



TIMBER SALE PRESCRIPTION

GENERAL

Date Nov. 5, 2009	Forest, Mineral and Fire Management Unit Pigeon River MU
Timber Sale Number (if applicable)	Sale Name (or prescription name) Heavy Snow Hardwoods

LOCAL CONTACT

Name Rick McDonald and Don Mittlestat	Telephone (989) 983 - 4101
Email Address mittlesd@michigan.gov	FAX Number (989) 983 - 3957

Map of Project Area Attached

LEGAL DESCRIPTION

T32N R1W Section(s) 5 NE; E1/2NW; NESW; and N1/2SE
Section 4 SWNW; and NWSW

Year of Entry: 2010 Compartment(s):54 Stand Number(s): 18

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 176 Source: OI GPS Other _____

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

TREATMENT & OBJECTIVE

STAND #	COVER TYPE	ACRES	BA	TREATMENT	MANAGEMENT OBJECTIVE
18	M9	176	130	Selection	Northern Hardwoods

PRESCRIPTION

- Reduce stand basal area to 80 square feet using single tree selection/crop tree release marking techniques. See attached sheet.
- Manage for the best tree in place, however, do not mark: aspen, elm, cherry, hemlock, or other Conifers, or den trees and/or trees of poor vigor.
- Retain existing representation of all species currently within the hardwood stands.
- See attachment for further marking instructions.

Access See attached map. CONTRACTOR WILL PROVIDE A LOCK TO BE PUT ON THE ACCESS GATE FOR ACCESS TO THIS CONTRACT.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE

CONTRACT WORK CAN BEGIN

Immediately Date: _____

CONTRACT WORK MUST BE COMPLETED BY Date August 15, 2010

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Blue <input type="checkbox"/> Other:
Sale boundary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Red <input type="checkbox"/> Other:
Sale cutting unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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.

The north line of this sale is against private property. There are corners at the NW and NE corners of the section. The contractor must be sure to run the section line from corner to corner to insure that the north sale line is correctly placed.

AREA CALCULATION

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

UNIT	METHOD	STANDARD
Sale	<input checked="" 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:

Sale map is to be produced at a scale of one inch to the ¼ mile. Four inches equals a mile.

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

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
Stand 18	.48	5 X 4
		X
		X
TOTAL NUMBER OF CRUISE POINTS	Approx. 84	

Cruise Special Instructions:

Residual basal area will be required to be taken at each cruise plot. The number of cruise plots will be determined after the acreage has been determined. The cruise will be for pulpwood. Sawlogs will be 100% tallied. The cruise must keep Basswood, and other hardwoods, separate.

Unless otherwise specified, the tally sheets used must be those supplied by the Forest, Mineral and Fire 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 Residual BA (Basal Area): 80 (Minimum 70 to Maximum 90)

TREATMENT	NUMBER	SIZE
Regeneration Gaps Per Acre	3 to 5	30' to 60' opening in the crown
Girdled Trees Per Acre		

PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	Orange slash with dots	10 inches	8 inches
Sawbolts	N/A	N/A	N/A
Pulpwood	Orange slash	5 inches	4 inches

TYPE OF WORK	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR
Trees marked to leave	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 of all species	100%
	1 :
	1 :
	1 :

SPECIES TO FAVOR

Leave best tree in place. Leave some pockets of beech unmarked.

SPECIES TO Reduce

None

SPECIAL MARKING INSTRUCTIONS

If a stick nest is encountered see attached timber sale prescription Appendix. Do not mark in or near areas where Hemlock is present. Ask sale administrator for further information.

Unless otherwise specified, the tally sheets used must be those provided by the Forest, Mineral and Fire Management Unit.

RESTRICTIONS

1. Forest, Mineral and Fire Management 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 Don Mittlestat or Rick McDonald at (989) 983 - 4101, to make arrangements for paint.
2. Paint will be supplied from Pigeon River Country Field Office.
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. A summary of paint used (in quarts).
3. Tally summaries for each payment unit (one summary, regardless of the number of markers) and all of the original tally sheets.
4. GPS files for any GPS work.

Pigeon River Country Management Unit
Northern Hardwood Marking
HEAVY SNOW HARDWOODS
Compartment 54
Stand 18

1. Access for marking this stand is shown on attached map. The attached type map delineates the contract marking area.
2. For boundary line trees do the following:
 - Avoid using dead or badly damaged trees – boundary trees must last for the duration of the timber sale (up to 3-4 years).
 - Avoid using small (fast-growing) stems and those exposed to direct sunlight.
 - Marking must be done in dry weather and when tree surfaces are not wet.
 - Paint the boundary line in such a way that it can be seen both from inside the sale area and when walking along the line from either direction (two sides). Please note there is a private boundary that must be painted
 - Place marks approximately six feet above the base of the tree.
 - The contractor will keep track of total quarts of paint used per-sale by color.
 - The contractor will use a GPS unit to determine enclosed acreage to the nearest one-tenth acre, unless an alternative method is approved prior by Unit Management.
3. Select crop trees. Crop trees are defined as trees which have the potential of making a grade one sawlog when they are harvested. A grade one sawlog is any tree capable of producing at least 16 feet of clear lumber. A crop tree can be ANY species of tree. Manage for the best tree in place at all times.
4. Locate 20 to 25 crop trees per acre spaced approximately 25 to 27 feet apart. In areas where 6” to 9” DBH trees predominate, the crop tree release will consist of creating a seven foot opening around the crown of the tree. This means that adjoining lesser quality dominants, co-dominants, and intermediates will have to be marked for removal. In areas where trees greater than 9” DBH predominate, the crop tree release will consist of removing the two nearest competitors from the dominant, co-dominant, and intermediate size classes.
5. After the crop tree has been selected and properly released, additional trees may have to be removed to reduce the basal area to the desired basal area. First remove high risk trees (esp. Eutypella canker) from the stand followed by trees from the sub-canopy around the crop tree. (Commercial trees will be defined as any trees that contain at least one 100” sawlog or pulp stick.) Lastly, remove any other lesser quality intermediate and co-dominate tree from the stand to reduce the basal area to the desired basal area.
6. Create an average of three to five 30 foot regeneration gaps per acre, 30’ to 60’ in diameter, except where high quality trees predominate. All trees one inch and greater in diameter must be marked in the regeneration gap. If pockets of advanced regeneration are found, these pockets should be released by removing surrounding trees
7. Do not mark obvious den trees or trees of declining vigor which may serve as future den trees. Leave all aspen for future wildlife trees
8. Mark trees to cut on two opposite sides. Each tree marked to cut must be stump marked from ground level to at least 6 inches above the ground in a moss free area. Paint must also be applied to trees surfaces that are dry.
9. Do not mark within 100’ of any raptor nest trees. Report these to the Contract Administrator as soon as possible and directions will be given at that time.
10. Marking of infrequently occurring species should be avoided. Consult the Contract Administrator for clarification.