# Clarifications to Old Forest Ecologically Significant Treatment Areas (ESTAs) Eligibility in Use Value Appraisal Program

Approved by Commissioner Snyder May 7, 2021

## Context:

Effective immediately, the Old Forest Ecologically Significant Treatment Areas described on page 34 in the Minimum Standards for Forest Management and Regeneration, effective April 1, 2010 and by authority established by 32 V.S.A. § 3755, are revised to clarify what lands may be eligible for enrollment in this subcategory.

## Revised Standards:

Criteria for Old Forest: Old forests are biologically mature forests, typically in late-successional stages of development, having escaped stand-replacing disturbance for more than 100 years and exhibiting limited evidence of human-caused disturbance beyond ecological management emulating old forest conditions. Most forestland in Vermont has experienced some level of human caused disturbance, however those areas identified as old forest shall have well developed structural characteristics of an old forest. Old forests exhibit the following characteristics: 1) native tree species characteristic of the forest type or natural community present in multiple ages; and 2) complex stand structures including a broad distribution of tree diameters, multiple vertical vegetative layers, abundant coarse woody material (reflecting the diameters of the standing trees) in all stages of decay, numerous large standing dead trees, and when old forest patches are sufficiently large, natural canopy gaps. Most forest types exhibiting these characteristics will have trees exceeding 150 years old, though some forests may develop these conditions at different times. For instance, they may develop earlier in balsam fir (100 years), or later for Eastern hemlock (200 years).

Process for Identifying Old Forests: Land to be enrolled as an ESTA based on its eligibility as old forest, shall be identified and mapped by a plan preparer. These areas shall be included in the forest management plan for approval by the county forester, along with a reasonable justification for the proposed management and appropriate documentation of the forest condition which may include species lists, plot data, age class distribution, description of structural characteristics reflecting old forest conditions, and tree core data describing ages for the older trees in the forest.

**Note:** *Precise, diagnostic measures for any attribute are intentionally omitted; however, examples for some forest types and regions can be found in Tyrell and Crow, 1994, Ecology (75)2; Old Growth Forests: A Literature Review of the Characteristics of Eastern North American Forests, Lapin, 2005 Vermont Natural Resources Council and Hunter and White, 1997, Natural Areas Journal (17)4.*

## Previous Standards:

**Criteria for Old Forests:** Old forests are biologically mature forests, typically in late-successional stages of development, having escaped stand-replacing disturbance for more than 100 years and exhibiting ~~minimal~~ limited evidence of human-caused disturbance beyond ecological management emulating old forest conditions. Most forestland in Vermont has experienced some level of human caused disturbance, however those areas identified as old forest shall have well developed structural characteristics of an old forest. ~~In addition, these~~ Old forests ~~also~~ exhibit ~~many of~~ the following ~~associated~~ characteristics: 1) ~~some trees exceeding 150 years old for most forest types (100 years old for balsam fir, 200 years old for Eastern hemlock);~~ ~~2~~1) native tree species characteristic of the forest type or natural community present in multiple ages; and ~~3~~2) complex stand structures ~~that~~ include~~e~~ing a broad distribution of tree diameters, multiple vertical vegetative layers, ~~natural canopy gaps,~~ abundant coarse woody debris (reflecting the diameters of the standing trees) in all stages of decay, ~~and~~ numerous large standing dead trees~~.~~, and when old forest patches are sufficiently large, natural canopy gaps. Most forest types exhibiting these characteristics will have trees exceeding 150 years old, though some forests may develop these conditions at different times. For instance, they may develop earlier in balsam fir (100 years), or later for Eastern hemlock (200 years). ~~Although some old forests may be part of significant natural communities, other eligible old forest examples may be small or in fragmented landscapes and, therefore, might not otherwise qualify as significant natural communities.~~

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