Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 45009
Entry Year 2024
Acreage: 611
County Chippewa
Management Area: Drummond Island

Stand Examiner: Josh Brinks

Legal Description:

42N-6E, Sections 20,29,30. Drummond Township

Identified Planning Goals:

Maintain age class diversity within the aspen types and selectively harvest hardwood stands to promote regeneration and stand diversity.

Soil and topography:

Shelter-Posen-Summerville association makes up the majority of the soils in this compartment. These are generally good soils and produce good quality hardwood. Wind throw can be, and is, a problem. Most of compartment can be considered gently rolling.

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

Private land surrounds the compartment. Most of the private land is larger land owners resulting in most of it being undeveloped. There is a private gravel pit NW of the compartment in section 30. The township has a 20 acre inholding at the north end of the compartment that is used by the Drummond Island Sportsman's club as a shooting range. The Rock golf coarse is just north of the compartment.

Unique Natural Features:

A large pond or small lake exists within the central part of the island and is called Spring Pond. There is a small creek, Kemp Creek, which runs out of the south end of Spring Pond. After entering the compartment the stream goes underground and appears to flow into a pond to the NW of the compartment before flowing out to the lake.

Archeological, Historical, and Cultural Features:

There are several stone fences within this compartment that are likely linked to an old homestead.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

This compartment is on Drummond Island, and surrounds Spring Lake. There are no treatments scheduled near this waterbody, so Fisheries has no concerns at this time

Wildlife Habitat Considerations:

This compartment is located in the Drummond Island Management Area where featured wildlife species include black bear, northern goshawk, ruffed grouse, sharp-tailed grouse, and snowshoe hare. It is dominated by northern hardwoods. Spring Pond is near the center, and provides some habitat for waterfowl and wetland species. Aspen and lowland hardwoods and mixed stands are primarily located in the southeastern side southeast of Spring Pond. Parts of the compartment were acquired with state game funds. Wildlife objectives for this compartment include maintaining early successional forest where it exists; encouraging species, age class and structural diversity in northern hardwoods; and protecting wetland areas for waterfowl and other wetland wildlife. Regenerating aspen stands will be allowed to mature, providing for various habitat needs of ruffed grouse, snowshoe hare, and white-tailed deer as they mature. Some tree planting is planned to increase diversity in some northern hardwoods where regeneration has been sparse. Wetlands and other waterbodies will be buffered appropriately.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of thin to discontinuous glacial deposits over bedrock. The glacial drift thickness varies between 10 and 50 feet. The Silurian Manistique and Burnt Bluff Groups subcrop below the thin glacial drift. These formations are quarried for stone/dolomite in Section 23. Gravel pits are located in Section 20 and potential appears to be good. There is no economic oil and gas production in the UP.

Vehicle Access:

Vehicle access is pretty good within the compartment. Small two tracks offer good access especially within the large hardwood type in the NE corner of the compartment.

Survey Needs:

Survey is needed in the SW corner of Section 29 to establish timber sale boundary against private property.

Recreational Facilities and Opportunities:

Hunting for small game and deer are popular within this compartment. Cross country skiing is also popular along the two tracks within the hardwood stands.

Fire Protection:

Access for fire protection would be pretty good given the two tracks that exist within the compartment. The majority of the ground is well drained which provides for a good road bed

Additional Compartment Information:

The following reports from the Inventory are attached:

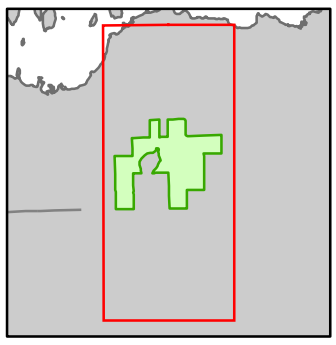
- **Total Acres by Cover Type and Age Class**
- **Cover Type by Harvest Method**
- **Proposed Treatments – No Limiting Factors**
- **Proposed Treatments – With Limiting Factors**
- **Stand Details (Forested and Nonforested)**
- **Dedicated and Proposed Special Conservation Areas**
- **Site Condition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

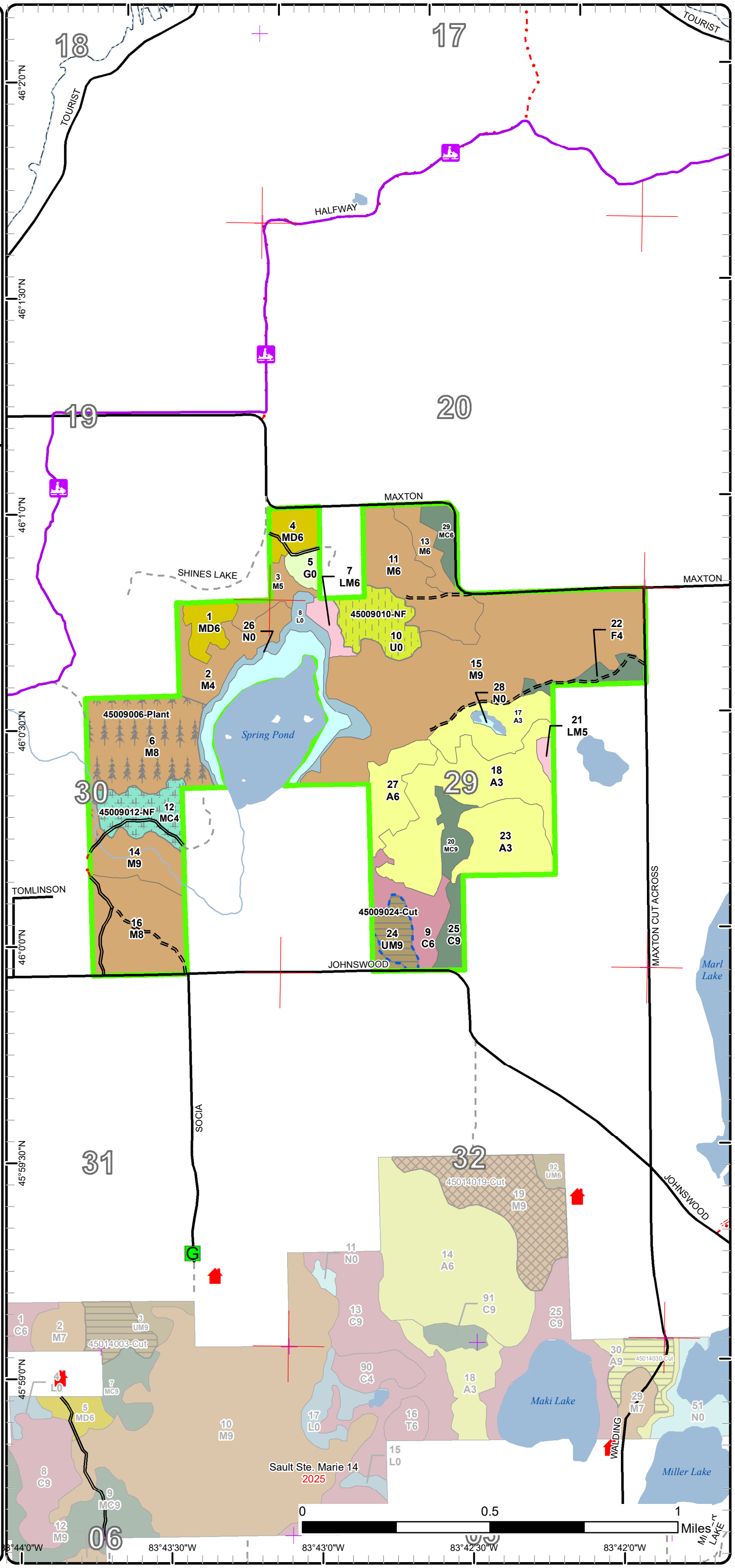
Cover Type & Treatments Map

Compartment: 9
T42N,R06E, Sec. 20, 29, 30
County: Chippewa
Unit: Sault Ste. Marie
Mgmt Area: Drummond Island
YOE: 2024
Acres: 610.9 GIS Calculated
Examiner: Josh Brinks
Map Revised: 2/6/2023
Map Phase: Post-Review



N

- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Snowmobile Trails
- Designated Snowmobile Trails
- Island in Lake or River
- Lake/Pond
- Perennial River
- Shoreline
- Lakes and Rivers
- Cabin
- Gate
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Planting (Tree Species)
- Clearcut (w/Reserves)
- Opening Maintenance
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland



Stand Boundary Map

Compartment: 9
T42N,R06E, Sec. 20, 29, 30
County: Chippewa
Unit: Sault Ste. Marie
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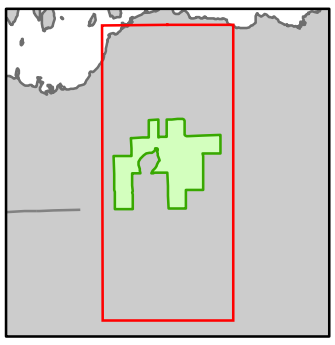
Map Phase: Pre-Review



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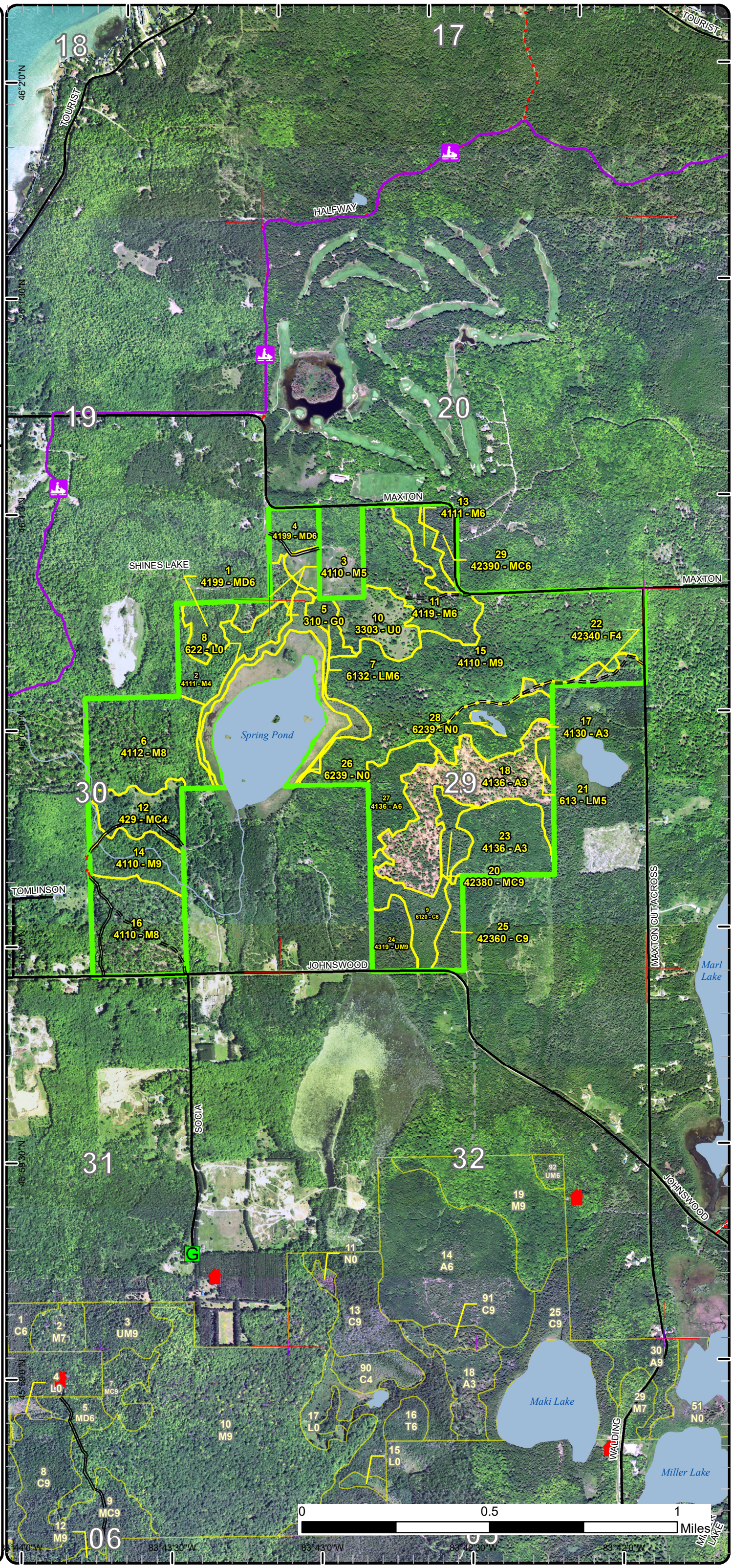

Special Conservation Areas

Compartment: 9
T42N,R06E, Sec. 20, 29, 30
County: Chippewa
Unit: Sault Ste. Marie
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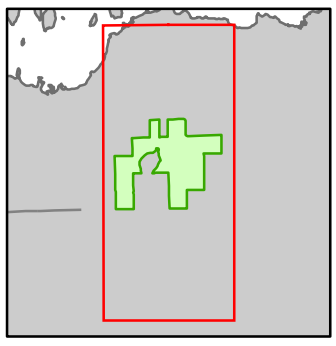

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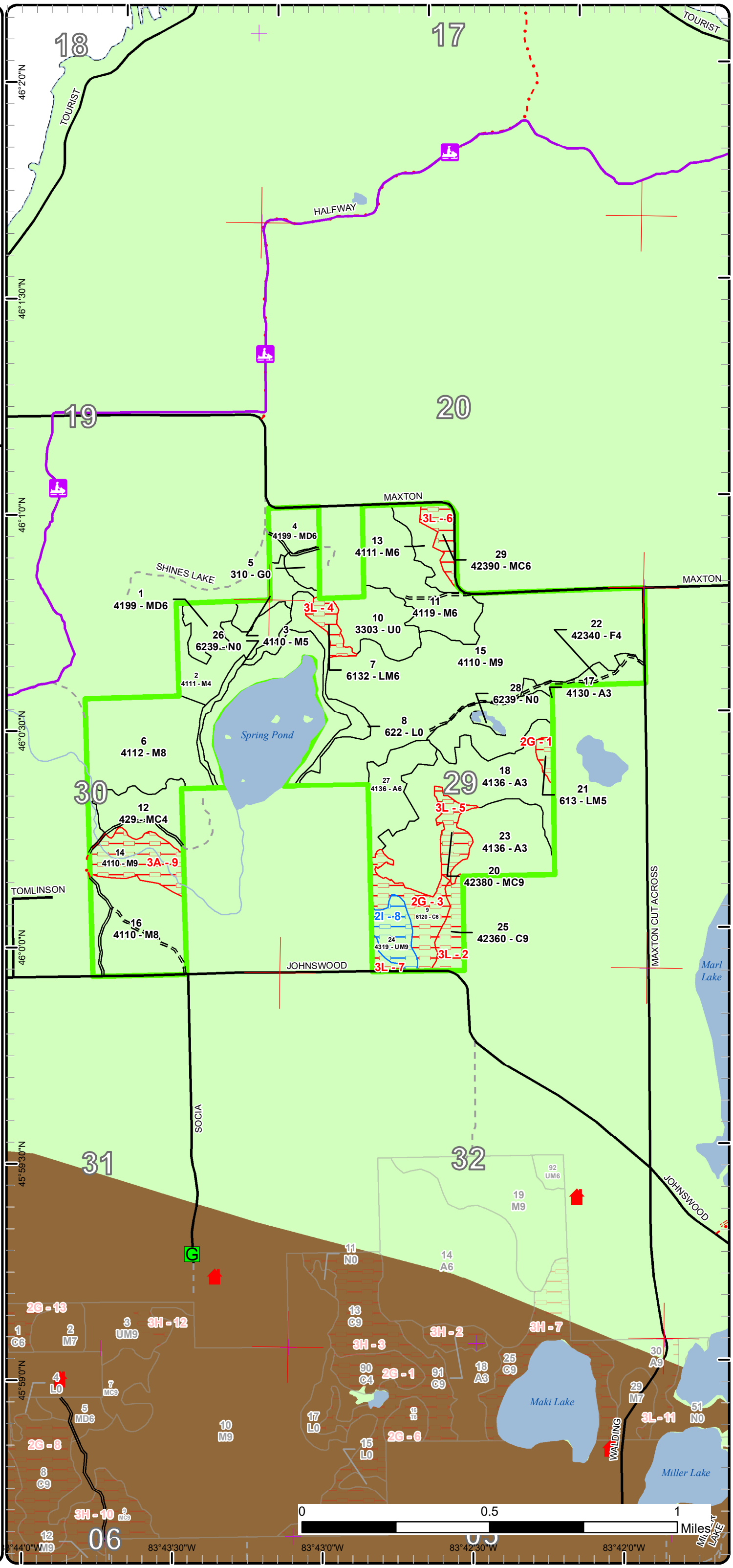
- Island in Lake or River
- Lake/Pond
- Perennial River
- Shoreline
- Lakes and Rivers
- Cabin
- Gate
- Compartment Boundary
- Available w/ Constraints
  - 2I: Survey needed
- Unavailable
  - 2G: Too wet (sensitive soils, does not include access issues)
  - 3A: Conservation Values incompatible with harvest at this time
  - 3L: Other wildlife concerns
- Stand Boundaries
- Cold Water Streams
- Deer Winter Range
- Great Lakes Islands



Report 1 – Total Acres by Cover Type and Age Class

Sault Ste. Marie Mgt. Unit **Compartment 9** **Year of Entry 2024**

Josh Brinks : Examiner

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
Aspen	0	53	0	48	0	18	0	0	0	0	0	0	0	0	0	0	0	0	**119**
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	**25**
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
Low-Density Trees	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**19**
Lowland Mixed Forest	0	0	0	0	0	3	0	6	0	0	0	0	0	0	0	0	0	0	**9**
Lowland Shrub	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**16**
Marsh	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**28**
Mixed Upland Deciduous	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	**20**
Northern Hardwood	0	0	0	0	0	0	9	64	0	241	0	0	0	0	0	0	0	0	**314**
Upland Conifers	0	0	0	0	19	0	0	0	0	0	9	8	0	0	0	0	0	0	**36**
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	**12**
Upland Spruce/Fir	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	**8**
Total	**68**	**53**	**0**	**58**	**19**	**29**	**9**	**80**	**0**	**241**	**22**	**8**	**0**	**25**	**0**	**0**	**0**	**0**	**611**

Report 2 – Treatment Summary

Sault Ste. Marie Mgt. Unit

Year of Entry: 2024

Acres of Harvest

Compartment 9

Total Compartment Acres: 611

Commercial Harvest -

Harvests with Site Condition - 10

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
Upland Mixed Forest		10	0	0	0	0	0	0	0	0	**10**
	Total	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		10	0	50	0	0	0	0	0	38	**99**
Next Step		0	0	0	0	19	0	61	0	0	**80**
	Total	**10**	**0**	**50**	**0**	**19**	**0**	**61**	**0**	**38**	**179**

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut

Approved Treatments:

6	**45009006-Plant**	50.4	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	81	51-80	Planting	Underplant	411 - Northern Hardwood	Uneven-Aged	No

Prescription Specs: Underplant oak, hemlock, and/or white pine in parts of the stand to increase diversity and improve wildlife habitat.

Next Step Treatments: Monitoring, Other - Specify

Acceptable Regen: sugar maple, oak, and/or other associated species

Other Comment:

Site Condition

Proposed Start Date: 4 /1 /2023

10	**45009010-NF**	19.3	3303 - Mixed Low Density Trees	Nonstocked	Immature		NonForestMgt	Brush Cutting	310 - Herbaceous Openland		No

Prescription Specs: Maintain the opening for wildlife by cutting trees (mainly spruce/fir and white pine) that are filling it in. Treat invasive species if present as able. Rx burn, chemical treatment, or other appropriate methods are also possible treatments to maintain the opening.

Next Step Treatments: Burn, Opening

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

12	**45009012-NF**	18.7	429 - Mixed Upland Conifers	Poletimber Poor	31	1-50	NonForestMgt	Other - Specify	3302 - Low Density Conifer Trees		No

Prescription Specs: Scotch pine control via cutting or other appropriate method.

Next Step Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
24	45009024-Cut	10.2	4319 - Mixed Upland Forest	Sawtimber Well	93	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	No

Prescription Specs: Cut all trees down to 2" in DBH to maintain early successional habitat in much of the stand to benefit deer, ruffed grouse, and other species. Do not cut any pine, oak hemlock, or cedar in patches; scattered cedar may be cut if necessary. Retention will be the cedar in the SW corner of the stand. This has been roughly drawn in.

Next Step Treatments: Monitoring, Natural Regen (Re-Inventory)

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

Other Comment:

Site Condition: Survey Needed

Proposed Start Date: 10/1 /2023

Total Treatment Acreage Proposed: 98.6

Report 4 – Site Conditions

Sault Ste. Marie Mgt. Unit

Josh Brinks : Examiner

Compartment: 9

Year of Entry: 2024

Availability for Management

Total Acres	Acres Available	*Acres Avail With Condition*	Acres Not Available		Dominant Site Conditions *2I*	2G	3A	3L
119	119	***0***	0	**Aspen**				
25	0	***0***	25	**Cedar**		16		9
5	5	***0***	0	**Herbaceous Openland**				
19	19	***0***	0	**Low-Density Trees**				
8	0	***0***	8	**Lowland Mixed Forest**		3		6
16	16	***0***	0	**Lowland Shrub**				
27	27	***0***	0	**Marsh**				
20	20	***0***	0	**Mixed Upland Deciduous**				
314	296	***0***	18	**Northern Hardwood**			18	
35	19	***0***	16	**Upland Conifers**				16
13	0	***10***	2	**Upland Mixed Forest**	***10***			2
8	8	***0***	0	**Upland Spruce/Fir**				
611	530	***10***	71	Total Forested Acres	***10***	19	18	33
	87%	***2%***	12%	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**	**2G: Too wet (sensitive soils, does not include access issues)**	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
2	**Unavailable**	**3L: Other wildlife concerns**	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: WLD does not want us to cut cedar						

3	**Unavailable**	**2G: Too wet (sensitive soils, does not include access issues)**	16	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified

Comments:
Stand is too wet and contains too much cedar.

4	**Unavailable**	**3L: Other wildlife concerns**	6	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified

Comments:
Cedar is 40 % but stand is wet and provides a wild life corridor/buffer.

5	**Unavailable**	**3L: Other wildlife concerns**	9	Unspecified	Unspecified	Unspecified	Unspecified

Comments:
WLD does not want us to cut the cedar

6	**Unavailable**	**3L: Other wildlife concerns**	8	Unspecified	Unspecified	Unspecified	Unspecified

Comments:
Stand contains to much cedar for us to harvest

7	**Unavailable**	**3L: Other wildlife concerns**	2	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified

Comments:
Pocket of cedar that WLD does not want us to cut that will serve as retention.

8	**Available**	**2I: Survey needed**	10	Unspecified	Unspecified	Unspecified	Unspecified

Comments:

9	**Unavailable**	**3A: Conservation Values incompatible with harvest at this time**	18	Unspecified	Unspecified	Unspecified	Unspecified

Comments:

MNFI has classified this as a mesic northern forest

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

Comments

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	Great Lakes Islands	Great Lakes Islands provide significant habitat for numerous species, including many rare plants and animals, several of which are endemic or largely restricted to the Great Lakes region. Due to their isolation, islands provide good examples of many Great Lakes-associated natural communities and ecosystems, and thus have potential to provide insights for understanding the consequences of human disturbance on the increasingly fragmented ecosystems of the mainland.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
1	4199 - Other Mixed Upland Deciduous	Poletimber Well	9.8	24	1-50	N/A	Part of the stand was cut and part of the stand looks like small diameter conifer and deciduous growing on shallow soil. Small pole and sapling sized stand. The west side of the stand is decent aspen while the east is more mixed and of lower quality.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	30	Pole/Sapling	5	24
Beech	18	Pole/Sapling	5	
White Spruce	5	Pole	7	
Balsam Fir	10	Sapling	2	
Red Maple	2	Pole	5	
Ironwood	20	Sapling	2	
Sugar Maple	10	Sapling/Pole	4	
Paper Birch	5	Pole/Sapling	5	

Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	Low	Variable	Sapling
Balsam Fir	Medium	Variable	Sapling
Beech	High	Variable	Sapling
Ironwood	High	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
2	4111 - S.Maple, Hard Mast Association	Poletimber Poor	21.3	61	1-50	N/A	Looks like white birch and beech was cut during last timber sale. What remains is scattered poor quality sugar maple with beech and ironwood regeneration underneath. Crown dieback is occurring in the sugar maple. I typed out the overstory as the mature sugar maple and beech that is around 50 years old. The understory is 23 years old as the last cut was that old. The mature canopy is fairly sparse. Beech scale is present on the regeneration.

Canopy Species	% Cover	Size Class	DBH	Age
Beech	15	Pole	7	
Sugar Maple	75	Pole	7	61
Paper Birch	5	Pole	8	
Balsam Fir	5	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	High	Variable	Sapling
Quaking Aspen	Low	10 - 20 feet	Sapling
Balsam Fir	Trace	5 - 10 feet	Sapling
Beech	High	Variable	Sapling
Sugar Maple	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
3	4110 - Sugar Maple Association	Poletimber Medium	8.6	61	51-80	N/A	Beech was removed from this stand in 2014 (Top Shot Beech). There is a lot of beech regeneration in the harvested areas, most of it is stump sprouts less than 5' tall.

Canopy Species	% Cover	Size Class	DBH	Age
Ironwood	5	Pole	6	
White Ash	5	Pole/Log	8	
Red Oak	5	Log	15	
Beech	5	Log/Pole	10	
Sugar Maple	75	Pole	6	61
Paper Birch	5	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	Medium	10 - 20 feet	Sapling
Balsam Fir	Low	Variable	Sapling
Ironwood	Medium	Variable	Sapling
Beech	High	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
4	4199 - Other Mixed Upland Deciduous	Poletimber Well	10.4	66	1-50	N/A	Stand is a mix of numerous species. Soil must be poor, trees look to be growing slowly, probably on rock. Sugar maple is poor quality and small diameter. Balsam regen is quite thick.

Canopy Species	% Cover	Size Class	DBH	Age
Beech	5	Pole	7	
Paper Birch	10	Pole	9	
Ironwood	20	Pole	5	
White Ash	5	Pole	6	
Sugar Maple	40	Pole	6	66
Balsam Fir	5	Pole	5	
Quaking Aspen	15	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	Variable	Sapling
Ironwood	Medium	5 - 10 feet	Sapling
Sugar Maple	Low	Variable	Sapling
Beech	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site
5	310 - Herbaceous Openland	Nonstocked	5.2		Unspecified	No

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
6	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	50.4	81	51-80	N/A	sale 45-002-13-01, areas that were cut have almost no regen, raspberry and some bam. There is higher BA in some areas where there was no beech. Area adjacent to Spring Pond was not harvested.

Canopy Species	% Cover	Size Class	DBH	Age
Black Ash	2	Log	12	
Ironwood	10	Pole	8	
Yellow Birch	2	Log	14	
Tamarack	2	Pole	8	
Beech	5	Log	17	
Sugar Maple	77	Log/Pole	13	81
Basswood	2	Log	14	

Sub-Canopy Species	Density	Avg. Height	Size
Beech	Full	Variable	Sapling
Ironwood	Medium	Variable	Sapling
Sugar Maple	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
7	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	5.8	64	51-80	N/A	Stand of young cedar and tamarack mixed with aspen, bam, etc... Southern part of stand is more wet than North part. The stand is more mixed to the south with better cedar to the south. There are a few ridges of higher ground mixed in.

Canopy Species	% Cover	Size Class	DBH	Age
Paper Birch	3	Pole	7	
White Spruce	2	Pole	6	
Balsam Fir	5	Pole/Sapling	5	
Black Ash	10	Pole	5	
Northern White Cedar	40	Pole	6	64
Tamarack	10	Pole/Sapling	6	
Quaking Aspen	20	Pole	5	
Balsam Poplar	10	Pole	5	

Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	Low	Variable	Sapling
Balsam Poplar	Low	Variable	Sapling
Balsam Fir	Medium	Variable	Sapling
Northern White Cedar	Low	Variable	Sapling
Sugar Maple	Trace	5 - 10 feet	Sapling
Tag Alder	Low	Variable	Tall Shrub

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
8	622 - Lowland Shrub	Nonstocked	15.8		Unspecified	No	There is some scattered cedar and tamarack in this area, very little tag alder or other shrubs.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
9	6120 - Lowland Cedar	Poletimber Well	16.4	121	51-80	N/A	This stand is very wet, I was breaking through ice as I walked across it. The stand is a mix of ash and cedar. The cedar is in rough shape. More ash mixed in at the south end.

Canopy Species	% Cover	Size Class	DBH	Age
Black Ash	40	Sapling/Pole	4	
White Pine	1	Log	16	
Tamarack	5	Pole	8	
Northern White Cedar	54	Pole/Log	8	121

Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	Low	5 - 10 feet	Tall Shrub
Balsam Poplar	Trace	5 - 10 feet	Sapling
Ash (spp.)	Medium	5 - 10 feet	Sapling
Balsam Fir	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
10	3303 - Mixed Low Density Trees	Nonstocked	19.3		Immature	No	Opening that is filling in with white pine, paper birch, balsam poplar, tamarack, white spruce.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
11	4119 - Mixed Northern Hardwoods	Poletimber Well	33.7	61	51-80	N/A	Beech was removed from this stand in 2014. Balsam fir understory is thick in spots. Stand is generally of smaller diameter than the hardwood stand to the south, I would guess that has to due with the soil being shallower here. Regen in harvested areas is not great.

Canopy Species	% Cover	Size Class	DBH	Age
Red Oak	4	Log	15	
Beech	5	Log/Pole	10	
Ironwood	20	Pole	6	
Sugar Maple	71	Pole/Log	8	61

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	Variable	Sapling
Beech	Medium	Variable	Sapling
Sugar Maple	Low	Variable	Sapling
Ironwood	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
12	429 - Mixed Upland Conifers	Poletimber Poor	18.7	31	1-50	N/A	OI typed this stand as a grass opening but it looks to be filling in. Stand is a mix of conifer, sugar maple and aspen. Impressive how the tamarack and white pine are filling in. Juniper bushes throughout and a few scotch pine. There is a patch of younger aspen in the east end of the stand. Property owner on spring pond told me there was an old sugar shack in the NE corner of the opening many years ago. Very unique stand for Drummond.

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	1	Pole	6	
White Spruce	5	Sapling/Pole	4	
Sugar Maple	24	Pole	8	
Quaking Aspen	5	Pole	6	
Tamarack	30	Pole/Sapling	6	
White Pine	30	Pole/Sapling	5	31
Jack Pine	5	Sapling	2	

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Low	< 5 feet	Sapling
Juniper	Medium	5 - 10 feet	Tall Shrub
White Pine	Medium	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
13	4111 - S.Maple, Hard Mast Association	Poletimber Well	9.0	52	51-80	N/A	This is a pole sized hardwood stand or poor quality. Ash and beech in the stand with some basswood. These tend to be of larger diameter and older. There is a thick balsam fir understory which is mostly 20'+ and you can now walk underneath it rather than through it.

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	57	Pole	7	52
Paper Birch	2	Pole/Log	9	
Ironwood	10	Pole	8	
White Ash	10	Log/Pole	12	
Basswood	10	Log	13	
Beech	10	Pole/Log	9	
Red Oak	1	Log	14	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Full	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
14	4110 - Sugar Maple Association	Sawtimber Well	18.4	81	51-80	N/A	Very unique stand. A low swale that has a mix of basswood, sugar maple and yellow birch. Swale is tied into spring pond, landowner on spring pond states that it is a karst feature and the stream goes underground at some point. Stand contains a lot of different species of ferns. I typed it out as an upland site but in years with a lot of water it probably could be considered lowland. Decent amount of advanced regeneration that is over 20' tall.

Canopy Species	% Cover	Size Class	DBH	Age
White Ash	5	Log	16	
Black Ash	5	Pole	8	
Sugar Maple	80	Log	16	81
Yellow Birch	5	Log	14	
Basswood	5	Log	14	

Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	Medium	>20 feet	Sapling
Beech	Low	5 - 10 feet	Sapling
Green Ash	Low	10 - 20 feet	Sapling
Ironwood	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
15	4110 - Sugar Maple Association	Sawtimber Well	132.8	81	51-80	N/A	Beech was removed form this stand in 2014. There were areas of the stand left untreated and have a higher BA. Beech is prevalent in the finger east of spring pond but is not in good shape. In areas where beech was removed there isn't much regen yet, some stump sprouts of beech, along with balsam poplar and spruce.

Canopy Species	% Cover	Size Class	DBH	Age
White Ash	1	Log	14	
Yellow Birch	1	Log	14	
Quaking Aspen	2	Log	13	
Paper Birch	1	Pole	8	
Sugar Maple	81	Log/Pole	13	81
Basswood	7	Log	14	
Beech	5	Log	13	
Ironwood	2	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Trace	5 - 10 feet	Sapling
White Spruce	Trace	< 5 feet	Sapling
Balsam Poplar	Trace	5 - 10 feet	Sapling
Beech	High	Variable	Sapling
Sugar Maple	Low	Variable	Sapling
Ironwood	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
16	4110 - Sugar Maple Association	Sawtimber Medium	39.9	81	51-80	N/A	Beech was removed as part of Spring Pond Beech. Not much regen in the harvested area. Very little sugar maple regen in this stand. BA is higher in the north.

Canopy Species	% Cover	Size Class	DBH	Age
Ironwood	5	Pole	8	
Beech	5	Log	14	81
Yellow Birch	2	Log	14	
Sugar Maple	88	Log/Pole	13	81

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Medium	Variable	Sapling
Beech	Medium	Variable	Sapling
Sugar Maple	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
17	4130 - Aspen	Sapling Well	20.6	24	Immature	N/A	Stand of decent young aspen with sugar maple mixed in. There are patches of hardwoods mixed into this stand.

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	10	Sapling	2	
Quaking Aspen	60	Sapling	3	24
Balsam Fir	10	Sapling	3	
Bigtooth Aspen	20	Sapling	3	

Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	Medium	Variable	Sapling
Balsam Fir	High	Variable	Sapling
Ironwood	Low	10 - 20 feet	Sapling
Beech	Trace	5 - 10 feet	Sapling
Sugar Maple	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
18	4136 - Aspen, Mixed Conifer	Sapling Well	52.8	7	Immature	N/A	sale 45-002-11-01, cedar, hemlock, and hardwoods reserved. There were several areas where small diameter fir and aspen were left standing. 2022-the stand is now fully stocked with aspen regeneration. Some of the smaller trees that were left have died and blown over. scattered mature trees throughout.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	60	Sapling	1	7
Northern White Cedar	5	Pole	8	
Balsam Fir	10	Sapling	2	
White Spruce	5	Sapling	3	
Balsam Poplar	15	Sapling	1	
Sugar Maple	5	Pole/Log	8	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
20	42380 - Non Pine Upland Conifer, Mixed Deciduous	Sawtimber Well	8.6	98	111-140	N/A	This is a mixed stand dominated by cedar overtopped with aspen. There are some lower areas in the stand.

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	55	Log/Pole	12	98
White Pine	1	Log	17	
Paper Birch	5	Log/Pole	10	
White Spruce	4	Log/Pole	10	
Quaking Aspen	25	Log/Pole	13	
Balsam Fir	10	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Full	Variable	Sapling
Aspen (spp.)	Trace	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
21	613 - Lowland Mixed Forest	Poletimber Medium	2.6	46	51-80	N/A	Did not make it to this stand. Looks like a very wet stand with cedar, fir, tam, aspen, ash.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
22	42340 - Upland Spruce/Fir	Poletimber Poor	8.4	41	81-110	N/A	Old grass opening filling in with white spruce and sugar maple.

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	30	Log	14	
Balsam Fir	15	Pole	6	
Paper Birch	5	Pole	6	
White Spruce	50	Pole	8	41

Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	Trace	< 5 feet	Sapling
White Spruce	High	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
23	4136 - Aspen, Mixed Conifer	Sapling Well	27.7	27	Immature	N/A	Stand is a mix of aspen and tamarack, makes for an interesting combo. Impressed with the amount if cedar regen in the stand.

Canopy Species	% Cover	Size Class	DBH	Age
Paper Birch	5	Sapling	2	
Balsam Poplar	15	Sapling	3	
Quaking Aspen	45	Sapling	3	27
White Spruce	5	Pole	8	
Balsam Fir	10	Sapling	3	
Tamarack	20	Sapling/Pole	4	

Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	Medium	5 - 10 feet	Sapling
Balsam Fir	High	Variable	Sapling
White Spruce	Low	5 - 10 feet	Sapling
Quaking Aspen	Low	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
24	4319 - Mixed Upland Forest	Sawtimber Well	12.5	93	81-110	N/A	This stand is mostly a mixed stand dominated by aspen with scattered cedar. There is very nice cedar in the SW corner of the stand. The aspen is starting to blow over.

Canopy Species	% Cover	Size Class	DBH	Age
White Spruce	15	Log/Pole	10	
Quaking Aspen	44	Log	14	93
White Pine	1	Log	17	
Balsam Fir	10	Pole	5	
Northern White Cedar	25	Log/Pole	13	
Paper Birch	5	Log/Pole	11	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	High	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
25	42360 - Upland Cedar	Sawtimber Well	8.9	121	141-170	N/A	Very nice stand of cedar that is park like. Balsam fir is patchy. Lots of burnt stumps.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	5	Pole	5	
White Spruce	5	Log/Pole	10	
Northern White Cedar	75	Log/Pole	11	121
Paper Birch	5	Log/Pole	10	
Quaking Aspen	10	Log	13	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	Variable	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Managed Site
26	6239 - Mixed Emergent Wetland	Nonstocked	25.7	No

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
27	4136 - Aspen, Mixed Conifer	Poletimber Well	18.2	42	51-80	N/A	This is a stand of younger aspen, there are some scattered large log aspen. Pockets of hardwood in this stand. Scattered cedar throughout. The balsam fir understory is mostly over 10' tall.

Canopy Species	% Cover	Size Class	DBH	Age
White Ash	5	Log/Pole	10	
Paper Birch	5	Pole	6	
Sugar Maple	2	Pole/Log	8	
Quaking Aspen	68	Pole	7	42
Balsam Fir	10	Pole	5	
White Spruce	5	Pole/Log	8	
Northern White Cedar	5	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Full	Variable	Sapling
Ash (spp.)	Trace	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
28	6239 - Mixed Emergent Wetland	Nonstocked	1.6	0	Unspecified	No	Low area that is seasonally flooded with scattered aspen.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
29	42390 - Mixed Non-Pine Upland Conifers	Poletimber Well	7.8	109	81-110	N/A	Stand consists of a mix of cedar, aspen and white spruce. The aspen and spruce are very scattered and poor quality. The cedar looks in decent condition. A thick balsam fir understory exists within the stand.

Canopy Species	% Cover	Size Class	DBH	Age
White Spruce	20	Pole	8	
Quaking Aspen	20	Log/Pole	11	
Northern White Cedar	50	Log/Pole	10	109
Tamarack	10	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Low	Variable	Pole
Balsam Fir	Full	Variable	Sapling
White Spruce	Low	5 - 10 feet	Sapling