

Chapter Ten

Open Space and Recreation

Introduction

Within the past decade, a number of communities within the Southern New Hampshire Planning Region, including Auburn, Londonderry, Bedford, Chester and Derry have all passed warrant articles as well as bond issues for land protection. The primary reasons for these bonds have been to preserve key undeveloped tracts of land (“Open Space”) in order to manage growth and development, protect natural resources, create recreational opportunities, and maintain community character.

In almost every community within the region, open space and recreation planning is an ongoing activity led mainly by volunteers from conservation commissions and planning boards. Some municipalities have professional planners and recreation department staff who assume these responsibilities. For the most part, however, planning for open space and recreation is a locally driven process. SNHPC is addressing open space and recreation at a regional level for the first time in this plan.

The objectives of this chapter are three-fold. First, to prepare an inventory and map of all the federal, state and municipal lands, town forests, parks and recreational areas, and other publicly- and privately-owned lands that are protected by public ownership, acquisition or conservation easements. Second, to identify and map all the sites and land areas that municipalities within the region describe as desirable for protection in the future as conservation, open space or recreation. For the most part, these sites have been identified as natural areas under the 2004 Local Resource Protection Priorities (LRPP) program. Third, to describe and evaluate all the state parks, forests and other state-owned lands within the region and to determine if these parks are adequate to address the region’s growing population.

Public Survey Results

The Public Facilities Survey was developed to measure public input regarding regional open space importance and to identify concerns and potential resolutions related to each town’s efforts in encouraging it. Every SNHPC region community participated in the survey, with the exception of Chester.

- 73% of respondents felt that the importance of protecting open space in their community was a “high” to “very high” priority.
- 71% believed that despite the economic downturn their community is actively trying to obtain open space.
- In their community, slightly over 80% believe there is a strong need for recreational uses to be provided.

- A major obstacle in obtaining and maintaining open space is funding. However, our communities have worked hard to do so. Over 63% believe that their community has received some form of state, federal, or private grants to preserve open space.
- Just over half of the respondents also believe that their community has developed incentives to encourage developers to conserve open space, and nearly 90% of respondents agreed that using conservation funds raised through land use tax penalties could be a valid source of funding.
- 82% of respondents believe their community is aware of the principles and impacts cluster developments can have on preserving open space.
- The majority of respondents are not aware of the implementation of impact fees, or conducting a Cost of Community Services Study in order to assess the balance between revenues and expenditures for various types of land uses.

The Importance of Open Space and Recreation

For the purpose of this plan, “Open Space” refers to undeveloped land that has local, regional and statewide value as protected or conservation land, historic or cultural sites, or scenic vistas. Such areas may contain, but are not limited to, forests, farmlands, old fields, floodplains, wetlands, shorelands, parks and recreation areas.



Open space lands and views located in Deerfield, NH

Residents of New Hampshire have a strong connection with the outdoors as well as the natural and cultural heritage of the state. The state’s landscape lends itself to a wide range of ecological and recreational pursuits that are enjoyed by residents and tourists alike. This heritage is an important reason why New Hampshire continues to be a popular place to visit and an attractive place to live.

In 1997, the University of New Hampshire (UNH) conducted a *Statewide Outdoor Recreation Needs Assessment* of New Hampshire residents.¹ According to this survey, over 81 percent of the respondents said that New Hampshire's scenic beauty and cultural heritage were important to them personally. Sixty-one percent of the respondents agreed that outdoor recreation played a central role in their lives.

New Hampshire's rapid growth has spurred interest among people in many municipalities throughout the region to conserve open space and to seek ways to raise public funds to acquire land for conservation and recreational purposes. With continued growth and development, however, there will be fewer opportunities in the future to preserve and protect the important natural and cultural lands that exemplify the open space and livability of the region.

While much of the region still remains undeveloped, population growth and sprawling development are consuming open space and community character at a rapid pace.² Researchers estimate that within the next 25 years, southeastern New Hampshire will be virtually built-out, meaning that all the available land not conserved will be developed.³ This will place tremendous strains on local budgets and community resources.

Planning boards and conservation commissions have an important responsibility to ensure that open space and recreational opportunities are made available to the public. This means open space and recreation must be addressed as an essential part of the community planning process.

There are many reasons why open space and recreation are important at the local, region and state level. These resources not only provide opportunities for public use and enjoyment, but they improve the environment and the overall health of the population, and promote tourism and economic development.

Some of the most important benefits that communities can derive from open space and recreation include:

- ***Growth Management*** -- Protecting open space and conservation lands can help guide growth and development to areas that are the most appropriate and cost-effective for municipalities to serve.
- ***Land Use Compatibility*** -- Incompatible land uses can be buffered and attractive and functional green space and trail opportunities can be provided within densely developed areas.

¹ New Hampshire Outdoors 2003-2007 Statewide Comprehensive Outdoor Recreation Plan, prepared by New Hampshire Office of State Planning, March 2003, page 10.

² The current estimate of undeveloped land is 172,888 acres, excluding all water surfaces.

³ Society for Protection of New Hampshire Forests, New Hampshire Everlasting Initiative.

- ***Historic Preservation*** -- Threatened historic and cultural sites can be protected through historic and conservation easements, and possibly accessed as recreational pursuits.
- ***Agricultural Preservation*** -- The viability of working farms and forests can be protected to sustain the community's character, economy and local employment.
- ***Scenic Views*** -- By preserving key parcels and large open blocks of undeveloped lands, important scenic vistas and views can be maintained and enjoyed by local residents and tourists alike.
- ***Water Supply*** -- An adequate water supply is essential for economic activity. Preservation of open space can protect and contribute to a readily accessible and sufficient supply of water.
- ***Water Quality*** -- Sustained water quality is vitally important in supporting all ecological functions. Open and undeveloped land helps maintain water quality. The forested soil of wooded lands can filter significantly more pollutants or roadway-related runoff from entering the water system (up to 90 percent more) than can lawns or asphalt surfaces.⁴
- ***Aquatic Buffers*** -- Vegetated buffers physically protect a stream or river by maintaining trees, shrubs, bushes, tall grasses, and groundcovers that provide shade and remove debris and polluting nutrients. Buffers usually contain three zones: the innermost *streamside zone* of forested shade to enhance stream quality; the *middle zone*, 50-100 feet, often a managed forest with some clearing for trails or open areas, and the *outer zone*, usually around 250 feet, but often expanded to protect adjacent wetlands and any floodplain.
- ***Aquifer Protection/Recharge*** -- By providing open space, municipalities can protect their water supply aquifers, preventing costly clean up in the case of a polluted water source. Trees, meadows, scrub areas, and agricultural lands also allow water to recharge back into underground supplies, maintaining base flow in rivers and streams, lakes and ponds, and wetlands. Without such recharge, droughts are more likely, as well as flooding during severe rainfall or snow melt.
- ***Flood Control*** -- Many communities throughout the region are purchasing open space to increase flood storage and reduce repetitive losses due to flooding.
- ***Air Quality*** -- Preservation of open space is integral in maintaining air quality. Trees in forested areas absorb pollutants such as ozone and sulfur dioxide, leaving the air noticeably cleaner. A single acre of trees takes in about 2.6 tons of carbon

⁴ Anderson 2000, Trust for Public Land 2005.

dioxide each year, removing some of the pollutants released by vehicles.⁵ Older, larger trees in many of the region's forests, such as the Black Gum Tree, can remove up to 70 times more pollution from the air than trees with diameters less than thirty inches in size. Additionally, trees trap particulate pollution that causes asthma and respiratory problems.⁶

- ***Biodiversity*** -- Biodiversity, which encompasses the existence and interacting processes of plants, animals, fungi, algae, bacteria, and other microorganisms, is integral to human survival. The complex natural world provides elements that support human life, such as enriched soil to grow food, oxygen to breathe, and purified water to drink. Maintaining these processes is important for economic as well as ecological reasons. Plants are sources of food, medicine, fuel, fibers, timber, and more. Furthermore, plants and animals pollinate fruit and vegetables, control pests, and add nutrients to the soil as part of their natural functioning.
- ***Habitat Protection*** – Preserving open space lands enhances wildlife protection. Wildlife is an attractive draw for residents and visitors alike, who enjoy bird-watching, hunting and fishing, and hiking amidst the fall foliage. As noted earlier, over 81 percent of the population in New Hampshire participates in outdoor recreation and wildlife-related activities. This brings millions of dollars to the region and local communities.
- ***Greenway Planning*** -- Greenways or riparian corridors offer an important means for connecting open space and recreation, particularly along the region's rivers and streams. These corridors provide many social as well as ecological benefits, including the potential for recreational trail development, wildlife viewing, and a wide expanse of connected open space. Greenways can also provide a wealth of opportunities to citizens literally in their own backyards.
- ***Public Access*** – Open space offers the potential for public access to a variety of active or passive recreational opportunities. Public access, however, needs to be located at appropriate places, which will not compromise the character of the area.
- ***Aesthetics*** -- Aesthetic landscapes lend appeal to a community and provide economic benefits as well. As documented in the following section, several studies indicate that land values bordering open space and recreation lands are higher than those in developed neighborhoods, suggesting that people are willing to pay for the aesthetic value derived from open space protection and recreation.
- ***Social Interaction*** -- The advancement of open space and recreational opportunities can also expand the social network of the community. Residents

⁵ Hilary Nixon and Jean-Daniel Saphores, Impacts of Motor Vehicle Operation on Water Quality: A Preliminary Assessment, School of Civil & Environmental Engineering, University of California, Irvine (www.uctc.net), 2003.

⁶ Ibid.

can meet neighbors while hiking a trail, hold town festivals in newly-established parks, and work together to construct improvements to public open spaces.

- **Tourism** – A beautiful environment makes New Hampshire and the region an attractive place to live, work and visit. This in turns helps the region’s economy and helps to attract businesses and visitors to locations where quality of life is an important factor.

In identifying and ranking important lands for open space, conservation or recreation purposes, the following criteria may be useful:

- **Potential linkages to existing open space**, recreation facilities, and to similar areas in adjacent communities.
- **Environmental sensitivity and importance of the parcel** such as the presence of aquifers, rivers, wetlands, wildlife and scenic qualities. This includes wildlife corridors, unique habitat, and endangered, threatened and rare species.
- **Areas with insufficient public open space** or existing open space areas threatened by continued development. Consideration should be given to land which can encourage town-wide distribution of open space and recreation.
- **Town-wide versus special group benefit.** The acquisition of land should benefit the town as a whole and not a select group of residents. The importance of addressing each need will depend on the specific goals of the town.
- **Outdoor recreation potential.** This is related to providing additional athletic fields as well as providing areas for greenways and trails that provide opportunities for hiking, walking, running, skiing, and biking.
- **Cost and availability of the parcel.** This should account for the amount of residents that are willing to pay to purchase open space (in the form of increased taxes) and the availability of funding sources that would be available if a particular property were targeted for acquisition.
- **The financial impact** that removing the parcel from development will have on the municipality. For example, a residential parcel may cost the town in services while a commercial property may be a positive contribution to the tax base.
- **Aesthetic benefits to the general public** and the preservation of community character. This can include scenic values, cultural and historic preservation and/or the overall agricultural and rural character of the community.



Courtesy of Candia Conservation Commission

The Economics of Open Space

While open space and recreation offers many planning, ecological, and environmental benefits, clearly the economics of open space remains a hotly debated issue. In many communities throughout New Hampshire and the region, there are major debates among planning boards about the costs and tax consequences of open space and how it should best be managed and protected. In many communities, taxpayers are concerned about the trade-offs between increasing their property tax bills versus the environmental, recreational, and quality-of-life benefits of conservation and open space.

While it is difficult to quantify these trade-offs, especially in monetary terms, it is important to address several common misconceptions about open space and growth. The issues can be boiled down to two main lines of thought. The first holds that open space and recreation programs are expensive for municipalities and thus lead to higher taxes. The second contends that growth and more development produces more taxpayers and therefore lowers taxes.

Over the past few decades, there have been a number of important studies that have addressed these issues. The overall results show that communities who curb sprawl and implement smart growth principles, including land preservation, spend considerably less money than those municipalities with sprawl. In addition, the studies demonstrate that open space and recreation enhance property values and over time contribute to the stability of community tax rates by requiring fewer services.

Cost of Land Protection

In New Hampshire and other New England states, local governments are more reliant on the property tax than they are in other regions of the country. Local officials are often

sensitive to changes in the tax base because property taxes are particularly burdensome to New Hampshire households with the least ability to pay, and many people across the state have already reached their limit. Because open space and recreation projects can involve complex land transactions, it is important that local officials and residents better understand the system of taxation in New Hampshire as well as the various costs and tax implications of preservation actions.

In 2005, the Trust for Public Land (TPL) released an important study entitled, *Managing Growth: The Impact of Conservation and Development on Property Taxes in New Hampshire*. Looking at the unique relationship between property taxes and municipal revenue in New Hampshire, the study addressed the concern that land conservation increases property taxes. In short, the results of the 2005 TPL study indicated that while there are short-term tax consequences associated with the acquisition of permanent open space and land conservation; in the long term, residents pay fewer taxes overall with more open space and protected lands than residents in other communities.

Impacts of the Cost of Land Protection to Taxpayers

According to the 2005 TPL study, the tax consequences of permanent land conservation projects vary according to the agency or organization acquiring the land. Federal, state and local governments do not pay property taxes. However, federal agencies do make payments in lieu of taxes of different amounts for fee-simple acquisitions. The State of New Hampshire also does not pay property taxes on the land it owns. However, the state does make a payment to the municipality that is based upon the amount of taxes that the land would pay if it were enrolled in the current use program, at an average value. Also, municipalities do not pay taxes to themselves. Therefore, land acquired by a local government comes off the property tax rolls and there is no payment in lieu of taxes.

Most private non-profit conservation organizations enroll the land that they own in fee in the current use program and pay taxes on it. However, a local government can waive the tax requirement. Most private non-profit conservation organizations are more likely to conserve land through conservation easements than through fee-simple acquisition. If the land was already assessed at current use there would be no change to the municipality after the acquisition of the easement. If the land was previously assessed at full value, there would be a decrease in the taxable value due to the easement. As a result, acquiring conservation lands by direct purchase comes at a quantifiable cost to the purchasing body, which in the case of a municipality impacts the taxpayers.

Calculating the net revenue loss due to the purchase can give taxpayers a starting point for evaluating whether the open space purchase is a worthwhile long-term investment for their community. However, the calculation of the tax effect of a particular open space or land conservation project is not well understood, mainly because removing the property from the tax rolls is not typically an expense that shows up in the budget, but rather it is a decrease in the revenue raising ability of the municipality.

Generally, the short-term tax effect of land conservation is the removal of land value from the tax rolls. In the short term, land protection, by fully or partially removing land

from taxation, reduces the tax base and results in a tax increase for a finite period. As a result, the taxes no longer paid on the open space or protected land must therefore be shifted to other taxpayers.

Since many municipalities often need to compensate for lost tax revenue, there can be a small, *short-term* tax increase for residents. To address this tax issue, municipalities purchasing conservation lands should clearly communicate to residents both the benefits of the open space to be purchased as well as the costs and benefits of the purchase itself.

In addition, there are measures in place by land conservation organizations to account for this tax base loss and avoid making residents pay the difference. Most of these measures are described in the next section on Land Protection Techniques. However, for the purpose of this section, it is important to point out that most open space and recreation land likely acquired through municipal action or through a private conservation group is obtained by donation or conservation easement. Open space and recreation land may also be obtained through conservation subdivisions. In each situation, the cost to the taxpayer is different, as described below:

- **Private conservation groups** -- Private conservation groups generally put the land into current use and continue to pay taxes on it. These groups tend to seek open space through conservation easements, in which the owner continues to pay taxes on the land.
- **Conservation subdivision** -- Open space land in conservation subdivisions is often owned by the developer, where it gets passed on to a Homeowner's Association. The taxation values are low because the land has lost its development rights, and taxes are paid through homeowner association dues by the residents of the subdivision.
- **Municipal lands** -- When a municipality purchases land, they do not pay property taxes to themselves, so the property is removed from the tax roll. However, due to the Statewide Education Property Tax and Adequacy Aid (SWEPT), the total equalized value of the town would decrease with the lands removed from the tax roll. Therefore, "property rich" towns would have to send fewer property taxes to the state for education and "property poor" towns would receive greater adequacy aid from the state. While the SWEPT funds do not account for the total value lost, the resulting tax increase is slight (in the 2005 TPL study, the highest scenario of tax increase was a mere \$0.88 on a \$100,000 property).

State and federal government also have measures in place to account for municipal tax revenue lost through state and federal open space land acquisition. While these measures are not as likely to occur within the region, some of the basic procedures are noted below:

- **Federal lands** -- If the federal government purchases land in New Hampshire, they do not pay taxes but instead pay two annual fees. One fee goes directly to

the town's school district and the other to the town as a Payment In Lieu of Taxes (PILT).

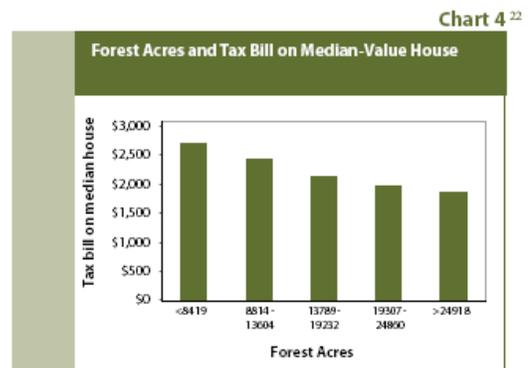
- **State lands** -- When the state purchases land in New Hampshire, the state pays the municipality the amount of taxes they would receive under current use value of the land. If the fees do not equal the amount of taxes the town would receive on that land under current use, the state pays the difference. In many cases, these fees often exceed the current use taxation values.

Long-term Benefits of Land Protection

The results of the 2005 TPL report also demonstrate that residents in municipalities with more permanently protected land pay fewer property taxes than municipalities with fewer permanently protected lands. The strongest indication of lower taxes comes in the form of commercial development, which generally offsets the financial demands resulting from residential development. All else being equal, the 2005 TPL study emphasizes, land protection does *not* result in higher taxes and generally results in lower taxes, dispelling the myth that land protection is costly over the long run (see attached Chart 4 from the TPL study).

The report also describes that the conservation of a single parcel does not have a large effect on the amount of development that will occur within a municipality. However, the strategic placement of certain conserved parcels can influence the direction and location of development, with the possible effect of confining development to proximate areas, which would ease the construction and servicing of infrastructure to new development.⁷

Several academic studies have also examined the relationship between open space and property values, indicating that properties bordering open space increase in value due to the quality-of-life increases associated with open space. Jacqueline Geoghegan's 2002 study of Howard County, Maryland, determined that land values on land located next to "permanent" open space increased three times more than land located near "developable" open space. These studies suggest that the property value increases derived from the open space additions can be used to fund current and future open space initiatives.⁸



⁷ Trust for Public Land, *Managing Growth: The Impact of Conservation and Development on Property Taxes in New Hampshire*, 2005, http://www.tpl.org/content_documents/nh_managing_growth_report.pdf.

⁸ Geoghegan, J., L.A. Wainger, and N.E. Bockstael. 1997. Spatial landscape indices in a hedonic framework: an ecological economics analysis using GIS. *Ecological Economics* 23(3): 251-264. Also Geoghegan, Jacqueline. 2002. The value of open spaces in residential land use. *Land Use Policy* 19: 91-98. And Hobden, David W. G.E. Laughton, and K.E. Morgan. 2004. Green space borders—a tangible benefit? Evidence from four neighborhoods in Surrey, British Columbia, 1980–2001. *Land Use Policy* 21(2): 129-138.

These findings clearly indicate that there is greater land value due to proximity to permanent open space.

Payoffs of Open Space

A study conducted during the mid 1990s by Philip A. Auger, Extension Educator, Forest Resources, University of New Hampshire Cooperative Extension, looked at the cost of community service for residential, commercial, industrial and open space land uses within the communities of Stratham, Dover, Fremont, and Deerfield. In each community, the study found that expenditures *exceeded* residential land use revenues by an average of approximately 12 percent. Conversely, for open space, revenues *exceeded* expenditures.

The results of this study, published in 1996, still ring true today as evidenced by a similar study for the Town of Brentwood, New Hampshire. This small town in southern New Hampshire, not far from Deerfield, had a population of 3,197 in 2000. Tax revenue generated from residential property in the town fell short of the cost of school and town services by 17 percent, while open space lands revenue exceeded town service costs by 17 percent.⁹

While each town in New Hampshire has a unique blend of land uses, revenues and expenditures, these studies point out some fiscal consistencies that are likely to apply in most circumstances. One of these findings is that residential land use very often costs communities more than they generate in revenues. Traditional residential housing brings with it a tremendous cost load in community services, roads, landfills and schools.

Open space lands are often a net asset to New Hampshire communities, and contribute to the stability of community tax rates. If land is taken out of open space and converted to housing, it will often cost far more than it generates in taxes. This has been supported by other well-documented fiscal impact studies in New Hampshire communities, including Milford and Londonderry.

The 1990 fiscal impact analysis of housing costs in Milford estimated that the community needed to raise approximately \$2,073 for each new three bedroom home above and beyond taxes and fees generated by homeowners.¹⁰ In addition, a 1989 study by Statewide Program of Action to Conserve the Environment (SPACE) compared the taxes generated and community costs of a 330-acre Londonderry apple farm enrolled in current use to those generated if the open space were converted to a 290 single family residential housing development. As a working farm enrolled in current use, it was generating \$18,830 per year above the cost of services it required from the town. By contrast, the development would have cost the community \$643,710 per year (\$2,220 per home) above and beyond taxes and fees generated.¹¹

⁹ Brentwood Open Space Task Force. Does Open Space Pay in Brentwood? Part 1: Housing Growth and Taxes. May 2002.

¹⁰ Does Open Space Pay?, prepared by Philip A. Auger, Extension Educator, Forest Resources, University of New Hampshire Cooperative Extension, page 6.

¹¹ *Ibid.*, page 6.

Another analysis completed by the Society for the Protection of New Hampshire Forests found that open space based on economic activities contributes \$8.2 billion dollars to the New Hampshire economy each year (for 1996/1997).¹² The report found that the gross direct income from agriculture related activities was \$413 million; income from forest related activities was \$1.2 billion, and the income from tourism and recreation spending was almost \$3.2 billion.¹³

In another study, the National Association of Home Builders found that it is not uncommon for the value of building sites to be enhanced by 15 to 20 percent in the vicinity of park and recreation areas.¹⁴ The increased value to the landowner is also shared by the municipality, because when relative property values are higher, then assessed valuations and tax revenues will also be higher. In summary, it can be concluded from these studies that in the short-term, the permanent protection of land results in a tax increase. However, there are no tax increases in the following situations:

- When the land is acquired by the federal government and the federal payments exceed the tax loss (which is only likely if the land is already assessed at its current use value).
- When a conservation easement is placed on the land and the land is already enrolled in current use.
- When the state or federal government acquires land already enrolled in current use and it is valued at or below the “average” current use value the state uses to calculate the state payment.

Thus, the short-term tax implications of land protection can be easily calculated so that the costs of “carrying” the conservation land can be made explicit to voters and taxpayers. The overall tax impact in any municipality depends not only on the type of land conservation proposed, but also on the municipality’s tax rate, total assessment, and property valuations per pupil.

In the long-term, contrary to the common perception that development will bring lower taxes, property tax bills are generally higher in more developed municipalities than in rural towns. The tax bill on a typical dwelling unit is on average, higher in municipalities where there are more residents and/or more buildings.

In general, municipalities with more development have higher tax bills. However, this does not mean that every development will increase taxes. All else being equal, property taxes are likely to be somewhat lower if the community tax base has a high proportion of nonresidential property to help offset the costs of residents.

¹² The Economic Impact of Open Space in New Hampshire, The Society for the Protection of New Hampshire Forests, January 1999, page 2.

¹³ Ibid.

¹⁴ National Association of Homebuilders, *Business NH Magazine*, October 1998.

Property tax bills are not higher in municipalities that have the most permanently protected land – conservation land or easements owned by a government agency or conservation organization. In fact, tax bills are generally lower in these towns. Thus, for town residents, it can be concluded that open space land does not increase, and in many cases decreases, residents’ taxes, based on infrastructure savings and improved property values.¹⁵

However, land protection alone does not lead to lower taxes. Open space protection and recreation often redirect rather than preclude development in town. Over the short-term at least, the amount of development a municipality is likely to experience will probably not be changed by the conservation of a single parcel of land. Instead, the conservation of certain key parcels may influence the location and pattern of development, which may make providing municipal services more efficient.

Over the long term, open space preservation will affect the ultimate “build-out” of a municipality by limiting the amount of land that can be developed. This may reduce the total amount of development and/or change the pattern of development from one of sprawl to one with denser development in designated areas with coherent patches of open space. From a planning perspective, it is only logical that it is less costly for a municipality to provide services to open space or clustered development than scattered development.

There are also many good reasons why a municipality may want both development and open space. The property tax implications and economics should only be one part of a municipality’s future vision.

Open Space Protection Techniques

There are a variety of techniques many communities throughout the region have used for open space and land protection. Many of these techniques are described in more detail in Dorothy Tripp Taylor’s handbook “*Open Space for New Hampshire, a Tool Book of Techniques for the New Millennium.*” Information from this handbook as well as the Regional Open Space Plan prepared by Rockingham Planning Commission (March 2000) has been adapted for use here. For the purpose of this chapter, these techniques have been broken down into five areas:

- Public Outreach and Landowner Contact
- Voluntary Protection
- Land Acquisition
- Regulatory Measures
- Open Space and Recreation Planning

¹⁵ Trust for Public Land, *Managing Growth: The Impact of Conservation and Development on Property Taxes in New Hampshire*, 2005,
http://www.tpl.org/content_documents/nh_managing_growth_report.pdf.

Public Outreach and Landowner Contact

Protecting open space must be approached for the public good of all citizens in mind, including the landowner(s) who own the land to be protected. Ideally, if the needs and benefits of open space and recreation were acknowledged by all the residents of the community, landowners would cooperate more with municipalities to sell their land or property rights with fair compensation. However, this is not an ideal world and municipalities and conservation groups often face the challenge of reaching out to residents to persuade them of the importance and the benefits, both social and economic, of open space.

Public education campaigns are an important first step. Many communities across the state and within the region are utilizing the facilitation services of their Regional Planning Commissions. There is also the Natural Resource Outreach Coalition (NROC), which provides an excellent forum for public education to occur. NROC is coordinated through the Community Conservation Assistance Coordinator of the UNH Cooperative Extension Office. This program allows residents to discuss growth related issues and concerns and to identify conservation lands by focusing on the need to protect lands based on natural resource values, large parcels of land, and “hot spots” within the community without identifying specific parcels or landowners.

With community outreach, education and cooperation, landowners and developers will be more eager to conserve their land through easements, conservation subdivision options, and the sale of property. Communities must recognize that not all parcels perceived to be of highest conservation value will be available for purchase. However, when landowners are contacted and approached with correct information about the benefits of land protection they may be more likely to sell or donate their land. This is particularly true with regard to the income and estate tax benefits of land conservation, as these benefits can be some of the most influential ways to acquire and protect open space. Ultimately, the most successful protection technique will depend upon the specifications of the property and the needs of the landowner.

Voluntary Protection

There are two primary voluntary land protection methods available that can permanently protect privately held open space and conservation areas. These methods include: the donation of land and conservation easements (see Appendix A for more information related to tax benefits, funding and easements).

Donation of Land

The outright donation of open space lands is the least expensive option to protect land. The benefits to the landowner are reductions in a variety of federal, state, and local taxes. There are at least five methods of donation: fee simple, less than fee simple, donation with a reserved life estate, donation of an undivided interest in the land, and donation by bequest. The fee simple method is a gift of the entire interest in the property. Full legal title passes directly to the beneficiary (the community or conservation group), and the landowner no longer possesses any control over the land. However, the landowner may

specify in the deed that the land is to be used solely for a specific purpose, such as tree farming or agriculture.

Less than fee simple is a gift of partial interest in the property. The landowner retains legal title to the property, but must give up some of the rights (for example, development rights, timber rights, mining, etc.). The donation with a reserved life estate occurs when a landowner donates property to the community or qualified conservation organization, but retains possession and use of the property for his/her lifetime and/or the lifetime of other family members. A donation of undivided interest in land is a gift of a percentage interest in the land, not any specific, physical portion. As a result, the land as a unit will be owned as tenants in common by those parties who have interest in the property. Donation by bequest occurs when a landowner donates land in his or her will to the community or conservation group. In such cases, the donated land is not subject to estate or inheritance taxes.

Conservation Easements

Conservation easements provide permanent protection from uses of land that could damage or destroy its scenic, ecological, and natural resource values. The easement operates on the premise that the right to develop a parcel is separable from the ownership of the land. Thus, it provides practical options for private landowner's who wish to protect their land while retaining ownership. Generally, easements are donated (although they may be sold) to qualified non-profit conservation organizations or public agencies, which ensure that the conditions of the easement are fulfilled.

To be effective, the terms of the easement must run with the land and apply to all future owners. Whether purchased or received as a donation, an easement can be a much less expensive method of payment than a fee simple purchase for two reasons. First, the outright cost of acquisition will be less since not all of the land rights are being acquired. Second, the ongoing cost of ownership including maintenance, liability, and property taxes continue to be borne by the owner. The sale of a conservation easement is often referred to as the purchase of development rights. Purchasing development rights allows the landowner to receive monetary compensations for the land's development value without having to convert the land to other uses. Once the development rights are sold, the owner still retains the other rights associated with property ownership. The owner is still responsible for property taxes, which should be assessed only on the non-development potential of the land. However, if the land was already assessed at its current use value, there would be no change in assessed value.

There are also several tax incentives that make conservation easements attractive. These benefits include an increase in estate tax exclusions, a reduction in capital gains tax rates, and several other options available for estate tax planning. In donating development rights, landowners can receive a reduction in local property tax, federal income tax, capital gains tax, and estate tax. Generally, there are at least four methods by which communities and qualified conservation organizations can acquire development rights: direct purchase of the rights; purchase and resale with restrictions; purchase and lease

with restrictions; and donation of rights and/or easements. With all of these methods, the restrictions on development run with land, and are binding on future landowners.

An easement *does not* signify public use; rather, the landowner can determine the best use of the land, including granting permission for public access, recreation and use.

Land Acquisition

The primary methods available for the purchase of land include: fee simple purchase, purchase and leaseback, purchase and resale or lease, the acquisition of development rights and conservation easements, options to purchase, and rights of first refusal. These methods all involve the protection of land through the direct acquisition and control of land, or some portion of the land. They are also very dependent upon the needs of the landowner, the sources of funding available to the community, and the nature and extent of the land and development rights that can be purchased by the municipality.

In the case of an outright purchase, the town buys the property at market value from the current landowner. There are no tax benefits or exceptions for either party, and the Town no longer receives taxes on the land. This is the most costly method of land protection but requires no special arrangements with the landowner.

A bargain sale is an agreement of discounted sale to the Town. The landowner agrees to sell his/her land below market value, and the difference between fair market value and the sale price becomes a tax-deductible charitable donation. Bargain sales are also useful for the landowner in minimizing the liability of a long-term capital gains tax associated with selling a large estate. After the sale, the Town retains all rights and responsibilities over the land.

Finally, the Town can purchase or acquire conservation easements over the land, which means the owner still maintains ownerships and tax responsibility but is prohibited from developing the land. The owner of the easement purchases development rights, which is usually calculated to be the fair market value of the land for development purposes minus the value of the land for open space or agricultural purposes. The Town gains the responsibility of easement stewardship, which means monitoring the land to ensure that the agreements of the easement (generally a lack of development or disturbances) are being followed. While these methods are described for use independent of other strategies, they can also be creatively combined to protect more land for less money.

Fee Simple Purchase

Fee simple acquisition is the most straightforward approach to land protection. The land, and all the property rights that go with it, are acquired. Assuming the agency acquiring the land is tax exempt, the entire value of the property is removed from the municipality's tax rolls.

Most protected lands are held in fee simple ownership where the holder of title of land possesses all rights associated with the property. This common method of protecting open space has traditionally been through the direct purchase of property. An important

consideration is that open space lands protected using fee simple acquisition are often purchased at or close to fair market value based upon development potential. Purchasing open space lands at fair market value can be prohibitively expensive, and can seriously limit the amount of land that can be protected. Fee simple purchases can also involve private organizations or state agencies that often make payments in lieu of taxes.

Though land purchased for conservation purposes will no longer generate property taxes, it will not demand much in the way of public services. In addition the sale of a property for less than its full market value, known as a bargain sale can also be useful during a fee simple purchase. There are other options that can help recover the costs associated with a simple purchase. These include purchase and leaseback, and purchase and resale with covenants, although they are rarely used in this region. The first option – purchase and leaseback – allows the purchaser (community or conservation organization) to lease the land back for a particular use compatible with open space preservation (such as farming or forestry), thus recouping a portion of the land’s purchase price. Lease agreements should be written in a manner that will protect the interest of the community while being sensitive to the landowner’s needs. Another option – purchase and resale with covenants – allows the land to be resold with a deed committing the buyer to maintain the parcel as open space or limit the nature and extent of development allowable.

Bargain Sale

This is the sale of property for less than its full market value. It can be considered a combination land sale and charitable contribution. One motivation for the landowner is the income tax benefit from the charitable donation. The amount deductible for income tax purposes is the difference between the land’s fair market value and the actual sale price. In addition to a charitable contribution, landowners can receive the following benefits: cash from the sale, a capital gains tax reduction, the avoidance of brokerage fees, and the avoidance of a higher tax bracket which could otherwise result from a full value sale of the property.

Options to Purchase and Rights of First Refusal

If a community cannot afford to purchase a site immediately, an option to purchase, or the right of first refusal, may allow a community some time to raise the necessary funds. An option establishes a price at which the community could purchase the land during a specified period of time.

Regulatory Measures

For local government, regulatory measures are perhaps the most cost-efficient means of land preservation. If implemented according to the open space priorities of the community, these measures can be extremely effective in curbing sprawl and protecting open space. Some of the most important regulatory measures include natural resource overlay and agricultural zoning techniques, open space development and conservation subdivisions, transfer of development rights, and growth management ordinances. Zoning is also an important tool that can be used to help protect open space within a community. NH RSA 674:21, Innovative Land Use Controls, permits environmental characteristics zoning, intensity and use incentives, cluster development, and several

other innovative land uses, many of which can be incorporated in zoning approaches which promote the conservation of open space and recreation.

Environmental Characteristics Zoning

Generally, environmental characteristics zoning involves overlay districts that are superimposed on existing zoning districts. Proposed development must comply with the requirements of both the underlying district and the overlay district. A natural resource overlay district adds additional restrictions and requirements to those of the underlying district. Overlay districts can be applied to a variety of natural features including, but not limited to, floodplains, wetlands, aquifers, steep slopes, rivers, streams, ponds, and lakes. There are many examples of overlay districts in many of the communities within the region. However, as a foundation to a proposed natural resource overlay district, the master plan needs to identify and outline the importance and/or threat to the resources contained within the district.

Agriculturally Friendly Zoning

To help protect the rural qualities of the region, the ability to sustain agriculture is a vital part of the visual landscape. There are a variety of zoning tools that have been developed to help communities preserve rural character through agricultural preservation. A resource kit called *Preserving Rural Character Through Agriculture (Kit 77)* was made available in 1999 from the UNH Cooperative Extension. Communities should update their master plan detailing the importance and/or threat to agricultural resources within the community, as well as the region, prior to adopting agricultural friendly zoning provisions.

Open Space Development and Conservation Subdivision Ordinances

An Open Space Development or Conservation Subdivision is a residential or mixed-use development in which a large portion of the site is set aside as permanently protected open space, with the buildings clustered on the remaining portion of the land. A Conservation Subdivision Ordinance gives specific criteria that developers must meet and these criteria will vary by town. Some of the main advantages of this arrangement include its efficiency and low-cost relative to other protection methods, and its ability to maintain rural character while still allowing development. Drawbacks include resistance from residents concerned with increased density and more complex governance of the resultant open space.

In most conventional developments, developers do not provide open space or recreation. The lots are typically drawn first, thereby eliminating many of the significant natural features. An open space development however can incorporate an incentive based approach to entice developers to set aside open space in perpetuity. An Open Space or Conservation Development Ordinance promotes the protection of open space by allowing buildings to be clustered on the area of the parcel that is best suited for development. At the same time, the remainder of the parcel is left undisturbed.

Open Space Development versus Conservation Subdivision

Conservation subdivisions, like open space developments, set aside open space land and increase the density of individual lots. However in conservation subdivisions, open space land is placed under an easement for permanent protection from development. More significantly, conservation subdivisions consider the natural features of the landscape and natural vegetation when laying out parcels for homes and for open space areas. Focus is placed upon connecting sensitive resources, unfragmented lands, and trails rather than setting aside the most convenient parcel for open space.

These ordinances can permit developers to build the same number of units allowed in a conventional subdivision while setting aside a certain percentage of the land as open space. Another incentive based method may allow a developer to build additional units, as a bonus and include less rigid dimensional requirements, in return for requiring a greater amount of open space to be preserved.

For almost all open space developments, both the development and service/utility costs are lower than for conventional developments due to shorter roads and utility lines and reduced site preparation costs. Most importantly, communities can use this technique in order to create interconnected parcels of permanent open space. To ensure that the open space is protected, typically a legal document must be recorded. There are different types of ownership of the open space. It can be deeded to the community, held in a conservation easement or included as part of a homeowner's association.

Promoting open space, conservation or clustered developments is one of the few concrete actions that can be done through land use and zoning controls to protect open space. It is also one of the most important. Unfortunately, there are several communities within the region that have attempted to make this form of development mandatory instead of optional. This has generated some mistrust and disuse of the concept. Still, where this concept remains optional, and there are incentives and cost reductions to developers, it is widely taken advantage of. A better balance among all the communities in the region is needed to place conservation or cluster development on an equal footing.

Another form of voluntary conservation subdivisions exists as the "Village Plan Alternative," as described in RSA 674:21. This stipulates that a developer must locate all development on 20 percent of the developable property to allow for maximum open space. The open space area would be protected under a recorded conservation easement. The Village Plan alternative provides for an expedited application review process and it is subject to all ordinances and regulations with the exception of density, lot size, and frontage and setbacks.

Frequently Asked Questions about Conservation Subdivisions

Do conservation subdivisions involve a taking without compensation?

No, for two reasons. The first is that no density is taken away. Developers can still build at full permitted density for the municipality's current zoning, but houses are condensed onto smaller lots such that at least half of the land is left as open space. Second, no land

is taken for public use, since the neighborhood or the developer owns and manages the open space land, except in rare cases that are negotiated with the town.

What are the ownership, maintenance, and tax issues?

In the case of a conservation subdivision, the land most commonly belongs either to the original landowner, who can pass the land to heirs and keep it under conservation easement, or the Homeowner's Association, which consists of all residents in the neighborhood and minimizes facilities to keep dues low. In rare cases the municipality or a private land trust maintains the land or an easement on the land. The landowner or Homeowner's Association is responsible for taxation, generally the same as a normal subdivision, and maintenance.

How can on-site sewage work with conservation subdivisions?

Contrary to popular belief, conservation subdivisions lend themselves well to sewage disposal. One option is to situate houses on the best-drained soils to ease efficiency of septic systems. Another option is to provide central water and sewage disposal, or leach fields, which can be located under playing fields or conservation meadows. Conservation subdivisions can also utilize spray irrigation in which wastewater is heavily aerated in deep lagoons and nutrients are taken up by the forests or fields in the surrounding open space. Creative design can allow residents to enjoy the benefits of environmentally sensitive sewage treatment without unpleasant olfactory or visual side effects.

How do conservation subdivisions differ from clustering?

Clustering uses the same principle of decreased lot size in exchange for more open space. However, clustering requires less land be set aside for conservation and makes no specifications as to what land shall be conserved. Conservation subdivisions are planned to preserve the most strategic features and create networks of green space throughout the community.

Transfer of Development Rights (TDR)

Although this technique has never been used in this region, it is an extension to the purchase of development rights concept. It relies on the separation of development rights from other land ownership rights and adds to that the shifting of those rights from one location (the "donor" zone) or zoning district to another (the "receiver" zone). A TDR program can protect critical resource areas by shifting the development potential from areas where it is least desirable to areas where it is most desirable.

Under a TDR program, landowners in the donor zone can sell property development rights directly to a landowner in the receiver zone or indirectly through a public agency who would then transfer the development rights to the town's receiving area. The land to be protected would then be subject to deed restrictions barring future development. Although this technique holds great promise to protect open space without great public expenditures, it is comparatively complex and has not yet gained wide acceptance in New Hampshire. The success of a TDR program depends on a strong real estate market because without strong demand for development rights, just and timely compensation for

the seller cannot be assured. Under the right market conditions, TDR can be an important conservation tool for protecting land at a very low cost to the community.

Growth Management Ordinance

A Growth Management Ordinance is often employed by municipalities experiencing population growth at a rapid pace where public facilities and services cannot keep up. They function by placing short or long-term caps on new residences or population numbers. Under certain circumstances, a town may adopt regulations to control the rate of development. In New Hampshire, a town must have both a master plan and a capital improvement plan before it can adopt any ordinances controlling the timing of development. In certain rapid growth situations, slowing the rate of development can give a community time to update its master plan, develop infrastructure, and consider ways to conserve open space. Methods include limiting the number of building permits, or an interim growth moratorium allowing the planning board to halt or severely limit development for up to one year.

Open Space and Recreation Planning

Open Space and Recreation Plans

A key tool for communities to proactively protect open space is to develop open space and recreation plans. Several towns within the region have adopted open space plans including Candia, Chester, Deerfield, Derry, Hooksett, Londonderry and Weare. The communities of Auburn, Bedford, Goffstown, New Boston, Manchester and Raymond have less formal plans, but nonetheless are actively pursuing various land protection efforts. Almost every community within the region has included open space and recreation as an element of their municipal master plan.

In order to promote the protection of open space, it is important to incorporate local goals and a protection strategy in an open space plan. It is equally important to review current zoning and subdivision regulations, identify key open space and resource areas and interconnections between them, identify and contact landowners of key undeveloped land and to inform them about the community's conservation and open space objectives, prioritize areas to be protected through acquisitions of land, development rights or agreements, and establish a conservation fund through grants, the municipality's CIP, current use tax penalties or other sources.

Smart Growth Principles

The preservation of open space is closely tied to smart growth principles and the largest threat to open space may be a community's growth patterns. There are a number of smart growth principles that can help to preserve open space and rural character. Some of these are incorporated into the following actions.

- Consider mandating future subdivisions to include open space provisions, integrating practices that protect sensitive environmental features of the development parcel.

- Provide incentives to developers building open space developments, including density bonuses, reduction of minimum lot standards, and a streamlined application process.
- Create areas where increased density will be allowed in exchange for protecting specific rural features.

Conservation Commissions

Conservation Commissions play a key role in the conservation and preservation of open space, including the development of open space plans. In addition, Conservation Commissions are heavily involved in the completion of natural resource inventories, the identification of specific areas worthy of protection, and potential greenways, trail networks, and connections to existing conservation lands. The Conservation Commission is usually the entity that oversees town forest management plans, which are specifically authorized by RSA 31:112. RSA 36-A:4 also allows Conservation Commissions to receive gifts of property and/or money for conservation purposes, subject to approval of selectmen. In addition, RSA 36-A:5,I authorizes Conservation Commissions to expend monies from the conservation fund without further approval of Town Meeting. This is a tool that more communities within the region should be using in order to leverage money for conservation easements or bargain sales.

Cost of Community Service Studies (COCS)

Measuring the public costs and benefits of land use and development is an important planning function for local government. One recognized method for analyzing municipal service revenue and expense is the Cost of Community Service Study (COCS) as made popular by the American Farmland Trust.¹⁶ A COCS study compares all the revenues a community receives by land use type to all the community's expenses associated with that land use type. The results provide valuable information on the comparative service costs and tax revenues associated with different land uses within a community.

Several communities within the region such as Deerfield and recently New Boston have participated in or prepared a COCS. These studies typically indicate that for each dollar of tax revenue generated, open space land requires less than one dollar in public services and residential development requires over a dollar in public services. Commercial development generally falls somewhere in the middle. These results can be helpful in demonstrating the economic consequences of losing open space. They also serve as another practical tool for communities to use to strengthen the need for public expenditures for open space.

Natural Resources Inventories

A Natural Resources Inventory (NRI) is a summary in map form of a municipality's protected and unprotected open space lands, water, and natural and cultural resources. The NRI is intended to clearly delineate all the natural resources within the community, which in turn, provides a foundation for the municipality's open space plan. The NRI

¹⁶ See American Farmland Trust FIC Fact Sheets: Cost of Community Services Studies (August 2004).

also provides a factual basis for making natural resources decisions and formulating regulations.

Co-Occurrence Analysis

A natural resource co-occurrence analysis is an important tool in identifying and prioritizing areas for protection. A co-occurrence analysis is typically included as an important part of a NRI. It identifies high-value natural resource areas and maps them, with multiple levels of unique resource data over-layed spatially using GIS to display on one comprehensive map. The analysis applies numerical values to selected resource factors, with higher values and darker colors indicating land that should be prioritized for protection. The following are example resource factors that are typically considered:

- Stratified drift aquifers
- Potentially favorable gravel well area
- Sanitary radii
- Drinking water protection areas
- National Wetlands Inventory (NWI) identified wetlands
- Open/Agricultural/Disturbed land cover
- High elevation (>800 ft.)
- Steep south facing slopes
- Unfragmented natural land cover
- Undeveloped riparian zone
- Prime agricultural soil and soils of statewide significance
- Hydric soil (poor or very poor drainage)

Organizations, Programs and Funding Opportunities

Many communities within the region have already taken a vital step in ensuring that some of its open lands remain permanently in their natural states. These municipalities may have adopted bond measures for open space and recreation or have allocated their land use change tax monies to their conservation commission for the purpose of acquiring conservation lands. However, these funds are not always adequate due to rising land values. In order to maximize the economic, social, and environmental benefits of open space, many municipalities must find additional funding sources and land protection strategies.

Additionally, many municipalities within the region recognize the importance of regulatory conservation strategies, including changes to zoning ordinances to encourage the use of conservation subdivisions. These regulations generally have very little implementation cost and, in fact, save money on future municipal infrastructure costs. By encouraging conservation subdivisions, the open space land is built into the new development rather than purchased afterwards, providing significant future cost savings for local government.

To help fund land acquisition, municipalities are also working cooperatively with a number of land trusts and private non-profit conservation organizations to pool financial resources and expand conservation efforts. The Bear Paw Regional Greenway Land Trust for example, works specifically with a number of surrounding communities to link Bear Brook State Park, Pawtuckaway State Park, Northwood Meadows State Park, and other conservation areas (see attached map). As a community-based organization composed of townspeople, Bear Paw can serve as an important mobilizing and organizing resource. The Rockingham Land Trust, serving all the communities of Rockingham County, can also be a good local resource, although it currently maintains very few conservation lands within the SNHPC region.

The Trust for Public Land and the Nature Conservancy are both national land trust organizations active in New Hampshire, which can provide resources and assistance to preservation projects. Additional state resource organizations include the Society for the Protection of New Hampshire Forests and the Audubon Society. Many of these programs and organizations are described below. For more information see Appendix B.

Public Programs

Region Trails Coordinating Council

The primary goal of the Regional Trails Coordinating Council is to assist member organizations in the development and implementation of a comprehensive trail plan. The Regional Trails Coordinating strives to connect existing and planned trail networks in the region by providing a forum for cooperation and collaboration among trail organizations. The Regional Trails Coordinating Council also serves as an information clearinghouse for regional trails stakeholders. Goals of the Regional Trails Coordinating Council include, but are not limited to the following:

- Assist in the development of individual trails to form a continuous network in the southern and central regions of the State of NH;
- Develop maps of the region's trail network, including completed as well as planned and missing segments, and their conditions;
- Identify and assist in obtaining available public funding (state, federal, etc.) for trail use;
- Identify and assist organizations in obtaining available funding;
- Identify and prioritize trail segment development tasks;
- Provide forums and events to educate the public as to the importance of non-motorized multi-use trails in the health and quality of life of the regions;
- Combine and augment the passion of volunteer groups and the power of regional planning commissions to achieve common missions and values to accomplish common goals while, as necessary, overlapping jurisdictional boundaries.

Current Use Program – The Current Use Assessment Program allows qualifying land to be taxed according to the value of its current use rather than its potential use. One of the more distressing realities of owning large parcels of open land in New Hampshire is the exceptionally high property tax rates. The Current Use Program has been an important method of reducing this burden. Current use typically reduces property taxes assessed on undeveloped land by more than two-thirds, and is vital to the preservation of open space in the region. As of 2004, a total of 94,206 acres of land were included in the Current Use Program within the region. This represents 31 percent of the total land area of the region.

Land and Water Conservation Fund – The Planning, Development and Outreach Office through the Division of Parks and Recreation administers funds received by the State through the Federal Land and Water Conservation Fund (LWCF). This fund provides 50 percent matching grants to municipalities for the acquisition of open space and recreation lands. The LWCF is funded through offshore oil and gas lease sales. In previous years, the Land and Water Conservation Fund was an important source of funding for communities, particularly for leveraging monies to purchase land and develop recreational facilities.

Department of Resources and Economic Development (DRED) – The Commissioner of Resources and Economic Development may also upon request establish a program to assist those cities and towns that have adopted the provisions of Chapter 36-A, Conservation Commissions, in acquiring land and in planning of use and structures as described in RSA 36-A:2. In addition, the State Trails Bureau within NH DRED manages the recreational trails grant program in New Hampshire. The Recreational Trails Program (RTP) is a component of the Transportation Equity Act for the 21st Century (TEA-21). It funds motorized, non-motorized, and diversified trail projects through federal gas tax money paid on fuel for off-highway recreational vehicles. Projects are given up to 80 percent of funding, with at least 20 percent required from the municipality or local organization in the form of labor, supplies, or cash. Many recreational trail projects are completed by local scout groups or volunteers. New Hampshire receives approximately \$500,000 annually for RTP projects.

Land Management Assistance – There are three County Conservation Districts, which serve the region – Rockingham County, Hillsborough County and Merrimack County. These agencies provide direct assistance to landowners in sustaining the productivity of their farmland. As part of their effort to protect the land, the County Conservation District will also accept and monitor conservation easements. Experienced staff from the UNH Cooperative Extension program will also assist landowners and communities with land protection efforts. In addition, the USDA Natural Resource Conservation Service (formerly the Soil Conservation Service) provides technical assistance in natural resource management serving Rockingham, Hillsborough and Merrimack counties.

NH Department of Agriculture – This federal agency is actively involved in a number of ways to protect the State's farmland resources, including providing technical assistance on land use issues, conservation programs and efforts to improve the economic return of

farm enterprises. Since many farms in New Hampshire often contain a variety of open space, these programs also help to maintain the integrity of open space areas.

RSA 432:18-31A authorizes the establishment of an Agricultural Lands Preservation Committee (ALPC) within the New Hampshire Department of Agriculture. This committee administers funds for the acquisition of agricultural land development rights. However, this program has not been funded since the early 1980s. If the ALPC designates a farmland parcel as an “agricultural preservation restriction areas”, the Department of Agriculture may purchase the land’s development rights in order to limit the use of the land to agricultural production. Criteria used to make the designation include soil types found on the land, and the immediacy of the threat to development.

NH Land and Community Heritage Investment Program – Created in 2000, the Land and Community Heritage Program (LCHIP) is an independent state authority that makes matching grants to NH communities and non-profits to conserve and preserve New Hampshire’s most important natural, cultural and historic resources. Over 200,000 acres of land have been conserved and 83 historic structures have been preserved and/or revitalized. Within the SNHPC region the following grants have been awarded to date:

- (1) The Town of Bedford received \$20,000 in funding to perform a study of the Joppa Hill property, which comprises 312 acres;
- (2) The Town of Derry was awarded \$125,000 to acquire a 77-acre parcel known as the Corneliusen Orchard. The property has important passive recreation opportunities and agricultural land. An easement was placed on the property and the farmer donated an easement on 37 additional acres. This property abuts conservation agricultural land;
- (3) The Town of Hooksett received \$10,000 to rehabilitate Robie’s Country Store. This building is on the National Register of Historic Places and is the first site in Hooksett to receive such a listing. Renovations to the building include replacing the roof, painting exterior clapboards, molding, and windowsills, and insulating the windows. Since 1822, a general merchandise market has operated at the site and it has a national reputation as being a “must do” political campaign stop;
- (4) The Towns of Londonderry, Hudson, and Windham received \$300,000 to purchase an easement on 205 acres of the Ingersoll Tri-Town Tree Farm;
- (5) The City of Manchester received a total of five grants: \$70,000 to purchase and rehabilitate the Athens Building (next door and above the Palace Theatre) for use as office space and cultural programming for performing arts organizations; \$75,000 to acquire 150 acres to add to a major preserve of natural resources totaling 600 acres. Unique features include rare plant communities such as an Atlantic White Cedar, Rhododendron and Black Gum complex. The project protects endangered and rare species in a densely developed area under intense development pressure; \$70,230 to convert Manchester’s first High School

building to a home for the Sargent Museum of Anthropology and Archeology. This phase will stabilize and secure the severely fire-damaged building, and will provide an Historic Structures Report, a National Register nomination, and Architectural and Engineering services for the building's ultimate rehabilitation; \$236,250 to repair and upgrade the Historic Association Headquarters. This project will include exterior repairs (including windows) and improvements to ensure appropriate storage of the Association's extensive collection, and will make the collection more accessible to the public; and \$200,000 to complete the first two phases of an extensive rehabilitation plan for a classic 1841 garden-style urban cemetery.

Natural Heritage Inventory - New Hampshire's Natural Heritage Inventory (NHI) is responsible for identifying and assessing sites that contain habitat of rare, endangered and threatened natural species throughout the state and region. While specific location of these sites is not released to the public, this information is helpful in evaluating lands for open space and conservation purposes. In addition, New Hampshire Fish and Game has just completed a new statewide wildlife action plan (WAP) for both game and important non-game species. This plan includes detailed wildlife habitat maps, which are important for conservation planning. Because of the importance of wildlife to rural economies, additional federal funding is expected to be provided to the state to support a wide range of activities in local communities so that wildlife populations remain healthy as the state grows.

Forest Stewardship Plan - A forest stewardship plan addresses fish and wildlife habitat, water resources, recreation, forest protection, soils, timber, wetlands, aesthetic values, cultural features and endangered species at the local level. Besides giving management direction, a forest stewardship plan is necessary for certain current use assessment categories and certified Tree Farm status. Communities should consider hiring a licensed forester to determine the best approach to managing town-owned forest lands and open space areas.

Forest Legacy Program - The Forest Legacy Program, operated by the Land Trust Alliance, is a voluntary program of the U.S.D.A. Forest Service, providing grants to states for the purchase of conservation easements and fee acquisition of environmentally sensitive or threatened forestlands. The Forest Legacy Program provides federal funding for up to 75 percent of the cost of conservation easements or fee acquisition of existing natural resources. Participation in Forest Legacy is limited to private forest landowners. To qualify, landowners are required to prepare a multiple resource management plan as part of the conservation easement acquisition. The federal government may fund up to 75 percent of program costs, with at least 25 percent coming from private, state, or local sources. The state grants option allows states a greater role in implementing the program. The program also encourages partnerships with local governments and land trusts, recognizing the important contributions landowners, communities, and private organizations make to conservation efforts.

Other Federal Programs – There are several other federal grant programs which may be utilized for the purchase of open space land: 1) The NH Department of Fish & Game receives Pitman-Robertson Act Funds which cover 75 percent of the fair market value of lands acquired by the Department for wildlife protection, and the Dingel-Johnson Fund (1950) which cover 75 percent of acquisition costs to provide access to and provide for fishery habitat; 2) the North American Wetlands Conservation Act, enacted in 1989, to conserve North American wetland ecosystems and waterfowl and other migratory birds and fish that depend upon such habitat; and 3) the Environmental Protection Agency, through the NH DES, offers grants under the Source Water Protection State Revolving Fund for land acquisition projects, and additional funds are available (as a matching grant program) for land acquisition in designated water protection areas. See Appendix B for more information about this and other federal and state programs.

Non-Profit Organizations

Private non-profit conservation organizations and land trusts are important entities, which provide assistance in open space protection. Most of these organizations help to conserve land through land donations and conservation easements.

Manchester Moves

Manchester *MOVES*, Inc. is a non-profit organization committed to reconnecting and converting a network of abandoned rail trails into trails that will encourage bicycling, walking and other alternative forms of transportation thereby reducing automobile use and its attendant environmental and social harms. Manchester *MOVES* intends to inspire and organize individuals, agencies and organizations to contribute time and resources to this urban trail network that will connect our neighborhoods and surrounding communities and improve the health, safety, vitality and quality of life for people of all ages and abilities.

The primary goal of Manchester *MOVES* is to complete the trails within Manchester, as well as connect those trails to the surrounding communities including Bedford, Goffstown, Hooksett and Londonderry. Manchester Moves, Inc. seeks to be the central point of communication between the City of Manchester and the surrounding suburbs in all things related to walkways. The existing trail systems are substantial, but many portions remain disconnected.

Manchester Moves strives to reconnect and complete these trails. In doing so, Manchester Moves, Inc. wishes to assist the City of Manchester with opening railway beds that have been land-locked, seeking private and public funding sources to build new walkways on abandoned railway beds, completing those walkways that have already been designed and partially funded and securing funding for walkways that are on the drawing board but have no funding to date.

The Audubon Society of New Hampshire encourages the preservation of wildlife habitat and natural areas through education and land acquisition.

The Society for the Protection of New Hampshire Forests (SPNHF) promotes the conservation and wise use of natural resources, and strives to protect productive forest and agricultural lands. Currently, SPNHF manages 574 conservation easements totaling 86,105 acres throughout the state. SPNHF also holds 40,976 acres of land in fee simple ownership and manages another 13,218 acres through deed restrictions.

The Nature Conservancy is an international, non-profit conservation organization. Its mission is to preserve plants, animals, and natural communities that represent the diversity of life by protecting lands and waters they need to survive. The Conservancy owns more than 1500 preserves, the largest private system of nature sanctuaries in the world. The New Hampshire Chapter has protected more than 121,000 acres of land around the state. The Manchester Cedar Swamp is the only preserve located within the region.

The Trust for Public Land (TPL), a national nonprofit organization is also actively involved in open space protection and conservation easements. As part of its Farmland Protection Initiative in Southern New Hampshire, TPL helped the Town of Derry conserve the 86-acre Corneliusen Farm and 30 adjacent acres of active farmland in 2004. Critical funding was committed by the town, the state's Land and Community Heritage Investment Program, and private supporters. Federal grants to the state from the Land and Water Conservation Fund and USDA Natural Resource Conservation Service's Farmland and Ranchland Protection Program closed the funding gap. As a result of this collaborative project, 68 acres of prime soils have been protected from development by agricultural preservation easements and will continue to be farmed. In addition, 38 scenic acres offering views of surrounding hillsides are now owned and managed by the Town of Derry for wildlife and low-impact recreation. The remaining 10 acres were purchased by adjoining landowners and permanently protected from development by conservation easements.

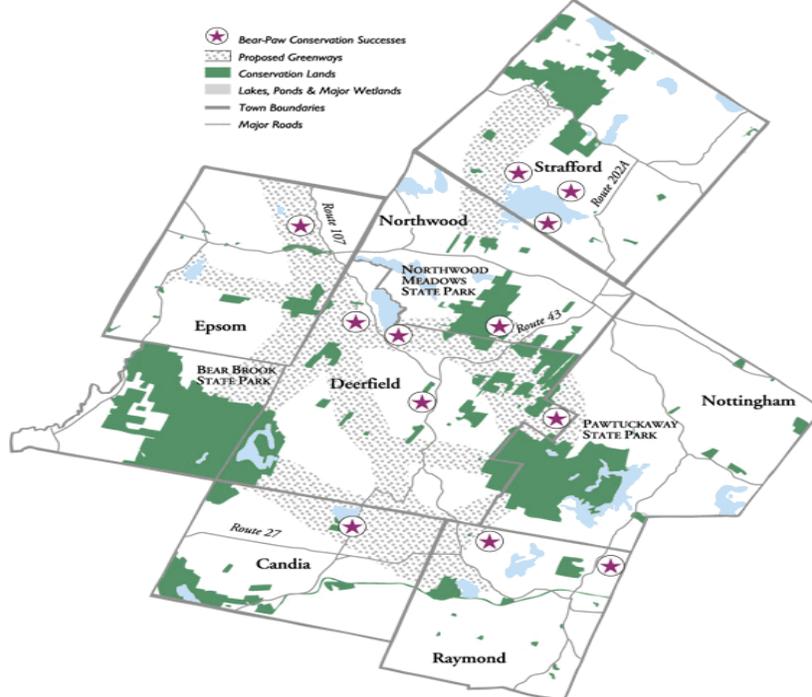
The Rockingham County Conservation District (RCCD), the Merrimack County Conservation District (MCCD), and the Hillsborough County Conservation District (HCCD) are all members of the New Hampshire Association of Conservation Districts. Since 1946, the New Hampshire Association of Conservation Districts (NHACD) has provided statewide coordination, representation, and leadership for Conservation Districts to conserve, protect, and promote responsible use of New Hampshire's natural resources. At the present time, only the Rockingham County Conservation District is actively involved with federal, state, and local agencies, nonprofits, conservation groups and landowners to protect open space through conservation and agricultural preservation easements. The Merrimack County Conservation District and the Hillsborough County Conservation District offices are currently not involved or staffed to address conservation and agricultural easements.

The Rockingham Land Trust, established in 1980 and located in Exeter, is another non-profit land trust organization, which accepts gifts of land by donation or bequest, and monitors conservation easements on several properties within Rockingham County. Since 1980, the Rockingham Land Trust has worked with landowners and municipalities to voluntarily conserve more than 3,300 acres of land within Rockingham County. RLT is the primary holder of 60 easements and currently holds executory interest in seven easements in Rockingham County. Within the region, RLT holds a total of three easements: one in Auburn and two in Derry. The conservation easement in Auburn is located on the 54-acre Preston Tree Farm.



The Bear Paw Regional Greenway is a land trust established by resident volunteers to protect open space lands around and between Pawtuckaway and Bear Brook Park. Bear Paw has proposed regional greenways as a means of connecting these parks with large areas of conservation land in a seven-town region including: Candia, Deerfield, Epsom, Northwood, Nottingham, Raymond, and Strafford (see the following greenway plan). This network of voluntarily protected lands will provide important wildlife habitat and recreational opportunities. To date, Bear-Paw has protected over 2,028 acres and has been in contact with landowners about the protection of an additional 10,498 acres.

Bear Paw Regional Greenway Plan



Local Open Space/Land Protection Committees - There are a number of municipalities within the region that have appointed open space and land protection committees to preserve natural resources and protect open space within their communities. These

municipalities include the towns of Weare, New Boston, Londonderry, Derry, Chester, Candia and Deerfield. Many of these committees are made up mostly of volunteers who work to identify and protect key parcels of land.

Summary of the Region's Protected Lands

Open space and conservation lands provide opportunities for many different recreational activities. These can range from developed, intensively used parks to somewhat remote experiences. While some parcels in this inventory may contain areas managed expressly for recreation, a majority of these lands may also be managed with a broader set of goals in mind. These broader management goals might include preserving wildlife habitat, maintaining productive forest or agricultural lands, or protecting water quality or rare or endangered species. In some cases, such as the state forests, the protected lands may only be available for dispersed low impact recreation. In other cases, public access might not be available at all. Access varies and it is important to know and respect the landowner wishes before entering public or private held conservation lands.

The conservation lands shown on the following map include the parcels of land that have been protected in one form or another principally by the primary protecting agency. This information was originally gathered from a variety of state, regional and local sources under the direction of The Society for the Protection of New Hampshire Forests, as a result of multiple efforts and projects. The digital archive of this database is managed by NH GRANIT at Complex Systems Research Center at UNH and is available to the public through the GRANIT system.

From the many attributes available in the database, the classification scheme chosen for this chapter is the primary protecting agency or organization. As the name implies, this is a description of the agency responsible for assuring that the parcel is under protection. In some cases, however, this may or may not be the owner of the parcel and the type of protection may vary depending upon the ownership restrictions on the land. There are a variety of other attributes available for each parcel contained in the database, including the type of easement or protection in place, the level of protection, and the degree of public access available for the parcel.

The categories chosen for the display of primary protecting agency are:

- 1) Town government
- 2) State agencies
- 3) Federal agencies
- 4) Private entities/individuals
- 5) Other public/quasi-public entities including organizations such as school or water districts, historical societies, and in a few instances, there are parcels along the town lines, which are protected by adjacent towns

Protected Lands Analysis

Based upon GRANIT’s existing conservation lands database, there are a total of 718 parcels identified as protected lands within the region. The majority (515) is classified as Town ownership; 53 are owned by the State, and 27 are owned by the Federal government. The remainder (123) is owned by private and other public or quasi-public entities.

The largest number of protected parcels (115) is located within the Town of Bedford, followed by 102 parcels located within the Town of New Boston. The fewest number of protected land parcels (17) are located in the Town of Raymond (see table 10.1 below). The Town of Deerfield, on the other hand has the largest amount of protected land (19,519 acres), followed by the Town of Weare (13,393 acres). The Town of Chester had the smallest amount of protected land (1,233 acres).

The largest single holding is Bear Brook State Park containing 9,472 acres within the Town of Deerfield. The total land area in the region under protection is approximately 63,615 acres, equivalent to about 20 percent of the region’s total land area of 314,640 acres.

**Table 10.1
Protected Lands by Municipality – SNHPC Region**

Municipality	Number of Protected Parcels*	Acreage of Protected Parcels	Percent of Region**
Auburn	93	3,937	6%
Bedford	115	1,876	3%
Candia	42	2,965	5%
Chester	34	1,233	2%
Deerfield	58	19,519	31%
Derry	38	1,623	3%
Goffstown	80	2,510	4%
Hooksett	20	2,442	4%
Londonderry	68	2,260	4%
Manchester	58	2,918	5%
New Boston	102	7,570	12%
Raymond	17	1,389	2%
Weare	87	13,393	21%
TOTAL	812	63,635	

*Note: Some of the parcels overlap adjoining towns therefore the actual total number of parcels is 718

**Note: Percent Rounded Up

Source: NH GRANIT, April 2006

Summary of the Region's 2004 Local Resource Protection Priorities – Natural Resources

During the first and second years of the NH DES Regional Environmental Planning Program (REPP) each community within the region was given an opportunity to recommend local historical, natural, and cultural resources worthy of protection. SNHPC staff worked extensively with local conservation officials and commission members during 1997 and 1998 to assist with this identification. The land areas and sites identified for protection included ecological, historical and cultural resources, forestry and agricultural resources, and water resources.

The location of each of these resources was documented as a point location by SNHPC on a map titled Natural and Cultural Resources Identified for Protection. The associated database includes all the information offered by the communities and the information that SNHPC had available through the GIS databases, and other resource projects were also included and listed by community in a report titled Natural and Cultural Resources Inventory. However, none of the areas shown on the map or identified in the report were prioritized at the time.

All of the locally defined natural resources as identified in the the attached map are important in terms of defining a future open space framework for the region. These resources are also important given their proximity to existing protected and conservation lands and the contribution they provide in preserving large tracts of unfragmented land. When combined with the region's existing protected lands, state parks, forests and recreational areas, a regional framework for future open space and recreation can begin to be developed.

Insert Map

Summary of the Region’s State Parks, Forests and Recreational Areas

State lands under the jurisdiction of the New Hampshire Department of Resources and Economic Development (DRED) are referred to as “reservations” by state law. RSA 227-G:2 defines “reservation” as public land under DRED including, but not limited to: state forest, state park, natural area, historic site, geologic site, recreation trail, memorial area, fire tower, wayside area, heritage park, resource center, agricultural area, state forest nursery, fish pier, administrative facility, information center, demonstration forest, certain islands, and lands under lease to the department.

Within the Southern New Hampshire Planning Region, there are currently a total of 15 reservations consisting of 4,900 acres located within 9 of the 13 municipalities. These include three state parks, five state forests and five other lands. The average overall size of each of these 15 parks, forests and other lands is 326.72 acres (*see table 15.3 below*).

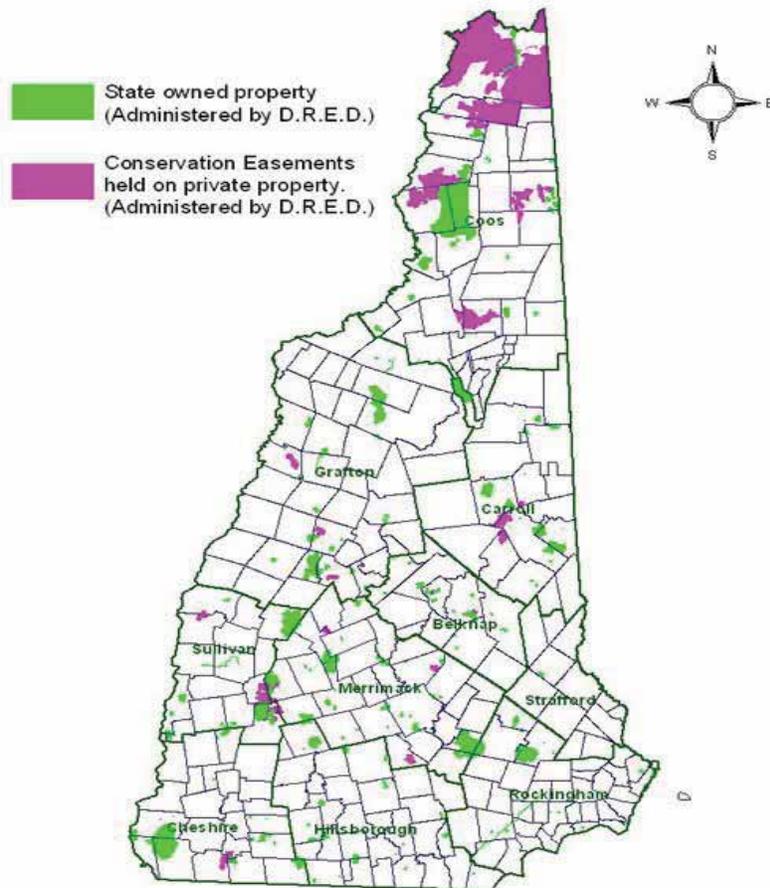
State Reservations – SNHPC Region

Municipality	Reservation	Town Acreage	Property Acres
Bedford	Reed’s Ferry State Park	122.5	122.5
Candia	Bear Brook State Park	263	10,083
Deerfield	Woodman State Forest	85.5	137.8
	Bear Brook State Park	1,945	10,083
	Pawtuckaway State Park	479.9	5,536.1
Derry	Frost Farm Historic Site	64	64
	Warner Hill Fire Tower	1.8	1.8
	Ballard State Forest	71	71
	Rockingham Recreation Trail	62	200
Hooksett	Bear Brook State Park	985	10,083
Manchester	Smith’s Ferry Heritage Park	17.1	17.1
New Boston	Lang Station State Forest	242.7	242.7
Raymond	Pawtuckaway State Park	4.8	5,536.1
Weare	Piscataquog State Forest	160	160
	Vincent State Forest	396.5	633.8
	SNHPC Region Total	4,900.80	
	Average Size	326.72	

Source: State of New Hampshire, DRED, Division of Forest and Lands, Forest Management Bureau, May 23, 2005

Currently, the state of New Hampshire manages a total of 212 reservations consisting of 201,513 acres and 221 properties located within 145 towns throughout the state. Of these reservations, there are 212 state parks and state forests and 27 conservation easements administered by DRED (see figure below). These reservations, parks and state forests range from 0.1 acre to 39,601 acres in size. The average size is 772 acres.

State Owned Property and Easements



State Parks and Forests

State Parks are properties with developed or otherwise specific recreation uses available to visitors. Most offer activities such as swimming, hiking, camping, picnicking and hunting but not necessarily to the exclusion of other uses such as timber management, water resource protection and wildlife habitat management. State Forests are properties associated with undeveloped forest land managed for many uses including demonstrations of sound forestry practices, public access for forest-based recreation, protection of threatened and endangered species, preservation of historic resources and rural culture, and conservation of biological diversity.

All state parks and forests are open for public use. Some state parks and forests have natural preserves and sites of geologic and historic interest. Bear Brook State Park, for example, in the towns of Allenstown, Deerfield, Candia and Hooksett offers both developed and undeveloped recreation (e.g. woods roads and skid trails for hiking), wildlife and natural preserves, and timber management areas.

Other Lands

Other lands include conservation easements and reservations not associated with a state park or forest that are managed or operated for a specific purpose or program. Examples of other managed lands include Frost Farm Historical Site (64 acres) in Derry and Smith's Ferry Heritage Park (17.1 acres) in Manchester. At the present time, there are no conservation easements held on private property administered by DRED within the Southern New Hampshire Planning region.

Land Classification of State Parks and Forests

Every acre of state parks and forests is classified by the state into one of four major land use categories: (1) agricultural lands, (2) conservation easements; (3) forestry lands, and (4) recreation lands. Forestry lands are further classified into key resource areas based on identified forest resource values. Key resource area designation is based on recognized natural values or dominant features such as mountain tops, key sources of wildlife food and cover, scenic areas, cultural and natural heritage features, and water resources. In this manner, management emphasis can be placed on conserving and enhancing the highest and best forest land values for public benefit.

All of the state parks, state forests and other lands owned by the state located within the Southern New Hampshire Planning region are described below.

State Parks

Clough State Park

Route 13, Weare, NH

This state park is located about five miles east of the Town of Weare on the shoreline of Everett Lake, a 150-acre lake formed by a dam on the Piscataquog River. Activities in the park include swimming, picnicking, playing fields, fishing and boating. A boat launch is available for small boats or canoes (motorized boats are not allowed). The park is open weekends only from Memorial Day and daily from late June through Labor Day. Admission is \$3 for adults; \$1 for children ages 6 and over. New Hampshire residents are admitted free.



Bear Brook State Park

Route 28, Allenstown, NH

Bear Brook State Park is the largest developed state park in New Hampshire consisting of nearly 10,000 acres.

Roughly 283 acres of the park are located within the Town of Candia, 1,945 acres are located within the Town of Deerfield and 985 acres are located with the Town of Hooksett. However, the vast majority of the park is located within the Town of Allenstown. Bear Brook State Park serves much of the southeast region of the state.

The park offers hiking, boating, swimming, fishing and camping. There are roughly 40 miles of trails through the heavily wooded forests, leading to seldom visited marshes, bogs, summits and ponds. These trails offer a variety of options for hikers, mountain bikers, and equestrians. Canoe rentals are available at both Beaver and Catamount Ponds, while rowboat rentals are also available at Beaver Pond. Fly-fishing is also available at the park. There are also two archery ranges and a 1 and ¼ mile, 20-station fitness course. Bear Hill 4-H is also located in the park. A day-use fee is collected at the toll both near Catamount Pond. Admission is \$3 for adults; \$1 for children ages 6-11; children 5 and under and NH residents age 65 and over are admitted free.

Pawtuckaway State Park

128 Mountain Road, Nottingham, NH

Pawtuckaway State Park contains approximately 5,536.1 acres. The majority of the park is located within the Town of Nottingham, however, roughly 479.9 acres are located within Deerfield and 4.8 acres are located within



Raymond. Similar to Bear Brook, Pawtuckaway State Park serves most of Southeast New Hampshire. This large state park contains numerous exemplary natural communities and rare plant populations. It has a little bit of everything, from rare river birch trees along the shores of the lake, to black gum and Atlantic white cedar swamps in the undulating lowlands, to rocky ridges and rich woods on the

mountains to the west. There are also marshes, boulder fields, ponds and peatlands. An extensive trail network allows for exploration of large amounts of the park area.

Pawtuckaway State Park offers a variety of landscapes for hiking with trails leading to many special points, including a mountaintop with fire tower; an extensive marsh with beavers, deer, and great blue herons; and a unique geologic field with large boulders called glacial erratics which were deposited when glacial ice melted near the end of the ice age.

The park also includes a campground and beach area along the shoreline of Pawtuckaway Lake. Other activities at the park include biking, fishing, snowmobiling, and cross-country skiing. The park is open for day use on weekends between Memorial Day weekend and June 20, and then daily until Columbus Day. Admission is \$3 for adults; \$1 for children ages 6-11. Children ages 5 and under and NH residents age 65 and over are admitted free.

State Forests

Reed's Ferry State Forest

The state acquired this forest in Bedford in 1977. It is roughly 220 acres in size. There are no developed recreation opportunities, but passive outdoor recreation use is allowed. Some of the land may have existing forest management roads.

Woodman State Forest

The state acquired this forest in Deerfield in 1933. It contains 137 acres. There are not developed recreation opportunities, but passive outdoor recreation use is permitted. Some of the land may have existing forest management roads.

Ballard State Forest and Taylor Sawmill Historic Site

Derry

The 200-year old “Taylor Up and Down Sawmill” is cooperatively maintained and run by the Division of Parks and Recreation and the Division of Forests and Lands Community Forestry and Stewardship Bureau. The site is located on the 71-acre Ballard State Forest in Derry. The entire property, including the sawmill, the house nearby, and seven acres of land, were donated to the State of New Hampshire.



Lang Station State Forest

The state acquired this forest in 1993 in New Boston. It is roughly 226 acres in size. There are no developed recreational opportunities, except for passive outdoor use. Some of the forest may have existing forest management roads.

Piscataquog State Forest

The state acquired this forest in 1953 in Weare. It is 160 acres in size. There are no developed recreational opportunities, except for passive outdoor use. Some of the forest may have existing forest management roads.

Vincent State Forest

The state acquired this land in 1936 in Weare. It is roughly 638 acres in size. There are no developed recreational opportunities, except for passive outdoor use. Some of the forest may have existing forest management roads.

Other Lands

Frost Farm Historical Site

Derry

The Robert Frost Farm State Historic Site consists of 64 acres located within the Town of Derry. The site includes the home of Robert Frost and his family from 1900 to 1909, which consists of a simple two-story white clapboard farm house typical of New England in the 1880s. There is also a nature and poetry trail at the site.

Warner Hill Fire Tower

Derry

The Warner Hill Fire Tower is 41 feet high steel tower. It was constructed in 1939 with New England Forest Emergency funds. During the Second World War the tower was altered at least twice and used for aircraft detection by the Aircraft Warning Service. After the war the extra levels were removed and a new cab installed. It remains in service today.



Rockingham Recreation Trail - Portsmouth Branch

Manchester, Auburn, Candia, Raymond

The Rockingham Recreation Trail is a rail trail owned by the State of New Hampshire but managed by the Bureau of Trails, which is a part of DRED. The trail serves as a multiple-use recreational trail. Permitted uses include equestrian, hiking, biking, dog sledding and snowmobile use. The Portsmouth Branch is 24 miles long extending from the east side of Manchester at Lake Massabesic through the towns of Auburn, Candia and Raymond to the Rockingham Junction in Newfields. Parking is provided at either end of the trail.

i) Rockingham Recreational Trail - Manchester/Lawrence Branch

Manchester, Londonderry and Derry

The northern leg of the Manchester/Lawrence Branch of the Rockingham Recreational Trail is 3.3 mile long. It extends from Manchester at the former Lawrence line south through the Town of Londonderry to the Derry town line. The southern leg of the Manchester/Lawrence Branch extends north from the towns of Salem and Windham through the Town of Derry to Epping, where it connects with the Portsmouth Branch of the Rockingham Recreational Trail.

ii) Smith's Ferry Heritage Park

The state acquired this park in 1992 in Manchester. It is roughly 17 acres in size. There are no developed recreational opportunities, except for passive outdoor recreation use such as walking and bird watching, etc.

iii) Manchester Cedar Swamp

This preserve is located within Manchester and is open to the public for recreation and education purposes. The preserve is owned and managed by The Nature Conservancy, but it has been included in the New Hampshire Natural Heritage Bureau's Visiting NH Biodiversity project. Four different kinds of Atlantic white cedar swamps have been described in New Hampshire. The type at Manchester Cedar Swamp is the globally rare Atlantic white cedar – giant rhododendron swamp. It occurs at fewer than ten swamps in New England, and this is the only one north of Massachusetts.

Assessment of State Parks, Forests and Recreational Areas

How should the region go about assessing the adequacy of the state parks, forests and recreational areas located within the region? How much open space and recreation does the region need or desire? How can this be determined? What standards or guidelines should be used? The answers to these questions are difficult to determine. The Society for the Protection of New Hampshire Forest often suggests that a community needs 25 percent of its total land area protected as open space. Can or should this suggestion be applied to the region?

Over the years, benchmarks and standards that prescribe specific park types and acreages of recreational facilities have collected their share of critics. There are always differences from one community or region to another in terms of population age and density – not to mention climate and terrain and the availability of land – that likely influence the amount of open space and recreation considered practical or even desirable.

Perhaps the recreation standard that has received the highest profile of all is the National Recreation and Park Association (NRPA)'s recommendation “that a park system, at a minimum, be composed of a ‘core’ system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population – more often expressed simply as 10 acres per 1,000 population.”¹⁷

In many communities today, however, the adequacy of open space and recreation is most commonly determined by actively monitoring the use of existing resources, including evaluating the public's demands for the additional resources. This generally requires surveys and participation forecasts to determine management priorities and to guide the acquisition and development of new resources.

Unfortunately, very few surveys and forecasts of this kind have been conducted within the State of New Hampshire let alone within the region. Presently, the only guidelines or suggestions available for assessing the need and adequacy of recreational facilities at the state or regional level is provided by the 2003-2007 Statewide Comprehensive Outdoor Recreation Plan (SCORP) for New Hampshire.

As part of the 2003-2007 SCORP, a recreation survey of 3,000 households in the state was conducted by the University of New Hampshire. This survey asked respondents to identify how important it was for the state to manage various natural resources, what priorities the state should give to outdoor recreation, and how future monies for recreation should be spent in New Hampshire.

The results of the survey indicate the most important management objective for the state should be the preservation and protection of drinking water and groundwater recharge areas (52.1 percent), followed by setting aside special natural areas from development (37.9 percent), and protecting typical examples of New Hampshire's natural regions (37.9 percent). State programs or projects receiving the highest priorities include the

¹⁷ “Municipal Benchmarks Assessing Local Performance and Establishing Community Standards”, by David M. Ammons, Second Edition, 2001, page 261.

preservation and/or restoration of native wildlife (58.9 percent), and wetland preservation/protection (37.4 percent).¹⁸

As noted in the 2003-2007 SCORP as well as the new park, recreation, open space and greenway guidelines (1996) developed for the National Recreation and Park Association and the American Academy for Park and Recreation Administration, greater emphasis is being placed on comprehensive open space and greenway planning, and the integration of recreation and open space at the regional and state level. There has also been a growing trend toward more collaboration among recreation providers, and between community parks and schools. Other trends include greater inclusion of green space as part of new development proposals, downtown and neighborhood revitalization, and a heightened recognition of the role that recreation and open space play in contributing to more livable, sustainable communities.

Unfortunately, there are limited funds and funding opportunities available in New Hampshire to purchase and expand the state park system, forests and recreational sites. In addition, funding levels in the Federal Land, Water and Conservation Fund (LWCF) and New Hampshire's Land and Community Heritage Investment Program (LCHIP) have fallen significantly and can not keep pace with increasing demands.

Given the lack of financial resources, DRED has not been actively pursuing the purchase and development of new parks and recreation facilities in the state. Instead, the state is active working with property owners, the Society for the Protection of New Hampshire Forests, and other environmental organizations in facilitating conservation easements and gifts. When and if funding is available, however, real property considered to be acquired by the State is typically evaluated based on the following criteria:

1. Seacoast property (ocean front, estuaries, salt marsh or contiguous upland)
2. In holding (totally within existing State ownership)
3. Land with frontage on a great pond or river
4. Intrusions into existing State ownership (State owns on 3 sides)
5. Land abutting existing State ownership
6. Land connecting State ownership

Generally, separate or individual parcels of land are considered by the state only if they have outstanding forestry or recreation or specialized natural or cultural values that warrant protection and/or preservation. According to DRED:

- For State Forest acquisition, the parcel must be of sufficient size, considering its species composition to make a manageable multiple use unit of public land or is an acquisition of abutting land;

¹⁸ "Assessment of Outdoor Recreation in New Hampshire: A Summary Report", by Robert Alex Robinson, Ph.D., University of New Hampshire, Department of Resource Economics and Development (1997).

- For State Parks acquisition, the parcel must be of sufficient size as a manageable recreation facility or is likely to be enlarged to such a size by acquisition;
- For protection/preservation acquisition, the parcel must be of unique or unusual or natural value or specialized tracts such as marshes, reservoir sites, floodplain, public access sites or high elevation (mountain top) land.

Most funding land acquisition by DRED is achieved through the legislative process. However, only the legislature may direct acquisition of a state forest or state park by statute as appropriate. DRED currently has management responsibility for 380,000 acres of land; of which 214,700 are easements and 165,300 are in fee simple ownership.

While it is important to assess the adequacy of all the state parks and forests within the region, it is also important to consider existing municipal parks and town forests as well. Generally, park adequacy is typically gauged by the residents and the visitors who use the parks. This suggests that a survey and park assessment needs to be conducted for the region and efforts to protect open space lands should continue to be encouraged.

Conclusion and Recommendations

The purpose of this chapter has been to identify and describe the protected lands, state parks and recreational facilities that exist within the region, as well as to emphasize the importance of land conservation and community open space planning in order to protect the natural resources that have been prioritized for protection in the future. Some of the major open space and recreation objectives for the region should be to continue to identify and protect the most important natural resource and large undeveloped tracts of land remaining; to foster linkages between existing protected areas and state parks and forests; and to guide communities to consider the regional importance of open space and recreation in their community planning efforts.

In addition to these objectives is the broader goal of protecting the most important open space lands in the region from future development. To foster this goal, the following recommendations are suggested to direct future open space planning activities of the SNHPC as well as assist communities in creating local land conservation strategies. Many of these recommendations are included in the Regional Open Space Plan prepared by Rockingham Planning Commission (March 2000) and have been adapted for use here.

Protect Regional Significant Natural Resources -- Areas that contain unique habitat and/or are ecologically important from a regional perspective should be a top priority for open space and land conservation planning. These areas and their associated values are described in more detail in the Natural Resources Chapter of this plan.

Promote Interconnections of Protected Open Space -- The fragmentation of forests and open spaces into increasingly small and isolated pockets is a natural outcome of a sprawling development pattern. This leads to a reduction in wildlife habitat and the loss of open space. It is apparent when reviewing the open space map prepared for this chapter that most of the existing protected lands within the region are widely dispersed,

and with few exceptions, not connected. Many of the protected lands within the region were acquired based on the needs, priorities and opportunities of individual municipalities or conservation organizations that have concerns for specific natural resource areas.

From a regional perspective, open space is most effective when it is interconnected to maximize natural resource and wildlife habitat protection. Therefore, it is important to consider the proximity and character of existing protected lands as well as the feasibility of connecting areas of open space when planning for future protection. This is also true when considering the local resource protection priorities identified by each municipality.

Perhaps one of the easiest and most effective means to promote interconnections among protected open space is to establish greenways and buffers along many of the rivers and streams in the region. These natural corridors should be used to enhance connectivity between the various green spaces, parks and trails in the region.

Protect Large and Contiguous Tracts of Land -- Contiguous blocks of undisturbed and undeveloped land are disappearing rapidly within the region. Large blocks of land are illustrated on the wildlife habitat maps prepared by New Hampshire Fish and Game as part of the Natural Resources chapter. Regional and local efforts for land protection and recreation need to be aimed at the largest blocks of undisturbed land that still remain undeveloped within the region. All levels of local, state and federal government as well as appropriate land trusts and conservation organizations need to be involved in developing strategies for protecting these areas.

As noted above, greenways can be used as one method to help promote the importance of interconnecting contiguous large blocks of open space, and to garner public support for increased enjoyment of open space and recreation within the region. Greenway planning is an exceptional planning and resource management technique. It can be conducted at all levels of government.

The State of Maryland's Open Space and Green Print Program is a nationally recognized program providing dedicated funds for Maryland's state and local parks and conservation areas. This program is aimed at protecting the most valuable remaining ecological lands that are becoming fragmented within the state due to development. Most of these lands are located along the state's major rivers and streams. These areas have been identified as high priorities for protection in order to maintain biologically diverse landscapes and enable natural processes like filtering water and cleaning the air, to take place.

Promote Compact Development through "Conservation Development" -- Many of the planning boards in the region have adopted conservation development ordinances designed to promote permanent protection of open space. Often, some of the best conservation development occurs within low and moderate density zone areas and when there is a requirement that 50 percent or more of the property remain permanently protected. How and where this open space is protected within the development however remains a constant struggle.

When developing open space or conservation development ordinances, local planning boards should require that the development proposals include plans and/or easements for interconnected protected open space in neighboring developments. In addition, site design considerations pertaining to open space and natural resources should be made more integral to the development review process. This requires that greater flexibility be provided in determining actual lot sizes, lot lines, as well as road and building locations. Subdivisions can be created to blend into the landscape if the development is designed to accommodate the site rather than to simply satisfy zoning requirements. Stone walls, fields, agricultural structures, and tree lines should be maintained. Consideration should also be given to protecting scenic landscapes and views.

Promote Inter-municipal Cooperation in Land Protection and Recreation -- Inter-municipal cooperation in land protection efforts and recreation planning should be more strongly encouraged. River corridors, aquifers, wetlands, hills and mountain ranges cross municipal boundaries. Conservation commissions and planning boards among neighboring communities need to talk and meet with each other and share information about pending development proposals, land protection and recreation efforts.

Concentrate Public Infrastructure Investment in Developed Areas -- Often one of the causes that lead to sprawl and untimely loss of open space is the public investment in facilities that are located away from existing urban centers. Examples of this are the premature and linear extension of water and sewer facilities in rural areas and the placement of public buildings such as schools, post offices, and safety complexes away from downtown areas. Such practices not only tend to encourage dependence on the automobile, but also attract additional development to “leapfrog” away from already developed areas. This problem can be addressed, in part, by establishing public policies, which strongly favor smart growth and the development of public infrastructure, facility and transportation investment in town centers and other already developed areas.

Increase Public Awareness -- In order to garner local and regional support for open space and recreation, citizens must be made aware of the benefits of land conservation. Public education is a key factor in the sound management and protection of natural resources and recreation planning. Promoting public awareness about the work of Conservation Commissions, local land trusts, and other environmental organizations are very important in order to enlist public support and enhance public participation.

Establish Consistent Funding for Open Space and Recreation Priorities -- Communities and local conservation and recreation groups should work to establish a significant and consistent funding source for land protection. Communities need to be ready for unexpected offers, and may need a dedicated land purchase or conservation fund ready to help leverage support for purchasing or conveying an easement on an important parcel. There are a variety of mechanisms that communities should consider including: local appropriations, capital improvement program, bonding, supplying unexpected funds into the conservation fund, donations from private landowners, concerned citizens and businesses, foundation support, fees from local programs, grants,

tax liens, and proceeds from timber harvest on town forests. Communities should also request 100 percent of the current use penalty proceeds be placed in their conservation fund. In addition, there are a number of private non-profit conservation organizations and state and federal protection and acquisition programs which can help by providing monies to leverage local land conservation efforts (see a description of some of these programs in the appendix).

Increase Public Access to Surface Waters and Land Resources Where Appropriate -

One of the primary purposes of providing open space and recreation is for public enjoyment. Public access should be a consideration when formulating open space and recreation plans. As more land in the region is developed, public access to the region's lakes, ponds and rivers is becoming less available. Communities and local conservation organizations, however, need to be careful when deciding to increase public access, particularly if water quality or habitat values are threatened. Different situations require different types of access and making this distinction is important.

Recently, the New Hampshire House voted to keep planning boards from requiring developers to allow public access to open space as a condition of plan approval (see House Bill 1366). While this issue has not been resolved or addressed at the local level, it should be very simple that when open space is held in private or common ownership (such as a homeowner's association), public access to such open space should be determined by the landowners and not the planning board. However, if the open space is to be dedicated to the municipality or placed into a conservation easement, public access should be allowed to the land, if appropriate.

Review and Update Local Inventories and Master Plans --

Many communities within the region do not have up-to-date inventories of town-owned lands, protected lands, and natural resources. An updated master plan and an updated Natural Resource Inventory is something that all communities should have available at their fingertips. Conservation Commissions should be directed to undertake these inventories and there are a variety of grant programs available to help fund this work. Once inventories are completed, local open space, conservation and recreation plans should be developed which should also include detailed review of adjacent communities' land protection plans. Each plan should include a five and ten-year action plan with identified priorities and funding mechanisms such as the CIP incorporated.

Review and Reform Planning and Zoning Regulations --

It is of utmost importance that a community's planning and zoning regulations actually lead toward the goals of the master plan and natural resource inventory. Planning boards and conservation commissions should take time to review their master plan to make sure that the regulations as written and interpreted address the goals stated. This generally should be completed every five years or whenever the master plan is updated and anytime the community's land use regulations are amended.

Develop a Local Open Space or Recreation Plan -- Communities within the region without local open space or recreation plans should take appropriate steps to develop one.

This can be accomplished as a separate plan or as a chapter in the master plan. These plans are important in establishing local goals and protection priorities as well as for future grant funding opportunities. Additional planning tools that should be considered include completing a community wide “build out” study. The implications of population projections and development trends become much clearer when a picture of the future growth of the community is provided when the community is built out to the maximum density allowed by existing zoning regulations.

Work with Large Landowners -- While current use is an effective tool for reducing financial pressure on landowners to sell or develop their land, it does not afford any measure of permanent protection. Permanent land conservation measures are essential in order to retain significant open space for future generations. Communities should pay attention to the desires and intentions of large landowners and establish lines of communication about the benefits and tax advantages of open space and recreation. Many landowners may hope to pass the land on to the next generation, but may be unaware of the various financial and estate planning tools available to help facilitate this.

Prepare a Regional Conservation Plan -- This comprehensive plan should be viewed as a resource guide that can be presented to communities to assist local planning and conservation efforts. However, after review and discussion, it might be useful if a more detailed plan is developed which establishes a regional conservation framework and identifies region and statewide priorities for land protection and natural resource management. Such a plan could help establish partnerships between local watershed and river associations as well as a number of federal/state multi-jurisdictional natural resource projects, which are occurring within the region. In addition, it could help set up an environmental framework for greenway planning at the local, region and state level similar to the Maryland model as a means for addressing future growth predicted to result from the I-93 widening project. Lastly, it could be modeled somewhat after the Conservation Plan currently being undertaken within the Seacoast Region.

Provide Technical Assistance in Adopting Conservation Development Ordinances -- The SNHPC should also be available to provide assistance to interested communities to refine their conservation development ordinances and other ordinances, which promote compact development, smart growth, and encourage the protection and interconnection of open space.

Provide Regional GIS Analysis Tools -- SNHPC should also provide GIS analysis and maps of the region’s changing land use patterns, open space, protected lands and natural resources to focus conservation activities and to protect and restore important habitat throughout the region. Consideration should also be given to the idea of a regional build out analysis using digital tax map information to better understand the potential amount, density and general location of future development that would be permitted in the region, under current zoning regulations. This could be incorporated into a regional conservation plan.

Support Local Land Trusts -- SNHPC should organize and facilitate a forum on Open Space and Recreation planning for the region and work collaboratively with local land trusts and conservation organizations to establish a support group for targeting future open space and recreation planning. This forum should also serve to ensure that all communities within the region are covered by at least one private land conservation organization that can accept conservation easements from private landowners.