5	+215.2	102.5	+202.2	113.2	+191.5
Totals 378 acres	179 acres	+199 acres	204.9 acres	+173.1 acres	226.4 acres	+151.6 acres

Based upon the analyses, Lower Saucon Township should immediately fully develop its 48.4-acre Polk Valley Community Park. Then it should acquire an additional 27.4 acres by the year 2020. Upper Saucon Township needs an additional 16.2 acres now and another 39.9 acres by the year 2020.

As for open space, both Townships have ample amounts to meet desired standards per population; however, each Township should continue to acquire natural resource areas as part of land development approvals and as other opportunities arise. Furthermore, it is recommended that each Township actively pursue the acquisition of additional **publicly-accessible** open spaces at the specified rate of 7.5 acres per 1000 population to keep pace with projected growth. The following presents the long-range parkland / open space needs projected within the Region based upon projected growth:

Projected Parkland / Open Space Needs 2000-2020		
Municipality	Community Park	Natural Resource Areas & Open Space
Lower Saucon Twp.	27.4 acres	29.2 acres
Upper Saucon Twp.	39.9 acres	23.7 acres
Region	67.3 acres	52.9 acres

2) Configuration of Parks - Just as the amount of park acreage is important, so is the type of park available for public use. Different types of parks provide different recreation opportunities for people who live, work and visit Lower and Upper Saucon Townships.

When the park sizes and functions are compared to the NRPA classification categories the following conclusions can be drawn:

- Steel City Park has less than the recommended acreage for a neighborhood park but functions as a neighborhood park for Lower Saucon Township.
- Polk Valley Park will be Lower Saucon Township’s largest community park. It is currently under construction.
- Lower Saucon Township owns two historic properties that are special purpose park facilities, the Heller Homestead and the Lutz-Franklin Schoolhouse.
- The Saucon Valley School District campus is located in Lower Saucon Township. It contains a large number of indoor and outdoor recreation facilities that are available for community use.
- Upper Saucon Township operates one large community park, the 70-acre Upper Saucon Township Community Park.
- A large privately-operated park, Southern Lehigh Living Memorial Park, helps to meet the need for community parks in Upper Saucon Township.
- Separate elementary school, middle school and high school campuses, containing a variety of indoor and outdoor recreation facilities, are located in Upper Saucon Township.

- Upper Saucon Township has no neighborhood parks.
- Upper Saucon Township leases or owns a number of open space areas that are possible sites for future park development.
- The two Townships contain seven golf courses, most of which are open to the public. Upper Saucon Township owns the nine-hole Tumblebrook Golf Course.

3) Location of Parks (Barriers and Service Radius Spatial Analysis) - The parkland distribution analysis evaluates potential barriers to easy convenient access to park sites.

The Recreation Lands and Facilities Map illustrates the location of the various parks throughout the Township. NRPA-recommended two-mile service radii are plotted on the Parks Map around the Township-owned community parks that generally cover much of the “developed” portions of each Township. However, major transportation corridors traverse the Township dividing it into distinct areas. These corridors are barriers that limit safe and convenient pedestrian access between these distinct areas to centralized recreation facilities. However, the Region prefers community parks which tend to serve larger areas than can be accessed on foot; therefore, pedestrian access is not of priority within the Region except as may be provided by linear paths and greenways. Furthermore, the Region’s desire for open space parks replaces the more traditional neighborhood parks and offers local access to unimproved passive areas.

4) Connections between Parks - Trails and greenways provide passive recreation opportunities and green corridors of protected open space. Easy access to trails facilitates exercise and fitness, as well as safe linkage to connect locales. The Lehigh River accounts for Lower Saucon Townships’ northern border which can provide for trail and greenway opportunities that are not currently present. A connected community through trails and greenways contributes to the livability and quality of life experienced by citizens. A comprehensive system of greenways and trails that connect parks, neighborhoods and community destinations is needed.

Another form of connectivity can be found through the development of water trails. Water trails are recreational waterways on a lake, river or ocean between specific points, containing access points and day-use and/or camping sites for the boating public. Water trails emphasize low-impact use and promote stewardship of the resources.

5) Recreation Facilities - Recreation facilities should be provided within a community to meet the demand of individuals, community groups, and organized adult and youth sports leagues. The appropriate number of park facilities in a community should be based on the need as defined by current facility usage and local trends in recreation activities. An analysis of facilities considers the context of the municipality and the trends and popularity of the sport that the facility serves. Facility trends and observations in the region further illustrate the need for additional recreation facilities.

Table 5 provides the facility inventory for the Townships. It includes outdoor facilities owned by the Southern Lehigh and Saucon Valley School Districts, plus gymnasiums. It does not include facilities owned by DeSales University.

Table 5 Recreation Facility Inventory					
Facility	# Owned by Lower Saucon Township	Total # in Township	# Owned by Upper Saucon Township	Total # in Township	Total # in Region
Softball Fields	3	5	0	1	4
Baseball Fields	0	2	2	11	15
Basketball Courts	2 ½	5 ½	2	4	5 ½
Soccer Fields	0	4	5	8	10
Football Fields	0	1	0	1	3
Multi-Purpose Fields	1	2	3	7	8
Running Tracks	0	1	0	1	2
Volleyball Courts	0	0	0	1	1
Tennis Courts	0	8	0	9	17
Play Equipment Areas	4	4	1	5	9
Paved Walking Paths	2	2	1	1	3
Dog Parks	0	0	0	0	0
Picnic Pavilions	3	3	1	3	5
Snack Bars	0	0	2	4	4
Horseshoe Courts	2	2	0	0	2
Camping Areas	0	0	0	2	2
Golf Courses	0	2	1	5	7
Miniature Golf Courses	0	0	0	1	1
Nature Trails	1	1	0	0	1
Garden Plot Areas	0	0	0	0	0
Community Buildings	1	1	0	0	1
Recreation Centers	0	0	0	0	0
Outdoor Pools	0	0	0	1	1
Indoor Pools	0	1	0	0	1
Amphitheaters	0	0	0	0	0
Fitness Trails	1	1	0	0	1
Gazebos	1	1	0	0	1
Fishing Ponds	1	1	0	0	1
Frisbee Golf Courses	0	1	0	0	1
Mtn Biking/Hiking Trails	0	1	0	0	1
Gymnasiums	0	3	0	2	5

Soccer – Soccer is a growing sport nationally and continues to grow in Lower and Upper Saucon Townships. Additional fields are needed to meet the growing programs, address changing playing formats, allow rest periods for fields, and to accommodate potential adult leagues.

Swimming Pools – Two public outdoor swimming pools exist that serve Township residents, in Hellertown Borough and at Southern Lehigh Living Memorial Park. These

swimming pools should continue to be supported by the Townships. The cost to replace these facilities would be very high.

Multi-Purpose Fields – Multi-purpose fields should be provided in community parks for emerging sports such as rugby, lacrosse, flag football and field hockey. The fields should be sized to accommodate each of these sports as well as football.

Skateboarding/In-Line Hockey – Consideration should be given to constructing skateboarding areas, or street hockey or in-line hockey rinks. These non-traditional sports require specialty facilities that are not present in either Township.

Dog Parks – Dog parks are very popular facilities. They must be appropriately sized and include amenities such as shade, water, seating areas and play obstacles. The Townships currently do not have a dog park facility.

Volleyball – Volleyball is a popular sport with teens and families. Volleyball courts should accompany picnic pavilions where room permits. They should be developed in banks of two or more in community parks for league play.

Softball and Baseball Fields – Youth softball and baseball programs are growing. With the addition of fall leagues and the potential of adult use, more fields are needed.

Teen Areas – Teens enjoy numerous sports activities, particularly basketball, volleyball, street hockey, skateboarding and in-line skating. Additionally, teens enjoy hanging out with friends in areas distanced from adult supervision.

Pathways – Pathways should be provided in every park for recreation purposes and to meet the requirements of the ADA. ADA requires an accessible route from parking areas and drop-off areas to recreation facilities. Viewing areas for physically impaired spectators must be provided at sports fields and courts. In community parks where space allows, development of at least an eight-foot wide trail is recommended. Trails should be paved to provide multiple recreation opportunities such as bike riding, in-line skating, jogging and walking. Natural areas of parks may be developed with stone dust or other stable natural material if outside of floodplain and wetland areas. Walking is an activity widely enjoyed by all segments of the population and where space requirements can be satisfied, walking trails should be developed in each of the Townships parks.

Playgrounds – The neighborhood parks and community parks have playground equipment of varying age and condition. Playgrounds should be designed to accommodate children in age-segregated areas for two to five-year-olds and six to 12-year-olds. Options include retrofitting the existing structures to comply with the guidelines, adding additional equipment as appropriate, and/or installing signage that directs use by specific age groups.

Indoor Recreation Center – Indoor recreation space is needed in Lower and Upper Saucon Townships. Gymnasium space is limited to school district facilities and the availability of gymnasiums is minimal due to school district use. Schools are not available for community use during the school day. While gyms for organized sports are important, other indoor facilities are needed. Drop-in activity space, fitness facilities and community meeting rooms enable people to participate in an active, healthy lifestyle year-round.

6) Park Conditions - Each park site was visited and inventoried. Generally, the parks are in good to excellent condition from a facility and maintenance perspective and offer inviting settings for recreation.

The Township parks are located adjacent to residential uses. All are moderate to difficult to walk to. A discussion on the recreation facilities at each site, the availability of parking and the overall condition of the municipal and school district park areas and recreation facilities follows. On-going maintenance will correct any concerns witnessed as part of the spring 2005 inventory.

7) Park Area and Recreation Facility Trends - The way we spend our free time and the activities we enjoy changes over time. Trends emerge and factors change that impact the park areas and recreation facilities that we need in our communities. The following trends emerged as part of the analysis of each Township's park areas and recreation facilities:

- Citizens have expressed a strong desire to preserve open space.
- Youth sports leagues continue to grow in participation.
- New sports are emerging that have an impact on facilities. These include: in-line hockey, skateboarding, in-line skating, rugby and lacrosse.
- Trails are very popular among all age groups.
- Senior adults are more active than ever. Facilities and activity areas are needed that provide opportunities for fitness and wellness activities. Lifetime recreation activities such as golf, tennis, walking and bicycling will remain popular.

C. Recreation Programs

Providing park land and recreation facilities are important municipal functions. Equally important are the recreation experiences individuals have through involvement in recreation programs. Recreation programs build community by providing positive and meaningful services and events that encourage a sense of unity, belonging, pride and appreciation for the traditions and heritage of a municipality.

A number of groups exist within Lower and Upper Saucon Townships whose purpose is solely or partially to provide recreation opportunities to their members or to the general public.

Municipally-sponsored programs include a number of family-oriented special events throughout the year, such as a Family Fun Day and Summer Concert Series at Upper Saucon Township Community Park and Halloween Parade. The Hellertown-Lower Saucon Community Day is sponsored by the Hellertown Chamber of Commerce. Both Townships make substantial contributions to their respective public libraries. The Saucon Valley Community Center sponsors a summer youth program in Lower Saucon Township parks and a senior citizen center at Seidersville Hall. Lower Saucon Township contributes financially to the Community Center's operations. Lower Saucon Township also contributes \$60 per resident family that joins the Hellertown Swimming Pool, to offset the non-resident membership charge. Upper Saucon Township contributes \$18,500 to the Southern Lehigh Living Memorial Association to help maintain the park and \$15,000 to the Southern Lehigh Pool Association to help with the operation and maintenance of the outdoor swimming pool.

Both Townships have several privately-sponsored youth sports associations that serve school age children. These groups are run by volunteers and hundreds of Township youth participate in their programs. Southern Lehigh youth sports groups include baseball, basketball, cheerleading, softball, football, soccer, wrestling and lacrosse. Saucon Valley youth sports groups include baseball, softball, football, cheerleading, soccer, wrestling and basketball. The area has adult sports teams for soccer and softball.

Many other volunteer associations are involved in recreation. The Kiwanis Club sponsors an Easter Egg Hunt and Haunted Hayride at Upper Saucon Township Community Park; the Southern Lehigh Living Memorial Association holds flea and farmer's markets and car shows at its park; and the Saucon Valley Jaycees host a Senior Citizen Dinner, Easter Egg Hunt, Junior Olympics, and Breakfasts with the Easter Bunny and Santa Claus. Heller Homestead is operated by the Saucon Valley Conservancy and the Lutz-Franklin Schoolhouse is operated by the Lower Saucon Township Historical Society.

DeSales University offers Summer Sports Camps for area children and hosts the well-known Pennsylvania Shakespeare Festival each summer. The University's Act One Theatre productions are open to the community as well. Northampton County Community College offers adult education programs on subjects such as computers, crafts, personal and home improvement and health and safety at Saucon Valley School District facilities. A privately-operated indoor facility in Upper Saucon Township, Swim-In Zone, sponsors youth and adult swimming lessons, exercise and water safety classes, and lap and family swims.

Table 6 lists the recreation programs offered to the general public in the Townships, excluding those programs offered solely to the students of the two public school districts.

Table 6 Recreation Program Inventory						
Program Name	Sponsoring Group	Program Type/ Description	Gender	Age	Fee	Facilities Used
Family Fun Day	Upper Saucon Township	Special Event	M/F	All	Free	Upper Saucon Twp Community Park
Easter Egg Hunt	Kiwanis Club	Special Event	M/F	12 yrs & under	Free	Upper Saucon Twp Community Park
Haunted Hayride	Kiwanis Club	Special Event	M/F	All		Upper Saucon Twp Community Park
Summer Sports Camps	DeSales University	Youth Sports	M/F	Varies	Varies	DeSales University
Summer Basketball, Lacrosse and Soccer Camps	Southern Lehigh School District	Youth Sports	M/F	8-14 yrs	Varies	Southern Lehigh School District Facilities
Summer Concert Series	Upper Saucon Township	Cultural	M/F	All	Free	Upper Saucon Twp Community Park
Soccer	Southern Lehigh Soccer League	Youth Sports	M/F	5-19 yrs	Varies	Upper Saucon Twp Community Park
Soccer Teams	Cementerios	Adult Sports	M	18 yrs & up	Varies	Upper Saucon Twp Community Park
Baseball	Southern Lehigh Little League	Youth Sports	M	5-15 yrs	\$80	Living Memorial Park and Upper Saucon Twp

						Community Park
Football	Southern Lehigh Sports Assn.	Youth Sports	M	5-12 yrs	\$50	Living Memorial Park
Lacrosse	Southern Lehigh Blue Dawgs	Youth Sports	M/F	1 st -6 th grade	\$25	Upper Saucon Twp Community Park and Southern Lehigh Middle School
Softball	Southern Lehigh Softball League	Youth Sports	F	5-15 yrs	\$80	Living Memorial Park and Southern Lehigh Middle School
Wrestling	Southern Lehigh Sports Assn.	Youth Sports	M	5-12 yrs	\$50	Southern Lehigh High School
PA Shakespeare Festival	DeSales University	Special Event	M/F	All	Varies	DeSales University
Act One Theatre Productions	DeSales University	Cultural Arts	M/F	All	Varies	DeSales University
Library	Southern Lehigh Public Library	Education	M/F	All	Free	Southern Lehigh Public Library
Swimming Lessons	Southern Lehigh Community Pool	Aquatics	M/F	All	\$35 - \$45	Southern Lehigh Community Pool
Swim Team	Southern Lehigh Community Pool	Aquatics	M/F	6-18 yrs	\$45	Southern Lehigh Community Pool
Pool Membership	Southern Lehigh Community Pool Association	Aquatics	M/F	All	Varies	Southern Lehigh Community Pool
Flea Markets, Farmer's Markets, Car Shows	Southern Lehigh Living Memorial Association	Special Events	M/F	All	Varies	Living Memorial Park
Swim Lessons, Lap Swims, Family Swims, Aquatic Exercise Classes, Swim Team, Safety Classes	Swim-In Zone	Aquatics	M/F	All	Varies	Swim-In Zone
Heller Homestead	Saucon Valley Conservancy	Cultural/Historic	M/F	All	Free	Heller Homestead
Lutz-Franklin Schoolhouse	Lower Saucon Area Historical Society	Cultural/Historic	M/F	All	Free	Lutz-Franklin Schoolhouse
Softball	Hellertown, Lower Saucon Little League	Youth Sports	F	5-15 yrs	\$70	Southeastern Park, Dimmick Park, Town Hall Park
Baseball	Hellertown, Lower Saucon Little League	Youth Sports	M/F	5-15 yrs	\$70	Hellertown Fields, Dimmick Park,
Soccer	Saucon Valley Soccer League	Youth Sports	M/F	5-19 yrs	\$45 to \$98	Saucon Valley SD Fields, Hellertown Fields, Town Hall Park
Wrestling Club	Saucon Valley Wrestling	Youth Sports	M/F	5-19 yrs	\$45	Saucon Valley High School
Basketball	Saucon Valley Youth Sports Assn	Youth Sports	M	2 nd -8 th grade	\$80	Saucon Valley SD Fields, KidsPeace, Churches
Football	Saucon Valley Youth Sports Assn	Youth Sports	M	5-12 yrs	\$70	Hellertown Park, Town Hall Park

Cheerleading	Saucon Valley Youth Sports Assn	Youth Sports	F	5-12 yrs	\$70	Hellertown Park, Town Hall Park
Adult Softball	Businessman's League	Adult Sports	M	18 yrs & up	Varies	Town Hall Park
Pool Membership	Hellertown Swimming Pool	Aquatics	M/F	All	\$100	Hellertown Swimming Pool
Library	Bethlehem Area Public Library	Education	M/F	All	Free	Bethlehem Area Public Library
Adult Education	Northampton Co Community College	Leisure Learning	M/F	18 yrs & up	Varies	Saucon Valley School District Facilities
Yoga Classes	Saucon Valley Community Center	Fitness	M/F	18 yrs & up	\$95	Seidersville Hall
Halloween Parade	Lower Saucon Twp, Hellertown Borough	Special Event	M/F	All	Free	Hellertown Borough
Senior Citizen Program	Saucon Valley Senior Center	Social	M/F	60+ yrs	Varies	Seidersville Hall
Senior Citizen Dinner	Saucon Valley Jaycees	Special Event	M/F	60+ yrs	Free	Dewey Fire Company
Breakfast with Easter Bunny/Santa	Saucon Valley Jaycees	Special Event	M/F	12 yrs & under plus adults	\$5	Dewey Fire Company
Easter Egg Hunt	Saucon Valley Jaycees	Special Event	M/F	10 yrs & under	Free	Dimmick Park
Junior Olympics	Saucon Valley Jaycees	Youth Sports	M/F	1 st -6 th grade	Free	Saucon Valley School District
Hellertown-Lower Saucon Community Day	Lehigh Valley Chamber of Commerce	Special Event	M/F	All	Free	Hellertown Borough, Dimmick Park
Summer Parks Program	Saucon Valley Community Center	Youth Recreation	M/F	6-12 yrs	Free	Lower Saucon Twp Parks

Recreation Trends - As part of the assessment of the Townships' recreation programs and services, it is important to look at trends elsewhere. This will enable the Townships to plan for trends that have not yet emerged and find ways to deliver services the community might desire. Important recreation program trends include the following:

- People want information and education about recreation opportunities.
- People want convenience and easier ways to get involved such as shorter programs, more flexibility and more options.
- Interest in self-directed types of facilities such as trails, in-line skating, scenic areas, and access to streams and nature is emerging.
- Today, two-thirds of all Americans recreate outdoors monthly while in 1994 only half did.
- Sports are expanding to year-round play indoors and outdoors.
- In 1971, less than one out of 27 girls participated in high school sports. By 2004 that figure increased to more than one out of three.
- People want recreation opportunities year-round, including indoor recreation.
- Today's seniors with extensive free time, good health and solid retirement plans are indulging in active lifestyles that are well beyond rocking chairs and bingo. There is a mismatch between what retirees are looking for recreation-wise and what is provided.

Recreation Challenges - The rapid demand for public recreation facilities is outpacing availability and the resources to develop and manage new ones. The available open space is dwindling and land costs are escalating. Sports participation has increased, year-round play has emerged, more females are playing, and players are involved at older and younger ages. This has resulted in the need for more facilities and additional maintenance requirements.

Despite the increasing participation in recreation, obesity and the lack of physical activity in the United States is at an all-time high. The United States Surgeon General issued a report in 1996 that physical inactivity among Americans is the number one public health issue. Obesity costs the United States \$238 billion annually in expenses associated with diseases such as diabetes, stroke and heart disease not including the cost of treating the obesity itself. Municipalities have a primary role in addressing this issue. They can provide community recreation programs and attractive and safe parks and places for people to walk, hike, ride bicycles and enjoy other active pursuits.

The Townships have a number of organizations offering youth sports opportunities. Each sport has its own volunteer organization. These organizations must interact with the Townships for facility use, recruit and train coaches, provide insurance coverage, do promotion, hold sign-ups, maintain facilities, raise funds, and so on. There is no coordination of communication to parents, cooperative scheduling of facilities, standard maintenance practices or equipment sharing among youth sports groups. The Townships do their best to provide information for residents on recreation programs provided by other groups and keep an updated contact list for youth sports groups.

One of the major limitations for the Townships is a lack of indoor recreation facilities. Schools are important sources of indoor facilities but they cannot be used during the school day. Many groups are competing for the same facilities. The school programs have top priority for use. Scheduling is not always reliable because non-school groups get bumped for school programs. At this time, the Townships do not use school facilities for any recreation programs they sponsor.

D. Park Maintenance, Security and Accessibility

Good maintenance practices are important for Lower and Upper Saucon Township public park areas and recreation facilities for five reasons:

- 1) **Increased Safety for Visitors** – Public safety is an essential concern; proper maintenance of park areas and recreation facilities helps the municipality manage risk by avoiding unnecessary injuries. The Townships are less likely to be sued for negligence if staff routinely check for unsafe conditions and then promptly correct hazardous situations.
- 2) **More Facility Use By the Public** – Well-maintained facilities are frequented more often. Residents are only able to enjoy their park visits if facilities and equipment are maintained in useful condition.
- 3) **Less Vandalism** – Well-maintained facilities are usually less vandalized. Vandalism should be corrected as soon as possible, and proper maintenance procedures allow that to happen.

- 4) Citizen Support for Additional Recreation and Park Facilities – As citizens see Lower and Upper Saucon Townships properly maintain park areas and recreation facilities, they are more inclined to support expansion of these services.
- 5) A More Attractive Municipality – Well-maintained public park areas and recreation facilities help to develop a positive image for the Townships, making them places people want to live.

Maintenance Program – The Upper Saucon Township Superintendent of Roads supervises park maintenance work. Youth sports organizations that use Township recreation facilities perform minimal field maintenance. The soccer group lines fields and the baseball association drags and lines fields.

Upper Saucon Township occasionally contracts out the fertilization of turf areas and weed control. In 2005, grass mowing and trimming is being put out for bid to become a contracted service.

The Lower Saucon Township Director of Public Works schedules all park maintenance work. Youth sports groups do not perform field maintenance. They are responsible to clean up the area after practices and games. No park maintenance work is contracted out.

Maintenance Equipment - Equipment owned by the Townships for park maintenance is part of the inventory of the road department. The Townships have the basic equipment needed to perform routine maintenance functions; it is reported to be in fair to good condition. Township staff completes routine repairs and preventative maintenance; larger repairs are sent out. An equipment replacement schedule is in place. The Townships annually review equipment needs as part of the budget process. Table 7 lists available equipment owned by each Township that is useful for park maintenance.

Table 7 - Park Maintenance Equipment		
Township	Maintenance Equipment	Year Purchased
Lower Saucon Township	<u>TRAILERS</u>	
	Enclosed Trailer & Open Trailer	2004
	<u>TRACTORS/MOWERS</u>	
	John Deere 750 with Mower Attachments	1985
	John Deere 1145 with Mower	1998
	Zero Turn Mowers (2)	
	<u>UTILITY VEHICLES</u>	
	John Deere Gator	2001
	<u>MISCELLANEOUS EQUIPMENT</u>	
	York Rake 5'	1989
	Tractor Mounted Blower	1998
	Push Blower	1992
Hand Blower	1996	
Weed Wackers (3)		

Table 7 - Park Maintenance Equipment		
Township	Maintenance Equipment	Year Purchased
Upper Saucon Township	<u>PARKS VEHICLES</u>	
	Ford F-450 Dump/Plow	2000
	Ford F-350 Dump/Plow	1997
	<u>TRACTORS/MOWERS</u>	
	John Deere 401 Farm Tractor	1985
	John Deere F-925 Front Mower (2)	1995
	Toro Mower	1995
	Jacobson 94" Mower	2001
	John Deere 36" Walk Behind Mower	
	Exmark Lazer Z 72" Mower	2003
	Jacobsen Turbo Mower	2001
	<u>MISCELLANEOUS EQUIPMENT</u>	
	Goosen Vac	1995
	John Deere 1200-A Bunker Rake	1998
	Ingersol Rand Roller	1996
	Simplicity 32" Snow Blower	
	Stihl Blowers (3)	2004
Trimmers (2)	2004	

Safety and Security Efforts - Park areas and recreation facilities need a variety of safety and security measures to protect park visitors and the resources themselves. The Upper Saucon Township Community Park entrance on the north side of Preston Lane is gated and locked at dusk by Township police. The south side entrance is not gated and locked since it is an access road for private homes. Upper Saucon Township has experienced problems with unauthorized vehicles being driven on athletic fields. No other security or surveillance systems are in use. Vandalism is not reported to be a major problem in either Township. Incidents are infrequent and minor in terms of repair expense. Both Township police departments respond to calls and follow up on reported incidents of vandalism at the park areas. Both Townships have rules and regulations for their park areas and recreation facilities that have been adopted by ordinance.

The Townships maintain insurance for all park areas and recreation facilities. The playground environment is constantly changing due to weather conditions and participant use; play area safety is maintained through a routine inspection and maintenance program. Upper Saucon Township does not have a safety inspection program in place for play equipment areas or other park facilities. The Township does have a safety committee that monitors safety policies, procedures and practices. Lower Saucon Township has a public works employee trained in conducting play equipment inspections. Inspections are conducted monthly. Written documentation of these inspections and follow up repairs are completed by the Township.

Accessibility - The Americans with Disabilities Act of 1990 (ADA) specifies that reasonable accommodations must be provided to people with disabilities who are interested in participating in community recreation programs. The ADA also requires all public facilities to be accessible to all people. This includes the following: barrier-free

entries and exits, access to seating areas, barrier-free access to service areas such as restrooms and concession stands, exits near vehicle parking spaces, designated parking spots for users with physical disabilities and accessible drinking fountains. The ADA was written to guarantee equal opportunities for persons with disabilities. Under the ADA, if any new park areas or recreation facilities are constructed, or any alterations are made to existing areas and facilities, they must be made accessible. Also, the Townships must ensure that persons with disabilities are not excluded from services because existing park areas and recreation facilities are inaccessible. The ADA specifies that reasonable accommodations must be provided to people with disabilities who are interested in participating in community recreation programs and enjoying park areas and recreation facilities.

E. Finances

Acquiring the financial resources to operate public recreation and parks services is a major challenge. Like other Pennsylvania municipalities, Lower and Upper Saucon Townships operate within a climate of fiscal conservatism and increasing demands.

Budget Process - The Townships finance park areas, recreation facilities and programs using their General Fund and Capital Fund. Most of the revenues and expenses used for the operation of the Townships pass through the General Fund. The Capital Fund is utilized for major capital projects. The municipalities begin the budget process in August and Township Supervisors adopt the budget no later than December 31 each year.

Four-Year Comparison of Recreation and Parks Spending and Income - Table 8 contains a four-year summary of General Fund activity for the Townships. Figures for 2002 through 2004 are actual year-end totals from the Annual Audit and Financial Reports submitted to the Pennsylvania Department of Community and Economic Development; figures for 2005 are budgeted figures. In 2004, .5% of Upper Saucon Township's General Fund budget was spent on recreation and parks. In 2004, 2.8% of Lower Saucon Township's General Fund budget was spent on recreation and parks. The majority of this expense is for park maintenance and a yearly contribution to the Saucon Valley Community Center. Upper Saucon Township contributes \$18,500 annually for the operation of Southern Lehigh Living Memorial Park. In 2006, Upper Saucon Township will make a first-time contribution of \$15,000 for the operation of the Southern Lehigh Pool.

Financing trends show that recreation and parks is moving towards a market-based economy in which the users pay for services or facilities from which they directly benefit. In Lower and Upper Saucon Townships, recreation and parks revenue is generated mainly from picnic pavilion rentals and non-resident fees. Township-sponsored special events have no admission fees. The 2005 budgeted revenue for Upper Saucon Township totals \$3,400, representing .05% of the operating expenses for recreation and parks. The 2005 budgeted revenue for Lower Saucon Township totals \$3,700, representing .07% of the operating expenses for recreation and parks.

Table 8 - Township Revenues and Expenditures

Township	General Fund	Actual 2002	Actual 2003	Actual 2004	Budget 2005
Lower Saucon Township	<u>REVENUES</u>				
	Taxes	\$2,896,579	\$3,160,606	\$3,278,941	\$3,243,922
	Licenses/Permits	\$57,693	\$60,697	\$66,959	\$68,696
	Fines & Forfeits	\$65,941	\$54,778	\$60,244	\$60,962
	Interest & Rents	\$33,829	\$15,507	\$16,834	\$13,747
	Intergovernmental Revenues	\$174,552	\$203,166	\$260,128	\$260,109
	Charges for Services	\$149,968	\$166,801	\$169,862	\$115,554
	Miscellaneous	\$9,448	\$39,173	\$22,182	\$3,000
	Other Financing Sources	\$1,806,734	\$1,166,176	\$565,722	\$1,553,921
	Total	\$5,194,744	\$4,861,904	\$4,440,872	\$5,319,911
Lower Saucon Township	<u>EXPENDITURES</u>				
	General Gov't	\$1,000,491	\$830,252	\$806,284	\$930,220
	Public Safety	\$1,412,111	\$1,422,159	\$1,449,832	\$1,406,689
	Roads	\$812,947	\$541,454	\$581,302	\$791,107
	Libraries	\$135,905	\$139,957	\$144,109	\$148,458
	Recreation	\$64,391	\$82,617	\$114,109	\$121,961
	Debt Service	\$0	\$71,303	\$0	\$0
	Miscellaneous	\$583,659	\$649,581	\$858,026	\$1,792,476
	Refunds/Transfers	\$0	\$66,500	\$75,000	\$129,000
	Total	\$4,009,504	\$3,803,823	\$4,028,937	\$5,319,911
Township	General Fund	Actual 2002	Actual 2003	Actual 2004	Budget 2005
Upper Saucon Township	<u>REVENUES</u>				
	Taxes	\$4,086,470	\$4,442,953	\$4,879,846	\$4,878,000
	Licenses/Permits	\$214,638	\$242,355	\$308,859	\$825,500
	Fines & Forfeits	\$76,168	\$58,970	\$67,734	\$62,000
	Interest Earnings	\$26,795	\$29,080	\$27,221	\$28,000
	Intergovernmental Revenues	\$268,377	\$387,621	\$400,052	\$298,600
	Charges for Services	\$13,961	\$92,421	\$82,579	\$0
	Miscellaneous	\$0	\$1,408	\$0	\$103,200
	Other Financing Sources	\$49,401	\$1,180,000	\$4,000,344	\$20,000
	Total	\$4,735,810	\$6,434,808	\$9,766,635	\$6,218,700
Upper Saucon Township	<u>EXPENDITURES</u>				
	General Gov't	\$670,595	\$763,542	\$688,575	\$764,450
	Public Safety	\$1,797,855	\$2,209,183	\$2,338,081	\$3,023,400
	Health & Human Services	\$0	\$2,300	\$2,300	\$3,500
	Highways & Streets				
	Libraries	\$688,173	\$662,113	\$881,182	\$1,335,600
	Recreation				
	Debt Service	\$63,000	\$1,210,011	\$143,995	\$350,000
	Miscellaneous	\$18,588	\$37,669	\$47,737	\$95,100
	Refunds/Transfers	\$0	\$41,989	\$4,556,136	\$489,000
	Total	\$4,467,613	\$6,372,301	\$9,412,233	\$6,870,950

Capital Fund - Table 9 contains a four-year summary of actual expenses from 2002 through 2004 and budgeted expenses for 2005 for capital projects and purchases. Monies to pay for these expenditures come from a variety of sources, including the General Fund, grants and receipts from the mandatory dedication ordinance.

In 2004, approximately 3.9% of Lower Saucon Township's capital expenditures were spent on recreation and parks. In 2004, approximately .5% of Upper Saucon Township's capital expenditures were spent on recreation and parks.

Table 9 - Township Capital Expenses					
Township	Category	Actual 2002	Actual 2003	Actual 2004	Budget 2005
Lower Saucon Township	Recreation and Parks	\$1,607,587 (29%)	\$1,159,736 (23%)	\$170,778 (4%)	\$1,914,680 (26%)
	All Other	\$4,009,504	\$3,803,823	\$4,146,221	\$5,319,911
	Total	\$5,617,091	\$4,963,559	\$4,316,999	\$7,234,591
Upper Saucon Township	Recreation and Parks	\$77,164 (2%)	\$0 (0%)	\$11,686 (.5%)	\$40,000 (.8%)
	All Other	\$3,678,516	\$1,749,917	\$2,046,753	\$4,624,250
	Total	\$3,755,680	\$1,749,917	\$2,058,439	\$4,664,250

Mandatory Dedication - The Pennsylvania Municipalities Planning Code (MPC) provides local governments with a financial tool to assist with the capital expense of creating park areas and recreation facilities to serve the future residents of new housing developments. Subdividers and land developers can be required to provide an amount of land for recreation or pay fees in lieu of land dedication under specific conditions.

To assist with the capital expenses of creating park areas and recreation facilities to serve the future residents of new housing developments, Lower Saucon Township has enacted a mandatory dedication/fee-in-lieu ordinance establishing that 2,000 square feet of land or equivalent fee-in-lieu dollars be set aside for each buildable lot or new dwelling unit constructed. In the event a fee-in-lieu dedication is provided, Lower Saucon Township collects \$3,113 per lot.

Lower Saucon Township mandatory dedication funds are placed in Special Funds designated for each park area and historical structure. The total amount budgeted in these funds is \$1,978,975 in 2005. The Township also has an Open Space Preservation Fund of \$10,332 and Pennies for the Park Fund of \$4,615.

Upper Saucon Township has enacted a mandatory dedication/fee-in-lieu ordinance establishing that 1,300 square feet of prime land or equivalent fee-in-lieu be set aside for each buildable lot or new dwelling unit constructed. In the event a fee-in-lieu dedication is

provided, Upper Saucon Township collects \$2,300 per lot. If all or part of the land is less than prime, then the amount of land required for dedication is 2,000 square feet per lot or dwelling unit.

In Upper Saucon Township, these funds are placed in the Recreation Fund. In addition to the funds received from developers, funds are also transferred from the General Fund into the Recreation Fund. In 2005, \$97,000 has been budgeted to improve the Upper Saucon Township Community Park large baseball field, to install signage at the park and a public address system, and to pay for the comprehensive recreation, park and open space plan. This will leave a year-end balance of approximately \$333,183 in the fund.

Recreation and Parks Spending Comparison - Table 10 compares the total amount of funds expended on recreation and parks in Lower and Upper Saucon Townships with other nearby municipalities of similar size. The information presented is from 2002, which is the latest information available on the Pennsylvania Department of Community and Economic Development (DCED) website. DCED compiles these financial statistics from information supplied by municipalities on an annual basis.

Operating and capital budget expenses are mixed in the figures presented in Table 10. The national average per capita operating budget spending by municipalities on recreation and parks is \$45.

Table 10 - Recreation and Parks Spending Comparison					
Municipality	2000 Population	2002 Recreation and Parks Income	2002 Recreation and Parks Expenses	2002 Recreation and Parks Per Capita Spending	Total Budget Expenses
<i>Lower Saucon Twp (Northampton County)</i>	9,884	\$3,688	\$1,673,153	\$168.90	\$10,614,444
<i>Upper Saucon Twp (Lehigh County)</i>	11,939	\$173,684	\$2,242,663	\$173.29	\$11,406,791
Forks Twp (Northampton County)	8,419	\$279,692	\$507,631	\$27.07	\$7,602,244
Hanover Twp (Northampton County)	9,563	\$387,271	\$671,400	\$29.65	\$8,297,098
Lehigh Twp (Northampton County)	9,728	\$491	\$421,843	\$43.31	\$2,888,524
Williams Twp (Northampton County)	4,470	\$0	\$273,232	\$61.13	\$2,015,094
Lower Macungie Twp (Lehigh County)	19,220	\$140,526	\$1,417,310	\$66.43	\$9,484,598
Salisbury Twp (Lehigh County)	13,498	\$0	\$141,937	\$10.54	\$16,579,542
South Whitehall Twp (Lehigh County)	18,028	\$6,995	\$287,858	\$15.58	\$13,310,196
Upper Macungie Twp (Lehigh County)	13,895	\$6,995	\$1,843,774	\$132.21	\$10,654,283

Southeastern Park:

10.9-Acre Neighborhood Park

Ownership: Lower Saucon Township

Adjacent Land Use: Single family residential

Available Parking: Paved parking lot, no handicapped parking spaces

Ability to Walk to Site: Difficult



Located along Wassergass Road, this 10.9-acre park provides recreational amenities for the surrounding area in the southeastern portion of Lower Saucon Township.

Features:

- 1 softball field
- 1 pavilion with grills
- 1 permanent restroom facility
- 1 horseshoe court
- 1 youth play structure
- 1 wooded picnic area

Description/Condition of Facilities:

All park facilities appear to be properly maintained. The park has a park entrance sign and rules and regulations are posted. The park has security lighting at the pavilion and parking lot. The horseshoe pits are overgrown. The play structure is relatively new and has a good depth of mulch surfacing.

ADA Compliance:

The park facilities are not ADA accessible.

Improvement Opportunities:

- Replace the rules and regulations sign.
- Line the parking lot spaces and provide handicapped spaces.
- Provide an accessible pathway to all park facilities from the parking lot.
- Rehabilitate the horseshoe pits.

Steel City Park:

1.4-Acre Neighborhood Park

Ownership: Lower Saucon Township

Adjacent Land Use: Single family residential

Available Parking: On-street parking

Ability to Walk to Site: Easy



Located in Steel City, this 1.4-acre park provides recreational amenities for the surrounding neighborhood in the northern portion of Lower Saucon Township.

Features:

- 1 softball field
- 1 youth play structure
- 1 pavilion with picnic tables
- 1 asphalt play area
- 1 basketball court
- 1 tot play structure
- 1 2-bay swing set

Description/Condition of Facilities:

Park rules and regulations are posted at the park entrance. The park has security lighting and is completely fenced in. A park identification sign is at one corner of the park. The basketball court goals are new. A water fountain, benches and a portable restroom are located in the park. Vegetation is growing through the tot play area surfacing. The softball field infield needs maintenance work.

ADA Compliance:

No handicapped parking spaces are marked on the street. Handicapped access is needed from the street to the park facilities.

Improvement Opportunities:

- Add wood mulch surfacing beneath all play equipment to a depth of 12" under all equipment.
- Provide a paved pathway to link park activity areas.
- The entire park needs some maintenance attention.

Town Hall Park:

27.6-Acre Community Park

Ownership: Lower Saucon Township

Adjacent Land Use: Single family residential, township building and public works facility

Available Parking: Paved parking lots at play area and ball field

Ability to Walk to Site: Difficult



Located along Old Philadelphia Pike, this 27.6-acre park provides recreational amenities for the surrounding neighborhoods in the western portion of Lower Saucon Township.

Features:

- 1 community building
- 1 fit trail
- 1 ½ basketball courts
- 1 small gazebo
- 1 play area which includes:
 - 1 3-bay youth swing set
 - 1 1-bay tot swing set
 - 1 youth play structure
 - 1 tot play structure
 - Spring rockers
- 1 wooden play house
- 1 softball field
- 2 portable restrooms
- 1 permanent restroom facility
- 1 double pavilion
- 1 nature trail
- 1 catch and release fishing pond
- 1 wooden stage
- 1 set of portable volleyball standards
- 1 horseshoe court
- 1 play area which includes:
 - 1 youth play structure
 - 1 2-bay swing set
 - 1 rubber balance beam

Description/Condition of Facilities:

All park facilities appear to be properly maintained. The park has a park entrance sign and rules and regulations are posted. The park has security lighting. Water fountains, benches, picnic tables and trash cans are located throughout the park. The lower play area is fenced in. The park has security lighting; a payphone is located outside the community building. The softball field and basketball courts are lighted.

ADA Compliance:

Handicapped access is needed to the ball field, pavilion and upper play area.

Improvement Opportunities:

- Provide parking area at the pavilion.
- Repave the drive leading to pavilion and restroom.
- Provide paved pathway from drop-off area to pavilion for handicapped access.
- Add wood mulch surfacing for a minimum six-foot use zone around play areas.

Polk Valley Park:

47.3-Acre Community Park

Ownership: Lower Saucon Township

Adjacent Land Use: Single family residential

Available Parking:

Ability to Walk to Site: Moderate



Located off Polk Valley Road near the Saucon Valley School Campus, this 47.3-acre park provides recreational amenities for the surrounding neighborhoods in the central portion of Lower Saucon Township.

Features:

N/A

Description/Condition of Facilities:

This park is currently being developed.

South Mountain Park:

38-Acre Community Park

Ownership: City of Bethlehem

Adjacent Land Use: Single family residential

Available Parking: Large paved parking lot.

Ability to Walk to Site: Difficult



Located along Mountain Road North, this 38-acre park provides recreational amenities in the northern portion of Lower Saucon Township.

Features:

- 1 18-hole Frisbee disc golf course
- 1 permanent restroom facility
- 2 pavilions
- 1 wildlife sanctuary
- 1 paved pathway
- Mountain biking and hiking trails

Description/Condition of Facilities:

Park rules and regulations are posted. A large bulletin board with Frisbee disc golf information is located adjacent to the parking lot.

ADA Compliance:

The park facilities are not ADA accessible.

Improvement Opportunities:

- Install a park entrance sign.

Upper Saucon Township Park:

73.3-Acre Community Park

Ownership: Upper Saucon Township

Adjacent Land Use: Single family residential, DeSales University

Available Parking: Paved parking lots, stone parking lot at athletic fields next to library

Ability to Walk to Site: Difficult



Located along Preston Lane, this 73.3-acre park provides recreational amenities in the central portion of Upper Saucon Township.

Features:

- 2 basketball courts
- 3 large soccer fields
- 2 small soccer fields
- 3 multi-purpose fields
- 2 baseball fields
- 1 permanent restroom facility
- 1 snack bar
- 1 pavilion
- 1 paved pathway throughout park
- 1 play area which includes:
 - 1 tot play structure
 - 1 whirl
 - 1 swing set
- 1 public library

Description/Condition of Facilities:

All park facilities appear to be properly maintained. The park has a park entrance sign and rules and regulations are posted. The park has security lighting and a pay phone. Water fountains, benches, picnic tables and trash/recycling cans are located throughout the park. A pedestrian crossing under Preston Lane connects the Southern Lehigh Public Library with the park.

ADA Compliance:

Handicapped parking spaces are provided. A paved pathway links most park facilities. Handicapped access is needed to some sports fields.

Improvement Opportunities:

Southern Lehigh Living Memorial Park:

54-Acre Community Park (32 acres in Upper Saucon Township)

Ownership: Southern Lehigh School District, leased by Living Memorial Association. (Swimming pool leased from Living Memorial Association to Southern Lehigh Pool Association. Community building leased from Living Memorial Association to Veterans of Foreign Wars.)

Adjacent Land Use: Highway/commercial, single family residential

Available Parking: Paved and stone parking lots

Ability to Walk to Site: Difficult



Located along Route 309, this 54-acre park provides recreational amenities in the southern portion of Upper Saucon Township.

Features:

- 1 swimming pool
- 7 baseball fields
- 1 football field (shared with baseball field)
- 2 pavilions
- 1 tennis court and practice wall
- 1 basketball court
- 1 batting cage
- 1 multi-purpose field with 4 backstops
- Picnic area with grills
- Storage buildings
- 2 snack bars
- 3 play structures
- 3 whirls
- Spring rockers
- 1 sand box
- 1 climber
- 2 sliding board/swing sets
- 2 permanent restroom facilities
- 1 sand volleyball court
- 1 community building

Description/Condition of Facilities:

The park has a park entrance sign and rules and regulations are posted. Park facilities are lighted for night use. Water fountains, benches, picnic tables and trash cans are located throughout the park. The depth of surfacing beneath play equipment is inadequate. Some of the play equipment does not meet safety standards and should be removed and replaced. Concrete footers are exposed. Some of the wooden picnic tables are splintering and/or rotting.

ADA Compliance:

The park facilities are not ADA accessible.

Improvement Opportunities:

- An accessible pathway is needed to facilities from the parking lots.
- Remove/replace old play equipment.
- Add wood mulch playground surfacing to a depth of 12" under all equipment.

Saucon Valley School Campus:

106-Acre School Park

Ownership: Saucon Valley School District

Adjacent Land Use: Single family residential

Available Parking: Paved parking lots

Ability to Walk to Site: Moderate



Located along Panther Way and Campus Drive, this 106-acre school park provides athletic facilities in the central portion of Lower Saucon Township.

Features:

- 8 tennis courts
- 1 football stadium with cinder track
- 1 softball field
- 1 baseball field
- 2 small ball fields
- 1 practice football field
- 2 soccer fields
- 1 field hockey field
- 3 gymnasiums

Description/Condition of Facilities:

All facilities appear to be properly maintained.

ADA Compliance:

All facilities are not ADA accessible.

Improvement Opportunities:

- The school district should post rules and regulations for off school hours use of the facilities.
- An accessible pathway is needed to all facilities from the parking lots.

Southern Lehigh High School:

58-Acre School Park

Ownership: Southern Lehigh School District

Adjacent Land Use: Single family residential

Available Parking: Paved parking lots

Ability to Walk to Site: Difficult



Located along Preston Lane, this 58-acre school park provides recreational amenities athletic facilities in the central portion of Upper Saucon Township.

Features:

- 4 tennis courts
- 1 baseball field
- 1 softball field
- 3 soccer fields
- 1 field hockey field
- 1 tee-ball field
- 1 gymnasium

Description/Condition of Facilities:

All facilities appear to be properly maintained.

ADA Compliance:

All facilities are not ADA accessible.

Improvement Opportunities:

- The school district should post rules and regulations for off school hours use of the facilities.
- An accessible pathway is needed to all facilities from the parking lots.

Southern Lehigh Middle School:

50-Acre School Park

Ownership: Southern Lehigh School District

Adjacent Land Use: Single family residential

Available Parking: Paved parking lots

Ability to Walk to Site: Difficult



Located along Preston Lane, this 50-acre school park provides recreational amenities athletic facilities in the central portion of Upper Saucon Township.

Features:

- 4 tennis courts
- 1 football stadium with all-weather track
- 1 basketball court
- 2 multi-purpose fields
- 1 gymnasium

Description/Condition of Facilities:

All facilities appear to be properly maintained.

ADA Compliance:

All facilities are not ADA accessible.

Improvement Opportunities:

- The school district should post rules and regulations for off school hours use of the facilities.
- An accessible pathway is needed to all facilities from the parking lots.

Hopewell Elementary School:

26-Acre School Park

Ownership: Southern Lehigh School District

Adjacent Land Use: Single family residential

Available Parking: Paved parking lots

Ability to Walk to Site: Moderate



Located along West Hopewell Road, this 26-acre school park provides recreational amenities for the surrounding neighborhood in the northwestern portion of Upper Saucon Township.

Features:

- 1 Leathers playground, Kids Kingdom
- 3 4-bay youth swing sets
- 1 grassy field area
- 1 climber
- 1 garden area
- 2 basketball hoops
- 1 turning bar
- 2 asphalt play areas

Description/Condition of Facilities:

Kids Kingdom is a large community-built wooden play structure that requires significant routine maintenance.

ADA Compliance:

All facilities are not ADA accessible.

Improvement Opportunities:

- The school district should post rules and regulations for off school hours use of the facilities.
- An accessible pathway is needed to all facilities from the parking lots.
- Adequate playground surfacing needs to be maintained under all play equipment.

Heller Homestead Park:

14-Acre Special Purpose Park

Ownership: Lower Saucon Township

Adjacent Land Use: Single family residential

Available Parking: Stone parking lot

Ability to Walk to Site: Moderate



Located adjacent to Saucon Creek west of Hellertown between Friedensville and Skibo Roads, this 14-acre park provides recreational amenities for the surrounding area in the central portion of Lower Saucon Township.

Features:

- 1 historic house operated by the Saucon Valley Conservancy
- 1 fenced herb garden
- 1 paved pathway
- 1 garage/storage building
- Natural area with picnic tables and benches

Description/Condition of Facilities:

All park facilities appear to be properly maintained. The park has a park entrance sign and rules and regulations are posted. The paved pathway links the park to the neighboring town home development.

ADA Compliance:

There is no handicapped access to the Heller Homestead house.

Improvement Opportunities:

Lutz-Franklin Schoolhouse:

1.1-Acre Special Purpose Park

Ownership: Lower Saucon Township

Adjacent Land Use: Single family residential

Available Parking: No parking available

Ability to Walk to Site: Difficult



Located off Countryside Road, this 1.1-acre park is located in the northeast portion of Lower Saucon Township.

Features:

- 1 historic building operated by the Lower Saucon Township Historical Society

Description/Condition of Facilities:

This park is currently under construction.

Municipal Golf Course at Tumblebrook:

71-Acre Special Purpose Park

Ownership: Upper Saucon Township

Adjacent Land Use: Single family residential

Available Parking: Paved parking lot

Ability to Walk to Site: Difficult



Located along Jacoby Road, this nine-hole golf course is located in the southern portion of Upper Saucon Township.

Features:

- 1 nine-hole golf course
- 1 golf shop/snack bar

Description/Condition of Facilities:

Operation of the golf course is contracted out by the Township.

V. Open Space Analysis

Now that the Township's resources have been inventoried, it becomes possible to analyze such resources to meet the goals formulated for this Plan. This chapter will present such analyses toward the protection of suitable open spaces.

A. RURAL ZONING

The Region is blessed with considerable natural diversity. Much of its landscape takes the form of rocky and wooded hillsides and ridges that are difficult to develop yet offer protection of surface water quality. At the same time, these areas present significant natural habitats and passive recreation opportunities. Other lower-lying areas contain valuable wetlands and sensitive floodplains; these areas, too, hold the same value. It is not surprising that protection of these resources is foremost in the minds of many local officials and residents. One of the most powerful tools to protect rural character and open space is suitable zoning. Recent amendments to the Municipalities Planning Code emphasize the need for local zoning restrictions to be tied with the preservation of important natural and cultural features.

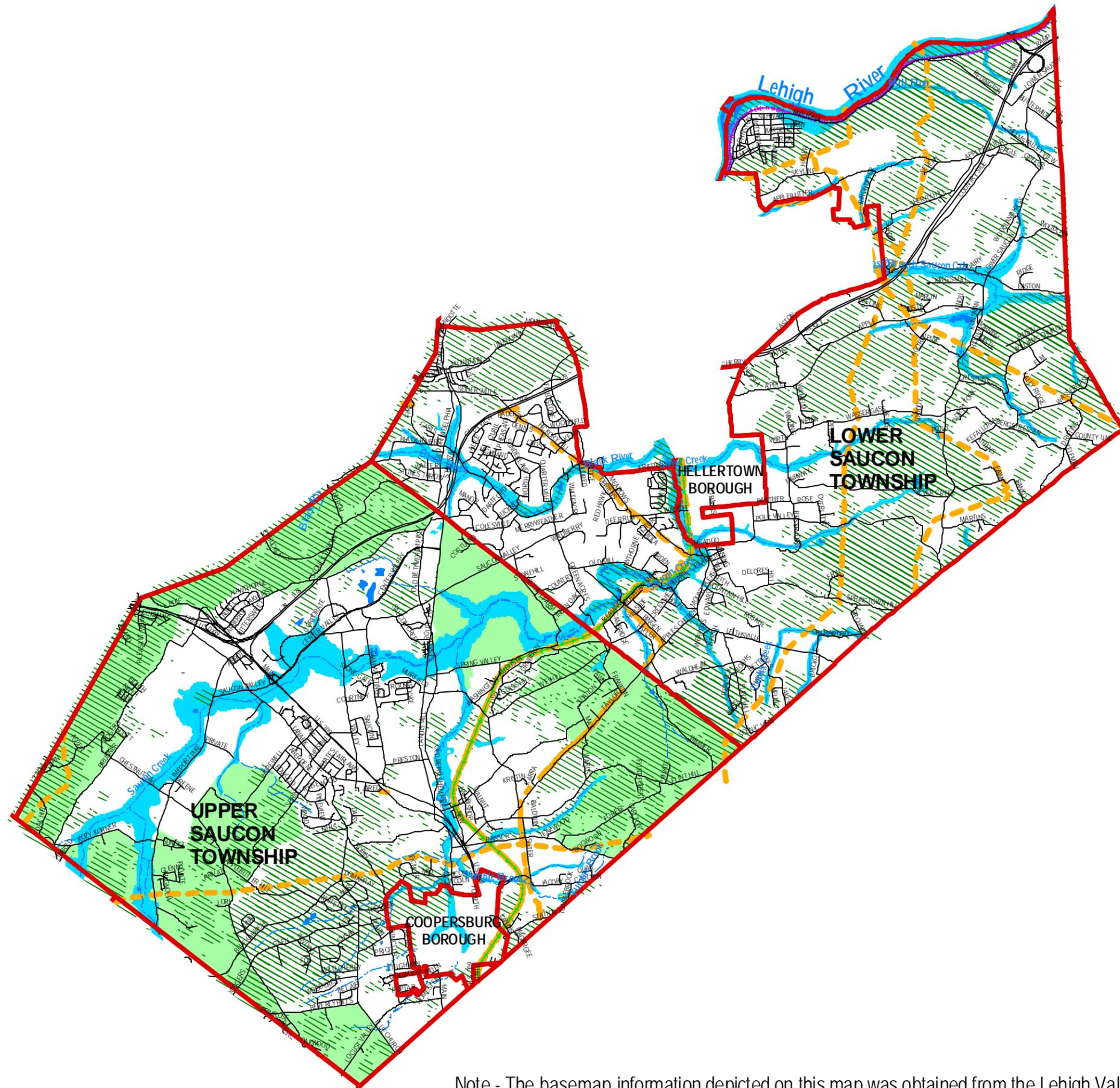
Within Lower Saucon Township, the Rural Agricultural District (RA) covers much of the sensitive rural landscape. The base density in this zone is one dwelling unit per each two acres. However, under a recently enacted cluster development option, the minimum lot size can be reduced to 40,000 square feet when a minimum of 50 percent of the tract area is reserved for open space. With this recent cluster revision the Township has increased the opportunity for the protection of open space within its RA District; under current precedents, the Township could reduce permitted density to 1 dwelling unit per three acres.

Within Upper Saucon Township, the northwestern boundary of the Township is within its South Mountain Conservation District (SMC) reflecting the natural character of the area. Here developments are severely restricted and new homes must have a minimum of five acres. At the base of the SMC Zone is the Township's Agricultural Preservation District (AP). The AP District uses a sliding-scale for permitted residential uses and represents an "effective" approach towards farmland preservation. Both of these resource-based zones (AP & SMC) are effective in managing limited growth amid important natural and cultural resources. Their requirements will ensure an appropriate rural character in these sensitive settings.

However, within Upper Saucon Township large areas of sensitive features fall beyond these two effective zones and are within the Rural Residential District (R-1). The R-1 District's intended purpose "encourages the preservation of permanent open space including wooded areas, steep slopes and stream valleys;" however, its one-acre density for dwellings tends to consume rather than conserve area. Similarly, the Township's Open Space Residential District (R-4) is located along the Township's northeastern boundary and permits large-lot homes on a minimum of three acres; this density tends to convert natural features into suburban lawns rather than preserve them in a natural state.

In order to better protect these areas, Upper Saucon Township should revise its R-1 & R-4 Districts and apply a ratio form of zoning density (like that used in its AP District) where a smaller lot is permitted based upon a prescribed number of acres. The number of new lots

Saucon Region Open Spaces



-  (TDR Sending Area)
-  Priority Resource Area
-  Riparian Buffer
-  Potential Linear Park



6000 0 6000 Feet

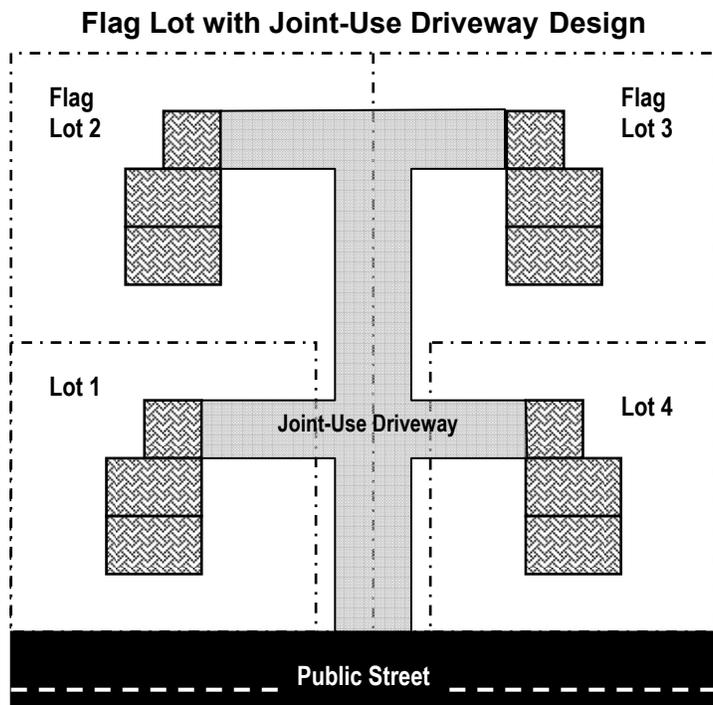


Note - The basemap information depicted on this map was obtained from the Lehigh Valley Planning Commission

allowed can be kept low to protect the overall setting while at the same time keeping the cost of lot ownership reasonable. This approach has the added benefit of reducing the impacts to the natural areas by confining disturbance and clustering development in a smaller area. This enables the “critical mass” of woodlands, slopes and habitats to remain intact while not depriving prospective landowners of “reasonable use” of their land.

This Zone should enable the development of detached homes at a rate of one per each 3 acres but with minimum lot size of as little as one acre with the balance of the parent tract left in an undisturbed condition. Some municipalities go so far as to impose a maximum lot area so that some portion of the site is retained in common ownership.

To ensure environmentally-friendly developments within these rural areas, both Townships should employ design standards that keep lot width, and setback requirements small so that homes can be situated amid the rugged terrain without the need for variances. ***Both Townships should also consider the use of use of flag lots and shared driveways can help to tuck small clusters of homes amid the “nooks and crannies” of a natural landscape thereby enabling the preservation of vast and/or inter-connected areas elsewhere on the same parcel.***



Throughout the Region, the locations of various sensitive natural features (steep slopes, floodplains, wetlands, woodlands, habitats and exceptional value watersheds) has been depicted on the Natural Features Map contained within Chapter III of this Plan. All of these features form the basis for the assignment of the above-described rural zoning classifications (RA, SMC, AP, R-1 & R-4).

In addition, they offer some general perspective on the presence of conditions with a given locale. However, the specific location and extent of these features will require more detailed refinement and analysis during sketch/preliminary plan review of the subdivision process. ***Consequently, both Townships should require an environmental impact report as a prerequisite to subdivision of new lots.*** This report should require an applicant to identify important natural features on the site and keep proposed development activities away or manage impacts within acceptable levels. This will require considerable work on the part of an applicant and the Townships but will ensure that proposed developments are designed to respect the Townships’ many valuable natural features. Section 180-95 of the Lower Saucon Township Zoning Ordinance imposes extensive restrictions on use of a wide range of natural features. ***Section 282 of the Upper Saucon Township Subdivision and Land Development Ordinance also has natural features preservation regulations which should be strengthened like in Lower Saucon Township’s Zoning Ordinance.*** Upper Saucon Township’s Environmentally-Sensitive District imposes an overlay conditional use review geared towards groundwater protection for its underlying carbonate geology.

Often individual local Planning Commissioners or Environmental Advisory Council members are assigned one topic (eg. wetlands, steep slopes, surface waters, groundwater, woodland, habitats, etc.) to become the local expert. Then as new lots are proposed, the respective planning commissioner assumes a prominent role in the review of the project based upon what natural features comprise the proposed site. This is a big step to take in the name of natural conservation and it will require more commitment from local officials. **This might encourage some turnover on the various review boards and elected officials should seek replacements that have greater environmental awareness.**

During the review of the Environmental Impact Report, the Townships and developers can then negotiate for the ownership and maintenance of the residual undeveloped area. Certainly, the landowner retains the right to continue to own and manage the area, but sometimes would rather dedicate or donate the area to the Township or some other conservation organization for tax benefit purposes. Maintenance responsibilities should be clearly articulated and follow suitable standards depending upon the character of the site. (More discussion of this follows in the Maintenance Section of this Chapter.)

Lower Saucon Township has successfully confined intensive urban developments and public utilities to specific locations that are outside of its RA District. Upper Saucon Township's development pattern and network of public utility lines range further throughout the Township. In both Townships, local officials should vigorously oppose the extension of public utilities into areas with extensive natural and/or cultural sensitivity because of its inducement for urban growth. Instead, the Townships should commit to long-term use of on-lot sewers within rural areas. On-lot disposal systems (OLDS), if constructed and maintained properly, can provide a reliable and efficient means of wastewater treatment in rural and suburban areas where population density is low. However, where such systems are improperly installed, or not maintained, contamination of on-site water supplies can result, resulting in the need to extend remedial public sewer lines.

Therefore, it is recommended that both Townships adopt and implement an OLDS management program. Such a program would require the routine maintenance of systems to include the "pumping-out" of subsurface septic tanks on a 3-year cycle. Specifically residents would be required to submit receipts from licensed "pumpers" once every three years or be subject to penalty and fines. This practice is gaining acceptance across the State as DEP reviews newer Official Sewage Plans. More importantly, it makes good sense. The extension of public sewers across the countryside is an expensive proposition which usually falls to local government when malfunctioning systems occur. An OLDS management program is preventive maintenance that avoids costly public investments that only serve a few residents.

Along the same lines, the use of any on-lot sewers should require at least 1 acre of lot area to accommodate the primary disposal site and another replacement disposal site to be tested and approved by the Township SEO. Furthermore, the Townships' Zoning Ordinances should also require that any permit issued for a new use that would rely upon a new OLDS, specifically depict and protect the alternate disposal site from disturbance. As an alternative to including the second disposal site on the property, the Township can allow for an off-site sewer system within an easement on an adjoining property.

Conservation design subdivisions often employ low-tech community based utility systems (e.g. wetlands, lagoons, woodland and agricultural spray irrigation, woodland injection and etc.) Here even greater density can accommodate the few homes on less acreage and lessen disruption of adjoining natural features and habitats. The sewage systems can be located within the protected open space through easements that afford sufficient access for maintenance yet preserve its natural state. This will require greater administrative effort

and more advanced zoning and land development review practices, but this option is useful in blending small neighborhoods amid rural settings.

It is important to note; however, that local officials should always be mindful that the primary purpose of this land use category is to promote conservation and the more homes that are placed here will only increase the opportunity for conflict. Conservation design neighborhoods should incorporate design standards that use the “required” open space to link natural features yet buffer them from the impacts associated with the residential development. They should also minimize the need for pavement by reducing street widths, reducing front yard setbacks to shorten driveways and prohibiting sidewalks and standard curbs.

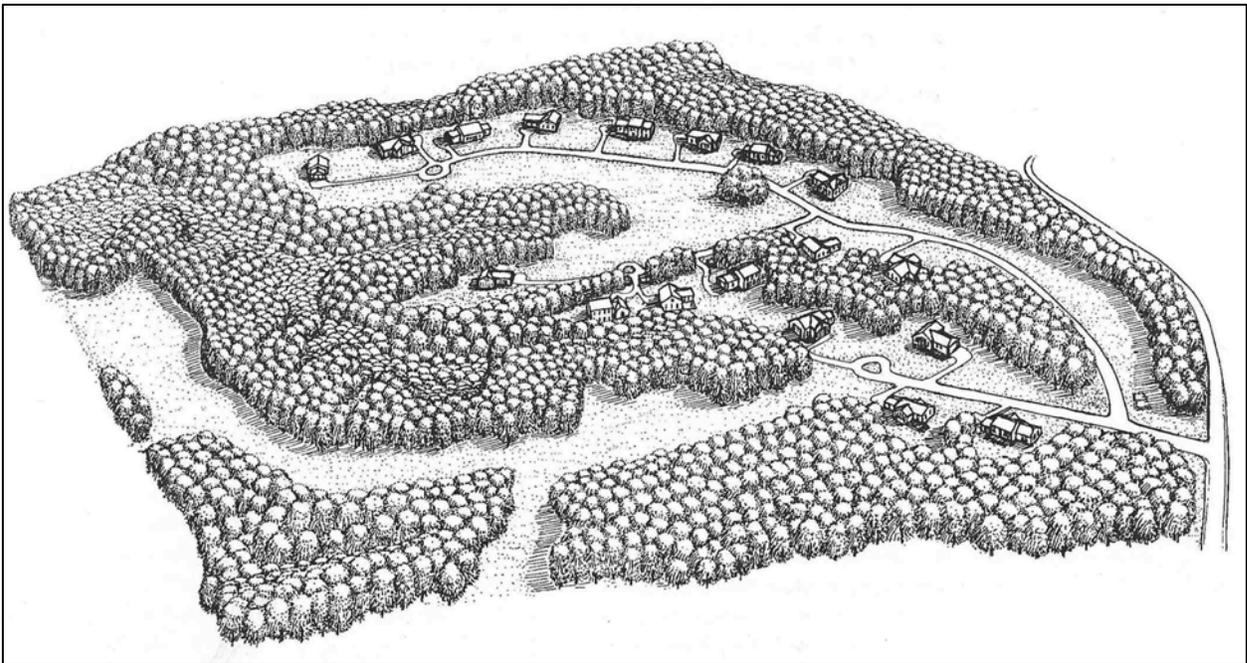


Image Source: Growing Greener, Natural Lands Trust, Inc., PA Dept. of Conservation & Natural Resources, Pennsylvania State University Cooperative Extension Service, April, 1997. Cover

B. TRANSFER OF DEVELOPMENT RIGHTS (TDR)

This Section applies only to Upper Saucon Township as Lower Saucon Township has decided not to participate in a TDR process.

One of the nation’s most pressing environmental and economic dilemmas involves the preservation of natural areas and farmlands that often results in a perceived financial loss of affected property owners. Across the country, many farmers and large landowners consider their property as their total sum of wealth and “retirement fund.” They expect the opportunity to sell their properties for development purposes at the end of their career or pass along this wealth to the next generation of their family. This causes resistance to the adoption of stricter land use controls needed to preserve farmlands and natural areas by severely restricting future residential

development. To overcome this problem, the legislature amended the MPC to specifically authorize the use transferable development rights (TDR).

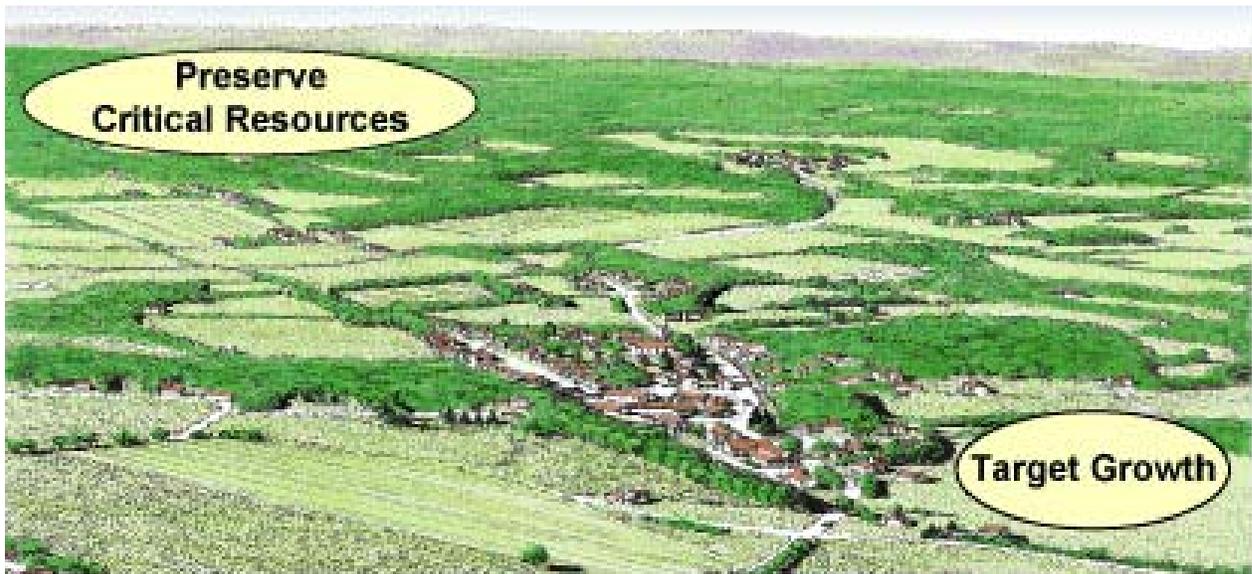
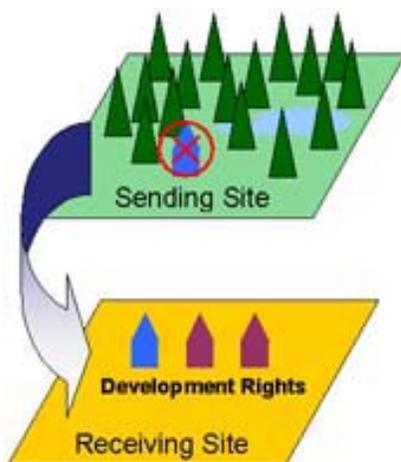


Image Source - www.nj.gov/dca/osg/resources/tdr/index.shtml

The use of TDR enables farmers/landowners to sell the development rights of their properties to developers or other parties, yet retain the ability to farm or otherwise make use of their properties for non-development purposes. In turn, developers apply the TDR acquired from the farm elsewhere; hence, the “transfer of development rights.”



TDR is a program that presents no risk to the farmer/landowner. Essentially, the municipality assigns a number of “development rights” which are generally tied to the sizes of farms/lands (e.g., one TDR per five acres of land) within the area to be preserved. This area is called the “sending area” as TDR's are “sent” from it. Within the Region, the sending areas could be the Rural Residential District and Open Space Residential District within Upper Saucon Township.

Next, the municipality identifies an area or areas within which developers can use their acquired TDR's to increase the intensity of permitted development. This area is called the “receiving area,” as TDR's are “received” into it. Within the Region, the receiving areas could be Upper Saucon Township's residential, commercial and/or industrial zones.

Again, it is important to state that a TDR program costs the original farmer/landowner nothing. He/she simply is given TDR's that he/she can keep and/or sell. Any sale prices of individual TDR's are determined between the farmer/landowner and the buyer, and given the high land values within the Township these could reach tens of thousands of dollars per TDR. Once a farmer/landowner sells all of his/her TDR's, no additional residential development can occur on the farm or other conservation land.

TDR provides a means of financially compensating landowners within agricultural/conservation settings who are willing to preserve their properties. TDR also enables these landowners to share

in the wealth created by growth and development within the municipality, at no risk. ***To implement the TDR program the Upper Saucon Township will need to conduct a detailed analysis of both the sending and receiving areas, as well as develop the ordinance and methods to administer this program; these efforts will require considerable expense, time and commitment but will yield the potential for many acres of permanently preserved open space at no cost to the Township.***

Most municipalities with TDR programs use their residential zones as receiving areas. ***To make effective use of these zones the Township should ensure that the base permitted density has “room” so that there are real incentives for the acquisition of TDRs. Then the Township can offer density bonuses for the use of TDRs exceeding the original density subject to compliance with all applicable design standards.*** It is important that the Township not deprive the residential landowner reasonable use of his/her property absent the use of TDRs; however, it is equally important that the Township keep base densities sufficiently low to encourage TDR usage. It is also vital that the Township provide sufficient acreage for potential residential development to satisfy its legal fair-share of growth and development. ***Final permitted densities with the application of TDRs should also be consistent with affected infrastructure capacities and prevailing neighborhood densities so that compatibility is assured.***

While most municipalities rely upon their residential development to drive their TDR programs, some have begun to identify receiving areas for nonresidential developments. Because the land values of commercial and industrial sites are generally significantly higher than residential development sites, there is greater potential for the purchase of TDRs when applied to commercial/industrial development sites. Within these Zones, regulations should limit permitted lot coverage at some base level (say forty-percent) beyond which additional coverage can be obtained via the acquisition and assignment of TDR's from the Rural and Open Spaces Residential Districts (sending area). Then for each TDR applied, the lot coverage can be increased by a prescribed size (say 2000 square feet) up to the maximum permitted lot coverage of say 70 percent. Again, the Township must not deprive the nonresidential landowner reasonable use of his/her property absent the use of TDRs, but the base lot coverages should be set low enough to offer real incentives for TDR usage. It is also vital that the Township provide sufficient acreage for potential commercial/industrial development to satisfy its legal fair-share of growth and development. ***Final permitted coverages with the TDRs should be consistent with affected infrastructure capacities and reflect community development objectives for these areas.***

Usually TDRs are purchased by developers from farmers/landowners, but nothing prevents others from purchasing development rights. In one instance, a municipality contemplated conducting an annual reverse-auction for the purchase of development rights. This auction would provide a convenient mechanism at which developers and others could join with farmers to transact TDR transfers. ***Local and county government agencies could acquire development rights for their ultimate retirement and/or their resale to developers at a profit. This creates an opportunity for conservation-oriented groups to preserve resources and generate funds for a revolving program of purchase and resale of TDRs. The Township, too could act as a middle-man in this process. Then, the developers could access one centralized bank from which to acquire needed development rights.*** This is but one example of the creativity that can be applied in the development process to preserve natural resources yet enable managed growth and development.

The urgent demand for protected open space as evidenced in the attitudinal survey results suggests that the Township should act within the near future. The proposed TDR program recommended in this Chapter can be self-sustaining on a rotating basis. However, it would be advantageous to initially capitalize an open space protection fund from which TDRs can be

purchased from landowners within the Rural and Open Space Residential Districts. Then these TDRs can be sold by the Township to would-be developers and applied in the Township's development zones for density bonuses. In turn, the proceeds from these sales can be used to acquire additional TDRs/PDRs and the process renews. To provide for this initial capital the Township could consider floating a bond issue. A bond issue makes sense to fund projects that have a long life expectancy, since it spreads the payment over many years, during which the Township's Open Space system can expand. Another potential source of capital funding of publicly accessible open space is mandatory dedication.

C. MANDATORY DEDICATION

The Pennsylvania Municipalities Planning Code (MPC) provides local governments with a financial tool to assist with the capital expense of creating park areas and recreation facilities to serve the future residents of new housing developments. Mandatory dedication of parkland has become a standard technique for local park systems to keep pace with growth since it was enabled in the late 1980s. Prospective subdividers and land developers can be required to provide an amount of land for recreation or pay fees in lieu of land dedication under specific conditions.

Presently, Lower Saucon Township has enacted a mandatory dedication/fee-in-lieu ordinance establishing that 2,000 square feet (.046 acres) of land or equivalent fee-in-lieu dollars be set aside for each buildable lot or new dwelling unit constructed. In the event a fee-in-lieu dedication is provided, Lower Saucon Township collects \$3,113 per lot. Lower Saucon Township mandatory dedication funds are placed in Special Funds designated for each park area and historical structure. The total amount budgeted in these funds is \$1,978,975 in 2005.

Section 283 of the Upper Saucon Township Subdivision and Land Development Ordinance utilizes a sliding scale for the dedication of parkland for developments with more than 25 dwelling units; development with less than 25 units may be required to pay a fee-in-lieu of dedication. The sliding scale of required parkland ranges between 2,614 to 1,307 square feet (.06 to .03 acres) of land or equivalent fee-in-lieu dollars be set aside for each buildable lot or new dwelling unit constructed. In the event a fee-in-lieu is provided, Upper Saucon Township collects a fee of \$2,300 per unit. Upper Saucon Township mandatory dedication funds are placed in the Recreation fund and used throughout the Township.

Given changing demographics, land values and parkland needs it is important for municipalities to periodically recalculate mandatory dedication standards and their related fees-in-lieu thereof. The following will provide a basis for such recalculations.

In order to derive suitable levels of parkland demand it is important to consider the various park types and functions. Table 1 on the following page presents the National Recreation and Park Association (NRPA) park classification system. It shows the range of park types, their benefits, appropriate facilities and maintenance levels associated with local municipalities.

Table 1 - Park Classification System (NRPA)			
Type/Size/Service Radius	Definition	Benefits	Appropriate Facilities
Mini-Park 0-5 acres ¼-mile radius	Smallest park type, addresses limited recreation need.	<ul style="list-style-type: none"> ▪ Provides close-to-home recreation 	<ul style="list-style-type: none"> ▪ Playground ▪ Benches, seating area
Neighborhood Park 5-15 acres minimum ½-mile radius	Focus of neighborhood; in walking/biking distance of visitors.	<ul style="list-style-type: none"> ▪ Provides access to basic recreation opportunities ▪ Contributes to neighborhood identity ▪ Establishes sense of community 	<ul style="list-style-type: none"> ▪ Play areas ▪ Ball fields ▪ Game courts ▪ Picnic area ▪ Seating area ▪ Pathways ▪ Community gardens
Community Park 20-50 acres 2-mile radius	Large park for active and passive recreation; serves residents community-wide. Accommodates large groups.	<ul style="list-style-type: none"> ▪ Variety of recreation opportunities for all ages and interests ▪ Space for organized, large-scale, high- participation events ▪ Family destination ▪ Fitness and wellness opportunities 	<ul style="list-style-type: none"> ▪ Play areas ▪ Organized sports facilities ▪ Pavilions ▪ Permanent restrooms ▪ Lighting ▪ Amphitheaters ▪ Pools ▪ Rinks ▪ Parking
School Park Acreage and service radius varies	Public school sites with recreation facilities.	<ul style="list-style-type: none"> ▪ Combines two public entities for expanded year-round recreation. ▪ Maximizes public resources ▪ Expands recreation opportunities 	<ul style="list-style-type: none"> ▪ Youth-oriented game courts and ball fields ▪ Play areas ▪ Seating ▪ Pathways ▪ Lighting
Sports Complex 30+ acres	Consolidates sports fields and related facilities in a centralized location.	<ul style="list-style-type: none"> ▪ Economy of scale ▪ Improved management ▪ Attracts visitors who stimulate local economy 	<ul style="list-style-type: none"> ▪ Ball fields ▪ Lighting ▪ Spectator areas ▪ Restrooms ▪ Concessions ▪ Landscaping ▪ Parking
Private Park/Special Purpose Facility Acreage and service radius varies	Single purpose use, owned by for-profits, nonprofits or government; often available only for members.	<ul style="list-style-type: none"> ▪ Provides special focus recreation opportunities ▪ Contributes to community 	<ul style="list-style-type: none"> ▪ Depends on purpose
Greenways and Trails Acreage and service radius varies	Tie park areas together to form a contiguous park environment.	<ul style="list-style-type: none"> ▪ Connects community ▪ Reduces auto dependency ▪ Improves air quality ▪ Contributes most desired recreation facility for people ▪ Attracts visitors 	<ul style="list-style-type: none"> ▪ Pathways- multipurpose ▪ Trailheads ▪ Support facilities ▪ Signage
Natural Resource/Open Space Area	Lands set aside for preservation of significant natural resources, landscapes, open space and visual aesthetics.	<ul style="list-style-type: none"> ▪ Protects resources ▪ Provide wildlife habitat ▪ Offer opportunities for environmental education 	<ul style="list-style-type: none"> ▪ Trails ▪ Signage ▪ Support facilities

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

Table 2 lists the Township park areas by classification and the acreage of each site and Table 3 lists the total acreage of parkland by classification.

Table 2 Parkland by Classification

Lower Saucon Township					
Neighborhood Parks	Community Parks	Greenways and Trails	School Parks	Natural Resource/ Open Space Areas	Private Parks/ Special Purpose Facilities
South-eastern Park (10.9 acres)	Town Hall Park (27.6 acres)		Saucon Valley School Campus (106 acres)	Hellertown Borough Authority (206 acres)	Woodland Hills Country Club (160 acres)
Steel City Park (1.4 acres)	Polk Valley Park (48.4 acres)			Heller Homestead Park (11.7 acres)	Bushkill Motorcycle Club Track & Hill Climb (58 acres)
				South Mountain Park (38 acres)	Heller Homestead (2.2 acres)
				Woodfield Drive Property (1.8 acres)	Silver Creek Country Club (225 acres)
				Snyder Ave Property (2 acres)	Lutz-Franklin Schoolhouse (1.1 acres)
Upper Saucon Township					
Neighborhood Parks	Community Parks	Greenways and Trails	School Parks	Natural Resource/ Open Space Areas	Private Parks/ Special Purpose Facilities
	Upper Saucon Township Community Park (73.3 acres)	Heritage Subdivision (.25 acres)	Southern Lehigh High School (58 acres)	South Mountain Big Rock Park (51 acres)	Camp Helena (160 acres) Jewish Day Camp (56 acres)
			Southern Lehigh Middle School (50 acres)	East Valley Road Site (15 acres)	Moyer's Lake Campground (22 camp sites)
			Hopewell Elem. School (26 acres)	Rodale Reserve (9.6 acres)	DeSales University (312 acres)
				Heritage Subdivision (16.4 acres)	Tumblebrook Golf Course (71 acres)
				Curleyhorse Development (36 acres)	Wedgewood Golf Course (195 acres)
				Mountain Glen Property (22 acres)	Locust Valley Golf Club (123 acres)
				Harring, Talago, Te Tracts (90.1 acres)	Saucon Valley Country Club (735 acres)
				Mill Road Natural Area (10 acres)	Center Valley Club (191 acres)
				Oristaglio Tract (10 acres)	Swim-In Zone
				Elim Grove Property (3.9 acres)	Putt-U Miniature Golf Courses
				Saucon Creek Estates Property (9.9 acres)	Assumption Church Fields
				Colonial Crest Pond's Edge (.8 acres)	St. Michael's Catholic School Fields
				Wildlands Conservancy (30 acres)	Southern Lehigh Living Memorial Park (32 acres)

Table 3 Total Parkland Acreage Per Park Classification							
Township	Mini-Parks	Neighborhood Parks	Community Parks	Greenways and Trails	School Parks	Natural Resource/Open Space Areas	Private Parks/Special Purpose Facilities
Lower Saucon Township	0 acres	12.3 acres	76 acres	0	106 acres	259.5 acres	446.3 acres
Upper Saucon Township	0 acres	0 acres	73.3 acres	.25 ac.	134 acres	304.7 acres	1,843.1 acres

Based upon the results of the attitudinal surveys presented in Chapter X of this Plan and the Region's overall park, recreation and open space goals, the Townships adopt the following needed parkland acreage standards which are consistent with NRPA guidelines:

Saucon Region Park Acreage Standards	
PARK TYPE	MINIMUM ACRES NEEDED PER 1000 POPULATION
Community Park	7.5 acres
Natural Resource Parks and Open Spaces	7.5 acres
Total	15 acres

From the preceding chart, it can be seen that 15 acres of local public parkland should be provided for each 1,000 persons. To derive a per unit or per lot standard, the 1,000 population is divided by the average household size (year 2000) reported for the each Township as follows:

Mandatory Parkland Dedication Calculations (for raw land)			
TOWNSHIP	2000 AVG. HOUSEHOLD SIZE	NO. OF DWELLINGS PER 1000 POPULATION	REQUIRED PARK ACRES PER DWELLING UNIT
Lower Saucon	2.52	452	.033 acres
Upper Saucon	2.89	346	.043 acres

If raw land was all that was needed to provide for local parks, then the preceding required park acres per dwelling unit would enable the Township to collect parkland that would keep pace with its projected growth. But a community and/or neighborhood park is more than raw land, it requires a high level of infrastructure and improvement. Generally, the value of these improvements equals the value of the parkland itself. Therefore, it is recommended that each municipality double the preceding acreage figures to derive needed mandatory dedication standards to effectively meet expected demand for developed parks. By contrast, natural resource/open space parks do not require as much improvement; therefore, their incidental costs require only about 20 percent increase beyond the cost of the land. The following lists the adjusted values of each park type based upon its total cost of acquisition and improvement:

Suggested Mandatory Parkland Dedication Standards by Park Type for Lower Saucon Township	
PARK TYPE	REQUIRED PARK ACRES PER DWELLING UNIT
Community (7.5 ac./ 346 units X 2)	.033 acres
Natural Resource & Open Space (7.5ac. / 346 units X 1.2)	.020 acres
Total Parkland	.053 acres

Based upon these findings it is recommended that Lower Saucon Township increase its mandatory dedication standards from 2000 square feet (0.046 acres) to 2309 square feet per dwelling unit (.053 acres).

Suggested Mandatory Parkland Dedication Standards by Park Type for Upper Saucon Township	
PARK TYPE	REQUIRED PARK ACRES PER DWELLING UNIT
Community (7.5 ac./ 452 units X 2)	.043 acres
Natural Resource & Open Space (7.5ac. / 452 units X 1.2)	.026 acres
Total Parkland	.069 acres

Likewise it is recommended that Upper Saucon Township increase its mandatory dedication standards from between 1,307 to 2,614 square feet (.03 to .06 acres) to 3005 square feet (0.069 acres) per dwelling unit.

As an alternative to parkland dedication, municipalities can accept a fee-in-lieu of parkland dedication. This approach can only be used in those instances where the developer and municipality agree on the amount of the fee-in-lieu. In addition, such funds cannot be used merely to maintain existing facilities, but must be used to:

- purchase new parkland;
- purchase new equipment for new or existing parks; and/or,
- make improvements to existing parks that will serve existing residents and those of the proposed development.

According to requirements within the Municipalities Planning Code, amounts of the fees-in-lieu should be derived from the following approach:

An appraiser should be retained by the municipality to analyze recent real estate transactions and derive estimates of fair market value. Such estimates can be based upon all properties within the municipality, or on a neighborhood basis. It is important that the appraiser be informed of the development features (e.g., utilities, zoning, curbs, sidewalks, etc.) common to such lands so that accurate real estate comparisons can be identified. Once these estimates are derived, they should be periodically updated to reflect the ever-changing value of land. When disputes between the developer and municipality occur, both the developer and municipality should select an appraiser who, in turn, should jointly select a third appraiser. This third appraiser should then determine the fair market value of the land.

Funds collected under this approach must be used to provide for recreation facilities that are accessible to residents of the proposed development. In determining accessibility to the park, local officials should be guided by the respective park service areas as listed in this Plan.

According to recent real estate transactions and appraisals within the Township an average value of \$120,000 and \$20,000 per acre will be used to estimate expected fees for community parklands and open spaces, respectively. The following lists such values by park type.

Suggested Mandatory Parkland Dedication/Fees-In-Lieu Standards For Lower Saucon Township		
PARK TYPE	REQUIRED ACRES / DWELLING UNIT	FEE-IN-LIEU OF PARKLAND
Community Park	.033 acres	\$3,960 per dwelling
Natural Resource & Open Space Park	.020 acres	\$400 per dwelling
Total for all Parks	.053 acres	\$4,360 per dwelling

Suggested Mandatory Parkland Dedication/Fees-In-Lieu Standards For Upper Saucon Township		
PARK TYPE	REQUIRED ACRES / DWELLING UNIT	FEE-IN-LIEU OF PARKLAND
Community Park	.043 acres	\$5,160 per dwelling
Natural Resource & Open Space Park	.026 acres	\$520 per dwelling
Total for all Parks	.069 acres	\$5,680 per dwelling

By applying these above figures to the Townships' projected growth described in Chapter III, the following dedicated acres and/or fees-in-lieu can be collected to meet increasing park demand generated by growth:

Projected Dedicated Parklands or Fees-In-Lieu-Thereof 2000 to 2020 For Lower Saucon Township			
PARK TYPE	PROJECTED NEW DWELLINGS YEARS 2000-2020	PROJECTED DEDICATED PARKLANDS	PROJECTED FEES-IN-LIEU OF PARKLAND DEDICATION
Community Park	1404	46.3 acres	\$5,559,840
Natural Resource & Open Space Park	1404	28.1 acres	\$561,600
Total for all Parks	1404	74.4 acres	\$6,121,440

Projected Dedicated Parklands or Fees-In-Lieu-Thereof 2000 to 2020 for Upper Saucon Township			
PARK TYPE	PROJECTED NEW DWELLINGS YEARS 2000-2020	PROJECTED DEDICATED PARKLANDS	PROJECTED FEES-IN-LIEU OF PARKLAND DEDICATION
Community Park	1842	79.2 acres	\$9,504,720
Natural Resource & Open Space Park	1842	47.9 acres	\$957,840
Total for all Parks	1842	127.1 acres	\$10,462,560

Projected Dedicated Parklands or Fees-In-Lieu-Thereof 2000 to 2020 for Saucon Region			
PARK TYPE	PROJECTED NEW DWELLINGS YEARS 2000-2020	PROJECTED DEDICATED PARKLANDS	PROJECTED FEES-IN-LIEU OF PARKLAND DEDICATION
Community Park	3246	125.5 acres	\$15,064,560
Natural Resource & Open Space Park	3246	76 acres	\$1,519,440
Total for all Parks	3246	201.5 acres	\$16,584,000

As can be seen, the value of updated mandatory dedication/fee-in-lieu-thereof standards is about 16.6 million dollars through the year 2020 across the Region. Of this total \$1,519,000 should be earmarked for publicly-accessible natural resource parks and open spaces and \$15,064,560 should be spent on community parks. Since natural resource parks/open spaces and community parks can serve large areas, both Townships can spend these monies throughout the Region; however, local residents would benefit from pockets of open space amid the Townships' more densely-developed neighborhoods.

D. CONSERVATION EASEMENTS & SPECIAL TAXES

In many instances, landowners within rural settings have deep feelings about their properties. Some seek to protect these settings from future developments. At the same time, many municipalities and conservation organizations seek to protect some measure of open space for future generations. These complimentary private/public objectives offer significant opportunity for cooperation.

One of the most widely used techniques used in these instances is the conservation easement. A conservation easement is a voluntary agreement between a landowner and some other organization or government that limits the type or amount of development that can occur on the property. The original landowner still retains private ownership of the land; but agrees to limit future uses. An easement is signed by the landowner, who is the easement donor, and the recipient (e.g. municipality, County, Conservancy, etc), who is the party receiving the easement. The recipient accepts the easement with understanding that it must enforce the terms of the agreement in perpetuity. Signed easements are recorded with the County Register of Deeds and thereby bind the actions of all future owners of the land.

People grant conservation easements because they want to protect their property from future development yet retain ownership; by granting a conservation easement, a landowner can be assured that the property will be protected forever, regardless of who owns the land.

In addition, the granting of a conservation easement can offer substantial financial advantage to the donor. Some conservation organizations offer payment for conservation easements, like the:

- Lehigh Northampton USDA Farm Service Agency which administers the **Conservation Reserve Program (CRP)** for conservation easements along riparian buffers;
- PA Game Commission offers its **Conservation Reserve Enhancement Program (CREP)** for conservation easements along riparian buffers; and,
- Lehigh and Northampton Counties **Agricultural Land Preservation Boards** for agricultural preservation easements under the **PA Agricultural Easement Purchase Program**.

However, many landowners donate conservation easements without direct financial compensation. Landowners often receive a federal income tax deduction for the gift of a conservation easement. The Internal Revenue Service allows an income deduction if the easement is perpetual and donated “exclusively for conservation purposes.” The amount of the income tax deduction is based upon the value of the conservation easement. Additionally, the donor may receive estate and local property tax relief.

To be eligible for a federal income tax deduction the conservation easement must be “perpetual,” that is, it must last forever. The recipient can monitor the property to assure that the easement is not violated. If violated, the recipient can take whatever steps are necessary to enforce the terms of the easement, including legal action. Because of this obligation, many private recipient organizations (i.e. conservancies) ask easement donors to contribute to the agency’s endowment fund; this funds long-term monitoring and enforcement activities.

To qualify for a federal tax deduction the conservation easement must be donated to the government or a qualifying conservation or historic preservation organization. Locally, the Wildlands Conservancy and the Heritage Conservancy qualify as federally recognized public charities under Internal Revenue Code Section 501(C)(3). IRS regulations also require that the property have “significant” conservation value. This includes forests, wetlands, endangered species habitat, scenic areas and more.

The uses and activities allowed by a particular conservation easement depend on the landowner’s wishes and the features of the property. In some cases, no further development is permitted, but in most cases, limited development is allowed below that permitted by local zoning regulations. Conservation easements may cover all or only a portion of a property.

Landowners continue to own the property after executing a conservation easement; therefore, the owner can sell, give or lease the property, as before. However, all future landowners are bound by the conditions of the conservation easement. The landowner also retains full rights to control and manage their property and bears all costs and liabilities related to ownership and maintenance of the property. Accordingly, the public does not necessarily have access to the property unless it is specifically granted by the original landowner in the easement language. However, if either Township compensates the landowner for the conservation easement using fees-in-lieu of mandatory dedication, public access should be required under state law.

Within the Region both Townships should use conservation easements to secure perpetual protection of open spaces. Whenever possible, the Township should accept donated conservation easements. Beyond donations the costs of securing conservation

easements is generally much less than outright purchase of a property; therefore, the Townships should devise a formula for prioritizing the value of respective properties to be eligible for paid conservation easements (a sample methodology is found on page 127 of this Plan). The Townships also can purchase a particular property, then impose a conservation easement or deed restriction and resell the property under the limitations of the easement/deed restriction; such transactions are subject to restrictions of PA Act 153 of 1996. As described earlier if either Township compensates the landowner for a conservation easement using fees-in-lieu of mandatory dedication, public access should be required under state law.

PA Act 153 of 1996 also specifically authorizes State, County and municipal governments to acquire property and/or easements for open space protection on a fee simple, installment or deferred basis. It also enables municipalities, by referendum, to levy a special tax to retire debt incurred through the acquisition of open spaces and conservation easements. Finally, it establishes restrictions on the resale of previously-acquired open space property. Both Townships should fully investigate this Act and consider the methods it enables.

E. OPEN SPACE IN RESIDENTIAL ZONES

Lower Saucon Township has effectively managed its “urban” residential growth into several compact areas of the Township where public utilities have been provided. This contemporary community development approach has obvious benefits that reduce public improvement costs, focus impacts and reduce development pressures in outlying areas. However, many residents within such neighborhoods complain of the loss of open space in their midst. Unfortunately, the Township’s previous zoning policies did not emphasize the need for open spaces and the Existing Land Use Map in Chapter III, reveals that many of these neighborhoods have been completely developed with home sites. In order to prevent this problem in the future, the Township has recently adopted a cluster development option within its Zoning Ordinance. This ordinance offers substantial minimum lot size reductions in return for protected open spaces that integrate sensitive natural features and/or provide usable recreation spaces. With this adjustment, Lower Saucon Township is satisfied that its residential zones manage a proper balance of development density and open space.

By contrast Upper Saucon Township’s developments have been more sprawling and widespread. While many neighborhoods still abut open areas, accelerating growth trends threaten new developments across the Township. However, Upper Saucon Township has already initiated a community development process that successfully integrates open spaces amid new neighborhoods. The Township has obviously engaged forethought in establishing a network of connected open spaces upon several adjoining developments. This result is exactly that needed to ensure the use and enjoyment of open space amid the Township’s developing landscape.

A review of the Upper Saucon Township zoning policies suggest some margin for improvement if common parks/open spaces are the priority. The following table identifies the Township’s residential zones along with some important design requirements:

UPPER SAUCON TOWNSHIP RESIDENTIAL ZONES					
Zone	Dwelling Unit Type	Min Required Lot Size	Base Permitted Density	Max. Permitted Density	Min. Required Open Space
AP	SFD	20,000	Sliding scale		NA
SMC	SFD	5 acres	1/5 DU/ac.	1/5 DU/ac.	0%
R-1	SFD	43,560 sq. ft.	1 DU/ac.	1 DU/ac.	0%
R-2	SFD	20,000 sq. ft.	2.2 DU/ac.	2.2 DU/ac.	0%
	TH by CU	NA	1.2 DU/ac.	1.2 DU/ac.	50%
	MFD by CU	NA	1.2 DU/ac.	1.2 DU/ac.	50%
R-3	SFD	14,000 sq. ft.	3.1 DU/ac.	3.1 DU/ac.	0%
	2FD	10,000 sq. ft.	4.4 DU/ac.	4.4 DU/ac.	0%
	TH by CU	NA	8 DU/ac.	8 DU/ac.	18%
	MFD by CU	NA	10 DU/ac.	10 DU/ac.	18%
R-4	SFD	3 acres	1/3 DU/ac.	1/3 DU/ac.	0%
Abbreviations:		DU dwelling unit;	2FD – duplex; and		
		ac. – acre;	MFD – multi-family dwelling;		
		CU – conditional use;	SFD – single family dwelling;		
			TH – townhouse (attached).		

Several important features can be derived from the preceding table about the Township’s residential Zones and their ability to produce open spaces amid new neighborhoods. First, the R-1, R-4 and SMC Districts were discussed extensively earlier in this Chapter; please refer to pages 80-83 for more discussion.

The Township’s R-2 District provides for half-acre single family detached dwellings by right. Townhouses and multi-family dwellings are allowed as part of a planned cluster development conditional use at 1.2 units per acre and with a minimum of 50 percent required open space. Then the Township’s R-3 District offers a variety of housing types and densities ranging between 3 to 10 units per acre with the higher densities requiring conditional use approval and a minimum of 18 percent required open space.

Growth and development within a community presents challenges, but it also offers opportunities. Effective zoning regulations can enable the Township to partner with the development community in the design of new neighborhoods that offer high-quality housing amid settings that have park and open space amenity. The design and approval of these communities involve more effort on both sides, so the rewards should be shared on both sides. Developers should receive real benefit in the protection of local natural features and usable parklands in the form of meaningful density bonuses. In this manner, they will be eager to engage better site planning techniques and endure higher regulatory oversight.

But municipal regulations need to be understandable and simple if they are to find application. There are numerous examples of “well-intentioned” and “high-powered” zoning techniques that are too complex and present too much risk for misinterpretation. Hence developers resist these techniques and the “better” communities never materialize. It is advised that the Township revise its zoning regulations around several important principles and standard sets of design standards. This will ease enforcement and enhance community understanding.

First, the permitted densities should offer density bonus incentives for the use of clustered designs and/or the transfer of development rights from the previously described R-1 and R-4 Districts. The following table lists suggested respective densities employing these various open space techniques.

Suggested Residential Densities				
Upper Saucon Township				
Zone	Dwelling Unit Type	Base Permitted Density	Max. Permitted Density Using Either Cluster Design or 1 TDR Per Acre	Max. Permitted Density Using Either Cluster Design and 1 TDR Per Acre or a Maximum of 2 TDRs Per Acre
R-2	SFD	1 DU/ac.	2 DU/ac.	3 DU/ac.
	TH by CU	1.2 DU/ac.	2.2 DU/ac.	3.2 DU/ac.
	MFD by CU	1.2 DU/ac.	2.2 DU/ac.	3.2 DU/ac.
R-3	SFD	2 DU/ac..	3 DU/ac.	3 DU/ac.
	2FD	3 DU/ac.	4 DU/ac.	5 DU/ac.
	TH by CU	4 DU/ac.	5 DU/ac.	6 DU/ac.
	MFD by CU	4 DU/ac.	5 DU/ac.	6 DU/ac.
Abbreviations:				
DU – dwelling unit;			2FD – duplex; and	
ac. – acre;	MFD – multi-family dwelling;		TH – townhouse (attached).	
CU – conditional use;	SFD – single family dwelling;			

Next the following pages present model cluster zoning ordinance provisions that maximize flexibility for the efficient lotting of new home sites with incentives for the creation of open space and/or usable parklands at a maximum density of 6 dwelling units per acre; although, these same standards can be applied in all of the Township’s residential zones. Township Officials should review and adapt these regulations to work within the context of the Township’s Zoning Ordinance structure and vocabulary.

§1704.W. Cluster Developments

1. Within the (R-2 & R-3) Districts, cluster developments are permitted by conditional use, subject to the following criteria:
2. Purpose - This conditional use is intended to blend various residential development types amid areas with natural amenity and usable open spaces. It is the express purpose to offer a density bonus and flexible design standards as enabled in the Act for the preservation and protection of natural/cultural features and/or the provision of public accessible common open space. It is further the intent to encourage flexibility, economy and ingenuity in the development and to permit developers to consider and utilize innovative methods of planning, design, and development.
3. The provisions of this Section shall be applied by conditional use and shall only be permitted by approval of the Governing body and written acceptance by the landowner of all requirements of this section, and any valid conditions of approval attached by the Board of Supervisors;
4. The minimum area devoted to a cluster development shall be two (2) acres;
5. All proposed dwellings shall be connected to, and served by, both public water and public sewer utilities;
6. Required Ratio and Permitted Densities of Housing Types - The following table calculates permitted residential structure types and densities within the Cluster Development based upon the extent of proposed common open space:

Proposed Common Open Space (Percent of Total Site Area)	Percentage of Dwelling Units Required by Structural Type		
	Single-Family	Duplex	Townhouse or Multiple-Family
No less than 30%	At least 90%	No more than 10%	No more than 10%
31 to 50%	At least 65%	No more than 35%	No more than 35%
51 to 65%	At least 30%	No more than 70%	No more than 70%
65% or more	No more than 100%	No more than 100%	No more than 100%

7. Open Space Design Requirements - As specified in Section 6., no less than thirty percent (30%) of the total development site's net acreage shall be devoted to public and open space uses. The following standards shall also be applied to these areas:
 - A. The location and design of required public open spaces shall be largely determined by a proper site planning process. As part of this process, applicants shall be required to prepare a natural and cultural features inventory of the site. Qualified experts must identify and plot each of the following found on the proposed site:
 - 100-year floodplains;
 - steep slopes [greater than fifteen percent (15%)];
 - wetlands, streams, ponds, or other water bodies;
 - sinkholes, caves, vistas, or other significant geologic features;
 - threatened or endangered species habitats;
 - archaeological resources;
 - historic resources; and,
 - significant individual or groups of mature trees.

From this inventory and plot, it shall be incumbent upon the applicant to demonstrate that the proposed schematic design of the cluster development minimizes disturbance of, but integrates these features to provide a safe and attractive network of common pedestrian paths that link areas within the proposed development. All common pedestrian paths shall consist of an all-weather, durable surface that is at least four (4) feet wide.
 - B. The ownership and maintenance of common open space shall be governed by Section ___ of this Ordinance and any areas to be dedicated to the Township must comply with Section ___ of this Ordinance.
8. Required Design Standards - Within cluster developments, the maximum permitted residential density is six (6) units per net acre of the site, including common open space. The following table and its footnotes present applicable design standards applied to the various dwellings/lots:

Use	Minimum Lot Area	Maximum Permitted Height	Minimum Lot Width at Building Setback/Frontage	Maximum Lot Coverage	Minimum Required Yards			
					Front ⁴	One Side	Both Sides	Rear
Single-Family ¹	6,000 sq. ft.	35 ft.	60 ft./(50 ft.)	50%	20 ft.	6 ft.3	12 ft.	15
Duplex	4,500 sq. ft. per unit	35 ft.	45 ft./(40 ft. per unit)	60%	20 ft.	10 ft.	N/A	15
Townhouse ²	1,800 sq. ft. per unit	35 ft.	18 ft./(18 ft. per unit)	75%	15 ft.	15 ft.	End Units	.20
Multiple-Family ³	43,500 sq. ft.	35 ft.	150 ft./(200 ft.)	60%	25 ft.	30 ft.	60 ft.	35 ⁵

1. Within the cluster development, single-family dwellings may employ a zero-lot line design when the following conditions have been met:
 - a. One side wall of the structure may be located no less than one (1) inch from one of the side lot lines when adjoining another zero-lot line dwelling lot. The opposite side yard shall be least ten (10) feet wide.
 - b. A perpetual five (5) foot wall-maintenance easement shall be provided on the lot adjacent to the zero lot line, which, with the exception of freestanding walls, landscaping and/or fences, shall be kept clear of all structures. This easement shall be shown on the plan and incorporated into each deed transferring title to the property. The wall shall be maintained in its original color and treatment, unless otherwise agreed to in writing by the two affected lot owners.
 - c. Roof overhangs may penetrate the easement on the adjacent lot a maximum of twenty-four (24) inches, but the roof shall be so designed that water runoff from the dwelling's place on the lot line is limited to the easement area.
 - d. The wall of a dwelling located along a zero-lot line shall have no openings (e.g., windows, doors, air conditioning units, vents, etc.), unless such openings are located at least eight (8) feet above grade, and have translucent panels.

2. No townhouse building shall contain more than eight (8) units. For each townhouse building containing more than four (4) units, no more than sixty percent (60%) of such units shall have the same front yard setback; the minimum variation of setback shall be two (2) feet. In addition, no more than two (2) contiguous units shall have identical rooflines that generally parallel the ground along the same horizontal plane. All townhouse buildings shall be set back a minimum of fifteen (15) feet from any interior access drive, or parking facilities contained on commonly-held lands. All townhouse buildings shall be set back at least thirty (30) feet from any perimeter boundary of the development site. In those instances where several townhouse buildings are located on the same lot, the following footnote 3 shall apply.

3. In those instances where several multiple-family dwelling buildings and/or townhouse buildings are located on the same lot, the following separation distances will be provided between each building:
 - a. Front-to-front, rear-to-rear, or front-to-rear, parallel buildings shall have at least fifty (50) feet between faces of the building. If the front or rear faces are obliquely aligned, the above distances may be decreased by as much as ten (10) feet at one end, if increased by similar or greater distance at the other end.
 - b. A minimum yard space of thirty (30) feet is required between end walls of buildings where both end walls contain windows and twenty (20) feet otherwise. If the buildings are at right angles to each other, the distance between the corners of the end walls of the building may be reduced to a minimum of twenty (20) feet.
 - c. A minimum yard space of thirty (30) feet is required between end walls and front or rear faces of buildings.
 - d. All multiple-family dwelling buildings shall be set back a minimum of fifteen (15) feet from any interior access drives or parking facilities contained on commonly-held lands.

4. If the property abuts an arterial road, the minimum front yard setback shall be forty (40) feet from the right-of-way line. Except for multiple-family dwellings, the minimum front yard setback for accessory residential garages shall be twenty (20) feet.

5. Where dwellings abut the common open space to the rear, the minimum required rear yard setback shall be reduced to twenty (20) feet.

F. RIPARIAN BUFFERS & GREENWAYS

Based upon results from the attitudinal survey, local officials understand that the creation of a network of open spaces throughout the Region is of principal concern to its residents. Consistently respondents identified the creation of pedestrian pathways and trails as among its highest recreation priorities just behind the protection of nature and open space. These findings testify to the acquisition and development of greenways and linear parks as a priority within the Region.

As depicted on the Natural Features Map within Chapter III of this Plan, The Region exhibits a course system of drainageways amid its low-lying valleys. However, given the topography of the landscape it is believed that many more smaller tributaries exist upon the side slopes of the wooded hillsides that have not been incorporated into the GIS mapping. In any event the Townships' larger watercourses extend to all areas and generally have an adjoining floodplain; sometimes an even wider wetland extends landward.

With proper attention, these creeks can offer tremendous environmental, recreational and educational value. These natural corridors represent the Townships' best opportunities for greenways that fulfill the goals expressed for the protection of open spaces and pedestrian linkages.



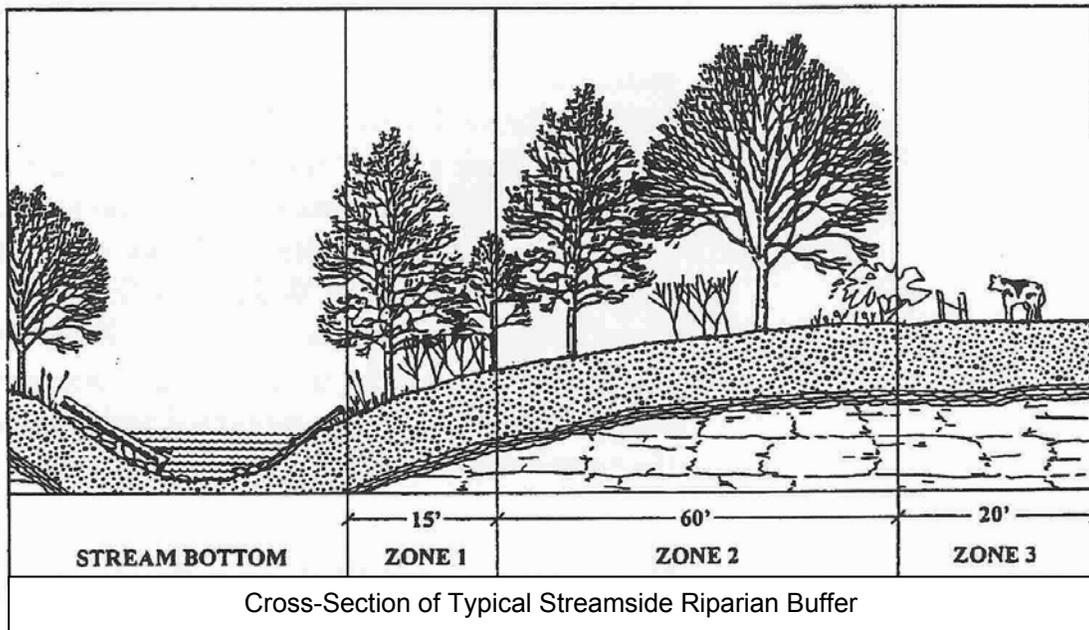
Photo of creek with and without a riparian buffer through farmland. Source: York County Planning Commission.

Municipalities are required to regulate those areas contained within the 100-year floodplain, to be eligible under the National Flood Insurance Program. However, as depicted on the Natural Features Map, the Township should impose the same level of protection to

areas within the 500 year floodplain and upon alluvial soils. However, additional protection and management is warranted if the Township wants to improve water quality and offer better streamside opportunities.

While protection of floodplains and wetlands are widely accepted land use management techniques, recent awareness of diminishing surface water quality suggests the need for more protection. Floodplain regulations are generally concerned with the construction of new buildings and structures that would displace or obstruct the flow of flood waters; riparian buffer standards extend this concern to include the proper management and maintenance of the vegetative cover in these areas. Studies conducted by the U.S. Forest Service demonstrate that riparian buffers offer real advantages in the removal of harmful nutrients and sediment from storm water before it enters the stream. These same riparian buffers can increase the food supply and create interconnected natural systems of movement for local wildlife. Riparian buffers are areas adjoining streams where naturally successive vegetation is provided and protected.

The USDA Department of Forestry recommends a minimum riparian buffer of 90-foot wide radius from the streambanks. This width is based upon the climatic conditions of this area to sustain natural streamside buffers. Essentially, riparian buffers comprise three distinct zones, as depicted below. The following will describe where to establish, and how to plant and maintain each of these three zones:



Zone 1 is the landward area located between the streambank edge under typical flow conditions, and the largest width of any of the following:

- fifteen (15) feet, as measured directly perpendicular from the streambank edge;
- the 100-year floodplain;
- any adjoining identified wetlands; and/or,
- any adjoining area characterized by slopes exceeding twenty-five percent (25%).

This Zone must include mature canopy trees and a ground cover of warm season grasses. New tree plantings should be selected, arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. New grass plantings should be selected and managed to filter-out pollutants and offer habitat. All vegetation within this Zone must thrive in wet conditions. Zone 1 requires little maintenance. As trees mature, die and decay, it is important that such natural debris be allowed to decompose within the stream. This will provide important food and habitat for beneficial microorganisms, fish and amphibians. Streamside grasses should similarly be allowed to seasonally flourish and recede. Manmade activities should be very limited and confined to perpendicular passages from Zone 2. Intensively-used locations should be fitted with raised walkways and reinforced embankments. Streamside cleanup of junk and manmade debris is permitted. No animal watering and crossing locations are permitted, unless they are reinforced.

Zone 2 begins at the inland edge of the above-described Zone 1 and extends at least sixty (60) feet inland therefrom. This Zone must also include mature canopy trees generally three rows deep, and a natural undercover. New tree plantings should be selected that grow rapidly, so as to intercept passing nutrients. Such trees should also be arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. Successive undercover plants should also be allowed to “evolve” with the canopy of this Zone. This Zone requires the most attention, but not for some time after initial planting. Here, the objective is to develop a stable and broad canopy of tree cover. The trees within Zone 2 are fast-growing and, therefore, consume many nutrients. The regular pruning and trimming of these trees will increase their nutrient consumption, but should not jeopardize the important overhead canopy of shade. The natural undercover should be undisturbed, except for periodic litter cleanup. Pedestrian paths can weave through Zone 2, but should be arranged and periodically re-aligned provided to prevent compacted soils and root damage.

Zone 3 begins at the inland edge of the above-described Zone 2, and extends at least fifteen (15) feet inland there-from. Where a pasture is proposed just beyond the above-described Zone 2, no Zone 3 is required. This Zone should be planted with warm season grasses that are allowed to mature naturally without mowing. The tall grasses ensure that overland storm water flows do not “channel” into Zone 2. New grass plantings should be selected and managed to enable controlled grazing or haying, so long as the grasses are not reduced to a point where they are no longer able to effectively disperse the surface water flows. This Zone also requires little maintenance. Long summer grasses should be allowed to flourish and recede with the seasons. Grazing and haying is permitted, so long as the residual grass length is sufficient to disperse overland storm water flows into Zone 2 and avoid channelization.

Streamside buffers must be generally undisturbed. Mature trees and long grasses absorb more nutrients than do manicured plants. Similarly, the more extensive root systems retain passing sediments. These characteristics reduce pollution and yield abundant food and habitat for wildlife. The temptation to “over-maintain” the streamside must be overcome.

Local officials should educate landowners and developers of the importance of riparian buffers, and the Region’s intent to provide for them. Newsletter articles should be used occasionally to introduce these concepts, and then to feature successful implementation examples as they occur. Local officials should also mount a campaign to implement streamside restoration and riparian buffer planting projects along the Black River and Saucon Creek Corridors, as suggested in the Natural Features Inventory. A sample riparian buffer ordinance contained on the next page should be incorporated into both Township Zoning Ordinances.

But zoning regulations alone will not get this job done, as most land uses don’t require zoning approval to continue to operate. In these areas, other options exist.

First, Lehigh Northampton USDA Farm Service Agency administers the **Conservation Reserve Program (CRP)**; a voluntary program available to productive farms to help safeguard environmentally sensitive land. Enrollees plant long-term, riparian buffers to improve the quality of water, control soil erosion, and enhance wildlife habitat. In return, FSA provides participants with rental payments and cost-share assistance. Contract duration is between 10 and 15 years.

- *Rental Payments* –In return for establishing long-term, riparian buffers, FSA provides annual rental payments to participants. FSA bases rental rates on the relative productivity of the soils within each county and the average dryland cash rent or cash-rent equivalent. The maximum CRP rental rate for each offer is calculated in advance of enrollment. Producers may offer land at that rate or offer a lower rental rate to increase the likelihood that their offer will be accepted.
- *Maintenance Incentive Payments* – CRP annual rental payments may include an additional amount up to \$5 per acre per year as an incentive to perform certain maintenance obligations.
- *Cost-share Assistance* – FSA provides cost-share assistance to participants who establish approved cover on eligible cropland. The cost-share assistance can be an amount not more than 50 percent of the participants’ costs in establishing approved practices.
- *Other Incentives* – FSA may offer additional financial incentives of up to 20 percent of the annual payment for certain continuous sign-up practices. For more information on CRP, visit FSA’s Web site at: <http://www.fsa.usda.gov/dafp/cepd/crp.htm>¹

¹ <http://www.fsa.usda.gov/pas/publications/facts/html/crp03.htm>

Sample Regulations for Riparian Buffers

As required within this Ordinance, and as guidance to any other landowner that voluntarily proposes, streamside buffers shall be provided in accordance with the following standards:

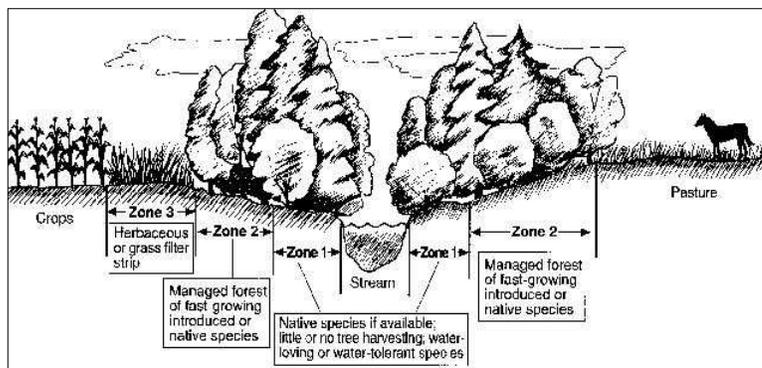
Buffer Delineation – The applicant must submit a scaled site plan that clearly depicts the streamside buffer comprised of the following three separate Zones:

Zone 1 – The landward area located between the streambank edge under typical flow conditions and the largest combined width of all of the following:

- fifteen (15) feet as measured directly perpendicular from the streambank edge;
- the 100-year floodplain;
- any adjoining identified wetlands; and/or,
- any adjoining area characterized by slopes exceeding twenty-five percent (25%).

Zone 2 – The area beginning at the inland edge of the above-described Zone 1 and extending at least sixty (60) feet inland therefrom; and,

Zone 3 – The area beginning at the inland edge of the above-described Zone 2 and extending at least fifteen (15) feet inland therefrom. Where a pasture is proposed just beyond the above-described Zone 2, no Zone 3 is required;



Buffer Plantings – Each of the respective Zones of the streamside buffer shall include vegetation that already exists or will be planted and maintained by the applicant that satisfies the following design objectives. The applicant shall submit expert evidence that the existing and/or proposed vegetation satisfies such objectives:

Zone 1 – This Zone must include mature canopy trees and a ground cover of warm season grasses. New tree plantings should be selected, arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. New grass plantings should be selected and managed to filter-out pollutants and offer habitat. All vegetation within this Zone must thrive in wet conditions;

Zone 2 – This Zone must include mature canopy trees generally three rows deep and a natural undercover. New tree plantings should be selected that are rapid growing so as to intercept passing nutrients. Such trees should also be arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. Successive undercover plants should also be allowed to “evolve” with the canopy of this Zone;

Zone 3 – This Zone should be planted with warm season grasses that are allowed to mature naturally without mowing. The tall grasses ensure that overland storm water flows do not “channel” into Zone 2. New grass plantings should be selected and managed to enable controlled grazing or haying so long as the grasses are not reduced to a point where they are no longer able to effectively disperse the surface water flows.

Buffer Use and Maintenance – Streamside buffers must be generally undisturbed. Mature trees and long grasses absorb more nutrients than do manicured plants. Similarly the more extensive root systems retain passing sediments. These characteristics reduce pollution and yield abundant food and habitat for wildlife. The temptation to “over-maintain” the streamside must be overcome. The following lists required maintenance activities for each Zone and the applicant must present a working plan that demonstrates compliance with such activities and practices:

Zone 1 – This Zone requires little maintenance. As trees mature, die and decay it is important that such natural debris be allowed to decompose within the stream. This will provide important food and habitat for beneficial microorganisms, fish and amphibious animals. Streamside grasses should similarly be allowed to seasonally flourish and recede. Manmade activities should be very limited and confined to perpendicular passages from Zone 2. Intensive-used locations should be fitted with raised walkways and reinforced embankments. Streamside cleanup of junk and manmade debris is permitted. No animal watering and crossing locations are permitted.

Zone 2 – This Zone requires the most attention but not for some time after initial planting. Here the objective is to develop a stable and broad canopy of tree cover. The trees within Zone 2 are fast-growing and therefore consume many nutrients. The regular pruning and trimming of these trees will increase their nutrient consumption, but should not jeopardize the important overhead canopy of shade. The natural undercover should be undisturbed except for periodic litter cleanup. Pedestrian paths can weave through Zone 2 but should be provided with raised walkways to prevent compacted soils and root damage.

Zone 3 – This Zone also requires little maintenance. Long summer grasses should be allowed to flourish and recede with the seasons. Grazing and haying is permitted so long as the residual grass length is sufficient to disperse overland storm water flows into Zone 2 and avoid channelization.

Second, the PA Game Commission offers its **Conservation Reserve Enhancement Program (CREP)** throughout much of Pennsylvania. Unfortunately this program is not yet available within the Delaware River Basin; however, local officials believe that it will become available in the near future. This program expands upon the above-described CRP program by offering greater payment to landowners.

Landowners adjoining streams are offered annual rental payments of up to several hundred dollars per acre for managed streamside buffers. The program is proposed to continue for 10-15 years. In addition to the rental payments, landowners are eligible for 100% cost share reimbursement for installation of suitable vegetation within these buffers. At such time as this program becomes available, Township officials should mount a campaign to inform local landowners who about these creeks. Program experts from the Lehigh Northampton USDA Farm Service Agency should be invited to explain the benefits of these programs.

Many of the success stories surrounding riparian buffers have been the results of dedicated volunteers from conservation and sporting groups. Across the State, local anglers have made it their mission to rehabilitate and save stream habitats for fishing purposes. ***These captive groups should be educated about the benefits of riparian buffers and energized into action. These “neighbors” can probably best effect the peer pressure to convince local landowners to get involved.*** A “hip-boot-brigade” should be formed from local sportsmen who should regularly travel up the waterways and meet with adjoining landowners, and describe the benefits and programs of riparian buffers.

Another powerful ally is the Region’s youth. Environmental studies classes can develop pilot riparian buffers at visible school and park locations; these focused successes enable the benefits of these buffers to be experienced first-hand by the general public. The School Districts should develop and regularly offer a streamside riparian buffer workshop as part of its curriculum, for students to learn “first-hand” about how man can co-exist with nature. Local and School District officials should cooperate on a number of these pilot projects at visible locations throughout the Region. Then, as successes mount, they should be featured in local newsletter and media articles that widen awareness and attention about their use and benefits. Such projects represent excellent candidates for Growing Greener grants from the State. Once momentum is achieved, other civic groups are likely to get involved.

Both Townships should partner in the preparation of a grant application for a feasibility study to construct a greenway along the Saucon Creek under the PA DCNR Community Conservation Partnership Program.

G. OPEN SPACE ADMINISTRATION

1. Develop an orientation process for new Planning Commission and EAC members that includes a review of an organization brochure (to be developed) and a tour of existing and target open spaces.
2. Assume the role as the central source of information for open space administration and planning. Township staff should:

- Maintain an up-to-date inventory of open spaces (public, private, quasi-public) in the Township.
- Publish an Open Space brochure that describes the Region’s open space goals.

H. OPEN SPACE IMPROVEMENTS

1. If appropriate and publicly accessible, improve access. Focus improvement activities first in areas reserved such as pavilions and areas that are used for programs. Start by providing properly designated parking areas, then providing a suitable path of travel to the site, then make sure the facility and its amenities are accessible.
2. Adopt a uniform set of park rules and regulations for all of the Townships’ parks and install signs at the sites.

I. OPEN SPACE FINANCES

1. Identify a variety of funding sources to complement locally derived funds and contributions to acquire, ease, improve and maintain open spaces. Listed below are numerous alternative sources which provide a starting point to match local projects with revenue sources. While the list is extensive, it is not complete and the Township should be on constant watch for new funding sources.

Federal Grants

- National Park Service, Rivers, Trails, and Conservation Assistance program offers in-depth assistance and consultations for locally-led conservation projects, such as developing trails and greenway networks, or protecting rivers and open space. (www.nrc.nps.gov/programs/RTCA/index.html)
- U.S. Environmental Protection Agency Environmental Education Grants program supports environmental education projects that enhance the public’s awareness, knowledge and skills to make informed, responsible decisions that affect environmental quality. \$3 million available each year. (www.epa.gov/enviroed/grants.html)
- U.S. Department of the Interior, Highlands Conservation Act provides for federal appropriations totaling \$10,000,000 each year 2005-2014 for 50% matching grants for eligible land conservation partnership projects in “highland” areas (both Townships). Projects will be submitted each year through the PA DCNR to the Governor for consideration by the Secretaries of Agriculture and the Interior.
- U.S. Department of Transportation Congestion Mitigation and Air Quality Improvement (CMAQ) program, authorized by TEA-21, provides funds to reduce transportation-related emissions and improve air quality. Trails designed for transportation, as well as recreation, are eligible. States select projects. (www.fhwa.dot.gov/environment/cmaq.htm)
- Other web sites for Federal grant resources:
Catalog of Federal Domestic Assistance, www.cfda.gov

Conservation of Technology Support Program, www.ctsp.org
Federal Commons Grants Portal, www.cfda.gov/federalcommons
Federal Nonprofit Gateway, www.nonprofit.gov
Federal Register, www.access.gpo/su_docs/aces140.html
Federal Funds Express, www.house.gov/ffr/Grants_Other.htm
The Watershed Academy, www.epa.gov/OWOW/watershed/wacademy/fund.html

State Grants

- The **Home Town Streets** program will include a variety of streetscape improvements that are vital to reestablishing our downtown and commercial centers. These projects will include activities undertaken within a defined "downtown" area that collectively enhance that environment and promote positive interactions with people in the area. Projects may include sidewalk improvements, planters, benches, street lighting, pedestrian crossings, transit bus shelters, traffic calming, bicycle amenities, kiosks, signage and other visual elements. This program will not fund costs related to buildings or their facades or personnel costs related to a Main Street manager.
- The **Safe Routes to School** program is designed to work with both school districts and pedestrian and bicycle safety advocates to make physical improvements that promote safe walking and biking passages to our schools. Collectively, these efforts would save on school busing costs and promote a healthy lifestyle for our children. In addition, some funding may be used for pedestrian education efforts. Examples of these types of improvements include: sidewalks, crosswalks, bike lanes or trails, traffic diversion improvements, curb extensions, traffic circles and raised median islands.
 - Funding
 - *The Home Town Streets/Safe Routes to School program will encompass \$200 million over four years.*
 - *Projects will be awarded up to \$1,000,000 in federal transportation funds.*
 - *Funding for this program from PennDOT will not be grant money. PennDOT will reimburse project sponsors for eligible activities upon receipt of invoices for services performed.*
 - *Selection preference may be given to projects that are physically ready to immediately advance to the construction phase or that are located within areas with approved funding under the Main Street or Elm Street programs.*
- Pennsylvania Department of Conservation and Natural Resources provides a single point of contact and application format for communities seeking State grant funding for recreation and conservation planning, acquisition, development, and technical assistance projects from the Community Conservation Partnership Program. (www.dcnr.state.pa.us)

Planning Grant Projects:

- Comprehensive Recreation, Park and Open Space Plans – to develop a comprehensive long-range planning document that provides strategies to address a municipality's recreation, park, and open space needs.
- Conservation Plans – to encourage conservation planning and sound land use.
- Greenways and Trails Plans – to explore establishing, developing, and managing linear corridors of open space along streams, shorelines, wetlands, canals, ridge tops, etc.

- Rails-to-Trails Plans – to develop a design detailing the proposed development of the trail.
- Rivers Conservation Plans – to study watersheds or rivers, including streams and creeks, to identify significant river resources, potential threats to these resources, and recommend restoration, maintenance or enhance actions.

Technical Assistance Grant Projects:

- Education and Training – to provide assistance by recreation and park advisors to communities, sponsor workshops, and provide publications.
- Peer-to-Peer – to study problem-specific issues dealing with the administration of park and recreation facilities and/or services, with the help of an experienced park and recreation professional.
- Circuit Rider – to hire a full-time recreation and/or park director to share services through an intergovernmental cooperative effort created by two or more municipalities.

Acquisition Grant Projects:

- Park and Recreation Areas – to purchase land for park, recreation and conservation purposes.
- River Conservation – to purchase land for river conservation purposes.
- Rails-to-Trails – to purchase abandoned railroad rights-of-way for public recreational trail use, and purchase adjacent land for access or related support facilities.

Development Grant Projects:

- Park Rehabilitation and Development – to rehabilitate existing parks and indoor and outdoor recreation facilities, and to develop new park and recreation areas.
- Greenways and Trails – to rehabilitate existing, and develop new, greenways and trails.
- Rails-to-Trails – to rehabilitate and develop abandoned rights-of-way, and support facilities for public recreational trail use
- Rivers Conservation – to resolve specific issues for a river that is on the Pennsylvania Rivers Conservation Registry
- Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Recreational Trails Program Grants, provide funds to develop and maintain recreational trails and trail-related facilities for motorized and non-motorized recreational trail use. Match requirements are 80% grant money, up to a maximum of \$100,000, and 20% project applicant money. Acquisition projects require a 50/50 match. Funding is provided through the Federal Highway Administration and the Transportation Equity Act for the 21st Century (TEA-21). \$1 million available.
(www.dcnr.state.pa.us)
- Other web sites for State grant resources:
Piper Resources State and Local Government on the Net,
www.piperinfo.com/state/index.cfm

Grantsmanship Center Funding thru State Government,
www.tgci.com/STATES/states2.htm
U.S. State and Local Gateway, www.statelocal.gov
Pennsylvania DEP, Growing Greener Grants, www.dep.state.pa.us

Federally-Funded/State-Administered Grants

- Pennsylvania Department of Transportation, Transportation Enhancements Program is a cost reimbursement program, not a grant program, funded through the Transportation Equity Act for the 21st Century (TEA-21) of the Federal Highway Administration. Funding is available for provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicycles, acquisition of scenic easements and scenic or historic sites, landscaping, or other scenic beautification, historic preservation, and preservation of abandoned railway corridors. (www.dot.state.pa.us)

County Grants

- Northampton County 21st Century Open Space Initiative, \$14,000,000 for open space protection and \$12,000,000 for agricultural preservation. Competitive grant program for up to 50% or \$300,000 (whichever is less) per application to be filed by municipality, school district or non-profit organization. (www.lvpc.org/NCOpenSpaceInitiative.pdf)
- The Lehigh County Green Futures Fund recently passed a voter referendum authorizing the County to secure a \$30 million bond to fund various initiatives for open space and farmland preservation and the enlargement and improvement of parklands. A similar effort to secure funding within Northampton County is underway.

Foundation Grants

- National Fish and Wildlife Foundation provides grants for conservation and environmental education projects. (www.nfwf.org/programs/program.htm)
- Pew Charitable Trust provides grants in a number of program areas, including environment, culture and health and human services. (www.pewtrusts.com/grants)
- UPS Foundation Community Investment Grant program allocates dollars to UPS Township offices to invest in their communities. (www.community.ups.com/community/causesus_relations/index.htm)
- The Foundation Center's Finding Funders provides access to web sites for private foundations, corporate grantmakers, grantmaking public charities, and community foundations. (www.fdncenter.org/funders)
- Other resources for Foundation grants:
 - The Foundation Center's RFP Bulletin, www.fdncenter.org/pnd/rfp/index.html
 - The Foundation Center's Finding Funders, www.fdncenter.org/funders
 - The Foundation Center's Grantmaker Website, www.fdncenter.org/funders/grantmaker/index.html
 - The Internet Nonprofit Center, www.nonprofits.org
 - The Grantsmanship Center's Community Foundations by State, www.tgci.com/resources/foundationscommunity/com_pa.html

Non-Government Grants

- American Forests provides tree-planting assistance with Global Releaf, an ecosystem restoration grant program, which includes urban and community forest. (www.americanforests.org/global_relief/grants/grants_eval_criteria.html)

National Programs

- Smokey Bear Program encourages children to take an active role in protecting forestland, and the animals that live in the forest, from wildfires. (www.symbols.gov)
- Woodsy Owl Program encourages children to develop a sense of responsibility and compassion for the natural world through hands-on land stewardship activities. (www.symbols.gov or www.fs.fed.us/spf/woody)
- National Center for Recreation and Conservation, Bureau of Land Management offers activity books and lesson plans to introduce environmental education to children.
- National Center for Recreation and Conservation, Bureau of Land Management offers activity books, lesson plans, posters, articles, and general information on heritage education. (www.blm.gov/heritage/he.htm)
- Endangered and Threatened Species Program, U.S. Fish and Wildlife Service offers educational materials about the preservation and protection of wildlife, biodiversity and habitat conservation.
- American Forests sponsors A Tree for Every Child, an environmental education program for children that stresses the benefits and rewards of planting trees.
- Boat U.S. Foundation for Boating Safety and Clean Water offers brochures and posters on pollution prevention tips and littering on land and in the water. (1/800/BOAT-USA)
- Hooked on Fishing International sponsors the Kids All-American Fishing Derby, which provides a complete kit and guidebook to conduct a fishing derby, with prizes, posters, tote bags, decals, and more.

2. Business Support

The Township's businesses should be approached to contribute financially toward specific open space protection in return for public recognition.

3. Environmental Groups

To preserve key lands, the Township's stakeholders should seek assistance from major environmental groups, such as local conservancies. These groups can often provide technical assistance, financial advice to landowners on major tax advantages, and possible fund-raising assistance.

4. Bond Issues

The urgent demand for protected open space as evidenced in the attitudinal survey results suggests that the Township needs to act deliberately and swiftly. To provide for initial capital the Townships could consider floating a bond issue. A bond issue makes sense to

fund projects that have a long life expectancy, since it spreads the payment over many years, during which the Townships' Open Space system can expand. Monies could be used to acquire conservation easements upon key properties that will help to protect important resources.

5. Mandatory Dedication Fees by Developers

Section 503.11. of the Municipalities Planning Code enables municipalities to require the mandatory dedication of parklands and/or the fees-in-lieu thereof. Within the Region, natural resource and open spaces are part of the Townships' local park systems. Therefore, a portion of the revenues from developers can be used for the acquisition and protection of publicly accessible open spaces. The funds **cannot** be used for maintenance or programs. Projections based upon housing growth suggest revenues of 76 acres of natural resource and open space parks or \$1,519,000 of fees-in-lieu thereof dedication between years 2000 and 2020. The Townships could also accept unencumbered contributions from developers in lieu of mandatory dedication fees.

6. Special Open Space Taxes

Section 7.2 of PA Act 153 of 1996 authorizes the use of special taxes, by referendum, to retire debt incurred in the acquisition of property or conservation easements for open space purposes. Such law also exempts municipalities from the requirements of the Local Government Unit Debt Act for such purchases.

J. OPEN SPACE MAINTENANCE

1. The Region should establish standards of care for various types of open spaces. Publicly accessible open spaces should be periodically maintained but not to the point of environmental degradation. Habitat-based open spaces should have levels of maintenance that reflect species protection management strategies. Riparian Buffer maintenance levels should be consistent with those standards listed in Section E presented earlier in this Chapter. All of these standards should be written in brief statements that clearly describe how an item should look when the maintenance detail has been completed. Open spaces should generally be self-maintaining; however, the occasional litter cleanup will be required.
2. Develop an annual maintenance calendar for all routine maintenance duties. Start this project by identifying all of the routine, regularly-recurring tasks that must be completed, such as litter clean-up, trash collection, parking lot, sign, fence, bridge, trail maintenance, etc. After identifying the tasks, then determine when the task needs to be accomplished during the year and at what frequency to accomplish the level of care desired. Example: Trash collection is done year-round on a weekly basis. The benefit of developing such a calendar is to better ensure that required maintenance duties needed to achieve desired results are not forgotten.
3. Develop written checklists and train staff to inspect open spaces, then file all of the written inspection forms. Regular documented inspections are one of the best techniques to ensure safe and usable facilities.
4. Adopt a uniform set of park rules and regulations for all of the Township's parks and install signs at the sites.

VI. Strategic Action Plan

This Section of the Plan presents strategies of action for Lower and Upper Saucon Townships to pursue over the next 5 to 10 years. The Townships can work at the actions incrementally. By having a slate of actions identified and adopted, elected and appointed officials, staff, community organizations and citizens have a common reference for Township plans for recreation, parks and open space.

Strategies to address the key findings that emerged from the planning process are organized around seven goals. These goals represent the long-term condition for which Lower and Upper Saucon Townships will strive:

GOAL 1 – Recreation, Parks and Open Space Administration: Lower and Upper Saucon Townships will continue to operate their recreation, parks and open space systems effectively and efficiently through volunteer and staff leadership.

GOAL 2 – Public Relations and Communication: Lower and Upper Saucon Townships will build community awareness of the value of recreation opportunities as important factors in improving the quality of life of citizens, by increasing public knowledge and support of and encouraging the public's use of park and open space areas, greenways and trails, recreation facilities and recreation programs.

GOAL 3 - Parkland and Recreation Facilities: Lower and Upper Saucon Townships will enhance existing park areas and recreation facilities and set aside adequate parcels of land for future park development.

GOAL 4 - Recreation Programs: Lower and Upper Saucon Townships will strengthen year-round recreation program opportunities at Township-owned and School District-owned park areas and recreation facilities

GOAL 5 - Recreation, Parks and Open Space Finances: Lower and Upper Saucon Townships will secure adequate financing and partnerships to support the operation, maintenance, development and future acquisition of park and open space areas and recreation facilities, and provision of recreation programs and services.

GOAL 6 - Park and Open Space Maintenance and Security: Lower and Upper Saucon Townships will continue to ensure that park and open space areas and recreation facilities are attractive and well-maintained, and safe and secure for visitors.

GOAL 7 - Open Space, Greenways and Trails: Lower and Upper Saucon Townships will actively pursue and secure an extensive system of open spaces and greenways that provide for the protection of important natural and cultural features both within their rural and developing landscapes.

STRATEGIC ACTION PLAN

GOAL 1 – Recreation, Parks and Open Space Administration: Lower and Upper Saucon Townships will continue to operate their recreation, parks and open space systems effectively and efficiently through volunteer and staff leadership.

STRATEGY 1 – Administrative Staffing Plan

For the size of the Townships' park systems and the population they serve, full-time recreation, parks and open space directors should be hired to effectively administer the park and open space areas, recreation facilities, programs and services. The citizen survey indicated a strong desire for open space protection, greenway and trail development, existing park area improvement and expanded promotion of recreation opportunities. A staff person whose time is dedicated to the work of implementing this Plan will make citizen desires a reality.

COMPONENT ACTIVITIES

1. Develop job descriptions/list of duties for the recreation, parks and open space director positions. The following examples of work should be considered:
 - A. Coordinate acquisition and development of new park and open space areas and improvements to existing areas.
 - B. Expand the number of grant applications submitted for park, open space and trail acquisition, development and renovation projects and program funding.
 - C. Work to ensure that all park and open space areas and recreation facilities meet safety and accessibility guidelines and develop a standardized inspection schedule and forms.
 - D. Alleviate usage and over-usage problems by coordinating the reservation, scheduling and permitting of field and park facility use, including rotating field use from heavy to light when necessary.
 - E. Develop and implement consistent standards of maintenance for park areas and facilities.
 - F. Establish a year-round maintenance schedule for fields and facilities for items such as weed control, fertilizing and mowing.
 - G. Spearhead the development of a trail and greenway network connecting schools, parks and neighborhoods throughout the region.
 - H. Coordinate the purchase of park maintenance equipment. Standardize inspection program for park maintenance equipment.
 - I. Coordinate the implementation of the Saucon Region Comprehensive Recreation, Park and Open Space Plan recommendations.
 - J. Establish a central source where residents can get information on all recreation opportunities.
 - K. Develop a map and listing of all park and open space areas and recreation facilities and a website that includes all recreation activities offered.
 - L. Communicate and coordinate with the volunteer-run sports associations and pull them together to share resources.

- M. Establish a network of park facility and recreation program providers to improve communication and help them understand their role as part of the recreation and parks system.
 - N. Work with existing community special event providers to enhance and improve the events.
 - O. Direct the expenditure of funds in accordance with budget appropriations and collect and manage any revenue generated.
 - P. Serve as technical advisor to the Parks and Recreation Board and EAC/OSC and keep careful and complete records of their activities and services.
 - Q. Prepare and recommend adoption of long-range goals and short-term objectives to meet needs for recreation programs and facilities.
 - R. Identify park areas and recreation facilities in need of upgrades. Prioritize park development and renovation projects.
 - S. Study the security needs for each park area and implement necessary improvements.
 - T. Promote neighborhood involvement in the parks through the creation of friends groups and adopt-a-park programs. Recruit volunteers for park and open space enhancement and clean-up projects and recreation programs.
 - U. Plan and conduct community recreation programs. Evaluate existing recreation programs to determine their effectiveness. Diversify and expand the recreation program opportunities offered for all age groups.
 - V. Coordinate promotion and marketing of the recreation, parks and open space system and programs.
 - W. Develop strategies to attract dedicated funding for recreation, parks and open space services. Coordinate public-private partnerships to benefit recreation opportunities and expand sources of revenue through business sponsorships, development of a parks foundation with 501©(3) status, donations, in-kind contributions, friends groups and fund raising activities.
 - X. Develop self-funding recreation facilities and programs.
 - Y. Investigate and act upon citizen requests, suggestions and complaints concerning recreation, parks and open space services.
 - Z. Educate elected officials and community leaders about recreation, parks and open space. Foster intergovernmental cooperation whenever possible.
2. Set salary and benefits, and include funding for the positions in the Townships' 2007 budgets.
 3. Apply for a Pennsylvania Recreation and Park Society RecTAP grant for assistance with applicant recruitment, screening and interview process. RecTAP will match an experienced parks and recreation professional with the Townships to assist with the hiring process. This is a \$1,500 grant with no matching funds required. Providing matching funds can increase the size of the project.

4. Pursue the development of an internship program.

STRATEGY 2 – Open Space Administration

Open space protection and greenway and trail system development are very high priorities for Township citizens. This strategy addresses ways to begin making natural resource preservation a priority for the local governments.

COMPONENT ACTIVITIES

1. Establish an Open Space Commission (OSC) in Upper Saucon Township.
2. Develop a written description of the roles and responsibilities of the EAC/OSC, its individual members and staff. This written description of the organizational structure should clearly assign the responsibilities of the EAC/OSC so it and the staff understand its role in the protection of open space through a variety of techniques described in this Plan. The EAC/OSC shall actively pursue the preservation of open space.
3. Hold an annual open space retreat with the governing body, Planning Commission, EAC/OSC and staff. The topic of the first retreat should be to describe the organizational structure and newly implemented open space acquisition techniques. Subsequent years should focus on developing the coming year's plan of work and/or other significant issues.
4. Develop an orientation process for new Township Supervisors and EAC/OSC members to include a review of an open space brochure (to be developed) and a tour of existing and target open spaces.
5. Assume the role as the central source of information for open space administration and planning. Township staff should:
 - A. Maintain an up-to-date inventory of open spaces (public, private, quasi-public) in the Townships.
 - B. Maintain an up-to-date inventory of development rights assigned to the Conservation Zone including records of those transferred, purchased or retired.
 - C. Maintain a bank account for fees-in-lieu of open space dedication to be collected and spent according to the terms of the Municipalities Planning Code.
 - D. Collect and oversee donations, purchases and acquisitions of development rights assigned in the Conservation Zone.
 - E. Act as a source of available development rights for purchase by developers to be transferred to the Townships' development zones under the term of the Zoning Ordinance.
 - F. Facilitate the exchange of development rights from property owners within the Conservation Zone to prospective developers for use in the Townships' development zones under the terms of the Zoning Ordinance.
 - G. Develop a Township website link that details the Townships' Transferable or Purchase of Development Rights Program (TDR/PDR).
 - H. Continue to utilize all municipal opportunities (newsletters and websites) to educate the public regarding the Townships' TDR/PDR program.

- I. Publish an Open Space brochure that describes the Townships' open space goals and includes a simple description of the Townships' TDR/PDR Program.
- 6. Coordinate open space and environmental awareness programs among user groups (civic groups, students, scout troops, sportsmen's groups, etc.).
- 7. Coordinate open space clean-up events with local volunteer groups and user groups.
- 8. Cooperate with the School District to conduct riparian buffer workshops and special projects at prominent locations throughout the Townships.

GOAL 2 – Public Relations and Communication: Lower and Upper Saucon Townships will build community awareness of the value of recreation opportunities as important factors in improving the quality of life of citizens, by increasing public knowledge and support of and encouraging the public's use of park and open space areas, greenways and trails, recreation facilities and recreation programs.

STRATEGY 1 – Recreation, Parks and Open Space System Promotion

The citizen survey indicated a major need for improved promotion of recreation opportunities. Many people did not know where parks were located or what recreation programs were offered. Concentrated efforts should be placed on making citizens aware of the park and open space areas, recreation facilities and recreation programs their tax dollars support. Better promotion will lead to citizen support for increased funding for open space protection and recreation and parks services.

- COMPONENT ACTIVITIES**
- 1. Prepare a guide to the Townships' recreation, parks and open space systems to increase citizen awareness of the opportunities available to them. The guide should include a map of site locations, featuring all public park and open space areas and recreation facilities and private ones that are open for public use, the facilities and amenities at each park and park rules and regulations. Decide whether the guide will be developed and designed using in-house staff or through a commercial firm. Consider using the company that prints community maps. Share the cost with special purpose facilities. Seek business sponsors and advertisers to offset the cost. Update the guide regularly, approximately every two years. Include the following items in the guide:
 - A. Municipally-owned, school district-owned and privately-owned park and open space areas, greenways and trails.
 - B. Golf courses, swimming pools and other special purpose recreation facilities.
 - C. Map of site locations.
 - D. The acreage and amenities available at each site.
 - E. Park rules and regulations, including operating hours.
 - F. Photos of people enjoying the facilities.
 - G. Information on how to reserve/rent facilities at each site.
 - H. A detailed map of facilities at the community parks.
 - I. The names of municipal parks and recreation board and EAC/OSC members and

monthly meeting days, times and locations.

2. Publish a regional recreation program guide which includes Township-sponsored recreation programs and special events and other program opportunities available within each Township's school district and its municipalities. Share the cost with major recreation providers such as service clubs, youth sports organizations, Saucon Valley Community Center, fire companies, school districts, etc. Commercial recreation businesses should be solicited for paid advertising in the guide. Update the guide yearly. Include the following items in the guide:
 - A. Listings of youth sports groups, service organizations and other recreation providers with brief descriptions of programs offered, contact names and phone numbers or websites for more information.
 - B. A calendar of major community special events, including those sponsored by the Townships, with event description, date, time, place, contact name and phone number or website for more information.
 - C. The major recreation programs and special events in the Townships.
 - D. Commercial recreation businesses such as golf courses, campgrounds and fitness centers.
3. Mail the parks and open space guide and the recreation guide to citizens as an insert in the Township newsletters. Distribute the guides at Township special events and at schools, churches, libraries and municipal buildings.
4. Update Township websites to include the parks and open space guide and the recreation guide. Include links on the websites to libraries, historical societies, school districts, neighboring municipalities, service clubs, universities, youth sports organizations, etc. Post parks and recreation board and EAC/OSC agendas and minutes on the Township websites.
5. Coordinate a meeting of Township youth sports providers to encourage them to promote activities together.
6. Hold a summer tour of Township parks, open space areas and recreation facilities for Township Supervisors, major park users and interested citizens.
7. Have the parks and recreation boards and EAC/OSCs make oral reports twice a year to the Township Supervisors at their public meetings, to include a question and answer session.
8. Provide space in the Township newsletters for community groups providing recreation programs and special events.
9. Develop a list of self-guided activities that people can take advantage of on their own during their leisure time. Promote this on the Township websites.

GOAL 3 - Parkland and Recreation Facilities: Lower and Upper Saucon Townships will enhance existing park areas and recreation facilities and set aside adequate parcels of land for future park development.

STRATEGY 1 - Park Enhancement Program

Improvements and enhancements to the facilities and amenities at existing Township neighborhood and community parks will help the parks better meet citizens' recreation needs. This strategy addresses the best uses for each park area and accessibility concerns such as parking and pathway

routes from parking areas to facilities, and determines the priorities for improvements.

COMPONENT ACTIVITIES

1. Provide the following enhancements to Township parks:
 - A. Southeastern Park
 - Replace the rules and regulations sign.
 - Line the parking lot spaces and provide handicapped spaces.
 - Provide an accessible pathway to all park facilities from the parking lot.
 - Rehabilitate the horseshoe pits.
 - B. Steel City Park
 - Add wood mulch surfacing beneath all play equipment to a depth of 12" under all equipment.
 - Provide a paved pathway from the street to link park activity areas.
 - Maintain the softball field infield.
 - Provide handicapped parking spaces on the street.
 - C. Town Hall Park
 - Provide parking area at the pavilion.
 - Repave the drive leading to pavilion and restroom.
 - Provide paved pathway from drop-off area to pavilion for handicapped access.
 - Add wood mulch surfacing for a minimum six-foot use zone around play areas.
 - Provide handicapped access to the ball field, pavilion and upper play area.
 - Provide better screening for public works equipment and vehicles or move the equipment to a different location.
 - D. Upper Saucon Township Community Park
 - Link the paved pathway with all sports fields for handicapped access.
2. Plan park improvements to minimize vandalism, allow oversight of facilities and increase security for visitors.
3. Correct safety issues at Southern Lehigh Living Memorial Park, with Upper Saucon Township working with park user groups. Southern Lehigh Living Memorial Park is a large community park that receives heavy use by Township citizens and should be maintained at a higher standard of care.

STRATEGY 2 - Parkland Acquisition and Development

The National Recreation and Park Association and the Lehigh Valley Comprehensive Plan active community parkland acreage standards are 7.5 acres per 1,000 citizens. This strategy addresses how the Townships will strive to meet this acreage standard through acquisition and development of parkland.

COMPONENT ACTIVITIES

1. Acquire land for a joint community park centrally located to serve both Lower and Upper Saucon Township residents. The location of this park should be conveniently accessible by vehicle and pedestrians, located outside of neighborhoods due to likely lighting impact and located upon property well suited for active playfields. Provide youth baseball and softball fields to accommodate the youth leagues and the potential of adult use. Provide one artificial turf multi-purpose field and another natural turf for soccer and other emerging sports such as rugby, lacrosse, flag football and field hockey. Size the fields to accommodate each of these sports as well as football. Provide fields to meet the growing soccer programs, address changing playing formats, allow rest periods for fields and to accommodate potential adult leagues. Plan for the installation of lights at each field for expanded evening use. Develop facilities for self-directed recreation opportunities such as fishing, walking, in-

line skating and mountain biking. Build a band shell/amphitheatre for outdoor concerts and performing arts events.

2. Form a joint committee with representatives from both Townships and both School Districts to study the purchase and development of a joint community park. Apply for DCNR grant funds to hire a planning consultant to do a feasibility study, with both Townships providing matching funds.
3. If a joint community park is not feasible, Upper Saucon Township should acquire 39.9 acres for a new community park located in the western portion of the Township. The location of this park should be conveniently accessible by vehicle and pedestrians, located at the edge of one or more neighborhoods due to likely lighting impact and located upon property well suited for active playfields
4. Seek land adjacent to existing public parkland to expand the size of the Township parks as neighboring properties develop.
5. Provide facilities such as pathways and scenic natural areas in existing and future parks to encourage people to enjoy Township park and open space areas.

GOAL 4 - Recreation Programs: Lower and Upper Saucon Townships will strengthen year-round recreation program opportunities at Township-owned and School District-owned park and open space areas and recreation facilities.

STRATEGY 1 - Recreation Programming Plan

Recreation programs and special events bring citizens into Township parks and schools to enjoy the facilities their tax dollars support. This strategy addresses determining the Townships' role in offering the public a balanced schedule of recreation programs and special events for all ages, incomes and abilities. The top priorities should be to eliminate duplication of resources and effort and to pursue cooperation with other recreation providers will be priorities.

COMPONENT ACTIVITIES

1. Enhance and expand Township special event programming through increased partnerships.
2. Adopt a program planning philosophy that is aimed at family recreation opportunities. Build on current Township programming that lends itself to family recreation such as concerts and special events and promote as family recreation.
3. Add environmental education and nature-based recreation programs at the park and open space areas in cooperation with other providers.
4. Continue to facilitate the provision of community recreation services by others. Collaborate with and assist the youth sports organizations.
5. Begin providing community recreation programs through the parks and recreation boards. Operate the recreation programs in an enterprise fund account, with all expenses paid out of and all revenue deposited into the account. Develop a budget for this account, with revenue and expenses budgeted separately.
6. Study the best uses for the old Lower Saucon Town Hall building as a space for indoor recreation programs. Work closely with the Saucon Valley Community Center.
7. Pursue increased cooperation with the school districts for access to indoor and outdoor recreation facilities for community recreation programs.
8. Support conducting a study to explore the creation of a regional recreation commission to

coordinate offering recreation programs and special events for the community.

GOAL 5 - Recreation, Parks and Open Space Finances: Lower and Upper Saucon Townships will secure adequate financing and partnerships to support the operation, maintenance, development and future acquisition of park and open space areas and recreation facilities, and provision of recreation programs and services.

STRATEGY 1 - Revenue Sources and Partnership Development

This strategy addresses maintaining the appropriate level of Township municipal fund and capital fund financial support and identifying and pursuing the income sources, partnerships and volunteer involvement needed to maintain existing parks, acquire parkland and open space areas, develop recreation facilities and provide recreation programs for citizens.

**SAMPLE MANDATORY DEDICATION LANGUAGE
FOR SUBDIVISION AND LAND DEVELOPMENT ORDINANCES**

Section XXX PARK AND RECREATION AREAS AND FEES

1. Where a proposed park, or open space is identified within the Saucon Region Comprehensive Recreation and Open Space Plan or where the Township considers that a local recreation site is necessary to carry out the purposes of this Chapter, the Township may require the dedication of land for any proposal that would result in the creation of one or more new dwelling units in accordance with the following standards:
 - A. The land to be dedicated must be of suitable size, dimensions, topography, access and general character for the proposed use.
 - B. Within Lower Saucon Township, the amount of land so required for this purpose shall be not less than .033 acres for community parkland and/or .020 acres for open space for each proposed dwelling unit on the final plan.
 - C. Within Upper Saucon Township, the amount of land so required for this purpose shall be not less than .043 acres for community parkland and/or .026 acres for open space for each proposed dwelling unit on the final plan.
2. As an alternative to the requirement that land be dedicated for a recreation site, the Township may request the applicant to provide any of the following:
 - A. Construct and/or improve existing park and/or open space facilities;
 - B. Pay a fee in lieu of dedication for each proposed dwelling unit which fees shall be established by resolution of the Board of Supervisors;
 - C. Guarantee the private reservation and maintenance of parkland and/or open space; or
 - D. Provide for any combination of the above.
3. In general, parklands and/or open spaces provided for by this section that involve active recreational pursuits and/or public access shall comply with the following:
 - A. The site shall be located and designed so that safe and convenient access shall be provided to all existing and proposed inhabitants. Additionally, each site shall have at least one area available for vehicular access that is no less than twenty-four (24') feet in width;
 - B. The site shall be sized and configured so as to accommodate its intended uses.- Sufficient lot width/depth dimension shall be provided so as to accommodate, where practicable, athletic fields, courts and other open play areas. Furthermore, should a development be proposed at a location contiguous to an existing park, dedicated parklands shall be provided, where practicable, as an extension of the existing facility;
 - C. Parks for active recreation shall have suitable topography and soil conditions for use and development as active play areas. No more than twenty-five (25%) percent of the site shall be comprised of floodplains, storm water management facilities and/or slopes exceeding three (3%) percent. Any unimproved area of this site shall be provided with a healthy and vibrant grass ground cover;
 - D. The site shall be located and designed to conveniently access proximate public utilities (e.g., sewer, water, power, etc.). However, no part of any overhead utility easement, nor any above-ground protrusion of an underground utility, shall be permitted in active play areas of the site;
 - E. No part of the site shall be calculated as part of any required setback, yard and/or open space for adjoining lots or uses, as regulated by the Zoning Ordinance; and
 - F. The site shall comply with any applicable design, orientation, size and location guidelines listed in the Saucon Region Comprehensive Recreation and Open Space Plan. In special instances, the Township may waive any or all of the preceding design standards. In such instances, the applicant must demonstrate that the public will be better served by some alternate design that would accomplish at least one of the following objectives:

- i. Protection of important natural resources (e.g., streams, ponds, wetlands, steep slopes, woodlands, unique geologic features, wildlife habitats, aquifer recharge areas,
 - ii. Protection of important historical and/or archaeological sites; and,
 - iii. Integration of greenbelts throughout the development that link residences with on-site or adjoining parks, schools or other similar features.
4. Funds collected as fees in lieu of dedication of open space or recreation areas shall be held and utilized in accordance with applicable laws. As an alternative to fees-in-lieu of mandatory dedication, the Township may accept unencumbered donations to a general fund to be used for parkland and/or open space acquisition, development and/or improvement. Alternatives to dedication shall, at a minimum, be based upon the predevelopment fair market value of land that would have been otherwise required for dedication under Sections XXX.1.B. and XXX.1.C. of this Ordinance. Fair market value shall be determined by a certified appraiser, and shall include any documentation used to derive the site's fair market value. Should the Township dispute the appraised fair market value, it can require mandatory dedication of needed acreage.

COMPONENT ACTIVITIES

1. Add the salary of the recreation, parks and open space director positions to the general fund operating budgets of each Township.
2. Invite the DCNR regional recreation and parks advisor to visit the Townships, tour the park areas and meet with staff, elected officials and recreation and parks board members to discuss grant project funding.
3. Apply for DCNR grants to help pay for park improvements, trail planning and development and land acquisition.
4. Continue to invest operating and capital budget funds for recreation improvements and open space protection.
5. Update the Township mandatory dedication ordinances to increase the fee-in-lieu-of dollar amount and land dedication acreage amount as listed on the preceding page.
6. Increase annual operating budget based upon a maintenance impact statement to be developed for every capital improvement project to show the resources needed to support the improvement.
7. Identify a variety of funding sources to complement locally-derived funds and contributions to acquire, ease, improve and maintain park areas and open spaces. A list is included in this Plan of numerous alternative funding sources which provide a starting point to match local projects with revenue sources. While the list is extensive, it is not complete and the Townships should be on constant watch for new funding sources.
8. Develop a business sponsorship package for Township special events and park projects.
9. Prepare a gift catalog of needed park improvements. Promote the catalog as a way of encouraging donations to improve the parks. Items could range from a few dollars up to full-scale facilities such as pavilions, pathways and ball fields.
10. Develop an adopt-a-park program to help with improvements to park areas. This program would match civic clubs, neighborhood groups, service organizations or local businesses with a park to give money, raise money for on-going maintenance or park improvements or provide volunteer labor for clean-up days, special events, patrolling or landscaping projects.
11. Apply for a Pennsylvania Recreation and Park Society RecTAP grant to get help with developing a business sponsorship, gift catalog and/or adopt-a-park program. This is a \$1,500 grant to pay an experienced professional for a specific project. No matching funds

are required, but providing matching funds can increase the size of the project.

12. Create ad-hoc fund raising committees as an extension of the parks and recreation boards. Seek Township residents with expertise in marketing, advertising, fund raising and development. Assign this committee with oversight of the business sponsorship, gift catalog and adopt-a-park programs.
13. Capture names and addresses of participants/attendees at Township special events.
 1. Use a simple survey to get evaluation feedback, with a “register-to-win” format with donated prizes.
 2. Have check-off boxes to ask if people would like to volunteer, help raise funds, get more information on adopt-a-park programs, etc.
 3. Follow up with respondents.
14. Establish Township-wide “Friends of the Parks” groups. These would be membership-based organizations that can organize as a 501©(3) to raise funds and volunteer at events.
15. Strive to increase the percentage of the parks and recreation operating budget generated through non-tax sources. Set 20 percent as the first milestone to be achieved within a defined schedule of three years. Evaluate progress in cost recovery and set new goals based upon a successful track record of generating revenues through user fees, events, concessions, sponsorships, gifts, grants, bequests and other means.
16. Adopt criteria for determining what capital projects to pursue. Given the fact that there are different views and interests in the Townships, a clear process for decisions about funding should be established and provided for public information. (see Figure A on page 122)
17. Develop a four-part revenue policy for recreation and parks. The policy should include the rationale for the policy, the Townships’ revenue philosophy and expectations, citizen and community group input, programs and services, benefits to the community, pricing guidelines and evaluation guidelines. It should include four classifications:
 - A. Compulsory resources: mandatory dedication fees, dedicated millage and/or a portion of the general fund.
 - B. Earned income: fees and charges, admissions, rentals, sales, user fees, special services and permits.
 - C. Contractual receipts: land leases, facility rentals and concessions.
 - D. Financial assistance: grants, gifts, fund raising and friends groups.
18. Seek assistance from major environmental groups, such as the Nature Conservancy and the Natural Lands Trust, to preserve open space. These groups can provide technical assistance, financial advice to landowners and possible fund raising help.
19. Explore the formation of a regional recreation commission with the school district that serves each Township and the other municipalities within the district. A regional recreation commission would offer community recreation programs and special events for all ages. Apply for a DCNR Peer-to-Peer technical assistance grant to match a recreation and parks professional with the region to help with a regional recreation study. The DCNR grant is a maximum of \$10,000, with a 10% local match of \$1,000 needed.

20. Assist Hellertown Borough and the Southern Lehigh Pool Association in establishing a capital plan for repair and maintenance of outdoor swimming pools. Help research and secure funding. Include enhancements for increased revenue generation. Neither Township owns an outdoor swimming pool and residents use those of the neighboring municipalities. This expense should be shared.

Figure A
Sample Criteria for Selection of Capital Improvement Projects

Project Title: Project X		Capital Cost: \$100,000		Funding Source(s): Township & DCNR		
Annual Operating Cost: \$10,000		Operating Budget Source(s): User Fees				
Criteria	Yes (2)	No (1)	High Priority (3)	Medium Priority (2)	Low Priority (1)	Total Points
1. Does the proposed project meet public need?	2		3			6
2. Does the project benefit a majority of the citizens?		1			1	1
3. Will the project meet safety and accessibility needs of the community?		1			1	1
4. Is the project consistent with the comprehensive recreation, park and open space plan, design guidelines, park master plan and mission?	2				1	2
5. Will the project improve existing park conditions? That is, will it fix up what the Township has, rather than build new?	2		3			6
6. Is the project in an area of the community that needs Township investment?		1			1	1
7. Is funding available for the project?	2		3			6
8. Does a community group support the project?	2		3			6
9. Will the Township or other provider be able to maintain the improvement/project upon completion?	2		3			6
10. Will the quality of the project enhance the public image of Township?	2			2		4
TOTAL Points						39

= point value

Chart Formula

- Step 1.** Answer each question of the criteria with a Yes or No.
- Step 2.** Mark either “2” in the Yes box or “1” in the No box.
- Step 3.** Determine if the project is a High, Medium or Low Priority.
- Step 4.** Mark either a “3” or a “2” or a “1” in the appropriate priority box.
- Step 5.** Multiply the Yes (2) or No (1) points times the Priority points High (3), Medium (2) or Low (1). Put that answer in the Total Points Column for that criteria.
- Step 6.** Continue working your way through all of the criteria in the same manner.
- Step 7.** Add the Total Points Column. Write the score in the box in the bottom of the column. Compare this score against the scores of other projects under consideration. In the example above, Project X scored a value of 39 out of a total 60 points possible. Compare this score with other projects that could range in value from 10 to 60. Use as part of decision-making process.
- Step 8.** Adjust the criteria and point values as merited based upon the use of the rating scale.

GOAL 6 - Park and Open Space Maintenance and Security: Lower and Upper Saucon Townships will continue to ensure that park and open space areas and recreation facilities are attractive and well-maintained, and safe and secure for visitors.

STRATEGY 1 – Park and Open Space Maintenance, Safety and Security Program

A planned maintenance program with minimum standards of care assures the degree of safety, use and appearance residents deserve. A standard is a short description of what the resources should look like when the maintenance has been completed. This strategy supports the existing maintenance program and moves the Townships towards a park maintenance management plan.

COMPONENT ACTIVITIES

1. Schedule the necessary work to correct the deficiencies noted during the site inspections conducted for this Plan.
2. Increase staffing as needed to maintain the high standard of care the Townships have set for their park areas and recreation facilities.
3. Support the existing park maintenance program by establishing minimum standards of care for park areas and recreation facilities. These are brief statements that clearly describe how an item should look when the maintenance has been completed. For example, a player's bench standard could read: The seat is level and securely fastened, has no cracks, jagged edges or holes, has secure supports and no exposed footers. Written standards of care help maintenance staff and volunteers perform work up to expectations.
4. Update the seasonal written schedule of routine maintenance duties that must be performed to achieve the established minimum standards of care. Develop an annual maintenance calendar for all routine maintenance duties. Start by identifying the regularly-recurring tasks that must be completed, such as litter clean-up, trash collection, parking lot, sign, fence, bridge and trail maintenance, etc. Then determine when the task needs to be accomplished during the year and at what frequency to accomplish the level of care desired. Example: Trash collection is done year-round on a weekly basis. The benefit of developing such a calendar is to better ensure that required maintenance duties needed to achieve desired results are not forgotten.
5. Develop a safety inspection checklist form for play equipment areas and other park facilities.
6. Continue to conduct routine safety inspections, document safety issues and correct them. Coordinate with the Townships' insurance carriers to develop a system that minimizes the Townships' exposure to liability. Regularly documented inspections are one of the best techniques to ensure safe and usable facilities.
7. Establish standards of care for various types of open spaces. Publicly-accessible open spaces should be periodically maintained but not to the point of environmental degradation. Habitat-based open spaces should have levels of maintenance that reflect species protection management strategies. Riparian buffer maintenance levels should be consistent with those standards listed in this Plan. Open spaces should generally be self-maintaining; however, occasional litter cleanups will be required.
8. Develop written checklists and train staff to inspect open spaces.
9. Institute a natural resource management component to the current maintenance operations, which are primarily directed to developed active recreation areas. With the addition of natural resource based parks and open space areas and in recognition that this is a high priority among citizens, it is important to move away from routine maintenance into the direction of ground and resource management.
10. Develop a maintenance impact statement for capital improvement projects, including Polk Valley

Park. This should be included as a component in all master site plans. The statement would identify the tasks, costs and resources needed to maintain the park as well as potential ways to lessen the cost to the Townships.

11. Promote partnerships with sports organizations to build and maintain athletic fields.

GOAL 7 - Open Space, Greenways and Trails: Lower and Upper Saucon Townships will actively pursue and secure an extensive system of open spaces and greenways that provide for the protection of important natural and cultural features both within their rural and developing landscapes.

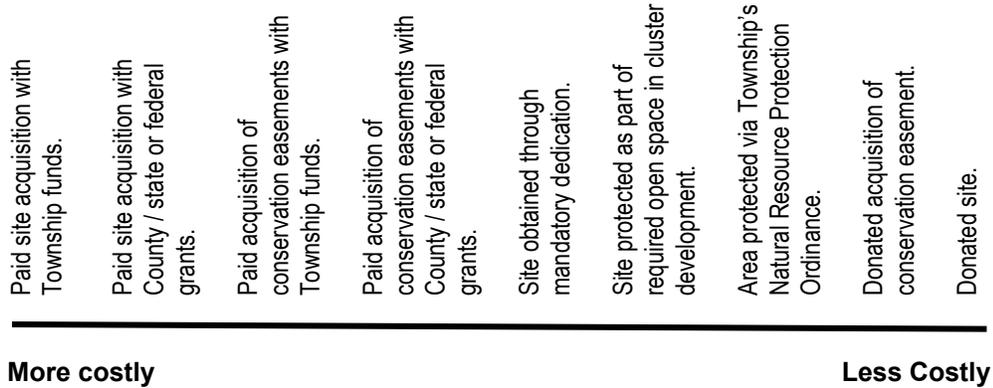
ACTIONS FOR NATURAL AND CULTURAL RESOURCE PROTECTION

1. Chapter III of this Plan identifies numerous natural and cultural features that contribute to the Township's character and offer unique opportunities for conservation. Township staff should maintain a detailed inventory of these features and make periodic updates as resources are converted and new environmental assessments are completed. GIS databases should also be updated as necessary.
2. Within Lower Saucon Township, the staff, Environmental Advisory Council (EAC), Planning Commission (PC) and governing body should strictly apply the recently-enacted Natural Resource Protection and Cluster Development language of the Zoning Ordinance to ensure that proposed developments engage a proper site planning process early in the development review.
3. Within Upper Saucon Township, Section 282 of the Upper Saucon Township Subdivision and Land Development Ordinance (natural features protection regulations) should be strengthened and then strictly applied to ensure that proposed developments engage a proper site planning process early in the development review.
4. Within Lower Saucon Township, Section 180-95 of the Township Zoning Ordinance should be amended to add suitable review procedures and standards relating to the protection of identified natural habitats now, and historic sites and suspected areas of archaeological significance, once these have been identified.
5. Within Lower Saucon Township, Section 180-95 of the Township Zoning Ordinance should be expanded to require developers to submit qualified expert maintenance and resource management plans for the respective features contained upon a proposed development plan.
6. The SLDO's for both Townships should be amended to include the submission of environmental impact assessments and maintenance and resource management plans by qualified experts for all of the various natural and cultural features that occur within the Township.
7. Within Upper Saucon Township, residential zoning policies should be adjusted to promote the use of cluster design through density incentives in return for required open spaces that successfully protect important natural and cultural features and/or offer usable parklands.
8. Members of the EAC (Lower Saucon) and the Planning Commission (Upper Saucon Township) should be assigned specific natural and cultural features with which to develop focused expertise. Then as projects emerge with these features, the respective EAC/PC member should play a principal role in the evaluation of the proposed development's integration and/or protection of that feature along with suitable property maintenance schemes.
9. Township staff should develop an orientation manual and process for new officials to include a review of the Township's natural resource protection requirements. Specific development

review responsibilities of this process should be outlined. This orientation should also include a tour of the Township's important natural and cultural features and priority areas for protection.

10. The techniques and levels of protection of natural and cultural resources vary widely Both Townships should make use of a wide range of techniques and apply that method best suited to the specific circumstances surrounding the proposed area. The following lists a continuum of protection techniques:

Continuum of Open Space Acquisition Method Costs



11. The following lists various techniques most suitable for the protection of various features within the Township:

- **Prime farmlands and active farms:**
 - i. Revisions to both Townships' agricultural zones to promote continued farming (e.g. larger setbacks on adjoining uses, farm occupations, Right-to-Farm notice).
 - ii. Paid / donated conservation easements to the Township;
 - iii. Paid/ donated conservation easements to the Lehigh & Northampton County Agricultural Land Preservation Boards; and,
 - iv. Paid/ donated conservation easements to other private conservancies (American Farmlands Trust, Wildlands Conservancy, Heritage Conservancy, Natural Lands Trust).
- **Steep slopes:**
 - i. Section 180-95.B(13) of the Lower Saucon Township Natural Resource Protection Ordinance;
 - ii. Strengthened Section 282.5 of the Upper Saucon Township Subdivision and Land Development Ordinance; and,
 - iii. Integration within proposed open space of cluster developments.
- **Woodlands:**
 - i. Sections 180-95.B(15 & 16) of the Lower Saucon Township Natural Resource Protection Ordinance;
 - ii. Strengthened Section 282.4 of the Upper Saucon Township Subdivision and Land Development Ordinance;
 - iii. Integration within proposed open space of cluster development; and,
 - iv. Proposed conservation partnership projects submitted to the PA DCNR under the Highlands Conservation Act.
- **Floodplains:**
 - i. Sections 180-95.B(3 & 4) of the Lower Saucon Township Natural Resource Protection Ordinance;
 - ii. Strengthened Section 282.2 of the Upper Saucon Township Subdivision and Land Development Ordinance; and,
 - iii. Integration within proposed open space of cluster development.

- **Wetlands:**
 - i. Sections 180-95.B(5 & 6) of the Lower Saucon Township Natural Resource Protection Ordinance;
 - ii. Proposed new “wetlands” requirements in Section 282 of the Upper Saucon Township Subdivision and Land Development Ordinance; and,
 - iii. Integration within proposed open space of cluster development.

- **Natural Habitats and Other Significant Natural Features**
 - i. Proposed new sections of the Lower Saucon Township Natural Resource Protection Ordinance;
 - ii. Proposed new “habitats” requirements in Section 282 of the Upper Saucon Township Subdivision and Land Development Ordinance;
 - iii. Integration within proposed open space of cluster development;
 - iv. Proposed conservation partnership projects submitted to the PA DCNR under the Highlands Conservation Act.
 - v. Paid / donated conservation easements to the Township;
 - vi. Paid/ donated conservation easements to other private conservancies (American Farmlands & Natural Lands Trusts, Wildlands & Heritage Conservancies); and,
 - vii. Projects submitted to the County 21st Century Open Space Initiative Program.

- **Special Protection Waters and Riparian Buffers**
 - i. Sections 180-95(7 through 12) of the Lower Saucon Township Natural Resource Protection Ordinance with revisions to reflect a 3-Zone riparian buffer;
 - ii. Strengthened Section 282.3 of the Upper Saucon Township Subdivision and Land Development Ordinance to reflect a 3-Zone riparian buffer;
 - iii. Integration within proposed open space of cluster development;
 - iv. New buffers installed upon farmlands seeking approval for concentrated animal feeding operations and/or donated/paid conservation easements;
 - v. The Lehigh-Northampton Counties Conservation Reserve Program;
 - vi. The PA Game Commission’s Conservation Reserve Enhancement Program;
 - vii. Regularly conducted environmental awareness classes by the School District;
 - viii. Special projects conducted by local conservation and sporting groups.
 - ix. Paid / donated conservation easements to the Township;
 - x. Paid/ donated conservation easements to other private conservancies (American Farmlands & Natural Lands Trusts, Wildlands & Heritage Conservancies) and,
 - xi. Projects submitted to the County 21st Century Open Space Initiative Program.

- **Inactive Railroad / Trolley Lines**
 - i. Both Townships should monitor SEPTA’s position on the use of a rail-banked right-of-way between Shelly and the City of Bethlehem and seize the opportunity to use this line for a linear park should it become available.

- **Historic Sites**
 - i. Both Townships should recruit a team of local historic preservation specialists to inventory and nominate an expanded list of historic sites to the National Register for Historic Places and/or the Pennsylvania Register of Historic Places.
 - ii. When such inventory is complete, both Townships should add new regulations to encourage the protection of historic sites.

- **Archaeological Resources**
 - i. Both Townships should monitor the status of information available from the Pennsylvania Historical and Museum Commission, Division of Archaeology and Protection. When such information becomes available, both Townships should add new regulations to encourage the proper inventorying of important information and/or artifacts from areas of suspected archaeological significance prior to development.

IDENTIFICATION OF KEY OPEN SPACE PRIORITIES

12. The Open Space Map contained within this Plan identifies priority resource areas based upon the presence of important natural and cultural features. This Map, along with the inventory contained in Chapter 3 of this Plan, should be used by local officials and staff to prioritize key areas for protection.
13. Both Townships' staff, the Environmental Advisory Council (Lower Saucon Township) and the Planning Commission (Upper Saucon Township), should develop a prioritized list of properties to be acquired / protected considering a variety of important factors. Worksheet A on the following page suggests one possible methodology for such evaluation.
14. Both Townships should target the Saucon Creek for focused attention in prioritizing its open space protection resources as authorized in Worksheet A on the following page.
15. Both Townships should partner in the preparation of a grant application for a feasibility study to construct a greenway along the Saucon Creek under the PA DCNR Community Conservation Partnership Program.
16. Both Townships should conduct a joint public workshop regarding their intentions along the Saucon Creek to determine the potential level of voluntary participation and gauge opposition. This forum should also be used to market the benefits of a greenway/riparian buffer to adjoining property owners and answer questions from the public.
17. Both Townships should fully investigate the property acquisition and special tax methods authorized for the protection of open spaces by PA Act 153 of 1996.

ACTIONS TO PROTECT FARMLANDS

18. Amend the agricultural zones in both Townships to include a "Right-to-Farm" provision as described on page 19-20 of this Plan.
19. Amend the agricultural zones in both Townships to impose substantial setbacks upon proposed non-agricultural buildings, structures, fences and vegetation from adjoining farms to protect solar access and offer sufficient maneuvering area for large farm machinery.
20. Amend the agricultural zones in both Townships to permit the creation of secondary businesses (farm occupations) to be conducted in farm outbuildings as an accessory use in financial support of a principal agricultural use.
21. Inform prospective residents of new dwellings within the agricultural zones in both Townships, that Officials intend to act with preference towards farmers regarding normal farming operations/impacts.
22. Encourage landowners to pursue agricultural conservation easements funded by the Lehigh & Northampton County Agricultural Land Preservation Boards under the PA Agricultural Easement Purchase Program, and possibly, offer local matching funding to elevate ranking of respective applications.
23. Vigorously focus urban growth into compact developments with a wide range of public facilities and services; thereby relieving development pressures in outlying rural areas.

Worksheet A
Sample Criteria for Selection of Open Space Protection Priorities

Owner Name: Zoning:	Site Location:	Acreage:
Criteria	Score	
1. Environmental Sensitivity (floodplains, wetlands, slopes, exceptional value watershed, etc.) <ul style="list-style-type: none"> • Minimal– little area subject to environmental constraint (Score 1 pt); • Moderate – site with large area of single constraint or smaller multiple constraints (Score 2 pts); • High – extensive area with multiple sensitivities (Score 3 pts). 		
2. Habitat Protection <ul style="list-style-type: none"> • Site is not listed within Natural Resource Areas (Score 1 pt.) • Site is partially located within Natural Resource Area (Score 2 pts) • Site is entirely within Natural Resource Area (Score 3 pts.) 		
3. Habitat Connectivity <ul style="list-style-type: none"> • Isolated – site offers no natural connection to other adjoining natural habitats (Score 1 pt.) • Limited – site offers infrequent connection to adjoining natural habitats (Score 2 pts.) • Extensive – site has extensive linkage to adjoining natural habitats (Score 3 pts.) 		
4. Farmland Preservation <ul style="list-style-type: none"> • The site contains prime farmlands and is intended to engage in principal agricultural use (Score 3 pts.) 		
5. Pressure to Develop <ul style="list-style-type: none"> • Rural – site sets amid a rural location with no approaching urban development (Score 1 pt.) • Leap-frog – site sets within 1000 feet of approaching urban development (Score 2 pts.) • Leading-edge – site directly adjoins urban encroachment and would block sprawl (Score 3 pt.) 		
6. Public Accessibility <ul style="list-style-type: none"> • No access – site will remain as private property with no public access (Score 1 pt.) • Private access – site will be managed with limited access to conservation group (Score 2 pts.) • Public access – the site will be made available for general public access (Score 3 pts) • Pedestrian linkage – the site will facilitate the creation of a pedestrian linkage for public use (Score 4 pts.) 		
7. Ownership and Maintenance <ul style="list-style-type: none"> • Site will remain in private ownership (Score 1 pt.) • Site will be dedicated to Township (Score 2 pts.) • Site will be donated to local conservation group (Score 3 pts.) 		
8. Opportunity to Acquire <ul style="list-style-type: none"> • Site offers no immediate opportunity for protection (Score 1 pt.) • Owner offers cooperation in open space protection (Score 2 pts.) • Conservation of site faces immediate threat (Score 3 pts.) • Matching funding / donation can be used to conserve the site (4 pts.) 		
9. Other Factors <ul style="list-style-type: none"> • Site offers no other benefits to Township beyond preceding features (Score 1 pt.) • Site offers “other” benefits beyond those listed above (Score 2 pts.) • Site offers “special” benefits beyond those listed above (Score 3 pts.) 		
10. Subtotal – Add all scores in lines 1 through 8	Subtotal	
11. Size – List acreage of site	Acreage	
12. Final Score – Multiply Subtotal in line 9 times Acreage in line 10 to derive final score.	Final Score	

ACTIONS TO PROMOTE RIPARIAN BUFFERS

24. Farms with concentrated animal feeding operations and/or conservation easements should be required to install and maintain riparian buffers along all watercourses on the site as more fully described on page 20 of this plan.
25. Lower Saucon Township should strengthen its Riparian Buffer regulations as listed in Section 180-95.B.(7) of the Township Zoning Ordinance to include three separate buffer zones with distinct management and maintenance regimens.
26. Upper Saucon Township should strengthen Section 282.3 of the Subdivision and Land Development Ordinance to reflect a 3-Zone riparian buffer;
27. Both Township staff and officials should coordinate riparian buffer educational and awareness programs among user groups (civic groups, students, scout troops, sportsmen's groups, etc.).
28. Both Township staff and officials should cooperate with both public School Districts to conduct riparian buffer workshops and special projects at prominent locations throughout the Region.
29. Promote participation by farmers in the Lehigh-Northampton Counties Conservation Reserve Program and the PA Game Commission's Conservation Reserve Enhancement Program;

ACTIONS TO FUND OPEN SPACE PROTECTION

30. Within Lower Saucon Township, Increase mandatory dedication of parkland/open space standards from the current .046 acres per unit to .053 acres per unit within the SLDO.
31. Within Lower Saucon Township, adjust its fee-in-lieu of mandatory dedication standard to reflect recent real estate transactions with significantly higher land values (e.g. \$4,360 per dwelling unit).
32. Within Upper Saucon Township, Increase mandatory dedication of parkland/open space standards from the current .046 acres per unit to .069 acres per unit within the SLDO.
33. Within Upper Saucon Township, adjust its fee-in-lieu of mandatory dedication standard to reflect recent real estate transactions with significantly higher land values (e.g. \$5,680 per dwelling unit).
34. As an alternative to fees-in-lieu of mandatory dedication that have restriction on use by location and timing, accept unencumbered donations to a general fund to be used for open space acquisition, development and/or improvement.
35. Within Upper Saucon Township, a program of transferable development rights (TDRS) should be implemented including the following specific actions:
 - A. TDRs should be assigned throughout the Township's R-1 and R-4 Residential Districts at a rate equal to the base density of each District;
 - B. The Township should assign TDR receiving areas within the Township's other zones and adjust permitted residential densities and lot coverages to offer incentives for the use of

TDRs as described in Chapter V of this Plan;

- C. Maintain an up-to-date inventory of TDRs including records of those transferred, purchased or retired.
 - D. Collect and oversee donations, purchases and acquisitions of TDRs;
 - E. Act as a source of available TDRs for purchase by developers to be applied within the Township's development zones;
 - F. Facilitate the exchange of TDRs from property owners to prospective developers for use in the Townships' development zones;
 - G. Develop a Township website link that details the Townships' TDR Program;
 - H. Continue to utilize all municipal opportunities (newsletters and websites) to educate the public regarding the Townships' TDR program; and,
 - I. Publish an Open Space brochure that describes the Townships' open space goals and includes a simple description of the Townships' TDR Program.
36. Promote landowner applications for Agricultural conservation easements funded by the Lehigh and Northampton County Agricultural Land Preservation Boards under the PA Agricultural Easement Purchase Program.
37. Both Townships should monitor progress of the Highlands Conservation Act as more fully described on pages 30-31 of this Plan and, when appropriate, submit a joint application for conservation partnership projects submitted to the PA DCNR and Governor.
38. Applications to protect important habitats should be submitted to the Lehigh & Northampton County 21st Century Open Space Initiative Program.
39. Upper Saucon Township should investigate funding options under the recently-approved \$30 million Lehigh County Green Futures Fund. Lower Saucon Township should monitor ongoing efforts to establish a similar fund for Northampton County.
40. Riparian buffers can be funded under the Lehigh-Northampton Counties Conservation Reserve Program and the PA Game Commission's Conservation Reserve Enhancement Program.
41. Both Townships should fully investigate the property acquisition and special tax methods authorized for the protection of open spaces by PA Act 153 of 1996.
42. Both Townships could consider floating a bond or earmark a percentage of its earned income tax with which to offer a local paid program of conservation easement purchase.
43. Local and regional conservancies (American Farmlands Trust, Wildlands Conservancy, Heritage Conservancy, Natural Lands Trust) accept conservation easements, usually by donation, to qualify landowners for federal income tax benefits.
44. Investigate with other "interested" municipalities and agencies, the creation of a local conservancy devoted to the protection and management of local open spaces.
45. Both Townships should also investigate and pursue various conservation-open space funding programs as listed in Chapter V, Section H of this Plan.

ACTIONS TO INCREASE OPEN SPACE AWARENESS

46. Both Townships should distribute brochures and periodic newsletter articles and conduct workshops for citizens and local officials about the Region's important resources, open space acquisition techniques and needs.
47. The expanded use of cluster development options will enable developers and landowners to become partners with the Townships in the identification and protection of important natural and cultural features and stewards of such features once neighborhoods have been constructed.
48. Solicit individuals and groups of volunteers who can assist the Townships in acquiring, maintaining and managing open spaces.
49. Coordinate open space planning with the School Districts to facilitate shared open space resources, programming, maintenance and management options (e.g. ecology studies, field labs, water quality testing, independent studies, special clean-up events, riparian buffer tree planting, etc.)
50. Conduct workshops with local developers to explain the Township's changes in policy regarding the need to incorporate open space amid new developments and commit to this practice as a priority that will be emphasized when evaluating future development applications.
51. Contact known local conservancies to coordinate the standards for acquisition that are acceptable to these important agencies so that they can become willing partners in the protection of open space.
52. Hold regular meetings with county agencies that are involved in the Administration of the Open Space Initiative Grant Program so that mutually-beneficial strategies and projects can be identified and possible sharing of resources can maximize return on investment.
53. Investigate with other "interested" municipalities and agencies, the creation of a local conservancy devoted to the protection and management of local open spaces.

ACTIONS TO ENSURE OPEN SPACE STEWARDSHIP & MAINTENANCE

54. Plans developed under the Townships' Zoning and Subdivision and Land Development Ordinances should include suitable long-range maintenance and management schemes to be approved during the development review process.
55. Lower Saucon Township's, Section 180-95 of the Township Zoning Ordinance, and Upper Saucon Township's Sections 282 and 283 of the Subdivision and Land Development Ordinance, should be amended to add suitable maintenance and management standards relating to the protection of natural and cultural features and open spaces. Such standards will require case-specific input from expert referral agencies and/or qualified experts to be evaluated by local officials during the development review process. Third party mediation can be used when the applicant's and Township's experts disagree.
56. Each Township solicitor should develop suitable "model" legally-binding instruments (e.g. deed restrictions, easements and agreements) that can be executed to ensure the permanent protection and proper maintenance of various open spaces that are acquired/proposed by the various methods.
57. Contact known local conservancies to coordinate ownership, maintenance and management standards that are acceptable to these important agencies so that they can become willing partners in the protection of open space.
58. Lower Saucon Township's EAC and Upper Saucon Township's OSC should establish standards of care for various types of open spaces. Publicly accessible open spaces should be periodically maintained but not to the point of environmental degradation. Habitat-based open spaces should have levels of maintenance that reflect species protection management strategies. Riparian Buffer maintenance levels should be consistent with those standards listed on page 99 of this Plan. All of these standards should be written in brief statements that clearly describe how an item should look when the maintenance detail has been completed. Open spaces should generally be self-maintaining; however, the occasional litter cleanup will be required.

VII. Implementation Schedule

The Implementation Schedule sets forth the time frame for the actions Lower and Upper Saucon Townships will undertake in the short, medium and long term. Not everything can be accomplished at once. Opportunities arise and needs change, requiring this schedule to be flexible. The Implementation Schedule is organized around the seven goals of the Plan for Parkland and Recreation Facilities, Open Space, Greenways and Trails; Recreation Programs, Administration, Finances, Maintenance and Security, and Public Relations and Communication.

2006-2016

Goal 1 – Recreation, Parks and Open Space Administration

Continue to operate recreation, parks and open space systems effectively and efficiently through volunteer and staff leadership.

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
1. Hire a shared recreation, parks and open space director to coordinate open space protection and greenway and trail system development, improve parks and expand promotion of recreation opportunities. Develop a position description and set the salary and benefits to be offered. An intergovernmental agreement of cooperation to form a regional recreation and parks department/commission must be adopted to be eligible for Circuit Rider grant funds for the director's salary.	Salary estimate \$40-45,000 plus benefits. Shared position could be funded by DCNR Circuit Rider 4-yr grant. (100/75/50/ 25% of salary)	Township Supervisors		√		
2. Apply for a DCNR Peer-to-Peer technical assistance grant to match a recreation and parks professional with the Townships to assist with the preparation and adoption of an intergovernmental agreement.	The Peer-to-Peer grant is \$10,000 with a 10% match (\$1,000) required.	Township Supervisors / Staff	√			
3. Apply for a Pennsylvania Recreation and Park Society RecTAP grant for assistance with applicant recruitment, screening and interview process.	The RecTAP grant is \$1,500 with no match required. Extra funds would expand project size.	Township Supervisors/ Staff	√			
4. Establish an Open Space Commission (OSC) in Upper Saucon Township.	Staff time.	Township Supervisors/ Staff	√			
5. Define the roles and responsibilities of the Environmental Advisory Council (EAC) and Open Space Commission (OSC) in writing. The EAC/OSC should actively pursue the preservation of open space.	Staff and volunteer time.	Township Staff	√			

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
6. Hold an Open Space Retreat for elected officials, board and council members and staff.	Staff and volunteer time. Cost for facilitator if needed.	Township Staff		√	⇒	⇒
7. Coordinate open space and environmental awareness programs, clean-ups, workshops and special projects. Assume role as the central source of information for open space administration and planning. Develop an open space orientation process for new officials.	Staff and volunteer time.	EAC/OSC & Township Staff		√	⇒	⇒
8. Pursue the development of an internship program.	Staff time.	Township Staff		√	⇒	⇒

Goal 2 – Public Relations and Communication

Build community awareness of the value of recreation opportunities as important factors in improving the quality of life of citizens, by increasing public knowledge and support of and encouraging the public's use of park and open space areas, greenways and trails, recreation facilities and recreation programs.

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
9. Publish a guide to the Townships' recreation, parks and open space systems.	Cost depends on whether guide is developed in-house or by an outside firm, size, number printed, paper, 4-color or not.	Township Staff/Parks and Recreation Boards & EAC/OSC		√	⇒	⇒
10. Publish a regional recreation program guide to include all recreation programs and special events held in the Townships, regardless of sponsoring organization.	Cost depends on whether guide is developed in-house or by an outside firm, size, number printed, paper, 4-color or not.	Township Staff/Parks and Recreation Boards		√	⇒	⇒
11. Mail both guides as an insert to Township newsletters and upload the guides onto the Township websites. Distribute the guides at various Township locations.	Mailing costs for newsletter already budgeted.	Township Staff		√	⇒	⇒
12. Update Township websites to include links to community services and organizations and minutes/agendas for recreation and parks board and EAC meetings. Also add a link where citizen can subscribe to periodic email announcements of recreation programs and activities.	Staff time.	Township Staff	√	⇒	⇒	⇒

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
13. Develop a list of self-guided activities that people can take advantage of on their own during their leisure time. Promote this on the Township websites.	Staff and volunteer time.	Parks and Recreation Boards & EAC/OSC		√	⇒	⇒
14. Increase interaction between parks and recreation boards/environmental advisory councils and Township Supervisors by holding a tour of parks and open space areas and making oral reports at Supervisors' meetings.	Staff and volunteer time.	Parks and Recreation Boards & EAC/OSC	√	⇒	⇒	⇒
15. Coordinate joint meeting for all youth sports organizations.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards		√	⇒	⇒
16. Provide space in Township newsletters for information on recreation programs and special events sponsored by community groups.	Staff time.	Township Staff		√	⇒	⇒

Goal 3 – Parkland and Recreation Facilities
Enhance existing park areas and recreation facilities and set aside adequate parcels of land for future park development.

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
17. Southeastern Park – rules and regulations sign, parking lot improvements, horseshoe pits, accessible pathway to park facilities from parking.	Cost depends on specifications and materials.	Township Staff	√	⇒		
18. Steel City Park – play equipment surfacing, accessible pathway to park facilities from street, softball field infield, handicapped parking spaces on street.	Cost depends on specifications and materials.	Township Staff	√	⇒		
19. Town Hall Park – play equipment surfacing, parking lot at pavilion, accessible pathways to pavilion, ball field and upper play area, pavilion driveway paving, screening of public works equipment.	Cost depends on specifications and materials.	Township Staff	√	⇒		
20. Upper Saucon Township Community Park – accessible pathway to sports fields.	Cost depends on specifications and materials.	Township Staff	√	⇒		
21. Correct safety issues at Southern Lehigh Living Memorial Park in cooperation with other park users.	Cost depends on specifications and materials.	Township Staff	√	⇒		
22. Form a joint committee with representatives from both Townships and both School Districts to study the purchase and development of a joint community park centrally located to serve both Lower and Upper Saucon Township residents. Provide baseball, softball, soccer and multi-purpose fields, one artificial turf multi-purpose field, a band shell/amphitheatre, walking paths and facilities for self-directed recreation opportunities such as in-line skating and mountain biking. Install lights at athletic fields for expanded evening use.	Staff time.	Township Supervisors/ Solicitor/Staff		√	⇒	⇒

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
23. Apply for DCNR grant funds to hire a planning consultant to do a feasibility study and master plan for the purchase and development of a joint community park, with both Townships providing matching funds.	Matching funds of \$20,000 to \$40,000 needed, shared between Townships	Contract with a consulting team to complete a feasibility study and master plan."		√	⇒	⇒
24. If a joint community park is not feasible, Upper Saucon Township should acquire 39.9 acres for a new community park located in the western portion of the Township.	Staff time.	Township Supervisors/Solicitor/Staff		√	⇒	⇒
25. Seek land adjacent to existing public parkland to expand the size of the Township parks.	Cost depends on acreage amounts.	Township Supervisors/Staff/Parks and Recreation Boards/EAC/OSC	√	⇒	⇒	⇒
26. Provide facilities such as pathways and scenic natural areas in existing and future parks to encourage people to enjoy Township parks and open space areas.	Cost depends on specifications and materials.	Engineer or Landscape Architect		√	⇒	⇒

Goal 4 – Recreation Programs

Strengthen year-round recreation program opportunities at Township-owned and School District-owned park areas and recreation facilities.

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
27. Begin providing community recreation programs through the parks and recreation boards. Create enterprise fund accounts. An enterprise fund is an accounting method that records the transactions of facilities and programs that are self-supporting through user fees and charges. Program revenues go into this fund and program expenses are paid out of it, instead of through the general fund. As net revenue is earned from recreation programs, it is spent to offer additional recreation programs. Profits at the end of the year stay in the enterprise fund as a fund balance that is used to expand programming. One enterprise fund can be used for all recreation programs, so that popular programs that make money can help support activities that have difficulty meeting their direct expenses.	Staff and volunteer time. \$10,000 initial start-up deposit in enterprise fund account.	Township Staff/Parks and Recreation Boards	√	⇒	⇒	⇒
28. Enhance and expand Township special event programming through increased partnerships.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards	√	⇒	⇒	⇒
29. Adopt a program planning philosophy that is aimed at family recreation opportunities. Build on current Township programming that lends itself to family recreation such as concerts and special events and promote as family recreation.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards	√	⇒	⇒	⇒

30. Add environmental education and nature-based recreation programs at park and open space areas in cooperation with other providers.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards		√	⇒	⇒
31. Continue to facilitate the provision of community recreation services by others.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards	√	⇒	⇒	⇒
32. Study the best uses for the Seidersville Hall in Lower Saucon Township building as a space for indoor recreation programs.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards		√	⇒	⇒
33. Pursue increased cooperation with the school districts for access to indoor and outdoor recreation facilities for community recreation programs.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards		√	⇒	⇒
34. Support conducting a study to explore the creation of a regional recreation commission to coordinate offering recreation programs and special events for the community. Apply for DCNR Peer-to-Peer grant.	The DCNR grant is a maximum of \$10,000, with a 10% local match of \$1,000 needed.	Township Staff/Parks and Recreation Boards	√			

Goal 5 – Recreation, Parks and Open Space Finances
Secure adequate financing and partnerships to support the operation, maintenance, development and future acquisition of park and open space areas and recreation facilities.

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
35. Add the salary of the recreation, parks and open space director positions to the general fund operating budgets of each Township. Shared position could be funded by DCNR Circuit Rider 4-year grant. (100/75/50/25% of salary)	Salary estimate \$40-45,000, plus benefits.	Township Supervisors/Staff	√	⇒	⇒	⇒
36. Invite the DCNR regional recreation and parks advisor to visit the Townships, tour the park areas and meet with staff, elected officials and parks and recreation board members to discuss grant project funding.	Staff time.	Township Staff	√		√	
37. Apply for DCNR grants to help pay for park improvements, trail planning and development and land acquisition.	Staff time and matching funds.	Township Staff	√	⇒	⇒	⇒
38. Continue to invest operating and capital budget funds for recreation improvements and open space protection.	Annually invest an increased amount for operations and capital projects.	Township Supervisors		√	⇒	⇒
39. Increase annual operating budget based upon a maintenance impact statement to be developed for every capital improvement project to show the resources needed to support the improvement.	Phase in additional operating funds as new parks and facilities are developed.	Township Supervisors/Staff		√	⇒	⇒
40. Update the Township mandatory dedication ordinances.	Staff time.	Township Supervisors/Staff	√	⇒	⇒	⇒
41. Identify a variety of funding sources to complement locally-derived funds and contributions to acquire, ease, improve and maintain park areas and open spaces.	Staff time.	Township Staff/Parks and Recreation Boards	√	⇒	⇒	⇒

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
42. Develop a business sponsorship package for Township special events and park projects.	Staff time.	Township Staff/Parks and Recreation Boards			√	⇒
43. Prepare a gift catalog of needed park improvements.	Staff time and printing costs.	Township Staff/Parks and Recreation Boards			√	⇒
44. Develop an adopt-a-park program to help with improvements to park areas.	Staff time.	Township Staff/Parks and Recreation Boards			√	⇒
45. Apply for a Pennsylvania Recreation and Park Society RecTAP grant to get help with developing a business sponsorship, gift catalog and/or adopt-a-park program.	The RecTAP grant is \$1,500 with no match required. Local funds could expand project.	Township Staff		√	⇒	⇒
46. Create ad-hoc fund raising committees as an extension of the parks and recreation boards.	Staff and volunteer time.	Township Supervisors/Staff		√	⇒	⇒
47. Capture names and addresses of participants/attendees at Township special events.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards		√	⇒	⇒
48. Establish Township-wide "Friends of the Parks" groups.	Staff and volunteer time.	Township Supervisors/Staff			√	⇒
49. Adopt criteria for determining what capital projects to pursue.	Staff time.	Township Staff	√	⇒	⇒	⇒
50. Develop a revenue policy for recreation and parks that establishes goals & methods for securing non-tax support for parks and recreation.	Staff time.	Township Staff		√	⇒	⇒
51. Strive to increase the percentage of the parks and recreation operating budget generated through non-tax sources. Establish 20 percent as the first milestone to be achieved.	Staff and volunteer time.	Township Staff/Parks and Recreation Boards		√	⇒	⇒
52. Seek assistance from major environmental groups, such as the Nature Conservancy and the Natural Lands Trust, to preserve open space.	Staff and volunteer time.	Township Staff/EAC		√	⇒	⇒
53. Explore the formation of a regional recreation commission with the school district that serves each Township and the other municipalities within the district. Apply for a DCNR Peer-to-Peer technical assistance grant to match a recreation and parks professional with the region to help with a regional recreation study.	The DCNR grant is a maximum of \$10,000, with a 10% local match of \$1,000 needed.	Township Supervisors/ Staff / Parks and Recreation Boards	√	⇒		
54. Assist Hellertown Borough and the Southern Lehigh Pool Association in establishing a capital plan for repair and maintenance of outdoor swimming pools. Help research and secure funding. Include enhancements for increased revenue generation.	Staff time.	Township Staff		√	⇒	⇒

Goal 6 – Park and Open Space Maintenance and Security

Continue to ensure that park and open space areas and recreation facilities are attractive and well-maintained, and safe and secure for visitors.

Project			2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation	Cost Statement	Responsible Party				
55. Establish minimum written standards of care for park areas, open spaces and recreation facilities.	Staff time.	Township Staff			√	⇒
56. Develop a seasonal written schedule of maintenance duties to achieve the minimum standards of care.	Staff time.	Township Staff		√	⇒	⇒
57. Develop a safety inspection checklist form for play equipment areas, other park facilities and open space areas. Conduct routine safety inspections.	Staff time.	Township Staff		√	⇒	⇒
58. Develop a maintenance impact statement for capital improvement projects to identify the costs, tasks and resources needed to maintain the sites.	Staff time.	Township Staff		√	⇒	⇒
59. Institute a natural resource component to maintenance operations.	Staff time.	Township Staff		√	⇒	⇒
60. Increase staffing as needed to maintain park areas, open spaces and recreation facilities at a high standard.	Depends on number of sites being maintained.	Township Supervisors/Staff		√	⇒	⇒
61. Promote partnerships with sports organizations to build and maintain athletic fields.	Staff and volunteer time	Township Staff and Sports Organizations	√	⇒	⇒	⇒

Goal 7 – Open Space, Greenways and Trails

Lower and Upper Saucon Townships will actively pursue and secure an extensive system of open spaces and greenways that provide for the protection of important natural and cultural features both within their rural and developing landscapes.

Project			2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation	Cost Statement	Responsible Party				
ACTIONS FOR NATURAL & CULTURAL RESOURCE PROTECTION						
62. Maintain a detailed inventory of natural and cultural features including GIS databases.	Staff salary.	Both Township Staffs	√	⇒	⇒	⇒
63. Apply the Natural Resource Protection and Cluster Development Ordinance to ensure a proper site planning process early in the development review.	Development review funds.	LST Officials and staff	√	⇒	⇒	⇒
64. Strengthen and apply Section 282 of the Subdivision and Land Development Ordinance (natural features protection regulations) to ensure a proper site planning process early in the development review.	Proposed ordinance funds and development review funds.	UST Officials and staff	√	⇒	⇒	⇒
65. Adjust residential zoning policies to promote the use of cluster design with required open spaces that successfully protect important natural and cultural features and/or offer usable parklands.						
66. Add suitable review procedures and standards relating to the protection of identified natural habitats now, and historic sites and suspected areas of archaeological significance, once these have been identified to Section 180-95 of the Zoning Ordinance.	\$18,000	LST Officials and staff	√	⇒	⇒	⇒

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
67. Expand Section 180-95 of the Zoning Ordinance to require developers to submit qualified expert maintenance and resource management plans for the respective features contained upon a proposed development plan.						
68. Assign specific natural and cultural features with which to develop focused expertise for development reviews.	Development review funds.	LST EAC members & UST OSC Members	√	⇒	⇒	⇒
69. Develop a natural features protection orientation manual and process for new officials.	Staff salary.	Both Township Staffs	√			
70. Employ a wide range of techniques for open space acquisition.	Will depend upon open space feature & mandatory dedication revenues.	All parties from both Townships	√	⇒	⇒	⇒
ACTIONS FOR IDENTIFICATION OF KEY OPEN SPACE PRIORITIES						
71. Using the Open Space Map, prioritize key areas for protection.	Staff salary and volunteer time & mandatory dedication revenues..	Local Officials and staff	√	⇒	⇒	⇒
72. Using Worksheet A within Chapter VI of this Plan, develop a prioritized list of properties to be acquired/protected considering a variety of important factors.	Staff salary and volunteer time & mandatory dedication revenues.	LST EAC members, UST OSC members & staff from both Twps.	√	⇒	⇒	⇒
73. Target the Saucon Creek for focused attention in prioritizing its open space protection.	Staff salary and volunteer time & mandatory dedication revenues.	Local Officials and staff	√	⇒	⇒	⇒
74. Apply to DCNR for funding for a regional greenways and trails master plan with neighboring municipalities, to develop a region-wide network.	Matching funds of \$30,000 to \$50,000 needed.	Regional recreation, parks and open space director (See # 1).		√	⇒	⇒
75. Conduct a joint public workshop to determine the potential level of voluntary participation and gauge opposition for a Saucon Creek Greenway.	Staff time.	Both Township's Local Officials and staff	√			
76. Investigate the property acquisition and special tax methods authorized for the protection of open spaces by PA Act 153 of 1996.	Legal retainer fees.	One of the Township's solicitors	√			
ACTIONS TO PROTECT FARMLANDS						
77. Add the "Right-to-Farm" provision to Agricultural Zone.	LST – see #61. UST – see #59	Both Township's Local Officials and staff	√			
78. Revise zoning ordinance to permit the creation of secondary businesses (farm occupations) in financial support of a principal agricultural use.						
79. Inform prospective residents of new dwellings within the agricultural zones, that Officials intend to act with preference towards farmers regarding normal farming operations/impacts.	Development review funds.	Both Township's Officials and staff	√	⇒	⇒	⇒

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
80. Encourage landowners to pursue agricultural conservation easements funded by the Lehigh & Northampton County Agricultural Land Preservation Boards under the PA Agricultural Easement Purchase Program.	Staff time.	Both Township's staffs	√	⇒	⇒	⇒
81. Vigorously focus urban growth into compact developments with a wide range of public facilities and services; thereby relieving development pressures in outlying rural areas.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
ACTIONS TO PROMOTE RIPARIAN BUFFERS						
82. Revise zoning regulations to require farms with concentrated animal feeding operations and/or conservation easements should be required to install and maintain riparian buffers along all watercourses	LST – see #61 UST – see #59	Both Township's Local Officials and staff	√			
83. Strengthen riparian buffer regulations to include three separate buffer zones with distinct management and maintenance regimens.	LST – see #61 UST – see #59	Both Township's Local Officials and staff	√			
84. Coordinate riparian buffer educational and awareness programs among user groups (civic groups, students, scout troops, sportsmen's groups, etc.).	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
85. Cooperate with both public School Districts to conduct riparian buffer workshops and special projects at prominent locations throughout the Region.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
86. Promote participation by farmers in the Lehigh-Northampton Counties Conservation Reserve Program and the PA Game Commission's Conservation Reserve Enhancement Program	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
ACTIONS TO FUND OPEN SPACE PROTECTION						
87. Increase mandatory dedication of parkland/open space standards to .053 acres per unit and adjust its fee-in-lieu estimates to reflect recent real estate transactions with significantly higher land values (e.g. \$4,360 per dwelling unit).	see #61	Lower Saucon Township Local Officials and staff	√			
88. Increase mandatory dedication of parkland/open space standards to .069 acres per unit and adjust its fee-in-lieu estimates to reflect recent real estate transactions with significantly higher land values (e.g. \$5,680 per dwelling unit).	see #59	Upper Saucon Township Local Officials and staff	√			
89. As an alternative to fees-in-lieu of mandatory dedication that have restriction on use by location and timing, accept unencumbered donations to a general fund to be used for open space acquisition, development and/or improvement	NA	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
90. Implement a program of transferable development rights	See #59	Upper Saucon Township Local Officials and staff	√	⇒	⇒	⇒

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
91. Monitor progress of the Highlands Conservation Act and, when appropriate, submit a joint application for a conservation partnership project to the PA DCNR and Governor.	Ongoing community planning funds & use mandatory dedication revenues for leverage.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
92. Submit a joint application to protect important habitats to the Lehigh & Northampton County 21 st Century Open Space Initiative Program.	Staff time & use mandatory dedication revenues for leverage.	Both Township's staffs	√	⇒	⇒	⇒
93. Consider floating a bond or earmark a percentage of its earned income tax with which to offer a local paid program of conservation easement purchase.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
94. Promote open space protection by other local and regional conservancies (American Farmlands Trust, Wildlands Conservancy, Heritage Conservancy, Natural Lands Trust)	Ongoing community planning funds and use mandatory dedication revenues for leverage.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
95. Investigate with other "interested" municipalities and agencies, the creation of a local conservancy devoted to the protection and management of local open spaces.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
96. Pursue various conservation-open space funding programs as listed in Chapter V, Section H of this Plan.	Ongoing community planning funds and use mandatory dedication revenues for leverage.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
ACTIONS TO INCREASE OPEN SPACE AWARENESS						
97. Distribute brochures and periodic newsletter articles and conduct workshops for citizens and local officials about the Region's important resources, open space acquisition techniques and needs.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
98. Expanded use of cluster development options will enable developers and landowners to become partners with the Townships in the identification and protection of important natural and cultural features and stewards of such features once neighborhoods have been constructed.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
99. Solicit individuals and groups of volunteers who can assist the Townships in acquiring, maintaining and managing open spaces.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒

Project	Cost Statement	Responsible Party	2006	2007-08	2009-12	2013-16
Key √ - Start project ⇒ - Continue implementation						
100. Coordinate open space planning with the School Districts to facilitate shared open space resources, programming, maintenance and management options (e.g. ecology studies, field labs, water quality testing, independent studies, special clean-up events, riparian buffer tree planting, etc.)	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
101. Conduct workshops with local developers to explain the Township's changes in policy regarding the need to incorporate open space amid new developments and commit to this practice as a priority that will be emphasized when evaluating future development applications.	Ongoing community planning funds.	Both Township's Local Officials and staff	√	⇒		
102. Contact known local conservancies to coordinate the standards for acquisition that are acceptable to these important agencies so that they can become willing partners in the protection of open space.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒
103. Hold regular meetings with county agencies that are involved in the Administration of the Open Space Initiative Grant Program so that mutually-beneficial strategies and projects can be identified and possible sharing of resources can maximize return on investment.	Ongoing community planning funds.	Both Township's Local Officials and staff	⇒	⇒	⇒	⇒

VIII. Capital Improvement Program

The recommendations of this Plan will require Lower and Upper Saucon Townships to make both capital and operating expenditures. Determining capital costs can be somewhat nebulous. Many communities use their own employees and volunteer work forces to save considerable expense. The following table provides costs estimates for proposed capital improvements identified in this Plan. These are opinions based on the best available information and should be re-defined when a specific project approach, scope, materials, etc. are determined. In addition, the projected cost is based on 2005 expenses for contracted labor, and does not consider any particular source of revenue.

Upper Saucon Township Parks and Recreation Facilities Capital Improvement Program				
Park Improvement	Cost Opinion	2006-2007	2008-2011	2012-2016
Upper Saucon Township Community Park				
1. Continue the handicapped accessible pathway system to athletic fields that are not connected	\$25/linear foot		⇒	⇒
Joint Community Park				
1. Acquire this 30-50 acres	\$7.5M, shared with Lower Saucon Township	⇒		
2. Complete a Community Park feasibility study and master plan	\$45,000, shared with Lower Saucon Township		⇒	
3. Construct a multi-purpose artificial turf field	\$1M, shared with Lower Saucon Township		⇒	⇒
4. Construct a Community Park that includes facilities identified in the master planning process such as: <ul style="list-style-type: none"> • Paved pathways (walking, biking, in-line skating) • Band shell • Picnic pavilion • Athletic fields (soccer, football, baseball/softball, lacrosse, rugby) • Athletic courts (basketball, volleyball, tennis, street hockey) • Children's play areas • Scenic natural areas 	\$7 to \$10M, shared with Lower Saucon Township		⇒	⇒
Alternate Western UST Community Park – Alternative to Joint Community Park				
1. Acquire 39.9 acres	\$4.34M	⇒		
2. Complete a Community Park master plan	\$30,000		⇒	

<p>3. Construct a Community Park that includes facilities identified in the master planning process such as:</p> <ul style="list-style-type: none"> • Paved pathways (walking, biking, in-line skating) • Band shell • Picnic pavilion • Athletic fields (soccer, football, baseball/softball, lacrosse, rugby) • Athletic courts (basketball, volleyball, tennis, street hockey) • Children's play areas • Scenic natural areas 	\$7M		⇒	⇒
Southern Lehigh Living Memorial Park				
<p>1. Construct a paved path from the parking lots around the park perimeter to connect facilities making them handicapped accessible</p>	\$25/linear foot		⇒	
<p>2. Remove and dispose of old play equipment that does not meet current CPSC and ASTM Safety guidelines; restore areas</p>	\$7,500	⇒		
<p>3. Fill remaining play equipment areas with wood mulch to provide minimum 6-foot use zone around equipment that is 12 inches deep</p>	\$5,000	⇒		

Lower Saucon Township Parks and Recreation Facilities Capital Improvement Program				
Park Improvement	Cost Opinion	2006-2007	2008-2011	2012-2016
Southeastern Park				
1. Install a new rules and regulations sign	\$300	⇒		
2. Restore horseshoe pits	\$500	⇒		
3. Construct a paved path from the parking lot to pavilion, restrooms, ball field and play structures making them handicapped accessible	\$25/linear foot		⇒	
4. Provide handicapped parking spaces	\$500	⇒		
5. Line stripe the parking lot	\$1,000	⇒		
6. Construct a batting cage	\$3,200	⇒		
7. Fill play equipment area with wood mulch to 12 inches deep	\$3,500	⇒		
Steel City Park				
1. Provide handicapped parking spaces on the street	\$300	⇒		
2. Construct a paved path from the street to park facilities making them handicapped accessible	\$25/linear foot		⇒	
3. Fill play equipment area with wood mulch to 12 inches deep	\$3,500	⇒		
4. Add two benches at play area	\$1,000		⇒	
5. Improve ball field infield	\$4,000	⇒		
6. Fill cracks and seal coat the basketball court	\$2,000	⇒		
Town Hall Park				
1. Construct a paved path from the parking lots to ball field, pavilion and play areas making them handicapped accessible	\$25/linear foot		⇒	
2. Rehabilitate the drive to the pavilion and restrooms; add parking adjacent to the pavilion; provide handicapped parking spaces and an accessible path from parking to the pavilion	\$30,000		⇒	
3. Fill play equipment area with wood mulch to provide minimum 6-foot use zone around equipment	\$3,500	⇒		
4. Add a scoreboard	\$5,500	Already completed		
5. Replace backstop	\$7,500			
7. Improve ball field infield	\$4,000	⇒		
8. Add screening/fencing to maintenance equipment area	\$10,000	⇒		
Heller Homestead Park				
1. Conduct an architectural review to develop plans for handicapped access to the house	\$5,000	⇒		
Polk Valley Park				
1. Complete Phase 1 construction	Currently underway	⇒		
2. Complete Phase 2 and 3 construction	Refer to master plan cost estimate		⇒	⇒
Joint Community Park				
1. Acquire this 30-50 acres	\$7.5M, shared with Upper Saucon Township	⇒		

2. Complete a Community Park feasibility study and master plan	\$45,000, shared with Upper Saucon Township		⇒	
3. Construct a multi-purpose artificial turf field	\$1M, shared with Upper Saucon Township		⇒	⇒
4. Construct a Community Park that includes facilities identified in the master planning process such as: <ul style="list-style-type: none"> • Paved pathways (walking, biking, in-line skating) • Band shell • Picnic pavilion • Athletic fields (soccer, football, baseball/softball, lacrosse, rugby) • Athletic courts (basketball, volleyball, tennis, street hockey) • Children's play areas • Scenic natural areas 	\$7 to \$10M, shared with Upper Saucon Township		⇒	⇒

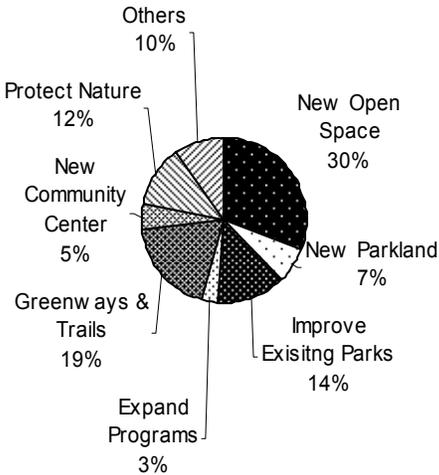
IX. Attitudinal Survey Results

One of the most important elements of this Comprehensive Recreation and Open Space Plan is the gathering and analysis of public opinion regarding existing and future recreation and open space needs. In order to gauge and evaluate public opinion, an attitudinal survey was developed and pre-tested among the Regional Study Committee. Then in March 2005, the survey was distributed to a municipally-selected random sample of 1,000 of the Region’s households (500 per Township). Following a three-week turnaround period, 286 surveys returned, resulting in a 29% response rate. Typically, sociologic and marketing surveys attempt to achieve a 20% to 30% response rate; therefore, the response rate for this survey meets those general standards.

This chapter will present the results of these surveys and findings for each question. Specific tallies for each Township, and the survey instruments are provided in the Appendix A of this Plan. A list of volunteer respondents who would be willing to assist the Region have been provided to each Township but is not presented within this Plan.

Question 1 of this survey asked respondents to identify one recreation or open space priority among several categories identified by the Study Committee. The following ranks the responses within the Region:

Regional Priorities	LST	UST	Region
Acquisition of Land for open space	37	48	85
Creation of greenways, trails and walkways	24	28	52
Improvement of existing parks with more and better facilities	15	23	38
Protecting natural resources	14	19	33
Acquisition of land for new parks	4	15	19
Development of a new community center with meeting/class rooms, gymnasium and fitness rooms	4	10	14
Expanding recreation programs, services and activities	4	4	8
Other, please specify (See Appendix A for specific tallies)	15	12	27



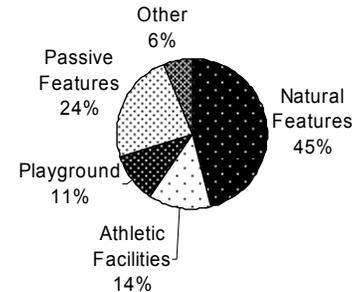
As can be seen, open space priorities scored considerably higher than formalized park and recreation program improvements. This result was the same in both Township’s and should direct this Plan’s recommendations accordingly.

Question 2 asked how often residents use each of the Township’s current stock of local parks. The specific tallies are listed in Appendix A of this Plan. Overall the results suggest that the Townships’ centralized parks recorded the highest usage; however, these facilities were most often used only sometimes. This is probably more a function of the adult-respondents who typically recreate less frequently than do children who have more leisure time and are more active. Within Lower Saucon Township it would appear that most of the existing parks are experiencing similar levels of usage; only Steel City Park has unusually low usage rates. Within Upper Saucon

Township, the Preston Land/Upper Saucon Township Park has exceptional usage rates followed by most of the other parks with normal usage rates. In both Townships, the public schools are providing important service as indicated by their current usage.

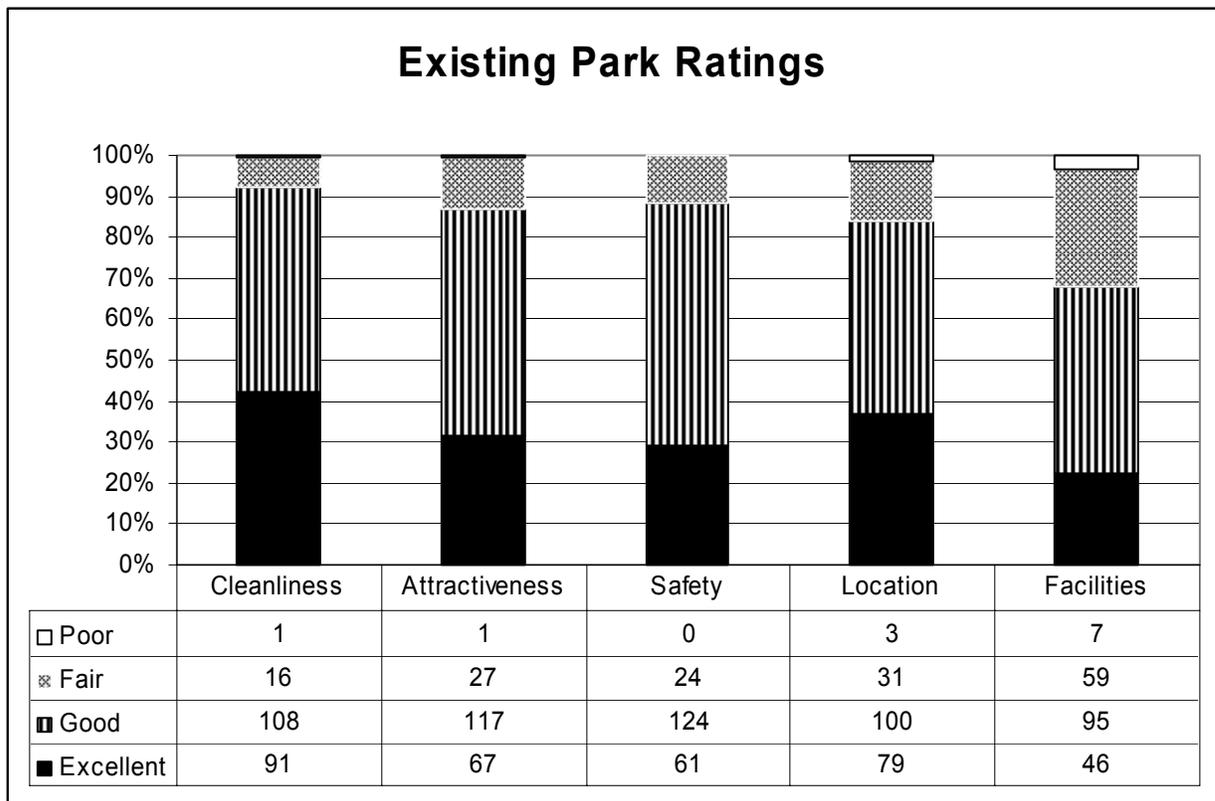
Question 3 of this survey asked respondents to identify one of the attributes they like most about their local parks among several categories identified by the Study Committee. The following ranks the responses within the Region:

Favorite Local Park Features	LST	UST	Region
Natural features (open space, woodlands, wildlife habitats, streams)	61	65	126
Passive features (trails, benches, picnic facilities, etc)	18	47	65
Athletic and sports features (fields, courts, pools, gymnasiums)	15	22	37
Playgrounds (swings, slides, climbers, etc)	12	17	29
Other, please specify (See Appendix A for specific tallies)	6	11	17



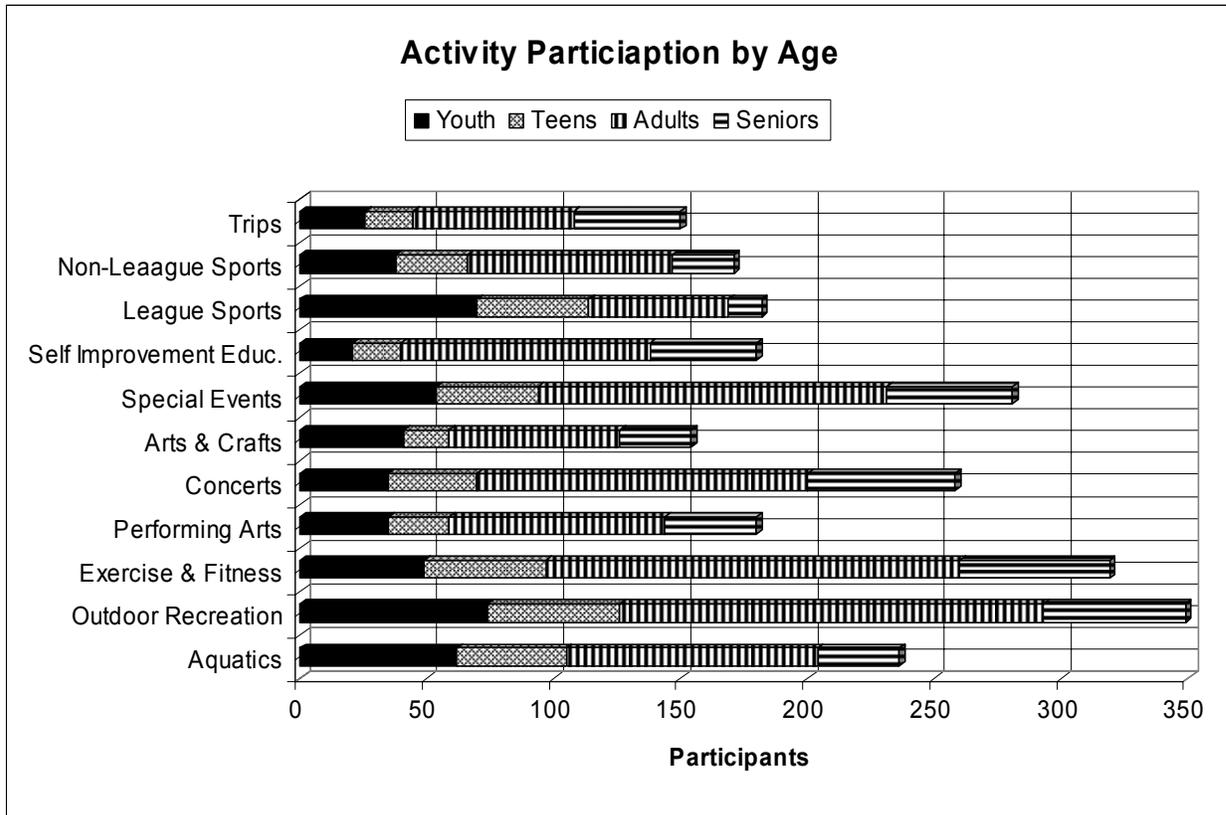
Like in Question 1 respondents expressed a clear preference for natural and passive features of local parks. Even though respondents express this preference, municipalities must offer a wide range of recreation and leisure activities; however, local officials should be ever mindful of the strong preferences for natural and passive park features and look to create such areas whenever opportunities arise. Again, these preferences were expressed for both Townships.

Question 4 asked residents to rate the existing parks among several categories identified by the Study Committee. The following ranks the responses within the Region:



As can be seen in the preceding graph, overall satisfaction with existing parks is high. At least 80 percent of respondents believe that park cleanliness, attractiveness, safety and location are at least good. Only the availability of facilities had a slightly lower satisfaction rate but still almost 7 out of 10 believe that the level of availability facilities is at least good. Overall, both Township appear to be offering parks that are appreciated and offering a suitable level of improvement and maintenance.

Question 5 asked residents to identify members of their household by age group who would participate among several activities identified by the Study Committee. The following ranks the responses within the Region:

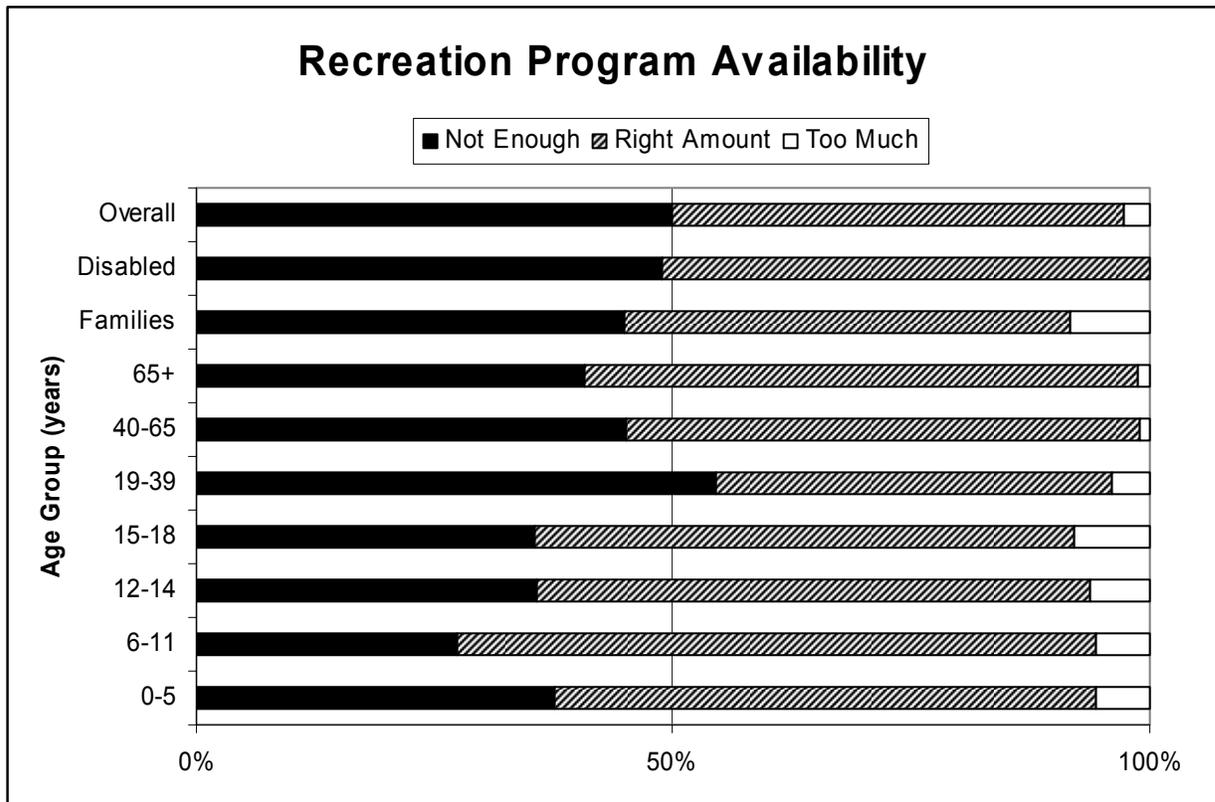


This powerful graph reveals much important information. First, overall recreation activity preferences can be visualized and outdoor recreation activities had the greatest support; this is not surprising given the Region’s residents’ preferences for nature-based and passive pastimes. Next exercise and fitness also had extensive support followed by special events, concerts and aquatics. The following ranks activity preferences by each of the age groups:

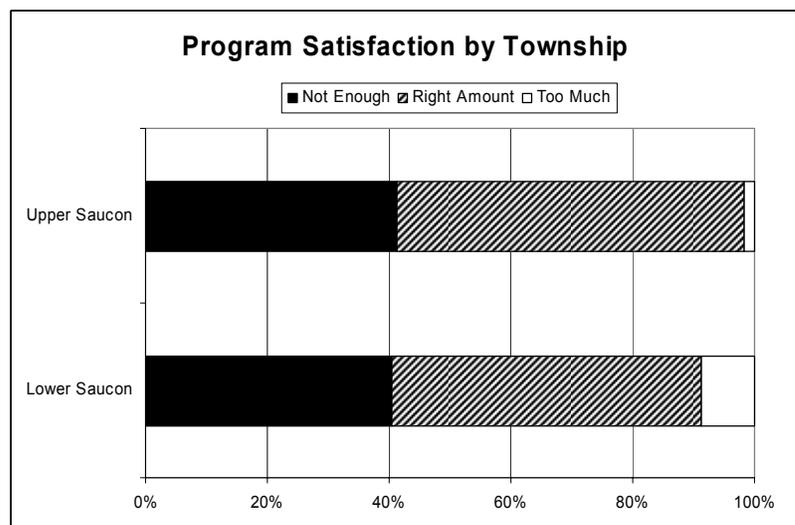
"Top 5" Desired Activity Participation by Age Group			
Youth	Teens	Adults	Seniors
Outdoor Recreation	Outdoor Recreation	Outdoor Recreation	Exercise & Fitness
League Sports	Exercise & Fitness	Exercise & Fitness	Concerts
Aquatics	League Sports	Special Events	Outdoor Recreation
Special Events	Aquatics	Concerts	Special Events
Exercise & Fitness	Special Events	Aquatics	Self Improvement / Education & Trips (tied)

This information can be used to direct parkland and programming preferences based upon indicated desired participation.

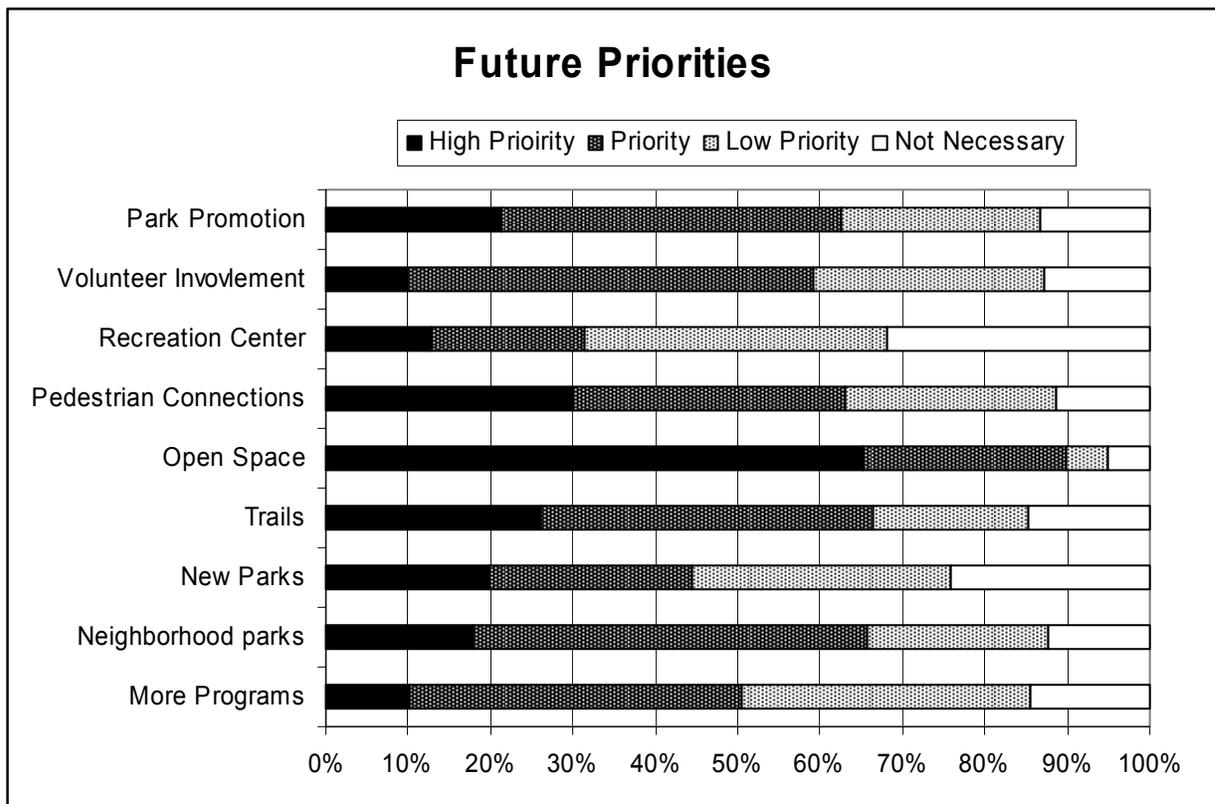
Question 6 asked residents to rate the availability of recreation programs by age group and among several other groups identified by the Study Committee. The following ranks the responses within the Region:



From the preceding graph it would appear that across the Region, programming has focused upon the youth and, to a slightly lesser degree, seniors. Young adults and the disabled appear to be the least served. However, since each Township has programmed activities independently in the past, it is important to determine the relative satisfaction in each Township. The adjoining graph reveals that Lower Saucon Township enjoys a slightly higher perceived level of recreation programming than does Upper Saucon Township; although this difference is negligible.



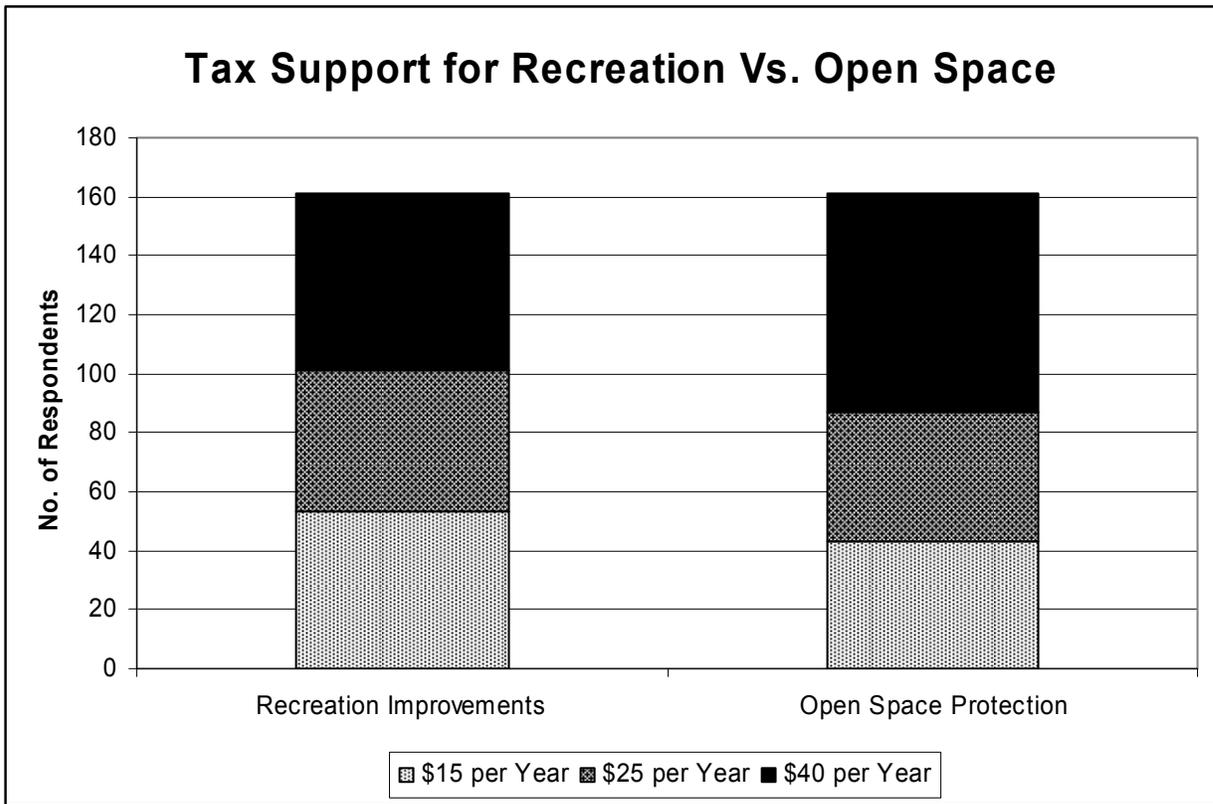
Question 7 asked residents to select among several priorities what the Region should focus upon in the future. The following ranks the responses within the Region:



The protection of open space and natural resources was by far the most popular future priority; 9 out of 10 respondents identified it as at least a priority and 2/3 listed it as a high priority. The second closest priority only received half that support as a high priority. The second and third priorities call for the establishment of pedestrian connections throughout the community and the creation of new trails, respectively. The promotion of parks and programming and the use of increased volunteerism were both suggested as priorities to the Region’s “improved” park and recreation system.

Question 8 asked residents to select among several categories of tax support that they would be willing to spend on an annual basis for recreation improvements and open space protection. The following presents the respondents results:

As the following graph depicts, of those who were willing to financially commit to either goal (about 56 percent of total respondents), the total number of supporters was about the same for both goals. This is somewhat surprising given the emphasis that the respondents have placed upon for the preservation of open space in the previous questions on this survey. Of those willing to pay higher taxes, the protection of open space was a priority among those who are willing to pay at a higher annual rate. This is expected among the Region’s more affluent who are less reliant upon public recreation facilities and programs but often place higher value on their surroundings. From these results, it is suggested that any tax increase that is earmarked for recreation and open space protection should be split between these two important undertakings.

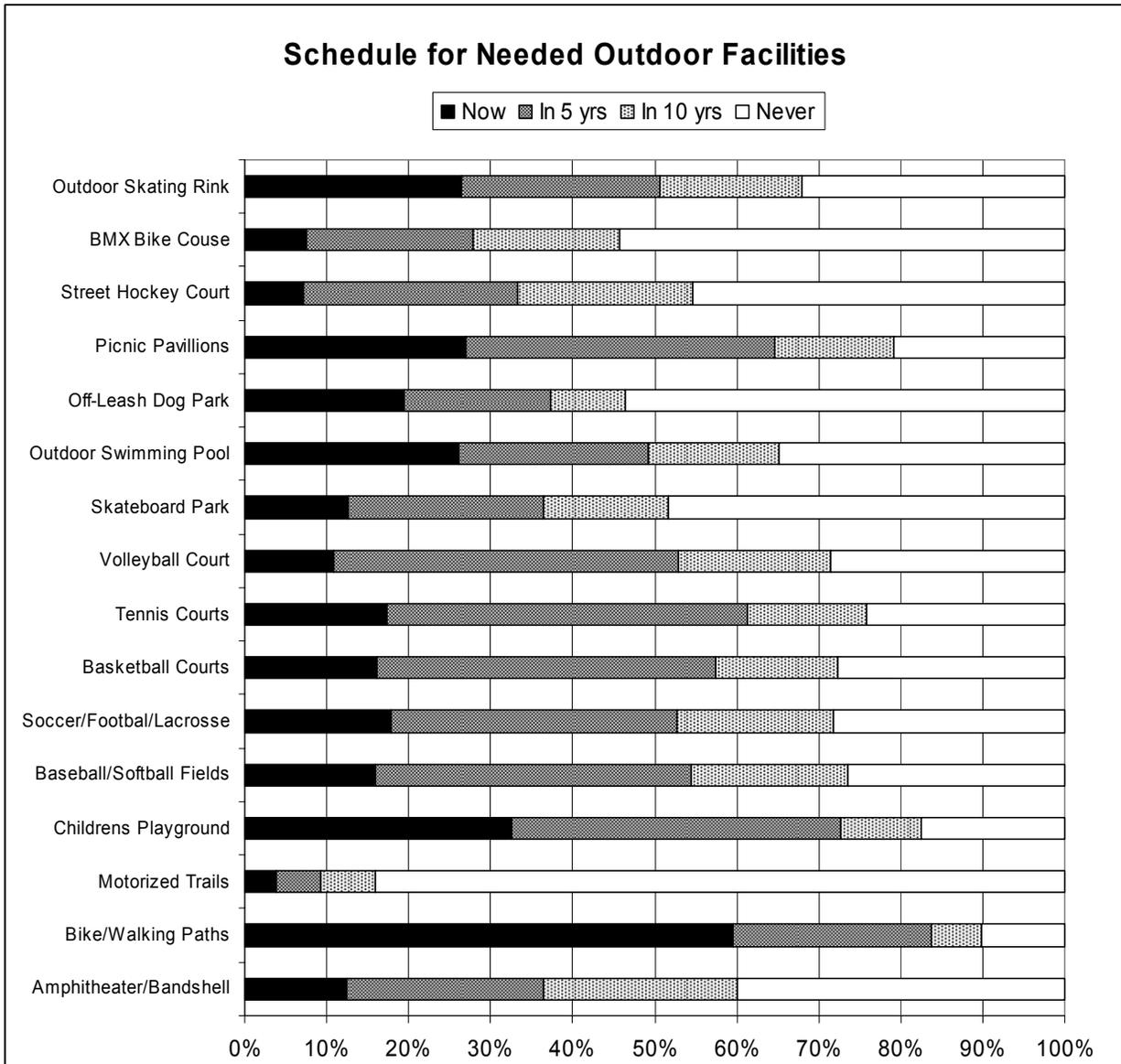


Question 9 asked residents to select among several scheduling priorities for outdoor recreation facilities within the Region. The graph on the following page depicts the results of this question.

The most urgent outdoor recreation improvement identified is bicycle and walking trails; this aligns well with previous questions that also highly supported these additions to the Region’s park and trail system. Sixty percent of respondents believe these facilities should be developed not and 9 in 10 feel that should occur within 10 years. Motorized trails had the least support of all responses, with less than 20 percent of respondents ever wanting such a facility within the Region. Clearly, the Region wants trails but it wants them free of motorized vehicles.

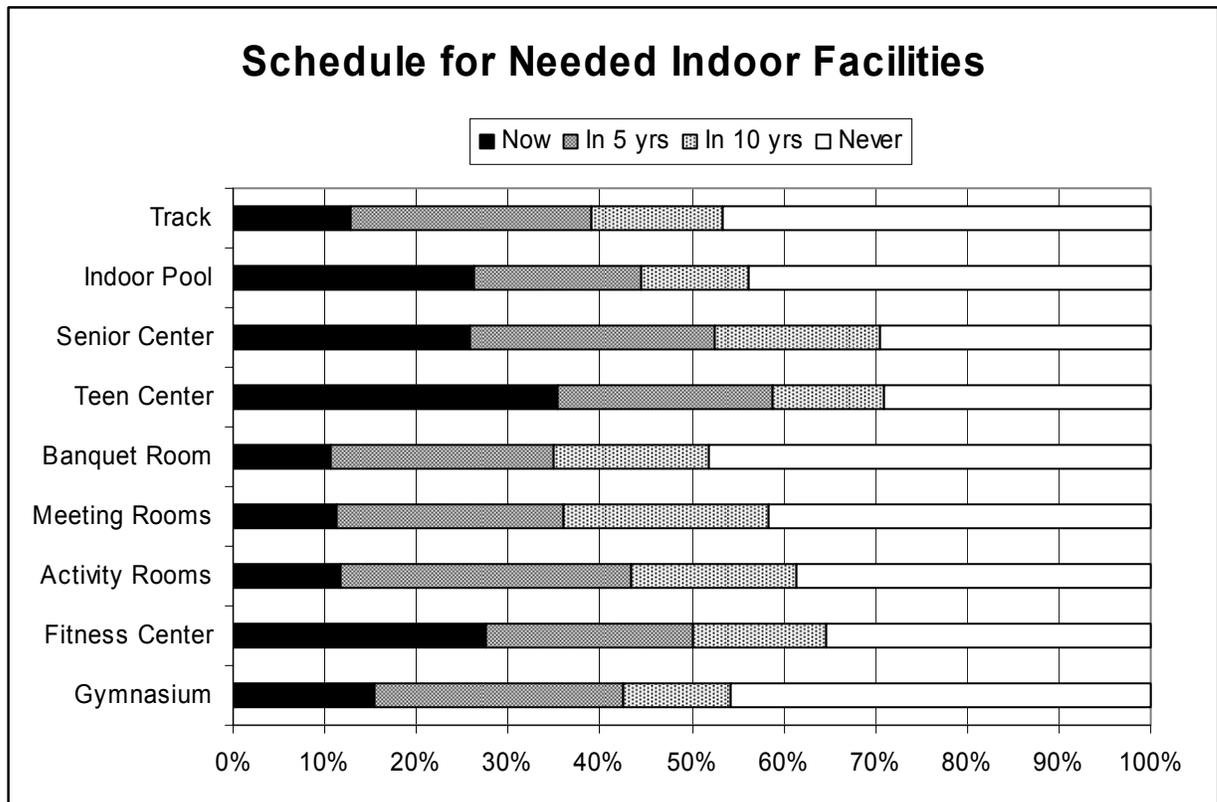
Childrens play areas recorded the second highest level of overall support for now and over the next 10 years followed closely by picnic pavilions. Tennis courts ranked fourth slightly ahead of a grouping of support for typical athletic fields and courts (e.g. baseball, softball, basketball, volleyball, soccer, football and lacrosse). Of the specialized outdoor improvements and outdoor skating rink was valued slightly higher than and outdoor swimming pool.

A majority of residents oppose the creation of only three of the possible listed improvements: a BMX bike course; off-leash dog park; and a motorized trail. These should be the lowest priorities within the Region.



Question 10 asked residents to select among several scheduling priorities for indoor recreation facilities within the Region. The graph on the following page depicts the results of this question.

Support for indoor recreation facilities is generally lower than that of outdoor facilities reported in the previous question. However, both a teen and senior center were identified as priorities over the next 10 years. The teen center had the most pressing support with about 1/3 of all respondents supporting its development now. The senior center gains support in 5 years and an indoor fitness center receives a majority of support 10 years in the future. All of these indoor improvements received eventual support of between 50 and 70 percent over the next 10 years.



Question 11 asked residents to list one thing that they would recommend to improve parks, recreation and open space within their Township. The following ranks these responses that were sorted into related groups:

Groups of Related Responses to Question 11			
Rank	Response Group (No. of responses)	Rank	Response Group
1	Protect open space (44)	8	Add covered pavilion (2)
2	Create trails (34)	8	Improve park access (2)
3	Better promotion / information (27)	8	Improve safety (2)
4	Better maintenance (14)	9	Add family fishing program (1)
5	Better use of existing parks (12)	9	Add teen center (1)
6	Improved programs (6)	9	Add permanent rest rooms (1)
6	Add swimming pools (6)	9	Add drinking fountain (1)
6	Add indoor recreation center (6)	9	Add athletic fields (1)
7	Better use of volunteers (3)	9	Add pistol / rifle range (1)
7	Require use fees (3)	9	Expand Tumblebrook GC to 18 holes (1)
8	Add bandshell (2)	9	Protect vegetation from deer (1)
8	Renovate swimming pools (2)	9	Add family picnic grove (1)
8	Enhance adult ed. @ schools (2)	9	Expand childrens play area (1)
8	Add dog park (2)	9	Reduce cost of pool pass (1)
8	Acquire public golf course (2)	9	Add soccer fields (1)

Again, the respondents' clear preferences for the protection of open space and the creation of trails are confirmed with these results. Some respondents believe better promotion of parks and programs would be helpful; this is a customary level of response to this type of question, as many people do not pay close attention to information until something like this survey gains their attention. In all this list can provide some specific suggestions that can be used by the Region to fine tune their priorities, facilities and activities.

Question 12 asked for the names, telephone numbers and areas of interest of potential volunteers who would be willing to help with the Region's park and recreation services. Since the survey was distributed anonymously, the identification of willing volunteers was provided to each respective Township for future reference; however, this Plan will not reveal this information.

**LOWER SAUCON TOWNSHIP
NORTHAMPTON COUNTY**

RESOLUTION NO. 59-2006

**A RESOLUTION AMENDING THE LOWER SAUCON TOWNSHIP
COMPREHENSIVE PLAN BY ADOPTING THE COMPREHENSIVE
RECREATION AND OPEN SPACE PLAN FOR UPPER AND LOWER
SAUCON TOWNSHIPS, DATED OCTOBER 24, 2006.**

WHEREAS, pursuant to Article III of the Pennsylvania Municipalities Planning Code, as amended (hereinafter, "MPC"), Lower Saucon Township adopted a Comprehensive Plan on June 12, 2000; and

WHEREAS, pursuant to Section 301(a) (2) of the MPC, the Comprehensive Plan contains provisions for community facilities, public grounds, parks and recreation; and

WHEREAS, Upper and Lower Saucon Townships recognize the benefits of working together to jointly plan for the future community, park, recreation and open space needs of the region; and

WHEREAS, both Townships share the common planning objectives of preserving the region's rural character and enhancing the recreation opportunities of the region's residents; and

WHEREAS, the governing bodies of Upper and Lower Saucon Townships created the Study Committee for the Joint Comprehensive Recreation, Parks and Open Space Plan (hereinafter, "Committee") to guide the preparation of a comprehensive recreation and open space plan; and

WHEREAS, after a series of public meetings, the Committee prepared and unanimously endorsed the Comprehensive Recreation and Open Space Plan for Upper and Lower Saucon Townships, a public release draft of which was dated April, 2006 (hereinafter referred to as the "April Plan"); and

WHEREAS, pursuant to Section 301.3 of the MPC, copies of the April Plan were distributed for review and comment to contiguous municipalities, the Lehigh Valley Planning Commission, the Saucon Valley School District and the Lower Saucon Township Planning Commission; and

WHEREAS, at a public meeting, the Lower Saucon Township Planning Commission recommended unanimously the approval of the April Plan; and

WHEREAS, the Lehigh Valley Planning Commission endorsed the April Plan with minor corrections addressing source material, which corrections were not substantial in nature; and

WHEREAS, the April Plan was modified to address the aforementioned comments; and

WHEREAS, the April Plan, as modified, is now known as the Comprehensive Recreation and Open Space Plan for Upper and Lower Saucon Townships, dated October 24, 2006 (hereinafter, "Plan"); and

WHEREAS, pursuant to Section 302(b) of the MPC, the governing bodies of Upper and Lower Saucon Townships held a joint public hearing on October 24, 2006, for the purpose of accepting public comment and input concerning the adoption of the Plan; and

WHEREAS, the governing bodies of Upper and Lower Saucon Townships find the Plan to be consistent with the region's community, park, recreation and open space needs; and

WHEREAS, the Plan contains an Introduction (Chapter I), Study Goals (Chapter II), Community Background (Chapter III), Recreation and Parks System Profile (Chapter IV), Open Space Analysis and Recommendations (Chapter V), Strategic Action Plan (Chapter VI), Implementation Schedule (Chapter VII), Capital Improvement Program (Chapter VIII), and Attitudinal Survey Results (Chapter IX); and

WHEREAS, a true and correct copy of the Plan, including all maps, charts and textual matter, is attached hereto, made a part hereof and identified as Exhibit "A."

NOW, THEREFORE, IT IS HEREBY RESOLVED by the Council of the Township of Lower Saucon, Northampton County, Pennsylvania, as follows:

1. Pursuant to Sections 302(a) and (c) of the MPC, the Plan, including all maps, charts, textual matters and other matters forming a part of the Plan, is hereby adopted as the official parks, recreation and open space plan of Lower Saucon Township and the Lower Saucon Township Comprehensive Plan is amended accordingly.

2. On matters relating to parks, recreation and open space planning, the Township Council shall be guided by the Plan, however it shall not be obligated to implement the recommendations contained in the Plan.

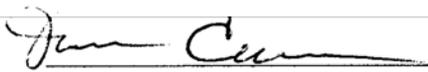
3. The Plan shall supercede all previously adopted parks, recreation and open space plans.

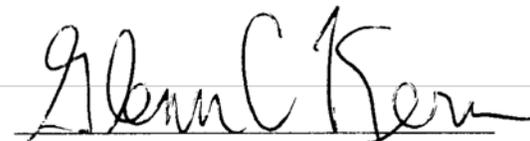
4. A true and correct copy of this Resolution shall be formally and officially appended to the Plan.

DULY ADOPTED, this 24th day of October, 2006, by the Council of the Township of Lower Saucon, Northampton County, Pennsylvania, in lawful session duly assembled.

ATTEST:

LOWER SAUCON TOWNSHIP


Township Manager


Council President

**UPPER SAUCON TOWNSHIP
LEHIGH COUNTY
RESOLUTION NO. 2006-52**

**A RESOLUTION AMENDING THE UPPER SAUCON TOWNSHIP
COMPREHENSIVE PLAN BY ADOPTING THE COMPREHENSIVE
RECREATION AND OPEN SPACE PLAN FOR UPPER AND LOWER
SAUCON TOWNSHIPS, DATED OCTOBER 24, 2006.**

WHEREAS, pursuant to Article III of the Pennsylvania Municipalities Planning Code, as amended (hereinafter, "MPC"), Upper Saucon Township adopted a Comprehensive Plan on July 25, 1985; and

WHEREAS, pursuant to Section 301(a) (2) of the MPC, the Comprehensive Plan contains provisions for community facilities, public grounds, parks and recreation; and

WHEREAS, Upper and Lower Saucon Townships recognize the benefits of working together to jointly plan for the future community, park, recreation and open space needs of the region; and

WHEREAS, both Townships share the common planning objectives of preserving the region's rural character and enhancing the recreation opportunities of the region's residents; and

WHEREAS, the governing bodies of Upper and Lower Saucon Townships created the Study Committee for the Joint Comprehensive Recreation, Parks and Open Space Plan (hereinafter, "Committee") to guide the preparation of a comprehensive recreation and open space plan; and

WHEREAS, after a series of public meetings, the Committee prepared and unanimously endorsed the Comprehensive Recreation and Open Space Plan for Upper and Lower Saucon Townships, a public release draft of which was dated April, 2006 (hereinafter referred to as the "April Plan"); and

WHEREAS, pursuant to Section 301.3 of the MPC, copies of the April Plan were distributed for review and comment to contiguous municipalities, the Lehigh Valley Planning Commission, the Southern Lehigh School District and the Upper Saucon Township Planning Commission; and

WHEREAS, at a public meeting, the Upper Saucon Township Planning Commission recommended unanimously the approval of the April Plan while identifying grammatical and tabular errors, not substantial in nature; and

WHEREAS, the Lehigh Valley Planning Commission endorsed the April Plan with minor corrections addressing source material, which corrections were not substantial in nature; and

WHEREAS, the April Plan was modified to address the aforementioned comments; and

WHEREAS, the April Plan, as modified, is now known as the Comprehensive Recreation and Open Space Plan for Upper and Lower Saucon Townships, dated October 24, 2006 (hereinafter, "Plan"); and

WHEREAS, pursuant to Section 302(b) of the MPC, the governing bodies of Upper and Lower Saucon Townships held a joint public hearing on October 24, 2006, for the purpose of accepting public comment and input concerning the adoption of the Plan; and

WHEREAS, the governing bodies of Upper and Lower Saucon Townships find the Plan to be consistent with the region's community, park, recreation and open space needs; and

WHEREAS, the Plan contains an Introduction (Chapter I), Study Goals (Chapter II), Community Background (Chapter III), Recreation and Parks System Profile (Chapter IV), Open Space Analysis and Recommendations (Chapter V), Strategic Action Plan (Chapter VI), Implementation Schedule (Chapter VII), Capital Improvement Program (Chapter VIII), and Attitudinal Survey Results (Chapter IX); and

WHEREAS, a true and correct copy of the Plan, including all maps, charts and textual matter, is attached hereto, made a part hereof and identified as Exhibit "A."

NOW, THEREFORE, IT IS HEREBY RESOLVED by the Board of Supervisors of the Township of Upper Saucon, Lehigh County, Pennsylvania, as follows:

1. Pursuant to Sections 302(a) and (c) of the MPC, the Plan, including all maps, charts, textual matters and other matters forming a part of the Plan, is hereby adopted as the official parks, recreation and open space plan of Upper Saucon Township and the Upper Saucon Township Comprehensive Plan is amended accordingly.

2. On matters relating to parks, recreation and open space planning, the Board of Supervisors shall be guided by the Plan, however it shall not be obligated to implement the recommendations contained in the Plan.

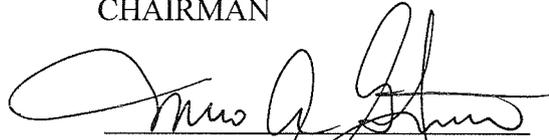
3. The Plan shall supercede all previously adopted parks, recreation and open space plans.

4. A true and correct copy of this Resolution shall be formally and officially appended to the Plan.

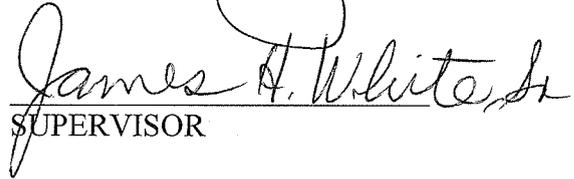
DULY ADOPTED, this 24th day of October, 2006, by the Board of Supervisors of the Township of Upper Saucon, Lehigh County, Pennsylvania, in lawful session duly assembled.

UPPER SAUCON TOWNSHIP
BOARD OF SUPERVISORS

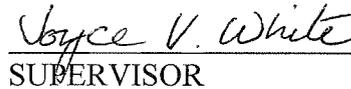
CHAIRMAN



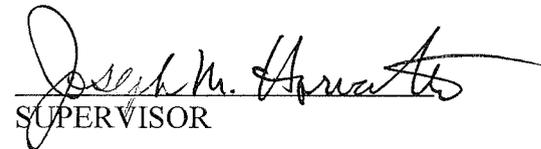
VICE CHAIRMAN



SUPERVISOR



SUPERVISOR



SUPERVISOR

ATTEST:



SECRETARY