

# TRIPOLI EAST VEGETATION MANAGEMENT PROJECT APPENDIX C - 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 Tripoli East 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 C - MITIGATION MEASURES**

<b>Resource</b>	<b>Location</b>	<b>Mitigation Action &amp; Type</b>	<b>Responsible Position</b>	<b>When To Accomplish</b>	<b>Date Accomplished/ By Whom</b>
<b>Transportation Recreation</b>	Little East Pond Trail East Pond Trail	For public safety, specify in the timber sale contract: when falling or skidding signs alerting users to harvesting activities must be posted. - <b>Minimize</b>	Timber Sale Administrator	Yearly at beginning of operations	
<b>Transportation Recreation</b>	Tripoli Road #30	Specify in the timber sale contract: signs closing the road to snowmobile use Monday through Friday - <b>Avoidance</b>	Timber Sale Administrator	Yearly at beginning of operations	
<b>Transportation Recreation</b>	Tripoli Road between the Hix Mountain Road #31A and East Pond Road #613	Winter log hauling would be limited to non-holiday weekdays (Monday through Friday) on the Tripoli Road between the Hix Mountain Road #31A and East Pond Road #613. From December 15 to March 30, hauling will be restricted to non-holiday weekdays (Monday – Friday) during operations. - <b>Minimize</b>	Timber Sale Administrator	Yearly at beginning of operations	
<b>Soils Fisheries Cultural</b>		Winter harvest where feasible. - <b>Minimize</b>	Timber Sale Administrator		
<b>Soils Water Recreation</b>	Dispersed campsite rehabilitation	Restoration activities on closed sites would occur when soils are not saturated and would provide for drainage and erosion control where needed -. <b>Minimize, Rectify</b>	Permit Administrator	During rehabilitation	
<b>Soils Water Recreation</b>	Dispersed campsite relocation	New, dispersed camping sites would be located on upland areas that have been disturbed through timber harvesting activities. New, sites would be hardened, and drainage would be directed into a stable non-concentrating location.- <b>Mimimize</b>	Permit Administrator	During relocation	
<b>Transportation Recreation</b>	All roads in the sale area	Specify in the timber sale contract that log hauling from July 1 to September 10 be restricted to the weekdays of Monday through Thursday. Also all logging operations be prohibited on the Fourth of July, labor Day, and the days immediately before and after the holidays. - <b>Minimize</b>	Timber Sale Administrator	Yearly at beginning of operations	
<b>Transportation Recreation</b>	Mack Brook Road #609 and all payment units accessed by this road	Specify in the timber sale contract that all logging operations be prohibited on the Fourth of July, labor Day, and the days immediately before and after the holidays. – <b>Avoidance</b>	Timber Sale Administrator	Yearly at beginning of operations	

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<b>Transportation Visual</b>	Payment units 1,2,4,5,6,7,15	Specify in timber sale contract: slash disposal zones and treatment would be as follows: From the edge of the Tripoli Road (NFSR 30) and the East Pond Trail and the Little East Pond Trail (#'s 366 and 367) all slash from purchasers operations will be removed a distance of 50' and lopped to within 3' of the ground for another 50'. - <b>Minimize</b>	Timber Sale Administrator	Before closure of the payment unit.	
<b>Transportation</b>	Talford Brook Rd., Seeger Spur Rd., Mack Brook Rd., East Pond Rd., Hix Mtn. Rd. Short Spur Rd., Clear Brook Rd.	Roads other than Tripoli, FR 30, will be closed from March 30 – May 20 to reduce deterioration of road during spring break-up. Tripoli Rd will be Closed March 30-April 15 – <b>Avoidance</b>	Timber Sale Administrator	Yearly	
<b>Transportation</b>		The exact location of log landings, main skid trails and stream crossings will be agreed upon in advance with the sale administrator and District staff. The size or location of log landing locations will not be altered without the approval of the sale administrator. - <b>Minimize</b>	Timber Sale Administrator		
<b>Vegetation</b>	Payment units 15-19	Butternut trees will be identified and protected from felling and skidding damage. Where practical, unit boundaries will exclude Butternut. Prior to project implementation, known trees will be evaluated for the presence of stem canker and percent live crown. GPS locations. Search for undocumented trees will be ongoing. Post harvest, the trees will be re-evaluated when the third year stocking surveys are performed. <b>Avoidance, Minimize, Monitor</b>	Sale layout technician Timber Sale Administrator	Monitor the third year after harvest of each unit.	
<b>Vegetation Recreation</b>	Dispersed campsite rehabilitation	Vegetation used for rehabilitation of closed campsites will follow Executive Order <b>Rectify</b>	Permit Administrator	During rehabilitation	
<b>Vegetation Wildlife Visual</b>		In clearcuts, a mix of residual trees would be left to improve wildlife habitats, 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	District Silviculturist. Timber Markers	During layout and marking of clearcuts. Monitor low shade after cut.	

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		<p>mechanical site preparation treatment would be used to control low shade. If seedlings develop, but are controlled by residual vegetation, a release treatment will be applied by removing some of the interfering plants. - <b>Minimize</b></p>			
Wildlife		<p>The following Standards and Guidelines and avoidance measures were considered for the Proposed Action and action alternative to ensure avoidance and protection of Federal and State listed TESSC species and/or their habitat within the proposed Project Area:</p> <p><u>TESSC Raptor Nesting Habitat:</u> Retain all trees having an active or inactive TESSC raptor nest. Surround active raptor nests (if present) with a 66 foot (1 chain) uncut buffer and retain 65-85% canopy closure within a 165 feet radius (NHDFL and SPNHF 1997). No clearing for office facilities would occur within 330 feet (5 chains) of an active TESSC raptor nest during the breeding and nesting season March 15 through May 20 to avoid conflict with active raptor nests, if present (USDA-LRMP 1986a, III-18 &amp; VII-B-20). Maintain wildlife cavity trees &amp; the integrity of riparian areas via Forest-wide Wildlife and Fish Habitat &amp; Riparian Standards &amp; Guidelines (USDA-LRMP 1986a, III-15, 16, 19).</p> <p><u>Wildlife Cavity/Nesting Habitat:</u> Where possible, reserve trees with existing or potential for exfoliating bark or cavity features. Reserve at least one live tree with an 18" DBH having two defects and retain 1 to 2 live trees/acre (.25 to 2.50 sq ft/acre) having 18" DBH with 2 or more defects if present (LRMP III-15, VII-B-21). Maintain wildlife cavity trees and the integrity of riparian areas via Forest-wide Wildlife and Fish Habitat and Riparian Standards and Guidelines. – <b>Avoidance, Minimize</b></p>	Sale layout technicians, Timber markers.	During layout. During Marking.	

Resource	Location	Mitigation Action & Type	Responsible Position	When To Accomplish	Date Accomplished/ By Whom
Fisheries		Woody material on the ground at the time the sale is prepared shall not be harvested. Woody material would be left in place to insure that is retained on the forest floor. – <b>Avoidance, Minimize</b>	District Silviculturist, Sale Layout Technicians, Timber Sale Administrator.	Prescribing, marking, sale administration.	
Cultural	Payment units 1,2,4,5,6,15,16,17,18,19	Project layout will insure avoidance of known cultural sites with the exceptions of the East Pond Trail, Little East Pond Trail and the old Tripoli Road .- <b>Avoidance, Minimize</b>	Sale layout technician Heritage technician	Prior to and during cutting unit layout	
Cultural	Payment units 4, 6	The Little East Pond Trail (historic railroad grade) may be crossed by skid trails, however this will be done over snow and frozen ground conditions to minimize impacts. It will also be done at right angles to the trail to minimize the chance of ground disturbance to the resource. - <b>Minimize</b>	Timber Sale Administrator	Sale administration.	
Cultural	Sale 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 paraprofessional and Forest archaeologist will be called in to evaluate the finds and make recommendations on how to proceed. - <b>Avoidance</b>	Heritage Paraprofessional, Layout Technician, Marking Crew, Sale Contract Administrator	Sale preparation, Sale administration	
Cultural	Payment Units 1,2,4,5,6,15,16,17,18,19	Units adjacent to known cultural sites will be winter logging only to help protect historic values associated with the sites. – <b>Avoidance, Minimize</b>	Timber Sale Administrator		
Recreation	Payment Units 4,6,7	Minimize the number of skid trail crossings of the Little East Pond Trail to minimize the impact to the trail. - <b>Minimize</b>	Timber Sale Administrator		
Recreation	Payment Units 1,2	Minimize the number of skid trail crossings of the East Pond Trail to minimize the impact to the trail. - <b>Minimize</b>	Timber Sale Administrator		
Recreation	Payment Units 1,2,4,6,7	Keep trails free of slash during and after sale operations as a safety precaution. - <b>Minimize</b>	Timber Sale Administrator r		

## Tripoli East Butternut Monitoring

**Purpose:**

To evaluate the progression of Butternut canker in known trees.

**Method:**

1. GPS location of known trees and document current condition
2. Evaluate trees annually during sale implementation and note any changes.
3. If any resistant trees are discovered continue monitoring.

### Sample Tripoli East Butternut Monitoring Form

Date/ Who	Tree#	Comp/ Stand	See Cutting Unit Map	GPS Location		Associated Geographic Feature	Existing Condition		Canker Visible	Comment
				Lat	Long		DBH	Crown (P;F;G) <sup>1</sup>		

<sup>1</sup> P = poor: crown in serious decline, sparse      F = fair: some evidence of decline      G = good: apparently healthy

## Tripoli East (Thornton Gore Area) Cultural Resource Site Monitoring

**Purpose:**

To evaluate the effectiveness of avoidance and other mitigation measures in the protection of historic sites.

**Methods:**

1. Select sites most vulnerable to damage from timber sale activity.
2. Assemble a file of existing site information.
3. Para professional – review information in the field, and, at each site during leaf-off season, GPS each site, locate direction and location of each photo point; document and existing damage.
4. Once project implementation begins, take photos of activities (skidding, harvesting) occurring nearest to protected site.
5. Visit each site annually during project implementation and retake photos at photo points. Inspect all sites and evaluate any changes.
6. Walk all skid trails after closure or the following spring, note and record and observed disturbance.

### Sample Tripoli East (Thornton Gore Area) Cultural Resource Site Monitoring Form

Date/ Who	Site#/ Name/ Thornton/Gore Site map #	Comp / Stand	See Cutting Unit Map	Site Location		Site Description (including photo point description & attach photo point location diagram)	Risk	Comment
				Lat	Long			