

NUBBLE VEGETATION MANAGEMENT PROJECT APPENDIX D - MITIGATION MEASURES

The generally applicable Forest and Management area-wide Standards and Guidelines listed in the Forest Plan in sections III and appendix VII B:18-22 and state Best management Practices (BMPs) are applicable to all action alternatives.

The following table contains mitigation actions for each alternative that are discussed in Chapter III under each major resource area. Chapter III covers the effectiveness of these mitigation actions. The purpose of this table is for a listing of actions to be carried into project implementation, hence the location, responsible position, and timing will add understanding and assign accountability. Date accomplished will be used as a checklist and filled in during implementation. References for actions are shown as links to where they originated in the Forest Plan or the Nubble EA. All units that need mitigation can be found under the location column. Check the alternative maps to see which units are in an alternative

The following key is used to describe the type of mitigation action being used and is shown in boldface following the actions (in some sections the actions are abbreviated see EA Chapter reference for more detail):

Avoidance - Avoid the impact altogether by not taking a certain action or parts of an action.

Minimize - Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

Rectify - Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

Maintenance - Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.

Monitor - Evaluate effects of an action

APPENDIX D - MITIGATION MEASURES

Resource	Location	Mitigation Action & Type	Responsible Position	When To Accomplish	Date Accomplished/ By Whom
Wildlife	All Units	Retain mast producing beech trees heavily used by black bear unless a safety hazard, or located in regeneration units. Avoidance	Timber Markers	During marking	
Wildlife	All Units	Retain existing large downed woody material in proposed harvest units on the forest floor where feasible. Avoidance	Timber Markers	During marking	
Wildlife	All Units	All action alternatives would retain snags per USFWS BO Terms & Conditions and Forest Plan TES Amendment for the protection of Indiana bat unless a safety hazard. If snags are felled, retain as large woody material on the ground. Avoidance	Timber Markers	During marking	
Wildlife	Project Area	All action alternatives are consistent with applicable standards and guidelines outlined in the Canada Lynx Conservation Assessment and Strategy for the maintenance of suitable lynx habitat. ?	Wildlife Biologist	Project planning & implementation	
Wildlife	Sale area as applicable	All action alternatives would use non-invasive seed mix and straw mulch (where and when available) and as needed to prevent the introduction of invasive exotic plant species during revegetation closure work. Minimize	Sale Administrator	During implementation	
Aquatic	All Units	Large coarse woody material on the ground in riparian area and outside of harvest units shall be left in place for amphibian and reptile habitat. Winter harvesting where feasible. Avoidance	Timber Markers/Sale Administrator	During marking	
Aquatic	Sale area as applicable	Designate major skid trails and minimize the number of stream crossings. Minimize	Sale Administrator	During implementation	
Aquatic	Project Planning	Winter Harvesting where feasible. Minimize	Silviculturalist	Project planning & implementation	
Heritage	All Units	Project layout will insure avoidance of known cultural sites with the exception of the Little River Railroad grade. Avoidance	Sale Layout Technician	Project layout	
Heritage	Compartment 19, Stand 5	The Little River Railroad (historic railroad grade) may be crossed by skid trails. However, this will be done over snow and frozen ground conditions to minimize impacts. Crossings will be at right angles to the trail to minimize the chance of ground disturbance to the resource. Minimize	Sale Administrator	During implementation	
Heritage	Project Area	If, in the course of any project activities, previously unknown sites or artifacts are located, activities will stop immediately in that location. The district heritage	Sale Layout Technician, Sale Administrator	Project layout, During implementation	

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		paraprofessional and Forest archaeologist will be called in to evaluate the finds and make recommendations on how to proceed. Minimize, Avoidance			
Heritage	Compartment 19, Stands 5, 45,46,57, Compartment 20, Stands 41 & 49	Units adjacent to known cultural sites will be logged on frozen ground to help protect historic values associated with the sites. Minimize, Avoidance	Sale Layout Technician, Sale Administrator	Project layout, During implementation	
Recreation	Compartment 19, Stands 16,17,58,62,63, Compartment 20, Stands 12,13,15,16,20,21,24,32 & 35	Minimize the number of skid trail crossings of the Beaver Brook Cross Country Ski trails and the Haystack Connector Snowmobile Trail (State Corridor Route 11) to minimize the impact to the trails and users. Minimize	Sale Administrator	During implementation	
Recreation	Compartment 19, Stands 16,17,58,62,63, 70, Compartment 20, Stands 12,13,15,16,20,21,24,32 & 35	Where skid trails do cross ski or snowmobile trails, and logging may occur during the winter season, warning signs will be posted at the entrance to the affected section of trail, snowmobile speeds will be restricted to 10 mph approaching skid trail crossings, and stop sign will be installed at the skid trail, ski/snowmobile crossings. A stop sign/warning sign will be posted 250 ft prior to the skid trail crossing. Where trees are to be felled within 200 ft of an active trail the timber purchaser will post flag persons to control traffic and insure safety for the trail users. Minimize	Sale Administrator	During implementation	
Recreation	Beaver Brook Trail, Haystack Connector	Winter use trails will be closed during other seasons when logging is occurring. Avoidance	Sale Administrator	During implementation	
Recreation	Beaver Brook Trail, Haystack Connector, Gale River Trail, North Twin Trail	Signs will be posted at trail-heads to explain the possible interruption or modification of trail use. The objectives and benefits of the timber sale will be explained as part of that message. Minimize	Sale Administrator/Trails Coordinator	During implementation	
Recreation	Sale Administration Folder	A signing plan will be developed that lists the conditions which require signs to be posted and shows the location where signs are to be posted. The plan will be covered in the pre-work meeting with the purchaser. The sale administrator will obtain the required signs and have them available for the purchaser to post when as needed. Minimize	Sale Administrator	During implementation	
Recreation	Rt 25 and By-pass	Snowmobiles will be restricted from using Forest Road 25 during hauling. Snowmobiles will be rerouted along the existing snowmobile by pass (map ?), which parallels Forest Road 25. This includes bypassing the west end of the Haystack Connector for approximately ¼ mile. Avoidance	Sale Administrator/trails Coordinator	During implementation	
Recreation	FR 25 & 304	During winter operations, signs indicating "No Snowmobiling" will be posted at all entry points to Forest Roads 304 and 25. These signs would be required by the sale contract. Coordination with snowmobile clubs will occur prior to sale activity. This coordination would be required in the sale contract.	Sale Administrator/Trails Coordinator	During implementation	

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		Avoidance			
Recreation	compartment 19, stands: 42, 44, 58, 70, 71, 73, 99, and compartment 20, stands 20, 21, and 32.	Before Labor Day, summer harvesting may occur on non-holiday weekdays in compartment 19, stands: 42, 44, 58, 70, 71, 73, 99, and compartment 20, stands 20, 21, and 32. Summer hauling and harvesting on the Haystack Road (FR304) and the Gale River Road (FR 25) will be limited to the hours between 8:00 AM and 5:00 PM. Minimize	Sale Administrator/Contract Prep Forester	During implementation	
Recreation	Compartment 19, stands 63, Compartment 20, Stand 24, 67, and 75	During winter harvesting operations in stands 19/63, 20/24, 20/67, and 20/75 will be restricted to non-holiday weekdays between 8:00 AM and 5:00 PM. Minimize	Sale Administrator	During implementation	
Recreation	Compartment 19, Stands 16,17,58,62,63, 70 Compartment 20, Stands 12,13,15,16,20,21,24,32 & 35	Trails will be kept free of slash during and after sale operations as a safety precaution. Minimize	Sale Administrator	During implementation	
Recreation	Compartment 20, Stands 12,13,15,16,20,21,24,32 & 35	Temporary closures (one to three days) will occur along Beaver Brook Ski trails mid-week. Trails will remain open on holidays and weekends. Closures will be posted at the trailheads and both ends of the sections of trail being closed. Avoidance	Sale Administrator/Trails Coordinator	During implementation	
Recreation	FR 25 & 304	Campsites along FR25 and FR304 will be posted to notify campers when logging is in progress. Minimize	Sale Administrator /Developed Rec Tech	During implementation	
Recreation	FR 25 & 304	Warning signs will be posted on FR25 and FR304 when hauling is in progress. Minimize	Sale Administrator	During implementation	
Visual	Roads and Trails	Slash disposal zones and treatment would be as follows: From the edge of the Gale River and Haystack Roads (FR 25 and 304) all slash from purchasers operations would be removed a distance of 50' and lopped to within 3' of the ground for another 50'. From the edge of the Beaver Brook Ski Trails all slash from purchasers operations would be removed a distance of 25' and lopped to within 3' of the ground for another 25'. Minimize	Sale Administrator	During implementation	
Visual	Compartment 19, Stand 45 & 57	Leave a forested buffer around the base of the prominent rock outcrop known as the Nubble. Avoidance, Minimize	Sale Layout Technician	Project layout	
Visual	Compartment 19, Stand 70	Provide a filtered view of the proposed clearcut in stand 70 of compartment 19 along the snowmobile trail. Retain a visual strip by removing an increasing number of trees for a strip 66 feet wide along the trail to meet the VQO. Minimize	Sale Layout Technician	Project layout	
Vegetation	All Treatment Units	Indigenous, minority tree species or beech trees genetically resistant to scale complex would be encouraged in uneven-aged treatments by cutting trees around them that compete for space and resources. In even-aged regeneration treatments.	Sale Layout Technician, Markers and Sale administrator	Sale layout, Marking and Administration	

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		these species would be protected and buffered with a group of other leave trees.			
Vegetation	All Clearcuts and Patch Clearcuts	In clearcuts, a mix of residual trees would be left to improve wildlife habitat, modify the visual appearance of the stand and add diversity to the composition of the future stand. In clearcuts or group selection treatments, where residual understory plants interfere with the germination and development of desirable tree seedlings, a mechanical site preparation treatment would be used to control low shade. If seedlings develop, but are controlled by residual vegetation, a release treatment would be applied by removing some of the interfering woody vegetation.	Sale Layout technician and markers	Sale layout, and Marking	
Vegetation	Project Area	All documented locations of individual Eastern Region 9-listed sensitive species of butternut trees and ginseng and squirrel corn plants would be monitored. If additional listed plants are found during project implementation, the sale administrator would alert the district biologist, and protective measures would be taken.	All Employees	Life of the Project	
Soils & Water	All with no trail conflicts	Winter harvest when and where feasible.	Silviculturist, Sale administrator	Contract formation and Administration	
Soils & Water	Timber Sales	Use designated skid trails and landings.	Sale administrator	Sale Administration	
Vegetation	Timber Sales	Use native vegetation and straw (if available) during revegetation practices per Executive Order 13112, 23/99.	Sale administrator	Sale Administration	