UVA Eligibility Revisions - Forestland (November 4, 2008 Draft)

The following proposed revisions to Use Value Appraisal (UVA) eligibility are in response to Act 205, new legislation relating to the Use Value Appraisal Program, passed by the Vermont Legislature in 2008. These proposed revisions specifically address Ecologically Significant Treatment Areas (ESTA), lands actively managed for timber by standards other than the USDA Silvicultural Guides and Site IV ("non-productive forests") lands.

Definitions

A forest parcel must be a minimum of 25 acres (2 additional acres are necessary for each dwelling, camp or mobile home), under an approved ten-year forest management plan in compliance with current UVA standards.

Parcel means all contiguous land in the same ownership regardless of the number of deeds. It may be bisected by a highway, right-of-way, town line, river or power/pipeline, and it may contain a building, dwelling or building lot that is excluded from UVA. But it is held by the same owner(s) who have the rights to make decisions about and manage the vegetation on that property.

A parcel must have a minimum of 20 acres of land under active forest management to be eligible.

A natural community is an interacting assemblage of plants, animals and other organisms, along with the specific physical environment (bedrock, soils, slope, elevation, etc.) in which they occur and the natural processes that affect them. The Vermont Fish and Wildlife Department has classified over 80 natural community types in Vermont, ranging from Northern Hardwood Forest, to Northern White Cedar Swamp, to Alpine Meadow. Natural community types are categorized according to their rarity and the typical size at which they occur. Each example of a natural community type is evaluated based on its size relative to other examples of that type, the condition of the natural community and the condition of the surrounding landscape.

The Vermont Fish and Wildlife Department's Nongame and Natural Heritage Program is responsible for classifying, mapping, and tracking significant natural communities and populations of rare, threatened and endangered species. The Department currently has information on approximately 1,500 significant natural communities and 4,700 populations or rare species statewide.

Alternative management is defined as management for human and ecological needs (usually raising and harvesting timber products) that makes special treatments or allowances outside of the usual practices to protect ecosystem values.

PART I - UVA Eligibility Criteria for Ecologically Significant Treatment Areas (ESTA)

Management for all these areas need not include regular timber harvesting, but may require management to maintain habitat, control invasive species or restore degraded conditions.

1. Natural Communities of Statewide Significance

Criteria for natural communities: A forested natural community that meets the Vermont Fish and Wildlife Department (FWD) standards for statewide significance or is previously mapped by FWD using these standards is eligible for enrollment as an ESTA. State-significant natural communities are as follows:

- S1 or S2 natural community types, with an occurrence rank of A, B or C (see definitions below [1])
- S3 natural community types with an occurrence rank of A or B
- S4 and S5 natural community types with an occurrence rank of A

Process for identifying natural communities: State-significant forested natural communities that have already been identified and mapped by FWD may be enrolled in UVA based on County Forester approval of the management plan and field mapping by a consulting forester or ecologist. State-significant forested natural communities that have not currently been mapped by FWD must be identified and mapped by a consulting forester or ecologist with documentation (using FWD standards) provided to FWD for FWD confirmation prior to submission to the County Forester. Once confirmed by FWD, these new state-significant forested natural communities may be enrolled in UVA as ESTAs based on County Forester approval. Any Site IV non-forested natural communities, whether they are state-significant or not, may be enrolled in UVA based on County Forester approval.

Note: In general, most state-significant S4 and S5 forested natural communities can be actively managed to maintain their occurrence rank of A. These examples should be included in adaptive active management category along with significant wildlife habitat. In special cases, state-significant S4 and S5 forested natural communities may be approved as ESTAs by County Foresters.

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[1] Vermont Fish and Wildlife Department, Nongame and Natural Heritage Program definitions of rarity ranks and occurrence ranks:

Rarity ranks describe how rare a species or natural community is in Vermont:

- S1: very rare (generally 1-5 occurrences statewide for plants and animals)
- S2: rare (generally 6-20 occurrences statewide for plants and animals)
- S3: uncommon (generally more than 20 occurrences statewide for plants and animals)
- S4: apparently secure
- S5: demonstrably secure

Occurrence ranks describe the overall quality of a plant or animal population or natural community example:

- A: excellent viability and integrity
- B: good viability and integrity
- C: fair viability and integrity
- D: poor viability and integrity

2. Rare, Threatened and Endangered Species

Criteria for species: A rare (S1 or S2), state threatened or state endangered species that has been mapped by FWD or that are identified on properties and meet the mapping standards of FWD. Threatened and Endangered species are protected by Vermont's Endangered Species Law (Title 10 V.S.A. Chapter 123).

Process for identifying rare, threatened and endangered species: Occurrences of rare, threatened and endangered species that have already been identified and mapped by FWD may be enrolled in UVA based on County Forester approval of the management plan and field mapping by a consulting forester or ecologist. Occurrences of rare, threatened and endangered species that have not currently been mapped by FWD must be identified and mapped by a consulting forester or ecologist with documentation (using FWD standards) provided to FWD for FWD confirmation prior to submission to the County Forester. Once confirmed by FWD, these new occurrences of rare, threatened and endangered species may be enrolled in UVA as ESTAs based on County Forester approval. The size of areas to be enrolled to protect rare, threatened and endangered species habitat shall be based on FWD consultation and shall be the minimum size necessary to protect the subject species. Management recommendations shall be developed on a case-by-case basis.

3. Riparian Areas

Criteria for ESTA riparian areas: Most riparian areas are well suited for active forest management and a clear justification will be needed for them to be approved as ESTAs. Riparian areas that have characteristics making them ecologically inappropriate for timber harvesting may be enrolled as ESTAs. The lands adjacent to streams, rivers, lakes and ponds are specialized ecological areas that provide numerous functions, including protecting water quality and aquatic habitat, providing terrestrial wildlife travel corridors, supporting significant natural communities and adjacent wetlands and protecting channel-forming processes and channel stability. Riparian areas are generally managed according to AMPs to protect surface waters from harmful discharges, but some riparian zones may deserve special treatment to protect riparian functions. Factors to consider in evaluating the need for and width of riparian ESTAs include existing condition of the riparian area, stream channel size and character, steepness of slope, characteristics of soils, nature of special aquatic habitats, presence of concentrated terrestrial wildlife use, presence of seeps or other wetlands, presence of floodplains or other rare to uncommon shoreline natural communities and presence of streams requiring special protection for maintaining channel stability.

Process for identifying riparian areas: Consulting foresters or ecologists shall identify and map riparian areas to receive special treatment in forest management plans. A reasonable justification of the ecological need and needed width of riparian ESTAs shall be provided to the County Forester. Appropriate riparian ESTAs are eligible for enrollment in UVA based on County Forester approval.

4. Vernal Pools with Amphibian Breeding Habitat

Criteria for vernal pools: Vernal Pools are small (generally less than one acre), ephemeral pools that occur in natural basins within upland forests. Vernal pools typically have no permanent inlet or outlet streams and have very small watersheds. These temporary pools generally last only a few months (at least 2½ months) and then disappear by end of summer, although some pools may persist even longer in wet years. During their dry period, vernal pool depressions may be recognized by sparse vegetation, by stained leaves marked by seasonal high water and by soils that have more wetland characteristics than do the surrounding upland soils. The periodic drying means that there are no fish in vernal pools, but there is a unique assemblage of species that typically includes specialized insects (caddis flies), mollusks (fingernail clams) and other invertebrates (fairy shrimp), as well as amphibians (spotted salamanders) and sparse vegetation. Vernal pools typically lack trees but are shaded by trees growing in the surrounding upland forest. The vegetation that grows in vernal pools is highly variable in composition and abundance, although most pools have low abundance of herbs and shrubs. Vernal pools are considered an uncommon (S3) natural community type and those with an occurrence rank of A or B are considered state-significant by FWD. These state-significant vernal pools provide important amphibian breeding habitat. State-significant vernal pools – along with a 100-foot protective buffer from the pool edge – are eligible for enrollment as an ESTA in UVA. In addition to the 100-foot protective buffer, it is recommended that forest management in the 100- to 600-foot zone from the pool edge apply the forestry guidelines developed by FWD and FPR for vernal pools in order to maintain canopy cover, minimize creation of ruts from heavy machinery and avoid direct mortality of migrating amphibians.

Process for identifying vernal pools with amphibian breeding habitat: State-significant vernal pools that have already been identified and mapped by FWD may be enrolled in UVA based on County Forester approval of the management plan and field mapping by a consulting forester or ecologist. State-significant vernal pools that have not currently been mapped by FWD must be identified and mapped by a consulting forester or ecologist with documentation (using FWD standards) provided to FWD for FWD confirmation prior to submission to the County Forester. Once confirmed by FWD, these new state-significant vernal pools may be enrolled in UVA along with a 100-foot protective buffer based on County Forester approval.

5. Forested Wetlands

Criteria for forested wetlands: Forested wetlands that have characteristics making them ecologically sensitive to timber harvesting may be enrolled in UVA as ESTAs. These characteristics include, but are not limited to, deep organic soils, presence of groundwater seepage that prevents freezing of organic soils, presence of spring flooding from an adjacent river or lake and well-developed hummock and hollow microtopography. Logging in these situations may create significant soil rutting that alters the wetland hydrology, change flood flows or alter microhabitats that changes species composition and diversity.

Note: Forested wetlands that are state-significant natural communities may qualify to be enrolled in UVA under the natural community criterion of the ESTA group. Non-forested wetlands and forested wetlands that do not produce 20 cubic feet of wood per acre per year may be enrolled in UVA under the Site IV soils category.

Process for identifying forested wetlands: Consulting foresters or ecologists shall identify and map forested wetlands to receive special treatment in forest management plans. A reasonable justification of the need for special treatment of sensitive forested wetlands shall be provided to the County Foresters. Sensitive forested wetlands may be enrolled in UVA based on County Forester approval.

6. Old Forests

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 evidence of human-caused disturbance. In addition, these 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) native tree species characteristic of the forest type present in multiple ages; and 3) complex stand structures that include 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. 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.

Note: Precise, diagnostic measures for any attribute are intentionally omitted; however, examples for some forest types and regions can be found in the literature (see 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.

Process for identifying old forests: Old forests shall be identified and mapped by a consulting forester or ecologist. These areas shall be included in the forest management plan for approval by the County Forester, along with appropriate documentation of the forest condition, including species lists, plot data, age class distribution and tree core data describing ages for the older trees in the forest.

PART II - Lands actively managed for timber but with latitude to be managed by guidelines other than the USDA Sivlicultural Guides (not enrolled as ESTAs and not included in the 20% ESTA enrollment cap).

7. Special Places and Sensitive Sites

Criteria for special places and sensitive sites: Unique geologic, cultural, historic and archeological sites. Examples include waterfalls, gorges, eskers, cemeteries, evidence of historic quarries, homes or mills and Native American sites.

Process for identifying special places and sensitive sites: Special places and sensitive sites shall be identified and mapped by a consulting forester and presented in the forest management plan. A reasonable justification shall be provided for the proposed sensitive site management prescription. UVA enrollment of special places and sensitive sites is based on County Forester approval and may include minor buffering and adaptation of the USDA Silvicultural Guides.

8. Significant Wildlife Habitat

Criteria for Wildlife Habitat: Wildlife habitat mapped as significant by FWD and recently documented as functional and significant or meeting FWD standards for significance, may be enrolled in UVA without a primary purpose of timber production. These include but are not limited to: deer wintering areas, concentrated areas of American beech, oak, and cherry; bat habitats; wildlife corridors and heron rookeries. Forest management in significant wildlife habitat areas shall be based on FWD and FPR management or mitigation guidelines for these habitats, as well as the professional judgment of the County Foresters and consulting foresters and biologists. In general, active forest management that enhances the specific habitat attribute is recommended in these areas over the standard USDA Silvicultural Guides.

Process for identifying significant wildlife habitat: Significant wildlife habitat shall be identified and mapped by a consulting forester or wildlife biologist and presented in the forest management plan. A reasonable justification for the proposed habitat management prescription shall be provided to the County Forester. Treatments for these habitats are designed for primary purposes of maintaining and enhancing the value of the habitat, rather than for production of repeated forest crops. UVA enrollment of lands with such habitats and purposes is based on County Forester approval.

PART III - Site IV and Open Land

9. Site IV

County foresters may grant enrollment exceptions for Site IV lands greater than 20% of the total parcel, not ranked as an ESTA or considered as eligible open lands based upon site index or soils maps. (Site IV is defined as land that is not capable of growing 20 cubic feet of timber volume per acre per year using soil maps, growth calculations or site index curves.) Site IV may also include:

a. Land over 2500 feet in elevation with slopes greater than 20%.
b. Rock outcrops, ledges.
c. Beaver ponds and other water bodies less than 20 acres in size.

10. Open Land

Open land, not to be reforested, in excess of 20% of the total parcel, which is mowed no more than twice a year but at least once every two years.

11. Miscellaneous

County foresters can use discretion in allowing timber management exclusions of any areas less than one acre for bona fide protective purposes such as vernal pools, seeps or hibernacula protection and cultural/historic resources. County foresters continue to have the latitude to accept creative silvicultural practices to manage for specific wildlife habitats.

In all circumstances, areas qualifying for UVA under all categories will appear on an approved map, need a detailed description of site characteristics, values being protected and a management strategy covering a ten-year period that also describes the status and condition of the resources.

Under no circumstances can the total acreage of Ecologically Significant Treatment Areas (ESTA) exceed 20% of Site I-III land on the enrolled subject property.