



# Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 45030

Entry Year 2021

Acreage: 1,817

County Mackinac

Management Area: Huron Patterned Outcrop

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**Revision Date:** 2019-07-26

**Stand Examiner:** Josh Brinks

**Legal Description:**

Clark Township: T42N R1W Sections 1, 2, 11, 12, 13, 14; Marquette  
Township: T43N R1W Section. 35

**Identified Planning Goals:**

The compartment is within the Huron Patterned Outcrop Management Area. Management goals include developing an optimal age class distribution of aspen stands for sustainable forestry and wildlife values. Rotating hardwood treatments for optimal regeneration and stocking of all age classes. Maintain current openings as needed for diversity and enhancement of wildlife benefits. Provide public access for multiple use benefits such as hunting, gathering, snowmobile riding and camping while protecting the natural resources.

**Soil and topography:**

Very deep hydric soils are prevalent in this compartment, the exception being the extreme north ownership which is Kalkaska sand. The hydric soils are generally Markey, Carbondale, and Beavertail mucks. These soils are interrupted by pockets of Paquin sand which generally support the grass openings. The topography of this compartment can best be described as very flat with slight rises which support aspen, northern hardwood and grass.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:**

Mostly a contiguous block of state land with only limited access from the east. Private land surrounds this compartment on 3 sides. The disjointed 80 acre parcel to the north has good access via. a seasonal county road.

**Unique Natural Features:**

No MNFI occurrences in the compartment at this time.

**Archeological, Historical, and Cultural Features:**

None known at this time.

**Special Management Designations or Considerations:**

The southern portion of this compartment is within the obligate deer winter range.

**Watershed and Fisheries Considerations:**

This compartment contains the headwaters area of Flower creek, a cold-transitional stream. A buffer of 200 feet should be maintained adjacent to this stream to discourage beaver populations.

**Wildlife Habitat Considerations:**

This compartment is part of the Huron Patterned Outcrop MA where featured wildlife species include pileated woodpecker, ruffed grouse, snowshoe hare, and white-tailed deer. The compartment is dominated by lowland stands, particularly cedar. Lowland deciduous types where aspen is common are also relatively common in the northern and middle portions of the compartment. The far north disjunct portion is dominated by red pine plantation and a northern hardwood stand.

The southern portion of the compartment is part of a deer wintering complex.

Wildlife objectives here include retaining the lowland conifer for cover, retaining hemlock where it is present, maintaining diversity in northern hardwood stands, and retaining both young and mature early successional habitat. The cover retained and young deciduous habitat that results from harvests will provide food and cover for deer, ruffed grouse, and hare.

Where harvests occur, mature pockets will remain to offer some mature trees for pileated woodpeckers and ruffed grouse.

Lowland deciduous harvests now will provide greater age class diversity between stands in the compartment for the future.

Other species including black bear, bobcat, coyote, and numerous migratory birds are expected to benefit from the management here.

**Mineral Resource and Development Concerns and/or Restrictions**

The compartment is surrounded by numerous active sand & gravel and limestone production operations. There should be good non-metallic mineral potential within the compartment, but there appears to be many wetlands in the compartment, which could inhibit surface mining endeavors. There is no known metallic mineral potential in this area. There is no known

potential for economic hydrocarbon production in the UP.

**Vehicle Access:**

The Everleigh Road accesses the north 80 acres of the compartment. The remainder of the compartment is accessed via the Flower Creek Road which is located on the East side of the compartment off of highway M-129.

**Survey Needs:**

There is no record of a survey along the north line of Sections 1 and 2. A survey will be needed in this area before the lowland hardwood stand can be prepared for a timber sale.

**Recreational Facilities and Opportunities:**

Several miles of snowmobile trail run along the western edge of this compartment. Other types of recreation are generally limited to hunting, gathering and snowmobile trail riding.

**Fire Protection:**

A large portion of this compartment is swamp and therefore access is difficult. A dry summer could pose issues for fire fighting access.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

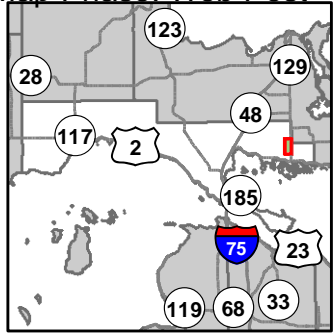
- Total Acres by Cover Type and Age Class
- Cover Type by Harvest Method
- Proposed Treatments – No Limiting Factors
- Proposed Treatments – With Limiting Factors
- Stand Details (Forested and Nonforested)
- Dedicated and Proposed Special Conservation Areas
- Site Condition Details

The following information is displayed, where pertinent, on the attached compartment maps:

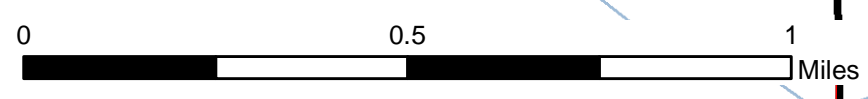
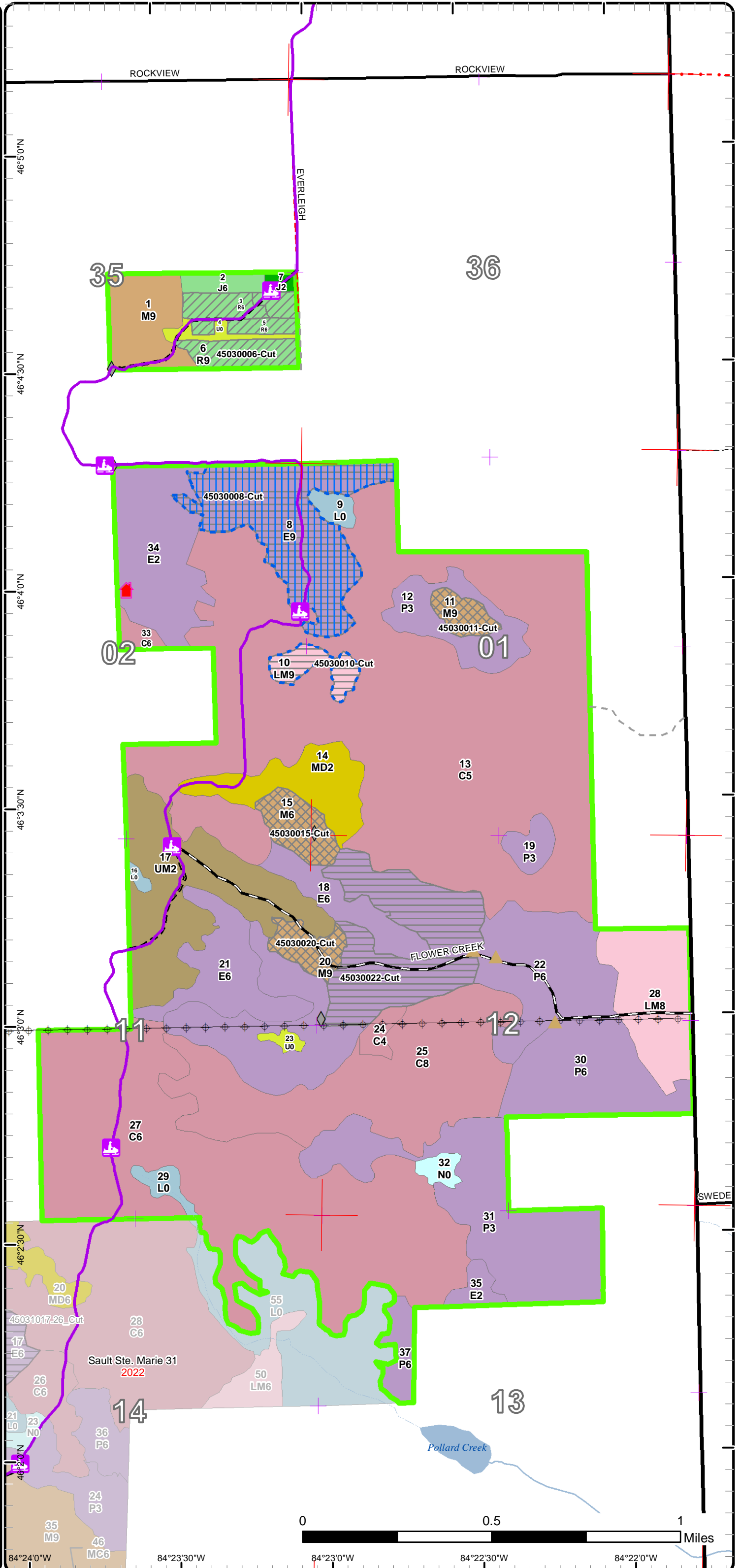
- Base feature information, stand boundaries, cover types, and numbers
- Proposed treatments
- Site condition boundaries
- Details on the road access system

# Cover Type & Treatments Map

Compartment: 30  
 T42N,R01E, Sec: 1, 2, 11, 12  
 T43N, R01W, Sec: 35  
 County: Mackinac  
 Unit: Sault Ste. Marie  
 Mgmt Area: Huron Patterned  
 Outcrop  
 YOE: 2021  
 Acres: 1,817 GIS Calculated  
 Examiner: Josh Brinks  
 Map Revised: 8/9/2019  
 Map Phase: Web Post



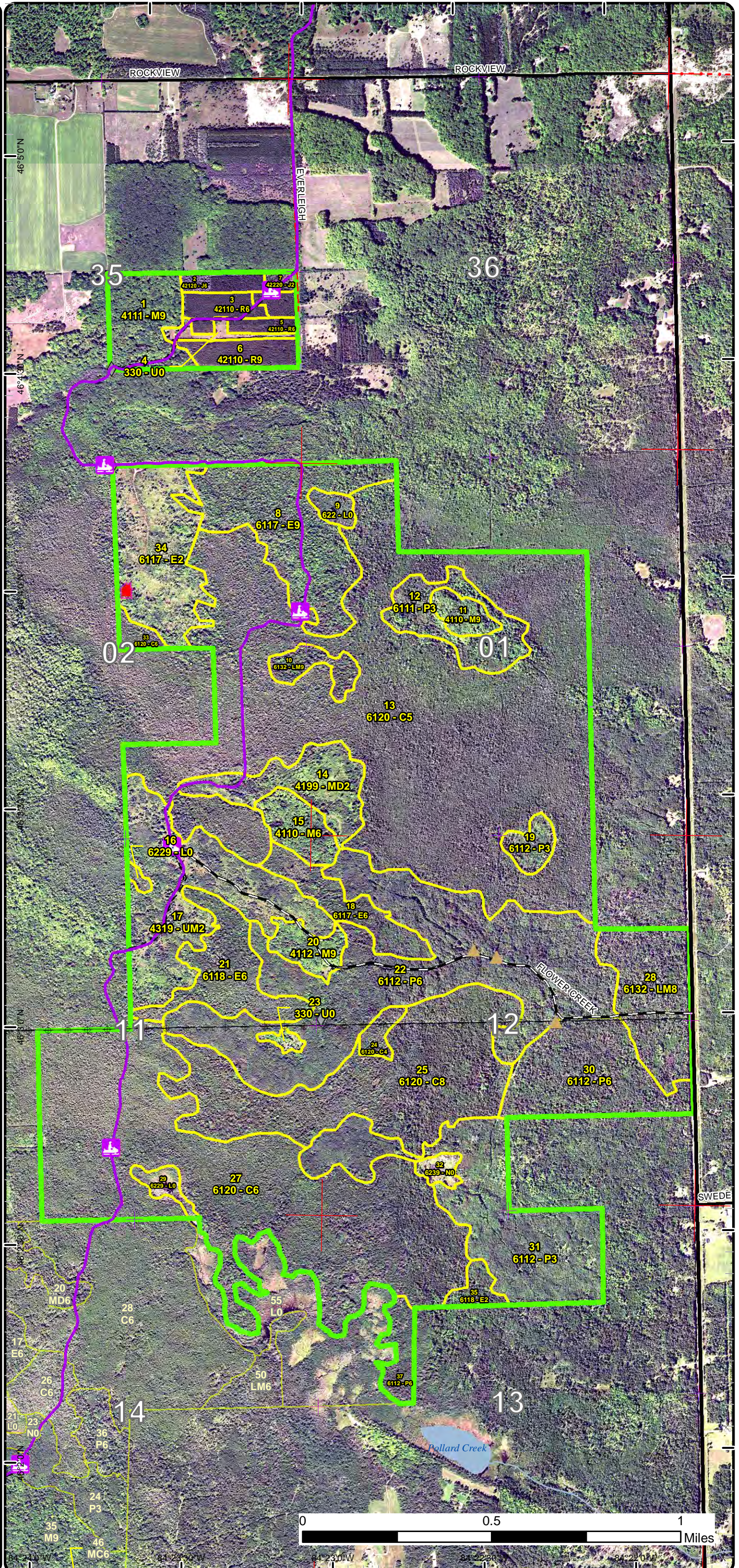
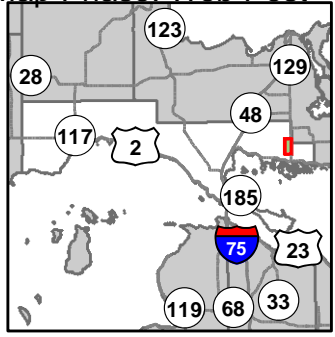
- Miris Corners
- Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Primary Forest Road
- == DNR - Forest Access Route
- Federal / State Highway
- Federal / State / County - Paved Road
- - - County - Gravel Road
- - - County - Dirt Road (Seasonal)
- - - Private - Dirt / Gravel Road
- 🚙 Snowmobile Trails
- 🚙 Designated Snowmobile Trails
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- 🏠 Unspecified Structure
- ▲ Berms
- 🔴 Structures
- ⚡ Powerline
- 🟩 Compartment Boundary
- 🟩 Treatments with Site Conditions
- 🟩 Selection (Group, Single Tree)
- 🟩 Clearcut (w/Reserves)
- 🟩 Seed Tree (w/Reserves)
- 🟩 Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes



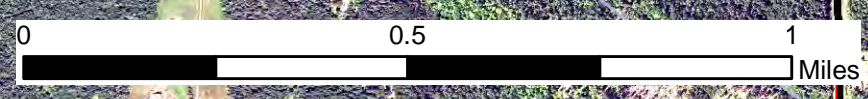
84°24'0"W 84°23'30"W 84°23'0"W 84°22'30"W 84°22'0"W

# Stand Boundary Map

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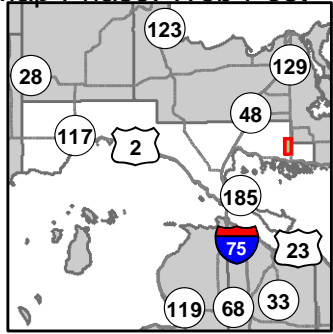


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- Powerline
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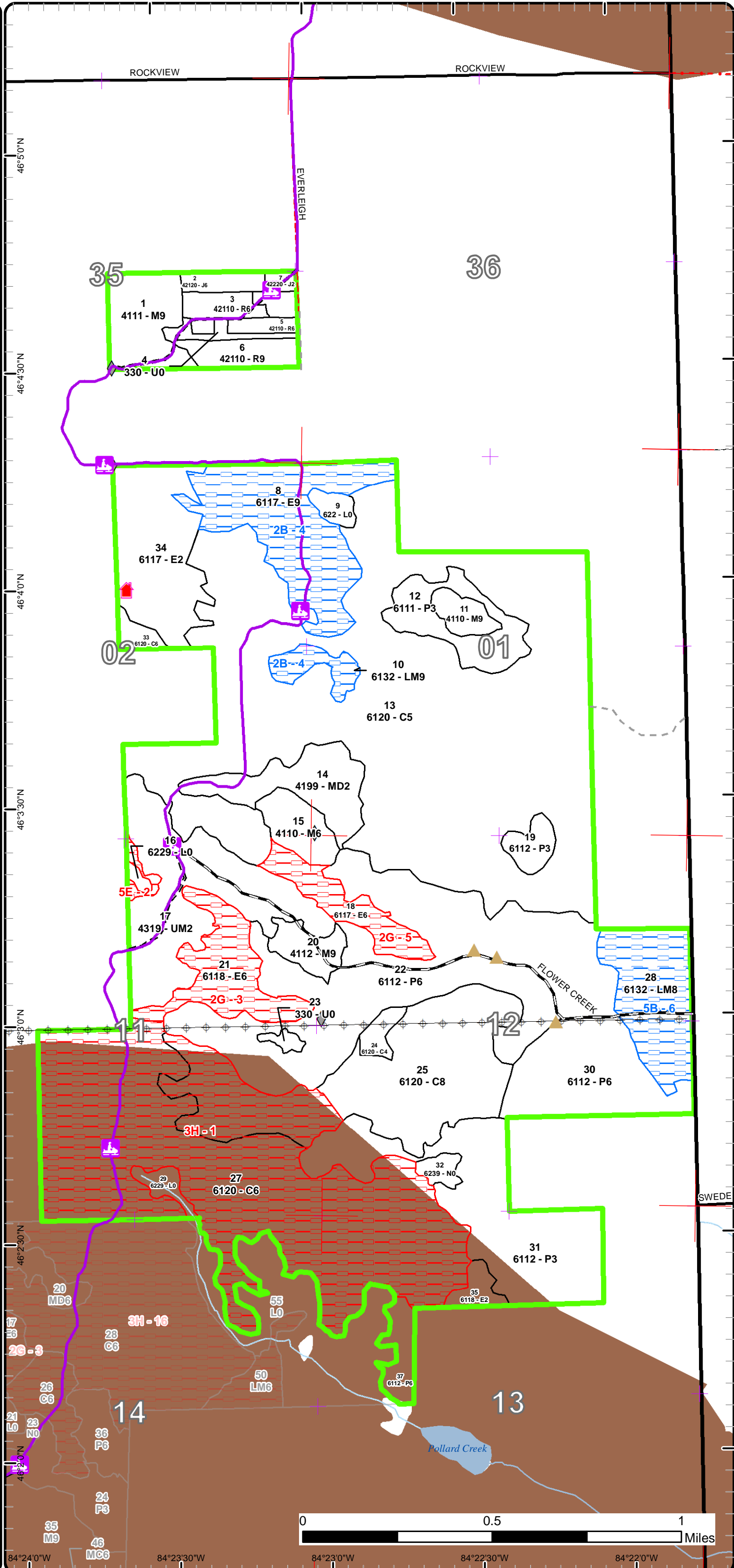


# Special Conservation Areas & Site Conditions Map

Compartment: 30  
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- Perennial River
- Lakes and Rivers All
- 🏠 Unspecified Structure
- ▲ Berms
- 🏠 Structures
- ⚡ Powerline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 2G: Too wet (sensitive soils, does not include access issues)
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- Deer Winter Range



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Cedar	0	0	0	0	0	0	0	0	0	0	6	403	0	0	477	0	0	0	886
Jack Pine	0	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	10
Low-Density Trees	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Aspen/Balsam Poplar	0	0	9	126	263	0	0	0	0	0	0	0	0	0	0	0	0	0	398
Lowland Deciduous	0	61	0	0	7	24	0	78	39	0	0	0	0	0	0	0	0	0	208
Lowland Mixed Forest	0	0	0	0	0	0	0	49	0	0	11	0	0	0	0	0	0	0	60
Lowland Shrub	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Marsh	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Northern Hardwood	0	0	0	0	0	0	30	40	0	0	0	0	0	0	0	0	0	0	70
Red Pine	0	0	0	0	0	16	18	0	0	0	0	0	0	0	0	0	0	0	34
Upland Mixed Forest	0	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88
<b>Total</b>	<b>26</b>	<b>61</b>	<b>135</b>	<b>126</b>	<b>270</b>	<b>40</b>	<b>25</b>	<b>108</b>	<b>128</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>403</b>	<b>0</b>	<b>0</b>	<b>477</b>	<b>0</b>	<b>0</b>	<b>1815</b>



## Report 2 – Treatment Summary

Sault Ste. Marie Mgt. Unit  
Year of Entry: 2021

Compartment 30  
Total Compartment Acres: 1,817

### Acres of Harvest

Commercial Harvest - 146  
Harvests with Site Condition - 89  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Lowland Aspen/Balsam Poplar	73	0	0	0	0	0	0	0	0	73
Lowland Deciduous	0	0	0	78	0	0	0	0	0	78
Lowland Mixed Forest	11	0	0	0	0	0	0	0	0	11
Northern Hardwood	0	39	0	0	0	0	0	0	0	39
Red Pine	0	0	0	0	0	34	0	0	0	34
<b>Total</b>	<b>84</b>	<b>39</b>	<b>0</b>	<b>78</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>235</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	235	0	0	0	0	0	0	0	0	235
Next Step	0	0	0	0	0	0	201	0	0	201
<b>Total</b>	<b>235</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>201</b>	<b>0</b>	<b>0</b>	<b>436</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
3	45030003-Cut	9.0	42110 - Planted Red Pine	Poetimber Well	47	201+	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal

**Habitat Cut: No****Site Condition:**

Prescription Remove every third row. Try to remove the same rows that were removed in the stand to the east that was already third row thinned.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2020

5	45030005-Cut	6.5	42110 - Planted Red Pine	Poetimber Well	47	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Thin to 120-140 BA. Some rows are too tight to fit equipment down. Consider third row thinning or forth row thinning and thinning in between the

Specs: 3 rows that are left.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2020

6	45030006-Cut	18.4	42110 - Planted Red Pine	Sawtimber Well	56	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Thin to 120-140 BA. Do not take more than 1/3 of the volume in any area.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2020

8	45030008-Cut	77.6	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	69	111-140	Harvest	Seed Tree with Retention	6117 - Lowland Deciduous, Mixed Coniferous	Two-Aged	Proposal
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**Habitat Cut: No****Site Condition: Unknown Access**

Prescription Leave areas of thick hemlock, like that in the NW corner of the stand, as retention. Leave a retention area between this stand and stand 34 where the ground is too wet to operate. Outside of these patches leave white pine, yellow birch and hemlock. Cut all trees down to 2". Create some brush piles near lowland conifer edges during normal processing operations if possible to benefit here.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Acceptable regeneration includes maple, yellow birch, hemlock, spruce, fir, birch, aspen, ash, pine and cedar.  
Regen:

Other This will likely be a winter harvest because of access and ground conditions. Best access to this stand would be the snowmobile trail to the north. It is likely that treatment boundaries will differ once the sale is laid out.  
Comment:

Proposed Start Date: 10/1 /2020





S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
10	45030010-Cut	11.0	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	104	141-170	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal

**Habitat Cut: No**      **Site Condition: Unknown Access**

Prescription Cut all trees down to 2" in DBH. Do not cut any pine, hemlock or yellow birch. Put in 2 retention pockets focused on areas of thick cedar/hemlock.

Next Step Monitoring, Natural Regen (Intermediate)  
Treatments:

Acceptable Regen: Acceptable regen includes maple, spruce, fir, cedar, birch, pine, aspen.

Other Comment: A skid trail will have to be matted either up to the north into the other treatment or to the trail to the west. Stay away from the old beaver dam.

Proposed Start Date: 10/1 /2020

11	45030011-Cut	9.2	4110 - Sugar Maple Association	Sawtimber Well	79	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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**Habitat Cut: No**      **Site Condition:**

Prescription Thin to 70-80 BA. Remove balsam fir of merchantable size. Put in a few canopy gaps to encourage hardwood regen. Leave a few large wolfy trees and maintain tree species diversity in the stand.

Next Step Monitoring, Natural Regen (Intermediate)  
Treatments:

Acceptable Regen: Acceptable regen includes maple, birch, pine, cedar, oak.

Other Comment: There is a road into this stand through the PVT to the east. Landowner was agreeable as long as road was improved.

Proposed Start Date: 10/1 /2020

15	45030015-Cut	17.1	4110 - Sugar Maple Association	Poetimber Well	69	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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**Habitat Cut: No**      **Site Condition:**

Prescription Thin stand to 80 BA. Place some regen gaps in this stand to promote hardwood regeneration. Do not put gaps where there are large boulders.

Specs: Leave a few large wolfy trees, and maintain tree species diversity in the stand.

Next Step Monitoring, Natural Regen (Intermediate)  
Treatments:

Acceptable Regen: Acceptable regen includes maple, oak, birch with some beech and ironwood.

Other Comment: Stand is outside of the deer yard.

Proposed Start Date: 10/1 /2020

20	45030020-Cut	12.8	4112 - Maple, Beech, Cherry Association	Sawtimber Well	69	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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**Habitat Cut: No**      **Site Condition:**

Prescription Thin stand to 80 BA. Make sure to put in regen gaps to enhance hardwood regeneration. Do not put gaps in areas where boulders are present.

Specs: Leave a few large wolfy trees and maintain tree species diversity in the stand.

Next Step Monitoring, Natural Regen (Intermediate)  
Treatments:

Acceptable Regen: Acceptable regen includes maple, oak and birch with some beech and ironwood.

Other Comment: Stand is outside of the deer yard.

Proposed Start Date: 10/1 /2020



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
22 45030022-Cut	73.3	6112 - Lowland Aspen	Poletimber Well	35	81-110	Harvest	Clearcut with Retention	6112 - Lowland Aspen	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees down to 2" in DBH. Do not cut oak, pine, hemlock, yellow birch or cedar. Leave one 0.5 acre retention patch for every 10 acres of harvest. Try to focus retention patches around wet areas with tag alder but leave some large (>18" dbh) trees. Create some brush piles near lowland conifer edges through normal processing if possible to benefit here.

Next Step Monitoring, Natural Regen (Intermediate)

Acceptable Regen: Acceptable regen includes aspen, birch, spruce, fir, ash, pine, cedar, maple.

Other Comment: This treatment is meant to break up the larger P stand. The proposed treatment is a suggestion of where we might find the larger diameters in this stand. It is possible the treatment shape may vary a bit to exclude non merchantable areas.

Proposed Start Date: 10/1 /2020

**Total Treatment Acreage Proposed: 234.9**

## Report 4 – Site Conditions

Sault Ste. Marie Mgt. Unit

Josh Brinks : Examiner

Compartment: 30

Year of Entry: 2021

### Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions				
Acres	Available	With Condition	Not Available	2B	5B	2G	3H	5E
887	571	0	315	Cedar			0	315
10	10	0	0	Jack Pine				
8	8	0	0	Low-Density Trees				
398	398	0	0	Lowland Aspen/Balsam Poplar			0	0
208	68	78	62	Lowland Deciduous	78		62	0
60	0	60	0	Lowland Mixed Forest	11	49		
13	13	0	0	Lowland Shrub				0
5	5	0	0	Marsh				0
35	35	0	0	Mixed Upland Deciduous				
70	70	0	0	Northern Hardwood				
34	34	0	0	Red Pine				
88	85	0	3	Upland Mixed Forest				3
1,817	1,298	138	381	Total Forested Acres	89	49	62	315
	71%	8%	21%	Relative Percent				

\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	316	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Unavailable	5E: Long-Term Retention	3	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This area was not cut with adjacent stand because it was too wet, it now serves as retention. Consists of red maple and ash primarily.							

## Report 4 – Site Conditions

Sault Ste. Marie Mgt. Unit

Josh Brinks : Examiner

Compartment: 30

Year of Entry: 2021

3	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	39	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Standing water throughout the stand. Too wet to harvest.							
4	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	89	2I: Survey needed	Unspecified	Unspecified	Unspecified
<b>Comments:</b> The best route to this stand is through the PVT to the north. The snowmobile trail to the south is very wet.							
5	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	24	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Majority of this stand is too wet except of 3 acre ridge in the middle.							
6	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	49	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

Mgt. Unit

Compartment: #Type!

Year of Entry:



## Report 5 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments

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## Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area  
 HCVA = High Conservation Value Area  
 SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
1	4111 - S.Maple, Hard Mast Association	Sawtimber Well	31.2	74	81-110	N/A	Stand was recently thinned in 2005 as part of Everleigh RD Hardwoods. Residual timber is in good condition. Oaks are scattered throughout the stand. There is a patch of more open grown looking oak with younger pole size oak in the middle of the stand. The forest floor is a blanket of maple regen but it is over topped by ironwood about 4' tall. There is a mix of sugar maple and iron wood saplings about 1" in diameter.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Sugar Maple		77	Log/Pole	13	75	Sugar Maple		Low	Variable	Sapling
Red Oak		10	Log	12		Ironwood		Low	Variable	Sapling
						White Ash		Trace	< 5 feet	Sapling
2	42120 - Planted Jack Pine	Poletimber Well	7.4	50	141-170	N/A	Stand is part of the MSU research plots. At last entry MSU Tree improvement center mentioned the study was on going. E 1/2 of stand contains planted Jack Pine. W 1/2 of stand contains planted spruce. Both stands have not been thinned and are in poor condition.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
White Spruce		35	Pole/Sapling	5	50	Sugar Maple		Low	< 5 feet	Sapling
Jack Pine		65	Pole/Log	8	50	Beech		Trace	5 - 10 feet	Sapling
						Ironwood		Low	5 - 10 feet	Sapling
						White Pine	Trace	< 5 feet	Sapling	
3	42110 - Planted Red Pine	Poletimber Well	9.0	47	201+	N/A	MSU research plots throughout the stand. MSU tree improvement center was contacted last entry and they mentioned the study was ongoing. Only a few trees have been taken out in years past. Stand is very thick. This stand appears to have been planted at a more typical density than the stand on the south side of the road.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Red Pine		100	Pole/Log	9	48	Red Oak	Trace	< 5 feet	Seeding	
4	330 - Low-Density Trees	Nonstocked	5.7			No	This stand is slowly filling in with maple and red pine.			
5	42110 - Planted Red Pine	Poletimber Well	6.5	47	171-200	N/A	MSU research plots within the stand. This stand has larger spacing between rows than in adjacent stands.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>					
Red Pine		100	Pole/Log	9	48					
6	42110 - Planted Red Pine	Sawtimber Well	18.4	56	171-200	N/A	Nice stand of red pine with very little in the understory. The stand is right on the edge of pole and log size. It was last thinned in 2005.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>					
Red Pine		100	Log/Pole	10	57					
7	42220 - Natural Jack Pine	Sapling Medium	2.8	15	1-50	N/A	That was typed as a grass opening at last entry. It has grown in with a mix of mostly jack pine and red pine but a scotch and white can be found in the stand. It appears to be natural regen and I could not find a planting record. There were between 11 and 20 whirls on the trees.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>					
Red Pine		30	Sapling/Pole	3	16					
Jack Pine		69	Sapling/Pole	3	16					
8	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	77.6	69	111-140	N/A	Stand of mixed species. Some areas consists of decent red maple and in other areas a mix of yellow birch and hemlock... Some large cedar, white pine, and yellow birch scattered throughout the stand. Red maple in this stand is right on the edge of pole/log. Some wet areas of tag alder and black ash.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Red Maple		42	Log/Pole	12	69	Red Maple		Medium	Variable	Sapling
Yellow Birch		18	Log/Pole	12		Balsam Fir		High	Variable	Sapling
White Spruce		9	Log/Pole	13	68	Black Ash		Low	Variable	Sapling
Northern White Cedar		8	Log/Pole	13		Hazelnut (Spp.)		Low	Variable	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																															
9	622 - Lowland Shrub	Nonstocked	5.5			No	Low area with a high water table.																																															
10	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	11.0	104	141-170	N/A	Stand contains good quality cedar w/ a mix of red maple paper birch, and yellow birch. Ground is just a touch higher than surrounding swamp therefore timber is a bit nicer. For the most part it is cedar on the lower ground surrounding a rock knob with a red maple mix.																																															
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11	4110 - Sugar Maple Association	Sawtimber Well	9.2	79	111-140	N/A	Nice patch of hardwood. Stand is in good condition with balsam fir starting to fill in the understory along the edges and on the east end of the stand.																																															
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12	6111 - Lowland Balsam Poplar	Sapling Well	29.1	23	Immature	N/A	This stand was cut in 1995 as part of Flower Creek Winter Sale. Stand consists of a mix of aspen and bam. Regen is nice w/a few scattered red maple throughout. Some of the regen is now pole size.																																															
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13	6120 - Lowland Cedar	Poletimber Medium	472.4	141	51-80	N/A	Very large swamp stand. The majority of the stand is fairly open canopy with lots of alder/willow in the understory with balsam fir saplings. The BA, quality and canopy closure along the slightly higher ground on the border of the stand.																																															
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14	4199 - Other Mixed Upland Deciduous	Sapling Medium	34.7	11	Immature	N/A	Stand was cut in 2007 as part of Flower Creek Softwood. Regen is not coming in the best in this stand but it is starting to fill in, i would say 60% canopy closure. Some upland/rocky areas have the worst regen but are filling in with fir and spruce. Bam regen is very patchy. Yellow birch and Cedar were left as retention. A few low areas of tag alder and ash. A few patches of pole size spruce and fir on west end of the stand.																																															
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
<b>15</b>	4110 - Sugar Maple Association	Poletimber Well	17.1	69	81-110	N/A	Stand recently thinned in 2007 as part of Flower Creek Softwood. Sugar maple is decent pole quality. Stand contains boulders throughout. Some thicker balsam understory on the West and south side of stand. This stand has very little hardwood regen.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Sugar Maple		97	Pole/Log	9	69	Balsam Fir		Medium	Variable	Sapling
						Ironwood		Low	< 5 feet	Sapling
<b>16</b>	6229 - Mixed lowland shrub	Nonstocked	1.8	0		No	Mostly tag alder with a few ash and red maple.			
<b>17</b>	4319 - Mixed Upland Forest	Sapling Medium	87.7	14	Immature	N/A	Regen is patchy. Some areas have decent aspen regen while others have none. I assume openings will slowly fill in with spruce and balsam. Small clumps of pole sized spruce and fir exist w/in the stand.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Quaking Aspen		32	Sapling	3	14	Red Maple		Low	5 - 10 feet	Sapling
Balsam Poplar		10	Sapling	3	14	Pin Cherry		Low	5 - 10 feet	Sapling
Balsam Fir		20	Sapling/Pole	4		Balsam Fir		Medium	< 5 feet	Sapling
White Spruce		20	Sapling/Pole	4		White Spruce		Medium	< 5 feet	Sapling
Paper Birch		10	Sapling	3		Tag Alder		Low	5 - 10 feet	Tall Shrub
						Hazelnut (Beaked)	Low	5 - 10 feet	Tall Shrub	
<b>18</b>	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	23.9	45	51-80	N/A	This stand is dominated by very low wet ground with black ash, tag alder, cedar and balsam fir. The west end of the stand is an L type with scattered cedar. In the middle of the stand there is a ridge of merchantable timber, about 3 acres, dominated by red maple.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Northern White Cedar		18	Pole/Log	9		Balsam Fir		Medium	Variable	Sapling
Black Ash		55	Pole/Sapling	6	45	Black Ash		Medium	Variable	Sapling
Red Maple		10	Log/Pole	13		Tag Alder	Medium	Variable	Tall Shrub	
<b>19</b>	6112 - Lowland Aspen	Sapling Well	8.9	11	Immature	N/A	Stand recently clear cut. Aspen is regenerating well. Residual cedar left w/in the sale is poorer quality.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Quaking Aspen		55	Sapling	1	11	Balsam Fir		Low	5 - 10 feet	Sapling
Balsam Poplar		25	Sapling	1	11	Red Maple		Medium	< 5 feet	Sapling
Northern White Cedar		10	Log/Pole	12		Paper Birch		Low	5 - 10 feet	Sapling
						Aspen (spp.)	Medium	5 - 10 feet	Sapling	
<b>20</b>	4112 - Maple, Beech, Cherry Association	Sawtimber Well	12.8	69	81-110	N/A	Stand consists of decent quality small log and pole sized sugar maple w/a little red maple throughout. Balsam fir is thick around the perimeter of the stand.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Sugar Maple		70	Log/Pole	10	69	Sugar Maple		Low	Variable	Sapling
Red Maple		28	Pole/Log	9		Balsam Fir		Medium	Variable	Sapling
						White Spruce	Low	Variable	Sapling	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																									
21	6118 - Lowland Deciduous with Cedar	Poletimber Well	38.6	78	1-50	N/A	Poorer quality lowland ash stand. Cedar scattered throughout. Small paper birch pocket on the West side of stand but too small to make it's own stand. Ground is very low and wet.																																									
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22	6112 - Lowland Aspen	Poletimber Well	191.9	35	81-110	N/A	Aspen stand with a mix of balm and balsam throughout. Stand is in good condition and is mostly large poles with some log size trees. Stand is a mix of lowland and upland. Pockets of cedar and tag alder exist within the lower areas. According to cutting records everything from the section line between 11 and 12 to the east was cut around 1973, west of the section line was cut in 1985. It is very tough to pick out a difference between these two generation of aspen on the ground.																																									
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23	330 - Low-Density Trees	Nonstocked	2.7		Immature	No	Stand consists of a small opening which is filling in. Looks to be an old landing. Unique spot within the middle of an aspen type.																																									
24	6120 - Lowland Cedar	Poletimber Poor	5.8	101	Unspecified	N/A	Low ground. Timber is very sparse and of low quality.																																									
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25	6120 - Lowland Cedar	Sawtimber Medium	131.3	113	Unspecified	N/A	The canopy of this stand is much more open than the stand to the south. The balsam fir regen is very thick. There is some drier ground with log size cedar with a thicker canopy and in some cases it gets mixed with red maple and aspen.																																									
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27	6120 - Lowland Cedar	Poletimber Well	272.0	112	171-200	N/A	For the most part this stand has a thick canopy of cedar. There are some areas of open canopy with tag alder and also some "ridges" that are rocky, they tend to have larger cedar and a mix of aspen, red maple and paper birch..																																									
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<b>28</b>	6132 - Mixed Lowland Forest with Cedar	Sawtimber Medium	49.0	72	1-50	N/A	Stand is very low with pockets of aspen, spruce, and cedar scattered throughout. This stand was picked through in the 70's and 80's leaving behind a two aged stand made up of a scattered log size canopy over a dense subcanopy of sapling and pole size trees. There is a lot of tag alder and willow in the understory of this stand.																																																								
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<b>29</b>	6229 - Mixed lowland shrub	Nonstocked	6.0			No																																																									
<b>30</b>	6112 - Lowland Aspen	Poletimber Well	58.9	34	51-80	N/A	Stand consists of both higher ground and low ground. Some pockets were cut out years ago which left clumps of regen. amongst areas of older wood. Some areas are very wet and consist of black ash.																																																								
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<b>31</b>	6112 - Lowland Aspen	Sapling Well	97.2	24	Immature	N/A	This used to be two separate stands, the south portion was cut about 10 years prior to the northern portion but it is hard to differentiate the two. The south end has higher ground with better quality aspen. The portion just east of the beaver pond is quite wet with smaller diameters and more tag alder and black ash mixed in.																																																								
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<b>32</b>	6239 - Mixed Emergent Wetland	Nonstocked	5.0	2018	Unspecified	No	Beaver pond. Scattered cedar snags.																																																								
<b>33</b>	6120 - Lowland Cedar	Poletimber Well	5.4	141	171-200	N/A	Part of the larger cedar stand to the east.																																																								



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<b>34</b>	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Medium	60.5	8	Immature	N/A	Stand was cut when it was still private property. They did a fairly nice job with the cutting. The regen is decent considering the low ground and is mainly paper birch, red maple and aspen. There are scattered pole size red maple, cedar and yellow birch.																																																						
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<b>35</b>	6118 - Lowland Deciduous with Cedar	Sapling Medium	7.3	33	1-50	N/A	This stand is low and pretty wet, according to the notes it was picked through at the same time the adjacent stands were cut. There are areas of log and pole size red maple, cedar and paper birch. The stand has thick canopy of saplings.																																																						
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<b>37</b>	6112 - Lowland Aspen	Poletimber Well	12.5	32	51-80	N/A	SE area was cut in 1987																																																						