

Lower Merion Township, Montgomery County Pennsylvania Inventory of Potentially Vulnerable Resources

Potentially vulnerable resources include natural and man-made resources, which contribute to the overall open space character of the Township. This section provides a brief description of the different types of vulnerable resources, including natural, scenic, historical and cultural and identifies issues associated with their protection.

A major task of the open space planning process involved updating and integrating the resource inventories from 1995 Open Space Plan into the Townships Geographic Information System (GIS). The linking of spatial data through GIS allows different resources to be compared and areas of convergence identified.

Fortunately, and as a result of Township preservation efforts, there has been very little change to natural and scenic resource inventories since the 1995 Plan. This Plan incorporates the inventories with minor revisions.

VULNERABLE RESOURCE ISSUES

- **The Schuylkill River.** The Schuylkill River winds along the northwest boundary of Lower Merion for approximately 7 miles. The river and its tributaries were integral to the early Mill history of the Township. In the early 20th century, the river was the site of the Township's largest employer, the Pencoys Iron Works. Despite its length and importance the river as a natural amenity has largely been an afterthought to the Township due to upstream industrial uses and the construction of railroads and the Schuylkill Expressway at the waters edge. A central focus of this Plan is to physically and environmentally reconnect the river with the Township and recognize its importance as a natural, cultural and historic resource. The long-range vision is to provide public access via multi-use recreational trails and the short-term strategy is to repair riparian conditions damaged through former use and neglect.
- **Contiguous natural areas** such as woodlands, hillsides, surface waters that provide for stormwater recharge, flood control, passive recreation and wildlife habitat. The



The Schuylkill River is the largest natural resource in Lower Merion Township. The narrow shelf between the Expressway and the river may one day contain a recreational trail.

undeveloped nature of the Township makes these remaining resources all the more critical to preserve. Natural area restoration is also needed to alleviate flooding, reduce erosion and create better environments for people as well as nature.

- **Bridlewild trail network.** The Bridlewild trail network exists via an informal arrangement of “handshake” easements across private property. This network of hiking and equestrian trails is threatened by new development, which may block access to this informal network.
- **Places for active recreation.** In spite of its superb park system, the Township is challenged by the changing nature of organized sports that includes requirements for dedicated fields, longer playing seasons, younger players and more female athletes. This adds up to increased demands for active recreation fields. Options are quite limited, as “they aren’t making land anymore,” especially when community parks can require as much as 50 acres of flat ground. Solving active recreational needs will require creative partnering with schools and institutions, and potential adaptive reuse of developed ground.
- **The tree-lined street** and the view from the road (see Green Infrastructure section). Tree-lined streets are the hallmark of Lower Merion’s neighborhoods built prior to World War II. Today, those street trees that so define Township character are at the end of their life span. Equally threatened is the character of scenic roads, described in the Township’s Scenic Road Corridor Study (1993). Along some Township scenic roads, the vocabulary of Wissahickon schist stone walls, azaleas and rhododendrons slowly give way to white pines, berms and road widenings, uncharacteristic of the local vernacular.
- **Historic resources,** in appropriate settings. The Township has won awards for its historic preservation programs, yet “tear downs” threaten to change the character of the Township. Additionally the Township is confronting a “wealth of riches” in trying to find ways to purpose all of the historic resources. For every success at repurposing, such as the Lower Merion Historic Society headquarters in Bala Cynwyd, there remains a challenge of how to find a new use for a historic structure such as the Penn Valley Women’s Club or the Cynwyd train station.

RESOURCE CONSERVATION PROTECTIONS

Generally speaking, environmental resources (such as floodplains, wetlands, woodlands, and steep slopes) have stronger protection than cultural resources. Environmental legislation is based on the clear impact of environmental degradation on public health and safety. For instance, regulations on tree removal and building on steep slopes or filling in floodplains and wetlands have been promulgated, at least partly, to lessen sediment loading of streams and the likelihood of damaging floods.

Not all environmental resources can be equally protected under the mantle of public health and safety. This is especially true of upland habitats that are readily developable, such as woodlands and meadows. Wildlife biologists have established the importance of unfragmented forests to the survival of the diversity of the region’s native plants and animals. Lower Merion’s Natural Features Conservation Ordinance, one of the most sophisticated ordinances of its type in the Commonwealth, recognizes the importance of woodlands, but still allows 25% of a mature woodland to be removed from a property before any requirement to replace lost trees is initiated.

Cultural resources are especially vulnerable to changes that would diminish their community value. Existing historic resources are somewhat protected by requirements for review by the Historic Architectural Review Board (HARB) and Historic Commission before exterior alterations are undertaken. The Township’s ability to insure preservation of historic structures not included in Historic Districts is limited to a general code requirement that new developments must demonstrate how historic structures will be incorporated into the development plan. HARB and the Historic Commission have a role in the review of applications to alter or demolish buildings listed on the Township’s historic inventory. Reviews are conducted in meetings open to the public, allowing the advisory opinions of HARB to shape public opinion on the application. Ignoring the opinions of advisory boards can expose applicants to negative publicity and possible community censure.

SCENIC VIEWS & ROADS INVENTORY



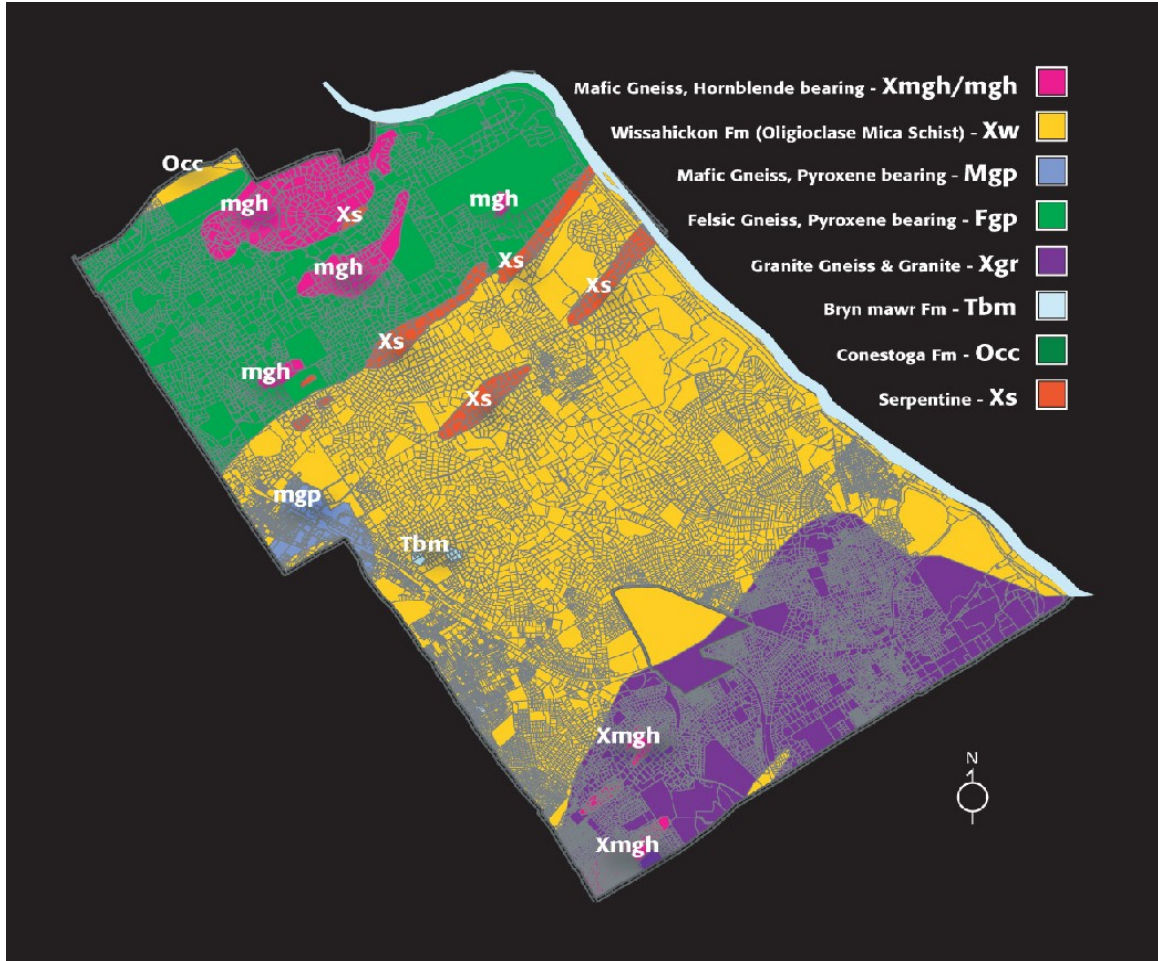
Scenic views and historic landscapes are difficult to define and are therefore difficult to regulate fairly and equitably. For this reason, local governments in Pennsylvania are not authorized to protect features such as lawns, meadows, hedgerows, large trees, scenic vistas, etc., under the aegis of the state enabling legislation relating to historic preservation.

Preservation of private recreational facilities is also largely beyond the statutory authority of the Township. Private trails are addressed in the Natural Features Conservation Ordinance. The ordinance requires that these trails be shown on plan submissions and be preserved wherever possible. However, if approved by the Township and a relevant trails association, the trail may be relocated within a property if the entrance and

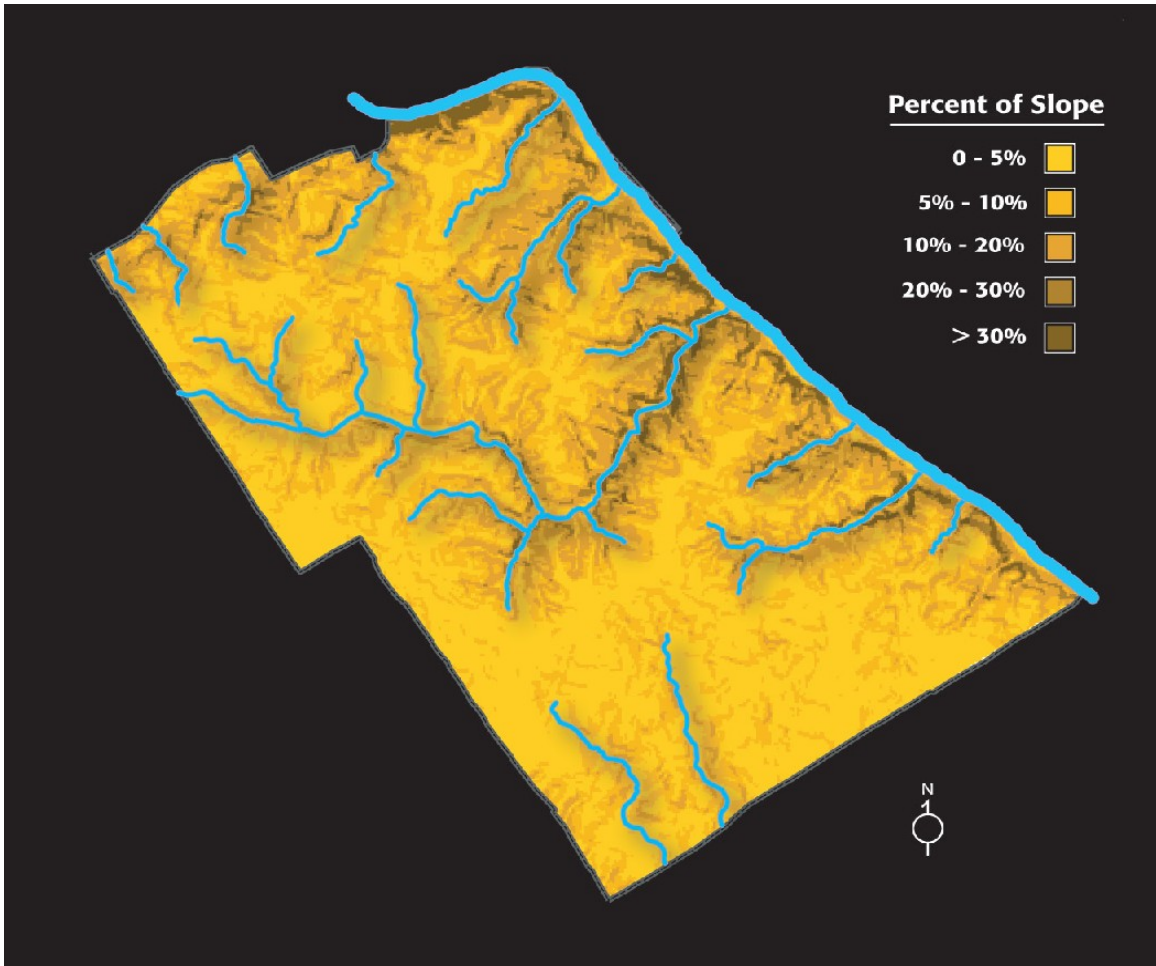
exit points on the property remain unchanged.

On the lands not otherwise encumbered by environmental regulations such as those pertaining to floodplains or steep slopes; the primary means of protecting vulnerable resources lies in the Open Space Preservation District Ordinance. Review of development proposals on properties in this District (being any residentially-used lot five acres or more) can incorporate considerations such as the preservation of existing woodlands, the continuation and expansion of Bridlewild Trail system, the preservation of historic properties and landscapes, and the retention of scenic views.

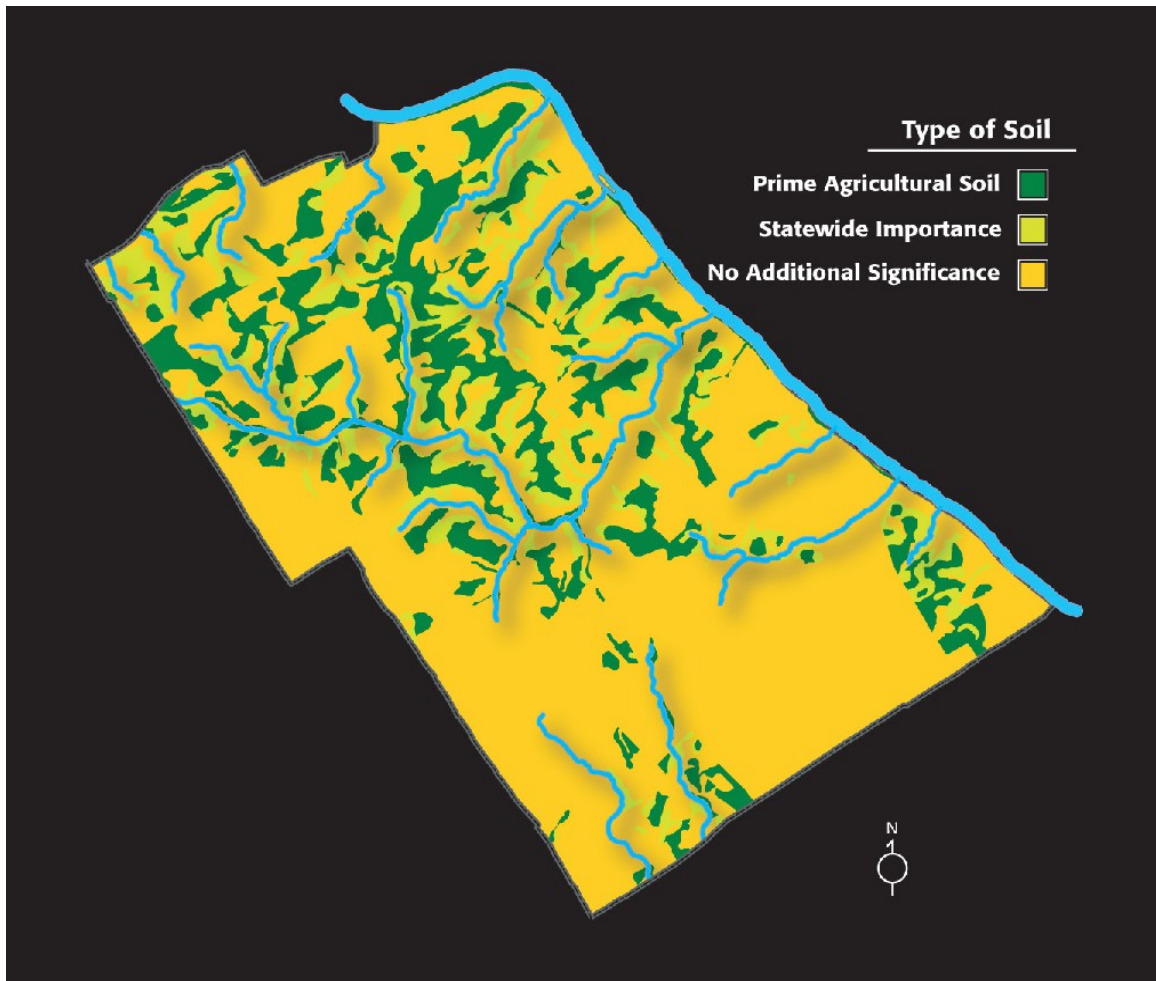
GEOLOGIC FEATURES



TOPOGRAPHIC FEATURES



AGRICULTURAL SOILS



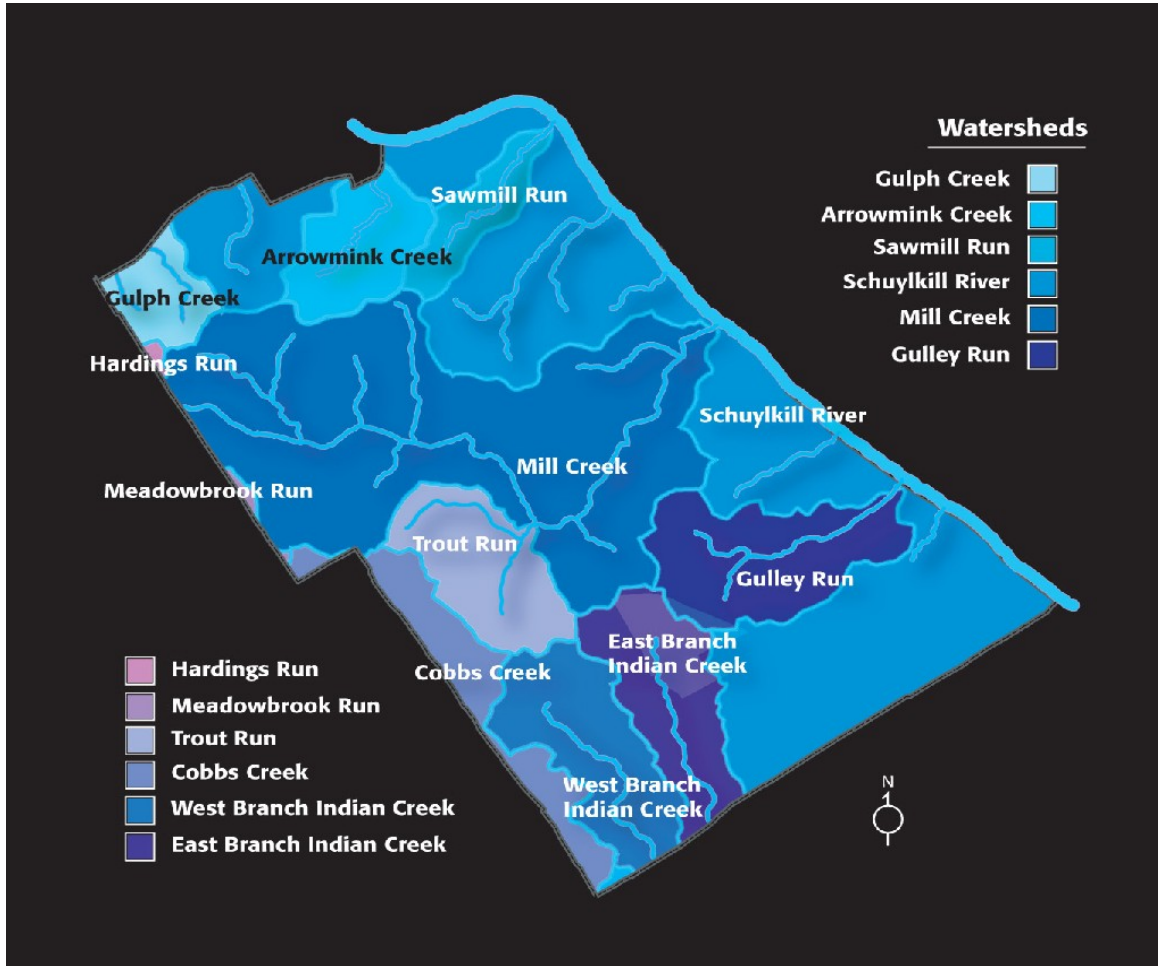
RESOURCE CONSERVATION AREAS

Extensive natural and cultural resources are found in the northern two-thirds of the Township, especially in the lower and middle sections of the Mill Creek Valley, along Young's Ford and Lafayette Roads, and on the bluffs above the Schuylkill and Mid-County Expressways. In addition, the upper portion of Mill Creek near Bryn Mawr College, Belmont Hills, and the valleys of Gulley Run and Centennial Road also contain concentrations of resources. The resources that comprise these areas include steep slopes, woodlands, scenic roads and vistas, historic districts and neighborhoods, and the Bridlewild Trail system.

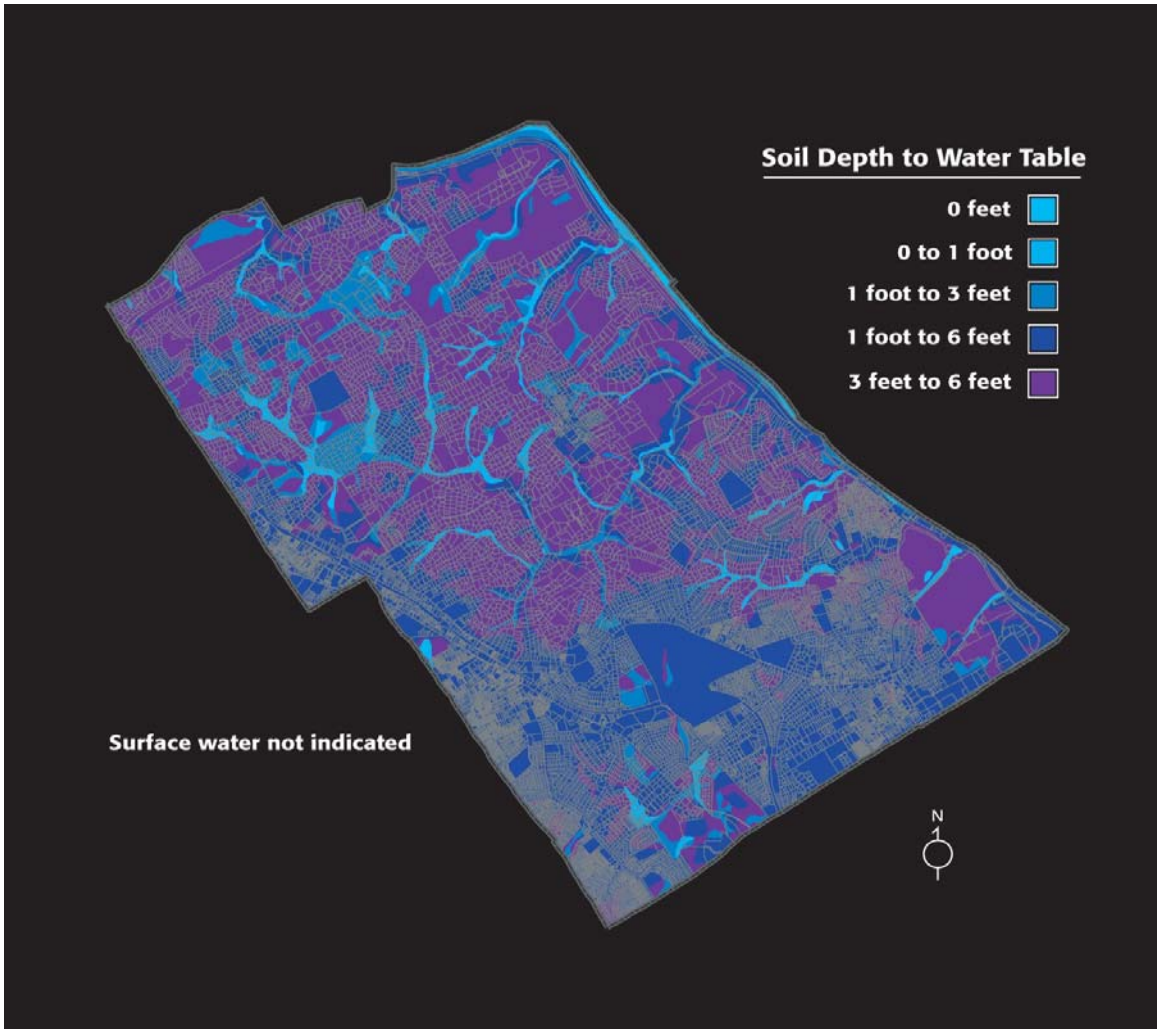
Stream valleys are the most common resource concentration areas. Wooded stream valleys protect water quality, mitigate flooding, and are important wildlife habitat. The valleys also have the advantage of being natural linear corridors providing potential links with existing Township-owned parks and private open spaces in a system that will benefit both wildlife and pedestrians. The Bridlewild Trail system already offers to its members the opportunity to traverse six valleys and the upland areas connecting them. Township ordinances currently stipulate that new developments retain the entrance and exit points of the Bridlewild Trail system. In every valley the scenic roads and historic sites found near the stream courses add a cultural layer of importance to valley protection.

In the flatter, more developed southeastern section of the Township an important open space resource is the park system. Small parks ("pocket parks") in settled neighborhoods provide convenient locations for residents to take small children, pets, and visitors for passive recreational activities. When well maintained, they can also boost the desirability and property values of nearby properties. Such urban parks clearly contribute to the special character and aesthetic quality of life in Lower Merion.

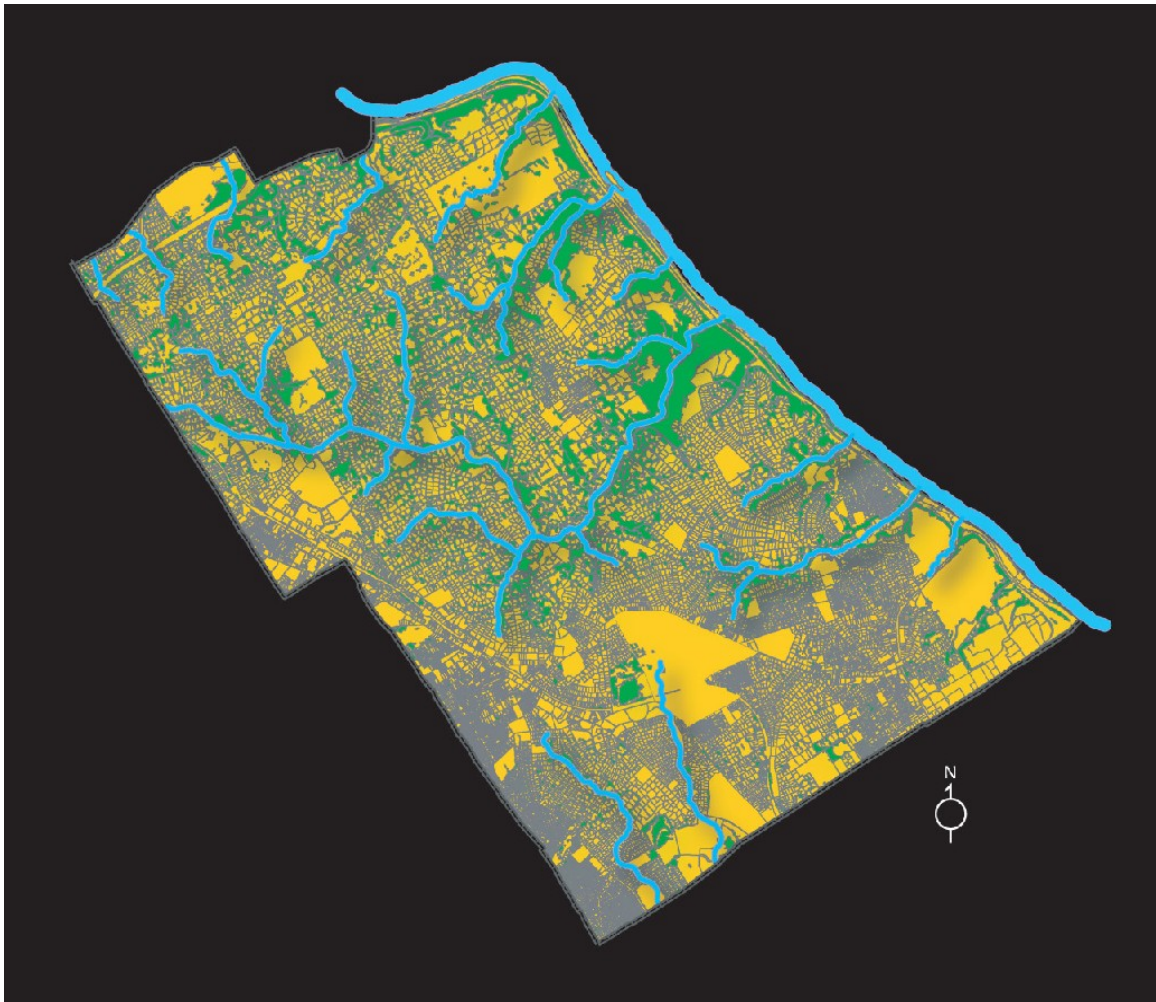
WATERSHEDS



HIGH WATER TABLE SOILS



WOODLANDS



INVENTORY OF VULNERABLE RESOURCES

HISTORIC AND CULTURAL RESOURCES

As one of William Penn's first "Green Country Townes," Lower Merion has many historic structures. Many of these properties are included in the Township's Historic Resource Inventory. The Historic Resources map identifies National Register (Class I) properties Local Register (Class II) properties and Historic Districts. Properties on this map are vulnerable to demolition if an applicant demonstrates it is impossible to incorporate the structure into the proposed development. As a Certified Local Government, the Township's Historic Architectural Review Board reviews and comments on all proposed Subdivisions and Land Developments affecting historic structures in Historic Districts. The Township's Historical Commission is responsible for all designated properties outside of historic districts. These advisory Boards, Township staff and the elected Board of Commissioners work with applicants to incorporate these resources into the development. However, it is a negotiation and persuasion process as there is no state enabling legislation permitting the Township to require the preservation of historic resources. The Township continues to support increased State incentives for historic resource protection.

Archaeological ruins are found along the Mill Creek and other original settlement areas within the Township. Several mill workers' housing ruins are situated on and near Rolling Hill Park in Gladwyne. The remnant wall of one of the working mills along Mill Creek is located within the Mill Creek Historic District near the intersection of Old Gulph and Mill Creek Roads.

Preservation of historic structures is vital to preserving the character of Lower Merion. The Historic

Resource Inventory (HRI) lists approximately 1000 properties. Many more properties are eligible for inclusion.

Historic resources and the role that they play regarding open space and natural resource protection are more fully addressed in the Historic Resources Conservation section of this report.

However, because of the size of the Township's historic inventory and complexity of preservation issues currently facing the Township, it is recommended that a separate Historic Resource Preservation Plan be prepared as part of the Township's Comprehensive Plan.

SCENIC RESOURCES

In 1993, the Township's prepared a Scenic Road Corridor and Viewshed Analysis. The planning study utilized an advisory committee to define the Township's landscape character and identify visual resources and scenic road corridors within the Township. These resources are vulnerable because they are primarily views along the rights-of-way into private property. Unless these sites are the subjects of a development review, there are few regulations to ensure their preservation. Also, the very quality which makes a "country lane" so scenic can also lead to its demise if traffic volume increases to an unsafe level.

The Scenic Road Corridors Map indicates scenic road corridors, road corridors of secondary scenic importance and scenic views identified in that analysis.



SUMMARY OF NATURAL FEATURES

Geology

The majority of Lower Merion Township is underlain by the Wissahickon Formation of Lower Paleozoic age, which consists of predominantly mica schists together with metamorphic rocks, such as gneiss. A small area of Granite gneiss and granite of about the same age is found in the southeast, along City Line Avenue. In the northwest, the Township is underlain by older Precambrian gneiss, with the extreme northwestern corner of the Township underlain by Conestoga and Elbrook limestone (PADER, 1980). There are no unique geological features or hazard areas in Lower Merion. Rock outcroppings are, for the most part, found along creek beds. There is one well known outcropping of "black rocks" on a property in the 600 block of Black Rock Road, Gladwyne. Many areas of the Township are capable of recharging stormwater. In most current development plans the Township asks the applicant to recharge a given storm event (2, 5, 25 or 100 year) for any increased volume generated by the new development. There is currently a code requirement that for any development, half the roof area for a two year storm be recharged and that the rate of runoff for the post development five year storm not exceed that of the pre-development two year storm.

Topography

The steepest slopes in the Township, those over 25%, tend to occur along the edges of water bodies such as the Schuylkill River, Mill Creek, Cobbs Creek and Gully Run. There are several sub-watersheds within the Township, most of which contribute to the Schuylkill River watershed. There is one watershed, the Indian Creek basin, which flows into the City of Philadelphia.

Soils

Important among the soils of the Township are two categories, floodplain soils and soils which might support wetland vegetation due to seasonal high water table conditions. In Lower Merion, floodplain soils include Codorus silt loam, Hatboro silt loam, and Bouldery Alluvial land. All of the floodplain soils impose limitations to residential development due to flooding and are one element of Lower Merion Township's Floodplain Zoning Ordinance. According to the Montgomery County Soil Survey (USDA, 1967), Glenville silt loam soils have moderate development limitations due to seasonally high water table. Glenville soils underlay the course of many of the small upland streams and are often found near pools of open water and small wetlands in the Township.

There are no agricultural soils within Lower Merion.

Surface Waters

According to Title 25, Environmental Resources of the Pennsylvania Code, there are no "exceptional quality" waters designated within the Township. Mill Creek no longer supports a self-sustaining population of native trout but is designated as a Trout Stocking Creek under Pennsylvania Code Chapter 93, Water Quality Standards. The others in the Township are designated as "Warm Water Fishes" creeks.

An often-overlooked surface water in the Township is the Schuylkill River. Currently, the river is environmentally degraded for much of its run through the Township due to the construction of the Schuylkill Expressway in the 1950's. The Township is committed to repairing the ecology of the river and is seeking funding for restoring the natural features along the river's edge, which have become overrun with invasive plants.

This effort is part of a larger regional effort to reconnect with the Schuylkill River undertaken by the State, County and surrounding river municipalities. One of the more exciting projects involves the construction of a Fish Ladder at Flat Rock Dam. Once completed, the fish ladder will enable shad to migrate upstream as they once did before a series of dams was built on the river. The Pennsylvania Bureau of Mine Reclamation (BMR), which was also responsible for rebuilding the dam a few years back, is managing this project.

Construction of the fish ladder is an important piece of the Flat Rock Park and Schuylkill River Greenway puzzle. The fish ladder will eventually contain an overlook that will enable residents to sit and look out over the dam and fish ladder and to safely walk below the dam to fish or to put in canoes and kayaks.

This is just one of several fish ladders BMR will be constructing. The state is also working to remove some of the older and smaller private dams on the river that no longer serve any purpose. The ultimate goal is to reintroduce the shad all the way up the river.

The Township provided an easement for the work. The entire \$3 million cost is being paid by the state. It is anticipated that the Fish Ladder will be completed in late 2005.

VEGETATION AND WILDLIFE

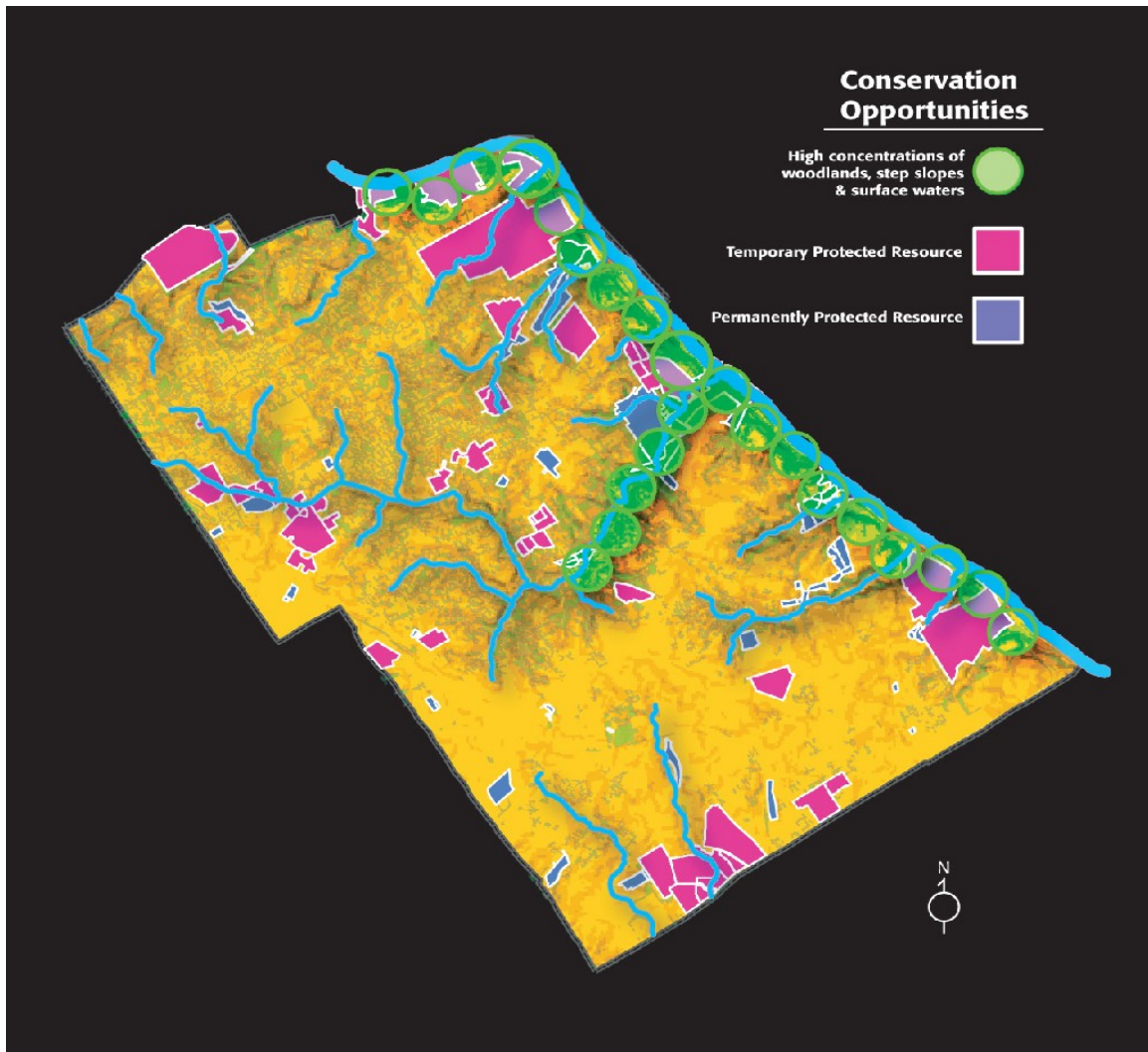
Lower Merion's important vegetation includes the wooded hillsides that slope down to the streams and Schuylkill River. These areas, especially when they are adjacent to larger, less developed wooded lots, provide nesting habitat for relatively rare bird species, such as hawks and owls, as well as more common birds, such as blue jays, crows, cardinals and warblers. They are also important as resting places during the spring and fall migrations of large numbers of bird species. In addition, squirrels, red fox, skunk, raccoons and other small mammals depend on woodlands for shelter and food.

Deer continue to pose a serious threat to woodlands in the Township by denuding the forest of regenerating understory. The Township continues to work with the Lower Merion Conservancy in developing strategies for controlling deer damage.

PROTECTED NATURAL RESOURCE AREAS

There are no active Pennsylvania Natural Diversity Inventory (PNDI) locations within the Township. Two or three historic incidents of unusual plant species have been documented.

VULNERABLE FEATURES / CONSERVATION OPPORTUNITIES



CONSERVATION OPPORTUNITIES

The Conservation Opportunities map employs the Township's GIS to evaluate areas of natural resource convergence and establish priority areas for conservation. The map shows highly vulnerable areas where two or more resources converge and overlays this with the protected lands inventory. Vulnerable areas on private land should receive particular attention for preservation and are potential locations for permanent protection.

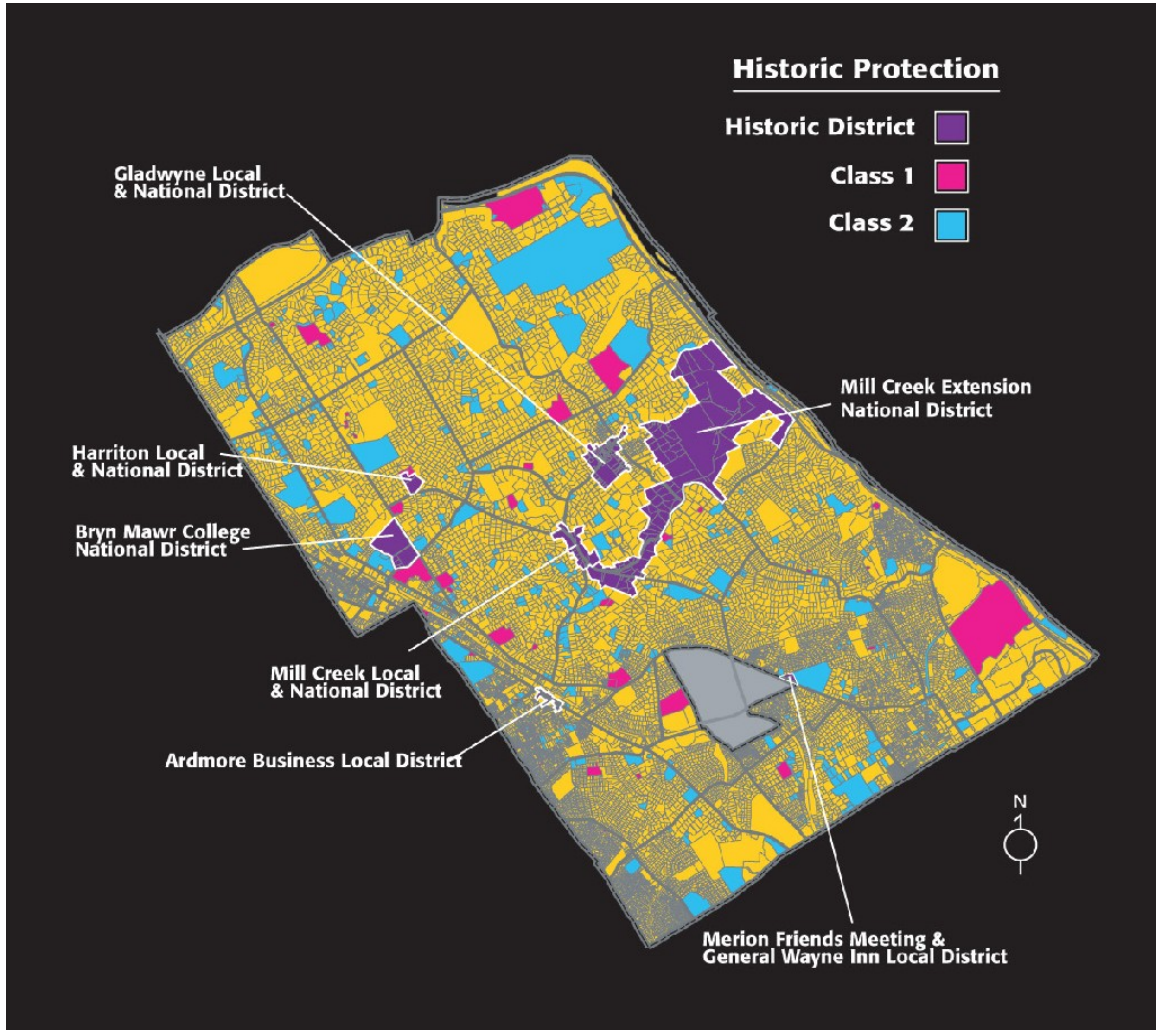
HERITAGE RESOURCE CONSERVATION

Much of "what makes Lower Merion, Lower Merion" is the visual connection to history as one wanders through the Township. The Revolutionary War era homes of the new nation's founders, the earliest fords, the miles markers, the ubiquitous stonewalls, and early 20th century neighborhoods with block after block of architect-designed houses—this wealth of historic resources creates a superb living environment. The 2000 Census reveals that 70% of residences were constructed before 1959. In a 2004 keynote presentation before the Pennsylvania Planning Association, Ed McMahon, a senior fellow at the Urban Land Institute stated, "On a national level, we know that 80% of all buildings in the United States have been constructed since

World War II and we also know that 80% of Americans dislike buildings constructed after World War II!" How fortunate that Lower Merion has historic riches that continue to add value to the community.

Preserving heritage resources is accomplished through regulatory means, selective acquisition, education and the good will of Township residents who see the value in being stewards of these resources.

HISTORIC RESOURCES



GOALS AND OBJECTIVES

The Township's goals regarding heritage resources are summarized by the 2005 Open Space Committee in Goal 5: *Permanently protect historic properties and large (5 or more acres) residential and institutional properties, using conservation easements and selected fee purchases.*

Objective 1: Give priority to projects that leverage other sources of funding, less than market value sales and charitable donations.

INVENTORIES OF HISTORIC STRUCTURES

Between 1985 and 1991, the Township identified over 1,000 significant historic properties. This list is

published in the 1995 Open Space Plan. In 1991, the Township completed a survey of all structures in the Township, categorizing them by era of construction. This survey identified more than 80 potential historic districts in the Township and resulted in the completion of detailed survey cards for 100 structures. The Pennsylvania Historic and Museum Commission issued Determinations of Eligibility (DOE) for the National Register of Historic Places for 26 structures.

Additional survey work completed by the Township, and by private individuals, resulted in the following National Register Districts and individual listings:

National Register Districts

Bryn Mawr College
Mill Creek Boundary Increase
West Laurel Hill Cemetery

National Register, Individual Listings

Bryn Mawr Hotel (Baldwin School)
General Wayne Inn
Harriton House
Harriton Farm
Idlewild Farm
Joseph Sinnott Mansion,
Rosemont College
Lower Merion Academy, Bala Cynwyd
Elementary School, Bala Cynwyd
Whitehall Apartments
M. Carey Thomas Library,
Bryn Mawr College
Merion Cricket Club
Merion Friends Meeting
Woodmont (The Palace Mission)

Extensive surveys were also completed for the Township's five local historic districts (discussed below). In 2000, the Township adopted an historic preservation ordinance. The ordinance regulates structures that are listed on or eligible for the National Register of Historic Places. The Township also maintains a database, accessible on the Township website, with a picture and brief description of each "Class I and Class II" resource.

PROTECTING HERITAGE RESOURCES IN LOCAL HISTORIC DISTRICTS

Lower Merion Township has five historic districts:

Local

Ardmore Commercial Center
Merion Friends Meeting/
General Wayne Inn

Local and National Register

Gladwyne/Merion Square
Harriton
Mill Creek

These five districts fall under the auspices of the Township Historic Architectural Review Board (HARB). The nine member advisory board, appointed by the Board of Commissioners, reviews applications for exterior alterations visible from public rights-of-way. Local historic districts (Act 167 districts) provide the highest level of historic resource protection available to Pennsylvania municipalities. Survey cards for structures in these districts are available at the Township building.

PROTECTING INDIVIDUAL HISTORIC STRUCTURES THROUGH REGULATORY MEANS

In 2000, the Township adopted an historic preservation ordinance, developed by the Brandywine Conservancy Environmental Management Center and Township staff. The ordinance regulates individual structures, outside Act 167 historic districts. Incentives for preserving historic structures include uses not afforded to other buildings in the zoning district and relief from impervious cover limitations. Disincentives for demolition and inappropriate renovation include delays of demolition permits and the requirement to justify inappropriate renovations or demolitions of buildings. In 2000, the Township Board of Commissioners created an Historical Commission, seven citizens who review applications for exterior alterations, new construction and demolition for properties on the historic resource inventory, and not in local historic districts. They also consider additions, re-classifications and removals from the inventory. The Township's 1990 Open Space Preservation District also encourages historic preservation by allowing the area occupied by historic structures to count towards minimum open space requirements. As an example, seven historic structures at Harriton Farm (National Register) were preserved even as the remainder of the property was subdivided.

PARTICIPATING IN THE CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAM

Lower Merion Township received CLG certification in 1992 and can access grant money set aside by Pennsylvania Historical and Museum Commission (PHMC) for historic preservation purposes. In past years, this money has funded design guidelines and consultants to assist with HARB applications and surveys. While not available for acquisition purposes, this dedicated funding source can help the Township conduct outreach and educate owners of historic properties about the resources available to them.

HARB ANNUAL HISTORIC PRESERVATION AWARDS

Owners of historic properties may first learn about the HARB or Historical Commission when they apply for a building permit. HARB's annual May awards program recognizes outstanding historic preservation projects and citizens, celebrates success and publicizes the Township's historic preservation programs.

EDUCATION AND OUTREACH

The HARB publishes HARB Briefs that, combined with information on the Township web site, guides residents through the review process. Outside the regulatory realm, the Township is fortunate to have three sources for lectures, events and publications on the Township's history. The Harriton Association, which celebrated the 300th anniversary of Harriton House this year, offers annual events, tours and lectures about Harriton House and related Revolutionary War era history in the Township. The Lower Merion Historical Society, housed in the Lower Merion Academy, assists with research on structures as well as genealogy and other historic research. The Lower Merion Conservancy advocates the preservation of historic structures and has offered lecture series on architecture in Lower Merion.

FAÇADE EASEMENTS

Although the federal tax incentives for façade easements were reduced in 1986, the program still exists. The Preservation Alliance in Philadelphia holds façade easements and can assist property owners with the process.

SELECTIVE ACQUISITION OF HERITAGE RESOURCES

Several excellent examples of historic structures, open to the public, exist in the Township including Harriton House, the Appleford Estate, the Merion Tribute House and the Lower Merion Historical Society headquarters. Lessons learned by the public and non-profit organizations that maintain these buildings are that acquiring historic structures involves not only the cost of acquiring the building and land that accompanies it, but also the cost of maintaining and appropriately restoring the structure. Acquisition

should be considered under the following circumstances:

- An organization exists with the financial capacity to maintain the historic structure
- The structure, or complex, is eligible for the National Register of Historic Places
- An appropriate setting can be maintained for the resource
- Public access can be achieved without compromising the integrity of the resource