



Sault Forest Management Unit
Compartment Review Presentation
Compartment # 49 **Entry Year: 2013**
Compartment Acreage: 1,929 **County: Chippewa**

Revision Date: 7/15/2011

Stand Examiner: Ryan Mattila

Legal Description: T46N R3W Sections 35 & 36
 T45N R3W Sections 1 & 2

RMU: North Rudyard

Management Goals: Except for a few low ridges and some old agricultural openings this compartment is wet. Due to mounting mortality in the over mature "P" types and the difficulty of access, the entire timber component was offered for sale in the 1980's, with the exception of an immature spruce type in section 2. The accessible timber was harvested except for some scattered paper birch that was left in hopes of providing winter food for the sharptailed grouse which are abundant in this compartment.

The proposed management for this entry cycle is the spruce, which has matured and an area in the northeast of the compartment that was not accessible from the south when the compartment was sold in the 80's. The access for this entry would be from the east as that compartment has been harvested recently and winter roads have been established. Other areas that were not harvested in the 80's have been factor limited do to access issues, there is one area north of the spruce that may be offered as an optional unit as part of the spruce sale.

Soil and Topography: About 80% of the area is Pickford silty clay loam. This area is very wet and generally covered with willow and tag alder. Slight rises support a marginal stocking of aspen and balsam poplar. The Allendale-Fiber complex covers another 15% of the area. This soil type generally makes up the low ridges which support more aspen, paper birch and spruce fir. The rest of the area is generally Allendale loamy fine sand and is found in scattered pockets. Except for low ridges and stream banks, this compartment is flat.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Text This single block of tax reverted land is generally bounded by other State of Michigan ownership on the east and south, USFS ownership on the west, and a single large private owner on the north.

Unique, Natural Features: There are occurrences of sharp-tailed grouse in this compartment. There is Great Blue Heron rookery and Bald Eagle potential also. Potential for several other plant and animal species of special concern exists.

Archeological, Historical, and Cultural Features: None

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: This compartment is within the Eastern Lake Superior Management Unit (ELSMU), and is within the Waiska River watershed, a warm water stream. A no-clearcut buffer of 100 feet should maintained adjacent to these waterbodies, consistent with BMPs.

Wildlife Habitat Considerations: Compartment 49 is located between Rudyard and Brimley west of Tilson Road, and lies within the Rudyard subsection of the Niagaran Escarpment and Lake Plain. Pre-settlement vegetation consisted primarily of lowland conifers on poorly drained soils. Lowland brush and marsh now persist with stands of poplar and black spruce intermixed. Most of the aspen is young, although a few stands of mature aspen remain. Several tributaries of the Waiska River flow east through the compartment. Beaver activity is common along these tributaries, and several beaver floodings provide habitat for wood ducks and other waterfowl. The Ottawa National Forest abuts the western boundary of this compartment.

Wildlife objectives include maintaining aspen where it exists and maintaining the marsh and riparian habitats. Young aspen stands will be allowed to mature. Mature stands will be managed to maintain the aspen while providing some age class diversity where possible. Stream and riparian areas will be protected. Species benefitting from this management include ruffed grouse, American woodcock, white-tailed deer, beaver, snowshoe hare, northern harriers, wolves, and waterfowl.

Mineral Resource and Development Concerns and/or Restrictions: Text Surface sediments consist of lacustrine (lake) clay and silt. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Formation subcrops below the glacial drift. This formation is quarried for stone/dolomite. Gravel pits are located two miles to the southeast of the compartment. Gravel potential appears to be limited in the compartment. There is no economic oil and gas production in the UP.

Vehicle Access: There is virtually no vehicle access to or into this compartment unless the road is frozen and plowed.

Survey Needs: There may be survey work needed in section 36 to establish the cutting boundary.

Recreational Facilities and Opportunities: A snowmobile trail forms the south boundary of this compartment. Other recreation generally consists of ruffed grouse/woodcock hunting and deer hunting. Lost of illegal hunting blinds in compartment, hunter accessed by ORV or on foot.

Fire Protection: This compartment is wet and has low fire potential.

Additional Compartment Information: None

- **The following reports from the Inventory are attached:**
 - ◆ **Total Acres by Cover Type and Age Class**
 - ◆ **Proposed Treatment Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Details (Forested and Nonforested)**
 - ◆ **Dedicated and Proposed Special Conservation Areas**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand boundaries, cover types, and numbers**
 - ◆ **Proposed treatments**
 - ◆ **Details on the road access system**

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Cover Type & Treatment Map

Compartment 049
 T46N, R03W, Sec. 35, 36
 T45N, R03W, Sec. 1, 2
 County: Chippewa
 Unit: Sault Ste Marie
 YOY: 2013
 Acres: 1,929 GIS Calculated
 Stand Examiner: Ryan Mattila
 Map Revised: 8/11/2011
 Map Phase: Pre-Review

Legend

- Miris Corners
- Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Snowmobile Trail
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

Level 3

- 413 - Aspen Types
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

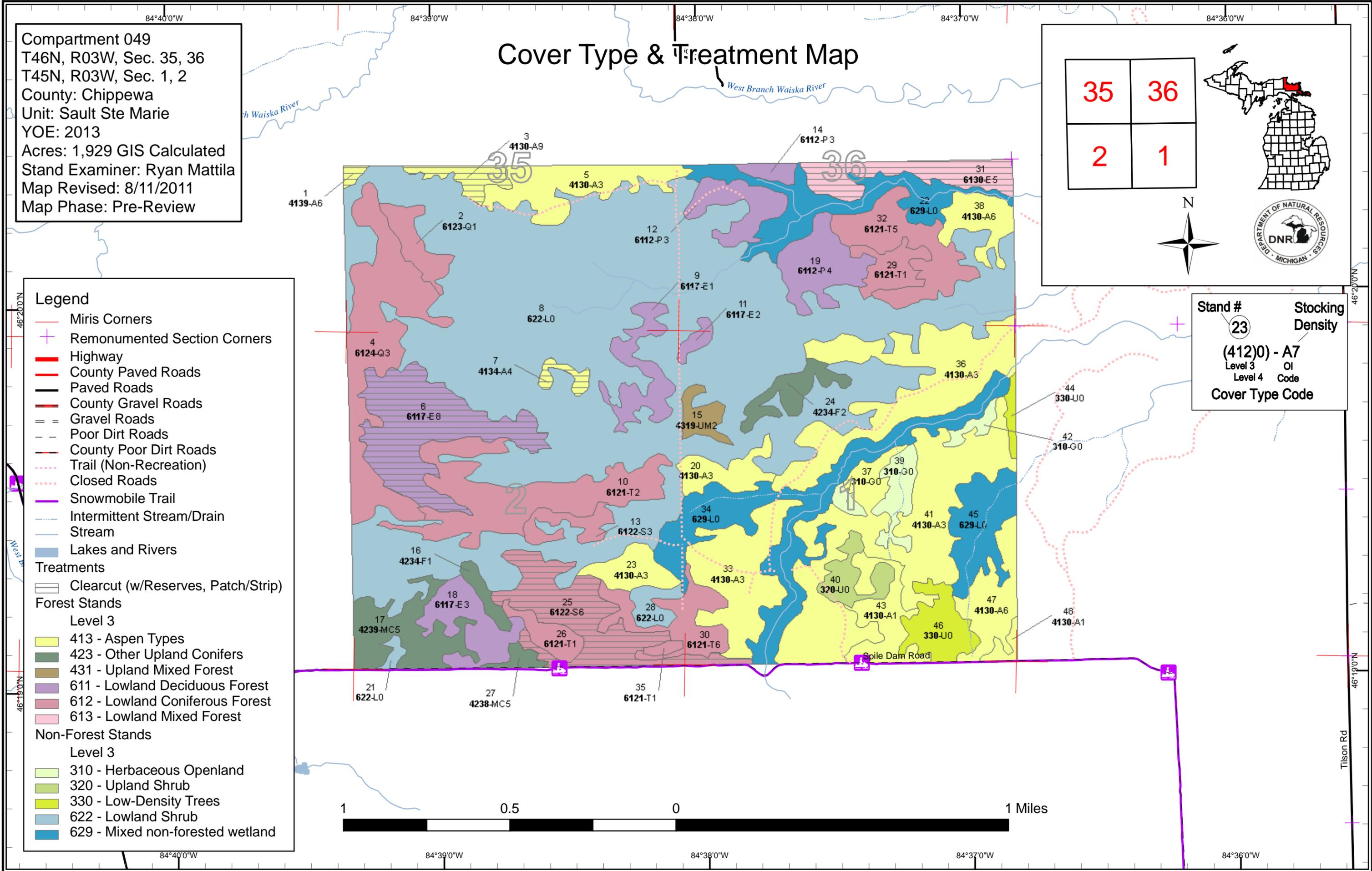
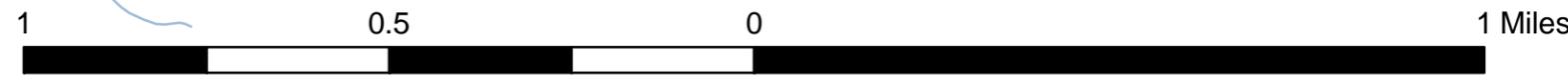
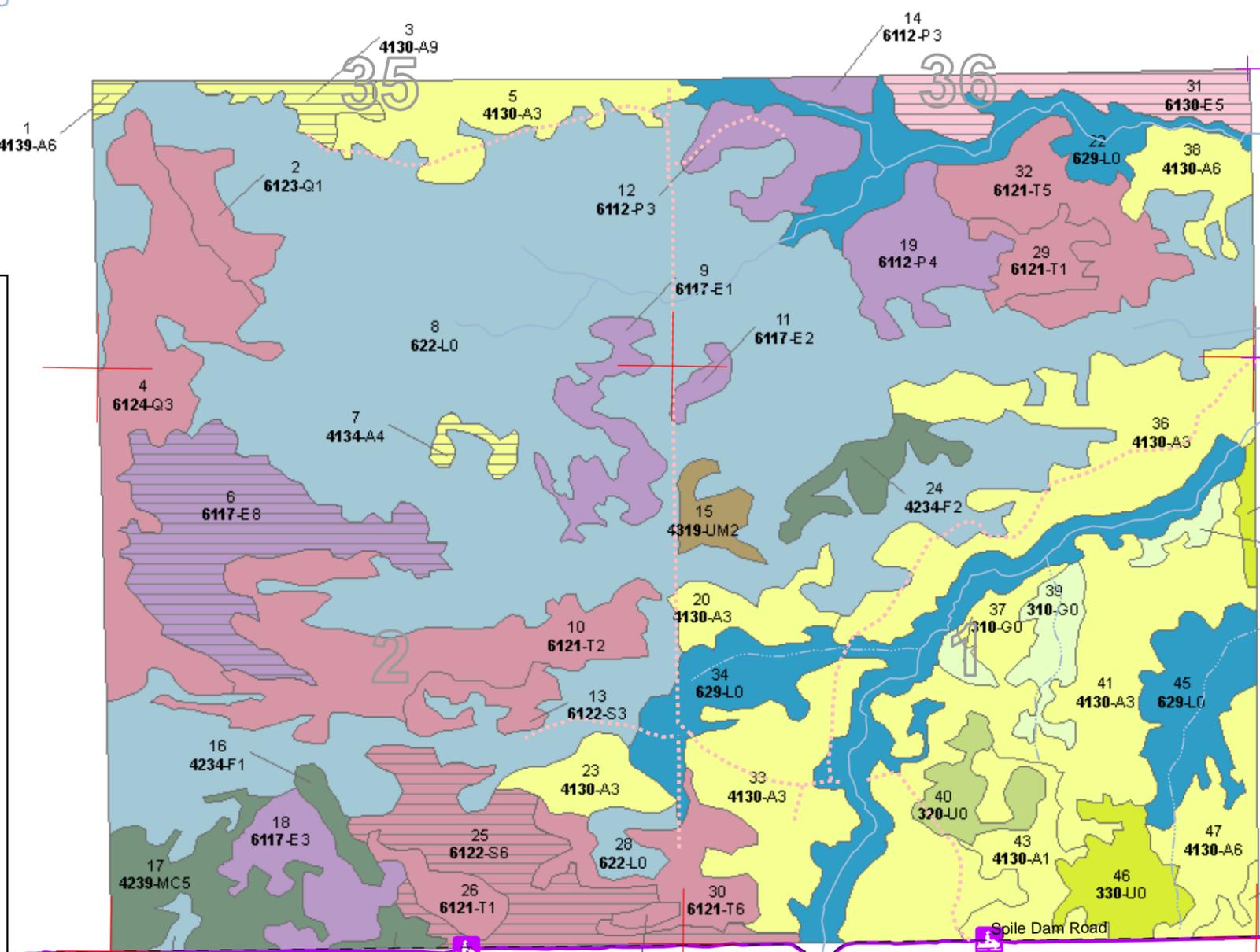
Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland

Stand # **23**
 (412)0) - A7
 Level 3
 Level 4
 Code
 Cover Type Code

Stocking Density



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Stand Boundary Map

35	36
2	1



N




Legend

- Miris Corners
- + Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- - - Trail (Non-Recreation)
- - - Closed Roads
- - - Intermittent Stream/Drain
- Stream
- Snowmobile Trail
- Stand Boundaries

Forest Stands

Level 3

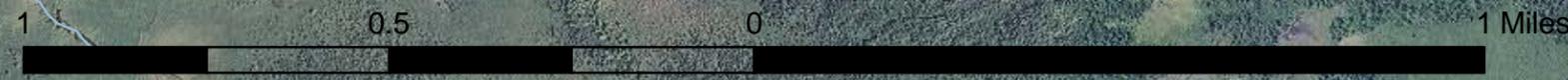
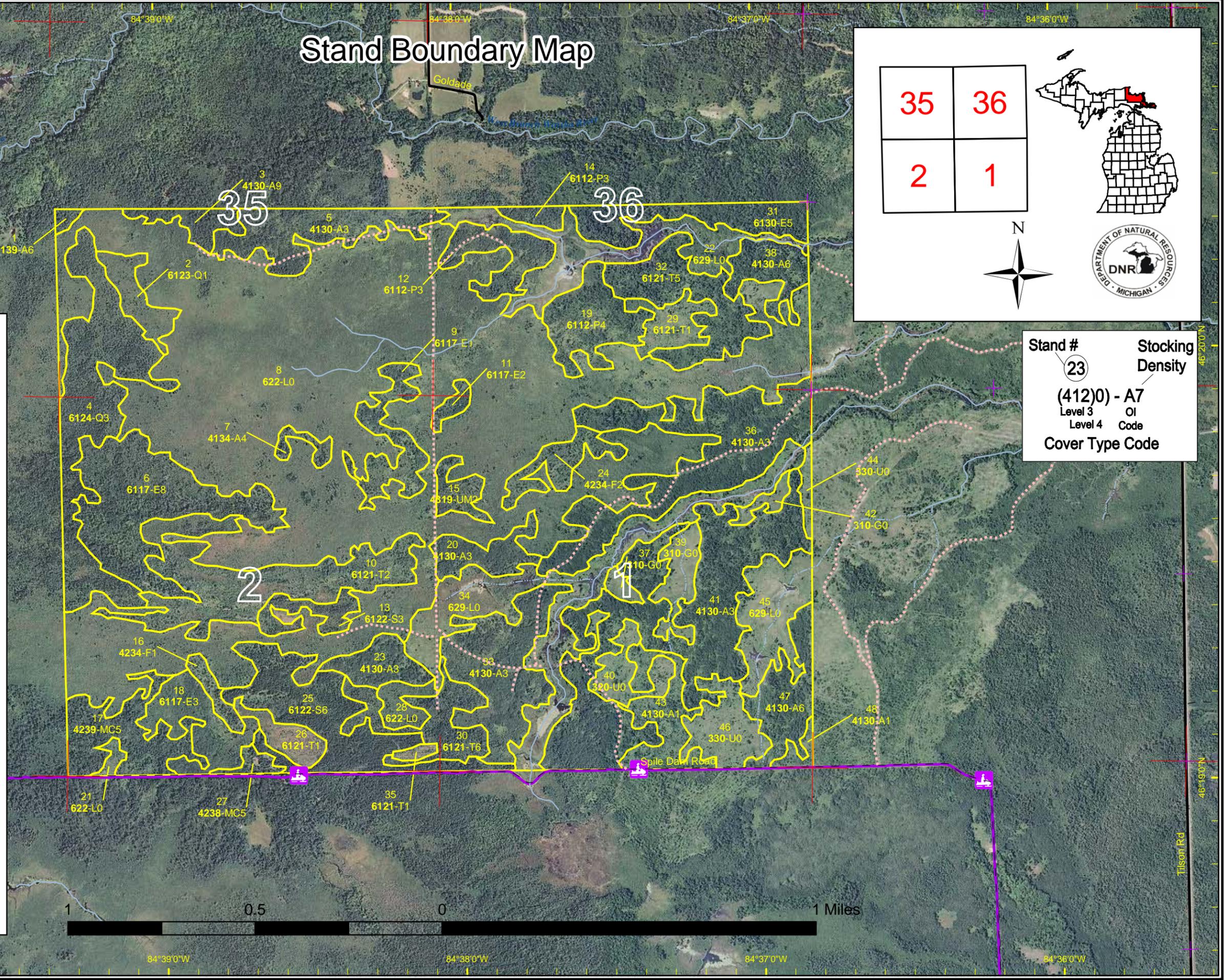
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Non-Forest Stands

Level 3

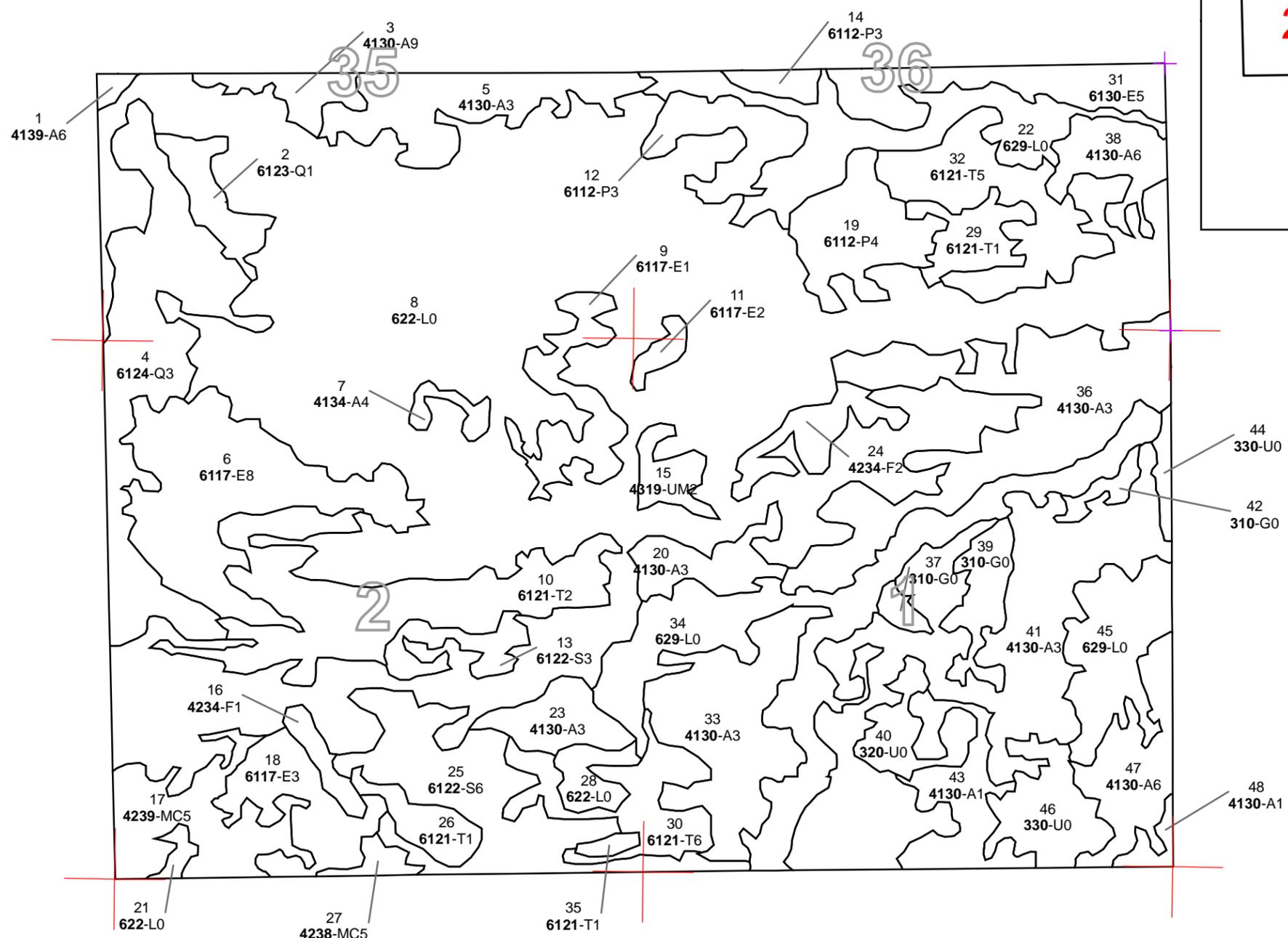
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Stand # **23**
 Stacking Density
(412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



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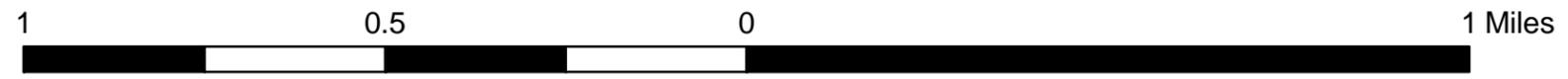
Dedicated & Proposed Special Conservation Area Map



Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- ▭ Dedicated Special Conservation Areas
- Cold Water Streams
- Deer Wintering Areas
- Forest Stands
 - Level 3
 - 413 - Aspen Types
 - 423 - Other Upland Conifers
 - 431 - Upland Mixed Forest
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- Non-Forest Stands
 - Level 3
 - 310 - Herbaceous Openland
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 - 622 - Lowland Shrub
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Stand #
 23
Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



46°20'0"N

46°20'0"N

84°40'0"W 84°39'0"W 84°38'0"W 84°37'0"W 84°36'0"W

84°40'0"W 84°39'0"W 84°38'0"W 84°37'0"W 84°36'0"W

Table 1 – Total Acres by Cover Type and Age Class



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Unretn Age
Aspen	0	4	346	0	44	0	0	2	15	0	0	0	0	0	0	412
Herbaceous Openland	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Low-Density Trees	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Lowland Aspen/Balsam Poplar	0	0	26	0	29	0	0	0	0	0	0	0	0	0	0	55
Lowland Conifers	0	0	0	0	14	75	0	0	0	0	0	0	0	0	0	89
Lowland Deciduous	0	0	53	0	0	0	0	0	0	69	0	0	0	0	0	123
Lowland Mixed Forest	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	29
Lowland Shrub	859	0	0	0	0	0	0	0	0	0	0	0	0	0	0	859
Lowland Spruce/Fir	0	0	0	0	0	0	12	0	55	0	0	0	0	0	0	67
Tamarack	0	0	69	25	39	2	27	0	0	0	0	0	0	0	0	163
Upland Conifers	0	0	0	0	4	34	0	0	0	0	0	0	0	0	0	39
Upland Mixed Forest	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Upland Shrub	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Upland Spruce/Fir	0	0	6	0	15	0	0	0	0	0	0	0	0	0	0	22
Total	922	4	510	25	147	112	68	2	70	69	0	0	0	0	0	1929



Table 2 – Proposed Treatment Summaries

Sault Ste. Marie Mgt. Unit
Year of Entry 2013

Compartment 049
Total Compartment Acres: 1929

Acres by Treatment Type

Commercial Harvest - 171	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	17	0	0	0	0	0	17
Lowland Deciduous	69	0	0	0	0	0	69
Lowland Mixed Forest	29	0	0	0	0	0	29
Lowland Spruce/Fir	55	0	0	0	0	0	55
Total	171	0	0	0	0	0	171

**Table 3 -- Treatments Prescribed
with No Limiting Factor**

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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	45049025-Cut	55.0	42390 - Mixed Non-Pine Upland Conifers	High Density Pole	78	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal

Prescription Clear cut to regenerate, leave pockets to meet retention requirements.

Specs:

Other Need portable bridge for access on snowmobile trail.

Comments:

Next Steps: Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, black spruce, tamarack, white and red pine and hemlock.

**Total Treatment
Acreage Proposed: 55.0**



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	45049001-Cut	2.1	4139 - Aspen, Mixed Deciduous	High Density Pole	68	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription Clearcut to regenerate aspen, leave any cedar, hemlock, or oak that may be present. no other retention needed small acreage
Specs:

Other
Comment:

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, black spruce, tamarack, white and red pine and hemlock.
Steps:

Limiting Factor and No 2G: Blocked by physical obstacle
Treatment Reason

3	45049003-Cut	10.7	4130 - Aspen	High Density Log	72	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription clear cut to regenerate aspen leave any cedar, hemlock, or oak that may be present. leave red line trees for retention
Specs:

Other
Comment:

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, black spruce, tamarack, white and red pine and hemlock.
Steps:

Limiting Factor and No 2G: Blocked by physical obstacle
Treatment Reason

6	45049006-Cut	69.3	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	80	Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal
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Prescription Clear cut to regenerate aspen, leave all cedar, hemlock, and oak if present. leave retention pockets to meet retention guidelines
Specs:

Other
Comment:

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, black spruce, tamarack, white and red pine and hemlock.
Steps:

Limiting Factor and No 2G: Blocked by physical obstacle
Treatment Reason

7	45049007-Cut	4.6	4134 - Aspen, Spruce/Fir	Low Density Pole	72	Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal
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Prescription clear cut to regenerate aspen low stocking and volume. no retention
Specs:

Other
Comment:

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and paper birch, balsam fir, white spruce, black spruce, tamarack, white and red pine and hemlock.
Steps:

Limiting Factor and No 2G: Blocked by physical obstacle
Treatment Reason

Table 4 -- Treatments Prescribed with
a Limiting FactorCompartment: 049
Year of Entry 2013S
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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
31	45049031-Cut	29.5	6130 - Fir, Aspen, Maple	Medium Density Pole	52	Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal

Prescription Clear cut to regenerate aspen, leave all cedar, hemlock, and oak if present. leave retention pockets to meet retention guidelines
Specs:

Other
Comment:

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, cedar, yellow and
Steps: paper birch, balsam fir, white spruce, black spruce, tamarack, white and red pine and hemlock.

Limiting Factor and No 5E: Age / size class diversity
Treatment Reason

Total Treatment
Acreage Proposed: 116.2

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
45158_OutOfY OE-Cut	2.5				Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription:</u> Mark stand to 80 to 90 Basal Area. Retain some beech with the smooth bark and wildlife trees. Some larger canopy gaps may be desirable to <u>Specs:</u> enhance the advanced regeneration present.								
<u>Other Comments:</u> <u>Next Steps:</u> Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, beech, yellow and paper birch, ironwood, balsam fir, white spruce, black spruce and white pine.								
NF_45134015- NonFor	4.7	Unspecified		0	Non-Forest Management	Patch or Strip Clearcut	31021 - Cool Season Grass	Cmpt. Review Proposal
<u>Prescription:</u> Treat with C149 s 63. Opening maintenance removing jack pine seedlings and saplings. <u>Specs:</u>								
<u>Other Comments:</u> <u>Next Steps:</u>								
Total Treatment Acreage Proposed:		7.2						



Stand	Sault Ste. Marie Mgt. Unit		5 – Forested Stands		Compartment: 049 Year of Entry: 2013	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4139 - Aspen, Mixed Deciduous	High Density Pole	2.1	68		
2	6123 - Lowland Fir	Low Density Sapling	13.9	35		
3	4130 - Aspen	High Density Log	10.7	72		
4	6124 - Lowland Spruce- Fir	High Density Sapling	75.0	45		
5	4130 - Aspen	High Density Sapling	36.2	15		
6	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	69.3	80		
7	4134 - Aspen, Spruce/Fir	Low Density Pole	4.6	72		
9	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Sapling	22.5	15		
10	6121 - Tamarack	Medium Density	69.3	15		
11	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	4.2	15		
12	6112 - Lowland Aspen	High Density Sapling	20.3	15		
13	6122 - Black Spruce	High Density Sapling	11.6	50		
14	6112 - Lowland Aspen	High Density Sapling	5.2	15		
15	4319 - Mixed Upland Forest	Medium Density	9.2	15		
16	42340 - Upland Spruce/Fir	Low Density Sapling	6.3	15		
17	42390 - Mixed Non- Pine Upland Conifers	Medium Density Pole	34.4	45		
18	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	26.7	15		
19	6112 - Lowland Aspen	Low Density Pole	29.4	30		

S t a n d	Sault Ste. Marie Mgt. Unit		5 – Forested Stands		Compartment: 049	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	
20	4130 - Aspen	High Density Sapling	16.1	15		
23	4130 - Aspen	High Density Sapling	15.3	15		
24	42340 - Upland Spruce/Fir	Medium Density	15.2	30		
25	6122 - Black Spruce	High Density Pole	55.0	78		
26	6121 - Tamarack	Low Density Sapling	10.9	27		
27	42380 - Non Pine Upland Conifer, Mixed Deciduous	Medium Density Pole	4.4	30		
29	6121 - Tamarack	Low Density Sapling	14.0	22		
30	6121 - Tamarack	High Density Pole	26.9	57		
31	6130 - Fir, Aspen, Maple	Medium Density Pole	29.5	52		Clear cut with access form east
32	6121 - Tamarack	Medium Density Pole	39.5	30		
33	4130 - Aspen	High Density Sapling	51.3	15		
35	6121 - Tamarack	Low Density Sapling	2.3	42		
36	4130 - Aspen	High Density Sapling	81.1	15		
38	4130 - Aspen	High Density Pole	17.7	30		trace of white oak
41	4130 - Aspen	High Density Sapling	121.1	15		
43	4130 - Aspen	Low Density Sapling	25.2	15		
47	4130 - Aspen	High Density Pole	26.8	30		
48	4130 - Aspen	Low Density Sapling	4.1	5		





Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
8	622 - Lowland Shrub	687.2			
21	622 - Lowland Shrub	2.7	N/A	Unspecified	
22	629 - Mixed non-forested wetland	46.8	N/A	Unspecified	
28	622 - Lowland Shrub	8.6	N/A	Unspecified	
34	629 - Mixed non-forested wetland	81.9			
37	310 - Herbaceous Openland	3.4	N/A	Unspecified	
39	310 - Herbaceous Openland	14.2	N/A	Unspecified	
40	320 - Upland Shrub	14.5			
42	310 - Herbaceous Openland	4.6	N/A	Unspecified	
44	330 - Low-Density Trees	3.9	N/A	Unspecified	
45	629 - Mixed non-forested wetland	31.9	N/A	Unspecified	
46	330 - Low-Density Trees	22.2	N/A	Unspecified	



7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments
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8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

Conservation Area	Type	Description
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