
OPEN SPACE PLAN ELEMENT

(Adopted March 24, 2008)

INTRODUCTION/EXECUTIVE SUMMARY

Harding has a long history of open space preservation with a total of almost 6,000 acres or 45.5% of the township preserved.¹ This achievement has protected the township's traditional rural development pattern and its high quality natural resources, the two over-riding goals of the township's Master Plan. The foundation for this Plan goes back many decades with the federal and county preservation of the four largest open space areas, the Great Swamp, Morristown National Historical Park (Jockey Hollow), Lewis Morris Park and Loantaka Brook Reservation, which together comprise many thousands of acres.

In 1997 the township established the Open Space Trust Committee, also referred to as HOST, to coordinate and advise the Township committee about future land acquisition by the township. The work undertaken by HOST over the last several years was instrumental in the preparation of this Plan. The major finding of this Plan is that further open space preservation is needed in order to achieve the Master Plan's overall goals. The major goal of this Open Space Plan is to promote additional open space preservation in strategic locations that support the overall Master Plan goals of preserving the township's rural character and protecting the high quality of our natural environment.

This Plan also supports continuing township efforts to acquire the development rights over important tracts of land that were planned for development and establish conservation easements in portions of lots that contain environmentally sensitive areas. With 44 miles of streams, the abundance of high quality water resources within the township indirectly results in additional open space preservation because of the myriad of new state regulations designed to protect them.

PUBLIC SUPPORT FOR OPEN SPACE PRESERVATION

Preservation of additional open space remains a priority for Harding residents. In recent years they have overwhelmingly voted to use local tax dollars for additional open space acquisitions in the following four township referenda.²

¹ This includes land owned by federal, state, county, and local governments as well as community/nonprofit-owned lands preserved as open space.

² Source: Harding Township.

1996: To establish a township “Open Space Trust Fund” through a dedicated property tax not to exceed 2 cents per \$100 of assessed valuation: 1,301 in favor, 491 against.

2000: To add to the Open Space Trust Fund by authorizing the Township Committee to enact ordinances levying additional property taxes up to and including 3 cents beyond the 2 cents (5 cents total) approved in 1996: 1,217 in favor, 720 against.

2002: To authorize the use of township tax money for acquisition and maintenance of land for conservation, recreation, and farmland preservation purposes: 1,137 in favor, 312 against.

2003: To authorize the use of tax money for the preservation and acquisition of historic properties and to allocate a sum of up to 10% of future open space tax levies for such purposes: 593 in favor, 272 against.

Public Participation

In mid-2006 the Planning Board sought input from the public and township officials, including HOST, the Environmental Commission, and the Historic Preservation Commission, in connection with its reexamination of the Master Plan. A public hearing was conducted and written comments were solicited by the Board. This Open Space Plan is responsive to input from residents and the suggestions made by HOST, the Environmental Commission, and Historic Preservation Commission concerning the importance of open space to the preservation of Harding's rural character and environmental protection objectives. In addition, as part of the Master Plan process, the public and local newspapers were given notice of a public hearing to consider the adoption of this Open Space Plan. Comments from the public were solicited and considered prior to its adoption.

OPEN SPACE PLAN GOALS

The overall philosophy of this Plan is that there remain strategically located parcels of largely undeveloped land that are of special importance to the township's traditional rural character and high quality natural resources. These parcels should be preserved where possible. Harding's specific open space goals are as follows:

1. Preserve open space areas that contribute to the preservation of water resources, scenic vistas, streetscapes or landscapes, and/or that contain historic features or qualities of importance to the traditional rural historic character of the township.
2. Preserve open space important to the protection of Harding's high quality natural resources, the Great Swamp National Wildlife Refuge and Morristown National Historical Park. Particular emphasis should be placed upon areas not otherwise protected by State regulations such as forests and meadows that provide valuable wildlife habitat.
3. Preserve open space to provide for active and passive recreational needs including linkage between open space areas and greenways, and maintaining the integrity of the system of bridle trails.
4. Promote the preservation of farms and farming in the township.

5. Provide for the stewardship of publicly owned land and promote the maintenance of privately preserved areas.

SIGNIFICANT EVENTS IN OPEN SPACE PRESERVATION

Open space planning and preservation efforts in Harding have been ongoing for over 70 years, commencing with the establishment of the Morristown National Historical Park in the 1930s. In recent years there has been increasing local, regional and statewide concern about damage to environmental resources and the consequences of “sprawl” development, which has led voters to support dedicating local, county and state tax revenues for open space preservation. Planning efforts have increased at all levels of government to mitigate the negative consequences of development and depletion of natural resources. Following are the significant events relating to open space preservation in Harding.

1933: Morristown National Historical Park is established, preserving over 1,300 acres of open space in the northwestern part of the township. This highlighted the significance of this area related to important events and sites in the American Revolutionary War.

1960: The Great Swamp National Wildlife Refuge is created; close to half of its current 7,700 acres are located within Harding Township.

1980: Statewide and regional planning efforts commence with the preparation of the “State Development Guide Plan” by the NJ Department of Community Affairs, which designates most of Harding as a *Conservation Area*. By 1985 the “State Planning Act” establishes a new State Planning Commission to develop a statewide plan to establish planning policies; Harding is designated within Planning Area 5, the *Environmentally Sensitive* planning area. By 2004 the “Highlands Water Protection and Planning Act” designates Harding within the Highlands *Planning Area*. These statewide and regional planning efforts indicate the sensitivity of large portions of Harding and the need to protect them from the negative impacts of development.

1984: The Planning Board adopts an updated Master Plan (updating the first Master Plan adopted in 1972) incorporating a “Parks, Recreation, Conservation and Open Space Plan Element.” The element focuses on an inventory of open space and recreation areas and assumes that privately owned areas in the central portion of the township will remain open as a result of historic land use patterns.

1990: The Harding Land Trust is formed by local citizens as a nonprofit organization to acquire, by gift, bequest or purchase, real property or easements for conservation purposes. Over the ensuing 17 years, the Trust acquires an interest in hundreds of acres of land in strategic locations around the township, often partnering with Harding’s Open Space Trust Committee, thereby contributing significantly to Harding’s rural character and environmental protection through a program of proactive open space preservation.

1992: The township participates for the first time in the state Green Acres Program with the acquisition of the “Margetts” property, a 46-acre tract of land with scenic vistas and extensive road frontage on Blue Mill Road. Also in 1992, the Planning Board adopts a report entitled

“Greenway and Open Space Plan for Harding Township” originally prepared for and adopted by the township’s Environmental Commission in 1991. The plan focuses on the importance of open space preservation and stream quality, and proposes “greenways” as an effective means to protect water resources and establish linkage between Morristown National Historical Park and the Great Swamp. The plan is incorporated into the Master Plan with the adoption of the recodification in 1994.

1993: Morris County commences collection of a dedicated tax for open space preservation. The Morris County Open Space and Farmland Preservation Trust Fund was established by the Freeholders in late 1992 with a strong commitment to preserve open space and farmland throughout the county.

1996: Harding voters pass a non-binding referendum recommending that the Township Committee establish an Open Space Trust Fund through dedicated tax revenues to finance the acquisition of land and easements for the acquisition of land for conservation and recreation. In establishing the fund, the Township Committee firmly commits the township to a permanent open space preservation program. Subsequent referenda approved by the voters in 2000, 2002 and 2003 increased the authorized tax and authorized the use of funds for farmland preservation, historic preservation, and the maintenance of lands acquired for open space/recreation purposes.

1997: The Township Committee establishes an “Open Space Trust Committee” comprised of the Mayor, township officials and residents. The committee performs an advisory function with duties that include establishing criteria to be used in analyzing properties for potential acquisition or the purchase of an easement or development rights.

1998: In a statewide referendum, New Jersey voters approved a stable source of funding for open space preservation throughout the state. The program dedicates \$98 million annually for the ensuing ten years from sales tax revenue to the Garden State Preservation Fund. The goal of the program is to permanently preserve approximately 1,000,000 acres from development. A subsequent statewide ballot question passes in 2007 authorizing an additional \$200 million in funding for one more year.

2000: The Township Committee adopts the “Harding Township Open Space Plan” for submission to NJDEP in connection with funding under the state’s Green Acres Program. The plan draws upon the Master Plan’s open space inventories, goals and policies, and assesses open space needs and resources.

OPEN SPACE INVENTORY

Preserved open space in Harding can be broken down into two broad categories. Figure 14, Open Space, illustrates their distinct patterns. The first is made up of a relatively few but very large preserves along the periphery of the township. The second, and substantially smaller category, is made up of scattered parcels located throughout the developed area of the township.

The first category, *the border preserves*, is made up by three very large preserves of open space. The largest is the Great Swamp Wildlife Refuge, which encompasses the entire southern third of the township. The second largest preserved area is in the northwest quadrant of the township

comprised of the two contiguous areas of Morristown National Historical Park (Jockey Hollow) and Lewis Morris Park. In the northeast, Loantaka Brook Reservation provides a linear band of preserved land centered on Loantaka Brook. In all three cases these open space areas in Harding are part of much larger preserves that include lands in the adjacent municipalities. If land adjacent to Harding is included, preserved open space exists essentially along the entire southern, western, and eastern periphery of the township. Combined they substantially buffer the township from the encroachment of surrounding suburban development and provide the foundation for the township’s traditional rural development pattern. Altogether they create a community with a strong sense of a distinct place surrounded by countryside.

The second category, *the interstitial open space*, is located within and throughout the area where Harding’s residents live and what most people view as the Harding community. While the total amount of land within this category is relatively modest at about 500+ acres representing less than 10% of the township’s total open space inventory, its impact in promoting Master Plan goals belies its cumulative acreage. Many of these parcels have a direct impact on the character of adjacent residential areas. A number are also located along the township’s most traveled roadways, thereby having a prominent visual impact promoting the preservation of the township’s traditional rural development pattern.

The amount of undeveloped countryside and the continuation of Harding’s traditional rural character are the features that most distinguish the township from most other communities in the region. The preservation of these characteristics is at the heart of this Master Plan. The significance of open space to Harding and its planning goals is reflected in its zoning; all publicly-owned open space areas are zoned “Public Land.”

**OPEN SPACE & RECREATION AREAS
IN HARDING TOWNSHIP**

| Area | Acreage in Harding |
|---|--------------------|
| Great Swamp National Wildlife Refuge | 3,632.3 |
| Morristown National Historical Park | 1,374.2 |
| Morris County: | |
| Lewis Morris Park | 190.6 |
| Loantaka Brook Reservation | 84.0 |
| State of New Jersey: NJ Natural Lands Trust | 87.3 |
| Township of Harding | |
| Recreation and Open Space Inventory (ROSI) | 155.6 |
| Board of Education (site contains recreation areas) | 39.5 |
| Community Organizations/Nonprofits | 348.0 |
| TOTAL: 5,911.5 | |

Sources: Harding Township Geographic Information System; 2007 and Harding Township ROSI; 2006.

Acreage is rounded to the nearest 1/10th acre.

Great Swamp National Wildlife Refuge

The largest and ecologically most important natural feature in Harding is the Great Swamp National Wildlife Refuge covering approximately the lower third of the township as well as parts of neighboring municipalities. The most important goal of the Refuge is to provide habitat for migratory birds; its secondary goal is to provide high-quality environmental education and wildlife-dependent recreation opportunities that are compatible with the Refuge's purpose.³

Parts of the Great Swamp have been in public ownership since 1956 when 450 acres were set aside for a sanctuary. In 1959 when the Port Authority of New York and New Jersey designated it as a possible site for a major regional jetport, local citizens raised funds to purchase more than 3,000 acres, which were then donated to the federal government. The Refuge was established on November 3, 1960 and formally dedicated on May 29, 1964. On September 28, 1968, Congress designated 3,660 acres of the Refuge as a Wilderness Area (of which approximately 1600 acres lie within Harding) and it was included in the National Wilderness Preservation System, to be forever left in a natural state. Over the years, acreage has been added to the Refuge from willing sellers pursuant to the federal acquisition program. Today the Refuge is the largest single holding of contiguous parcels of vacant land in the region, comprised of almost 7,700 acres in the townships of Harding, Long Hill and Chatham. In Harding, the Refuge covers over 3,600 acres of land.

The Great Swamp is one of a series of swamps remaining as a result of the draining of glacial Lake Passaic, which covered a wide area, about 30 miles long and 10 miles wide.⁴ The lake drained through Little Falls Gap, along the present course of the Passaic River and left extensive marshes in its place. Today the Great Swamp is about seven miles long and three miles wide. It is essentially a depression surrounded by low hills composed of basalt from ancient lava flows. Shales and sandstones underlie the Swamp as a result of geological formations of the Triassic Era. It serves as a large natural flood plain saving vast areas downstream from potentially damaging floodwaters.

The Great Swamp contains a series of wooded ridges interspersed with wide areas of wooded swamp and open marsh. Woodlands compose about 20 percent of the Great Swamp, while the balance is primarily composed of wooded swamp and marshland. Generally, the Swamp bed consists of several feet of peat and organic muck overlaying a thin layer of sand and ultimately a thick deposit of impermeable clays and silts. Between the clay/silt layer and the deeper bedrock is a bed of sand and gravel aquifers. Groundwater in the Swamp moves in the sand and gravel aquifer beneath the clay/silt layer. Surface water cannot, however, pass through the clay beds to add to the groundwater. Thus, groundwater in the swamp is actually below the normal levels of groundwater in areas outside the Swamp since the clay and silt layer is some 60 feet thick.⁵

³ Source: www.friendsofgreatswamp.org.

⁴ Others include Black Meadows, Great and Little Piece Meadows, Troy Meadows, and Hatfield Swamp.

⁵ U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife; 1980.

Wetlands within the Great Swamp are associated with four brooks and their tributaries, which carry water into the Great Swamp. These brooks (Black, Great, Loantaka, and Primrose) form the Great Swamp Watershed, which includes virtually all of Harding and parts of Morristown, Madison, Chatham, Morris, Long Hill, Bernards and Mendham Townships and Bernardsville, Madison and Mendham Boroughs. The brooks flow across the Swamp to the Passaic River. The stream waters bring in silt, which in time can destroy the Great Swamp. As streams flow through marsh areas, water spills over the banks where the emergent vegetation absorbs it and, by transpiration, sends it into the atmosphere. As a result, stream-flows leaving the Great Swamp during the growing season contain less water than when they entered it, an important factor in flood prevention.

The Great Swamp is a valuable habitat for wildlife. In recent years, remediation actions have taken place at several former dumps, including one in Harding. Activities in the Refuge include pedestrian trails, the Morris County Outdoor Education Center, and the Wildlife Observation Center (see “Recreation Facilities” below). A new Visitor Center, named in memory of late conservationist Helen C. Fenske, is located on Pleasant Plains Road.

Morristown National Historical Park (Jockey Hollow)

Created by Congress in 1933, Morristown National Historical Park was the first park of its kind in the United States. Located northwest of Route 202 and comprised of a total of about 1,700 acres of land (1,374 acres in Harding) this is the site of "Jockey Hollow," the main encampment for the Continental Army during the winter of 1779-1780. Jockey Hollow is the second largest contiguous open space area in the township.

Jockey Hollow provides open space recreational opportunities, as well as habitat for wildlife and virtually undisturbed vegetation. This area contains the headwaters of Primrose Brook, which flows to the Great Swamp and is the ecological link between Jockey Hollow and the Wildlife Refuge. It is designated a "category I trout production" stream from its origin in the Park to Lees Hill Road and “non-trout” below Lees Hill Road. According to DEP standards, the stream must be protected from measurable changes (including calculable or predicted changes) to the existing water quality. The National Park is buffered by Lewis Morris Park (a county park) and two large adjacent parcels, one owned by the Morris Area Council of Girl Scouts and the other by the New Jersey Audubon Society.

State-owned Land

Much of the state-owned property in Harding is situated along the Route 202/287 corridor. The largest parcel is the 41-acre rest area on the easterly side of the interstate highway. Another large parcel is a nine-acre wetlands mitigation site located along Route 202. In terms of open space

preservation, the New Jersey Natural Lands Trust, a nonprofit corporation established by the State of New Jersey, owns an 87-acre parcel adjoining the Great Swamp in the southwestern portion of the township.

County Parks

Morris County holds approximately 275 acres in parkland in Harding Township. A portion of Lewis Morris Park in the northwestern corner of the township comprises about 190 acres (the total park area is 1,154 acres). In the northeastern corner of the township lies an 84-acre portion of the Loantaka Brook Reservation. This site, situated to the west of Woodland Avenue, includes Loantaka Brook. It is part of the 575-acre linear park that helps provide protection to Loantaka Brook and the Great Swamp. There are numerous recreational opportunities found at both county parks (see “Recreational Facilities” below).

Township Open Space and Recreation Sites

Parcels of land owned by the township that are dedicated to open space or contain recreation facilities comprise about 155 acres and are listed in the table below.⁶ The Harding Township Elementary School property (39.5 acres), located in New Vernon village, contains recreation fields and therefore is considered part of the township’s recreation sites inventory. Members of the New Vernon Garden Club maintain gardens in public places within New Vernon village, including the areas adjacent to the Tunis-Ellicks House.

Known as the “ROSI” the listing below represents parcels owned by the township that are dedicated to open space and recreation under the Green Acres Program, although Green Acres funding has not been utilized in the acquisition of all parcels (see the “Green Acres” section below).

RECREATION & OPEN SPACE INVENTORY (“ROSI”): 2006

| Name or Location | Block | Lot | Active or Passive Use | Acres |
|--------------------------------|-------|--------------|-----------------------|-------|
| Bayne Park | 21 | 9 | Active & Passive | 13.7 |
| Barrett Field | 46 | 2.01 | Active & Passive | 9.3 |
| Kirby Hall (tennis court area) | 19 | 12.07 | Active | 7.0 |
| Equestrian Park | 20 | 6 | Active & Passive | 8.1 |
| Blue Mill Fields (Margetts) | 8 | 9.01, 22, 23 | Active & Passive | 52.7 |
| Memorial Park | 16 | 1 | Active | 0.8 |
| James Street (Frelinghuysen) | 5 | 13 | Passive | 3.3 |
| Bailey's Mill Road (Rossell) | 35 | 14 | Passive | 3.4 |

⁶ The township owns additional parcels of land in various locations including sites with community buildings or facilities, affordable housing, and other undeveloped land.

| | | | | |
|---------------------------------------|----|----|---------|--------------|
| Waterman Meadow | 2 | 18 | Passive | 19.9 |
| Audubon (Scudder) | 32 | 13 | Passive | 10.0 |
| Gatehouse (Harding Land Trust Office) | 23 | 1 | Passive | 14.8 |
| Glen Alpin (Historic house and land) | 34 | 1 | Passive | 9.6 |
| Wilkerson | 21 | 5 | Passive | 3.00 |
| TOTAL: | | | | 155.6 |

Source: Harding Township. "Active" and "passive" designations are a reflection of the official ROSI on file with DEP in 2006 and are subject to future updates. Acreage is from the Harding Township Geographic Information System, rounded to the nearest 1/10th acre.

Bayne Park: Community Focal Point

Bayne Park is a 13+ acre site situated between Glen Alpin, Blue Mill, and Sand Spring Roads in the village of New Vernon. Harding resident Howard Bayne donated the land to the township in 1937 to be used in perpetuity as a park. With its large pond and highly visible location across from the municipal building and within walking distance of the historic village, it is a focal point and historically important for all Harding residents. The stone footbridges were constructed in the late 1930s under the Works Progress Administration (WPA) program and have become defining elements of the park. A dedication boulder has been placed in the park in appreciation of Mr. Bayne's gift to the community.

While there is a considerable amount of open space within Harding, Bayne Park is centrally located and easily accessed, and is one of the largest parcels of land owned by the township. The pond provides opportunities for fishing; the mature plantings and expansive open lawn create a setting that offers tranquility not only for those who visit, but also for those who drive along the roads that surround the park on three sides. Recreation opportunities include a bridle trail and, during winter months, skating and ice hockey. Over the years, many trees and shrubs have been added and picnic tables and park benches provide opportunities for visitors to enjoy the setting.

In the mid-1990s, concerns arose about maintenance of the pond and park features. In 1997 the *New Vernon Garden Club* presented recommendations to the Planning Board in a professional Landscape Master Plan. Since then, work has been undertaken to maintain existing improvements and introduce new plantings. *Friends of Trees*, a local nonprofit group, has taken responsibility for, and raised funds/accepted donations for plantings and the Township Committee has established the *Bayne Park Committee* to provide oversight of the varied community interests in the park. The preservation of the park's natural setting and informal character is of great importance to the township and is consistent with Harding's historic rural heritage.

Stream Corridor Protection

In 1994, the Master Plan was amended to incorporate the "Greenway Plan" for Primrose and Silver Brooks originally prepared for the Environmental Commission in 1991. Its primary purpose was to propose the reservation of a corridor of land encompassing these high quality

streams to protect them from the encroachment of development. Since that time, New Jersey Department of Environmental Protection regulations have become increasingly stringent regarding encroachment on all high quality streams (for detailed information on stream classifications see the Conservation Plan Element, page 10-6 and Figure 12, Stream Classifications, included at the end of the Master Plan). This presents the opportunity, particularly when a property is the subject of the site plan or subdivision review process, to preserve these areas and those areas adjacent to Category 1 streams by means of conservation easements.

In 1998 the township’s Land Use and Development Ordinance (section 105-124) was amended to require that subdivision approvals be conditioned upon the establishment of conservation easements encompassing freshwater wetlands and their transition areas, lands within fifty feet of the top of the channel bank of any state open water, stream encroachment areas, and other unique environmentally-sensitive areas. For the most part, conservation easements in Harding are not intended as a means of promoting open space preservation per se. However, they are an important part of Harding’s overall environmental protection and rural preservation strategy and indirectly promote open space preservation because the area of the easement is usually protected from any development. There are well over one hundred such easements recorded, totaling over 550 acres of land.⁷

Tree Protection

The Land Use Ordinance promotes the preservation of trees and wooded buffers between properties with the establishment of a “tree conservation area” along all residential property lines. Permits are required to cut down trees greater than eight inches (measured at breast height) within the conservation area. Also, in conjunction with the review and approval of major subdivisions, tree conservation easements have been established to protect extraordinary specimen trees and tree conservation areas have occasionally been expanded in order to provide enhanced buffering for neighboring properties.

Community Organization-owned Lands

Community and nonprofit organizations contribute significantly to open space preservation in Harding, particularly because most parcels are interstitially located within the developed community area of the township. Collectively they preserve a total of 348 acres of open space as detailed below.

COMMUNITY & NONPROFIT-OWNED OPEN SPACE

| Organization | Location | Acres |
|-----------------------------|----------------------|-------|
| Harding Land Trust | Multiple parcels | 104.5 |
| Great Swamp Watershed Assn. | Tiger Lily Lane area | 52.2 |
| NJ Conservation Foundation | Village Road | 19.9 |

⁷ Harding Township Geographic Information System, August 2007.

| | | |
|--------------------------------|----------------------------------|--------------|
| NJ Audubon Society | Headwaters of Passaic River | 76.8 |
| Morris Area Girl Scouts | Tempe Wick Road | 46.9 |
| Lakeshore Company | Multiple sites @ Mt. Kemble Lake | 4.2 |
| Harding Green Homeowners Assn. | Mt. Kemble Avenue | 9.00 |
| Shadowbrook Homeowners Assn. | Mt. Kemble Avenue | 4.49 |
| Hartley Farms | Multiple parcels @ Hartley Farms | 30.0 |
| | TOTAL | 348.0 |

Source: Harding Township Geographic Information System; August 2007. Acreage is rounded to the nearest 1/10th acre.

Note: In addition to the acreage displayed above, the Harding Land Trust has an ownership interest, with the Township of Harding, in three properties (“Waterman Meadow,” Glen Alpin, and the “Gatehouse”), all of which are zoned Public Land, and are included in the township’s ROSI displayed on page 4-8.

The Harding Land Trust

In 1990, a group of Harding citizens founded the Harding Land Trust to work with local residents to conserve land in Harding. The Land Trust is a 501(c)(3) nonprofit organization with a mission to acquire, by gift, bequest or purchase, real property or easements in the township for conservation. Major goals of the Land Trust are to support land use planning that promotes conservation of unique scenic, natural and historic areas, to protect the rural character of the township and to ensure the integrity of water resources.

In 1992, Jane Koven made the first donation to the Land Trust. The property is situated along Pine Brook on Dickson's Mill Road and it represents the first major portion of the Silver Brook/Pine Brook greenway, consistent with this Master Plan. The property is also a key element in Harding's bridle trail network and provides habitat, food and shelter for migratory birds and other wildlife.

The Harding Land Trust owns over 100 acres of land in various locations around the township and has partnered with the township on many open space preservation projects. HLT also holds a number of conservation easements that permanently protect the important natural features of land that remains in private ownership. Acquiring property and easements in this fashion enables the preservation of unique vistas, open space, stream corridors and wooded areas that serve to enhance and protect the township's rural character and environmental resources. These parcels are displayed on Figure 14 Open Space in the “Private Preserved” and “Easements” categories.

Bridle Trails

There is a long history of equestrian or bridle trails in Harding and many are still actively used. Over the years, Bridle Paths, Inc. established, owned and managed a series of equestrian trails, predominantly located in the eastern central portion of the township. The trails form a greenway system leading from Pleasantville Road across from the Refuge, northeast across Village road and up to Blue Mill Road. Another trail links the Glen Alpin property to Equestrian Park on Sand Spring Lane.

Bridle Paths, Inc. has since transferred ownership of its holdings to the Harding Land Trust; they are included on the Open Space map in the “private preserved” category. Bridle trail easements are also shown, but the map does not show trails that are subject to voluntary license agreements arranged as part of the subdivision process since a license may be revoked by the landowner at any time in the future. Other existing trails scattered throughout the township are not shown on the map because they have not yet been formally preserved.

The township's subdivision regulations require the mapping of any trails that exist on property proposed for development. The Land Use and Development Ordinance and Planning Board strongly support trail preservation, preferably via formal easements.

Lakeshore Company (Mt. Kemble Lake)

Lakeshore Co. is an outgrowth of the development of the Mt. Kemble Lake residential community. Lakeshore owns many parcels around Mt. Kemble Lake, some of which are the subject of conservation easements and are included in the “Private Preserved” category on Figure 14. The company also owns Mt. Kemble Lake, which comprises 14+/- acres in surface water area, and serves as a recreational resource for Lake residents. Lakeshore also owns numerous other parcels throughout the lake community. Several parcels provide access to the lake while others are vacant or serve as recreational sites for such uses as tennis, a community garden and clubhouse.

New Jersey Audubon and Morris Area Girl Scouts

The New Jersey Audubon Society and the Morris Area Council of Girl Scouts own parcels that form an important part of the large area of open space preserved in the northwestern part of the township. A 77-acre parcel owned by the Audubon Society is part of the 260-acre Scherman-Hoffman Sanctuary that extends into Bernardsville. It contains a facility for environmental education/wildlife habitat. The Morris Area Council of Girl Scouts owns a 47-acre parcel situated between the Tempe Wick Road and the township boundary. The property adjoins the Council’s land in Mendham Township, which is the site of their camp facilities.

Great Swamp Watershed Association and New Jersey Conservation Foundation

The Great Swamp Watershed Association owns three parcels of land totaling over 50 acres in the Tiger Lily Lane area along Silver Brook. These parcels contain significant wetland areas. The NJ Conservation Foundation owns a 20-acre parcel adjoining a tributary stream of Great Brook, which serves as an area for wildlife habitat and wetlands protection. It adjoins a portion of the bridle trails to the east and a large vacant parcel to the south, also located on both sides of the stream. In addition, the Foundation holds conservation easements in several areas of the township.

Harding Green, Shadowbrook and Hartley Farms

Harding Green and Shadowbrook are planned developments constructed in the 1980s pursuant to Harding’s planned development/cluster zoning, which required a minimum amount of open space. Hartley Farms represents an “open space subdivision” with a voluntary setback of about 30 acres of preserved open space in historically significant portions of the former Dodge Estate. The property was subdivided in the 1990s and is also designated a State & National and municipal Historic District (see Figure 16 Historic Districts). Taken together these open space areas total approximately 44 acres of land.

Recreation Facilities

Morris County's two major park facilities in Harding Township, Lewis Morris Park and Loantaka Brook Reservation, provide extensive active and passive recreation facilities. The Reservation is divided into three major areas: the Seaton-Hackney Stables, the Brook Recreational Area, and the Helen Hartley Jenkins Woods area, which is largely undeveloped with the exception of a bike path and hiking trails.

Morristown National Historical Park provides for hiking, nature trails, a visitor's center and tours of the historic Tempe Wick House. The Great Swamp National Wildlife Refuge provides opportunities to view a variety of plant and animal life in a natural habitat. A series of marked trails are found in the Wilderness Area, which is bordered on the eastern edge by the Morris County Outdoor Education Center. Public access to the remainder of the Refuge is on a restricted basis on designated, elevated trails and Pleasant Plains Road. The Wildlife Observation Center is situated in the central-eastern portion, near the Wilderness Area boundary.

In addition to the recreation provided at county and federal parks, recreation facilities are provided locally at Bayne Park in the center of New Vernon, at the Municipal Building, at the Equestrian Park on Sand Spring Lane and at Barrett Field near Bailey's Mill Road. Recreation at Bayne Park includes a bridle trail, fishing, ice-skating, picnicking and passive recreation. The Harding Township Recreation Association helps provide funding for the park and recreation facilities and the Harding Department of Public Works provides maintenance of the park facilities. Recreation facilities are also available at the Board of Education property and Fire Department property in New Vernon.

ACTIVITIES AVAILABLE TO THE PUBLIC AT MAJOR PARKS AND OPEN SPACE AREAS

| Great Swamp National Wildlife Refuge | Morristown National Historical Park | Lewis Morris Park | Loantaka Brook Reservation |
|--|---|---|---|
| Extensive educational programs available at the Outdoor Education Ctr. (Morris Co.) and the Environ. Educ. Ctr. (Somerset Co.) | Museum; historic bldgs; educ. films | Athletic fields; play areas; fitness stations | Athletic fields; play areas; fitness stations |
| | Guided tours; historic events/reenactments | Boating; fishing; swimming | Stables |
| Trails: pedestrian | Trails: pedestrian, equestrian | Trails: pedestrian, equestrian | Trails: pedestrian, equestrian |
| Wildlife Observation | Cross-country skiing; sledding; snowshoeing | Ice skating; sledding; snowshoeing | Ice skating; cross-country skiing; snowshoeing |
| Pre-arranged tours | Picnicking | Camping; picnicking | Picnicking |
| Visitor Center exhibits | Biking | Biking | Biking |
| Source: www.fws.gov (8/07) | Source: www.nps.gov (8/07) | Source: www.morrisparks.net (8/07) | Source: www.morrisparks.net (8/07) |

GREEN ACRES

The *Green Acres* Program was established by the State in 1961 and has evolved and grown into what is now the most important source of funds for open space in the New Jersey. From 1961 to 1995, New Jersey's voters overwhelmingly approved nine bond issues earmarking more than \$1.4 billion for land acquisition and park development. In response to a 1998 statewide ballot question, the Legislature enacted the Garden State Preservation Trust Act, providing a source of funding for the ensuing ten years for open space preservation. Continued funding is dependent upon periodic statewide election ballot questions the first of which was passed by voters in November 2007. Over 80,000 acres of land have been preserved through the programs that fund municipal and nonprofit organizations.

In recent years, the Green Acres Program has become one of the township's most important sources of funding for open space preservation. The Green Acres Program provides low interest loans and matching grants to municipalities and nonprofit organizations to acquire land for open space and recreation purposes. Two of Harding's "partners" in open space preservation, the private nonprofit Harding Land Trust and the Great Swamp Watershed Association, are eligible for Green Acres funding and have utilized the program to acquire land for preservation in Harding. The Green Acres Planning Incentive Program provides grants and loans to municipalities that have enacted an open space tax and have adopted an open space and recreation plan. The Tax Exemption Program provides exemption from local property taxes to eligible nonprofit organizations that own recreation or conservation land and permit public use of their private lands.

Green Acres funding was important in the township's acquisition of numerous open space parcels over the last 15 years. Since 1992, of the 20 parcels that have been preserved by the township, the following seven utilized the Green Acres Program (see "ROSI" table on page 14-8 for acreage and location details).

- Blue Mill Fields – Margetts
- Bailey's Mill Road – Rossell
- Waterman Meadow
- Audubon - Scudder
- Gatehouse - O'Connor
- Glen Alpin
- Wilkerson

In addition to the above, in 2007 the township utilized Green Acres Program funding toward acquisition of the Anderson property, which is located along Tempe Wick Road, and has proposed to acquire the Eggert property, located along Route 202 adjacent to the National Park.

MORRIS COUNTY PRESERVATION TRUST & FARMLAND PRESERVATION

In 1992, Morris County established the Morris County Open Space and Farmland Preservation Trust Fund (County Trust Fund). The Freeholders review the tax rate annually and may set the tax anywhere from \$0.00 to \$0.05 per \$100 of property valuation. Harding has received \$15 million in grants under the program. The Fund is divided into the following categories:

- 20% to the Morris County Park Commission
- 5% to the Morris County Municipal Utilities Authority
- 25% to the Morris County Agricultural Development Board for open space preservation
- 20% to discretionary projects typically open space grants to municipalities and nonprofit organizations
- 5% to ancillary county projects associated with the preservation of open space, farmland and historic resources

The County Trust is the source of funding for the Morris County Farmland Preservation Program, which began in 1987. This program has been particularly important to Harding for farmland preservation. Although the township has long since ceased to be a predominantly farming community, the continuation of the remaining farms and farming-related activities is a preservation objective of this plan. Since 1995, eight parcels preserved in the township have utilized funding from this source. There are four ways to preserve farmland under the county-administered program:

1. County Easement Purchase Program – A landowner voluntarily agrees to sell to the County Agricultural Development Board the development rights to their farm, and a permanent deed restriction is then placed on the land.
2. Fee Simple Purchase Program – Interested landowners sell their land in fee simple, relinquishing all rights to the land.
3. Direct Easement Program – Landowners sell the development rights of their farmland directly to the State Agricultural Development Committee.
4. Eight-Year Program – Landowners voluntarily restrict development on their land for a period of eight years. They receive no direct compensation, but are eligible to receive grants for up to 50% of the cost of conservation projects.⁸

⁸ Comprehensive Farmland Preservation Plan Element, Morris County Master Plan, Morris County Planning Board, March 20, 2003.

**PRESERVED FARMLAND
IN HARDING TOWNSHIP**

| Name | Location | Block | Lot | Acres | Preservation Type |
|---------------------|-------------------|-------------|---------------|-------|------------------------|
| Wightman | Mt. Kemble Ave | 32 33.03 | 9 7, 9, 10 | 41.5 | Ag easement |
| Nagro/Lobel | Sand Spring Rd | 25.02 | 10.01 | 20.1 | Ag easement |
| Lancor/McShane | Cherry Lane | 8 | 2, 2.01 | 10.0 | Dev rights/Ag easement |
| Koven | Dickson's Mill Rd | 8 | 3.01 | 19.4 | Ag easement |
| Thebault | Sand Spring Rd | 25.02 | 10.02 | 32.5 | Ag easement |
| Scaff | Lee's Hill Rd | 51 | 10 | 96.3 | Ag easement |
| Haeberle | Lee's Hill Rd | 51 | 7 | 28.7 | Ag easement |
| Devine | Lee's Hill Rd | 51 | 12 | 32.4 | Ag easement |
| TOTAL: 280.9 | | | | | |

Source: Harding Township Geographic Information System; August 2007. Acreage is rounded to the nearest 1/10th acre.

Other state and local policies also promote the preservation of farmlands. As part of the township's participation in the Morris County Farmland Preservation Program, it enacted a "Right to Farm" ordinance in 2000 intended to protect farmers pursuing normal farming activities. In addition, state legislation provides for "farmland assessment" - reduced local real estate taxes on property that meets the minimum size criteria of five acres for a vacant lot and six acres for parcels containing a dwelling. There are also annual farm-related production requirements. This program makes farming more economical and reduces financial pressures to subdivide. According to Morris County tax assessment data as of August 2007, over 1,700 acres of land (see Figure 14 Open Space) are farmland assessed (i.e. listed as "Q Farm") in Harding.⁹

OPEN SPACE ACTION PLAN

Township-supported open space acquisition should be guided by a strategic plan developed by the Open Space Trust Committee advising the Township Committee about potential acquisition based upon priorities that promote Harding's overall planning goals. The ability to obtain supporting funding from other sources, Green Acres, Morris County's Open Space Fund or the Harding Land Trust, should be an important part of the township's consideration. The strategic plan should have a long-term outlook to avoid being reactive when land is proposed for development. Increasingly, state requirements restricting development on environmentally sensitive lands, particularly adjacent to wetlands and streams, should be considered when evaluating areas that are essentially already barred from development.

⁹ Source for farmland assessed acreage: Morris County MOD IV tax data. The county data may include the acreage of developed portions of some parcels.

Open Space Preservation Needs and Resource Assessment

Open space preservation continues to be central to achieving the overall goals of the Master Plan, preserving the township's traditional rural/historic character and protecting its high quality of natural resources particularly its water resources. Land use and environmental regulations should be complemented by an active open space acquisition plan.

Analysis of Future Open Space Needs

The township is designated by the State Planning Commission as Planning Area 5 *Environmentally Sensitive* and has been included in the *Highlands Planning Area*. It is also entirely within the watershed of the Great Swamp National Wildlife Refuge. State planning policies emphasize that open space preservation should be an important part of land use policies at all levels of government affecting these areas. Similarly, the Conservation Plan and Land Use Plan elements were amended in 2004 to recommend that township land use policies be changed if Harding's long-standing overall planning goals were to be achieved (see Conservation Plan Element, page 10-8 and Land Use Plan Element, page 18-12). As a result, the township established a new lower density residential zoning district, the Rural Residential Zone, encompassing a majority of the privately owned land in the township. The Land Use Plan also emphasizes that the new lower density zoning needs to be complemented with active open space preservation as key to achieving the Master Plan's goals.

Harding's land use regulations by themselves cannot achieve the Master Plan's goals. A complementary program of active open space preservation is also needed in order to preserve parcels that are strategically important to the township's character and high quality natural resources. The goals of this Plan are consistent with the goals and objectives of the Conservation Plan and Land Use Plan, as well as the overall Master Plan goals. There are two general categories of land, still abundant in Harding, that need to be preserved to achieve the township's planning objectives consistent with its designation within PA-5 and the Highland Regional Master Plan. They are highly visible areas important to the township's historic/rural character and environmentally sensitive areas, as more specifically described below.

Assessment of Lands Important to the Preservation of the Township's Character

The land areas especially important to preserving Harding's traditional rural character are the very low density areas that give the impression of the rural countryside and of traditional farmsteads visible from the public roads. Areas outside of the villages but otherwise interstitially located throughout the developed community area of the township are particularly important to this goal.

Assessment of Lands Important to Environmental Protection

The township contains abundant areas of special environmental importance. They include Category 1 streams and important open waters such as Primrose Brook, Silver Brook, Great Brook, Mt. Kemble Lake and Silver Lake. They also include the Great Swamp and adjacent lands important to its role as a wildlife refuge. Recent strict state regulations, particularly regarding stormwater management and the 300-foot buffer to Category 1 streams, are having a dramatic effect towards protecting these environmental resources. However, open space acquisition should be complementary to regulatory efforts to protect them.

Open Space Preservation Priorities

The overall goals and objectives of this Master Plan should be considered in evaluating land contemplated for preservation. To achieve the plan's goals, the following areas should be given priority, although they are not in any rank order because each is important to achieving Harding's Master Plan goals.

Protection of Water Resources

There are 44 miles of streams and numerous ponds and lakes throughout the township, almost all of which drain to the Great Swamp National Wildlife Refuge. In addition, almost all Harding residents rely upon individual private wells for potable water supplies; thus the protection of groundwater resources is an imperative for the township. The Planning Board should continue its practice of requiring conservation easements that support the protection of wetlands, stream corridors and open waters.

Rural Streetscapes

The overriding goal of the Master Plan, overwhelmingly supported by Harding's residents, is to preserve Harding's traditional rural development pattern. Its promotion should be a primary consideration in open space acquisition. In practical terms this means undeveloped properties, including undeveloped portions of large developed properties, farmsteads and farmland that are adjacent to major township roads should be given a high priority for open space preservation. The Margetts property, with extensive frontage along Blue Mill Road, is an example of a visually prominent open space parcel that contributes importantly to preserving the township's traditional character.

Viewsheds and Gateways

Harding is endowed with many relatively open areas providing long distance views that prominently contribute to its traditional character. Ridgelines may also provide prominent scenic vistas. "Gateways" or areas through which people first travel when entering Harding are

important first impressions that deserve special consideration. The preservation of these views should be given a high priority. Viewshed easements should be considered as a potentially more economical alternative to fee simple acquisition.

Historic Areas

Harding also contains many historic resources with special significance as described in the Historic Preservation Plan element. Their preservation should be given priority, especially when they are part of important viewsheds. However, this priority must be balanced with potential costs associated with the adaptive reuse of historic structures and their continued maintenance.

Greenways and Wildlife Habitat

This Open Space Plan continues the legacy of the Greenways Plan adopted by the Environmental Commission and Planning Board in the early 1990s. Priority should be given to linking open space areas, thereby enhancing the usability of those areas for passive and active recreational purposes. In addition, linked areas are more beneficial to natural ecological systems, wildlife habitat, and more effective in retaining the township's rural character.

Bridle Trails

Where bridle trails exist and are identified as part of the development review process, they should be protected through easements. When it is not possible to obtain bridle trail easements, a licensing agreement should be obtained.

OPEN SPACE PLAN IMPLEMENTATION

Open Space Trust Committee (“HOST”)

Harding has entered a new era in open space preservation with the mandate of township voters and the establishment of the Open Space Trust Fund. Early in 1997 the Township Committee established the Open Space Trust Committee composed of nine members including the Mayor, township officials and residents. The Trust Committee is empowered to establish criteria for property acquisition and to make recommendations to the Township Committee as to which properties may be suitable for acquisition, easements or the purchase of development rights.

The Trust Committee works proactively to obtain additional funding to augment the use of township Trust funds by partnering with other public, as well as local and national nonprofit conservation organizations. The leveraging of resources to accomplish common goals has a multiplying effect on the township's efforts to preserve open space. The Committee also undertakes baseline documentation and monitoring of open space properties to insure that the township is a good steward of its open space lands.

In 1999 the Trust Committee sought input from township boards, organizations and officials in establishing criteria for land acquisition in Harding. Recommendations were received from many interested parties including the Planning Board, Environmental Commission and the Shade Tree Advisory Committee. As a result, the Trust Committee developed the following criteria, consistent with this Master Plan, to serve as a guide in setting priorities for open space acquisition.

- Land that protects enhances or restores ecosystems, aquifers, stream corridors, or other water resources.
- Land that preserves Harding's rural heritage such as scenic vistas or landscapes, historic structures and Bridle trails.
- Land that complements existing open space.
- Land that serves as valuable wildlife habitat including forests and meadows.
- Land that establishes or contributes to a system of greenways.
- Land that should be acquired because development would have a substantial deleterious impact on the character of the township.
- Land that supports the goals of this Master Plan.

Funds set aside through the open space tax may be used for direct acquisition or to help finance bond issues for land acquisition. No land acquired through the Trust may be sold without the authorization of the Township Committee after a public referendum.

Partnerships and Funding for Open Space Preservation

Historically, the federal government was the largest source of funds for open space preservation in Harding Township; that source is now very constrained. Fortunately, however, other sources for local open space funding have become increasingly available. In particular, the Green Acres Program, County Trust Fund, Harding Open Space Trust Fund, and Harding Land Trust have become increasingly important to the township's efforts to preserve open space. The township Open Space Trust Committee has been active in forging partnerships with these funding sources.

Since the costs of fee-simple purchases of land can be prohibitive and take time and effort to arrange, alternative means of open space preservation will continue to be important in achieving this plan's objectives. Alternatives include obtaining conservation easements, purchasing of development rights, and facilitating open space acquisition undertaken by private/third-party nonprofit groups when the goals of this plan will be advanced.

Landowners are often willing to give bargain sales or donations of land, conservation easements, or life estates to nonprofits and governments, and in so doing can reap income, inheritance, and capital gains tax benefits. Such contributions can satisfy the township's matching requirement when using county or state funding. Landowner contributions can also be used by nonprofits

working in partnership with the township, which need to match public dollars at a 1:1 ratio. The township should continue to strengthen relationships with residents and partner with groups and organizations that share its open space preservation goals.

Open Space Maintenance and Stewardship

The cost of open space preservation does not end with the acquisition of land. Land ownership carries with it maintenance and stewardship responsibilities. The burden of maintenance can vary greatly with each parcel and its intended use. Preserved natural woodlands may require little maintenance; developed properties are typically high maintenance. The extent and cost of continued maintenance should be carefully considered as an important part of future open space acquisition.

Most open space areas in Harding are natural preserved lands requiring relatively little maintenance. However, good stewardship requires that they be monitored and, as such, the township has established a regular monitoring program for land acquired through dedicated tax funds. The monitoring of conservation easements is also important to good stewardship. In 2002 the Harding Township Environmental Commission prepared a *Survey, Inventory and Monitoring Plan for Conservation Easements in Harding Township*. The Commission recorded 86 easements held by Harding Township at that time for various purposes, including conservation (no disturbance of land or vegetation or steep slope protection), scenic views or preservation of bridle trails. HOST has initiated and will continue to fund stewardship of appropriate resources. Township staff maintains a comprehensive database of open space, including easements, as key to stewardship of all of these important resources.

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The original signed and sealed copy of this Master Plan element is on file with the Secretary of the Harding Township Planning Board and the Township Clerk.