

CHAPTER 5: OPEN SPACE LANDS

1. INTRODUCTION

Hanover's open space lands are among the Town's most significant assets. Open space lands typically have no buildings or other complex man-made structures. The lands may be in their natural state to serve important environmental and/or aesthetic functions, or they may be used for agriculture, forestry and/or outdoor recreation. Either way, they ensure the continued functioning of the natural infrastructure and the recreation resources that are essential to sustaining Hanover's outstanding quality of life. Hanover's in-town open spaces are immediately accessible to people in Hanover's downtown, are generally smaller in size, and typically have more obviously focused uses. Nevertheless, they also serve to protect conservation, scenic, and other important features of the landscape. The phrase "outdoor recreation" as used in this chapter means recreational activities that do not require specially prepared fields, courts or other facilities. (Organized recreational activities and those requiring a developed facility are discussed in Chapter 13, Recreation.)

The pattern of open spaces between structures and between settlements is a key element in defining the character of Hanover. Fortunately, residents and institutions in the past have been sensitive to maintaining and enhancing this character as is evident in the appearance of the Town today. In spite of extensive residential and institutional development, visually, environmentally, and recreationally important open space lands have been identified and many have been protected. This chapter describes the progress made in protecting Hanover's open space lands through public and private initiative, by acquisition and other methods, and presents the needs and recommendations for the future. Existing protected lands are shown on Map 5-1.

2. COMMUNITY VISIONS AND GOALS

Strong opinions by Hanover residents who responded to the 1994 survey of community attitudes show that open space and outdoor recreation are very important aspects of the Town's attractiveness. In 1994, 90% of respondents to this town-wide survey identified "scenery" as a quality they most valued about Hanover, and more than 83% identified "access to outdoor recreation" and "uncrowded living spaces". In fact, these attitudes have not only persisted since the 1974 and 1981 surveys, but appear to have strengthened (Figure 5-1).

Similar to previous survey results, a majority (54%) of respondents to the 1994 survey thought there is a need for more land for open space use in town. In 1999, in a survey of rural residents, 90% agreed or strongly agreed that maintaining open space is important, and 81% felt that Hanover should do more to protect it. As shown in Figure 4-1 in the Natural Resources Chapter, residents have continued to express solid support for the protection of the Town's natural resources. A majority favored controlling development in such areas as hilltops and ridgelines, scenic views, steep slope areas, wetlands, riverbanks, floodplains, and wildlife habitat. Open space corridor-oriented recreational facilities, bicycle paths and trails for walking, were also rated by respondents as the highest recreational facility need.

Residents' attitudes toward methods for open space protection are shown in Figure 5-2. Similar to the results of the 1974 and 1981 surveys, respondents preferred the protection of open

space through land use regulations. Required dedication of open space within subdivisions and large developments and strict development control for sensitive environmental areas have been the two top rated responses in each survey. Support for each of these two methods appears to have increased since the prior survey.

In its *Open Space Priorities Plan*, the Conservation Commission has set a standard that every resident should have a public open space or trail within a five minute walk of their home. Additions to the open space network should respond to this standard.

In 1999 residents at Town Meeting voted to consolidate several municipal funds into a single Conservation Fund for the purpose of open space protection. A condition of municipal acquisition of lands or easements with Conservation Fund moneys is that it be done within the context of the open space plan referenced above. While many public entities and private landowners have established varying degrees of open space protection on individual pieces of land in Hanover, there had never been an integrated, town-wide open space plan for the future. In written comments on an early draft of this report, officials of Dartmouth College (the town's largest employer and landowner) affirmed their long-standing commitment to preserving Hanover as a community, and to the value of open space in the community. The protection of the Mink Brook Nature Preserve is an example of the College's ability to show leadership in conservation efforts that involved many entities.

Open spaces are valued in Hanover for the numerous benefits they offer. Open spaces:

- safeguard potential water supplies and existing aquifers and groundwater recharge areas, surface waters and wetlands
- provide flood protection;
- enhance the small-town character which has been identified as a desirable aspect of Hanover;
- protect our treasured scenic assets;
- provide recreational opportunities;
- help maintain biodiversity and a sustainable balance between the natural world and areas that are developed;
- may be used for agriculture and forestry;
- protect the habitats of common plants and animals as well as the unusual and the unique, unusual or fragile natural areas and habitats of rare and endangered species of fauna and flora;
- may be used for outdoor education;
- can serve as connections and buffers;
- enhance Class VI roads;
- help direct the location and density of development to appropriate areas of the town.

Specific natural resources benefited by the protection of open space lands are discussed in Chapter 4, Natural Resources.

Goals

- To protect open space land as necessary to preserve the character and important natural resources of Hanover;
- To promote the conservation, protection and sound management of the natural resource base;
- To protect and enhance the ecological integrity of the town's diverse natural communities and wildlife habitats;
- To develop an interconnected system of open spaces and corridors throughout the Town for recreational use and wildlife benefits;
- To sustain the scenic quality and visual character of the town;
- To maintain and expand landscape-based recreational and educational opportunities;
- To protect the town's historic sites and cultural landscapes;
- To enhance the development of a greenbelt around the urban area to provide for outdoor recreation activities, scenic value, and to provide a balance to the densely developed areas; and
- To protect in-town open spaces.

3. PUBLIC OPEN SPACE LANDS

Town-Owned Lands and Easements

Ever since its establishment in 1966, the Hanover Conservation Commission has directed attention, time and money to identifying and protecting Hanover's open space lands, natural areas and wildlife. The Commission's open space activities include: facilitating the expansion of the open space system, overseeing Town-owned open space lands, monitoring privately owned lands under conservation easements held by the Town, supervising the Town's forest management plans, and evaluating proposed open space lands associated with developments for the Hanover Planning Board.

Two major open space land areas that were acquired by the Town long before the existence of the Conservation Commission, but that are now under its supervision and subject to forest management plans, are the Town Forest and the Gile Tract. The Dana properties and Marshall Brook Wetland Area are also under professional forest management. The Town's open space lands provide opportunities for hiking, cross-country skiing, fishing, nature study and picnicking, as well as serving important environmental functions. Town-owned open space lands are listed in Figure 5-3.

Landowners interested in conserving their property, but retaining ownership, often utilize the conservation easement. Specifying the rights which will be separated from the property in a conservation easement deed, and selling or giving the deed to a conservation group or town is a common method of land protection in the Upper Valley. Many conservation easements, for example, restrict further subdivision of the property, and residential or commercial development. Commonly, easements may also limit excavation and major disturbance of the natural ground surface. Some conservation easements reserve particular rights for present and future owners such as the right to erect agricultural structures or to allow additions on existing residential structures. Some conservation easements cover only a portion of a lot, leaving the remainder available for

development according to the land use controls in effect in the community. Some easements allow use by the public. Many limit it (for example, to foot travel only), and some curtail public use completely. Every easement is written to reflect the preferences of the individual landowner.

The Town holds conservation easements on several properties. These are listed in Figure 5-4. The provisions of the easements are overseen by the Conservation Commission.

Other Publicly Owned Open Space Lands

School District Lands The Hanover and Dresden School Districts own 70.4 acres in urban Hanover, most of which are playing fields and other open space lands. Camp Brook and the wooded area at the Ray School with its Nature Trail are used to introduce the school children to the natural world. In addition, 60 acres of the original Hanover School District allotment on Plummer Hill is still under Town ownership.

National Park Service The National Park Service controls 1734 acres of land in Hanover associated with the Appalachian Trail. It owns 1483 acres and holds easements on another 251 acres. Some of this land is conserved by means of scenic easements only, without public access. The Appalachian Trail is discussed in more detail further on in this chapter under Open Space Corridors.

4. PRIVATE OPEN SPACE LANDS

Privately Owned Lands Open to Public Use

The Town of Hanover is fortunate in having several institutions and many residents who are sensitive to the natural environment and seek to preserve open space lands. In 1900, several concerned citizens purchased 45 acres of open space land along the Connecticut River at the mouth of Girl Brook, now known as Pine Park, in order to save it from being deforested by a match company. Five years later the Pine Park Association, a formal organization for the management and control of the Park, was incorporated. In 1912 the Association was given an additional 46 acres of land by bequest. A year later it established a Trust to hold the property for the benefit of the public with limited uses but turned over its management to Dartmouth College and the Precinct of Hanover. Today Pine Park is supervised by Hanover's Park Commissioner and an agent representing the College and is controlled by the Trustees of the Association.

One of the many attractive features of Hanover is the Storrs Pond Recreational Area. Storrs Pond, supported by user fees, is a large body of water created by damming Camp Brook. Recreational facilities are located at one end, with campsites nearby. Most of the remaining open space land in this 61-acre area is wooded. It is owned and supervised by the Hanover Improvement Society, a nonprofit corporation formed in 1922 to operate the Nugget Theater as a source of income for its civic improvement projects such as Storrs Pond. The Town is represented by a Selectmen-appointed member to the Board of Trustees.

Ever since its founding in 1769, Dartmouth College has owned and managed large amounts of land. Some of the earliest of these lands still open to the public are the College Green, College Park (the Bema), Velvet Rocks (formerly part of Prexy's Pasture but now in the Appalachian Trail corridor), Vale of Tempe, Oak Hill, the Bottomless Pit, Occom Pond and the College's land on Moose Mountain. The College has cooperated with the Town in assigning several of its land areas

within the greenbelt to Natural Preserve zoning and in keeping much of its land along the Connecticut River largely undeveloped.

The Hanover Conservation Council was founded in 1963 as a private non-profit organization to foster and facilitate the protection of Hanover's prime natural areas. Since 1966, when the Town Conservation Commission was established, the Council has assisted the Town in purchasing and protecting selected parcels of open space land. Generally, the Conservation Council does not hold open space land; however, it does own the Mink Brook Nature Preserve and 19 acres on Balch Hill including a hilltop open field for the benefit of the public.

The Pacific Gas and Electric Company owns Gilman Island in the Connecticut River at the southwest corner of town. It has been used as a rest stop by canoeers and by picnickers.

Trail easements held by the Town guarantee the public right to pass over portions of privately owned property. These are shown in Figure 5-6 and offer a starting point for a Town-wide trail system that also includes the Appalachian Trail and Class VI roads.

Water Company Lands

The land owned by the Hanover Waterworks Company includes three reservoirs and much of the associated watershed lands needed to protect the public water supply. These lands cover approximately 1400 acres. In an act of farsighted planning for the public good in the 1880's, this land was set aside to ensure a safe water supply for the Town and the College. The water company's assets are jointly owned by the Town of Hanover (49%) and Dartmouth College (51%).

This land is not open to the public, as human activity could pose a threat to the drinking water quality. With changing technologies and a greater regulatory emphasis on developing groundwater for public supply instead of open reservoirs, it is possible that these lands will not be relied upon as Hanover's sole water supply in the future. The land has the potential for multi-use recreational development if ever not needed for water supply protection. The water bodies would be excellent for boating, swimming and fishing and the surrounding woodlands, now criss-crossed by old Class VI highways, would be attractive for hiking, skiing, camping, and other outdoor activities.

The *Open Space Priorities Plan* and the Report of the Scenic Locales Committee both draw particular attention to the importance of assuring that this area be preserved as open space. It is a critical element of the greenbelt around the downtown and provides connections for wildlife and recreation between Oak Hill, the Appalachian Trail and Lord's Hill. It is recommended that the Town of Hanover actively formulate and pursue a long-range plan to protect this area from development. In the meantime, the land should continue to be protected from development by provisions in the Zoning Ordinance.

Conservation Easements and Restrictions

A legal mechanism for landowners to ensure that private property is preserved as open space land in perpetuity is provided in State law. The parcels of land so protected in Hanover are listed in Figure 5-4. Several of these are in the form of conservation easements held and overseen by conservation organizations. These lands are not necessarily open to the public. However, members of the Conservation Commission have access to many of them in order to monitor any restrictions. The

Town supports landowners who wish to conserve their property by making available land protection assistance funds.

Open Space Associated With Cluster and Planned Developments

Cluster and planned residential developments in Hanover are required to have a minimum of 35 percent and 65 percent, respectively, of their lands dedicated to open space and recreation. Generally, these open space lands are privately owned and managed by associations of property landowners in the developments for the benefit of residents. Homeowner association covenants and zoning density restrictions control further development of this open space. Among such privately protected lands are those in the Berrill Farms, College Hill, Grasse Road, Hayfield Road, Ivy Pointe, Mulherrin Farm, and the Village at Velvet Rocks developments. This is an important tool for providing for the open space needs of future residents. Proper planning relative to the location and configuration of the undeveloped area can maximize the utility of these areas for homeowners' outdoor activities. The Town should offer incentives for such open space to connect to adjoining conserved lands, to be accessible to the public at large, and to protect significant wildlife habitat.

Current Use Tax Program

The Current Use Program enables owners of certain undeveloped lands to pay taxes on those lands based on the actual use, rather than on the potential market value if sold for development. In return for this tax savings, the landowner must pay a penalty if the land is then developed. As of 2003, 19,642 acres of land in Hanover were enrolled in the current use program. Approximately one-fourth of this land (4773.9 acres) received additional savings through the recreational current use program. The State requires that the recreational current use lands, in order to qualify for reduced property tax, be open to public access without entrance fee and that there be no prohibition of skiing, snowshoeing, fishing, hunting, hiking, or nature observation. (see Map 5-4)

5. MINIPARKS AND GREENS

Within the built-up parts of Town, residents and visitors alike have need for neighborhood open space areas in which to relax and play or just enjoy the out-of-doors. In Figure 5-7 are listed such areas, called miniparks or greens. The flower gardens in miniparks, along roadsides, on traffic islands, and near several public and quasi-public buildings in Town are planted and cared for by the Hanover Garden Club with the cooperation of the Hanover Conservation Council and the Town of Hanover. This beautification project is supported by contributions to the Julius Mason Fund.

This Master Plan directs more compact, intense development to the water and sewer service area. This new development should assure continued access to existing open space and where appropriate new development should include the creation of new publicly accessible open space. Small, well-planned open spaces need to be established as part of the land use pattern. These smaller open spaces can be used for passive or active recreation and/or to buffer residences from more intense development. Public trails or open space should be within a five-minute walk from any residence.

6. OPEN SPACE CONNECTIONS

Natural Areas Network

Early recognition of the Town's need for a coherent open space plan came in the 1957 report *Hanover Plans Ahead*, prepared by the consulting firm of Adams, Howard, and Greeley. This report, which was the basis for the Town's first master plan and for town-wide zoning, recommended the establishment of a "greenbelt" of protected open spaces around the urban core of the town, to be defined in a restrictive zoning district "to provide recreation and breathing space."

Although a revised zoning ordinance was adopted by the Town and Precinct in 1961, no provision was made in it for a greenbelt of open space lands. Therefore, that year an ad hoc group of Hanover citizens, including representatives of Dartmouth College and the Pine Park Association, set out to identify such lands in preparation for action at the 1962 Town and Precinct meetings. Through a petitioned article in the Warrant, the Zoning Ordinance for the Town was amended by adding a Natural Preserve district that incorporated many, but not all, of those open space lands.

In 1963, the private Hanover Conservation Council was incorporated. To further the greenbelt concept and other conservation matters, the Hanover Conservation Council has continued to work closely with the Town in identifying and protecting open space lands. At the 1966 Town Meeting, the voters established the Hanover Conservation Commission and set up a small fund for the purchase of open space lands. Since then the Commission, with the help of the Council, has secured permanent protection for several additional areas through gifts, purchases, and permanent easements. Some of these lands were added to the Natural Preserve zoning district.

The Hanover Master Plan of 1974 called for ". . . the extension of the greenbelt concept around the compact area and into outlying areas north and east of the urban area, with recommendation for preserving such areas through acquisition, gifts, easements, and conservation restrictions." To implement this recommendation, an Etna-Hanover Center Study Committee outlined a "Natural Areas Network" in a 1975 report that was adopted by the Conservation Commission and approved by the Planning Board and the Board of Selectmen. The report envisaged the creation of a recreation and conservation network of trails and unmaintained roads interconnecting Hanover's natural areas, wetlands, historic sites, hilltops, and other open space land. Substantial progress has been made toward implementing this plan and the greenbelt concept remains a focus of the Town's open space protection program.

In 2000, the *Open Space Priorities Plan* was prepared to guide the protection of Hanover's significant open spaces, in the belief that a rational open space system is fundamental to maintaining and enhancing the character of the town as it grows. The purposes of the open space plan are:

- To provide meaningful input for the town Master Plan;
- To encourage and guide land-protection actions by individuals, and by nonprofit organizations such as the Upper Valley Land Trust and the Hanover Conservation Council; and
- To ensure thoughtful expenditure of public moneys, particularly the town's Conservation Fund, and to leverage additional money from other sources for implementation of the plan.

There are many techniques available for both public and private entities to implement the *Open Space Priorities Plan*, one parcel at a time, over the next several decades. Whether this is

accomplished through donation, purchase, easement, transfer of development rights, or other methods, each donor or purchaser will be assured that his/her land fits into the whole open space plan, and thus contributes significantly to sustaining Hanover's high quality of life. Maps 5-3 and 5-3a show the recommended system of open spaces town-wide and within the in-town area.

Existing Corridors

Appalachian Trail Corridor The Appalachian National Scenic Trail is the longest continuously marked footpath in the world. It stretches for more than 2,100 miles through 14 states from Maine to Georgia. As it follows the ridgelines of the mountains of the East, the Trail passes through six national parks, eight National Forests, and many other outstanding natural areas. One section, 16 miles long, enters the Town of Hanover just north of Moose Mountain, continues more or less southerly along the ridgeline over the North and South Peaks, then westerly to Velvet Rocks, and finally through urban Hanover to cross the Connecticut River on the Ledyard Bridge. It is managed by the Dartmouth Outing Club, a founding member of the Appalachian Trail Conference, the umbrella group in partnership with the National Park Service for trail management.

The Appalachian Trail (A.T.) for most of its length lies within a publicly owned corridor of open space land. The corridor in Hanover varies in width from perhaps 100 feet in built-up areas to several thousand feet in the more remote Moose Mountain area and it encompasses approximately 2,000 acres. Where the corridor is narrow, owners of contiguous lands are encouraged to cooperate with the Dartmouth Outing Club in maintaining the physical and scenic integrity of the Trail as a truly unique local and national treasure. Conserving natural views from the trail corridor is one way to support the trail and enhance its character. The *Open Space Priorities Plan* highlights land which buffers the Appalachian Trail as one of the Town's conservation and recreation priorities.

Town Trail Easements and Rights-of-Way A number of strips of land in Hanover have been dedicated to the public for trails. Other strips are described in property deeds as Town rights-of-way.

The list in Figure 5-6 contains several of these. They, along with existing Class VI highways, form the beginnings of a network of trails for interconnecting Hanover's natural areas, wetlands, historical sites, hilltops, and other open space lands. Most of the trails in town that are open to the public are shown on the map developed by the Hanover Trails Committee, a committee of the Conservation Commission, and available at the Town Office. The trails map shows 87 miles of trails. The Conservation Commission maintains trails on about 30 miles of Class VI road and about 10 miles of trails on Town-owned or private land. Worried that development will preclude the creation of an interconnected system of trails in Town, the Conservation Commission considers the identification of and arranging for access to important trail links, a conservation and recreation priority. Trails, trail easements and Class VI roads are shown on Map 5-2.

7. AGRICULTURAL USE OF OPEN SPACE LANDS

Agricultural land use is the most logical technique for the preservation of open space. Working farmland provides many of the features that we value as rural character:

- Fields create openings to allow distant vistas.
- Farmers add diversity to the social and economic fabric of the community.
- Fresh food, locally produced, helps to reduce our reliance on agribusiness and to avoid the huge transportation and subsidized water costs, and gives us some measure of food security.

Fortunately, most of Hanover's undeveloped prime agricultural soils are currently protected by their location (i.e. the area surrounding the reservoir closest to town) and by their ownership, the Hanover Waterworks. Should this land no longer be essential for protecting the surface water quality, it should remain undeveloped because of its importance as agricultural soil as well as for other open space benefits such as agricultural use, recreation, wildlife habitat, and its contribution to the forested backdrop to the town.

The protection of prime agricultural lands relies on voluntary landowner cooperation and land use planning and zoning that encourages development to be located other than on important soils. The Upper Valley Land Trust assists landowners in evaluating protection options. The Conservation Commission and the Conservation Council offer education on the location and importance of this resource.

8. OPEN SPACE PROTECTION THROUGH LAND USE REGULATIONS

Up to this point, this chapter has focused mainly on methods of protecting open space that involve obtaining an interest in the property, such as fee simple ownership or a partial interest such as a conservation or trail easement. However, open space protection, as it relates to residents' documented strong desires for uncrowded living conditions, scenery, small town atmosphere, and for protection of the resource base and wildlife habitat, is also furthered in several ways by the Town's land use regulations.

In addition to the Natural Preserve District discussed above under "Natural Areas Network", the town's Forestry and Recreation District also provides for primarily open space uses such as forestry, agriculture and recreation. Several other uses, including seasonal dwellings, are allowed by special exception but with a minimum lot size of 10 acres to ensure only low-density development. This district contains areas inappropriate or unsuitable for more intensive development, such as the remote eastern side of town around Moose Mountain, along portions of Mink Brook and the Connecticut River, and around Storrs Pond and the reservoirs.

The Floodplain District and wetland and water body protection provisions of the zoning ordinance also represent significant steps toward implementing residents' preference for strict development controls as a method of open space protection for sensitive environmental areas. The ordinance ensures not only that these important resources will be protected, but that corridors of protected open space following watercourses will result. Corridors are not only important for the overall visual effect and atmosphere of the Town, but are essential to wildlife. As habitat areas are becoming increasingly fragmented, safe passageways between areas are becoming more important to meet the needs of wildlife.

The Zoning Ordinance also authorizes the Planning Board to approve Open Space Subdivisions and Planned Residential Developments. Both use land more efficiently than traditional "cookie cutter" subdivisions by clustering the residences and maintaining the undeveloped land (35% and 65%, respectively) for conservation and/or recreation. Thus, the Ordinance provides the Planning Board with the means to encourage landowners to respect resource areas and viewsheds when laying out future lots and home sites.

Hanover's Subdivision Regulations also contain provisions aimed at balancing new development with open space needs. The regulations enable the Planning Board to require developers to provide land for open space or recreation areas within traditional subdivisions to meet the needs of the future residents. Similarly, the Town's Site Plan Review Regulations reflect the importance of green spaces in maintaining Hanover's community character by requiring that site clearing be minimized.

9. POLICIES AND RECOMMENDATIONS

Maintenance of open space is an essential element by which the Town can protect its character, natural resources and scenic quality while providing outdoor recreational and educational opportunities. The importance of open space is recognized by Hanover residents with strong support consistently shown in the 1999 survey of rural residents and the 1974, 1981 and 1994 town-wide community attitude surveys for open space and natural resource protection.

The town should act progressively to protect significant open spaces and key natural resources, such as the Connecticut River, and to implement strengthened environmental control; a combined public/private approach is required.

Open space delineated in the *Open Space Priorities Plan* is shown on Maps 5-3 and 5-3a. Within the area served by public water and sewer, open space would consist of acquired lands and easements, areas reserved in planned residential developments, and to the extent possible linkages between them. In the rural areas, open space would be protected in a number of ways, including public purchase, conservation easements, planned residential development open space, and transfer of development rights to lands in areas of town served by water and sewer.

The Town has begun implementation of the *Open Space Priorities Plan*. The Hanover Conservation Commission has assisted the Planning Board in the development of policies and recommendations for the Town's open space lands and outdoor recreational resources for inclusion in this Master Plan. It remains a mission of the Conservation Commission to advise the Town in protecting and developing its natural resources for the benefit of all its citizens.

Selected recommendations from the Open Space Priorities Plan and for open space follow:

- Develop land use strategies that protect appropriate conservation lands, connect these lands and promote uses that maintain open space, such as agriculture and forestry.
- Protect the attributes of specific sites and little places that, collectively, create the outdoor ambiance of Hanover, and which go far towards defining the character and enhancing the quality of the neighborhoods.
- Refine the system of in-town open spaces by acquiring more land, and by changing project standards to require small areas of open space, recognizing that not all of these open spaces will be designated for public use. Several small neighborhood parks and playgrounds should be established in Hanover's residential sections and at least one should be located near or within the business district.
- Carefully augment the open space network to be responsive to the standard that every resident should have a public open space or trail within a five-minute walk of his/her home.

- Use strategically situated open spaces to buffer residences from noise, light, activity, odor and traffic associated with more intense commercial and institutional uses and to provide a reasonable transition between residential and more intensive uses.
- Protect open space land as necessary to maintain the character of rural areas, protect natural areas, and wildlife habitats, and enhance new development areas in Hanover.
- Encourage the preservation, expansion and enhancement of a greenbelt around the urban area to visually distinguish the edge of the urban area and to provide a forested backdrop for the in-town area that offers outdoor recreation activities, scenic value, and a balance to the densely developed downtown.
- Fashion an interconnected system of open spaces and corridors throughout the Town for wildlife habitat, recreational use and other benefits; continue to maintain Town ownership of Class VI road rights-of-way as recreational corridors.
- Continue to incorporate scenic vistas, steep slopes and hilltops such as Pinneo Hill, Lords Hill, Balch Hill, Hayes Hill, Moose Mountain, Oak Hill, Huntington Hill, Rix Ledges, Mount Support, Twin Peaks and Mount Tug into the open space network through such means as conservation easements, land acquisition or by restricting hilltop development.
- Limit residential use in the Moose Mountain East and West areas to protect Hanover from the cumulative negative effects of scattered and premature seasonal development. The remaining unprotected lands on Moose Mountain Ridge should be protected in a systematic manner using zoning, conservation easements and acquisition of land or development rights.
- Since the Connecticut River is one of the most significant natural, scenic and recreational resources in Hanover and New England, adopt regulations to protect the river water quality and enhance stability of the riverbanks as suggested in the Connecticut River Management Plan. An in-town riverfront recreation area should be developed for water activities and picnicking so that more people can enjoy the River. Continue the Town's active participation in the Upper Valley Local River Subcommittee of the Connecticut River Joint Commissions to implement a river corridor management plan.
- Formulate and actively pursue a long-range plan to protect the Water Company lands from development.
- Continue and expand the cooperative relationships that have been established between the Conservation Commission, the Mascoma Watershed Association, Hanover Conservation Council, Appalachian Trail Conference Land Trust and Upper Valley Land Trust.
- Encourage preserving vistas and incorporating open space recreation areas into residential development in the process of subdivision review. Ensure the usefulness of open space areas associated with subdivisions for outdoor activities by carefully planning the location and configuration of the undeveloped areas, and by linking them to the larger open space system.
- Ensure that developers are made aware of the Town's priorities for land protection during the earliest possible phase of project planning.

Figure 5-1 Positive Responses to Open Space-Related Features as Something Respondents Value About Hanover

Feature	1974	1981	1994
Uncrowded living conditions	78%	64%	88%
Scenery	72%	42%	90%
Access to outdoor recreation	59%	64%	84%
Small town atmosphere	69%	68%	87%

Source: Hanover Community Attitude Surveys

Figure 5-2 Survey Respondents' Attitudes Toward Various Open Space Protection Methods

Response	1974	1981	1994
Continuation of present effort with nothing additional	15%	27%	28%
Increased allocation of tax money for acquisition of open space land	35%	20%	25%
Required dedication of an open space within subdivisions and large developments	43%	39%	49%
Strict development control for sensitive environmental areas	50%	47%	56%
Land banking (advance purchase of land for later municipal use as parks or recreation areas)	41%	31%	40%
Purchase of the development rights of land & conservation easements	DR = 12% CE = 23%	DR = 10% CE = 18%	29%
Other	-	-	2%
None: No allocation of public funds for open space acquisition	-	4%	5%
No opinion	0	0	8%

Source: Hanover Community Attitude Surveys

DR=development restrictions; CE=conservation easement

Figure 5-3 Town-Owned Open Space Lands (shown on Map 5-1)

Map #	Name	Responsibility	Tax Map	Lot	Location	Acres
T1	Great Hollow Forest	CC	1	22	55 Great Hollow	11.4
T2	Etna Highlands Tract	CC	2	31	20 Etna Highlands	12.5
T3	Pinecrest Acres Tract	CC	2	80	11 Laurel Street	3.1
T4	Tresscott Ridge Wetlands	CC	5	46	11 Woodcock Lane	12.9
T5	Dana Forest East	CC	6	8	100 Ruddsboro Road	84
T6	land	CC	6	14	40 Ruddsboro Road	0.9
T7	Dana Forest Pasture Road	CC	6	44	41 Moose Mountain Rd	132
T8	Dana Forest West	CC	6	51	79 Ruddsboro Road	99
T9	Rinker Tract	CC	8	4	85 Lyme Road	17.6
T10	Wilson's Landing	CC	8	20	110 Lyme Road	2.98
T11	Parade Ground	PW	9	70	1 Parade Ground Road	1.5
T12	Algonquin Tract	CC	9	106	1 Algonquin Trail	0.7
T13	Dana Forest Moose Mt.	CC	10	28	47 Moose Mountain Rd	28
T14	Fuller Property	CC	10	29	Moose Mt.	34
T15	land	CC	10	31	Moose Mt.	7.2
T16	Town Forest	CC	14	8	56 Tunis Road	0.7
T17	Town Forest	CC	14	9	66 Tunis Road	73
T18	Town Forest	CC	14	12	57 Tunis Road	16
T19	Marshall Brook Tract	CC	14	26	39 Goose Pond Road	96
T20	land	CC	14	28	60 Goose Pond Road	<1
T21	Pressey Brook	CC	14	34	42 Goose Pond Road	<1
T22	McKinley Tract	CC	14	41	146 Wolfeboro Road	125
T23	Emily Lane Wetlands	CC	15	58	8 Mulherrin Farm Road	3.18
T24	brook	CC	16	10	5 Thompson Road	<1
T25	Plummer Tract	CC	16	14	34 Thompson Road	63.7
T26	Goodwin Forest	CC	17	17	68 Goose Pond Road	139
T27	Fadden Tax Sale	CC	17	23	61 Goose Pond Road	3
T28	South Esker	CC	18	5	Spencer Road	14
T29	next to Pine Knoll	CC	19	13	1 Spencer Road	3.2
T30	Mink Brook s/s	CC	19	15	north of Pine Knoll	26
T31	land	CC	19	16	Main Street	?
T32	Mink Brook	CC	19	33	114 Main Street	5.8
T33	Mink Brook Gould Farm	CC	21	3	194 Lebanon Street	1.9
T34	Gile Tract/old dump	PW	21	2.1	215 Lebanon Street	34
T35	Mink Brook n/s	CC	23	2	111 Main Street	37
T36	Tanzi Tract	CC	24	43	87 Lebanon Street	18.6
T37	Tanzi Tract	CC	24	49	87 Lebanon Street	?
T38	Mink Brook	CC	25	52	8 Martin Lane	<1
T39	on Mink Brook	CC	31	13	137 Etna Road	0.05
T40	Etna Common	PW	32	5	Hanover Center Road	2.8
T41	Anne Frey Park	PW	33	38	6 Wheelock	0.1
T42	Courtyard Footpath Tract	CC	41	55	Verona Ave.	0.5
T43	Piane Tract	CC	44	57	23 Rip Road	1.32

Map #	Name	Responsibility	Tax Map	Lot	Location	Acres
T44	Balch Hill	CC	45	7	27 Hemlock Road	25
T45	Woodmore Tract	CC	47	32	111 1/2 Woodmore	0.45
T46	Camp Brook Tract	CC	48	3	81 Reservoir Road	19.6
T47	Miller Road	CC	51	23	33 Goose Pond Road	0.25
	TOTAL					1152.76

NB: CC=Conservation Commission; PW=Public Works

Figure 5-4 Town Owned Conservation Easements and Restrictions (non-trail)

Map #	Map	Lot	Name	Grantor	Restrictions
E1	2	46, 128-31	Campion Farm CE	James & Aubrey Paull	40.1 ac in CE; 16.3 ac. Buffer no structures, subdivision, grading, signs no mining, dumping, no wheeled vehicles Public access with trails
E2	8	15	D.C. Organic Farm (Fullington Farm N)	Dartmouth College	no subdivision; no non-ag structures Public access on trail 12', 16.74 ac
E3	15	58,93	Emily Lane Wetland	Alan & Jean Peterson	4 ac wetland no subdivision alterations to be approved structures to be reviewed
E4	8	19	Fullington Trust CE (Fullington Farm S)	Wilson Fullington Trust	no subdivision- 9 ac. field must be mowed Public access 12' trail
E5	8	2	Hanover Improvement Society (Ferguson Tract)	Hanover Improvement Soc.	19.4 ac. no subdivision must mow field ped. Access
E6	2	2	Haskin's Woodland	Charles N. Haskins	47 acres total, approx. 2 acres preserve & maintain shade trees in & along road
E7	1	20	Hypertherm Wetlands	Hypertherm, Inc.	12' pedestrian, bicycle and ski access 12.8 acres no structure or road, grading, signs no dumping, cutting, mechanized vehic.
E8	8	1	Kendal River Bank Buffer	Kendal at Hanover	riverbank protection 11.75 ac. CE no structures cutting >6" trees
E9	1 26	8 34,45-6	Mink Brook Hanchett/Jenks	Stanley & Margaret Jenks	no structures .32 acres
E10	24	39,41, 67 75	Mink Brook Wheelock Mill	Alanson & Evelyn Grant	.33 ac; all land within 75' of the ancient stone fdn and mill race to be preserved as historical site
E11	3	89-90	Mt. Tug Preserve CE	Peter & Matson Van Dyck	elevations>1650' no structures; approx 3.99 ac
E12	15	74 75,78-82 87-8,94,99 105,9-10	Mulherrin Farm Pingree Brook CE	Two Twins Ltd Ptnrshp	75' either side Pingree Brook no structures 7.57 ac commonland; 10.96ac CE

Map #	Map	Lot	Name	Grantor	Restrictions
E13	9	88	Parkhill CE	Elizabeth Parkhill	9.88 acres, no advertising SF residence w/ accessory uses only, no trash/junk, no subdivision, selective cuts
E14	12	151-5,166 222	Pete's Brook CE	Dodds Land Resources	3.27 ac, no topography changes no man made structures
		In Lebanon	Pond CE	Town of Hanover	Pond and lands w/I 100 feet retain pond, marshland, vegetation
	Conservation Restrictions			Grantor	Restrictions
E16	10	5,11,49,50	Stout Conservation Restrictions	Mary Kay Beach to Ruttner	M10L5 35 acres, one single family dwelling
E15				Carol Stout to Dresser	M10L49, 40 ac, SF only
E18				Murray Beach to Mary Kay Beach	M10, L50,5,11, L11=7 acres, L5=36 acres no further subdivision of lots 11 or 5 no residential development on L5, no more than one SF dwelling on L11
E17					

CE=Conservation Easement

Figure 5-5 Conservation Lands (Non-Town) (shown on Map 5-1)

Map #	Name	Owner	Conservation Group	Tax Map	Lot	Acres
AT	Appalachian Trail	US DOI		1	30	210.5
AT	Appalachian Trail	US DOI		5	9	168
AT	Appalachian Trail	US DOI		5	68	38.19
AT	Appalachian Trail	US DOI		5	70	2.1
AT	Appalachian Trail	US DOI		5	127	22.1
AT	Appalachian Trail	US DOI		5	128	85.78
AT	Appalachian Trail	US DOI		6	58	70.83
AT	Appalachian Trail	US DOI		10	2	56.5
AT	Appalachian Trail	US DOI		10	3	71.2
AT	Appalachian Trail	US DOI		10	22	21
AT	Appalachian Trail	US DOI		10	52	7.4
AT	Appalachian Trail	US DOI		11	9	744
AT	Appalachian Trail	US DOI		13	56	358.85
AT	Appalachian Trail	US DOI		16	18	167.8
AT	Appalachian Trail	US DOI		17	2	1
C1	Chinlund CE	M Podolec TTEE	UVLT	8	5	3
C2	Crow CE	A & H Crow	UVLT	5	104	12
C3	Downing Road Footpath	John & Betty Brown		33	88	10'
C4	Ferson Pond	J Lehet/B Hutchings	UVLT	13	79	19.3
C5	Frost Park (Smith Field)	Homeowners Association		38	45	.5
C6	Hayes Hill	D & S Fitchet		2	21-9	78.54
C7	Hayfield Restrictions	A. Alexander Hyde		10	8, 37-40,42	25.21
C8	Ivy Pointe	Homeowners Association		38	92	2.02
C9	Keene CE	Kni-Kee Properties, LLC	UVLT	9	19,108	113
C10	Little CE	B Lambert	UVLT	2	113	5.3
C10	Little CE	P & R Geason	UVLT	2	114	6.3
C10	Little CE	M & M Chaffee	UVLT	2	43	17.4
C10	Little CE	E Watson	UVLT	2	115	9.6
C10	Little CE	A & R Morris	UVLT	2	44	11.6
C10	Little CE	F Gardent TTEE	UVLT	2	111	5.1
C11	Mink Brook Nature Preserve	Hanover Conservation Council	UVLT	19	32	112
C12	Karl CE	R Karl TTEE	SPHNF	6	2	75.7
C13	Karl CE	R Karl TTEE	SPNHF	3	54	31
C14	King CE	R & F Meyers TTEE	SPNHF	2	51	22.36
C15	King CE	A & G King	SPHNF	2	125	56.06
C16	Nutt CE	D & M Nutt	SPHNF	9	31	128
C17	Nutt CE	D & M Nutt	SPHNF	9	32	70.6
C18	Balch Hill	Hanover Conservation Council		45	5	10

Map #	Name	Owner	Conservation Group	Tax Map	Lot	Acres
C19	Balch Hill- Hunter	Hanover Conservation Council	UVLT	44	44	9.96
C20	Council Forest	Hanover Conservation Council		14	37	1.5
C21	Doyle Home Farm	Samuel & Joanna Doyle	NH LCIP	12	37,40	42.8
C22	Doyle Home Farm	Samuel & Joanna Doyle	NH LCIP	12	39	396.3
C23	Slate Pond	James Kennedy	NHF&G	12	114	31.8
C24	Berrill Farms	Homeowners Association		1	16	105
C25	College Hill	Homeowners Association		25	54	11.5
C26	Cuttings Corner	Homeowners Association		27	26	10.4
C27	Grasse Road I	Homeowners Association		48	34	9.4
C28	Grasse Road II	Homeowners Association		48	1	6.46
C29	Grasse Road II	Homeowners Association		48	50	0.779
C30	Village at Velvet Rocks	Homeowners Association		1	3	48.8
C31	Pine Park	Pine Park Association		43	1	93
C32	Hanover Water Co. Lands	Hanover Water Company		various	various	1400

Total acreage **5009.05**

NB: UVLT=Upper Valley Land Trust;
 SPNHF=Society for the Protection of NH Forests
 USDOI= United States Dep't of the Interior
 NHF&G=NH Fish & Game Dep't
 NH LCIP=NH Land & Conservation Investment Program

Figure 5-6 Town-Held Trail Easements (shown on Map 5-2)

Map #	Map	Lot	Name	Grantor	Restrictions
1	9	105	Algonquin Boundary Trail	Algonquin Associates	
2	2	76	Bascetta Trail Easement		along N & W bounds
3	2	19	Blodgett Brook Trail	John P and Jean C Dodds	150' centered on brook 30' along N & NE Boundary to FAA land
4	42	33, 58,59	Bogia Trail	David Bogia	20' wide; no motorized vehicle or trail surface no dwelling/structure
5	12	141-3 149,150	Bolea E. Boundary Trail	Dodds Land Resources	30' no motorized vehicles
6	12	151	Bolea W. Boundary Trail	Dodds Land Resources	30' no motorized vehicles
7	18	4	Bower Footpath (S.Esker)	Richard Bower Richard and Dorothy Bower grantor may erect boat hut	accesses S. Esker 110' strip along CT R. no motorized vehicles no structures, roads and cabana
8	24	67	Buck Road Trail(Mink Brook)	Bayne Stevenson	20
9	24	67		Barbara Smith, UVDTC	s/s sewer-s/s brook
10	24	35,66,67		Alanson Grant	20'
11	48	3,34	Camp Brook Bike/Ped Trail	Dartmouth College	
12	2	46, 128-31	Campion Farm Trail Easement	James and Aubrey Paull	no camping
13	25	54	College Hill Footpath	Gibson Associates	
14	1	28-9	Creare Mink Brook Trail	no deed received, now covered by MB Great Hollow trail	
15	8	15	DC Organic Farm	Dartmouth College	12' footpath
16	15	58,93	Emily Lane Trail	Peterson	50' access to wetlands
17	2	9 103,105	Etna Highlands Trail S & W	Dodds Land Resources	30' no motorized vehicles
18	8	19	(Wilson) Fullington CE	Wilson Fullington Trust	12' footpath
19	Leba non		Gile Tract & Indian Ridge	Hanover to Trustees of D.C.	trailhead, trails
20	41	54	Girl Brook Trail Easement	Dartmouth College	25' no wheeled vehicles
21	8	2	Hanover Improvement	Hanover Improvement Soc.	pedestrian access
22	39	70,109,145	Haskins/Low/Rayton	Dartmouth College	foot path, drainage

Map #	Map	Lot	Name	Grantor	Restrictions
			Trails		
23	2	69	Hauri Boundary Trail	Debbie J. Hauri	10' footpath
24	10	38-42	Hayfield Lane Boundary Trail	A.Alexander Hyde	1 rod
25	1,5,2 7	var	Highway #38	Dartmouth College Berrill FarmsHomeowners' Assn.	50', no horses TR 38 discont 5/9/95
26	38	92,102,103	Ivy Pointe	Simpson Development Corp.	20' s/s lot 7 10' across M38 L92
27	2	78	Pinecrest Acres	Lauziere	
28	1	24	Mink Brook Great Hollow Park	Acorn Associates	30' s/s Mink Brook
29	15	85 86-90	Mulherrin Farm Boundary Trail	Two Twins Limited Partnership	30' no motorized vehicles no structures
30	2	1	NMM Trail Easement	NMM, Inc.	10'
31	2	88,123-4	Paull Boundary Trail	James and Aubrey Paull	15' No wheeled vehicles
32	40	8	Rope Ferry Road Footpath	Trustees of D.C.	3'x30' pedestrian use
33	29	18	Schoolhouse Mink Brook Trail	Raymond Dickinson	15' No wheeled vehicles
34	1	3	Simpson Trail Easement	Simpson Development	50' No wheeled vehicles
35	2	37-8	Trescott Ridge Walkways	Trescott Ridge, Inc.	20', pedestrian use
36	5	131,132	Tuxbury Boundary Trail	Ronald & Dorothea Tuxbury	25' No wheeled vehicles
37	24	75	Wheelock Terrace	Wheelock Terrace	
38	2	5	Williamson Mink Brook Trail	B & K Williamson	55', s/s Mink Brook from the CL of brook no camping, horses no wheeled vehicles

Figure 5-7 Miniparks and Greens (shown on Map 5-1)

Map #	Name	Location	Ownership	Map/Lot	Comments
G1	College Green	Wheelock Street	Dartmouth College	34/12	heart of town and campus
T40	Etna Common	Etna Road	Town of Hanover	32/5	field sports, play structure
T11	Parade Ground	Hanover Center Rd	Town of Hanover	9/70	Ol' Timers Fair
G2	Minipark	Austin/Valley		row	flowerbeds, grass
G3	Dagmar's Place	Chase/Valley		row	play area, bench
G4	Minipark	Clement/Occum Ridge		row	ornamental plantings
G5	Minipark	Valley Road		row	trees and grass
T41	Anne Frey Park	Wheelock Street		33/38	herb garden, bench
T45	Minipark	Woodmore	Town of Hanover	47/32	bike trail

row=within road
right of way