

# **Sault Forest Management Unit Compartment Review Presentation**

Compartment #53 Entry Year: 2013 Compartment Acreage: 3,075 County: Mackinac

**Revision Date:** June 22, 2011

Stand Examiner: Jason Caron

**Legal Description:** T44N- R1E Sections 3, 4, 5, 6, 7, 8, 9, 17 Pickford Township

**RMU:** Munuscong Bay

**Management Goals:** This entire compartment falls within the deer yard and past management has centered on deer. Old cedar strip cuts within the central part of the compartment do show some promise of regenerating cedar however it is a slow process. In surveying the strips it was determined to hold off on cedar strip cuts for this year of entry to let the present regeneration become more established.

**Soil and Topography:** Markey and Carbondale mucks make up the majority of the compartment, followed by Ermatinger silt loam and Soo silty clay loam. The first two soils are hydric and the last is wet and subject to ponding. Little relief is evident in this very flat compartment. The timber is noticeably better on slight rises that do exist.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State of Michigan land borders the north with private holdings completely surrounding the rest. These private lands are generally used for agriculture or dispersed recreation. Private homes dot all of the county roads around the compartment. Legal access into this compartment exists off of 18 Mile Road off of M-129, however deep ravines keep this to foot access only. Three other access points exist, 19 and 20 Mile Road off of M-129 and 20 Mile Road off of Riverside Drive have all provided public access to this compartment but neither the State of Michigan nor the county has anything on paper.

**Unique, Natural Features:** A unique aspect of this compartment would be the vast amount of lowland forest type and the large amount of acreage with very little human impact.

**Archeological, Historical, and Cultural Features**: None known at this time but DNR and contract workers are instructed to be on the lookout for anything that is obviously man-made or looks out of the ordinary.

**Special Management Designations or Considerations:** None planned.

**Watershed and Fisheries Considerations:** This compartment contains a portion of the Little Munuscong River, which is a warm transitional stream, and Desormeaux Creek, a warm stream. This compartment is primarily swamp. Minimum no-clearcut buffers of 100 feet should be maintained adjacent to all streams in this compartment.

Wildlife Habitat Considerations: This compartment is located approximately 3 ½ miles north of Pickford east of M-129 and lies within the Rudyard subsection Niagaran Escarpment and Lake Plain. Presettlement vegetation consisted of lowland conifer swamp, similar to the current cover. Cedar is a major component in the compartment, covering over half of the area, and provides important wintering cover for white-tailed deer

in the Kelden deer yard. Several tributaries of the Munuscong River run through it. Historical treatments within cedar and swamp conifer stands continue to show variable regeneration progress.

Cedar and other closed-canopy conifer cover will be retained to maintain cover for deer in the winter yard. Historically treated cedar and swamp conifer stands will be left to encourage their development toward maturity. Stream and riparian habitats will be protected to allow natural processes to continue, maintaining habitat for beaver and waterfowl. Some tamarack will be treated to regenerate additional lowland conifer habitat and provide cover low to the ground for snowshoe hare. Other species benefitting from this management include black bear, bobcat, fisher, marten, and numerous neotropical migratory birds.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of a mixture of peat and muck and lacustrine (lake) clay and silt. The glacial drift thickness varies between unknown up to 200 feet. The Ordovician Utica and Collingwood Shales and Trenton Formation subcrop below the glacial drift. The Trenton is quarried for stone/dolomite. The compartment has several gravel pits located to the west and south, but potential appears limited. There is no economic oil and gas production in the UP.

**Vehicle Access:** There is no vehicle access into this compartment.

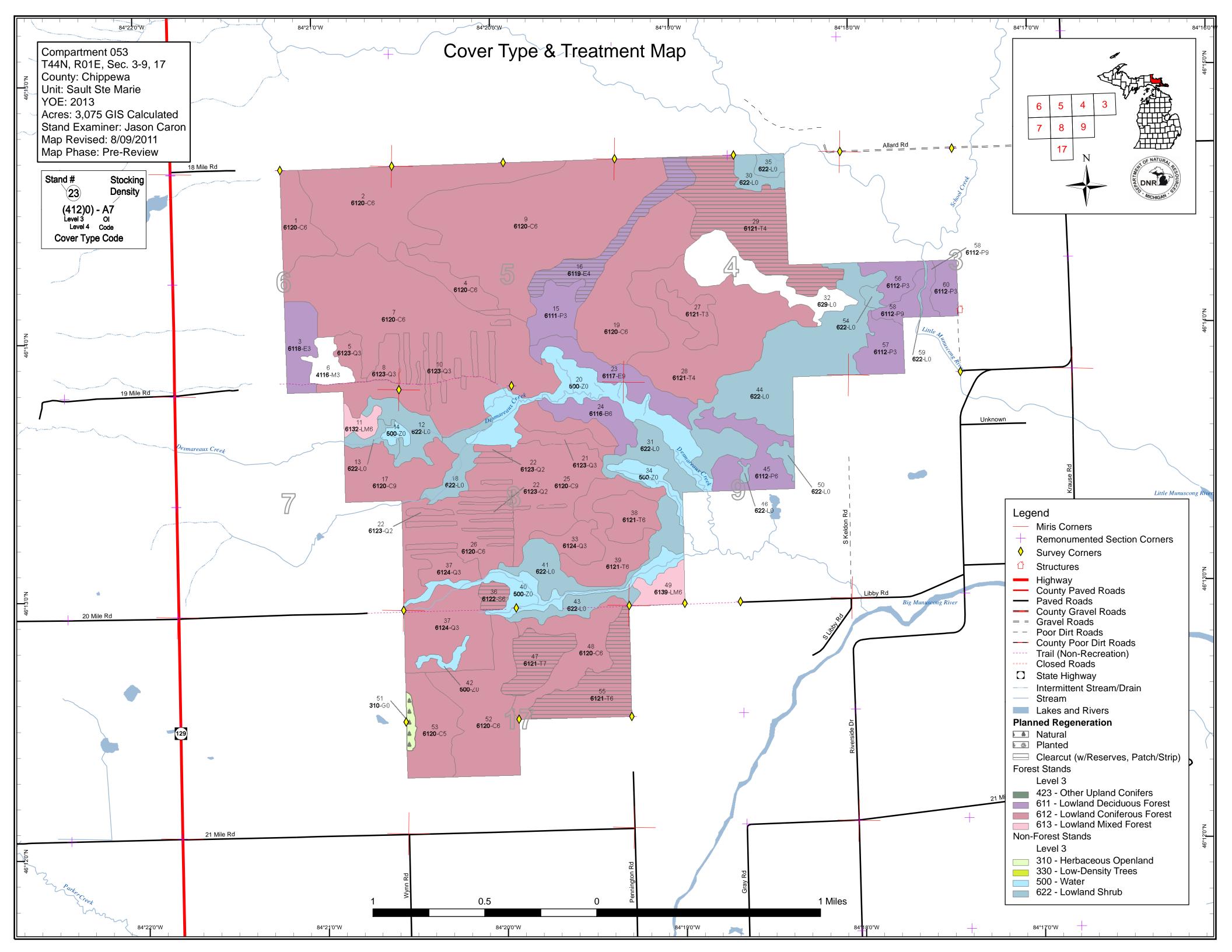
Survey Needs: None needed.

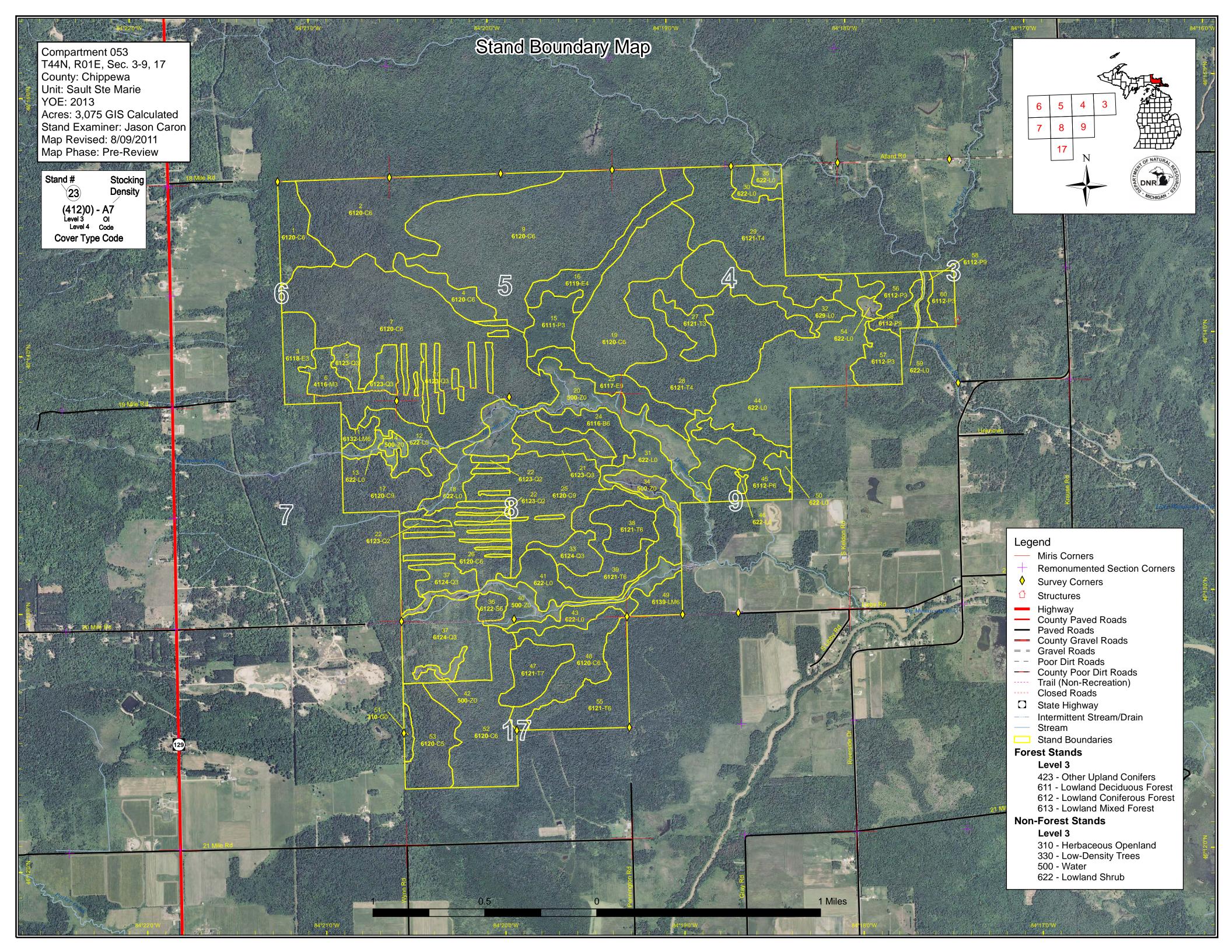
**Recreational Facilities and Opportunities:** Fishing is very limited or non-existent within this compartment. Hunting for hares and bobcats takes place in the winter months, and in years with early snows the compartment receives increased hunting pressure during the muzzleloading and late archery deer seasons. By directors order there is no motorized use allowed within the compartment on 20 Mile Road, 19 Mile Road, or the trail between 19 and 20 Mile roads (off of M-129).

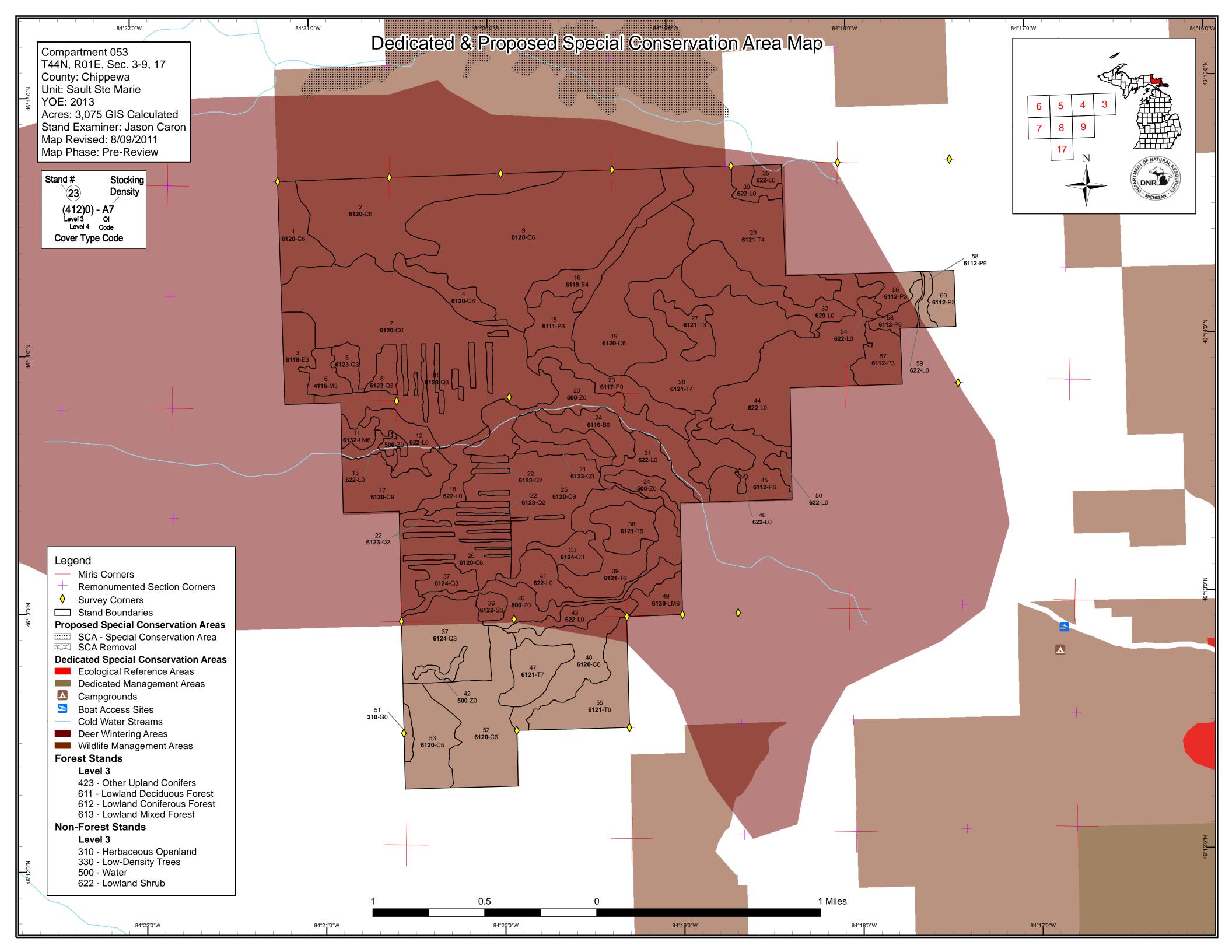
**Fire Protection:** Fire protection in this compartment would be very difficult given the lack of access and wet soils.

**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







Compartment 053 Year of Entry 2013

Sault Ste. Marie Mgt. Unit

Jason Caron: Examiner



#### Age Class

Herbaceous Openland   6   0   0   0   0   0   0   0   0   0		Age Class																
Herbaceous Openland   6   0   0   0   0   0   0   0   0   0		Mod	De la	8.7	0.79	,		AD IN	\$. \$. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	80.08	1. P. J.	\$ 6	85.7	\$0,00°	si zi	, * / 5°	S A	/ No.
Lowland Aspen/Balsam Poplar 0 0 0 97 50 0 0 0 21 0 0 0 0 0 0 0 167  Lowland Conifers 0 0 0 167 52 0 0 0 0 0 0 0 0 0 0 0 0 220  Lowland Deciduous 0 0 0 0 0 19 0 0 10 0 0 0 0 0 0 0 0 0 124  Lowland Mixed Forest 0 0 0 0 19 0 0 10 0 0 0 0 0 0 0 0 0 0 0	Cedar	0	0	0	0	0	0	0	0	0	309	449	0	465	187	0	1410	İ
Lowland Conifers         0         0         167         52         0	Herbaceous Openland	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Lowland Deciduous         0         0         0         0         33         43         0         0         47         0         0         0         0         124           Lowland Mixed Forest         0         0         0         19         0         0         10         0 <th>Lowland Aspen/Balsam Poplar</th> <th>0</th> <th>0</th> <th>0</th> <th>97</th> <th>50</th> <th>0</th> <th>0</th> <th>0</th> <th>21</th> <th>0</th> <th>0</th> <th>0</th> <th>0</th> <th>0</th> <th>0</th> <th>167</th> <th></th>	Lowland Aspen/Balsam Poplar	0	0	0	97	50	0	0	0	21	0	0	0	0	0	0	167	
Lowland Mixed Forest         0         0         0         19         0         0         10         0	Lowland Conifers	0	0	0	167	52	0	0	0	0	0	0	0	0	0	0	220	
Lowland Shrub         424         0	Lowland Deciduous	0	0	0	0	0	33	43	0	0	47	0	0	0	0	0	124	
Lowland Spruce/Fir         0	Lowland Mixed Forest	0	0	0	0	19	0	0	10	0	0	0	0	0	0	0	30	
Northern Hardwood         0         0         0         18         0	Lowland Shrub	424	0	0	0	0	0	0	0	0	0	0	0	0	0	0	424	
Paper Birch         0 <th< th=""><th>Lowland Spruce/Fir</th><th>0</th><th>0</th><th>0</th><th>0</th><th>0</th><th>0</th><th>0</th><th>0</th><th>0</th><th>9</th><th>0</th><th>0</th><th>0</th><th>0</th><th>0</th><th>9</th><th></th></th<>	Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	
Tamarack         0         0         0         0         84         0         0         0         212         0         185         0         0         0         481           Water         158         0         0         0         0         0         0         0         0         0         0         0         0         0         0         158	Northern Hardwood	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	18	
Water 158 0 0 0 0 0 0 0 0 0 0 0 0 0 158	Paper Birch	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	29	
	Tamarack	0	0	0	0	0	84	0	0	0	212	0	185	0	0	0	481	1
Total 587 0 0 264 140 117 43 10 50 578 449 185 465 187 0 3075	Water	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	1
	Total	587	0	0	264	140	117	43	10	50	578	449	185	465	187	0	3075	



## **Table 2 – Proposed Treatment Summaries**

Sault Ste. Marie Mgt. Unit

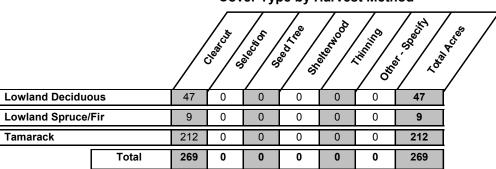
Compartment 053 Year of Entry 2013 **Total Compartment Acres: 3075** 

**Acres by Treatment Type** 

Commercial Harvest - 269 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 0 Other - 0

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

#### **Cover Type by Harvest Method**



Sault Ste. Marie Mgt. Unit

Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 053
Year of Entry 2013

DNR DNR

a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
47	45053047-Cut	35.9	6121 - Tamarack	Low Density Log	80	Harvest	Clearcut with Reserves	6139 - Mixed Lowland Forest	Cmpt. Review Proposal

<u>Prescription</u> Clearcut with reserves. Do not cut hemlock, and pine if it exists within the sale. Leave a few scattered tamarack within the sale for retention.

<u>Specs:</u> Allow producer to cut some operational cedar to get to the tamarack and spruce.

Other If treatment is approved add this stand to contract # 45-010-11-01.

Comments:

s

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

<u>Steps:</u> ironwood, balsam fir, white spruce, black spruce, tamarack and white pine.

55 45053055-Cut 61.6 6121 - Tamarack High Density Pole 80 Harvest Clearcut with 6139 - Mixed Cmpt. Review Reserves Lowland Forest Proposal

Prescription Already prescribed from previous YOE.

Specs:

Other Comments:

Next Steps:

**Total Treatment** 

Acreage Proposed: 97.5

Sault Ste. Marie Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 053 a Limiting Factor s Year of Entry 2013 t а **Treatment** Acres Size Stand **Treatment Treatment** Cover Type **Approval** n Stage1 Density Method Status Name Objective CoverType d Age Type 16 45053016-Cut 47.0 6119 - Mixed Low Density 86 Harvest Clearcut with 6117 - Lowland Cmpt. Review Sapling Reserves Deciduous, Mixed Lowland Deciduous Proposal Coniferous Forest

Prescription Clearcut with reserves. Do not cut oak, hemlock, pine if they exist within sale. Some operational cedar may have to be removed. Specs:

Other Comment:

**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, cedar, and white pine. Steps:

Limiting Factor and No

2A: Adjacent landowner denies

**Treatment Reason** access

Landowner to the East did not respond to numerous letters sent when I inventoried C-52. Also, a foot bridge exists over the Little

Munuscong River but that's it. River bank is very, very wide at this point, too much for a portable bridge.

45053029-Cut 114.9 6121 - Tamarack Low Density Pole Harvest Clearcut with 6128 - Lowland Cmpt. Review 29 Reserves Coniferous, Mixed Proposal Deciduous

Prescription Clearcut with reserves. Do not cut cedar, pine, hemlock if it exists within the sale.

Specs:

**Other** Comment:

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

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

Limiting Factor and No 2A: Adjacent landowner denies

Treatment Reason access

Landowner to the East did not respond to numerous letters sent when I inventoried C-52. Also, a foot bridge exists over the Little

Munuscong River but that's it. River bank is very, very wide at this point, too much for a portable bridge.

36 45053036-Cut 9.5 6122 - Black Spruce High Density Pole Harvest Clearcut with 6139 - Mixed Cmpt. Review Reserves Lowland Forest Proposal

Prescription Clearcut with reserves. Do not cut hemlock, pine, and cedar if they exist within the sale.

Specs:

**Other** Comment:

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

ironwood, balsam fir, white spruce, black spruce, tamarack, and white pine. Steps:

Limiting Factor and No 4D: Low volume (small acreage)

**Treatment Reason** Also alot of road work needed for the small acreage. A small producer may want to skid wood out to main road?

**Total Treatment** 

171.3 Acreage Proposed:

# 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
		80 to 90 Basal Area. dvanced regeneration		ch with th	e smooth bark a	nd wildlife trees. Some I	arger canopy gaps ma	y be desirable to
Other Comments:								
		tment with a regenera onwood, balsam fir, w				cceptable regeneration is	s aspen, maple, cherry	, beech, yellow and
NF_45134015- NonFor	4.7	Unspecified		0	Non-Forest Management	Patch or Strip Clearcut	31021 - Cool Season Grass	Cmpt. Review Proposal
Prescription Trea	at with C14	19 s 63. Opening ma	intenance removi	ng jack pi	ne seedlings and	d saplings.		
Other Comments:								

Total Treatment

Next Steps:

Acreage Proposed: 7.2

S	Sault Ste. Marie Mgt. Unit			5 – Fo	orested Sta	Compartment: 053 Year of Entry: 2013
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	High Density Pole	39.1	111		Stand consists of cedar, black ash and white birch. Ground is wet. White birch is ok quality.
2	6120 - Lowland Cedar	High Density Pole	151.0	111		Stand of pole sized cedar that is decent in quality.
3	6118 - Lowland Deciduous with Cedar	High Density Sapling	33.4	41		Stand of scattered cedar with young black ash coming in. Ground is very wet, poor quality stand.
4	6120 - Lowland Cedar	High Density Pole	26.5	92		Stand of pole sized cedar that is very dense with stems. Cedar is good quality with a few tamarack and black spruce scattered within the sale.
5	6123 - Lowland Fir	High Density Sapling	12.4	36		Old strip cut which has filled in with balsam and black spruce. A few cedar here and there are in the understory but are only knee high.
6	4116 - Mixed N. Hardwood - Aspen	High Density Sapling	18.0	36		Nice aspen and maple regeneration on a small sand ridge. Pockets of conifer exist in the NE corner of the stand.
7	6120 - Lowland Cedar	High Density Pole	308.9	86		Stand quality is poor. Stand has a few black spruce, tamarack and black spruce scattered within it. took another age of 85, didn't add yrs. yet however. avg. them when done.
8	6123 - Lowland Fir	High Density Sapling	13.3	36		Old strip cut that has filled in with conifer and bam. A few cedar seed trees that were left after the cut are still standing. check oi for age.
9	6120 - Lowland Cedar	High Density Pole	274.7	111		Stand of poorer quality cedar. Balsam fir understory is very thick.
10	6123 - Lowland Fir	High Density Sapling	26.8	36		Old strip cut filling in with balsam and black spruce. A few pockets of bam exists along with the occasional white birch. A few small knee high cedars exist within the subcanopy.
11	6132 - Mixed Lowland Forest with Cedar	High Density Pole	10.4	60		
15	6111 - Lowland Balsam Poplar	High Density Sapling	31.1	21		Stand of mixed lowland species Pockets of thick bam and red maple. Nice regeneration overall.
16	6119 - Mixed Lowland Deciduous Forest	Low Density Pole	47.0	86		Canopy species are of poor quality and sparse. Understory is very thick with balsam fir and black ash. I noticed a couple of red maple here and there that are huge 20"+ dbh.
17	6120 - Lowland Cedar	High Density Log	62.6	125		stand of old, large dia. cedar. thick bf understory that is almost pole sized in spots
19	6120 - Lowland Cedar	High Density Pole	124.9	135		Poor quality cedar. Understory varies from areas of thick balsam fir to areas of thick black ash.

s t				5 – Fo	orested Sta	nds Compartment: 053 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6123 - Lowland Fir	High Density Sapling	14.8	28		Old strip cut that does not show up on the previous YOE map for some reason? Stand contains thick balsam fir with a few scattered cedar and white birch. An old haul road goes across the North part of the stand but it is very overgrown.
22	6123 - Lowland Fir	Medium Density	33.4	28		Old strip cuts. Most strips have regenerated back primarily to black spruce and balsam fir. A few small cedars may exist but if so, very few.
23	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	43.2	50		Stand is along edge of flowage. Bam, Aspen and white spruce is in decent condition.
24	6116 - Lowland Birch	High Density Pole	29.0	70		Mixed stand of white birch and cedar. Birch is in decent shape.  The edge of flowage consists of black ash.
25	6120 - Lowland Cedar	High Density Log	126.0	90		Cedar is poorer quality and dense. Some areas contain almost exclusively cedar.
26	6120 - Lowland Cedar	High Density Pole	78.4	98		Vast stand of cedar. Some decent quality and some poor quality. very little coming in underneath. Park like in spots.
27	6121 - Tamarack	High Density Sapling	24.6	46		Stand is coming back to mostly tamarack with a few black spruce and paper birch here and there. Old stumps indicate an old cut. The tamarack has come back very thick. Stand is 46 years old but small for that age. Old OI says the same.
28	6121 - Tamarack	Low Density Pole	155.6	108		Poor quality stand with scattered tamarack and black spruce. Stand volume is very low and ground is wet. Pockets of regen coming up where timber is sparse.
29	6121 - Tamarack	Low Density Pole	114.9	85		Stand of tag alder with pockets of higher ground that range from tamarack to aspen to red maple. Ground is extremely wet No access, do not cut.
33	6124 - Lowland Spruce- Fir	High Density Sapling	21.5	20		Stand of young balmsam fir, black spruce Stand might be an old flooded area that is growing back. Stand is very thick. Good rabbit habitat.
36	6122 - Black Spruce	High Density Pole	9.4	80		Stand contains some nice black spruce mixed with a few tamarack.
37	6124 - Lowland Spruce- Fir	High Density Sapling	97.4	28		Stand contains old strip cuts that were cut between 1980 and '86. Stand is coming back to a dense mix of balsam, black spruce and tamarack. Some cedar exists within the understory but they are only 3' tall and sparse. Stand makes for good rabbit habitat at the current YOE.
38	6121 - Tamarack	High Density Pole	29.4	101		Decent stand of tamarack that is in decline. Balsam fir is very, very thick within the understory. Ground is low and wet.

39

6121 - Tamarack

High Density Pole

59.0

45

Stand of younger tamarack that is good quality. Do not manage.

s t				5 – Fo	orested Sta	Compartment: 053 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	6112 - Lowland Aspen	High Density Pole	49.9	30		stand has filled in w/young aspen and bam. a few larger trees exist but the majority of trees are 4 inch dia. ground is very wet. older trees are very poor quality. younger trees are good quality. a few elm exist w/in the stand as well.
47	6121 - Tamarack	Low Density Log	35.9	80		Very low volume within the stand, a tree here and there. Tamarck is poor quality, a thick balsam fir understory exists. Stand is very wet as well.
48	6120 - Lowland Cedar	High Density Pole	60.7	90		Decent stand of cedar with pockets of pole cedar.
49	6139 - Mixed Lowland Forest	High Density Pole	19.4	35		Mixed bag when it comes to species within this stand. Most of it is lower quality bam, red maple and conifer.
52	6120 - Lowland Cedar	High Density Pole	103.5	90		OI says year of origin in this stand is 1892. Stand age varies from 100+ to 80 years of age. Pockets of black spruce and tamarack exist throughout the stand. Stand quality is good throughout most of stand.

6120 - Lowland Cedar

6121 - Tamarack

6112 - Lowland Aspen

6112 - Lowland Aspen

6112 - Lowland Aspen

6112 - Lowland Aspen

53

55

56

57

58

60

Medium

Density Pole

High Density

Pole

High Density

Sapling

**High Density** 

Sapling

**High Density** 

Log

**High Density** 

Sapling

53.5

61.6

19.7

28.8

20.8

17.0

90

80

23

23

77

23

Stand consists of cedar clumps mixed with openings of young,

thick balsam fir.

Stand is already prescribed and contract will be written shortly.

check cut records for age. aspen and bam are good quality,

ground is wet.

North part of stand was cut and has regenerated nicely back to a

mix of aspen, bam, and balsam. South end of stand contains a patch of mature aspen but too small to delineate.

Stand of large aspen with pole sized balsam fir in the understory.

No access to stand and flowage in South half. Beaver pond in West part of stand as well.

A mix of bam, aspen and balsam. Nice regeneration.

### 6 - Nonforested Stands

Compartment: 053 Year of Entry: 2013



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
12	6220 - Alder/willow	27.3	N\A	Unspecified	
13	622 - Lowland Shrub	9.1	N\A	Unspecified	
14	50 - Water	5.4	N\A	Unspecified	
18	6220 - Alder/willow	24.7	N\A	Unspecified	
20	50 - Water	86.1	N\A	Unspecified	
30	6220 - Alder/willow	13.6	N\A	Unspecified	
31	6220 - Alder/willow	31.9	N\A	Unspecified	
32	629 - Mixed non-forested wetland	58.9	No	Low (NonForested)	
34	50 - Water	16.2	N\A	Unspecified	
35	622 - Lowland Shrub	8.0	N\A	Unspecified	
40	50 - Water	44.4	N\A	Unspecified	
41	6220 - Alder/willow	48.9	N\A	Unspecified	
42	50 - Water	6.2	N\A	Unspecified	
43	6220 - Alder/willow	20.2	N\A	Unspecified	
44	6220 - Alder/willow	165.8	N\A	Unspecified	
46	622 - Lowland Shrub	1.9	N\A	Unspecified	
50	6220 - Alder/willow	6.7	N\A	Unspecified	
51	310 - Herbaceous Openland	5.7	Natural Regen	Aspen	Stand was put by way of a chapter 7 letter and cut in the spring of 2011. Logger was cutting nearby private land and could cut this piece as well.

#### 6 - Nonforested Stands

Compartment: 053 Year of Entry: 2013



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
54	622 - Lowland Shrub	4.9	N\A	Unspecified	
59	622 - Lowland Shrub	1.6	N\A	Unspecified	

Sault Ste. Marie Mgt. Unit

Compartment: 053 Year of Entry: 2013



### 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: 053 Year of Entry 2013



#### **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 vand Waterfowl Production Areas, deer wintering complexes i openings and savannas. Habitat areas are distinct from critic endangered or threatened species (such as Kirtland's warble general in nature, are not primarily associated with threatene covered by species recovery plans that are developed in coo	in lowland conifer communities, grassland cal habitat designated for recovery of er or piping plover areas) in that they are more ed or endangered species, and are not