

Tracking Parcelization Over Time: Updating the Vermont Database to Inform Planning and Policy

Phase III Report: Executive Summary

Background and Methods

Parcelization, or the breaking up of land into smaller and smaller parcels, typically occurs through subdivision. The phenomenon of parcelization is gaining momentum, and subsequent development is causing forest cover to decline in Vermont. According to the U.S. Forest Service, Vermont may have lost 102,000 acres of forestland from 2012 to 2017.¹

Depending on how it occurs, parcelization and development can lead to the following impacts:

- Forest fragmentation and land conversion, which can negatively affect plant and animal species, wildlife habitat, water quality, recreational access, and the ability of forests to sequester and store carbon.
- The loss of large ownership and management of forest parcels, which can reduce their productivity and contribution to the working lands economy.
- An increase in the number of parcel owners, which may result in new housing, and infrastructure (roads, septic, utility lines, etc.), which can diminish the economic and ecological viability of forests.



A. Blake Gardner

To minimize forest loss and fragmentation it is necessary to understand where parcelization and subdivision are occurring, and the rate at which they are occurring. This project responded to this need by building a database to examine trends on private land in Vermont by using Grand List (tax) data and Use Value Appraisal Program data from 2004 to 2016. In addition, a website was created to examine trends at the town, county, regional planning commission, and state level to inform land use and conservation planning, and policymaking.

Key Findings

- ***The amount of land in larger parcels is shrinking, while the amount of land in smaller parcels is increasing.***

Both the amount of land in parcels 50 acres and larger, and the number of parcels 50 acres and larger are decreasing, while both acreage, and the number of parcels under 50 acres, is increasing. More specifically, the number of parcels in the 2-5 and 5-10 acre size categories increased by 10.25% and 15%, respectively.

- ***The number of acres in the “residential” category is increasing, while “farm” and “woodland” acreage is decreasing, with “woodland” parcel acreage decreasing the fastest.***

Residential acreage increased by 162,670 acres, which is a 7% increase over the study period. The amount of “woodland” parcels, which represent mostly undeveloped forestland (there may be a seasonal camp), decreased by 147,684 acres, or approximately 15% over the study period (a portion of this was due to land shifting to public ownership).

- ***Across the state, the per-acre value of land in Vermont nearly doubled during the study period, though increases varied greatly depending on location.***

During the study period, the value of land statewide went from \$990/acre in 2004 to \$1,827/acre in 2016—an increase of 185%.

¹ Morin et al (2017). Forests of Vermont, 2016. Resource Update FS-119. Department of Agriculture, Forest Service, Northern Research Station. Available at https://www.fs.fed.us/nrs/pubs/ru/ru_fs119.pdf

- ***Most dwellings are built on smaller parcels compared to larger parcels.***

Parcels less than 50 acres in size with dwellings increased by 20,737 parcels, which is an increase of 8.8% over the study period. More specifically, the number of parcels with dwellings in the 2-5 and 5-10 acre size categories increased by 15.3% and 22.8%, respectively.

- ***The Use Value Appraisal (UVA) Program is playing a role in protecting large woodland parcels.***

The study found that woodland parcels enrolled in UVA in 2004 were more likely to remain as “woodland” in 2016 compared to woodland not enrolled in the UVA Program.

Key Recommendations

Recommendations for state policy and investments

- Support diversified strategies to reduce the pressures on landowners to subdivide land.
- Boost investment in land conservation and landowner incentives for conservation easements.
- Increase support to woodland landowners for succession planning to minimize the subdivision of land.
- Continue to support working forests by funding the Current Use Program and the administration of new forestland enrollment.
- Provide full statutory funding for the Vermont Housing and Conservation Board (VHCB), and adequate funding for the Working Lands Enterprise Initiative.
- Support outreach efforts and public policy to encourage the aggregation of land for conservation purposes.
- Address the gaps in Act 250 and strengthen it to play a more meaningful role in reviewing the impacts of development on forestland.

Recommendations for local actions

- Municipalities that have zoning and subdivision regulations should review and strengthen natural resource policies to reduce forest fragmentation, with a particular focus on their rural residential type districts.
- Municipalities that do not have subdivision regulations should adopt them in order to minimize the fragmenting impacts of subdivision on forestland.

Data and process recommendations

- Support local listers and trainings in order to ensure data quality and consistency across municipalities.
- Standardize approaches to parcel data collection and improve the connection of the Grand List to land use parcelization trends and GIS parcel data.

General recommendations

- The State or other appropriate organizations should keep a publically accessible database of all public lands as well as conserved lands.
- Promote the use of parcelization data for planning, outreach and technical assistance, and investment.

Recommendations for future research

- Conduct additional research to understand how dwellings affect the functions and integrity of forests.
- Utilize digital parcel maps, future LIDAR and other remote sensing data, and available modeling to understand any relationships between subdivision of land and subsequent development.
- Maintain and enhance the parcelization website on an annual basis.

Visit <https://vtforesttrends.vnrc.org> for interactive data tools, parcelization reports, and other info.

