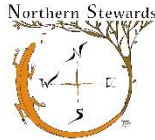


Review of Deer Winter Area and Impacts from the Huntington Homes project at Sylvan Ridge

Submitted May 2021 by

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Summary of findings and Recommendations.

- Major portions of **Lot #9, #10 and #17** are all **mapped as Deer Wintering Area** and considered “RC3”.
- **Direct impacts to Deer Winter Area will occur** with the proposed development.
 - The clearing extent and anticipated loss of Deer Wintering Area for Lot #9 and Lot#10 is a mapped (GIS) 1.84 acres.
- **Indirect impacts to Deer Winter Area will occur** within 300’ of the proposed development
 - A 300’ buffer from the clearing extent constitutes an indirect impact on deer using the wintering area. This is mapped (GIS) as 16.25 acres.
- The **remaining lot#17 +/- 44.9 acres is also mapped Deer Wintering Area**, not impacted or within the buffer areas and provides similar benefits to areas impacted.
- **Mitigation of impacted areas of 2:1** is recommended and amounts to **36.18 acres**.
- **Conserving the remaining Lot#17** with a local land trust is recommended to mitigate impacts to Deer Wintering Area

Background

Huntington Homes is proposing to develop Lot#9 and Lot #10 at Sylvan Ridge in Richmond, VT with single family residences. Both house sites are located within and part of a 1,693 acre State Mapped Deer Wintering Area and the majority of the remaining 44.9 acre Lot, Lot #17, is also mapped as DWA. The Lots are also all considered part of Priority Forest Interior Blocks and Priority Connectivity Blocks.

The removal of trees within a deer winter area in a way that reduces cover attributes is considered a direct impact to the Deer Winter Area. Clearing Lot #9 and Lot #10 constitutes a reduction, of cover and is therefore considered a Direct Impact to 1.84 acres of Deer Wintering Area. Indirect Impacts occur in areas of Deer Wintering Area within 300’ of a direct impact. Clearing Lot #9 and Lot#10 therefore also constitutes an Indirect Impact of 16.25 acres of Deer Wintering Area.

Project Review

I visited the project site on May 19th 2021 with Jason Barnard. We visited the proposed house sites, (#9 and #10), walked between and within these proposed parcels and then walked through the remaining undeveloped forest land to the south west and assessed the condition of the cover. I then reviewed the project using available GIS data and Habitat recommendations.

Habitat Conditions

The DWA condition within the property is considered variable and moderate to good. Eastern and northern portions include an overstory of white pine and red pine, likely planted as far back as the 1940's. Some thinning occurred roughly 30 year ago. Overstory is tall, mature but not necessarily closed. The midstory is considered well developed as eastern hemlock and pine poles and together, this is considered good cover. Very little food resources are available here as overstory conditions are closed and shaded, preventing food resource development. Hemlock saplings are scattered around with little evidence of browse occurring on these stems suggesting this site, while offering excellent cover is not used extensively by browsing deer.

We left Lot #9 and Lot #10 to explore lot #17: the remaining lot. Habitat conditions here include hemlock of all size classes and hardwoods. Overstory canopy coverage is considered variable and moderate in places to excellent in western areas where hemlock constitutes a larger percentage of the composition. Browse on hemlock needles and hardwood buds is more abundant and throughout suggesting feeding is more frequent in Lot #17 than in areas within and around Lot #9 and Lot#10. Habitat conditions throughout are considered to be RC3 (Resource Category 3: high to medium value, relatively scarce or becoming scarce regionally).

Minor amounts of recreation exists within the area. A lightly used bike trail is present as is light foot traffic. Use of these trails is likely limited to residents of Sylvan Ridge.

Mitigation

The Guidelines for the Review and Mitigation of Impacts to White-Tailed Deer Winter Habitat in Vermont (1999, VTFWD) provides an excellent framework for assessing habitat conditions and identifying mitigation strategies to direct and indirect impacts.

This reference provides a process for identifying habitats, impacts, and potential mitigations. The following is based off these Guidelines and modified to the applicable projects.

III. Procedure

6.

- A. ii. It is assumed that no other alternative exists for the building lots.
- B. iii. The Resource is considered RC3.
- C. iii The "applicant" is willing to apply all feasible and reasonable mitigation strategies

IV.

- A. This is a Direct and Indirect Impact residential project. An on-site 2:1 mitigation strategy is recommended to be applied. Meaning, where 1.84 acres of direct impact and 16.25 acres of indirect impact to DWA are anticipated to be impacted, a minimum of 36.18 acres of DWA should be protected and managed in perpetuity that provide similar benefits.

A Habitat Management Plan must be prepared and followed for the protected acres that protects Deer Winter Area in Perpetuity.

- B. The areas to be protected should be placed under a conservation easement and held by an accredited Land Trust and ownership transferred to an HOA or a Land Trust.
- C. No further subdivision of the remaining DWA on the applicant's property can occur and expressed in deeds
- D. No softwood trees within the protected DWA property should be removed unless the habitat management plan recommends it.

- E. The following language should be incorporated as covenant into all applicable deeds:

Each landowner is hereby put on notice that this development is in the immediate vicinity of a deer wintering area. Domestic dog activity seriously jeopardizes this critical habitat and the existence of the deer in this area. A person who owns a dog that is not leashed, kenneled or otherwise under the owner's immediate control is subject to the penalties of 10 V.S.A. section 4748 (Dogs Pursuing Deer) and section 4514 (Possession of Flesh of Game)

As an alternative, the easement, management plan and or HOA bylaws may include similar language that achieves the same outcome: that dogs do not harass, chase or otherwise impact deer using winter habitats.

- F. On remaining DWA within Lot 17, a mechanism restricts cross country skiing, winter hiking, snowmobiling and other winter recreation in a way that protects deer winter areas should be created in the habitat management plan, easements and or HOA bylaws. This may include prohibiting using certain trails, certain activities, or trail creation in specific areas.

G.




Mitigation Summary

The remaining Lot, Lot #17 includes 44.9+/- acres (surveyed) . This lot, if donated to a local land trust, will satisfy mitigation recommendations. The creation of habitat management plan that adheres to C through F above should be part of the permit conditions.




Impact	Type	Description	Acres Impact	Acres recommended for Mitigation
Direct	Lot#9 Lot#10 clearing extent	Direct loss of cover attributes through cutting trees	1.84	3.68
Indirect	300' buffer around clearing extent	A buffer around the development that will impact behavior of deer.	16.25	32.50
Total			18.09	36.18

The habitat management plan should include recommendations made or reviewed by a Licensed Forester and Wildlife Biologist that perpetuate habitat conditions. Within the plan, considerations should be made for allowed uses including recreation, dogs, motorized vehicles, and timber management among others that perpetuate cover attributes and does not impact wintering behavior.

Legend

-  Building Envelope and Clearing Extent
-  ECOLOGIC_DEERWN_POLY
-  VTPARCELS_RICHMOND_2017

Impact

-  Direct Impact
-  Indirect Impact, 300' buffer
-  On Site Mitigation

Map created by Allan Thompson of
Northern Stewards LC, Watebury, VT
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Map prepared: May 2021
Scale: 1:5,000

Not a survey map.
Datum: NAD 83 StatePlane Vermont
FIPS 4400(meters)



Proposed Lot#9 and Lot10
development and impacts
to Deer Wintering Area

1,300 650 0 Feet

Impact	Type	Description	Acres Impact	Acres recommended for Mitigation 2:1
Direct	Lot#9 Lot#10 clearing extent	Direct loss of cover attributes through cutting trees	1.84	3.68
Indirect	300' buffer around clearing extent	Within which deer behavior will be impacted	16.25	32.5
Total			18.09	36.18
Mitigation	As mapped	Purple areas on map, mostly entirely within Lot #7	45.31	
Mitigation	Lot#17	Proposed acres, as surveyd available for mitigation	44.9+/-	