



# TIMBER SALE PRESCRIPTION

GENERAL	
Date 10/16/2012	Forest Resources Division Management Unit Shingleton Management Unit
Timber Sale Number (if applicable)	Sale Name (or prescription name) Sinkhole Hardwoods

LOCAL CONTACT	
Name Robert Burnham	Telephone (906) 452 – 6227 ext 240
Email Address BurnhamR2@michigan.gov	FAX (906) 452 - 6584

**Map of Project Area Attached**

LEGAL DESCRIPTION
T42N R17W Section(s) 35, 36 Description : Section 35: SENE Section 36: W1/2SE, SWNE, S1/2NW, E1/2SW

Year of Entry: 2014 Compartment(s):81;80 Stand Number(s): 3,10 ; 50

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE
Estimated Acres:205 Source: <input type="checkbox"/> OI <input checked="" type="checkbox"/> GPS <input type="checkbox"/> Other _____

**Payment will be made on the basis of these estimated acres.**

TREATMENT & OBJECTIVE					
STAND #	COVER TYPE	ACRES	BA	TREATMENT	MANAGEMENT OBJECTIVE
3 (Unit 1)	M6	4	81-110	Selection	Northern Hardwoods
10 (Units 1-5)	M9	199	111-140	Selection	Northern Hardwoods
50 (Unit 1)	M6	2	81-110	Selection	Northern Hardwoods

PRESCRIPTION
<ol style="list-style-type: none"> <li>1. Mark all stands according to specifications listed in the Sinkhole Hardwoods Prescription Appendix, timber marking specifications, and specific details obtained at the pre-work meeting.</li> <li>2. Cruise all stands according to specifications listed in the Sinkhole Hardwoods Prescription Appendix, timber cruising specifications, and specific details obtained at the pre-work meeting.</li> </ol>
<p><b>Access:</b> 5 Miles west of Manistique on County Road 442, then 4 miles north on County Rd 455 (Westshore Rd).</p>

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
Sale Boundaries, Payment Unit Lines and Area Determination	Completed October 2012

**CONTRACT WORK CAN BEGIN**

Immediately  Date: \_\_\_\_\_

**CONTRACT WORK MUST BE COMPLETED BY** Date: 8/1/2013

**PAINT LINE WORK**

This is included in the bid     This is not included in the bid

Paint line work to be performed: (See attached map for locations)

TYPE OF LINE	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR	
Private boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Sale boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale cutting unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yellow	<input type="checkbox"/> Other:
Stand type line	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other:

Exclusions to mark and why:

Standards for marking lines against private land:

**AREA CALCULATION**

This is included in the bid     This is not included in the bid

UNIT	METHOD	STANDARD
Sale	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Stand	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	

Special Instructions:

**TIMBER CRUISING SPECIFICATIONS**

This is included in the bid     This is not included in the bid

Required Basal Area Factor:  10     20     Other:

Cruise Line Directions: East-West

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
Units 1-5	0.5	4 X 5
<b>TOTAL NUMBER OF CRUISE POINTS</b>	103	

**Cruise Special Instructions:**

1. Each unit must be recorded on a separate cruise card so volume can be determined by unit.
2. Each cruise plot must be identified on the ground. A map showing the location of these cruise plots must be turned in. Scale on map must be 1:15840.
3. Residual basal area by species must be tallied at each cruise plot. Borderline residual trees do not have to be measured, but every other borderline residual tree should be counted.
4. Do not cruise trees which were marked with an "X" designating log trees. There will be a 100% tally on log trees marked with an "X".
5. All beech and ash trees will be designated for harvest.
6. Pulpwood species grouping: mixed hardwood pulpwood (maple, yellow birch, and cherry pulpwood) any beech and ash must be tallied separately and mixed aspen pulpwood (quaking and bigtooth). All other trees must be cruised by species.

Unless otherwise specified, the tally sheets used must be those supplied by the Forest Resources Division Management Unit.

**TIMBER MARKING SPECIFICATIONS**

This is included in the bid     This is not included in the bid

Precise specifications to be delineated at pre-work meeting with DNR staff

**Total Merchantable Residual BA (Basal Area):** 80 (Minimum 70 to Maximum 90)

TREATMENT		NUMBER	SIZE
Regeneration Gaps Per Acre:		1	50-75 feet in diameter
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	'X' on 2 opposite sides and 6' above ground level, plus one 3" dot per 8' log	11.1 inches	10 inches
Pulpwood	Diagonal slash on 2 opposite sides, 6' above ground level	4.6 inches	4 inches
Beech Leave Trees	Slash 4 sides, 6' above ground level	Appx. 1 per acre	

TYPE OF WORK	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR
Trees marked to leave	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Green <input type="checkbox"/> Other
Trees marked to cut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Orange <input type="checkbox"/> Other

TALLY INTENSITIES	
SPECIES / PRODUCT	RATIO
Sawlogs - All sawlog trees will be tallied to a 10 inch DIB top. Tallied by species.	1 : 1
Pulp topwood (to 10" DIB) - tallied by species	1 : 1
All pulpwood trees	No tally, see cruising instructions

**SPECIAL MARKING INSTRUCTIONS:**

1. Additional pulpwood volume larger than 10 inches, top DIB, occurring in sawlog trees must be recorded on tally cards supplied by the Local Contact.
2. Avoid marking during wet weather conditions, or when tree boles are damp. Paint must last for the duration of the timber sale.
3. Each unit must be tallied and summarized separately.
4. Look for beech bark resistant trees. These trees should be marked to leave with green paint.
5. Look for beech trees that have been used in the past by bears (evidence of claw marks). Beech trees that have evidence of bear claw marks should be marked to leave in green paint.
6. Do not mark any hemlock, cedar or oak.
7. Since beech will be designated there will be areas that will fall below the targeted BA.

Unless otherwise specified, the tally sheets used must be those provided by the Forest Resources Division Management Unit.

**RESTRICTIONS**

1. Forest Resources Division must to be able to identify who did what on the timber sale.
2. The contractor may not have more than two markers in one payment unit without prior approval.
3. Each marker should have an assigned area to mark (not strips).

**PAINT**

1. Call Adam Petrelius at (906) 341 - 8463, to make arrangements for paint.
2. Paint will be supplied from Wyman Nursery.
3. Contractor's work schedule must coincide with the DNR work schedule for paint supply.
4. The DNR will not be available on weekends or evenings.

**DELIVERABLES**

1. A list of names that marked or cruised each payment unit.
2. Tally summaries for each payment unit (one summary, regardless of the number of markers) and all of the original tally sheets.
3. Cruise cards and cruise maps showing locations of all cruise plots in a payment unit.

# Sinkhole Hardwoods Timber Prescription Appendix

## When Registered Corners or Witness Trees are discovered:

- Any wooden posts encountered at corners must also be painted/protected.
- Bearing and/or witness trees discovered during the course of sale preparation must be protected. This can be accomplished by painting a ring completely around the tree at 4-6 feet above ground level with either red paint (corner surrounded by state lands. In addition, tying ribbon on these trees helps alert loggers to their presence. Do not mark any trees for harvest if cutting them is likely to result in damage to corner monuments and/or bearing trees.
- Please report the condition of all corners, posts and bearing trees to the local contact.

## Stand 3, 10, and 50 (Units 1-5)

### Management Objective: All Aged Northern Hardwoods (Mark to Cut)

#### When marking, prioritize selection of trees to be cut in the following order:

1. Release suitable crop trees. (Refer to [The Compleat Marker](#) for crop tree specifications.)
2. Remove high value, high-risk, and poor quality trees.
3. Maintain target basal area.
4. Maintain all species diversity.

#### Reserved Species:

- Do not mark hemlock and oak. Avoid marking other trees if harvesting them is likely to result in damage to these reserved species.
- Marking of infrequently occurring species should be avoided. Consult the local contact for clarification.
- Leave 2-4 large, live cull trees per acre for den trees and soft snag production. Reserved tree species may also be used for this purpose. These should be well distributed.
- Do not mark within 100' of any raptor nest trees. Report these to the local contact as soon as possible and directions will be given at that time.
- Leave beech bark resistant trees and those beech trees that have been heavily used by bears in the past (evidence of claw marks). Total amount of beech left should be approximately one per acre.

#### Designated species:

- All beech and ash will be designated for harvest unless marked in green paint. Beech trees marked in green should be those that show signs of resistance to BBD, these are usually characterized by smooth bark and have little scale present. In addition, those trees that are heavy mast producers which are evident by bear claw markings should be marked in green as well.

#### Other Special Protections

- This area contains some sink holes and vernal ponds. Do not mark trees within vernal ponds or on slopes of the sink holes.

The contractor should contact Robert Burnham, Unit Manager, at the Shingleton Field Office, PO Box 67, M-28, Shingleton, MI 49884 (906) 452-6227 x240 once the contract is awarded. Approximately 1-2 weeks prior to beginning work, the contractor should also contact the DNR's local contract administrator (Adam Petrelius, 906-341-8463) to arrange an on-site meeting to discuss the details of these prescriptions. Paperwork should be completed and all of the necessary reports submitted to the Unit secretary as soon as possible after the fieldwork is complete.