

Sault Ste Marie Forest Management Unit Compartment Review Presentation

Compartment #187 Entry Year: 2014 Compartment Acreage: 2,479 County: Mackinac

Revision Date: 7/9/2012

Stand Examiner: Matt Edison

Legal Description: T43N-R11W, Section 5-8 & 17-20, Newton Township

T44N-R11W, Section 31 & 32 Portage Township

RMU (if applicable): Milakokia Lakes

Management Goals: This entry management will focus on harvesting mature Aspen and Spruce/Fir and encourage natural regeneration. Thinning of a Northern Hardwood stand is planned to improve stand quality and promote uneven aged management.

Soil and Topography: The topography of the compartment is primarily level ground. Low-lying wet ground with slightly higher dry ground. The soils present within the compartment are as follows: Markey and Carbondale Mucks, Springlake, Heinz sandy loam, Angellica Muck, Greylock sandy loam, Mattix sandy loam, Guardlake fine sandy loam, Spot-Finch complex, Leafriver mucky peat, Kalkaska sand, Iosco sand, Paquin-Finch, and Eastport-Leafriver.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is large in area because it contains a large amount of Private holdings within. The compartment takes in parts of 9 different sections. There are some residential properties along the west (H-33) and east (North Gould City Road) edges of the compartment. The majority of the private land is undeveloped and used primarily for hunting/recreation. The compartment is surrounded on all sides by private land.

Unique, Natural Features: From MNFI- There are records of numerous Osprey and Great Blue Herron Rookeries within and around the compartment. There is potential for numerous threatened and endangered plants/ communities associated with cedar types. There is also potential for Red Shoulder and Goshawk within the Northern Hardwood cover types. There is potential for wood turtle along Rock River.

Archeological, Historical, and Cultural Features: There is a gravel and cement product producing operation adjacent to the compartment to the west.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: This compartment contains reaches of Norton Creek and the Rock River. Implementation of BMP's will aid in preventing sediment input from road crossings and upland areas are critically important to protect spawning areas for trout and other stream-resident fishes. Buffering the river is also critical to ensure future inputs of woody material to the stream channel, discourage aspen regeneration close to the stream channel, and provide shading to protect water temperature from warming to a degree that will inhibit trout survival.

Wildlife Habitat Considerations: This compartment is within the Milakokia Lake Management Area. The compartment is composed of disjunct ownerships east and southeast of South Manistique Lake. The largest portion is dominated by lowland. Forested stands are dominated by black spruce and cedar. Aspen, balsam fir, and red maple are common in remaining upland areas. Other parts of the compartment further north are dominated by cedar in lowlands followed by aspen, northern hardwoods, and mixed stands on higher ground. Much of the compartment is part of a deer wintering complex.

Wildlife objectives include maintaining the cedar and lowland conifer cover where it occurs for wintering deer as well as bobcat and other species, harvesting stands during the winter to allow tops to be available as browse during these critical months, and encouraging stand diversity in a small northern hardwood stand. Aspen-dominated stands will be left to continue maturing, providing habitat for ruffed grouse, woodcock, and other species. Wetlands will be buffered appropriately to protect these features. Additional species benefitting from management in the compartment include snowshoe hare, wolf, coyote, beaver, and numerous neotropical migratory birds.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel and peat and muck, some is thin to discontinuous over bedrock. The glacial drift thickness varies between 10 and 100 feet. The Silurian Burnt Bluff Group subcrops below the glacial drift. The Burnt Bluff is quarried for stone/limestone six miles to the southwest at the Inland Quarry. Gravel pits are located throughout the area and there appears to be potential on the upland areas. There is no economic oil and gas production in the UP.

Vehicle Access: Vehicle access is very limited to the interior parts of the compartment. Mackinac County Road H-33 runs North/South along the west border of the compartment and is a paved all season road. North Gould City Road runs North/South along the east border of the compartment and is a year round restricted gravel road. There are some two tracks that allow access to the interior parts of the compartment, but all pass through private property, some gated.

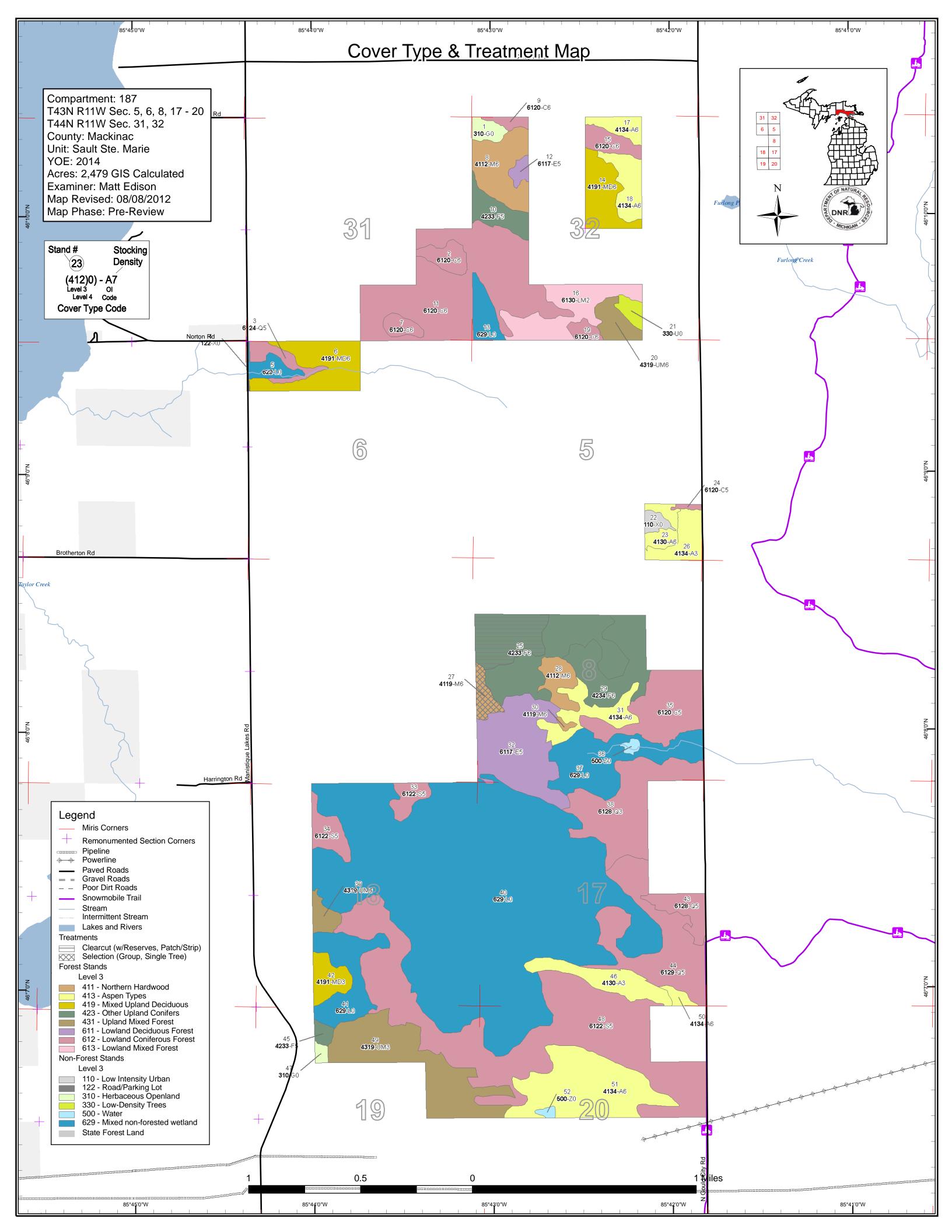
Survey Needs: Some blue line work will be needed for treatments this entry.

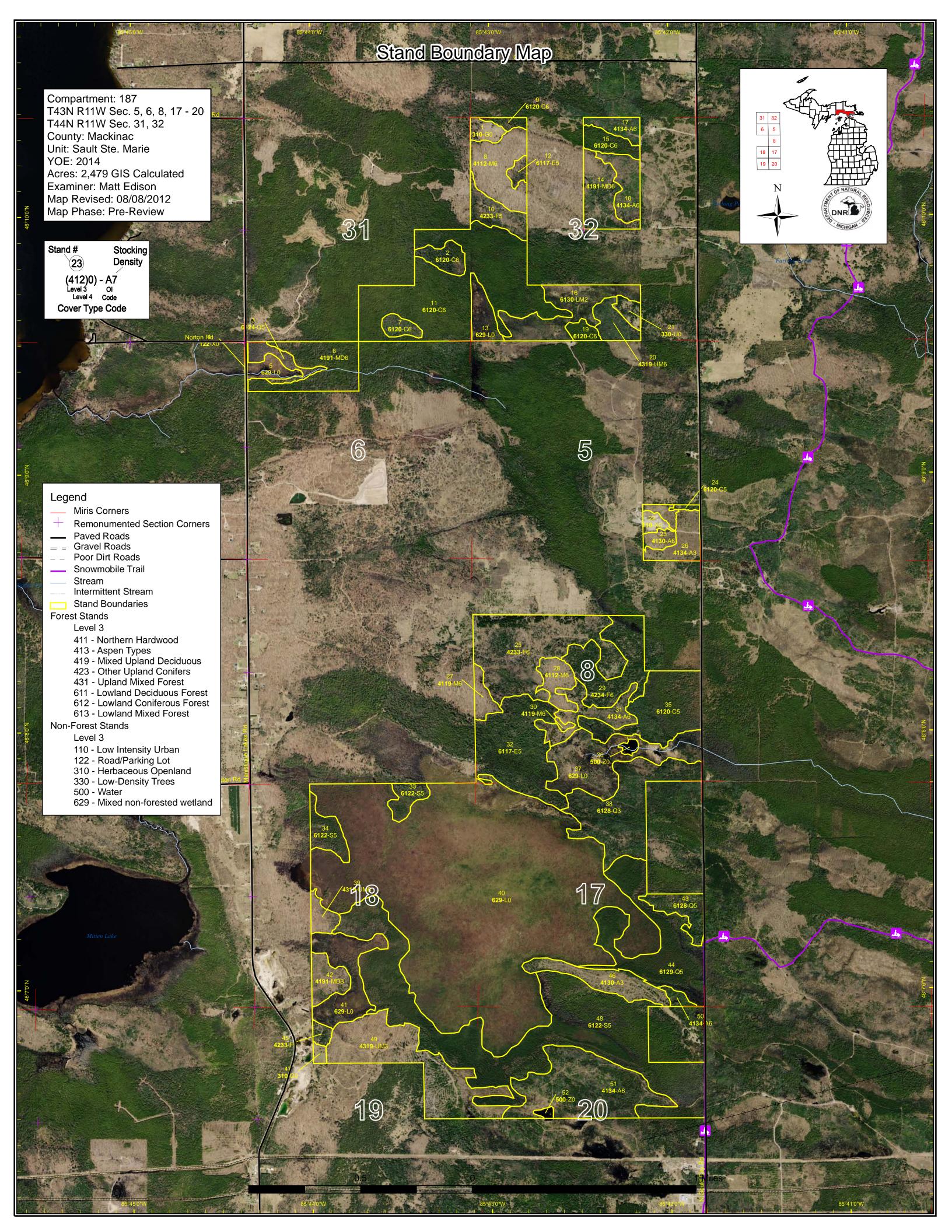
Recreational Facilities and Opportunities: Hunting and trapping opportunities exist within the compartment where access allows.

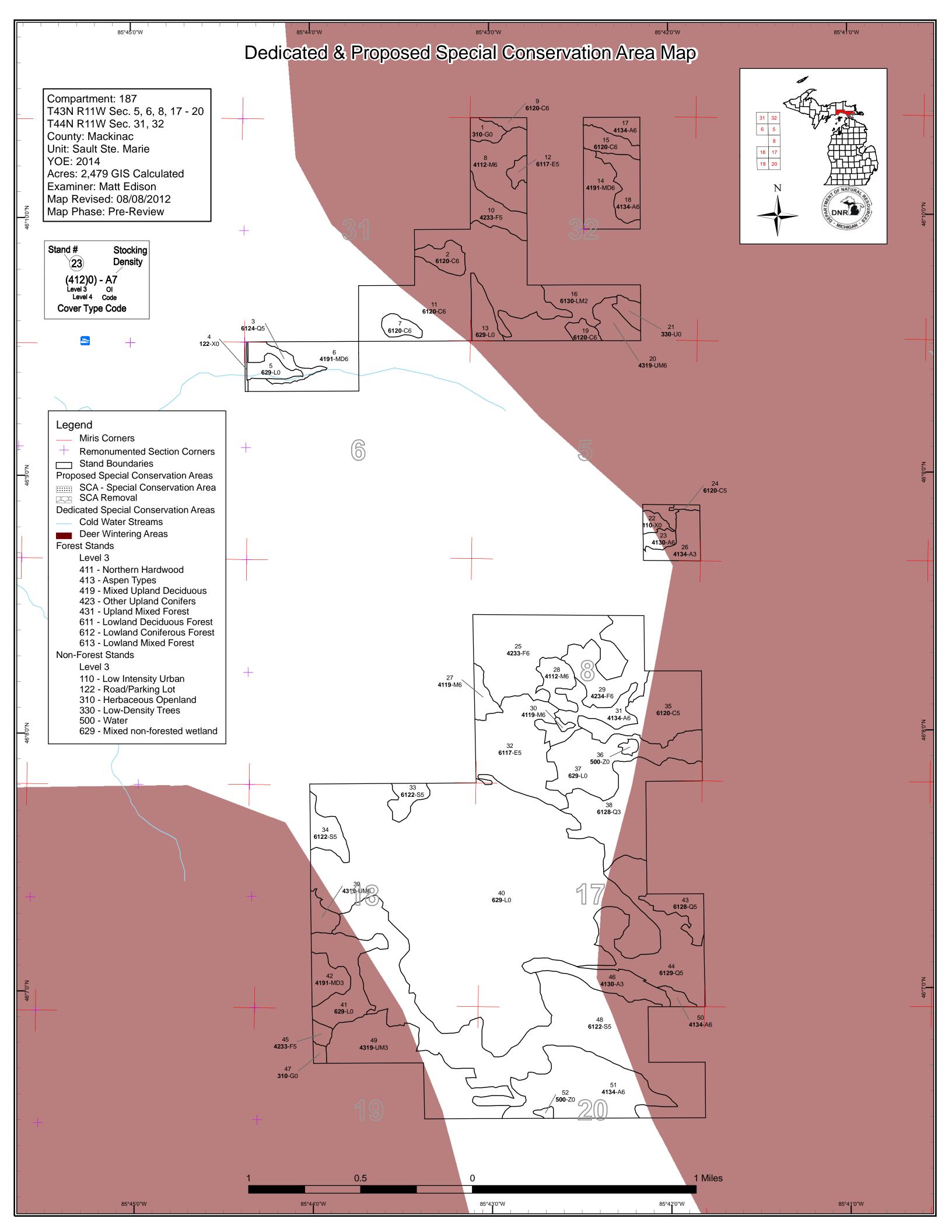
Fire Protection: The compartment cover types and low ground limit potential for any large scale fire problems. The potential for fire exists where human activity is present and in adjoining private lands. Access would be a problem for any fires occurring in the compartments interior. Vehicle access is very limited. Any fires in the lower areas would pose potential mop-up problems. Water sources include Norton Creek and possibly Rock River and surrounding marsh area. Newton Township Volunteer Fire Department is located in Gould City, about 1 mile to the south of the compartment.

Additional Compartment Information:

- > 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







Compartment 187 Year of Entry 2014

Sault Ste. Marie Mgt. Unit
Matthew Edison : Examiner



Age Class

Age Class																
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Aspen	53	0	138	39	0	0	0	0	0	0	0	0	0	0	230	
Cedar	0	0	0	0	0	0	0	0	16	7	251	5	0	0	278	
Herbaceous Openland	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
Low-Density Trees	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
Lowland Conifers	0	82	0	13	20	0	0	89	0	0	0	0	0	0	204	
Lowland Deciduous	0	0	5	0	0	0	84	0	0	0	0	0	0	0	89	
Lowland Mixed Forest	0	48	0	0	0	0	0	0	0	0	0	0	0	0	48	
Lowland Shrub	826	0	0	0	0	0	0	0	0	0	0	0	0	0	826	
Lowland Spruce/Fir	0	0	0	0	0	0	17	12	271	0	0	0	0	0	300	
Mixed Upland Deciduous	0	0	50	0	0	0	46	0	0	0	0	0	0	0	96	
Northern Hardwood	0	0	0	0	0	0	29	41	0	0	0	0	0	0	71	
Upland Mixed Forest	94	0	26	0	0	0	0	0	0	0	0	0	0	0	120	
Upland Spruce/Fir	0	0	0	80	107	0	0	0	0	0	0	0	0	0	186	
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1
Total	1004	130	219	132	126	0	177	143	287	7	251	5	0	0	2479	1



Table 2 – Proposed Treatment Summaries

Sault Ste. Marie Mgt. Unit

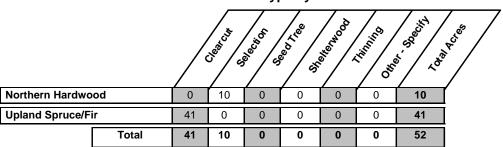
Compartment 187 Year of Entry 2014 **Total Compartment Acres: 2479**

Acres by Treatment Type

Commercial Harvest - 52 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 0 Other - 0

Habitat Cut - 0 Tree Seeding - 0 Pesticide - 0 Opening Maintenance - 0

Cover Type by Harvest Method



Sault Ste. Marie Mgt. Unit

Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 187 Year of Entry 2014

1	OF NATURAL	1
RIME	1	Sout
OEP	DNR	CE
2	M/CHIGAN	2

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	45187025- Cut_small	41.3	42330 - Upland Fir	High Density Pole	44	51-80	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Clearcut with reserves following the retention guideline. Some pockets where balsam/spruce and aspen are immature should be retained. Also leave some clumps of mature aspen and balsam/spruce for retention. Do not cut any cherry or white pine. Winter cut, no chipping during winter. Specs:

Other_ Comments:

s

Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is maple, cherry, beech, paper and yellow

birch, balsam fir, spruce, aspen and hemlock. Steps:

Proposed

<u>Next</u>

Start Date: 10/01/2013

45187027-Cut 10.2 4119 - Mixed 111-140 Single Tree 4110 - Sugar Maple Cmpt. Review 27 High 68 Harvest Northern Hardwoods Density Selection Association Proposal Pole

Prescription Thin stand to approximately 80 basal area. Mrk according to compleat marker guidelines and consider retention guidelines. Favor any mast

producing speceies while marking. Winter cut, no chipping during winter. Specs:

<u>Other</u> Comments:

<u>Next</u> Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is maple, cherry, beech, paper and yellow Steps:

birch, balsam fir, spruce, aspen and hemlock.

Proposed

10/01/2013 Start Date:

Total Treatment

Acreage Proposed: 51.5

Sault Ste. Marie Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 187 a Limiting Factor s Year of Entry 2014 а Treatment **Treatment** Treatment **Cover Type** n Acres CoverType Size Stand BA **Approval** Name Method Objective Status Density Age Range Type d #Error Prescription Specs: <u>Other</u> Comment:

Total Treatment
Acreage Proposed:

<u>Limiting Factor and No</u> <u>Treatment Reason</u>

#Error

Next Steps: Proposed Start Date:

0

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

Year of Entry: 2014

. 3	OF NATURAL	6.
FIME		1080
OEPAR	DNR	RCE
1	MICHIGAN	

Treatment Acres CoverType BA **Treatment Treatment** Cover Type Approval Size Stand **Density** Method Name Objective Status Age Range Type 45104 OutOfY 19.8 Harvest Crown Thinning 42110 - Planted Cmpt. Review Red Pine **OE-Cut** Proposal

Prescription Thin to around 120 Basal Area. Leave species diversity within the stand were present.

Specs:

Other_ This was a buffer left along the creek from a sale called Golden Eagle.

Comments:

<u>Next</u> Steps:

<u>Proposed</u>

10/01/2013 Start Date:

> 45152062-Cut 5.5 4115 - Y.Birch, High 76 Harvest Clearcut with 4115 - Y.Birch, Cmpt. Review Hemlock NH Density Log Reserves Hemlock NH Proposal

Prescription Clear Cut the stand leaving all white pine, hemlock, cedar and yellow birch. Also, leave one healthy, mature red maple, black cherry, spruce, fir,

Specs: paper birch or sugar maple in order to retain a representation of the stand.

<u>Other</u> cut with adjacent compartment.

Comments:

Check for regeneration in 4-5 years. Acceptable regeneration will include red maple, yellow birch, hemlock, white pine, black cherry, sugar Next

Steps: maple, aspen, ash, beech, and balsam fir.

Proposed

10/01/2011 Start Date:

45157_OutOfY 0.7 Harvest Low Thinning 42110 - Planted Cmpt. Review OE-Cut Red Pine Proposal

Prescription Thin to around 120 Basal Area. Leave species diversity within the stand where present.

Specs:

Other cut with stand 1 in comp 158.

27.3

Comments:

Next Steps:

Proposed

10/01/2013 Start Date:

45195_OutOfY

OE-Cut

Prescription Cut all of the beech in the stand. Mark 2-3 beech to leave when cruising.

Specs:

Other_ Beech bark disease is affecting the beech within this stand.

Comments:

Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, beech, yellow and <u>Next</u>

Harvest

Harvest

Single Tree

Selection

Single Tree

4111 - S.Maple,

Hard Mast

Association

4111 - S.Maple,

Steps: paper birch, ironwood, balsam fir, white spruce and white pine.

Proposed

10/01/2013 Start Date:

> Selection Hard Mast Proposal **OE-Cut** Association

45202_OutOfY 449.6

Prescription Cut all beech in the stand. While cruising mark 2-3 beech per acre to leave.

Specs:

Other_ Beech bark disease is present in the stand.

Comments:

Next 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 and white pine.

Steps: <u>Proposed</u>

10/01/2012 Start Date:

Cmpt. Review

Proposal

Cmpt. Review

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

Year of Entry: 2014



Cover Type Objective Treatment Approval Status CoverType **Treatment** Treatment Acres Size Stand ВА Name Density Age Range Type Method

Total Treatment Acreage Proposed: 502.9

Sault Ste. Marie Mgt. Unit S			5 – Fo	orested Sta	nds Compartment: 187 Year of Entry: 2014	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6120 - Lowland Cedar	High Density Pole	13.6	100	81-110	Stand is mix of cedar, and wetland spruce. Sparse stocking and tag alde in open wet areas.
3	6124 - Lowland Spruce- Fir	Medium Density Pole	13.1	33		Stand buffers Norton Creek and is low an sometimes floodes. Some conifer and poor quality birch and ash are scattered.
6	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	46.3	61	111-140	Extremely variable stand of complete mix of conirer and lowland deciduous. Poor quality trees throughout most of the stand. Not much merchantability here.
7	6120 - Lowland Cedar	High Density Pole	8.5	100	81-110	Stand is island witin large cedar stand. A little bit higher gorund make sthis tand have more balsam and a little birch. No access at all.
8	4112 - Maple, Beech, Cherry Association	High Density Pole	41.5	75	81-110	Very nice stand of large Hard Maple and some mix of hemlock. Thinned in 2010.
9	6120 - Lowland Cedar	High Density Pole	5.0	115	141-170	Stand of dense cedar along hardwood edge. Major dropoff from ridge of hardwood to cedar.
10	42330 - Upland Fir	Medium Density Pole	20.5	30		Stand is small diameter balsam mixed with aspen regen and opening.
11	6120 - Lowland Cedar	High Density Pole	164.6	106	141-170	Stand of thick cedar, with not much else in spots. Small diameter trees and some areas that are very wet
12	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	5.3	20		Very small diameter, poor quality lowland deciduous and conifer. Hummocky and wet.
14	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	32.2	20		Very thin hardwood stand is filling in with poor quality aspen and cherry brush. A lot of conifer remains from before cut.
15	6120 - Lowland Cedar	High Density Pole	14.2	86	141-170	Cedar stand of small diameter trees. Edge of steep dropoff from ridge. Pretty wet ground, some tag alder in open areas.
16	6130 - Fir, Aspen, Maple	Medium Density	47.7	18		Regeneration of mixed lowland deciduous types, aspen, birch, balm. Sparse density in places. Wet.
17	4134 - Aspen, Spruce/Fir	High Density Pole	12.0	31	141-170	Stand of pole aspen. Not quite ready for treatment, check in 10 years.
18	4134 - Aspen, Spruce/Fir	High Density Pole	22.2	31	141-170	Stand was cut in 1981. Mixed regen. Still small diameter, check in 10 years.

6120 - Lowland Cedar

19

High Density Pole

6.7

96

Small diameter cedar mixed with balsam and aspen/spruce. Small stand.

S t	Sault Ste. Marie Mgt. Unit			5 – Fo	orested Sta	nds Compartment: 187 Year of Entry: 2014	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
20	4319 - Mixed Upland Forest	High Density Pole	16.2	27	141-170	Mixed stand of aspen regen with mix of spruce and balsam throughout.	
23	4130 - Aspen	High Density Pole	12.4	27	111-140	Stand was cut in 1985. Nice looking aspen poles. Check in 10 years.	
24	6120 - Lowland Cedar	Medium Density Pole	1.8	80	51-80	Strip of cedar that was left from adjacent harvest. Apparent Tresspass of cabin onthis line. Aspen regen sneaking into open areas of strip.	
25	42330 - Upland Fir	High Density Pole	106.5	44	51-80	Stand varies from east to westpockets of aspen regen throughout. West part has dense aspen for a sale.	
26	4134 - Aspen, Spruce/Fir	High Density Sapling	20.9	7		Stand was cut in 2005. Good looking aspen regen with mix of spruce and balsam.	
27	4119 - Mixed Northern Hardwoods	High Density Pole	10.2	68	111-140	Medium quality hardwoods mixed with some balsam and birch.	
28	4112 - Maple, Beech, Cherry Association	High Density Pole	17.3	63	81-110	Small stand of hardwood that was thinned before last entry. Basal areas are still lower. Check in 10 years.	
29	42340 - Upland Spruce/Fir	High Density Pole	54.6	31		Stand was cut in 1981. Aspen regen with mix of spruce and balsam.	
30	4119 - Mixed Northern Hardwoods	High Density Pole	1.7	60	81-110	Small stand of hardwood mixed with balsam and spruce.	
31	4134 - Aspen, Spruce/Fir	High Density Pole	29.1	25	111-140	Stand is good looking aspen regen. with a mix of spruce and fir. Was cut in 1987.	
32	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	84.1	64	51-80	Mixed stand of lowland deciduous types . A lot of dead snags and poor quality balm. Some clumps of redmmaple. Very wet ground. Not much merchantability or productivity.	
33	6122 - Black Spruce	Medium Density Pole	12.2	71	1-50	Stand is island of black spruce surrounded by wetland. Absolutely no access, poor quality and unmerchantable.	
34	6122 - Black Spruce	Medium Density Pole	17.1	66	51-80	Small stand of small diameter, poor quality spruce and balsam with some cedar. Absolutely inaccesible and unmerchantable.	
35	6120 - Lowland Cedar	Medium Density Pole	63.8	108	51-80	Wetland cedar mixed with some tamarack and balsam and spruce. Balm near edge	
38	6128 - Lowland Coniferous, Mixed Deciduous	High Density Sapling	81.9	16		Stand was cut in 1996. Mix of lowland deciduous types and tamarack and balsam and spruce.	
39	4319 - Mixed Upland Forest	High Density Pole	9.8	22		Stand was cut in 1990. Regen is mix of aspen, spruce and balsam and some red maple.	

Sault Ste. Marie Mgt. Unit S			5 – Fo	orested Sta	Ands Compartment: 187 Year of Entry: 2014		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
42	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	17.7	22		Stand was cut in 1990. Total mix of maple and balsam with some aspen regen and spruce.	
43	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	19.9	48	51-80	Variable stand of small diameter mix of deciduous types and lowland conifer. Some tamarack and cedar.	
44	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	89.4	78	51-80	Very wet stand of small diameter spruce, tamarack, and some cedar.	
45	42330 - Upland Fir	Medium Density Pole	4.8	30		Stand of sparse balsam, aspen mix.	
46	4130 - Aspen	High Density Sapling	32.2	7		Stand was cut in 2005. Mixed regen looks good.	
48	6122 - Black Spruce	Medium Density Pole	271.0	83	51-80	Large stand of wet ground. Lowland spruce mixed with some tamarack and cedar. Scattered aspen where some high pockets. Edge of huge wetland.	
49	4319 - Mixed Upland Forest	High Density Sapling	94.4	4		Stand was cut in 2009. Aspen regen with mix of spruce and balsam is coming in well.	

4134 - Aspen, Spruce/Fir

4134 - Aspen, Spruce/Fir

50

51

High Density Pole

High Density Pole 4.7

96.0

36

25

111-140

Small stand of small diameter aspen regen with mix of spruce and balsam. Cut in 1976.

Stand was cut in 1987. Mix of aspen regen with spruce and balsam.

6 - Nonforested Stands

Compartment: 187 Year of Entry: 2014



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	310 - Herbaceous Openland	8.4	N\A	Unspecified	
4	122 - Road/Parking Lot	1.3	N\A	Unspecified	
5	629 - Mixed non-forested wetland	11.2	N\A	Unspecified	
13	629 - Mixed non-forested wetland	16.6	N\A	Unspecified	
21	330 - Low-Density Trees	7.2	N\A	Unspecified	
22	11 - Low Intensity Urban	5.6	N\A	Unspecified	
36	50 - Water	2.7	N\A	Unspecified	
37	629 - Mixed non-forested wetland	70.1	N\A	Unspecified	
40	629 - Mixed non-forested wetland	683.4	N\A	Unspecified	
41	629 - Mixed non-forested wetland	44.6	N\A	Unspecified	
47	310 - Herbaceous Openland	3.1	N\A	Unspecified	
52	50 - Water	2.1	N\A	Unspecified	

Sault Ste. Marie Mgt. Unit

Compartment: 187 Year of Entry: 2014



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

Compartment: 187 Year of Entry 2014



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.

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