



Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 45024

Entry Year 2018

Acreage: 2,604

County Chippewa

Management Area: Huron Patterned Outcrop

Revision Date: 2016-08-10

Stand Examiner: Josh Brinks

Legal Description:

T42N R1E, Sections 25, 36 T42N R2E, Sections 28, 29, 30, 31, 32

Identified Planning Goals:

To develop an optimal age class distribution of aspen and white birch stands for sustainable forestry and wildlife values. To rotate hardwood harvests for optimal regeneration and stocking of all age classes for sustainability. To maintain openings as needed to manage for wildlife habitat. To provide reasonable public access for multiple use recreation such as hunting, trail riding, camping, and hiking, while protecting the natural resources. Cedar stands will be maintained for deer yard areas. Spruce budworm has affected the spruce and balsam fir in this area. Some of the stands being treated this year of entry are being done in order to salvage the spruce and fir before it dies.

Soil and topography:

Shelter-Posen-Summerville: deep and shallow, level to steep, poorly drained and well drained, loamy soils on ground moraines and glacial lake benches. Topography is gently rolling to flat with lower wet areas.

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

One private parcel in the interior of the compartment, otherwise a large block of State land. No developments. Michigan Limestone quarry land to the west but remains undeveloped. Primarily used for hunting, trail riding, and timber and wildlife management. The large amount of State land maintains landscape level management.

Unique Natural Features:

Some deer yard areas in the southern part.

Archeological, Historical, and Cultural Features:

There are no historical sites in the database but the openings on the east side of the compartment have signs in them with pictures that state that there are the site of an old logging camp from 1896. This information has been turned over to HAL and it is recommended that these stands nor be used as landing or parking areas for treatments in adjacent stands.

Special Management Designations or Considerations:

This compartment is almost entirely in the deer wintering complex which means that most cedar stands will be left for cover and aspen stands will be harvested in the winter to provide food for deer. The compartment also contains rare plants that need to be protected along with their associated habitats. An ERA for Mesic Northern Forest exists within the large hardwood stand at the eastern end of the compartment.

Watershed and Fisheries Considerations:

This compartment contains Beavertail Creek and Prentiss Creek. Beavertail Creek is a designated trout stream and supports populations of brook trout and rainbow trout. A buffer of approximately 150 feet is appropriate for protection of this stream. The buffer will provide large woody debris recruitment, shade, erosion control, and discourage beaver activity. Prescribed management activities are appropriate for the protection of these watbodies.

Wildlife Habitat Considerations:

This compartment is part of the Huron Patterned Outcrop Management Area where featured wildlife species include pileated woodpecker, ruffed grouse, snowshoe hare, and white-tailed deer. The entire compartment is located in deer wintering complex. The compartment is relatively diverse with northern hardwood, fir, cedar, and aspen types plus a few small openings and lowland areas scattered throughout. Beavertail Creek flows through the compartment. Aspen stands vary in age class, providing various habitat attributes for ruffed grouse, hare, deer, and woodpeckers. Cedar and other lowland conifer stands will be retained to provide cover for wintering deer. Northern hardwoods will be managed to encourage age class, structural, and species diversity within stands. Snags and some larger trees including cavity trees will be left, and some areas will be treated while others are left to provide varying canopy characteristics. This

management should benefit woodpeckers and other cavity nesters as well as hawks. Harvests will take place during the winter so tops are available as browse to wintering deer. Hard and soft mast species such as oak and cherry will be retained to provide food sources for deer, black bear, and other wildlife. Streams and riparian areas will be buffered to preserve travel corridors and wetland wildlife habitat.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of thin to discontinuous till over bedrock and minor peat & muck. The glacial drift thickness varies between 10 and 50 feet. The Silurian Engadine Group subcrops below the glacial drift. The Engadine is quarried for stone/dolomite three miles to the northwest. A gravel pit is located one mile to the north and there may be some potential. There is no current economic oil and gas production in the UP.

Vehicle Access:

Prentiss Bay Rd bisects the compartment. One unnamed two track runs east-west and intersects with Prentiss Bay and South Springer Rd to the east and is a snow trail in winter. Some new spur roads may be needed for management but will be closed to the public.

Survey Needs:

T42N R1E section 25 will need to be surveyed before we can put up the timber sale in that section.

Recreational Facilities and Opportunities:

The snowmobile trail goes through the compartment which is also used in the summer by those on 4-wheelers and side by sides. This compartment is used by folks for hunting, fishing, trapping and other outdoor recreational activities.

Fire Protection:

Vehicle access is fair and water sources are sufficient. Structure protection would be a concern on the south side.

Additional Compartment Information:

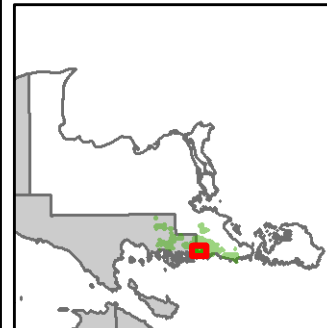
The following reports from the Inventory are attached:

- 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:

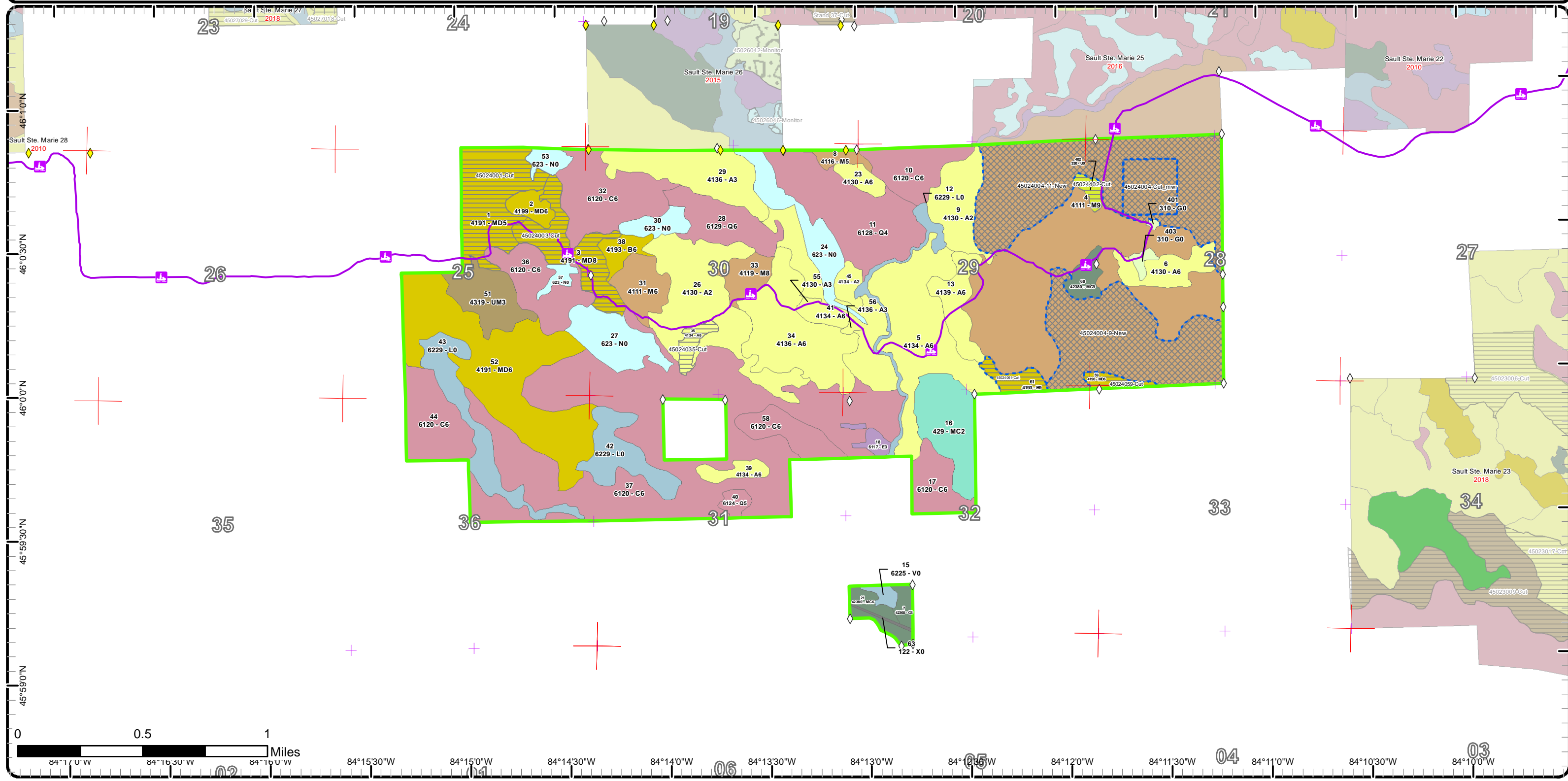
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

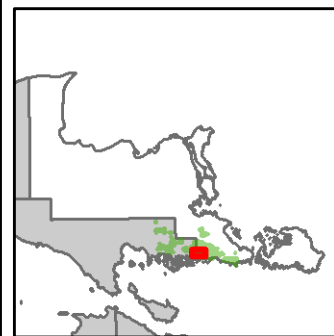


Compartment: 24
 T42N, R01E, Sec: 25, 36
 T42N, R02E, Sec: 28-32
 County: Chippewa
 Unit: Sault Ste. Marie
 Mgmt Area: Huron Patterned
 Outcrop
 YOE: 2018
 Acres: 2,604 GIS Calculated
 Examiner: Josh Brinks
 Map Revised: 12/6/2016
 Map Phase: Post Review

- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- 🚙 Snowmobile Trails
- 🚙 Designated Snowmobile Trails
- ▭ Compartment Boundary
- ▭ Treatments with Site Conditions
- ▭ Selection (Group, Single Tree)
- ▭ Clearcut (w/Reserves)
- ▭ 411 - Northern Hardwood
- ▭ 413 - Aspen Types
- ▭ 419 - Mixed Upland Deciduous
- ▭ 423 - Other Upland Conifers
- ▭ 429 - Mixed Upland Conifers
- ▭ 430 - Upland Mixed Forest
- ▭ 611 - Lowland Deciduous Forest
- ▭ 612 - Lowland Coniferous Forest
- ▭ 122 - Roads/Parking Lot
- ▭ 310 - Herbaceous Openland
- ▭ 330 - Low Density Trees
- ▭ 622 - Lowland Shrub
- ▭ 623 - Emergent Wetland

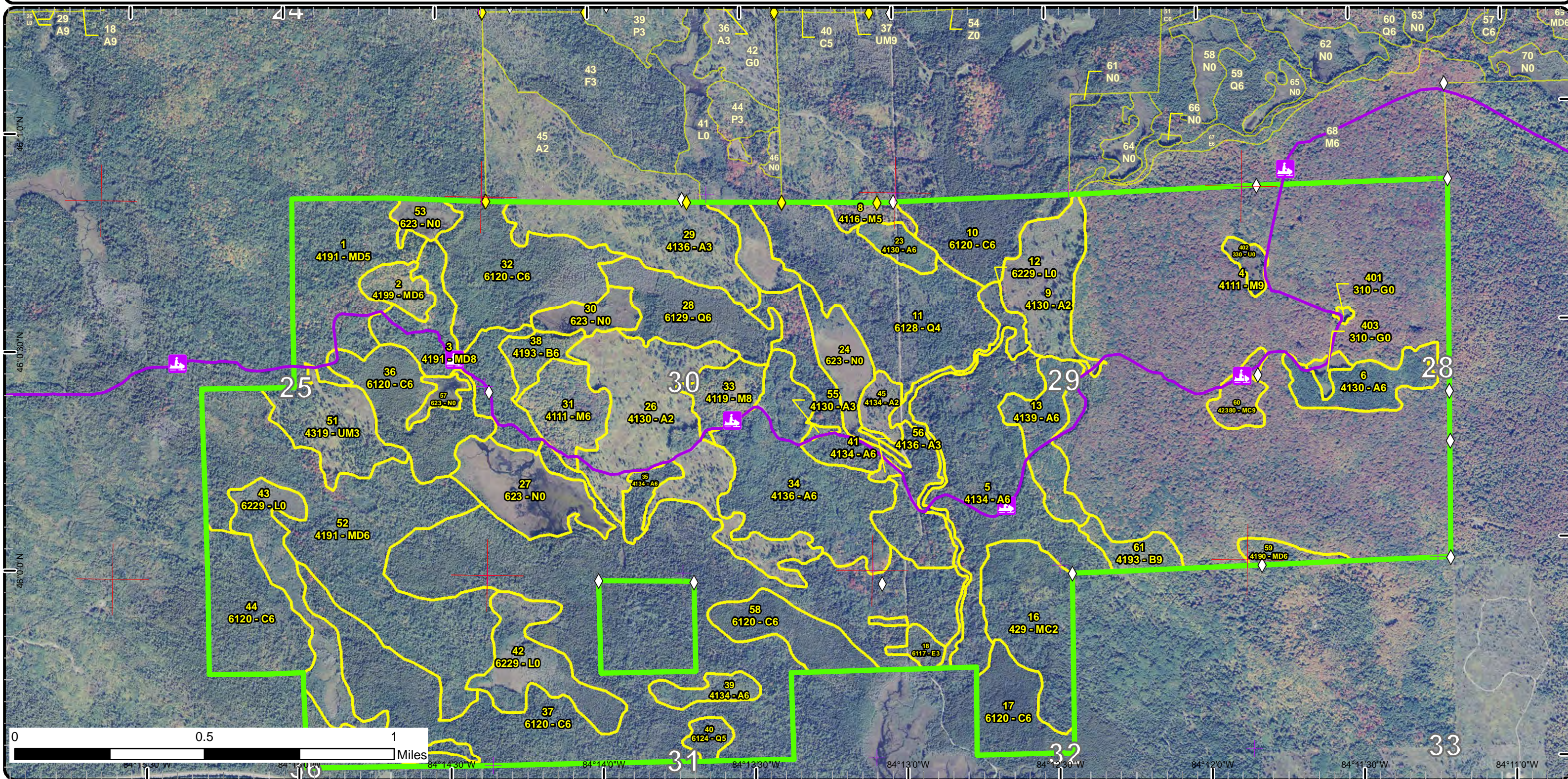


Stand Boundary Map

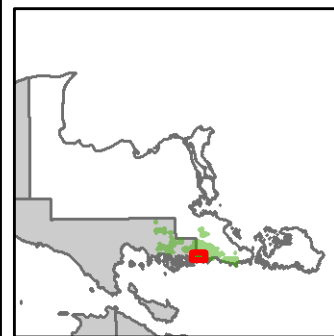


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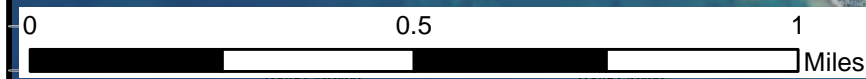
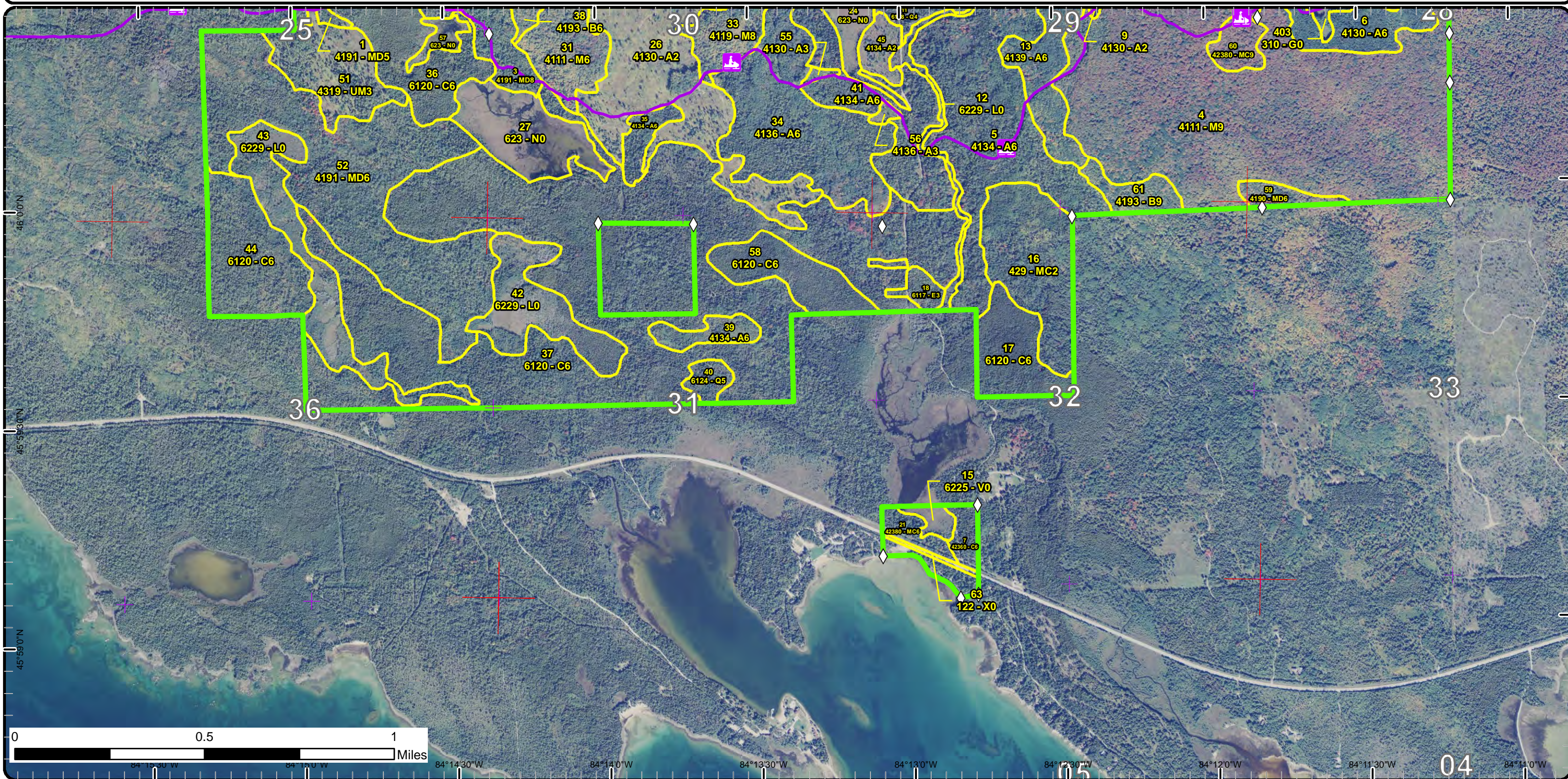


Stand Boundary Map



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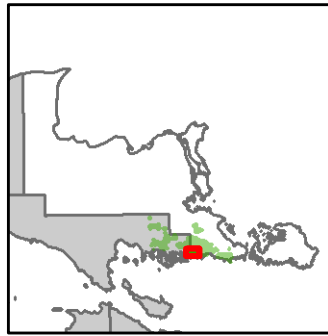
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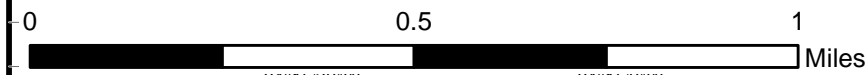
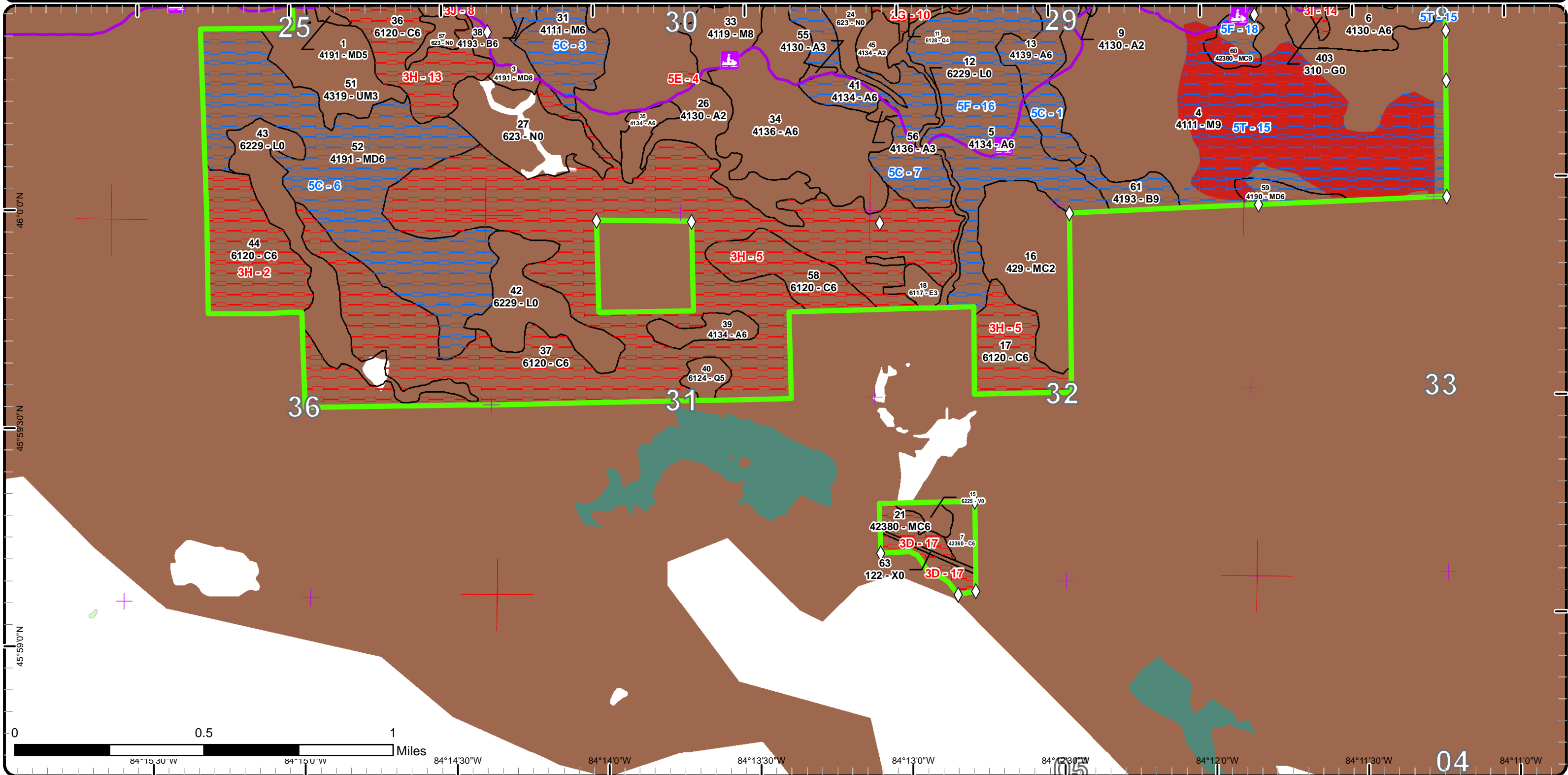
46°00'0"N
 45°59'30"N
 45°59'0"N
 84°14'30"W
 84°14'0"W
 84°13'30"W
 84°13'0"W
 84°12'30"W
 84°12'0"W
 84°11'30"W
 04

Special Conservation Areas & Site Conditions Map

Compartment: 24
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 T42N, R02E, Sec: 28-32
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 Unit: Sault Ste. Marie
 Mgmt Area: Huron Patterned
 Outcrop
 YOE: 2018
 Acres: 2,604 GIS Calculated
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 Map Revised: 12/6/2016
 Map Phase: Post Review



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- ◇ Field Grade GPS Corners
- Snowmobile Trails
- Designated Snowmobile Trails
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 5T: Contingency Treatment for Forest Health Concerns
- 2G: Too wet (sensitive soils, does not include access issues)
- 3D: Recreational / Scenic values
- 3H: Deer Wintering Areas
- 3I: Historical / archeological (add locked comments)
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Coastal Environmental Areas
- Deer Winter Range
- Great Lakes Islands



46°00'0"N
 45°59'30"N
 45°59'0"N
 0
 84°15'30"W 84°15'0"W 84°14'30"W 84°14'0"W 84°13'30"W 84°13'0"W 84°12'30"W 84°12'0"W 84°11'30"W
 04

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
Aspen	0	212	0	0	21	245	0	70	0	0	0	0	0	0	0	0	0	0	547
Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Cedar	0	0	0	0	0	0	0	0	67	57	466	0	38	0	0	0	0	0	628
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Low-Density Trees	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Conifers	0	0	0	0	0	0	7	136	0	0	0	0	0	0	0	0	0	0	143
Lowland Deciduous	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Shrub	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
Marsh	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108
Mixed Upland Deciduous	0	0	0	0	0	0	0	158	138	0	0	0	0	0	0	0	0	0	296
Northern Hardwood	0	0	0	0	0	0	0	28	26	0	0	0	0	0	0	0	0	558	612
Paper Birch	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	25
Upland Conifers	0	0	0	53	0	0	0	0	0	27	0	0	0	0	0	0	0	0	80
Upland Mixed Forest	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	230	249	0	60	21	245	7	392	256	84	466	0	38	0	0	0	0	558	2605



Report 2 – Treatment Summary

Sault Ste. Marie Mgt. Unit
Year of Entry: 2018

Acres of Harvest

Compartment 24
Total Compartment Acres: 2,604

Commercial Harvest - 132
Harvests with Site Condition - 366
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
Aspen	9	0	0	0	0	0	0	0	0	9
Low-Density Trees	6	0	0	0	0	0	0	0	0	6
Mixed Upland Deciduous	125	0	0	0	0	0	0	0	0	125
Northern Hardwood	0	346	0	0	0	0	0	0	0	346
Paper Birch	13	0	0	0	0	0	0	0	0	13
Total	153	346	0	0	0	0	0	0	0	498

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	498	0	0	0	0	0	0	0	0	498
Next Step	0	31	315	0	0	376	498	137	0	1357
Total	498	31	315	0	0	376	498	137	0	1855



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
1	45024001-Cut	69.6	4191 - Mixed Upland Deciduous with Conifer	Poetimber Medium	76	81-110	Harvest	Clearcut with Retention	4137 - Aspen, Birch	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Cut all trees that are 2" or more in DBH to provide young early successional growth for deer, ruffed grouse, and other wildlife. Do not cut oak, hemlock, pine, yellow birch or cedar to maintain diversity in the stand. Leave patches of retention in areas with out much spruce or fir if possible. Also try to focus retention patches around areas of rock and boulders. If T and E species are found on rocks make sure they are appropriately buffered. Winter cut (Dec. 1 - Mar. 31) so tops are available as browse for wintering deer. Buffer wetlands as needed.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

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

Other Comment: Work with WLD to determine if there are any T&E species on boulders in this stand. Treatment size may vary.

Proposed Start Date: 10/01/2017

3	45024003-Cut	47.3	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	76	111-140	Harvest	Clearcut with Retention	4137 - Aspen, Birch	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Cut all trees that are greater than 2" in DBH to provide young early successional growth for deer, ruffed grouse, and other wildlife. Do not cut oak, hemlock, pine, yellow birch or cedar to maintain diversity in the stand. Leave patches of retention in areas of little spruce or balsam if possible. Also focus these retention patches of areas of rock and boulders. Buffer wetlands and drainages. Winter cut (Dec. 1 - Mar. 31) so tops are available as browse for wintering deer..

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

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

Other Comment: This treatment will be split in 2 by the drainage that crosses the stand. Work with WLD to check for T&E species on boulders. Treatment size may vary.

Proposed Start Date: 10/01/2017

4	45024004-11- New	178.3	4111 - S.Maple, Hard Mast Association	Sawtimber Well	88	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition: Contingency Treatment**

Prescription Thin stand to 70-90 BA. Make some larger canopy gaps around oaks to try to promote oak regen. Remove all spruce and fir that are affected by SBW. Work with WLD to determine if T&E species are present and take appropriate action.

Next Step Monitoring, Natural Regen (Intermediate); Planting, Underplant; Pesticide, Hand Application

Treatments:

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

Other Comment: Specs may change if garlic mustard is found in the treatment.

Proposed Start Date: 10/01/2017



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
4	45024004-9-New	136.6	4111 - S.Maple, Hard Mast Association	Sawtimber Well	88	111-140	Harvest	Group Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary

Habitat Cut: No Site Condition: Contingency Treatment

Prescription When marking the stand use big tree management to introduce a multi storied stand. Thin the stand down to 90-100 BA making it thin enough for equipment to operate without causing damage to residual trees while still leaving a canopy mostly intact. Mark out one canopy gap per 2 acres in order to mimic a natural blow down event. These should be between 1 and 2 tree lengths in diameter. When possible leave oak trees within the gaps to enhance regen of oak. In areas of boulders leave a closed canopy to protect the micro-environment and do not fell trees into those areas. Work with WLD to survey for T&E species. Mark some trees to be left as large CWD and snags.

Next Step Planting, Underplant; Monitoring, Natural Regen (Intermediate); Other, Other; Pesticide, Hand Application
Treatments:

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

Other Comment: This treatment is being done to enhance and restore characteristics of a Northern Mesic Forest. Garlic mustard (gm) found near stand on E side. Adjustments to harvest area, specs., & treatment area in stand may be needed. Treatment of gm may be necessary if found in compartment.

Proposed Start Date: 10/01/2017

4	45024004-Cut_mwr	30.7	4111 - S.Maple, Hard Mast Association	Sawtimber Well	88	111-140	Harvest	Group Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No Site Condition: Contingency Treatment

Prescription Group selection harvest per Walter's research project specifications. May leave tops <8" or may have follow up treatment of herbicide and scarify.
Specs:

Next Step Pesticide, Hand Application; SitePrep, Scarification; Monitoring, Natural Regen (Intermediate); Pesticide, Hand Application
Treatments:

Acceptable Regen: northern hardwood

Other Comment:

Proposed Start Date: 10/01/2016

35	45024035-Cut	9.3	4134 - Aspen, Spruce/Fir	Poletimber Well	66	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No Site Condition:

Prescription Cut all trees 2" or more in DBH to provide young early successional growth for deer, ruffed grouse, and other wildlife. Leave any pine, cedar, oak, hemlock or yellow birch to maintain diversity in the stand. Winter cut (Dec. 1 - Mar. 31) so tops are available as browse for wintering deer.
Specs:

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable Regen: Acceptable regeneration includes aspen, spruce, fir, pine, birch and maple.

Other Comment: Stand is being treated now because of SBW.

Proposed Start Date: 10/01/2017

59	45024059-Cut	7.9	4190 - Mixed Upland Deciduous with Cedar	Poletimber Well	77	111-140	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Two-Aged	Draft Field Boundary
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Habitat Cut: No Site Condition: Contingency Treatment

Prescription Cut all trees down to 2" in DBH to provide young early successional growth for deer, ruffed grouse, and other wildlife. Do not cut cedar, oak, pine, hemlock or yellow birch to maintain diversity in the stand. Leave some sugar maple. Winter cut (Dec. 1 - Mar. 31) so tops are available as browse for wintering deer.
Specs:

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

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

Other Comment: Cut with adjacent hardwood stand.

Proposed Start Date: 10/01/2017



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
61	45024061-Cut	12.5	4193 - Birch, Aspen	Sawtimber Well	79	111-140	Harvest	Clearcut with Retention	4137 - Aspen, Birch	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition: Contingency Treatment

Prescription Specs: Cut all trees down to 2" in DBH to provide young early successional growth for deer, ruffed grouse, and other wildlife. Do not cut oak, pine, cedar, yellow birch or hemlock to maintain diversity in the stand. Leave some sugar maple. Winter cut (Dec. 1 - Mar. 31) so tops are available as browse for wintering deer.

Next Step Treatments: Monitoring, Natural Regen (Intermediate)

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

Other Comment: Cut with adjacent hardwood stand.

Proposed Start Date: 10/01/2017

402	45024402-Cut	6.2	330 - Low-Density Trees	Nonstocked		Unspecified	Harvest	Clearcut	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No Site Condition:

Prescription Specs: Remove all spruce and balsam from this stand that is more than 2" in DBH to create and maintain opening for deer and other wildlife. This is being done for SBW salvage.

Next Step Treatments: Monitoring, Natural Regen (Intermediate)

Acceptable Regen: Trying to maintain opening so no regen is acceptable.

Other Comment:

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 498.4

Report 4 – Site Conditions

Sault Ste. Marie Mgt. Unit

Josh Brinks : Examiner

Compartment: 24

Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available	Dominant Site Conditions	Dominant Site Conditions										
		With Condition				5C	5F	5T	2G	3D	3G	3H	3I	3J	5E	
548	352	193		3	Aspen	89	105				0					3
5	5	0		0	Bog											
628	7	0		621	Cedar					0	621					
5	0	0		5	Herbaceous Openland								5			
6	6	0		0	Low-Density Trees											
143	7	0		136	Lowland Conifers				136							
7	7	0		0	Lowland Deciduous											
104	104	0		0	Lowland Shrub											
108	108	0		0	Marsh											
296	117	178		1	Mixed Upland Deciduous	170		8							1	
611	238	373		0	Northern Hardwood	28		346								
25	0	25		0	Paper Birch	12		12								
80	53	12		15	Upland Conifers		12		15							
37	37	0		0	Upland Mixed Forest											
2	2	0		0	Urban											
2,604	1,043	781		780	Total Forested Acres	299	117	366	136	15	0	621	5	1	3	
	40%	30%		30%	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	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand is probably 20 yrs away from needing harvest							
2	Unavailable	3H: Deer Wintering Areas	50	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2I: Survey needed	Unspecified	Unspecified
Comments:							

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3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	51	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Look at treating this in 10 years							
4	Unavailable	5E: Long-Term Retention	3	3B: Threatened, endangered, and special concern species/communities	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3H: Deer Wintering Areas	421	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	158	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
Comments: Right now the stand is not desirable to harvest because of low quality.							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	60	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
Comments: Most of the stand is within the stream buffer. Do not want to harvest at this time.							
8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments:							

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9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	94	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3H: Deer Wintering Areas	38	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	3H: Deer Wintering Areas	67	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	3H: Deer Wintering Areas	45	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	3I: Historical / archeological (add locked comments)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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15	Available	5T: Contingency Treatment for Forest Health Concerns	366	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Garlic mustard is found in area. These treatments are being delayed until we have a better handle on the extent of the garlic mustard. CISMA will be working on a survey next spring. re-evaluate treatments based on their findings.							
16	Available	5F: Evaluated for Forest Health Considerations	105	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Timber is too small to commercially harvest at this time.							
17	Unavailable	3D: Recreational / Scenic values	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Available	5F: Evaluated for Forest Health Considerations	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Spruce and fir a minor component of this stand not worried about losing it here.							



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
	Potential Old Growth		SCA Removal	5
Comments SCA - Deer wintering complex. "Other SCA" code not needed.				
	Potential Old Growth		SCA Removal	8
Comments Already a SCA - Deer wintering complex.				
	Potential Old Growth		SCA Removal	25
Comments SCA - Deer wintering complex. "Other SCA" code not needed.				
	Other SCA		SCA Removal	2388
Comments Already a SCA - Deer wintering complex. Remove "other SCA" code over whole compartment, and "POG" code in NW.				



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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
SCA	Visual Management Area	An area of general social appreciation that is managed to recognize and preserve a particular visual value. Examples of these areas include scenic vistas, scenic or natural beauty roads, and lakeshore areas.
HCVA	Coastal Environmental Areas	The public designation process is defined by Part 323, Shorelands Protection and Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the Michigan Department of Environmental Quality (DEQ). This is an inactive program with no new areas currently under consideration by the DEQ.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	69.7	76	81-110	This stand is a combination of two old OI stands. It consists of old aspen and birch that is in decline. It looks to me like the aspen has already begun to fall out of the stand. The canopy is rather open in spots allowing for a thick flush of balsam fir to grow in. The fir and spruce in the stand are taking a beating from SBW but most of it is sub merchantable size. There are a few wet pockets in this stand.
2	4199 - Other Mixed Upland Deciduous	Poletimber Well	11.8	79	81-110	Stand of paper birch and maple that is fairly open in the understory. There is a rocky ridge that runs through the stand.
3	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	48.0	76	111-140	Mixed stand of aspen, birch, maple and white pine. The canopy closure is much better in this stand than in the stand to the west. The aspen and birch are getting old and starting to show signs of decline. The stand is rocky but operable. It is split just about in half by a drainage. Lots of white pine in this stand.
4	4111 - S.Maple, Hard Mast Association	Sawtimber Well	557.5	88	111-140	This stand is dominated by sugar maple and oak. There are very few conifers in this stand both in the canopy and the understory. You will find a few scattered spruce and cedar. There are a few good size ridges (for the soo area) within this stand. There are areas of rocks and some scattered house size boulders.
5	4134 - Aspen, Spruce/Fir	Poletimber Well	104.6	43	51-80	The aspen in this stand appears to be the same age as the aspen in the adjacent stand and based on the old cutting records it was probably all cut at the same time. This stand has way more of a conifer component and is of lower quality overall. There is a narrow strip of older timber along the stream corridor. There are a few small patches of lowland within this stand that are growing thick tag alder. SBW is really bad but the spruce and fir are not large enough to warrant a harvest.
6	4130 - Aspen	Poletimber Well	25.7	41	111-140	Very nice stand of aspen that has some maple mixed in along the edges and scattered balsam fir. There is a decent amount of hazel and brush in the understory.
7	42360 - Upland Cedar	Poletimber Well	7.2	86	171-200	Decent stand of cedar that is high and dry for the most part..
8	4116 - Mixed N. Hardwood - Aspen	Poletimber Medium	7.9	79	51-80	This timber sale was completed in 2010 (Beavertail Mix). They removed the aspen except for wildlife trees and thinned the hardwoods. This resulted in a seed tree look at the both the east and west sides of the stand with a small patch of hardwoods in the middle.
9	4130 - Aspen	Sapling Medium	40.5	6	Immature	Sale was completed in 2010 as part of Beaver Tail Mix. Decent aspen regeneration. Scattered oak and white pine logs. Also left some pole size sugar maple, fir and spruce.
10	6120 - Lowland Cedar	Poletimber Well	37.7	113	171-200	The cedar around the perimeter of this stand is really nice with some log size areas. In the interior of the stand where it is more wet the stand is more pole size with some open areas of balsam fir regen and tag alder.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Poor	94.3	61	1-50	According to old notes this stand has received extensive damage from spruce budworm in the past. This has resulted in a stand of very open canopy with thick regen of spruce, fir, tag alder/willow, and some aspen. I was torn whether to call this a sapling or a pole stand. I think there is enough canopy closure in the pole size class to get 25% closure but just barley. There are patches of cedar throughout the stand. Low wet ground.
13	4139 - Aspen, Mixed Deciduous	Poletimber Well	28.5	43	111-140	A mix of aspen with maple and birch. The maple has a larger dbh than the aspen. Most of the fir is in the understory of this stand. Fairly open understory.
16	429 - Mixed Upland Conifers	Sapling Medium	53.2	26	Immature	Didn't make it to this stand while doing inventory there was way to much snow on the trees to attempt to enter this stand. I did however take a short walk in this stand while looking for corners. The stand is very thick with spruce and balsam growing on somewhat rocky soils.
17	6120 - Lowland Cedar	Poletimber Well	30.1	96	171-200	Decent cedar stand. There are some areas where the canopy is a little more open and the fir is coming in very thick.
18	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Well	7.2	27	Immature	This is the combination of two sapling size stands. The strips on the west side of the road were cut in 1989 and are 27 years old. The portion of the stand on the east side of the road is 42 years old according to old inventory. Looking at the stands is hard to tell them apart. The only thing that separated them is that you will find a few pole size aspen east of the road.
21	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	14.7	86	111-140	A mixed stand close to the highway and Lake Huron. Stand has a lot of SBW damage. Might be possible to harvest north of the highway.
23	4130 - Aspen	Poletimber Well	10.1	39	51-80	This stand just barely makes the pole size stand. There still is some sapling size aspen holding on/ The balsam fir in this stand is very thick and smaller in DBH than the aspen and mostly in the understory. Lots of SBW.
26	4130 - Aspen	Sapling Medium	99.4	4	Immature	This sale was completed in 2012 as part of Vegetable Medley. There is no doubt that this will be an A3 next time around but right now there are still a few open areas. Scattered retention of cedar, white pine and oak. Quite a bit of the cedar has blown over. There are also scattered patches of sap-pole size balsam fir.
28	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	41.7	60	Unspecified	This is some very wet ground that is slowly filling in with a mix of cedar, black spruce and tamarack. There is a lot of tag alder in the understory. I was falling through ice trying to get out into the stand so I just got a look from the edge.
29	4136 - Aspen, Mixed Conifer	Sapling Well	59.3	6	Immature	Stand was cut in 2010 as part of Beaver Tail Mix. Access to this stand is pretty terrible as the logger did a great job blocking the road. There are patches of smaller diameter spruce/fir that were left during the harvest especially on the side of the ridge. Most regen is aspen except along the wetter edges where you will find BAM.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
31	4111 - S.Maple, Hard Mast Association	Poletimber Well	27.5	66	111-140	This stand is somewhat rocky. Mostly a pole size stand with some saplings in the canopy also. Scattered cedar throughout the stand. Decent amount of oak in this stand.
32	6120 - Lowland Cedar	Poletimber Well	67.4	76	111-140	I walked to the edge of this stand in 2 different location along the south side. The stand was too wet to get any further into the interior. Based on what I saw from the edge of the stand it appears the the stand is more of a Q type around the edges with Tamarack and black spruce with more cedar mixing in the deeper you get into the stand.
33	4119 - Mixed Northern Hardwoods	Sawtimber Medium	18.3	79	51-80	It appears that this stand was thinned pretty heavy in the past, in fact the old timber cutting report for this stand shows a cutting type of clearcut. The stand now has a two aged look. The canopy consists of log and pole size sugar maple, fir, cedar and white pine along with sapling size maple and ironwood. There are a few fir trees in this stand that are the biggest I have ever seen.
34	4136 - Aspen, Mixed Conifer	Poletimber Well	86.6	44	81-110	This stand was cut 44 years ago. It is now Aspen over balsam fir. Balsam fir is very thick in most of the stand but there are a few areas where the understory is open. Some of the wet spots regenerated to ash/aspen mix.
35	4134 - Aspen, Spruce/Fir	Poletimber Well	9.3	66	81-110	While treating the adjacent stand they decided to not cut this stand and leave it for wildlife habitat. There are some open areas in the stand that are grassy and rocky. This is not a high quality stand, it looks like some of the birch and aspen have died off and the spruce and fir may have taken a hit from a past SBW outbreak.
36	6120 - Lowland Cedar	Poletimber Well	45.2	93	171-200	I walked into the west side of this stand which had very nice log size cedar with aspen/BAM. There area few open areas with fir regen. The finger in the north west is more of a Q3 with spruce, fir and tamarack but it was too small to type out by itself. Most of the stand is smaller pole size cedar that is very wet. On some of the drier ground you will find the pockets of larger cedar.
37	6120 - Lowland Cedar	Poletimber Well	362.1	91	171-200	There is a fair amount of upland cedar in this stand located on some of the rockier ridges. On this high, dry sites the cedar is more log size. In some of the wettest areas the cedar canopy get thin and there is fir and tag alder in the understory. There are a few patches of aspen in this stand.
38	4193 - Birch, Aspen	Poletimber Well	12.1	70	111-140	This stand consists of pole size birch with log size aspen. Maple is starting to grow into this stand and some of it has made it to the pole size. Paper birch is starting to decline.
39	4134 - Aspen, Spruce/Fir	Poletimber Well	10.6	32	81-110	Looks like this stand may have been cut at one point but the inventory history shows the stand going from an L-F-now. Young aspen over balsam fir.
40	6124 - Lowland Spruce- Fir	Poletimber Medium	6.7	54	51-80	Looks like this stand was hit by SBW once in the past which resulted in a new flush of aspen and fir. SBW is once again causing damage in this stand. This stand is very low and wet especially on the south end.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	4134 - Aspen, Spruce/Fir	Poletimber Well	60.3	69	111-140	This is a mixed stand. Most of it consists of an area that looks like it suffered from SBW in the past resulting in aspen/birch over very thick balsam fir. In the very north end and the very south end of the stand there are areas of a little better timber that looks more like a MD stand with red maple and conifers and less fir in the understory. There are some low areas of tag alder.
44	6120 - Lowland Cedar	Poletimber Well	49.6	81	141-170	Too wet to make it to this stand. It is mostly cedar with some areas of aspen/birch over the cedar. Old comments say there is areas of rock in the stand.
45	4134 - Aspen, Spruce/Fir	Sapling Medium	9.3	6	Immature	This stand was part of Beavertail Mix which was completed in 2010. There is nice aspen regen in the north that gets spotty along the south edge. There are scattered patches of small pole size balsam fir and spruce.
51	4319 - Mixed Upland Forest	Sapling Well	37.3	4	Immature	Stand was cut in 2012 as part of Vegetable Medley. There is retention of red pine, white pine and cedar throughout the stand. You might also find a red maple or paper birch. There are also scattered patches of small fir and spruce. The regen is coming back very nicely. The stand has a few rocky ledges that step down to the wetland on the east side of the stand.
52	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	158.4	66	111-140	This stand is a bit of a catchall and a mix of timber types depending on where you are at. Most of the stand is upland with shallow soils and rocky areas that are growing aspen./spruce/fir but there are patches of lowlands that are growing black spruce, tag alder and ash. On some of the drier ground it is actually a decent stand. According to old stand notes this stand has been hit by SBW in the past and it is once again being hit. This has resulted in an open canopy in portions of the stand.
55	4130 - Aspen	Sapling Well	1.4	6	Immature	Stand was cut in 2010 as part of Beaver Tail Mix. There is really good aspen regen in this stand along with scattered cedar retention.
56	4136 - Aspen, Mixed Conifer	Sapling Well	1.8	6	Immature	Stand was cut in 2010 as part of Beaver tail Mix. There is scattered small pole size spruce and balsam fir along with log size white pine that was retained during the harvest. Excellent regen coming in.
58	6120 - Lowland Cedar	Poletimber Well	28.9	91	141-170	I walked into the edge of this stand and it was an impenetrable wall of cedar. This stand is very wet with small diameter cedar.
59	4190 - Mixed Upland Deciduous with Cedar	Poletimber Well	7.9	77	111-140	Mixed stand of paper birch and cedar. Not much in the understory of this stand. Some scattered white pine and
60	42380 - Non Pine Upland Conifer, Mixed Deciduous	Sawtimber Well	12.2	86	111-140	This is a pocket within the larger hardwood stand where there is a greater concentration of cedar mixed with the maple. There are areas in this stand of thick cedar cover and others that are dominated by maple. Easiest to pick this stand out on leaf off imagery.

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Report 7 – Forested Stands

Compartment: 24
Year of Entry: 2018



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
61	4193 - Birch, Aspen	Sawtimber Well	12.5	79	111-140	This stand is mostly a birch and maple stand with a few clones of large aspen. There is scattered oak present in the stand. Right on the edge of a pole and log size stand. Birch is showing signs of decline.



Stand	Cover Type	Acres	Managed Site	General Comments:
12	6229 - Mixed lowland shrub	18.1	No	OPIC - FMD: Tag Alder and wWillow.
15	6225 - Bog	4.9	No	Floating Bog with alder and willow in the south east corner.
24	623 - Emergent Wetland	38.0	No	This stand has a creek running through it. Most of it is marsh grass with some treed areas.
27	623 - Emergent Wetland	39.9	No	Emergent wetland that holds varying amounts of water depending on the beavers and the rain.
30	623 - Emergent Wetland	14.4	No	There was some water in this stand. Beaver activity. Scattered cedar.
42	6229 - Mixed lowland shrub	39.0	No	Did not make it to this stand. Assuming it is lowland shrub/emergent wetland.
43	6229 - Mixed lowland shrub	47.0	No	Mostly lowland shrub with a few scattered conifer trees. There is a stream running through the stand with a couple beaver ponds.
53	623 - Emergent Wetland	9.4	No	Stand is seasonally flooded. when it is not flooded it is marsh grasses with scattered trees.
57	623 - Emergent Wetland	5.9	No	This stand was flooded at the time of inventory. Grassy with some scattered cedar.
63	122 - Road/Parking Lot	1.8	No	
401	310 - Herbaceous Openland	1.0	No	Grassy opening that was the site of an old logging camp.
402	330 - Low-Density Trees	6.2	No	This is a grass opening that was most likely an old home site. This stand is growing in with spruce balsam and some pine. I am recommending that we prescribe this in the name of SBW there is a bit of merchantable timber around the perimeter that should be cut with any adjacent sales.
403	310 - Herbaceous Openland	4.0	No	Grassy opening that is the site of an old logging camp. Included in this stand is a small patch of large mature aspen that was not cut with the surrounding aspen.