Reserve Forestland Standards and Rollout

Keith Thompson – Private Lands Program Manager

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Background

- Act 146 created a new enrollment subcategory in the Managed Forestland category of Use Value Appraisal (UVA) called Reserve Forestland.

- The act required development of a report defining the program standards. This report was issued on December 30, 2022.

- Enrollments in the subcategory began July 1, 2023.

Testimony

- Purpose of Reserve Forestland

- Eligibility

- Process for development of standards

- Plan and Management Standards

- Rollout

Forests with a critical mass of old forest characteristics can provide important contributions to:

- Native biodiversity
- Wildlife habitat
- Hydrologic regulation
- Carbon storage
- Forest resilience
- Localized cooling and climate buffering

Characteristics include:

- Large old trees
- Spatial variability in tree density and size
- Abundant downed deadwood
- Multiple canopy layers
- Large standing dead trees
- Regeneration
- Unique plant communities (understory plants, mosses, lichens)

Managed to attain old forest values and functions

These contributions are not exclusive to old forest but the nature of some contributions may be unique to old forest and thus valuable.

Younger Forest

Older Forest

Eligibility

Baseline eligibility:

25 total enrolled forestland acres

20 acres are forested productive soils (Site Class I, II, or III) may be eligible for enrollment of Reserve Forestland. Of these parcels, the following eligibility thresholds apply:

PARCELS WITH ≥ 100 ENROLLED ACRES: 30% or more of the parcel's enrolled acres need to be composed of significant and sensitive conditions, per program standards.

PARCELS WITH < 100 ENROLLED ACRES: 50% or more of the parcel's enrolled acres need to be composed of significant and sensitive conditions, per program standards.

Significant and Sensitive Conditions:

- Ecologically Significant Treatment Areas (ESTAs)
- Steep slopes ≥ 35%
- Site IV lands, and
- Special places and sensitive sites.

**Examples
< 100 acres**
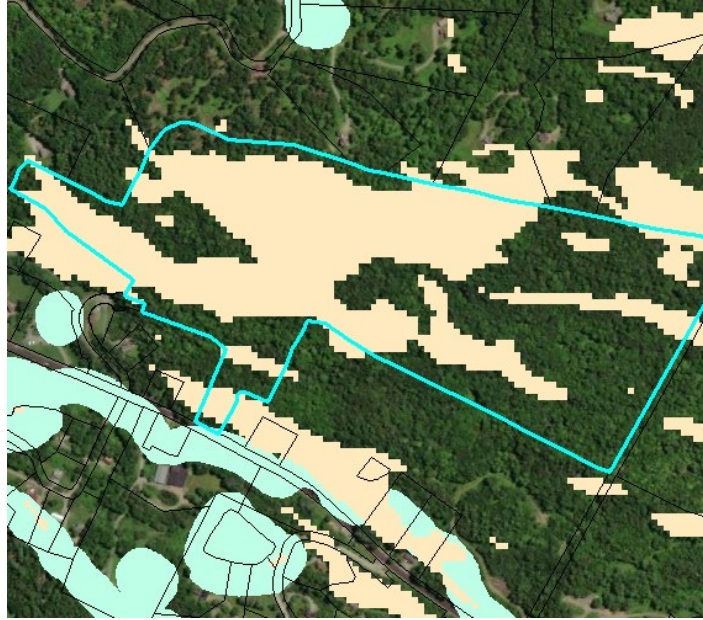
Eligible example:

85 enrolled acres (all forest)
53 acres significant sensitive
conditions (all steep slope)

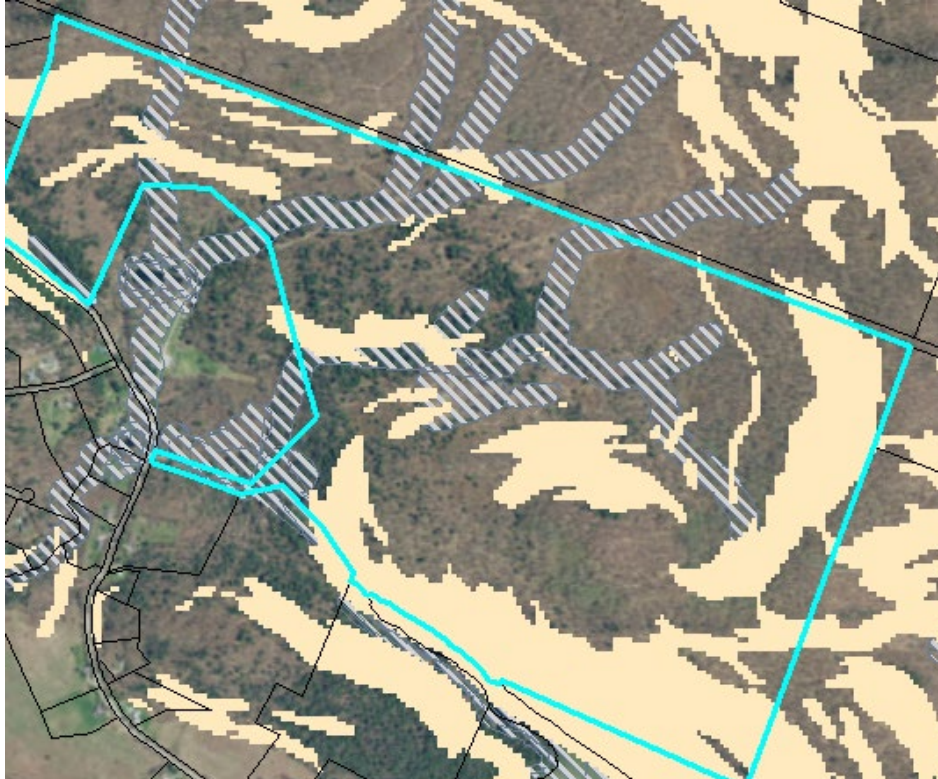62% significant sensitive conditions.

Ineligible example:

71 enrolled acres (forest + ag)
24 acres significant sensitive
conditions (steep slope + riparian)

33% significant sensitive conditions

Examples > 100 acres

Eligible example:

365 enrolled acres (all forest)
162 acres significant sensitive conditions (riparian + steep slope)

44% significant sensitive conditions.
Eligible > 30%

Ineligible example:

174 enrolled acres (forest + open)
18 acres significant sensitive conditions (riparian)

10% significant sensitive conditions.
Ineligible < 30%

Key elements of the process:

- 2021 Reserve Forestland Report
- Internal working group
- Private Lands Advisory Committee
- Reserve Forestland website and associated announcement.
- November 4, 2022, input meeting
- November 30, 2022, input meeting
- Current Use Advisory Board
- Property Valuation and Review
- One on one conversations

Standards Development Process

Plan Standards

These standards define what must be included in a forest management plan to satisfy Use Value Appraisal Requirements.

Existing Requirements

- Existing standards used to describe Productive Forestland also apply to Reserve Forestland. *Examples include requirements to inventory the forest, 10-year plan updates, description of forest stands and a schedule of proposed management and more.*

Adapted Stand Description Elements

- Specificity and new descriptive requirements were added for Reserve Forestland to improve the relevance of plan data for evaluation of opportunities and barriers to attainment of old forest characteristics and associated values and functions.

  - *Added specificity: regeneration, invasive plants, diameter distribution.*

  - *New Requirements: natural community type, deer browse, coarse woody material and others.*

Prescriptions

- The forest management prescribed, whether passive or active, must result in the accrual and protection of old forest characteristics.

Map Standards

Existing standards and additional requirements for acreage charts apply
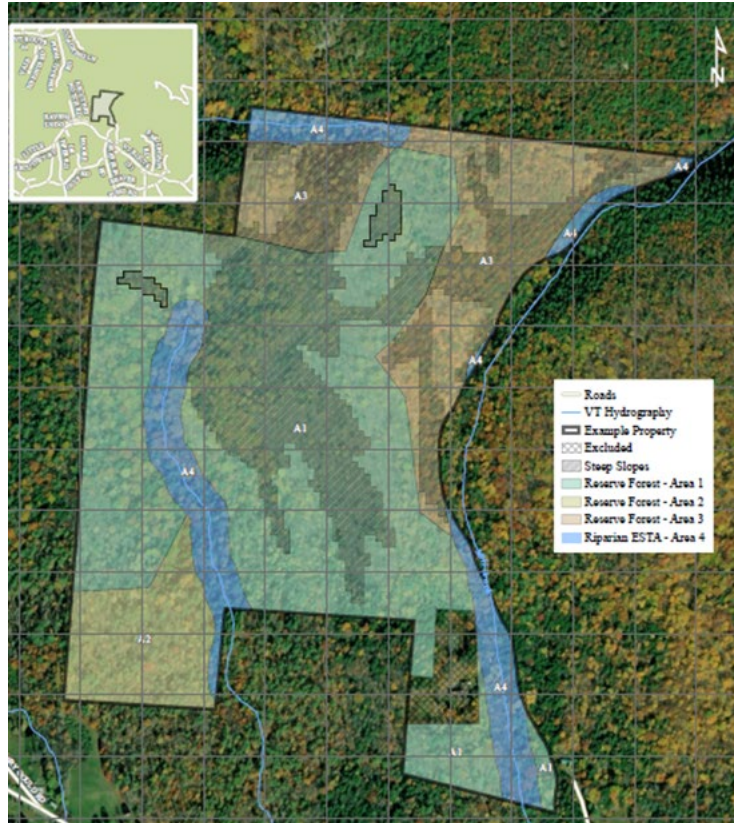
Sample Acreage Chart for Enrollment of Reserve Forestland

Area	Description	Mapped Acres	Prorated Acres	Mapped Significant Sensitive	Prorated Significant Sensitive
1	Reserve Forestland Stand 1 (inclusive of Steep Slope) – Northern Hardwoods	79	83.1	25.6	*27
2	Reserve Forestland Stand 2 (inclusive of Steep Slope) – White Pine-Northern Hardwoods	11.4	12	0	*0
3	Reserve Forestland Stand 3 (inclusive of Steep Slope) – Hemlock-Northern Hardwoods	30	31.5	15.2	*16
4	Riparian Area	17.6	18.5	17.6	18.5
	Total Forestland	**137.9**	**145.2**		
	Total Agricultural Land		**0**		
	Total Enrolled Land	**137.9**	**145.2**		
	Total Significant & Sensitive + Steep Slope Overlay			**58.4**	**61.5**
	Excluded Acres		4		-
	Grand List Acres		149.2		

*Steep Slope Contribution
(Prorate Factor = 1.05)

Sample Reserve Forestland Eligibility Chart

Reserve Forestland Chart	Acres	Percent
Total Enrolled Land (Forestland + Agricultural Land)	145.2	
Total Significant & Sensitive	61.5	
% of Total Enrolled Comprised by Significant and Sensitive		42.4%

Management Standards

Reserve Forestland must be managed with a primary purpose of accrual and protection of old forest functions, values, and associated characteristics.

Restoration
- Water quality practices
- Invasive plants

Required acceleration of old forest characteristics
- Plantations and monocultures

Limits on salvage of fallen trees and collection of sap

Management may include active or passive management, inclusive of the range of silvicultural strategies when consistent with all other standards.

Transitioning Enrollment

Eligible Parcel **+** Plan + Map Approved by County Forester **=** Transition of Enrollment

When Land Isn't Eligible for Reserve Forestland:

Management of land in the Productive Forestland category is compatible with management for old forest characteristics.

Implementation Process

Implementation Step	January	February	March	April	May	June	July
Application Process							
Eligibility Resources							
Outreach Materials							
Forester Trainings							
Landowner Workshops							
Stewardship Outreach							
Category Launch							

Resources made available:

- Reserve Forestland website: https://fpr.vermont.gov/forest/uva-reserve-forestland

- Enrollment category standards and relevant publications

- Quick assessment Vermont Natural Resources Atlas Significant Sensitive Theme

- Digital mapping layers

- Acreage calculation templates

- Updated UVA brochure

- New Reserve Forestland overview brochure

- Landowner and consulting forester webinars

Search

Passive Pathway to Old Forests

Keith Thompson

Age of many forests in New England and New York

Old-growth characteristics develop through natural stand dynamics

Large-tree benchmark conditions reached

Continued development of old-growth characteristics through natural stand dynamics

0 10 20 30 40 **50** 60 70 80 **90 100 110** 120 130 140 **150** 160 170 180 190 **200** 210 220 230 240 **250+**

FOREST AGE (YEARS)
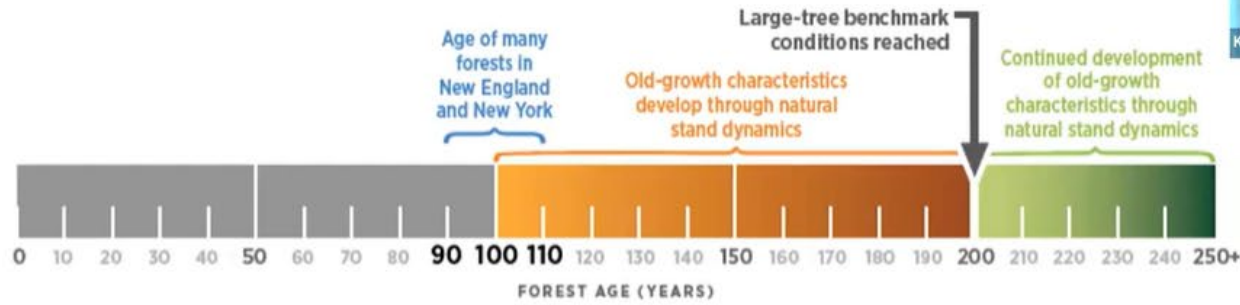
Adapted from Hagan and Whitman (2004)

Active Pathway to Old Forests

Age of many forests in New England and New York

Old-growth characteristics develop primarily through active management

Large-tree benchmark conditions reached

Continued development of old-growth characteristics through a combination of active management and natural stand dynamics

0 10 20 30 40 **50** 60 70 80 **90 100 110** 120 130 140 **150** 160 170 180 190 **200** 210 220 230 240 **250+**

FOREST AGE (YEARS)

D'Amato, A., & Catanzaro, P. (2022) Restoring Old-Growth Characteristics to New England's and New York's Forests. The University of Vermont and UMass Amherst.

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Current Interest

ESTIMATED ELIGIBILITY

	Acres	Parcels
UVA Enrolled	532,602	2,403
Potentially Eligible: Not Enrolled	158,581	1,717
Total	**691,183**	**4,120**

ENROLLMENTS IN PROGRESS

	Acres	Parcels
UVA Enrolled	350	6
Eligible -Not Yet Enrolled	630	6
Total	**980**	**12**

Next Steps

- Integrate Reserve Standards into broader UVA manual (in progress).

- Monitor Reserve Forestland adoption during 2024 update cycle and track enrollments.

- Contribute to additional reports required by Act 146:
  - UVA valuation report due December 2024
  - Assessment of Reserve Forestland enrollment due 2026

- Continue to leverage UVA to advance the critical economic, ecological, and cultural benefits that private forestland provides to Vermont.