

SECTION 2

Reasons for Conserving Land

“Land conservation offers landowners the opportunity to have an enduring impact on New Hampshire’s natural landscape, one that can benefit all of us, our children and our communities, and bring us all closer to the land”

From Conserving Your Land – Options for New Hampshire Landowners, published by the New Hampshire Center for Land Conservation Assistance, 2005



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2.1 – Aesthetic and Environmental Reasons for Conserving Land

The people of Atkinson enjoy a landscape of natural resources shaped by many years of conservation action. Our protected forests, wetlands, and open spaces demonstrate the foresight of many conservation-minded individuals. As a town, we have consistently expressed a desire to permanently conserve and protect the natural resources which contribute to a lifestyle that makes Atkinson a very attractive place to live.

These conserved lands protect wildlife and their habitats, protect water and air quality, and contribute to mitigating the impacts of climate change. Yet, like many towns in southern New Hampshire, Atkinson has experienced rapid growth due to its central location to major employment centers, transportation corridors, and the metropolitan Boston region. As a result, land values have also increased dramatically, pitting development profits against the town's land conservation interests.

Although Atkinson has done an admirable job in protecting its natural resources, we know that there are still significant resources that remain unprotected. Further changes in land use may have a significant impact on forests, farmland, drinking water, wildlife habitats, and other valuable resources in the future. Together with projected impacts of climate change, the importance of acting now to conserve our most valued open lands and natural resources is more important than ever.

As the townspeople have come to understand the importance and value of natural resources, so too has awareness of how land use can adversely affect those resources. While state and federal agencies have some role in protecting our natural resources, primary control and decision-making regarding land use and its impact on our environment is largely the responsibility of the Town of Atkinson.

Open space preservation serves multiple goals within a community. The benefits of preserving open space include:

- Wildlife and habitat protection
- Water quality, drinking water and local groundwater aquifer protection
- Scenic and aesthetic values
- Historic landscape and resource preservation
- Agricultural uses and farmland production
- Air quality protection
- Flood impact prevention
- Recreational uses and educational opportunities

The resulting landscape is a direct result and reflection of the community’s support of open space preservation.

2.2 – Studies of the Economic Benefits of Conserving Land

The seminal study on the impact of land conservation on property taxes is the 2005 study conducted by the Trust for Public Land entitled *Managing Growth: The Impact of Conservation and Development on Property Taxes in New Hampshire, 2005*. (<https://www.tpl.org/media-room/report-nh-growth-management-released>). This study concluded that towns that have the most permanently protected land have slightly lower tax bills on average. It is not likely that land conservation alone is responsible for these tax benefits. However, land conservation is a tool that:

- helps maintain the rural character of a community,
- creates more centralized, dense development patterns,
- creates more efficient municipal service areas,
- provides multiple environmental and aesthetic benefits, and
- increases resiliency to climate change.

The Trust for Public Land found that, in the short term, land protection fully or partially exempting land from taxation often reduces the tax base and results in a tax increase for a finite period. In the long term, contrary to the common perception that development will bring lower taxes, property tax bills are generally higher in more developed towns than in rural, less developed towns. Further, findings also indicate that tax bills are not higher in the towns that have the most permanently protected land, regardless of the method and ownership used to conserve the land.

The study suggests that patterns of growth have an effect on both the livability and affordability of a town. Land conservation can be used as a tool in both protecting resources that contribute to quality of life (from drinking water protection to scenic beauty and recreation), as well as to help guide the path and location of municipal growth to those areas that are most appropriate and that are most cost-effective for towns to service.

In general, it is true that land increases in value when it is developed, thereby adding taxable value to a town’s tax base. However, development usually requires town services, thereby increasing the budget. The study found that the tax bill on the typical house is, on average, higher in towns where:

- There are more residents, and/or
- There are more buildings.

The study concludes that, in the long term, contrary to the common perception that development will bring lower taxes, average property tax rates are generally higher in more developed towns than in rural towns, and towns with more development have higher tax bills.

In New Hampshire there are other studies that focus on the root causes of rising property taxes. Two such studies can be found here:

Property Tax: Understanding the Math, Dispelling the Myths (NH Municipal Association)
<https://www.nhmunicipal.org/town-city-article/property-tax-understanding-math-dispelling-myths>

Equalization and the Real World (NH Municipal Association)
<https://www.nhmunicipal.org/town-city-article/equalization-and-real-world>

The conclusions reached by these studies are highly dependent on the types of development that takes place in a town and the types of services a town is committed to providing to these developed properties. In the next section, we will take a look at Atkinson's tax rate as it compares with other towns in Rockingham County and the State of New Hampshire and explore how land conservation might impact our town's tax rate.

2.3 – Conservation's Impact on Atkinson's Tax Rate

Atkinson has one of the lowest overall tax rates in the state. Taking a look at the tax rate data analysis in Appendix C, beginning on page C-2, the following conclusions can be made:

- Atkinson is 49th best out of all 234 New Hampshire municipalities.
- Of New Hampshire towns with a population between 6000 and 8000, Atkinson is 4th best out of 19 municipalities.
- Looking just at Rockingham County, Atkinson is 9th best out of 37 municipalities.
- Among the six Rockingham County towns with populations between 6000 and 8000, Atkinson is top dog.

As the Trust for Public Land study presented in Section 2.2 has pointed out, in addition to the potential impact of conserved land on a municipality's tax rate, there are many other factors that are not considered in this data, and these factors are likely to overshadow any potential impact of a town's conservation efforts. These factors include:

- Amount of commercial development.
- Percentage of various types of residential development, such as over-55, condominium or rental properties, single family, or workforce housing.
- Municipal provision of sewer and/or water.
- Municipal provision of curb-side trash and recycling.
- Whether a community has a paid or on-call/volunteer Fire Department.

In looking at both the county and state data, there are communities “above” Atkinson in tax rate ranking that have a large amount of conserved open space, but there are also communities that have relatively little open space. The conclusion of this Land Conservation Plan is that the tax rate of New Hampshire municipalities is driven mostly by the types of development and types of services offered by a community, and there appears to be no strong correlation, either positive or negative, with a municipality’s amount of conserved open space.

The best conclusion is that open space preservation does not appear to either help or hurt Atkinson’s tax rate. Most of Atkinson’s larger parcels of privately-owned open land are already in Current Use. This allows that open land to be assessed at a lower value, and the land does not bring in much tax revenue. Therefore, there is not a significant loss of tax revenue by purchasing the land for conservation purposes or obtaining a conservation easement on the land. On the other hand, open land does not require much in the way of Town services, so conserving the land does not cost us much either.

While there appears to be no statistical evidence to support the notion that Atkinson’s open space helps lower our tax rate, circumstantial evidence suggests that Atkinson’s rural character and robust conservation efforts contribute to making the town an attractive place in which to live, which, in turn, increases demand for housing in Atkinson and the price people are willing to pay to live here. This increase in our property values adds to Atkinson’s assessed tax base, which decreases our tax rate, since the tax rate equals the taxes people pay divided by the tax base.

2.4 – Excerpts and Recommendations from the 2015 Master Plan

RSA 674:2 enables a municipality to research and define a Master Plan to guide the future uses of the municipality’s land. RSA 674:2 states that:

The Master Plan shall include a *vision section* that contains a set of statements and land use principles which articulate the desires of the municipality’s citizens, and a *land use section* that translates these vision statements into physical terms.

The Town of Atkinson first established a Master Plan in 1980 and made updates to the Plan in 1998 and again in 2015. In planning for the future use of land within Atkinson, the 2015 update includes the following vision for the Town:

Atkinson’s vision is to preserve our rural character, and our natural, historical, and cultural resources, while providing municipal and commercial services,

recreational facilities and housing options which support the needs of the community in a fiscally, socially and environmentally responsible manner.

In translating this vision into physical terms, the 2015 update of the Master Plan includes the following goals for the Town:

A. Preserve Open Space

Open space consists of wildlife habitat, natural resources, scenic views, and forests. Open space preservation is supported in several ways by the town:

- Direct purchase of land and conservation easements
- Use of general funds as available and consideration of bonds to leverage federal, state and private funds
- Dedication of 100 percent of the Land Use Change Tax (LUCT) collected toward land conservation
- enabled by the zoning ordinance through rural cluster residential development zoning

B. Preserve and Maintain the Town Forests

The Atkinson Town Forest consists of numerous properties varying in size totaling approximately 514 acres [as of 2015]. The Town Forest properties are a registered tree farm. The Town routinely consults with professional foresters to maintain the health and viability of Town Forest properties through implementation of forest best management practices. Since 1985, the Conservation Commission has worked with a consulting forester to update the management plans for several properties in the Town Forest to keep them productive and aesthetically maintained.

C. Protect Water Quality

Protection of drinking water supplies, both groundwater and surface waters, is of high importance to the town and its residents. In 2012, areas of groundwater contamination were identified that affect a number of residential drinking water wells where chemicals have been detected above federal standards and acceptable levels for “an emerging contaminant”.

D. Establish Buffers and Setbacks

Development in close proximity to sensitive wetlands and surface waters can cause declined health of these systems if runoff and other pollutants are not sufficiently managed. Buffers and setbacks to streams and wetlands can help reduce or eliminate these impacts. Refer to Appendix C for a description of buffers and setbacks.

E. Preserve Agricultural Land and Farms

Maintaining the agricultural lands and farms is one way to preserve the town’s rural character and historical and cultural resources such as barns and outbuildings and sites of important local events. Agricultural lands and farms often provide aesthetic resources such as scenic vistas, wildlife habitat, meadows and forests.



Community Support for Conservation

Perhaps the most important reason for preserving open space and protecting Atkinson’s natural resources is the fact that the residents of Atkinson have consistently expressed a desire to preserve open spaces. Here are some examples from the survey that was conducted as part of the 2015 Master Plan update:

Table 2-1: Results of 2015 Master Plan Survey

Conservation-related results from the 2015 Master Plan Vision Survey				
Goals and Priorities for the Town of Atkinson	Low or Not a priority	Medium Priority	High or Very High priority	Total number of responses
Preserve open spaces -- fields, forests, and farms	7.0%	20.1%	72.4%	532
Maintain Atkinson's rural character	3.2%	8.4%	87.7%	535
Protect lakes, rivers, and wetlands	4.1%	14.9%	80.5%	536
Establish streamside buffers to preserve water quality and wildlife habitat	9.4%	19.7%	69.1%	534
Minimize pollution	4.1%	13.9%	80.9%	532
Protect groundwater and drinking water supplies	4.3%	6.6%	88.1%	529

2.5 – State Laws Pertaining to Land, Open Space and Resource Preservation

[RSA 79-A:1 Declaration of Public Interest](#). – “It is hereby declared to be in the public interest to encourage the preservation of open space, thus providing a healthful and attractive outdoor environment for work and recreation of the state's citizens, maintaining the character of the state's landscape, and conserving the land, water, forest, agricultural and wildlife resources.”

[RSA Chapter 674, Local Land Use Planning and Regulatory Powers](#), is one of the primary enabling statutes for Planning Boards to enact land use regulation, and it gives them broad powers to do so. Among the various sections of RSA 674, the following are most relevant to land conservation.

[RSA 674:2 Master Plan; Purpose and Description](#) enables a Planning Board to establish a Master Plan, which guides all of the land use regulations for a municipality.

[RSA 674:21 Innovative Land Use Controls](#) details voluntary land use, planning and environmental protections that include model ordinances and regulations for municipalities to consider adopting.



2.6 Challenges and Emerging Issues

Since 2002, the United States has issued a comprehensive climate change assessment report every 4 years, led by the U.S. Global Change Research Program. The most recent climate change projections were published in 2018 in the [4th Annual Climate Assessment Report](#) published by U.S. Global Change Research Program and its many collaborators. The 5th Annual Climate Assessment is due for publication in 2023. Major findings for inland non-coastal communities from the 4th Annual Climate Assessment report for the Northeast Region are cited below [source from <https://nca2018.globalchange.gov/chapter/18/>]:

Changing Seasons Affect Rural Ecosystems, Environments, and Economies

- The seasonality of the Northeast is central to the region’s sense of place and is an important driver of rural economies. Less distinct seasons with milder winter and earlier spring conditions are already altering ecosystems and environments in ways that adversely impact tourism, farming and food production, and forestry. The region’s rural industries and livelihoods are at risk from further changes to forests, wildlife, snowpack, and streamflow.

Maintaining Urban Areas and Communities and Their Interconnectedness

- The Northeast’s urban centers and their interconnections are regional and national hubs for cultural and economic activity. Major negative impacts on critical infrastructure, urban economies, and nationally significant historic sites are already occurring and will become more common with a changing climate.

Threats to Human Health

- Changing climate threatens the health and well-being of people in the Northeast through more extreme weather, warmer temperatures, degradation of air and water quality, and sea level rise. These environmental changes are expected to lead to health-related impacts and costs, including additional deaths, emergency room visits and hospitalizations, and a lower quality of life. Health impacts are expected to vary by location, age, current health, and other characteristics of individuals and communities.

Adaptation to Climate Change Is Underway

- Communities in the Northeast are proactively planning and implementing actions to reduce risks posed by climate change. Using decision support tools to develop and apply adaptation strategies informs both the value of adopting solutions and the remaining challenges. Experience since the last assessment provides a foundation to advance future adaptation efforts.

Table 2-2: Summary of climate change and its impacts, and mitigation benefits of land conservation.

Climate Change Factor	Climate Change Impact	Land Conservation Mitigation
Drought	Drinking Water Supplies	Forest and vegetative cover help retain soil moisture, support groundwater recharge and protect water quality
	Agriculture, Forestry	Forest and vegetative cover help retain soil moisture and enrich the soil
Increased Precipitation	Flooding	Forest and vegetative cover particularly buffers to wetlands and surface waters absorb excess precipitation
Stormwater Runoff	Water Quality	Forest and vegetative cover particularly buffers to wetlands and surface waters absorb runoff and store excess nutrients in biomass
Phenology* (see reference below)	Biodiversity	Protection of sensitive habitats, life cycle conditions and natural areas; maintaining recreational resource uses
Regional, State and National Supply and Transfer Ability	Shared Economies, Resources and Services	Protect resources necessary to retain quality of life and essential services and resources

What is the importance of Phenology?

Phenology influences the abundance and distribution of plants, animals and microorganisms, ecosystem services, food webs, and local and regional cycles of water and carbon. Phenology can be impacted by changes in temperature, precipitation and land alteration and development, and changes in seasonal conditions. Changes in phenological cycles like flowering, reproduction, and animal migration are among the most sensitive biological responses to climate change. Here in New England, many spring events are occurring earlier while fall events are occurring later than they have in the past. Changes in the coldest night temperatures as plants and animals are dormant have a significant impact on when natural cycles of reproduction and flowering begin and end.

Climate Change Impacts to Phenology

Recognizing that not all species respond to environmental conditions at the same rate, time or type of response can lead to changes in the food web, limiting the supply of resources needed for successful propagation and maturation. How plants and animals respond can help resource managers predict whether their populations will grow or shrink or migrate, making phenology a [leading indicator](#) of climate change impacts. Climate change considerations of phenology include:

- Management of invasive species and forest pests
- Predictions of human health-related events (allergies, ticks, insect related transmissions)
- Optimization of when to plant, fertilize, and harvest crops
- Understanding the timing of ecosystem processes (food web, temperature conditions, water availability)
- Assessment of the vulnerability of species, populations, and ecological communities to local climate change impacts

[source from: <https://www.usanpn.org/about/why-phenology>]

Drought

Drought has far reaching impacts across the natural and human landscapes where reliance on water and natural hydrologic processes are critical to thrive. Towns can take steps to limit the impacts from drought by adopting common sense controls on the use of water and when and how water is used. Some of these approaches are described below.

- Townwide water conservation program aimed at public outreach and education and phased reduction of water usage during drought such as limiting use of groundwater during drought for lawn watering and non-food production activities.
- Encourage and facilitate the capture and reuse of rainwater and clean household water for indoor plant watering, outdoor landscaping and household cleaning.
- Create public announcements on social media, newsletters and email about drought conditions and how to best management water use during these periods.
- Distribute lawn signs with messaging about water use and conservation.

For more information about drought conditions and response guidance in New Hampshire, visit <https://www.des.nh.gov/climate-and-sustainability/storms-and-emergencies/drought>

Land Use and Development

Conversion of natural open space and landscapes to developed conditions can result in large scale disruption of natural processes. Alteration of natural hydrology, ecosystem functions, and loss of migration pathways and habitat can result. Water quality protection – both in a developed condition and natural condition – must factor in human sources of point source and non-point sources of water pollution and reduce them to the maximum extent practicable.

Competing land use issues such as increasing housing and overall community growth are often at odds with land and resource conservation goals. That is one reason why this Land Conservation Plan is vital to guiding future land use decisions and conservation efforts.

Alteration of natural hydrology and drainage patterns resulting from development can to some degree be mitigated by ensuring proper land use regulations are adopted and are fully enforced for all land development applications.