



**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**

Prospectus

**TIMBER SALE PROPOSAL**

THIS INFORMATION PROVIDED BY AUTHORITY OF PART 525, 1994 PA 451, AS AMENDED

SALE NAME Conifer Cloudland		SALE NUMBER 32-012-19	SEQ # 1	FISCAL YEAR 2019	SALE ID 18306	<input type="checkbox"/> NOT CERTIFIED <input type="checkbox"/> SALVAGE <input type="checkbox"/> GNA
MANAGEMENT UNIT Gwinn Mgt Unit	OFFICE Gwinn Office		ACRES 131.0	COMPARTMENT(S) 055		
PROPOSAL OWNER Eric Brolin	LOG RULE Scribner Decimal C	TOP DIB 10	COUNTY Marquette			
DURATION OF CONTRACT 3 years expiring 8/31		EXPIRATION DATE 08/31/2023	PAYMENT METHOD Lump Sum	BID TYPE Sealed Bid	BOND AMOUNT 5%	

DESCRIPTION OF TIMBER						PAYMENT UNIT					
MARKET GROUP	PRODUCT	QUANTITY	UNIT	ADV UNIT PRICE*	ADV PRICE*	UNIT	ACRES	ADV PRICE*	UNIT	ACRES	ADV PRICE*
Red Pine	Sawtimber	1,019.2	MBF	\$155.00	\$157,976.00						
White Pine	Sawtimber	479.8	MBF	\$77.00	\$36,944.60	1	18.1	\$77,009.00	2	17.9	\$76,120.85
Balsam Fir	Pulpwood	82.0	Cords	\$22.40	\$1,836.80	3	14.5	\$61,638.00	4	10.4	\$26,513.60
Balsam Poplar	Pulpwood	13.0	Cords	\$35.30	\$458.90	5	19.9	\$17,058.25	6	26.7	\$22,879.70
Jack Pine	Pulpwood	6.0	Cords	\$31.10	\$186.60	7	12.7	\$8,488.50	8	10.8	\$10,759.00
Mixed Spruce	Pulpwood	2,092.0	Cords	\$24.20	\$50,626.40	* Price as of 10/21/2019.					
Paper Birch	Pulpwood	15.0	Cords	\$15.30	\$229.50						
Quaking Aspen	Pulpwood	62.0	Cords	\$35.30	\$2,188.60						
Red Pine	Pulpwood	483.0	Cords	\$43.35	\$20,938.05						
Tamarack	Pulpwood	272.0	Cords	\$19.35	\$5,263.20						
White Pine	Pulpwood	649.0	Cords	\$36.70	\$23,818.30						
	Total	1,499.0	MBF		\$ 300,466.95						
		3,674.0	Cords								

\* Price as of 10/21/2019.

APPROVALS					Date Submitted: 08/23/2019		
<input type="checkbox"/> Land owned or controlled by DMVA		<input checked="" type="checkbox"/> Notify Fisheries Division		<input checked="" type="checkbox"/> Notify Parks Division		<input checked="" type="checkbox"/> Cultivation Work Needed	
DIVISION	TITLE	ACTION	REQUESTED OF/ACTION TAKEN BY	DATE/TIME			
FRD	Unit Manager	Approved	MATSONK1	08/23/2019 1:05 PM			
COMMENT:							
DIVISION	TITLE	ACTION	REQUESTED OF/ACTION TAKEN BY	DATE/TIME			
FRD	TSS	Approved	ASSELIND	10/4/2019 9:48 AM			
COMMENT: Reviewed: Sale looks good. (Jake)							
DIVISION	TITLE	ACTION	REQUESTED OF/ACTION TAKEN BY	DATE/TIME			
FRD	TMS		TYLKAR				
COMMENT:							
DIVISION	TITLE	ACTION	REQUESTED OF/ACTION TAKEN BY	DATE/TIME			
WILD	Biologist	Notified	RoellB				
COMMENT:							
DIVISION	TITLE	ACTION	REQUESTED OF/ACTION TAKEN BY	DATE/TIME			
FISH	Biologist	Notified	BaumanJ				
COMMENT:							
DIVISION	TITLE	ACTION	REQUESTED OF/ACTION TAKEN BY	DATE/TIME			
PARKS	Rec. Specialist	Notified	KatonaR				
COMMENT:							

TREATMENT LIST									
FOREST/CMPT/STAND	ID	TREATMENT	ACRES	COVER TYPE	S/D	OI	TREATMENT METHOD	MGMT OBJ	PROPOSED START DATE
32055039	42006	32055039-Cut	10.8	6122 - Black Spruce	Pole Well	Lowland Spruce/Fir	Clearcut with Retention	6122 - Black Spruce	10/01/2018
32055037	42060	32055037-Cut	12.7	6122 - Black Spruce	Pole Well	Lowland Spruce/Fir	Clearcut with Retention	6122 - Black Spruce	10/01/2018
32055010	42142	32055010-Cut	46.6	6122 - Black Spruce	Pole Well	Lowland Spruce/Fir	Clearcut with Retention	6122 - Black Spruce	10/01/2018
32055005	43232	32055005-Cut	50.5	42210 - Natural Red Pine	Saw Well	Red Pine	Clearcut	4211 - Planted Red Pine	10/01/2018
32055006	46839	32055006-Cut	10.4	42200 - Natural White Pine	Saw Well	White Pine	Group Selection	429 - Mixed Upland Conifers	10/01/2018

## TREATMENT AREA DETAILS

**32055039-Cut**

## PRESCRIPTIONS SPECIFICATIONS:

Cut all merchantable stems (spruce, tamarack, birch, fir) to regenerate lowland conifers. Create retention patches around patches of younger trees and/or on edges of harvest boundary for stability of retention/seed trees. Leave cedar and any red or white pine.

Timber sale may overlap into the stand to the east if stocking is adequate. Leave riparian buffer (300') for water quality and spruce seed source. Winter or very dry harvest conditions.

## OTHER COMMENTS:

Operability may be limited as stand gets wetter to the south. Consider adding portions of Stand 2 to the timber sale (immediately to the east and south) if not too wet to promote tamarack regeneration. If possible, conduct dry ground and non-winter cut to keep traffic off active snowmobile trail. If conditions are too wet and require freezing, limit operations to non-weekend hauling on snowmobile trail.

WLD - Retention should be done in patches of 15 or more trees and on the upper end of the percentage (10%); retention should also include some mature black spruce and tamarack (gray jay and red-crossbill) (State Game Fund)

## NEXT STEP TREATMENTS:

Monitoring, Natural Regen (Re-Inventory), Check for desired regeneration establishment at re-inventory. Consider artificial regeneration opportunities if inadequate lowland conifer regeneration in 15 years., 100%, High, 02/23/2027

## ACCEPTABLE REGENERATION:

Black spruce, tamarack, balsam poplar, birch, cedar.

**32055037-Cut**

## PRESCRIPTIONS SPECIFICATIONS:

Cut all merchantable stems (spruce, tamarack, birch, fir) to regenerate lowland conifers. Leave cedar and any red or white pine. For retention, use existing patches of advanced regeneration or mature black spruce around harvest boundary for and optimal seed source. Good winter ground.

## OTHER COMMENTS:

Swale on east side. Good diameter, 4-5 stick black spruce. Mixed lowland conifer edges.

Snowmobile trail goes through the stand. If possible, conduct dry ground and non-winter cut to keep traffic off active snowmobile trail. If conditions are too wet and require freezing, limit operations to non-weekend hauling on snowmobile trail.

WLD - Retention should be done in patches of 15 or more trees and on the upper end of the percentage (10%), I like the retention of mature black spruce for seed source. (gray jay and red-crossbill) (State Game Fund)

## NEXT STEP TREATMENTS:

Monitoring, Natural Regen (Re-Inventory), Check for desired regeneration establishment at re-inventory. Consider artificial regeneration opportunities if inadequate lowland conifer regeneration in 15 years., 100%, High, 02/24/2027

## ACCEPTABLE REGENERATION:

Black spruce, tamarack, cedar, balsam poplar, birch.

**32055010-Cut**

## PRESCRIPTIONS SPECIFICATIONS:

Cut all merchantable stems (spruce, tamarack, birch, fir) to regenerate lowland conifers. Create retention patches around patches of younger trees and/or on edges of harvest boundary for stability of retention/seed trees. Leave cedar and any red or white pine. Harvest should skirt low tip-up spot on the northeast side. Exclude wet alder spots as needed for operability.

## OTHER COMMENTS:

If possible, conduct dry ground and non-winter cut to keep traffic off active snowmobile trail. Use Camp 10 and Kates Grade access. If conditions are too wet and require freezing, limit operations to non-weekend hauling on snowmobile trail.

WLD - Retention should be done in patches of 15 or more trees and on the upper end of the percentage (10%). Be sure to include some large Tamarack and Spruce (leave White Pine and Cedar are in the treatment) (black bear, gray jay and red-crossbill) (State Game Fund)

**NEXT STEP TREATMENTS:**

Monitoring, Natural Regen (Re-Inventory), Check for desired regeneration establishment at re-inventory. Consider artificial regeneration opportunities if inadequate lowland conifer regeneration in 15 years., 100%, High, 02/27/2027

**ACCEPTABLE REGENERATION:**

Black spruce, tamarack, cedar, birch, balsam fir.

**32055005-Cut****PRESCRIPTIONS SPECIFICATIONS:**

Final harvest of natural red pine stand. Harvest all stems and replant red pine, managing pine on extended rotation (100-150 years). Site index and potential is good for carrying red pine into extended rotation. Look for opportunities for retention patches on perimeter of stand, or around a unique feature. Stand will be roller chopped, trenched, planting. Lay out red line and retention with site preparation in mind.

**OTHER COMMENTS:**

Average BA 120. SBW on fir, but fir is small: large sapling size

In addition: Most of this stand is (State Game Fund), do not cut over-sized (>24") trees or used pesticide (black bear, red-crossbill, pileated woodpecker).

Summer/non-winter cut only to keep traffic off active snowmobile trail. Camp 10 and Kates Grade access.

**NEXT STEP TREATMENTS:**

Site Prep-Mech., Trenching, , 100%, High, 05/15/2022

Planting, Initial Plant, , 100%, High, 05/15/2022

Burn, Slash, Prescribe burn slash and remaining shrub/sapling layer of woody deciduous competition. Prep for roller-chop and red pine planting, no pesticide on Purchased Lands. Appropriately timed after harvest., 100%, High, 10/01/2021

Site Prep-Mech., Roller Chopping, Appropriately timed after harvest, 100%, High, 05/01/2022

Pesticide, (Inactive)Skidder/Mechanical, Maybe be needed prior to planting, 100%, High, 05/01/2022

Monitoring, Artificial Regen(1yr), , 100%, High, 08/01/2027

**ACCEPTABLE REGENERATION:**

Red pine

**32055006-Cut****PRESCRIPTIONS SPECIFICATIONS:**

Harvest all stems within approximately 1-acre sized gaps in non-winter harvest to promote scarification and natural pine regeneration, and prevent aspen encroachment on edges. Place gaps over approximately half of the stand. Retain healthy and wind-firm red and white pine on edges of gaps. Supplemental seeding or planting of red pine may have to occur if it is not successfully regenerating. Assess pine regeneration at next entry.

**OTHER COMMENTS:**

In addition: Most of this stand is (State Game Fund), do not cut over-sized trees (black bear, red-crossbill, pileated woodpecker).

Summer/non-winter cut only to keep traffic off active snowmobile trail. Use Camp 10 and Kates Grade access.

Final (overstory removal) cut should be planned based on successful regeneration stocking in gaps. Additional scarification and seeding may have to occur to promote regeneration before final harvest.

**NEXT STEP TREATMENTS:**

Monitoring, Natural Regen (Re-Inventory), Supplemental planting of red pine may have to occur if it is not successfully regenerating in harvested group openings. Assess at next entry., 100%, High, 10/01/2028

Planting, Interplant, Supplemental planting of red and white pine may have to occur to ensure successful regeneration. , 100%, High, 10/01/2028

**ACCEPTABLE REGENERATION:**

Red pine, white pine, jack pine.

## VDU DETAILS and CRUISE STATS

VDU	ACRES	CRUISE TYPE	CRUISED BA	STRATUM	TALLY %	BAF	PLOTS	MEAN	STD DEV	COEF OF VAR	ACH ERROR
5	50.5	Cumulative	165.10	5	N/A	20.0	39	67.92	17.07	25.12	8.05
6	10.4	Cumulative	151.20	6	N/A	20.0	16	53.49	19.61	36.67	18.33
10	46.6	Cumulative	124.00	10	N/A	20.0	44	35.31	18.83	53.33	16.08
37	12.7	Cumulative	92.30	37	N/A	20.0	13	28.08	15.76	56.12	31.13
39	10.8	Cumulative	162.00	39	N/A	20.0	10	43.20	16.88	39.07	24.71
								48.00	23.37	48.69	8.82

STATISTICS ON CUMULATIVE AND VBAR TALLY SALE VOLUMES

## TREATMENT TO VDU

TREATMENT NAME	ACRES	STAND/ VDU	Trt/VDU AC	TREATMENT NAME	ACRES	STAND/ VDU	Trt/VDU AC
32055039-Cut	10.8	39	10.8	32055005-Cut	50.5	5	50.5
32055037-Cut	12.7	37	12.7	32055006-Cut	10.4	6	10.4
32055010-Cut	46.6	10	46.6				

## GROUP SPECIES/PRODUCT REPORT

DESCRIPTION OF TIMBER BY VDU						DESCRIPTION OF TIMBER TOTALS					
VDU	ACRES	MARKET GROUP	PRODUCT	QUANTITY	UNIT	MARKET GROUP	PRODUCT	QUANTITY	UNIT		
5	50.5	Red Pine	Sawtimber	955.1	MBF	Red Pine	Sawtimber	1,019.2	MBF		
		White Pine	Sawtimber	357.4	MBF	White Pine	Sawtimber	479.8	MBF		
		Balsam Fir	Pulpwood	38.0	Cords	Balsam Fir	Pulpwood	82.0	Cords		
		Mixed Spruce	Pulpwood	5.0	Cords	Balsam Poplar	Pulpwood	13.0	Cords		
		<i>Black Spruce</i>	<i>Pulpwood</i>	5.0	<i>Cords</i>	Jack Pine	Pulpwood	6.0	Cords		
		Paper Birch	Pulpwood	9.0	Cords	Mixed Spruce	Pulpwood	2,092.0	Cords		
		Red Pine	Pulpwood	453.0	Cords	<i>Black Spruce</i>	<i>Pulpwood</i>	2,091.0	<i>Cords</i>		
		White Pine	Pulpwood	503.0	Cords	<i>White Spruce</i>	<i>Pulpwood</i>	1.0	<i>Cords</i>		
		Red Pine	Sawtimber	64.1	MBF	Paper Birch	Pulpwood	15.0	Cords		
		White Pine	Sawtimber	122.4	MBF	Quaking Aspen	Pulpwood	62.0	Cords		
6	10.4	Balsam Fir	Pulpwood	21.0	Cords	Red Pine	Pulpwood	483.0	Cords		
		Mixed Spruce	Pulpwood	1.0	Cords	Tamarack	Pulpwood	272.0	Cords		
		<i>White Spruce</i>	<i>Pulpwood</i>	1.0	<i>Cords</i>	White Pine	Pulpwood	649.0	Cords		
		Red Pine	Pulpwood	30.0	Cords						
		White Pine	Pulpwood	146.0	Cords						
		10	46.6	Balsam Fir	Pulpwood	15.0	Cords				
				Balsam Poplar	Pulpwood	13.0	Cords				
				Jack Pine	Pulpwood	6.0	Cords				
				Mixed Spruce	Pulpwood	1,420.0	Cords				
				<i>Black Spruce</i>	<i>Pulpwood</i>	1,420.0	<i>Cords</i>				
Quaking Aspen	Pulpwood			55.0	Cords						
Tamarack	Pulpwood			137.0	Cords						
37	12.7			Balsam Fir	Pulpwood	3.0	Cords				
				Mixed Spruce	Pulpwood	328.0	Cords				
39	10.8			<i>Black Spruce</i>	<i>Pulpwood</i>	328.0	<i>Cords</i>				
		Tamarack	Pulpwood	25.0	Cords						
		Balsam Fir	Pulpwood	5.0	Cords						
		Mixed Spruce	Pulpwood	338.0	Cords						
		<i>Black Spruce</i>	<i>Pulpwood</i>	338.0	<i>Cords</i>						
		Paper Birch	Pulpwood	6.0	Cords						
		Quaking Aspen	Pulpwood	7.0	Cords						
Tamarack	Pulpwood	110.0	Cords								

## VDU to PU REPORT

ACRES BY VDU AND PU				DESCRIPTION OF TIMBER BY PU						
VDU	VDU AC	PU	PU AC	PU	GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADV PRICE*
5	50.5	1	18.1	1	Red Pine	Sawtimber	342.4	MBF	18.1	\$77,009.00
		2	17.9		White Pine	Sawtimber	128.1	MBF		
		3	14.5		Balsam Fir	Pulpwood	14.0	Cords		
6	10.4	4	10.4	Mixed Spruce	Pulpwood	2.0	Cords			
10	46.6	5	19.9	2	Paper Birch	Pulpwood	3.0	Cords	17.9	\$76,120.85
		6	26.7		Red Pine	Pulpwood	162.0	Cords		
37	12.7	7	12.7	3	White Pine	Pulpwood	181.0	Cords	14.5	\$61,638.00
39	10.8	8	10.8		Red Pine	Sawtimber	338.5	MBF		
				White Pine	Sawtimber	126.7	MBF			
				Balsam Fir	Pulpwood	13.0	Cords			
				Mixed Spruce	Pulpwood	2.0	Cords			
				Paper Birch	Pulpwood	3.0	Cords			
				Red Pine	Pulpwood	161.0	Cords			
				White Pine	Pulpwood	178.0	Cords			
Balsam Fir	Pulpwood	6.0	Cords	5	19.9	\$17,058.25				
Balsam Poplar	Pulpwood	6.0	Cords							
Jack Pine	Pulpwood	3.0	Cords							
Mixed Spruce	Pulpwood	606.0	Cords							
Quaking Aspen	Pulpwood	23.0	Cords							
Tamarack	Pulpwood	59.0	Cords							
Balsam Fir	Pulpwood	9.0	Cords				6	26.7	\$22,879.70	
Balsam Poplar	Pulpwood	7.0	Cords							
Jack Pine	Pulpwood	3.0	Cords							
Mixed Spruce	Pulpwood	814.0	Cords							
Quaking Aspen	Pulpwood	32.0	Cords							
Tamarack	Pulpwood	78.0	Cords							
Balsam Fir	Pulpwood	3.0	Cords	7	12.7	\$8,488.55				
Mixed Spruce	Pulpwood	328.0	Cords							
Tamarack	Pulpwood	25.0	Cords							
8	10.8	8	10.8	8	Balsam Fir	Pulpwood	5.0	Cords	10.8	\$10,759.00
					Mixed Spruce	Pulpwood	338.0	Cords		
					Paper Birch	Pulpwood	6.0	Cords		
					Quaking Aspen	Pulpwood	7.0	Cords		
					Tamarack	Pulpwood	110.0	Cords		

\* Price as of 10/21/2019.

**ADVERTISED PRICE**

MARKET GROUP	PRODUCT	QUANTITY	UNITS	BASE PRICE*	FACTORED PRICE*	ADVERTISED PRICE*	ADJ PRICE
Red Pine	Sawtimber	1,019.2	MBF	\$206.85	\$206.85	\$155.00	<input type="checkbox"/>
White Pine	Sawtimber	479.8	MBF	\$103.26	\$103.26	\$77.00	<input checked="" type="checkbox"/>
Balsam Fir	Pulpwood	82.0	Cords	\$29.90	\$29.90	\$22.40	<input type="checkbox"/>
Balsam Poplar	Pulpwood	13.0	Cords	\$47.07	\$47.07	\$35.30	<input type="checkbox"/>
Jack Pine	Pulpwood	6.0	Cords	\$41.47	\$41.47	\$31.10	<input type="checkbox"/>
Mixed Spruce	Pulpwood	2,092.0	Cords	\$32.26	\$32.26	\$24.20	<input type="checkbox"/>
Paper Birch	Pulpwood	15.0	Cords	\$20.37	\$20.37	\$15.30	<input type="checkbox"/>
Quaking Aspen	Pulpwood	62.0	Cords	\$47.07	\$47.07	\$35.30	<input type="checkbox"/>
Red Pine	Pulpwood	483.0	Cords	\$57.81	\$57.81	\$43.35	<input type="checkbox"/>
Tamarack	Pulpwood	272.0	Cords	\$25.79	\$25.79	\$19.35	<input type="checkbox"/>
White Pine	Pulpwood	649.0	Cords	\$48.96	\$48.96	\$36.70	<input type="checkbox"/>

\* Price as of 10/21/2019.

**SALE SUMMARY**

AVG STUMPAGE PRICE	ADJ STUMPAGE PRICE	ADVERTISED PRICE
\$401,102.16	\$401,102.16	\$300,466.95

SALE FACTOR  
0%

ROOM TO BID  
-25%

EXTRAORDINARY  
ROAD COSTS

SALE FACTOR COMMENTS

EXTRAORDINARY ROAD COST'S COMMENTS

ADJUSTMENT REASON COMMENTS

1. Needs to be 2x pulp.

**LEGAL DESCRIPTION**

TWN	RANGE	SEC	QUARTER QUARTER
44N	26W	6	S1/2SW
44N	26W	7	NW,SWNE,N1/2SW,NWSE
44N	26W	9	SE,NE,N1/2NE,NESW,NWSE

**ACQUISITION**

ACQUISITION FUND	ACRES	%
State Game Fund	20.4	15.6
State Game B4 Act 325 PA 1931	93.5	71.4
Exchange (Private Acq)	7.9	6.0
Federal Exchanges (GX)	9.2	7.0

**PROPOSAL REPORT NOTES**

This sale utilizes Miller Creek Snowmobile Trail. See specs 4.4.4, 5.2.3.1, and 5.2.41 for use and maintenance of this trail if it must be used during snowmobile season. Fill material may be needed prior to hauling where holes exist or develop.

**SALE NOTE (The sale note prints on the prospectus cover sheet and the Timber Sale information page. It is limited to 1,000 characters.)**

This sale utilizes Miller Creek Snowmobile Trail. See specs 4.4.4, 5.2.3.1, and 5.2.41 for use and maintenance of this trail if it must be used during snowmobile season. Fill material may be needed prior to hauling where holes exist or develop.



## Sale Specific Conditions & Requirements

Sale Name: Conifer Cloudland

Sale Number: 32-012-19 Seq#: 1

### 1 - Sale Area

#### 1.2 - Boundaries

##### 1.2.1 - Painted boundaries (1/14)

The sale boundary and Payment Unit boundaries are marked and identified by blue, red and yellow paint. Exterior sale boundary lines against private property are marked with blue paint. Exterior sale boundary lines against state are marked with red paint. Interior Payment Unit boundaries are marked with yellow paint. Interior gap harvest areas within Payment Unit 4 are marked with red paint. The painted boundary line trees are not Included Timber and are to be protected. Yellow painted trees designating an interior Payment Unit boundary are only to be cut when all surrounding Payment Units have been paid.

### 2 - Timber Specifications

#### 2.1 - Included Timber

##### 2.1.1 - Clearcut unit(s) with unmerchantable trees (6/14)

Within Payment Unit(s) 1-3, cut all trees that are two (2) inches or more at DBH, except do not cut any trees over 24" at DBH.

Within Payment Unit(s) 4, cut all trees two (2) inches or more at DBH within the red painted gap harvest areas. There are a total of 12 individual gap harvest areas within the unit.

##### 2.1.2 - Clearcut unit(s) w/o unmerchantable trees (8/11)

Within Payment Unit(s) 5-8, cut all trees which meet minimum piece specifications in 2.2 Utilization, except do not cut cedar, red pine, and white pine.

#### 2.2 - Utilization

##### 2.2.3 - Stump heights (4/07)

Stump heights within Payment Unit(s) 1-3 shall not exceed 12 inches for trees greater than 10 inches DBH and 4 inches for trees smaller than 10 inches DBH. This is in order to facilitate planting operations.

### 3 - Payments

#### 3.3 - Pre-measured Sales

##### 3.3.4 - Dividing payment units (7/14)

Payment Unit(s) 1 - 3 may be divided at the request of the Purchaser and upon approval of the Unit Manager.

Dividing Payment Units is a contract modification which requires a Timber Sale Contract Supplement. There will be only one division per Payment Unit.

### 4 - Transportation

#### 4.1 - Construction

##### 4.1.3 - Slash and earthen piles (8/04)

Piles or windrows of earth along roads and landings that have been widened or constructed shall be leveled. Slash from road maintenance or construction, including stumps, shall be dispersed throughout the sale.

##### 4.1.4 - Timber removed for construction (12/09)

Trees cut or damaged in the process of pre-approved road, landing or skid trail construction will be decked in an area separate from other Designated Timber and not removed until measured by the sale administrator. Payment will be made at the specified Purchase Unit Price.

#### 4.1.6 - Road construction (1/09)

Construction of new roads or improvements of existing roads shall be done in such a way as to minimize the environmental and visual impacts. Merchantable trees shall be cut and utilized unless otherwise directed.

Non-merchantable trees shall be severed and laid flat on the ground. Slash shall be scattered, and not left in windrows and kept a minimum of 10 feet back from the road edge. Stumps shall be set upright, not left on edge, and be moved at least 10 feet away from the road edge. Disturbed soil shall be feathered into the woods and not left in berms or windrows.

#### 4.1.7 - Road closure (10/11)

All new roads built into the sale must be blocked to vehicle traffic upon completion of the sale. Overgrown roads that are reopened shall be considered new roads. In general, this will require constructing a four (4') foot high berm of stumps and logs covered with earth. Contact the sale administrator for specific details of design and placement.

#### 4.1.8 - Road work (1) (8/07)

The following road work is required:

Access to Payment Units 7 and 8 using the Miller Creek Snowmobile Road:

Access from the east (County Road 557) requires a minimum of 50 cubic yards of fill material to fill existing wet holes before hauling occurs. Access from the west (Camp Ten Road) is not recommended as it would require extensive road construction across lowland areas.

Access to Payment Units 1 - 6 using Camp Ten Road:

A minimum of 50 cubic yards of fill material is required on Camp Ten Road to fill wet holes and sandy blowout areas prior to hauling.

## 4.2 - Maintenance

#### 4.2.2 - Fill material (4/07)

To maintain roads, fill material may be needed in areas where "holes" exist or may be expected to develop. This fill material should be placed before trucking begins.

#### 4.2.3 - Road maintenance (8/13)

The following road maintenance may be needed:

Within 30 days of completion of hauling, or if no hauling occurs for 30 days, the road must be maintained and graded. This includes cleaning of drainage areas, grading, crowning and filling with gravel, if necessary. Damages will be assessed if grading/repair does not occur.

#### 4.2.4 - Grading (10/16)

For completion of the sale, state forest roads must be graded. In general, this will require a road grader or bull dozer to shape up the roads after forest products have been hauled off site. This includes cleaning of drainage areas, grading, crowning and filling with gravel, if necessary. The grading equipment to be used must be approved by the Unit Manager or his/her representative. Note that Kates Grade between County Road 438 and Camp Ten Road is a Marquette County seasonal road.

## 4.4 - Access

#### 4.4.4 - Restricted access (10/05)

If the Miller Creek Snowmobile trail is used for access/hauling from December 1 through March 31, access must be from Camp Ten Road to minimize impact on the snowmobile trail.

## 5 - Operations

### 5.2 - Conduct of Operations

#### 5.2.1 - Slash

##### 5.2.1.11 - Slash for reforestation (5/07)

To facilitate reforestation, the sale area shall be left with slash evenly distributed. Bunched tops within the cutting area shall be broken up and scattered. Stumps shall be cut low to the ground. Processing sites shall not be left with a compacted layer of slash; tops from these sites shall be hauled back into the cut area and scattered.

### 5.2.2 - Hazard Trees/Snags

#### 5.2.2.1 - Den trees (10/16)

Obvious hollow and/or den trees shall be protected and left standing unless they are a safety hazard.

### 5.2.3 - Operating Restrictions

#### 5.2.3.1 - Operating restrictions (9/11)

Within Payment Unit(s) 1-8, unless changed by written agreement, cutting, skidding, and hauling are not permitted during the period from December 1 through March 31. This restriction is to avoid conflict with the snowmobile trail. If Payment Units 5-8 require freezing, then specs 4.4.4 and 5.2.41 will be utilized.

#### 5.2.32 - Decking/landing restoration (9/13)

All decking and landing areas must have the surface area restored to a condition equal to or better than before. This is to ensure the proper regeneration of the stand. Wood debris, chips and "cookies" from trimmings must be removed or scattered away from landing and loading areas and may not be windrowed on the edge.

#### 5.2.38 - No decking against live trees (2/04)

Cut products may not be decked against unmarked or designated leave trees.

#### 5.2.41 - Snowmobile trail protection (9/11)

The Miller Creek Snowmobile Road is a snowmobile trail and is shown on the Timber Sale Map. Do not cut or damage posts with orange trail markers or traffic control signs. If the trail is used, it must be maintained and restored to a condition equal to or better than before the sale. The road maintenance/restoration must be done prior to December 1. If the trail is used for hauling, it must be graded to the satisfaction of the Unit Manager or his/her representative prior to December 1st. If the trail road is to be used for hauling during the snowmobile season, then a snow covered base must be left on the trail. Maintain a 20 foot wide slash, debris, and rut free zone daily using the snowmobile trail as the centerline. All stumps within 20 feet of the snowmobile trail must be cut at ground level. Hauling is not permitted on the snowmobile trail on Saturday and Sunday from December 1 through March 31.

## 5.4 - Soil Protection

#### 5.4.1 - Rutting restriction, general (7/16)

Operations are to cease immediately if equipment and weather conditions result in rutting of roads and/or skid trails which is 12 inches or greater in depth and 50 feet in length. The Unit Manager or his/her representative may restrict hauling and/or skidding if ruts exceed the specified depth. With the Unit Manager or his/her representative's approval, the Purchaser may return to the area when the risk of rutting has decreased.

## 5.8 - Protection of Endangered Species

#### 5.8.5 - Protection of raptor nests (3/13)

All trees with raptor nests will be protected if found during harvesting operations. Notification will be made to the Unit Manager or his/her representative who will notify the Wildlife Biologist so an on-site evaluation and recommendation can be made, if necessary.

## 6 - Safety and Fire Prevention

### 6.2 - Signing

#### 6.2.1 - Road posting (9/09)

The Purchaser is responsible for posting and maintaining caution signs on Kates Grade, Camp Ten Road, and Miller Creek Snowmobile Road prior to beginning operations. The road must be posted at appropriate distances from the sale area to warn of logging activity and truck traffic. Signs must be removed when harvest operations are suspended or completed. The Purchaser will provide these signs.

6.2.2 - Snowmobile trail posting (8/09)

The Purchaser is responsible for posting and maintaining caution signs on Miller Creek Snowmobile Road prior to beginning operations during the snowmobile season (approximately December 1 to March 31). The trail must be posted at appropriate distances from the sale area to warn of logging activity and truck traffic. Signs must be removed when harvest operations are suspended or completed. The Purchaser will provide these signs.



Michigan Department of Natural Resources - Forest Resources Division

Sale Number	Year
32-012	19

### TIMBER SALE MAP

This information provided by authority of Part 525, 1994 PA 451, as amended.

Forest Management Unit Gwinn	County Marquette	Mapped By Brolin	Date 05/15/2019	Page 1	of 2
Cruised By Brolin					

Township 44N	Range 26W	Section(s) and Subdivision(s) Section 6, Section 7, and Section 9	Scale 1:15,840
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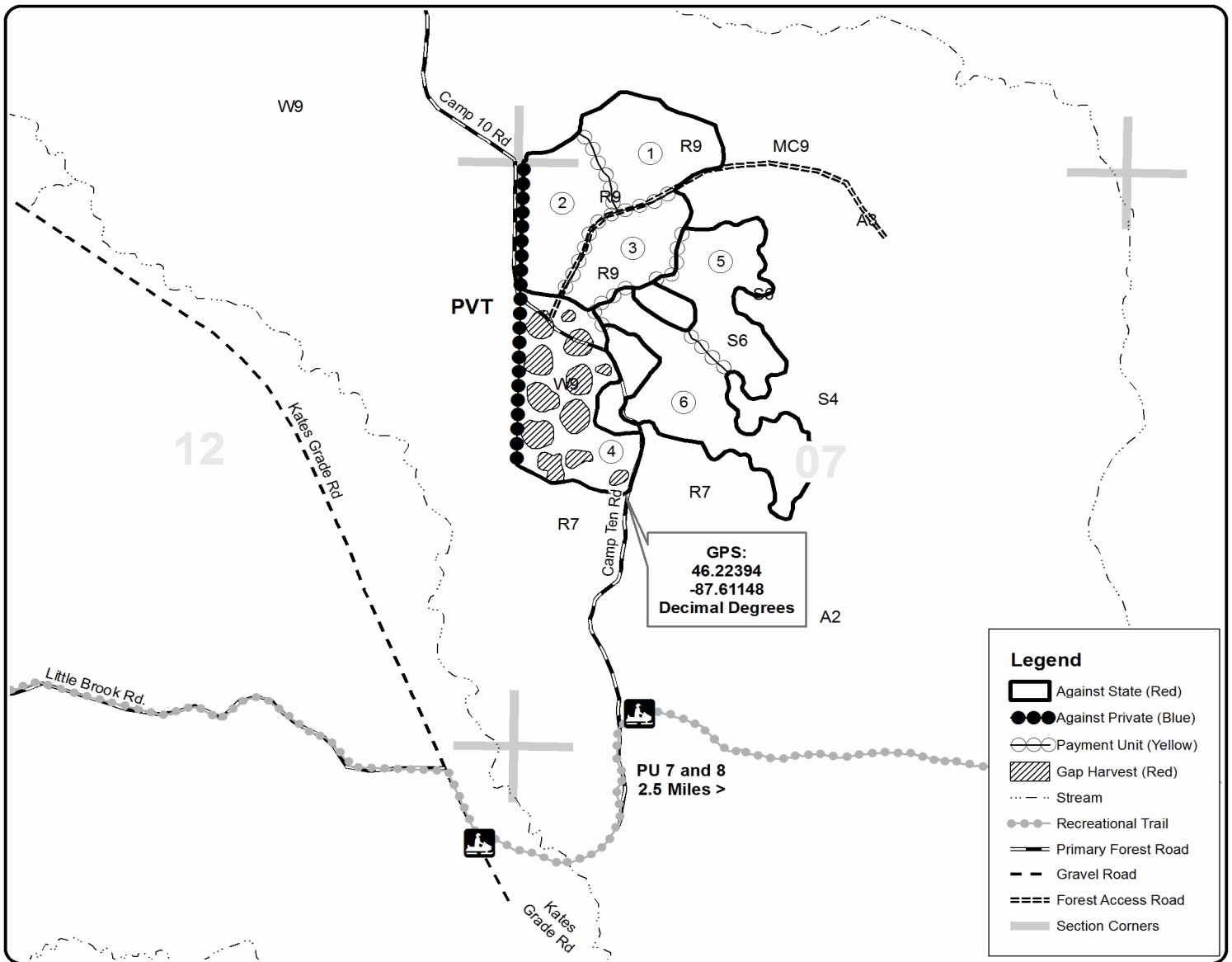
Cover Type				Density	
A = Aspen	H = Hemlock	N = Marsh	U = Upland Brush	0 = Non Stocked	5 = Pole Timber Medium
B = Paper Birch	J = Jack Pine	O = Oak	UM = Upland Mixed	1 = Seedling Sapling Poor	6 = Pole Timber Well
C = Cedar	L = Lowland Brush	P = Lowland Poplar	V = Bog or Marsh	2 = Seedling Sapling Medium	7 = Saw Timber Poor
D = Treed Bog	LM = Lowland Mixed	Q = Mixed Swamp Conifer	W = White Pine	3 = Seedling Sapling Well	8 = Saw Timber Medium
E = Swamp Hdwoods	M = Mpl, Bch, Brch	R = Red Pine	X = Non Stocked	4 = Pole Timber Poor	9 = Saw Timber Well
F = Spruce Fir	MC = Mixed Conifer	S = Black Spruce	Z = Water		
G = Grass	MD = Mixed Deciduous	T = Tamarack			

PU Acres	PU Acres
1 18.1	5 19.9
2 17.9	6 26.7
3 14.5	7 12.7
4 10.4	8 10.8

## Conifer Cloudland Compartment 55 131 Acres



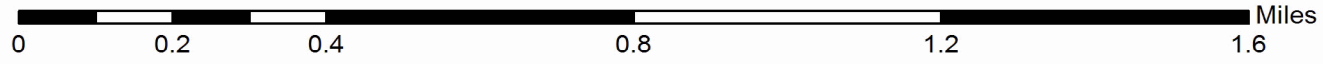
QR code for PDF Map app



GPS:  
46.22394  
-87.61148  
Decimal Degrees

**Legend**

- Against State (Red)
- Against Private (Blue)
- Payment Unit (Yellow)
- Gap Harvest (Red)
- Stream
- Recreational Trail
- Primary Forest Road
- Gravel Road
- Forest Access Road
- Section Corners





Michigan Department of Natural Resources - Forest Resources Division

Sale Number	Year
32-012	19

### TIMBER SALE MAP

This information provided by authority of Part 525, 1994 PA 451, as amended.

Forest Management Unit Gwinn	County Marquette	Mapped By Brolin	Date 05/15/2019	Page 2	of 2
Township 44N	Range 26W	Section(s) and Subdivision(s) Section 6, Section 7, and Section 9	Scale 1:15,840		

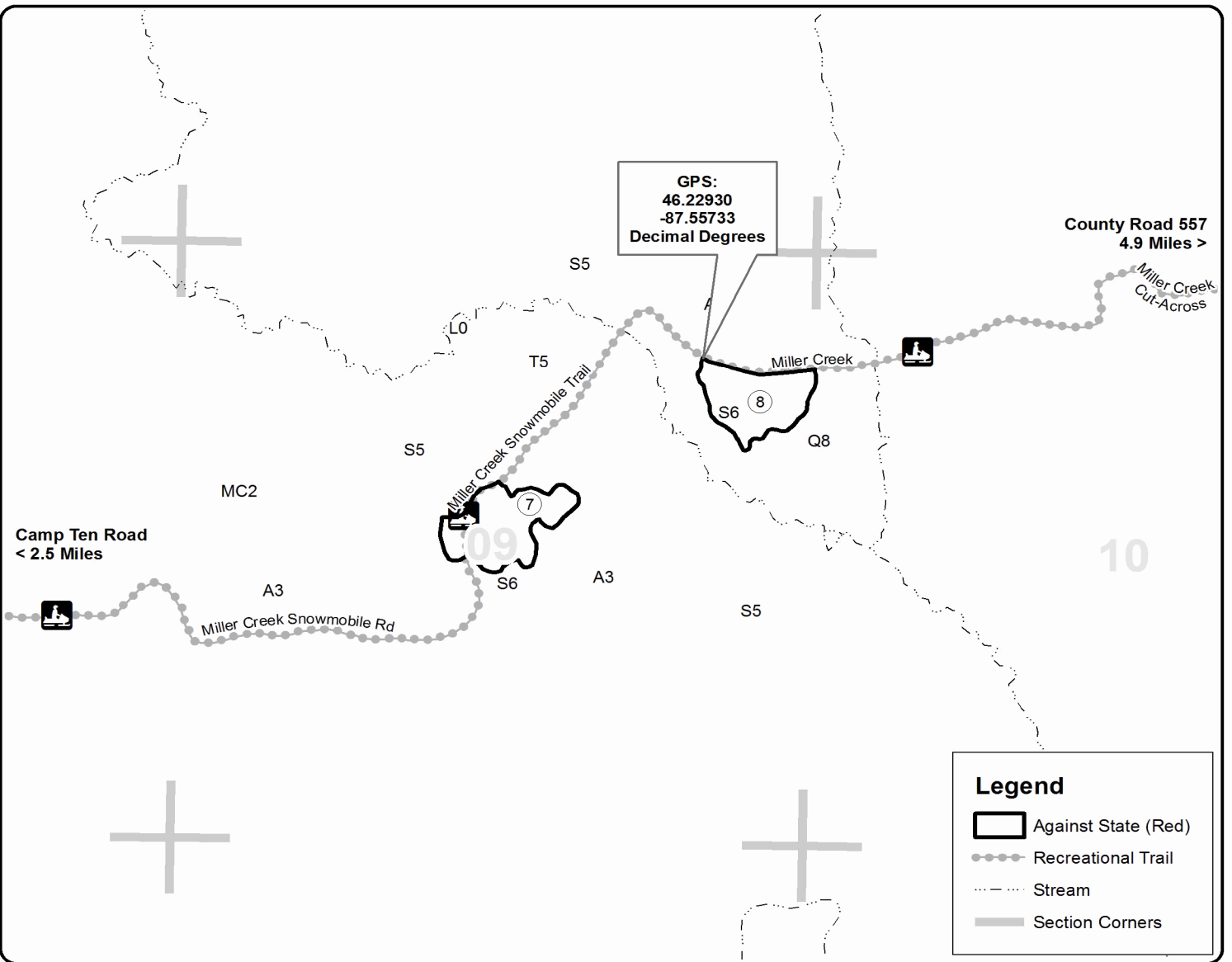
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## Conifer Cloudland Compartment 55 131 Acres

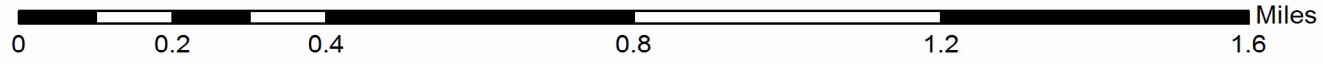


QR code for PDF Map app



**Legend**

- Against State (Red)
- Recreational Trail
- Stream
- Section Corners





Michigan Department of Natural Resources – Forest Resources Division

### TIMBER SALE PROPOSAL CHECKLIST

FOR INSTRUCTIONS TO COMPLETE THIS FORM, SEE IC4031-6

**SALE NAME** Conifer Cloudland **SALE #** 32-012-19101 **DATE** 06/13/2019

INFLUENCE ZONES	GENERAL FOREST	TRAVEL	WATER	REC.	WILD OR NATURAL AREA	WINTER DEER RANGE	OTHER	COMMENT
1. Which influence zones apply to this sale? If "Other" selected, enter a comment.	X							(Check or prioritize by entering number)

MANAGEMENT OBJECTIVE	TIMBER	WILDLIFE	RECREATION	OTHER	COMMENT
2. What is the Management Objective for this sale? Select as many as apply. If "Other" selected, enter a comment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

CERTIFIED LANDS	RELATED SALE SPECS	COMMENT
3. Is the land within the sale treatment area certified?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
If "No", then is the sale number in the proper format (XX-6YY-ZZ-AA) and has specification 7.10.1 been used?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> 7.10.1	

AESTHETICS	RELATED SALE SPECS	COMMENT
4. Is there a seasonal restriction that will reduce the visual impact?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> 5.2.3.1 <input type="checkbox"/> 5.2.3.2	
5. Are there specifications, in addition to 5.2.1, to manage visual impact from slash?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 5.2.1.2.6 <input type="checkbox"/> 5.2.1.8	5.2.1.11 reforestation
6. Is any part of this sale a clearcut? If "Yes", then answer the following:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
a) Was the actual or apparent treatment area reduced?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
b) Was an irregular treatment boundary designed?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
c) Were "leave trees" strategically located?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> 2.1.7 <input type="checkbox"/> 3.4.2	
d) Were uncut buffers left?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 3.4.3	retention, patch cuts
e) Was the stand age class in the area staggered?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	patches
f) Was a feathered look created?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
g) Was the clearcut adapted for skyline considerations?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
h) Is the area being converted to selective management?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
i) If travel was selected in Question 1, was the area adapted for travel?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
j) Is this clearcut adjacent to another clearcut area where the trees are less than three (3) years old or less than five (5) feet high? If "Yes", describe alternative methods to provide for visual quality on the site. (Alternatives can include leaving residual trees in new clearcut, if the adjacency requirements cannot be met.)	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
k) Is the clearcut greater than 100 contiguous acres? If "Yes", enter justification in Additional Comments, pg. 6.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
7. Is this sale, or stands within this sale, classified as a plantation or pine-dominant type? If "Yes", then answer the following:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
a) Was diversity of the area enhanced?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
b) Were thinning adaptations used?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	
c) Were special landing locations designed?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> 5.2.3.1	
d) Was the "ARM" harvest system used?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>	

AESTHETICS		RELATED SALE SPECS	COMMENT
e) If Travel was selected in Question 1, was selective harvesting used adjacent to the road?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	
f) Was the pine/hardwood edge contrast softened?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/>	
g) Were stumps cut lower than the General Specifications?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> 2.2.3	planting operations
h) Were uncut islands left?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 3.4.3.	retention
8. A recreation site such as trail, pathway or campground is within the sale area or the vicinity. If "Yes", then answer the following:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> 6.2.2 <input type="checkbox"/> 6.2.3	5.2.41 snowmobile trail
a) Was an uncut buffer left?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	
b) Was the area next to the site converted to a selectively managed type?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	
c) Were clumps or strips of trees left to reduce visibility?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	
d) Was a trail or pathway rerouted to a better location?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/> 5.2.42	
e) Was only one side of the site treated per entry year?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>	
f) Does the contract require slash to be reduced or treated?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 5.2.39 <input type="checkbox"/> 5.2.40 <input checked="" type="checkbox"/> 5.2.41	

COMMUNITY RELATIONS		RELATED SALE SPECS	COMMENT
9. Were sale boundaries clearly identified on maps and on the ground?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/>	1.2.1
10. Were neighbors notified of DNR's intent to harvest adjacent to their property?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	
11. Which of the following applies to this sale? Check one.			
a) Access may be through private land.	<input type="checkbox"/>	<input type="checkbox"/> 4.4.1	
b) Access may be through other public land.	<input type="checkbox"/>	<input type="checkbox"/> 4.4.2	
c) Access may be through private or other public land.	<input type="checkbox"/>	<input type="checkbox"/> 4.4.3	
d) Access may be through state forest land.	<input checked="" type="checkbox"/>		
12. Are there any known Tribal resources affected by this sale? [Note: Tribal resources may include adjacent lands, bodies of water, critical habitats, and Riparian corridors, as well as other resource uses such as rights to hunt, fish, or gather.] If "Yes", enter comment.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	
13. Does the sale involve undivided interest parcels?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
a) If "Yes", have all interested parties been informed?		<input type="checkbox"/>	

UNIQUE RESOURCES		RELATED SALE SPECS	COMMENT
14. Natural Heritage Database has been checked: <input checked="" type="checkbox"/> Yes Are there any known or potential occurrences of special concern, threatened or endangered species that may be affected by the sale? Note specs 5.8.1, 5.8.3., 5.8.4, & 5.8.7 are to protect potential occurrences. If "Yes", answer a) & b).	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
a) Was the occurrence known and reviewed at Compartment Review? If "Yes", follow recommendations.	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> 5.8.1 <input type="checkbox"/> 5.8.2 <input type="checkbox"/> 5.8.3	
b) Is this a new occurrence that was not known at Compartment Review? If "Yes", was the occurrence reported to the Statewide Endangered Species Coordinator, and was proposed management action developed in collaboration with other divisions?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> 5.8.4 <input type="checkbox"/> 5.8.5 <input type="checkbox"/> 5.8.6 <input type="checkbox"/> 5.8.7	



UNIQUE RESOURCES		RELATED SALE SPECS	COMMENT
15. Is there a Special Conservation Area or other ecologically unique features in or adjacent to the sale area? If "Yes", enter a comment describing the feature.	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/>	adjacent cold water stream
16. Are there any geologically unique features in or adjacent to the sale area? If "Yes", enter a comment describing the feature.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	
17. Are there any historically or culturally significant features in or adjacent to the sale area? If "Yes", enter a comment describing the feature. (General spec 5.7 also protects historic sites)	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 5.7.1	historic logging camp
18. Does the sale area contain stand level habitat elements that need to be protected during harvest, i.e., snags, den trees, coarse woody debris, large over-mature trees?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> 5.2.2.1 <input type="checkbox"/> 5.2.2.2 <input type="checkbox"/> 5.2.2.3 <input type="checkbox"/> 5.2.4.3 <input type="checkbox"/> 5.2.29	den trees

FOREST HEALTH AND REGENERATION		RELATED SALE SPECS	COMMENT
19. Will slash be distributed uniformly across the site, removed from site or chipped?  If "No", enter justification comment for concentrating slash.  [Note: site preparation, fuel reduction and creating small piles for rabbit habitat are acceptable reasons to concentrate slash]	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> 4.1.3 <input type="checkbox"/> 5.2.1.8 <input type="checkbox"/> 5.2.1.9 <input type="checkbox"/> 5.2.1.10 <input checked="" type="checkbox"/> 5.2.1.11 <input type="checkbox"/> 5.2.1.12 <input type="checkbox"/> 5.2.1.13 <input type="checkbox"/> 5.2.1.14	
20. Does the sale contain a regeneration harvest? If " Yes", answer 20 a) and 20 b)	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		
a) Does the sale involve difficult to regenerate species?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
b) Is desirable advanced regeneration present and protected from damage?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> 3.4.1	
21. Are there any fire or forest health risks in the sale area that required special attention?  [Note: 5.2.1 Slash and 6.1 General Industry Safety Standards cover fire issues.]	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> 5.2.3.1 <input type="checkbox"/> 5.2.3.2 <input type="checkbox"/> 5.2.3.3 <input type="checkbox"/> 5.2.3.4 <input type="checkbox"/> 5.2.3.6 <input type="checkbox"/> 5.2.3.9 <input type="checkbox"/> 5.2.3.11 <input type="checkbox"/> 7.3.1.1 <input type="checkbox"/> 7.3.1.2 <input type="checkbox"/> 7.3.2	
a) If "Yes", were these issues addressed?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		

WATER QUALITY & SITE PRODUCTIVITY						
22. Sustainable Soil and Water Quality Best Management Practices (BMPs). [Note: General spec 5.3 requires all contracts to comply with the BMP manual].						
	AFFECTED BY SALE	IDENTIFIED ON MAP	RMZ IDENTIFIED	PERMITS REQUIRED	RELATED SALE SPECS	COMMENT
a) Stream Crossings	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4.1.1 <input type="checkbox"/> 4.1.2 <input type="checkbox"/> 4.1.5 <input type="checkbox"/> 4.1.11	
b) Lakes	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Ponds	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Vernal Ponds	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5.4.6	
e) Perennial Streams	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4.1.5	
f) Intermittent Streams	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4.1.5	
g) Bogs	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4.1.5	

WATER QUALITY & SITE PRODUCTIVITY						
	AFFECTED BY SALE	IDENTIFIED ON MAP	RMZ IDENTIFIED	PERMITS REQUIRED	RELATED SALE SPECS	COMMENT
h) Marshes	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4.1.5	
i) Fens	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4.1.5	
j) Forested or non-forested riparian areas	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4.1.5	
k) Floodplain greater than or equal to 2 square miles	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
l) Special designations as trout streams, natural rivers, or wild and scenic rivers	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m) Other	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
23. Are the following road construction standards applied?					RELATED SALE SPECS	COMMENT
a) Minimize road construction	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> N/A	<input type="checkbox"/> 4.1.12		
b) Methods employed to minimize visual or environmental impact of new roads	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> 4.1.6		
c) Temporary roads are closed	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> 4.1.7		
d) Landing areas identified and restored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> N/A	<input type="checkbox"/> 5.2.30 <input type="checkbox"/> 5.2.31 <input checked="" type="checkbox"/> 5.2.32 <input type="checkbox"/> 5.2.33 <input type="checkbox"/> 5.2.37		
e) Existing erosion problems are identified	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/>		
f) Existing erosion problems are corrected	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/>		
g) Failed drainage structures are identified	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/>		
h) Failed drainage structures are corrected	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/>		
i) Other	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> N/A	<input type="checkbox"/>		
24. Were the following soil erosion hazards present and are plans in place to protect them?		IDENTIFIED ON MAP	SLOPES STEEPER THAN 10%	RELATED SALE SPECS	COMMENT	
		<i>Check if applicable</i>				
a) Erosion from road	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> 5.4.1		
b) Erosion from skid trails	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5.4.2		
c) Erosion of sensitive soils	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5.4.3		
d) Other erosion hazards	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5.4.4		
25. Were soil compaction and rutting risks present and are plans to prevent damage in place?		SEASONAL RESTRICTIONS REQUIRED		RELATED SALE SPECS	COMMENT	
		<i>Check if applicable</i>				
a) Saturated Soils	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>		<input checked="" type="checkbox"/> 5.4.1	black spruce stands	
b) Organic Soils	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>		<input type="checkbox"/> 5.4.5		
c) Poorly drained or somewhat poorly drained soils	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>		<input type="checkbox"/> 5.4.6		
d) Fine textured soils (loam, silt, and clay soils)	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>		<input type="checkbox"/> 5.4.7		
e) Other	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>		<input type="checkbox"/>		
26. Will ruts deeper or longer than the rutting guidance of 12 inches deep and 50 feet long be allowed in the sale area? If "Yes", enter justification comment for deeper or longer ruts.		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A		<input checked="" type="checkbox"/> 5.4.1 <input type="checkbox"/> 5.4.7 <input type="checkbox"/>		

WATER QUALITY & SITE PRODUCTIVITY		RELATED SALE SPECS	COMMENT
27. Were site contamination standards requiring equipment to be parked away from riparian management zones, sinkholes, or supplies of ground water adequately addressed with sale specs? [ Note: General Specifications 5.6 and 5.6.1 address trash and oil spills]	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	<input type="checkbox"/>	
28. Does this sale vary from the retention of 1/6 to 1/3 of slash (Michigan Woody Biomass Harvesting Guidance, General Condition & Requirement 2.2)?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> 2.2.2 <input type="checkbox"/> 2.2.8 <input type="checkbox"/> 2.2.9 <input type="checkbox"/> 2.2.10 <input type="checkbox"/> 2.2.11	

RETENTION		
29. The following retention was left to meet the retention guidelines:		
STAND(S) OR PAYMENT UNIT(S):	RETENTION APPLIED	COMMENT
Payment Units 1-8	<input type="checkbox"/> None <sup>1</sup> <input checked="" type="checkbox"/> 3-10% Acreage <sup>2</sup> <input type="checkbox"/> 3-10% BA <sup>3</sup> <input type="checkbox"/> Combination <sup>4</sup>	retention in excluded area and patch cut
	<input type="checkbox"/> None <sup>1</sup> <input type="checkbox"/> 3-10% Acreage <sup>2</sup> <input type="checkbox"/> 3-10% BA <sup>3</sup> <input type="checkbox"/> Combination <sup>4</sup>	
	<input type="checkbox"/> None <sup>1</sup> <input type="checkbox"/> 3-10% Acreage <sup>2</sup> <input type="checkbox"/> 3-10% BA <sup>3</sup> <input type="checkbox"/> Combination <sup>4</sup>	
	<input type="checkbox"/> None <sup>1</sup> <input type="checkbox"/> 3-10% Acreage <sup>2</sup> <input type="checkbox"/> 3-10% BA <sup>3</sup> <input type="checkbox"/> Combination <sup>4</sup>	
1. If "None" was selected, was it approved at Compartment Review? <input type="checkbox"/> No <input type="checkbox"/> Yes 2. Acreage used with: Clearcut w/Reserves, Clearcut Patch, Clearcut Strip, Seed Tree, Seed Tree w/Reserves, Shelterwood, Shelterwood w/Reserves. 3. Basal Area used with: Single Tree Selection, Group Selection, Thinning. 4. Combination: Used when acreage and individual trees are left.		

MANAGEMENT INTENTIONS		COMMENT
30. Were all management intentions, as agreed upon at the Compartment Review meeting, provided for in this sale? If "No", then answer the following:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
a) If the sale proposal and/or change in prescription did not go through a Compartment Review meeting, was approval provided per the post review procedure in Chapter 7 of the OI Manual, and were DNR Resource Assessment Guidelines followed, as outlined in IC4123?	<input type="checkbox"/> No <input type="checkbox"/> Yes	

**Additional COMMENTS:**

Summer or winter access to all units will either require road work/patch gravel during non-frozen seasons or snowmobile trail protection specs during snowmobile season.