

Town Forests in Vermont: Inventory of an Overlooked but Essential Component of the Forested Landscape

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*Summary: The perception that town forests receive little attention
is still largely true, and most forests lack long-term protection.*

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<http://www.uvm.edu/envnr/nsrc/>

Project Summary

Town-owned forests in Vermont contribute to the regional landscape by keeping productive forestlands in timber management, protecting physical and biological diversity, and maintaining connections between larger forest patches. They also provide social benefits such as economic investment, recreation, and clean water. However, they are often little known or appreciated by local governments and residents alike, making it possible that unprotected properties could be sold and ultimately converted to other land uses. This sense of neglect extended to the Vermont Conserved Land Database (CLD), a statewide digital map of protected lands, which lacked perhaps as much as half the current municipal landholdings. Accordingly, we acquired boundary data for new and missing municipal forestlands from Vermont county foresters, regional planning commissions, and individual towns, increasing by 38% the area of town forestlands in the CLD to >65,000 acres. To gauge use and potential long-term outlook, we also collected information on forest management and protection status. The available data indicated that only about half of municipal forestlands are subject to a management plan, which could mean that these properties lack formal oversight by a county forester, consulting forester, or town commission. Although almost 60% of the municipal forestland parcels were cited in town plans, the documents that are intended to articulate a vision for a town's future growth, few provided detailed descriptions of current management and possible long-term objectives. More significantly, only 17% of municipal forestlands were identified as protected by a conservation easement held by a public or private entity. These results underscored the need to keep the CLD current for land-conservation analyses and other natural resources assessments, as well as the continuing lack of attention devoted to town forests and their multiple benefits. Future work should seek to further quantify use and management of municipal forestlands with the ultimate goal of protecting and expanding the current network of town-owned properties.

Background and Justification

- Town-owned forests are a small but important part of Vermont's forested landscape:
 - Forest management (income, wildlife habitat, viewshed management)
 - Conservation (rare natural communities, wetlands, etc.)
 - Recreation and education
 - Water (water supply, fire protection)
 - In some cases, municipal lands provide a forested resource in otherwise developed landscapes

Background and Justification

- **However, town forests are underappreciated:**
 - **Some forestlands are not well documented and largely unknown to residents**
 - **Natural-resource benefits and social values overlooked**
 - **Inattention may lessen perceived value to town, perhaps affecting long-term status (unless formally protected, town-owned forestlands can be sold without restriction)**
 - **Data gaps extend to statewide mapping: the most recent version of the Vermont Conserved Lands Database (CLD) shows only 77 towns with forests**

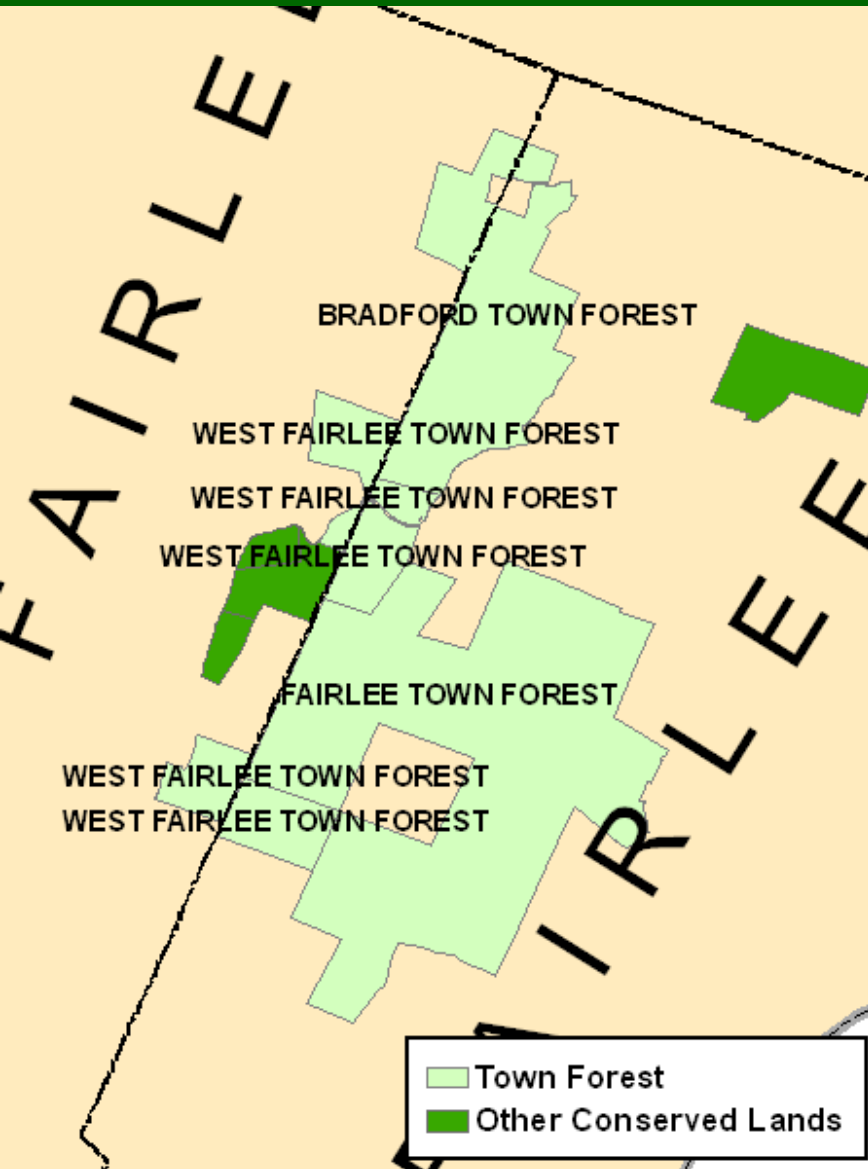
Background and Justification

- **An updated inventory is needed to:**
 - **Better quantify distribution and size of town forests**
 - **Understand how forests are perceived and used**
 - **Encourage long-term management and protection**
 - **Publicize ecological benefits, recreational opportunities, and economic value**
 - **Encourage establishment of additional town forests**

Methods – Data Acquisition

- **Develop summary spreadsheets and maps for municipal forestlands already in the Vermont Conserved Lands Database**
- **Mail summary materials to all Vermont county foresters (Agency of Natural Resources, a.k.a. ANR)**
- **Follow up mailing with e-mail and telephone inquiries**
- **Identify gaps and obtain property boundaries and management information**
- **Contact regional planning commissions (a.k.a. RPCs) for additional property data**
- **Contact individual towns when initial data sources incomplete**

Methods – Updated Mapping



- Add missing town forest parcels to the Vermont Conserved Lands Database
- Also add other municipal forestlands (school forests, watershed lands, conservation areas, etc.)
- Label new parcels according to owner, protection type (fee ownership or easement), and general management type (forest, park, conservation area, etc.)
- Revise forests with substandard boundary data if better data available
- Eliminate forests sold or converted to other uses

Example: Addition of West Fairlee Town Forest
Parcels to the Vermont Conserved Lands Database

Methods – Data Compilation

BRADFORD MUNICIPAL PLAN

Adopted February 18, 2003



Prepared by the Bradford Planning Commission

with assistance from the
Two Rivers - Ottauquechee Regional Commission
The King Farm
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Adopted February 18, 2003

- Obtain information on management and use of forests: check existing ANR materials, review town plans, contact individual towns
- Compile management/use data into a comprehensive database (Excel spreadsheet)
- Summarize municipal forestlands by type, management, and conservation status

Example: Bradford Town Plan, which was examined for content related to forestlands

Results – Data Acquisition

- Obtained much usable data from county foresters and RPCs
- However, some towns do not use county foresters for managing their lands, necessitating further investigation
- Contacted about 50 towns
- Town surveys difficult because knowledge of forests is diffuse: clerks, listers, managers, conservation commissions, selectboards, highway administrators, individual citizens, consulting foresters; multiple contacts usually necessary
- Ultimately limited town inquiries to instances with specific data gaps
- Reviewed available town plans for all towns with known or suspected municipal forestlands

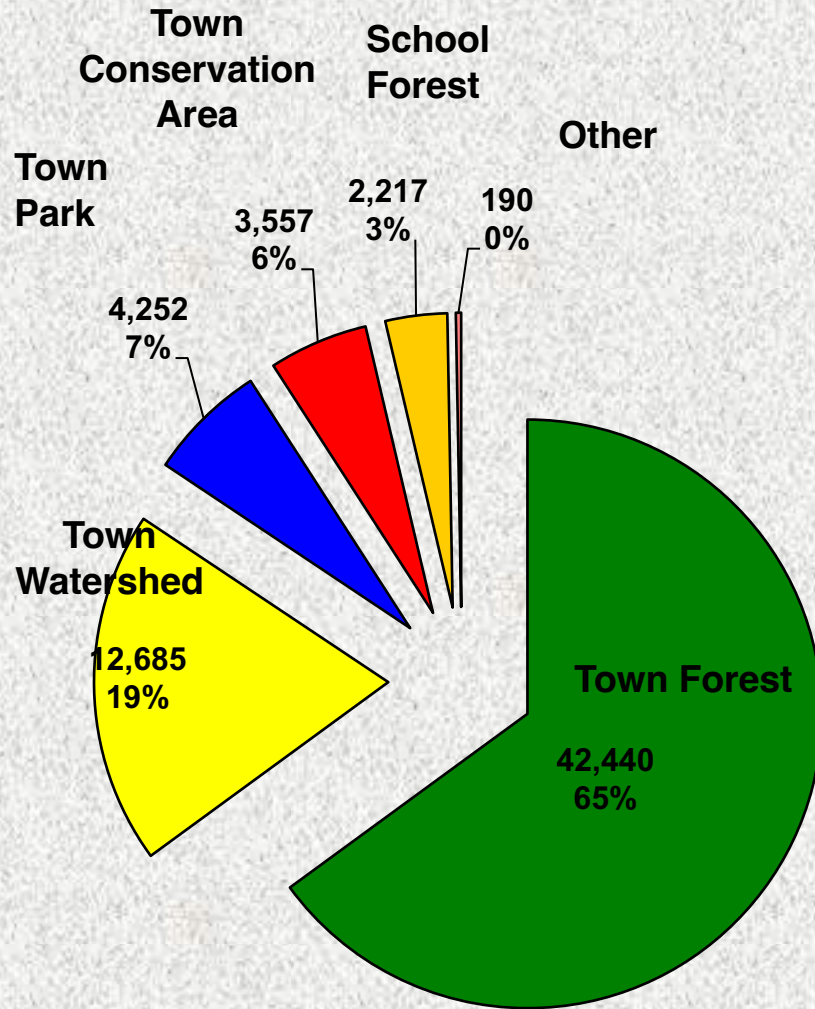
Results – Updated Mapping



- Significant improvement in municipal-lands component of the Conserved Lands Database; 163 towns now represented
- Added 263 new parcels constituting 17,898 acres in 99 towns
- 162 different municipal forestland entities (i.e., some units have multiple parcels)
- Also improved boundaries and/or attribution for 190 existing parcels in 58 towns
- Only 4 known omissions (data unavailable)

Example: Addition of Newport City Forest to the Vermont Conserved Lands Database

Results – Management Type



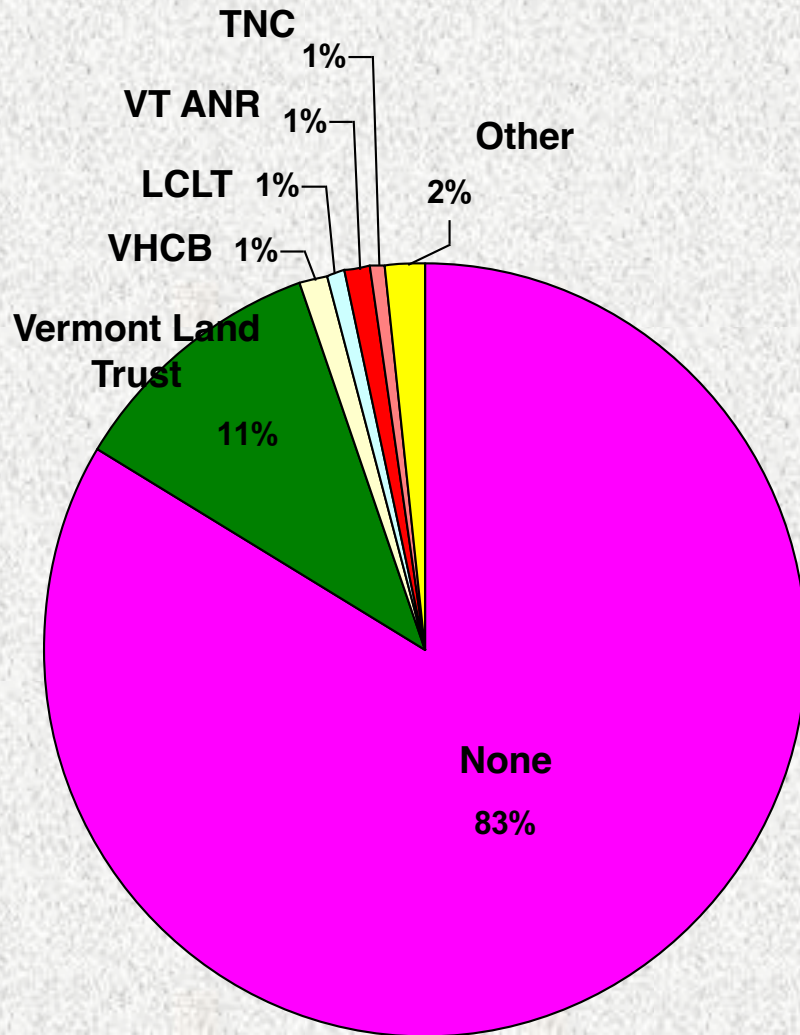
- Town forest - timber management, at least in part, but often with other goals
- Town watershed – water supply protection
- Town park – recreation
- Town conservation area – natural resources protection
- School forest – timber management
- Other – town gravel pit, town fire district, school conservation area, town services

Area of Municipal Forestlands in Vermont, in Acres,
by Management Type

Results – Oversight

- 48% of municipal forestland parcels have some type of management plan in effect; the remaining 52% have no plan or we could find no evidence of one
- 57% of parcels are at least mentioned in the town plan; actual percentage likely higher because 15% of parcels are located in towns for which a plan exists but was unavailable
- However, most town-plan references discuss recreation or watershed protection; only 50% of town-forest parcels (the most common management type) are mentioned in town plans, usually with little of discussion of timber management
- Although most plans express a general commitment to forestland protection, they typically discuss town-owned lands only very briefly and provide few details about future management or long-term protection

Results – Conservation Status



Percentage of Municipal Forestlands in Vermont with Long-term Protection by a Third-party Easement

- Town-ownership is a form of land protection, but it is potentially less stable than other types (e.g., state or federal ownership, conservation easement)
- Most municipal forest parcels (83%) lack third-party protection by conservation easement; theoretically, these lands could be sold and converted to other uses
- However, the Vermont Land Trust and other notable public and private entities actively support municipal-land conservation

Conclusions

- The most recent version of the Vermont Conserved Lands Database indeed underrepresented town forests; this issue was remedied
- Contact with individual towns reinforced the perception that many municipal forestlands are not well documented
- Summary statistics confirmed that only about half of municipal forestlands are subject to a comprehensive management plan
- Although a majority of town plans cite municipal forestlands, little oversight or long-term vision are provided
- Relatively few town forests are permanently protected from conversion to other land uses
- Further citizen outreach is necessary to generate interest in town-forest management, long-term protection, and expansion

Implications and Applications in the Northern Forest Region

- Improved Vermont Conserved Land Database can be used more effectively in town-forest analysis and outreach
- CLD will also better serve local and regional analyses of conservation lands, wildlife habitat, and ecological reserves
- Review of town-forest management and conservation status will add further impetus to ongoing efforts to protect the Northern Forest and the environmental and social services that it provides

Future Directions

- Explore feasibility of conducting a more comprehensive review of town-forest management; would require obtaining copies of all management plans; would also require extensive communication with individual towns to develop appropriate contacts
- Evaluate citizen knowledge, use, and perception of town forests; conduct a regional survey of residents to better understand why municipal lands receive little attention; determine whether interest exists for an expanded network of town forests
- Conduct case studies with individual towns, working to improve profile of municipal forestlands
- Continue expanding and refining municipal lands component of the Conserved Lands Database

List of Products

- **Revised Vermont Conserved Lands Database, with updated municipal-lands component (public lands extract to be submitted to the Vermont Center for Geographic Information (www.vcgi.org); full database, including private lands, available on request)**
- **Municipal-lands extract of CLD (to be submitted to VCGI, county foresters, RPCs, Vermont Family Forests, Vermont Town Forest Project, and other interested parties)**
- **Comprehensive summary spreadsheet of all municipal forestlands; contains all available management and protection data, as well as a list of parcels that are known to be missing from the CLD**