

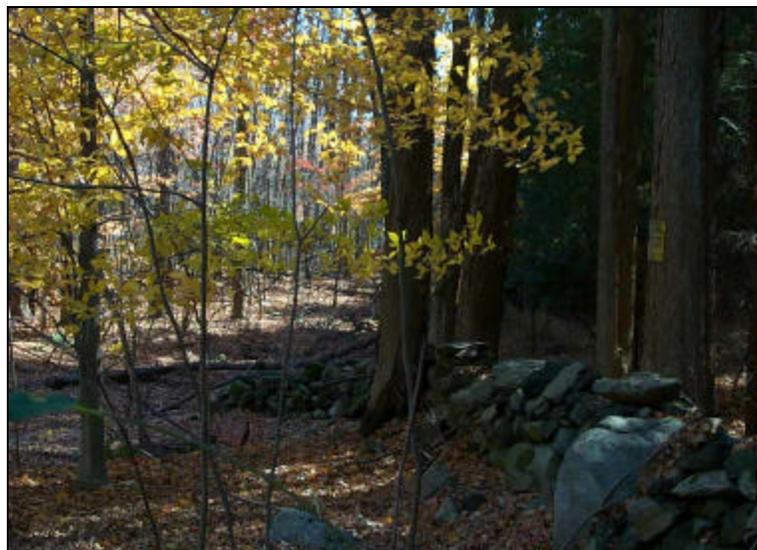
Chapter 4.0 OPEN SPACE and NATURAL ENVIRONMENT

4.1 Open Space in Bedford

Planning History

Concern for practical open space in the town was shown early in its history and has continued to the present. The Village Green in Bedford, originally three acres in size, was created in 1681 specifically to preserve an open area for the grazing of cattle. Lots in Bedford Village were laid out so that the houses were close to the street with maximum area to the rear for farming activities. Larger field areas were shared by the residents. When Katonah moved to its present location, the hamlet was designed with its homes carefully arranged around attractive public green spaces. These spaces have been fought for and maintained and still attract new residents to an area where conscious design of open space has shown to be a continuing community asset. Bedford Hills is the center of town government and a major transportation hub for the Metro-North railroad system and the county's bus service. The dense zoning in the hamlet center is surrounded on all sides by large parcels which soften the impact of development and insulate it from suburban sprawl.

The town adopted its first zoning ordinance in 1929, soon after the New York State legislature enacted the Zoning Enabling Act permitting municipalities to regulate land use on a town-wide basis. It is this first zoning law that recognized the importance of basic planning principles of open land and concentration of development into efficient hamlets containing shopping and cultural activities and higher density housing. The basic layout of density of the town was established by the 1929 ordinance. Comprehensive revisions to the zoning ordinance were approved in 1946 and 1983 and maintained the 1929 concepts. The town began comprehensive planning in 1949 with the initiation of studies by the Northern Westchester Joint Planning Program. This program lead eventually to the town adopting its first Master Plan in 1960. Subsequent Master Plans were adopted by the Planning Board in 1972 and 1988.



Local Laws Protecting the Environment

A number of steps were taken by the town as the result of its master plans, including the further protection of open space. Laws regulating wetlands (1972), floodplains (1979), critical aquifer zones (1983), tree preservation (1986, amended 1997) and steep slopes (1989), were all adopted to ensure protection of the town's key natural features. Preserving natural features was a key goal of the 1972 and 1988 Town Plans. Several of the laws were revised as a result of recommendations of the 1988 Town Plan. The town's steep slope legislation was adopted as a direct result of the 1988 Town Plan.

Current Types of Open Space

Open space in Bedford is one of the key elements defining its character. Bedford is blessed with significant areas of natural beauty, some of which are large private holdings and others are publicly-owned. As a rural community in close proximity to the New York metropolitan area, many residents came to live here because of its attractive and unique living environment. The preservation of this quality is a major goal of this plan. In every meeting, election, and survey, Bedford residents have shown a strong desire to maintain Bedford's rural character. For the purpose of discussions in this plan, the term open space covers property "characterized by (1) natural scenic beauty or (2) whose existing openness, natural condition, or present state of use, if retained, would enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources." [Town Law Section 247(1)]. Thus, Bedford's open space areas include, but are not limited to:

- Public parks.
- Land owned by semi-public and public organizations for conservation and open space purposes, including nature preserves and conservancy lands.
- Land held for protection of public water supply facilities.
- Land set aside in the approved design of conservation subdivision areas not to be built upon except for recreational uses.
- Land protected by easements that restrict the use and development of the property to passive recreation or unaltered natural conditions.
- Portions of public or private school properties used for recreational facilities or left in a natural state.
- Private recreation facilities, such as golf and tennis facilities and camps.
- Publicly and privately held land with significant scenic assets, including areas adjoining scenic roads and ways, farms, and horse stables.
- Land with natural restrictions on development such as undeveloped wetlands and wetland buffers.
- Small, undeveloped parcels in the hamlets.
- Historic districts.

- Agricultural land.
- Archeological sites.
- Parcels with unusual geological features
- Wildlife habitat.
- Riding, biking or walking trails. Bedford has one of the largest equestrian trail systems in the northeast, with over 100 miles of interconnected trails in Bedford and Pound Ridge open to members of the Bedford Riding Lanes Association.



Photo credit: Richard Ten Dyke

Greenbelt Plan

Bedford's Greenbelt Plan originally contemplated seven greenbelts throughout the town that would connect nature sanctuaries, parks, schools, and hamlets. This is shown in Figure 6.1. When feasible, the town's reviewing boards require that set-aside open space contribute to the creation of the greenbelt system, although the greenbelt has never been officially adopted by the town. Open space acquisition or conservation easements have also created links in the belts. In recent years, conservation easements have filled in and connected gaps in several of the proposed greenbelts. As a result, four major green corridors have emerged as a consolidation of the original seven. The new four are Croton Lake Road/Cross River Reservoir, Guard Hill/Beaver Dam, Westmoreland/Caramoor, and Westmoreland/Indian Hill Park. The plan recommends that the town review and update the existing Greenbelt Plan, and then adopt a modified Greenbelt Plan. The planning board would then have greater authority in its subdivision and site plan review process to ask applicants to dedicate particular portions of their site as open space or to place conservation easements. The town should create a Trail Committee or authorized the Parks and Recreation Department to develop and maintain trails within the greenbelts. Part of this mission would be identifying potential corridors that would be appropriate for walkways and bicycle paths; such walkways and paths would be incorporated into the Greenbelt Plan. As properties come before the various town boards for review, each board should use the opportunity to incorporate these recreation paths into the project scope.

The seven current greenbelt areas are:

1. The Mianus River Greenbelt links Bedford Village, the Mianus River Gorge Preserve, the Fox Lane Campus, and Westmoreland Sanctuary. It preserves and protects sensitive lands along the banks of the Mianus River.
2. The David's Brook Greenbelt connects the Westmoreland Sanctuary, Bedford Village, Piney Woods Preserve, and the Bedford Oak. It has three important vistas and protects lands along the banks of David's Brook.
3. The Indian Hill Greenbelt incorporates environmentally vulnerable areas in the Stone Hill River system and connects Bedford Village with Indian Hill Park and the Caramoor Greenbelt.

4. The Caramoor Greenbelt includes Mt. Aspetong, the existing open spaces around St. Matthew's Church, the Arthur Ketchum Sanctuary, and Caramoor. It connects the Indian Hill Greenbelt to the Cross River Reservoir watershed.

5. The Katonah Greenbelt connects Katonah to the Croton Reservoir watershed, the scenic rural area in the west, and Bedford Hills Memorial Park. It also has an intrahamlet trail system that links existing parks and schools.

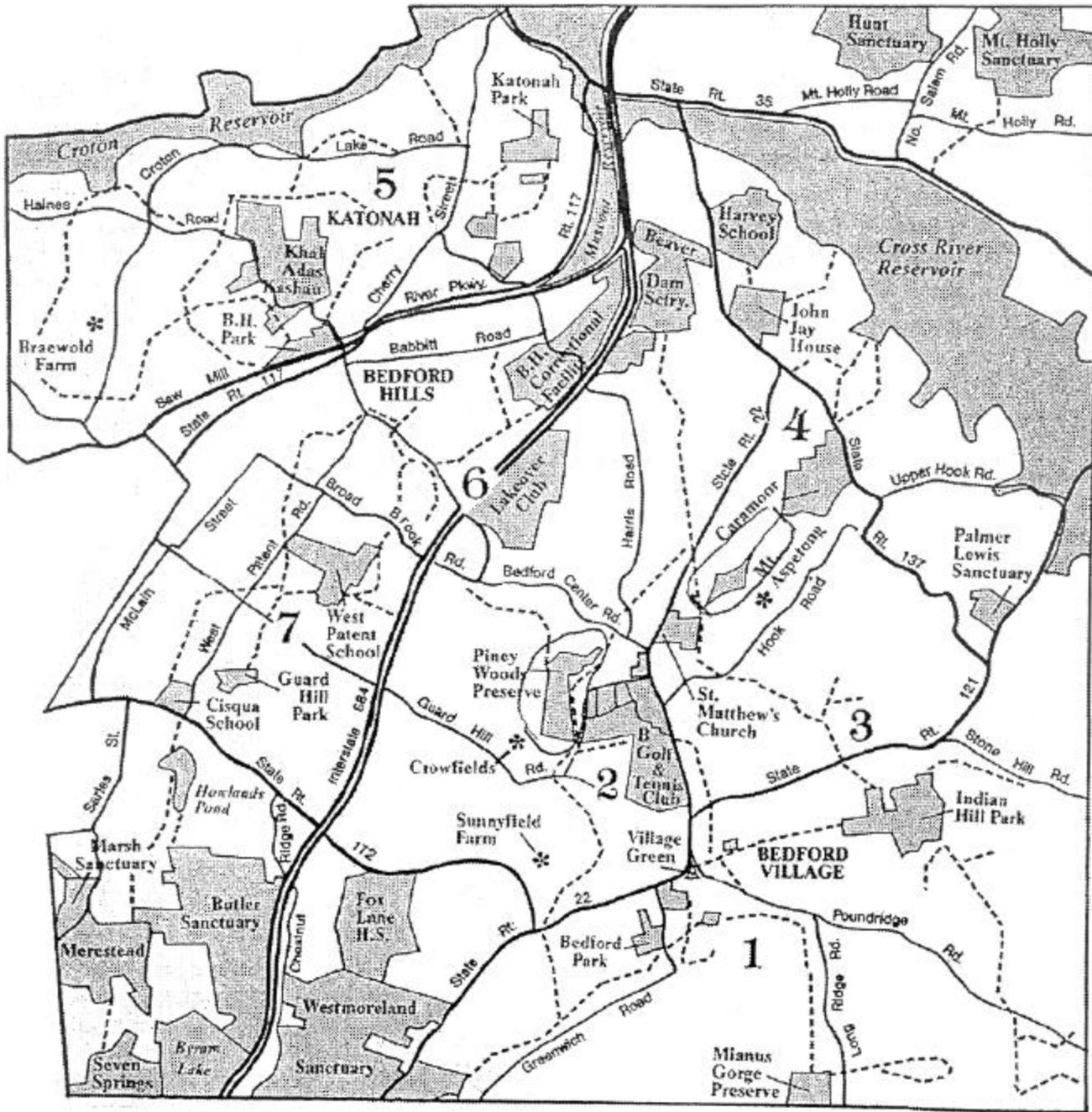


Figure 4.1 Greenbelt Plan

6. The Bedford Hills Greenbelt provides access from Bedford Hills and Katonah to Beaver Dam Sanctuary, the John Jay Homestead, and the Cross River Reservoir watershed in the east and to the Guard Hill Greenbelt in the south. It protects several important scenic sites and vistas.

7. The Guard Hill Greenbelt links the Bedford Hills Greenbelt to Westmoreland, Butler, and Marsh Sanctuaries. It incorporates Guard Hill and protects important wetlands and surface waters.

4.2 Development Potential of Unprotected Open Space

The vast majority of the town's thirty-nine square miles is dominated by attractive spaces of another type - large land holdings and carefully maintained homes. Although some of these areas are now public holdings, the majority of the land most would identify as open space is in private hands. The development potential of these properties is significant to the growth and character of the town. In 1999, a total of 1,138 additional lots could be built within the town under existing regulations. Although the subdivision process contains many protective elements, recent development pressures caused by a strong national and regional economy have shown that current regulations may not ensure the character that the town demands. Therefore, an examination of old and new techniques for preserving open space and the character of the town is as important now as in the past.

4.3 Public Opinion Surveys on Open Space

1996 Survey. In 1996, the Bedford Conservation Board initiated a survey of all town residents to gauge their opinions concerning the town's natural environment and quality of its character. These surveys were mailed to all households and 550 were returned. The results of this survey are discussed in a report to the Town Board dated December 1997. Although the survey return was relatively small, several key responses indicated the feeling of residents toward open space and character issues. First, a strong majority of respondents felt that the open space and rural character of the town were declining. This feeling was consistent among residents throughout the three hamlets. In addition, when asked whether they would support specific techniques for managing growth, residents strongly supported tax incentives to preserve open space, larger lot zoning, outright purchase of land by the town to preserve open space, and a 2% real estate transfer tax. Once again, the support for these techniques was relatively uniform in the three hamlets.

A unique opportunity for community involvement arose in 1998 when many of the town's community groups banded together to form the Bedford Coalition, a group of seventeen local organizations formed to preserve Bedford's environment, historic character, open space, natural resources, valuable habitats, wetlands and scenic vistas. Early in 1999, the Bedford Coalition held a forum in each of the town's hamlets to determine and document the views of a cross section of the town. The most important issues identified at each forum, which were attended by a total of over 500 residents, were open space preservation, traffic, roads and safety, hamlet vitality and affordable housing.

1999 Survey. As a part of preparatory work for this plan, the town commissioned the research firm of Center for Governmental Research from Rochester, New York to perform two tasks. First, a report on the fiscal impact of land use alternatives was prepared. The purpose of this report was to estimate the actual costs of different forms of development to residents of the town, particularly school

costs. Completed in October of 1999, this report analyzes the costs of providing services to residential development in the town's two school districts. This analysis indicates that, due to the high value of housing being built at this time, a single-family residence in either district may provide more tax revenue to the town and school district than it costs to provide services to the home.

The second task for the Center for Governmental Research was to prepare, distribute and analyze a town-wide survey of residents' attitudes on issues related to revision of the 1988 Town Plan. A two-page questionnaire was mailed to a scientifically selected sample of one thousand residents in December of 1999. Sixty-five percent of the questionnaires were returned, indicating the strong interest of residents in the subject. This high response rate ensured that the results were an accurate representation of the community's beliefs and validated the conclusions of the survey. The survey's results were consistent with anecdotal evidence accumulated through the various public forums sponsored by the Bedford Coalition and others. The results of the survey clearly indicated that open space issues are among the most important problems facing the town. Residents ranked threat to environmental quality and loss of community character behind rising taxes as important single issues. However, when asked for the single most important investment that the town could make, residents selected the acquisition of land to preserve and enhance community character by a strong margin. A separate question asked whether residents would be willing to increase their taxes by one hundred dollars a year and, if so, for what purpose: 76% of the respondents agreed to the tax increase in order to preserve the town's rural character.

4.4 Open Space Goals and Objectives

The open space preservation goal of this plan is to maintain and enhance the rural character of the town that has been long cherished by its residents. This character has been defined over the years by the town's basic geographic distribution of population with three strong hamlet centers located within larger areas of low-density residential development. The quality of this pattern is enhanced by large expanses of untouched natural features, interesting architecture, rural road design, and the careful treatment of residents of their properties. It is both too expensive and too restrictive to preserve all presently existing open space in the town. The following types of land protection have emerged as key open space objectives:

- Protecting and preserving areas which are environmentally sensitive such as wetlands, wetlands buffer areas, surface waters, river banks, aquifer zones, steep slopes, unpaved roads, wooded areas and wildlife habitats.
- Protecting areas which are historically important such as entire districts, or smaller site areas such as the Bedford Oak, Bedford Cross, and Bedford Clock Tower.
- Protecting large estates which currently contain a limited number of structures but have much higher development potential; goals on these estates include reducing development potential, preserving scenic views, and in some cases, conversion to adaptive re-use of existing buildings which may or may not be worthy of separate historic designation.



- Expanding a town-wide equestrian or hiking trail network which runs over both private and public lands to connect existing greenbelts.
- Insuring the long-term preservation of existing open spaces owned by schools, religious organizations, recreational facilities, or other private entities which may not be owned by organizations committed to the continued open space status of such lands.
- Providing for the town's future park and recreational needs through the acquisition of additional land for a major central town park and smaller regional parks.
- Preserving an open space corridor along the Saw Mill Parkway and Interstate I-684 particularly at their intersections with roads in the town such as the intersection of I-684 with Route 172 and Route 35.
- Renovating and expanding existing recreational facilities.
- Maintaining the rural qualities of many of the town's roads.
- Preserving significant smaller parcels in the town's three hamlets.
- Preserving the inventory of agricultural lands.
- Protecting unique archaeological sites or geologic features.

4.5 Preservation Methods

A variety of methods are available to implement these goals and objectives. Some are currently used within the town and others have been used successfully in other towns and states. This wide range of methods provides the town with flexibility in choosing the best approach to secure the desired objectives at minimal cost to the taxpayer. Most of the areas to be protected have been identified and mapped by the Conservation Board in their 1983 Natural Resource Inventory. They include surface waters, wetlands and wetland buffers, steep slopes, key road vistas, and a biota map.

By public referendum, the town enacted Local Law 2-2000. This added Chapter 28 to the town code, called Open Spaces and Areas, Park and Water Protection Funds Program. The purpose of this is to raise money and establish a debt service reserve fund for acquiring real property and interests or rights in real property, and improving and maintaining that property for the preservation of open spaces and areas. The mechanism is a three percent increase in the general fund tax levy, known as the Special Levy. The levy ceases after five years unless it is extended by resolution by the Town Board in increments of five years.

As part of the town's effort to acquire open space, the plan recommends that the town consider how the open space will be maintained and used. The Open Space Committee, perhaps with professional forestry or arborist advice, might advise the town on proper stewardship of the woods and open areas, proper use by humans (or not), and the concerns of other interested boards, such as the Wetlands Control Commission and the Tree Advisory Board, in aspects of the property. Each

new open space parcel should have its own plan. Such a plan might cover the use of the property for wildlife habitat, passive human recreation (sitting and looking), active recreation (walking), restoration of the property to ecologically healthy condition, removal of invasive plants, prevention of an open field converting to woodland (if appropriate), prohibition of clearing a wood to create open recreation area, creation of edge habitats, and connection to other open space parcels or wildlife corridors.

Open Space Evaluation Criteria

Before property is removed from development, the town should assure itself that the property has open space value, using the criteria discussed below. In 1999 a comprehensive land use survey identified the use of each parcel in the town. This analysis in combination with the town's Natural Resource Inventory was used to indicate areas and specific parcels critical to open space preservation. Land in the town was then evaluated by employing the following criteria:

- **Trail Potential.** The property provides an opportunity to create a trail in accordance with the Conservation Board's proposed Greenbelt Plan.
- **Active Recreation Potential.** The property may be used to create new or expanded significant, active recreation areas.
- **Vistas/Viewsheds.** Long-range views from or into the property exist that are important to the town.
- **Visual Quality.** The property is attractive and demonstrates the town's visual character.
- **Historic or Cultural Significance.** The property is important to the town because of its structures, uses or ownership.
- **Unique or Prominent Natural Features.** The property contains unusual or significant natural resources or habitats.
- **Significant Location.** The property's location is important as a buffer, break in pattern or density, or key setting in areas where open space is lacking, or is contiguous to an existing protected area.
- **Man-made Features.** The value of the property is due to its man-made, not natural features.
- **Stormwater Runoff Control.** The property offers environmental and community benefits specific to stormwater management and non-point source pollution prevention.

An initial list of forty-seven parcels were evaluated using the criteria. The parcels selected were identified as having open space potential in earlier plans, including the original 1973 Conservation Board Open Space Plan. Other sites were added by members of the Comprehensive Plan Committee, for this plan. The Open Space Committee has been charged with preparing the final map of parcels to be acquired.

Legislative Protection Strategies

The town has enacted the following legislative tools to protect key features:

- Bedford Village Historic District (1972, 1986)
- Katonah Historic District (1996)
- Freshwater Wetlands Law (1973, 1991)
- Flood Drainage Prevention Law (1979)
- Conservation Zoning (1976)
- Critical Environmental Areas (1984)
- Mandatory Conservation Subdivision (1984)
- Aquifer Protection Zone (1983)
- Tree Preservation Law (1986, 1997)
- Steep Slope Law (1988)

The town has proposed or will pursue the following legislative strategies:

Scenic or Fragile Roads. As the result of research work by town residents, the State of New York established 6.4 miles of scenic roads in the town in 1991. This designation has no binding effect on local actions unless it is supported by specific town legislation to regulate construction activity along these roads. Because the view from the town's roads has a major influence on the town's character, the management of road aesthetics should not be limited to only those areas designated by the State. In particular, the town should have its own Fragile Road Ordinance regulating traffic on its unpaved roads, regulating development along these roads based on their capacity and regulating changes in the character of private land along unpaved roads.

Ridgeline Development. A natural outgrowth of the concern for scenic vistas and roads is the influence of developed property located at the crest of a topographic feature. The town should study undeveloped property where such development may result in a negative effect on an important viewshed.

Preferential Agricultural Assessment. The town should consider preferential assessment for remaining agricultural lands, which the owners agree to retain as such.

Legislative Maintenance. Some as the legislative tools adopted by the Town have been in place for several decades. The approving agencies should review these laws on a periodic basis to determine if amendments or major revisions are necessary to keep pace with current practice and technology.

Other Land Preservation Strategies

The following strategies should be pursued by the town where appropriate.

Direct Acquisition. Direct acquisition of projects by the town is the most direct, but also the most

expensive manner to acquire land or its development rights. It can require long-term expenditures for administration and maintenance. Alternatives to this method should always be explored.

Rights of First Refusal. Either the town government or a local land use trust may negotiate with an owner of important open space lands for the initial option to purchase the property or an easement if it goes on the market. The purchase price would be negotiated at the time of sale. A private holder of a first refusal option usually pays a small sum of money to hold that option until the property is offered. The right of first refusal technique is particularly useful for acquiring large estates, private clubs, golf courses, schools, or churches. It is an effective technique for insuring that land which is presently open space will remain so in the future if and when the present owner of use changes.

Leaseback-Saleback. Leaseback-Saleback provides for purchase of a property with a goal of selling the property back with restrictive covenants or leasing the property back to private individuals for uses that are consistent with the Open Space Plan. This method allows the town, or a designated land trust, to recoup the monies spent, while ensuring the goals of the Open Space Plan. Leaseback – saleback has been used to the town’s advantage in Bedford’s Historic District.

Conservation Easement. A conservation easement is a conveyance of an interest in real property, which is less than full ownership. It may be used by the grantor (the owner of the underlying parcel) to limit development rights not only to himself but to all successive owners of the parcel. An easement may be donated by the grantor/land owner to the grantee, the holder of the easement. A grantee may be either a private individual or organization or a public organization such as a local government or a tax-deductible charitable organization defined by the Internal Revenue Code as a (501) (c) (3) organization. The grantor of the easement continues to own and use the land subject to the restrictions which he has sold or donated to the grantee. At a minimum, the landowner can continue to use his land in the way that it has traditionally been used. In addition, he may retain the right to develop the land although usually with less density than is permitted by the existing zoning on the property. The Bedford Planning Board should continue to advise applicants with oversize parcels of the benefits of preserving the ambiance and character of their holdings by restricting further subdivision through conservation easements. The increasing level of voluntary support for preserving open space in this way should be encouraged by the town. Voluntary easements are a cost-effective way to preserve open space, and is particularly important in a strong real estate market and when significant amount of undeveloped land remains in large privately-held estate which would be too costly for the town to acquire.

4.6 Natural Environment Concerns and Recommendations

Trees. The town should pursue the revision of the Tree Preservation Ordinance. Changes to consider might include the restructuring of the enforcement and permitting process and/or a tree consultant similar to the WCC. The Tree Advisory Board should continue to pursue its mandate as specified in the Tree Preservation Ordinance which includes, among other things, advising on possible changes or recommendations for legislation. The addition of a Standards and Specifications document as a companion to the Tree Preservation Ordinance should be considered. The Standards and Specifications document should be updated by the Tree Advisory Board on a regular basis, to update information regarding invasive species, general tree care, protection and planting, and forest ecology and restoration. The town should consider updating the Tree Advisory Board’s hamlet

tree inventory as a computerized inventory, possibly including trees in the town rights-of-way, throughout the town, and creating a GIS overlay for this inventory.

Surface Water. Bedford is dotted with numerous ponds and small lakes, as well as large New York City reservoirs. These form an important link in the town's overall ecology. In Section 7.8, the plan recommends actions to protect the surface waters in town that are part of a drinking water watershed. With regard to pond and small lake care, Bedford should create a set of best management practices and should direct the Conservation Board to carry out an inventory of small lakes and ponds to develop a baseline portrait of Bedford's surface water resources.

Groundwater. Bedford is opposed to the removal of groundwater for commercial purposes, such as large area irrigation, bottling for sale outside the town, golf courses, and large scale farming. Further, Bedford should study whether controls are needed on new residential permanent irrigation systems for lawns.

Stormwater Management. Bedford is now subject to federal EPA regulations on the management of stormwater flows. These are known as Phase II requirements of the National Pollution Discharge Elimination System (NPDES) Program. These require that the town address the problem of non-agricultural source stormwater runoff: "When left uncontrolled, this water pollution can result in the destruction of fish, wildlife, and aquatic life habitats; a loss in aesthetic value; and threats to public health due to contaminated food, drinking water supplies, and recreational waterways.." Bedford will implement "controls designed to prevent harmful pollutants from being washed by stormwater runoff into local water bodies." (From the EPA NPDES website; July 22, 2002). The Phase II rules focus on stormwater pollutant prevention plans and stormwater management plans for municipal stormwater systems and construction sites.

The town should adopt a policy of minimizing impervious surfaces and encouraging the recharging of stormwater underground wherever feasible. For example, new development should use grass swales rather than paved and curbed drains. Existing parking lots should be retro-fitted with improved underground recharge and stormwater controls when the development come before town boards. During construction, developers should be required to plant annual rye grass on an open site as needed in order to reduce erosion. Bedford should develop a non-point pollution source plan and should reduce as much as possible its use of de-icing road salt. Pervious surfaces should be allowed when safe, practical, and reasonable to assist in the management of stormwater flow.

Deer. The virtually unchecked growth in Westchester's herd of white-tailed deer has led to high fences to keep yards and gardens intact, the loss of plants and trees due to deer browsing, Lyme disease and the fear of it that keeps residents indoors, and collisions between deer and vehicles. Bedford should try to avoid the proliferation of deer fencing, but as a longterm solution needs a plan that reduces the deer population. As it is not alone in this, Bedford should discuss the various strategies that other municipalities are using in order to develop its own policy.