

## **Compartment Review Presentation**

Sault Ste. Marie Forest Management Unit

Compartment 192 Entry Year 2015 Acreage: 1,752

**County Mackinac** 

Management Area: Battydoe Deer Yard

Revision Date: 06/05/2013 Stand Examiner: Cory Luoto

**Legal Description:** 

T42N-R12W, Sections 18 - 20

#### **Identified Planning Goals:**

This compartment is located approximately 3 miles southwest of Milakokia Lake, adjacent to Oglebay Norton Limestone Co. (old Inland Quarry), on the Schoolcraft County line. This aspen compartments' main priority is to maintain and enhance the aspen's age class diversity. Aspen cuttings have taken place in 1978, 1980-82, 1984-86, 1993, 1996-99. 2010, and 2011. Winter cover for deer is also important as Sections 19 and 20 are within the Batty Doe Lake deeryard. Evidence of deer browsing is seen in many stands. Some cedar strip cuts have been tried in several places from the 1960's through the 1980's. While there is some cedar regeneration mixed with spruce, white pine, white birch and balm, the beavers have managed to flood out a majority of the areas. Beaver can (and have) readily expand easily in any area within the compartment

#### Soil and topography:

This compartment contains a variety of land forms. Depressions on ground moraines, lake plains and outwash plains are characterized by Markey and Carbondale mucks, and Angelica muck. The nearly level and undulating areas on drumlins and ground moraines consist of Graveraet fine sandy loam, Solona loam, and Cozy cobbly fine sandy loam. There are a few Graveraet fine sandy loam areas on gently rolling and rolling areas on drumlins too. The "large" hardwood stand (82) within the compartment seems to be an anomaly consisting of Guardlake fine sandy loam and Paquin sand on nearly level and undulating areas on outwash plains and lake plains; Battydoe fine sandy loam on gently rolling and rolling areas on ground moraines and drumlins; and Wallace sand on very steep areas on dunes, lake plains, and outwash plains.

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

State lands adjoin to the east and south, with 2 large hunt clubs comprising 560 acres in Section 29 (to the south). Oglebay Norton Limestone Co. (old Inland Quarry) lands abut to the north and west. This is an active limestone quarry and port.

#### **Unique Natural Features:**

Milakokia River and several tributaries flow through the compartment. Lakes include Heinz Lake and Cranberry Lake. There is potential for threatened and endangered plant and animal species within the compartment.

#### Archeological, Historical, and Cultural Features:

Hunt Spur is an old railroad siding located on adjacent Oglebay Norton Limestone Co. lands. There is also evidence of an old homestead and associated farming that once took place. Areas show evidence of an apple orchard and old cultivated (hay?) fields. Much of this has grown over, many areas with tag alder, and can only be seen on old air photos.

#### **Special Management Designations or Considerations:**

Typically much of the area is cut in the winter due to the low ground and the deeryard. Some areas on higher ground could be cut earlier in the year.

#### **Watershed and Fisheries Considerations:**

This compartment contains a stream reach of the Milakokia River and Heinz Lake. The Milakokia River supports a cool/warm-water fish community of northern pike, rock bass, suckers, and central mudminnow. No file information exists for Heinz Lakeor Cranberry Lake. Implementation of BMP's that will aid in preventing sediment input from road crossings and upland areas are critically important to protect spawning areas for stream-resident fishes.

#### Wildlife Habitat Considerations:

This compartment is located in the Battydoe Deer Yard Management Area. It is characterized by a mix cedar and young aspen stands. Heinz lake is located on the east side, and there are a number of lowland areas dominated by shrubs. This compartment is heavily used by deer during the winter months. Cedar and lowland conifer stands provide important cover during the winter months.

Wildlife habitat objectives for the next 10 years primarily involve allowing natural processes to occur, allowing some stands to mature before aspen age classes can be diversified further and leaving cedar and lowland conifers due to their value described above. Current conditions benefit deer, ruffed grouse, woodcock, and snowshoe hare. Other species utilizing this compartment include, but are not limited to, bobcat, black bear, black-capped chickadee, and numerous other small birds

#### Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and minor lacustrine (lake) sand and gravel. The glacial drift thickness varies between 10 and 50 feet. The Silurian Manistique Group subcrops below the glacial drift. There is not a current economic use for the Manistique. The Inland Quarry, Burnt Bluff Group, is located two miles to the north. The nearest gravel pit is located in Section 30 and there appears to be potential on the uplands. There is no economic oil and gas production in the UP.

#### **Vehicle Access:**

The main access to the compartment is via Batty Doe Lake Road, a gravel DNR road. This road starts in Schoolcraft County and proceeds through Carmeuse Lime and Stone lands, then through state lands east to the end of Leveille Road, south of Gould City. There are better access roads through the quarry lands, behind gates, which can be used with permission (not for logging though). A few two-tracks exist, but generally are too wet for much of the year. Many access roads within previous cut areas are growing over or are accessible only in winter. The west side of Section 19 is accessed through Carmeuse Lime and Stone lands. The large bridge over Milakokia River was beefed up and redecked in 1998. The smaller bridge over a Milakokia River tributary was rebuilt in 1984. Both are in good condition, but beavers do like to build their dams against them.

#### **Survey Needs:**

None.

#### **Recreational Facilities and Opportunities:**

There are no developed recreation facilities within this compartment.

#### **Fire Protection:**

This is not a high fire danger area. Much of the area is wet during most of the year, and fuel types are not the most fire prone. However, the potential for ground fires to become stubborn does exist if one gets started.

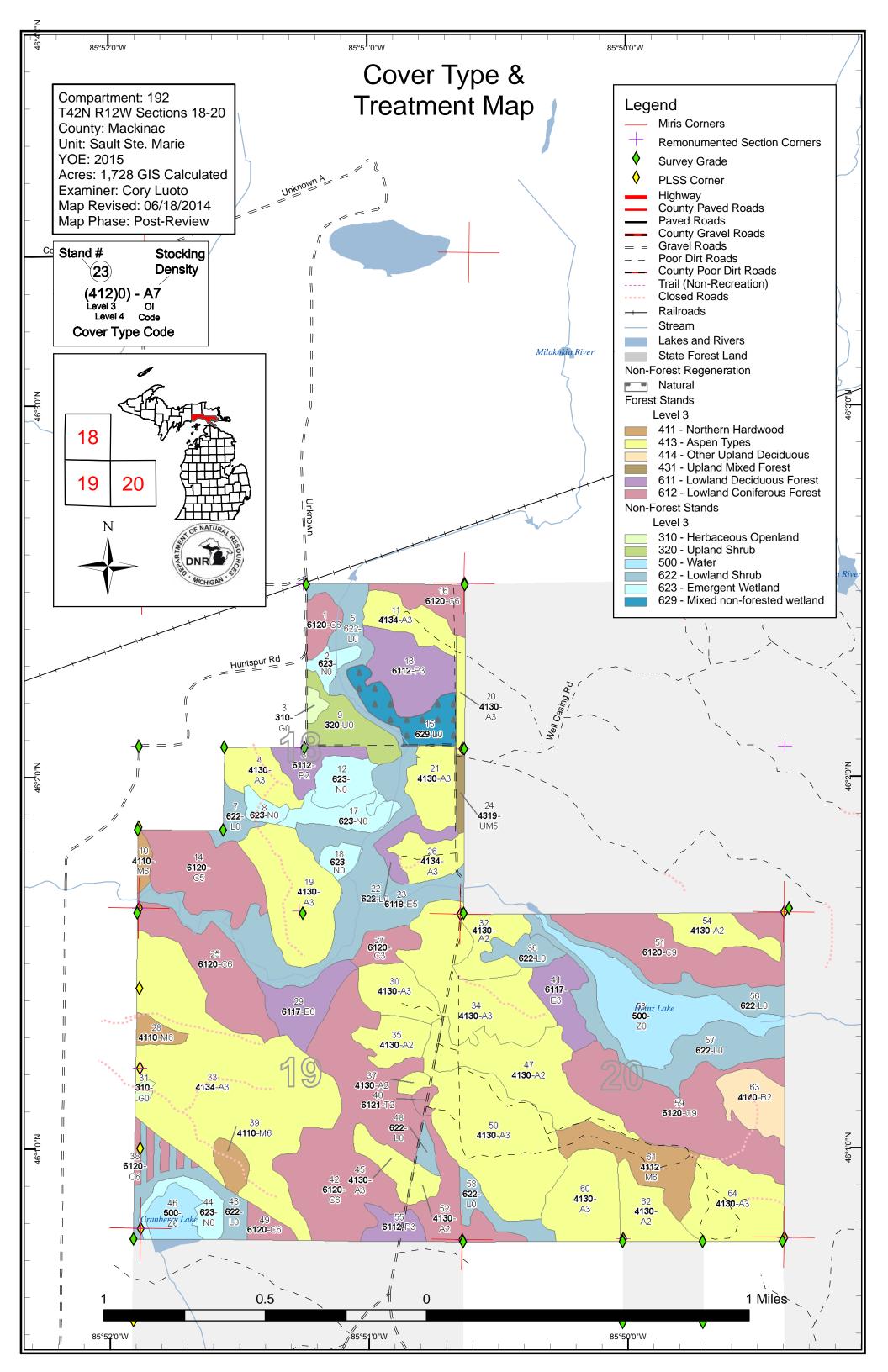
### **Additional Compartment Information:**

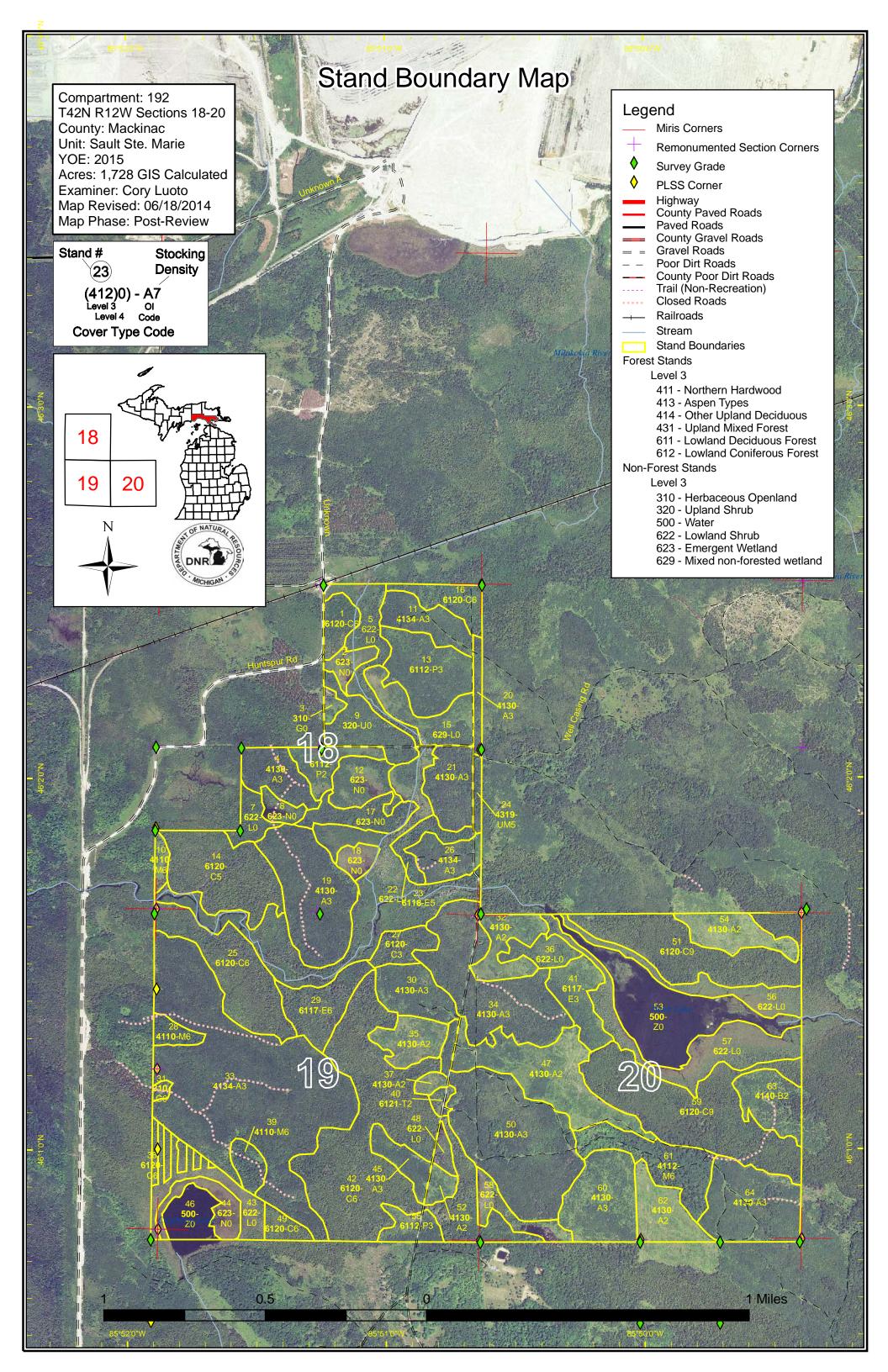
The following reports from the Inventory are attached:

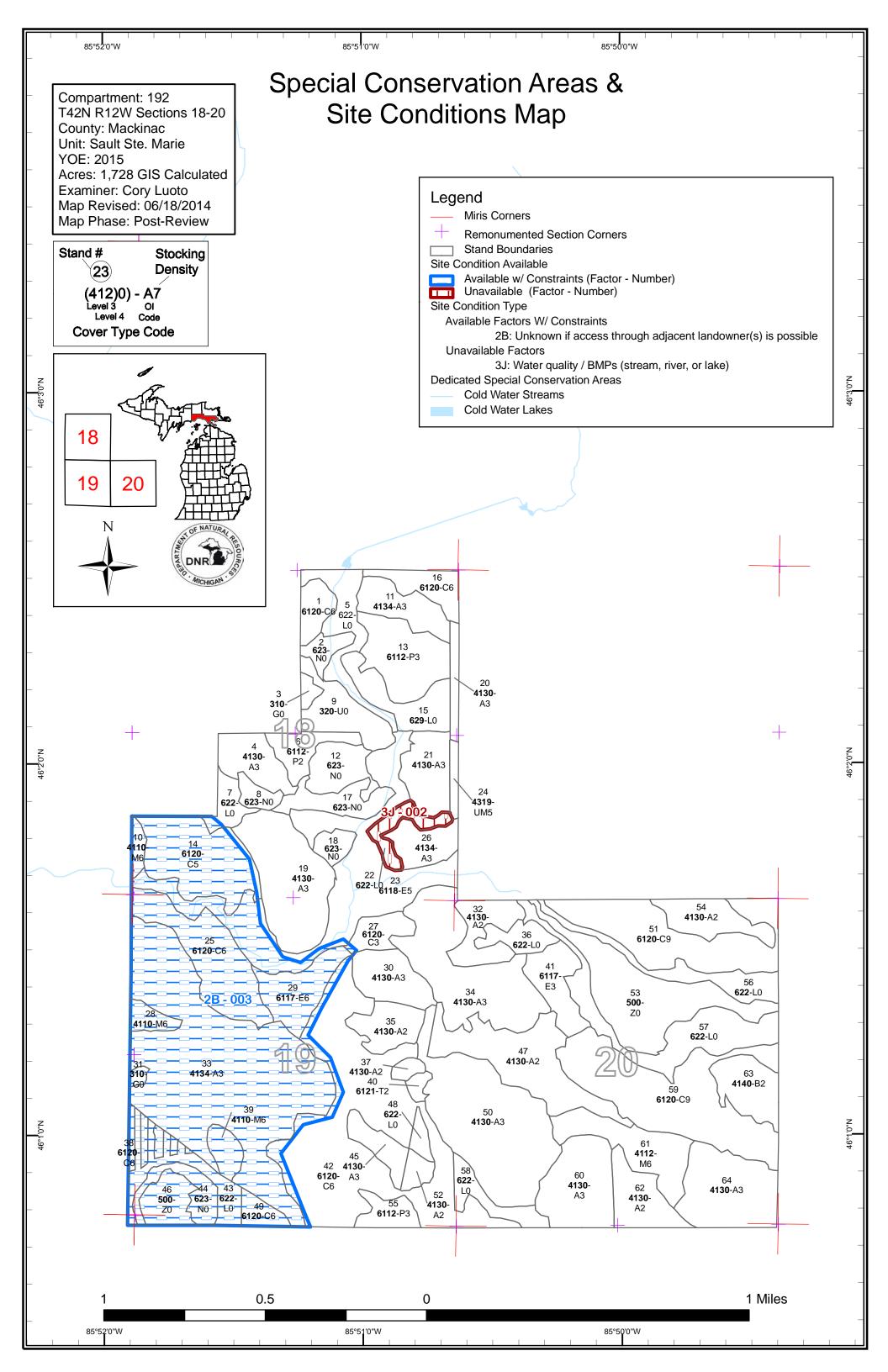
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

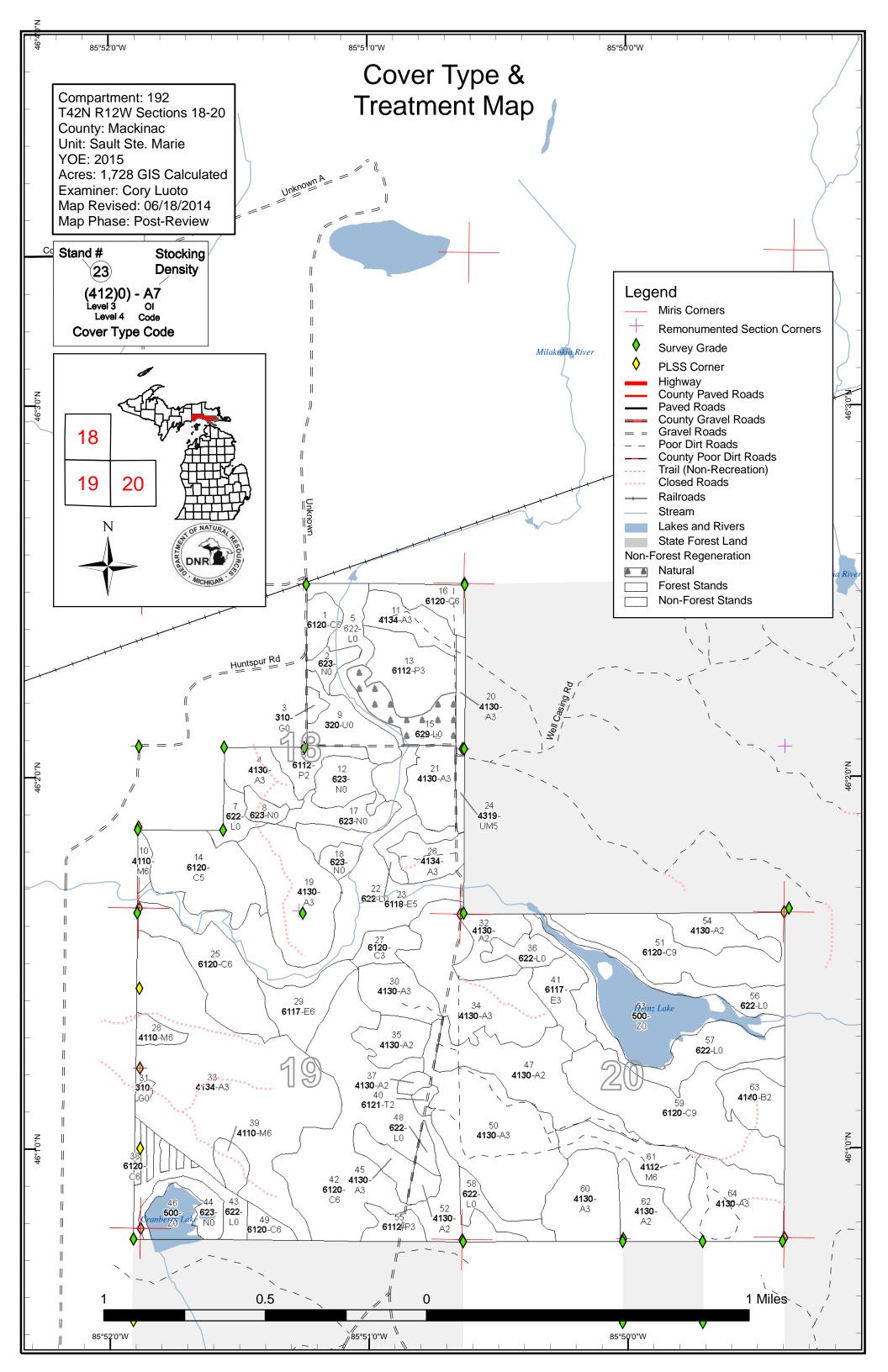
The following information is displayed, where pertinent, on the attached compartment maps:

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









Compartment 192 Year of Entry 2015

Sault Ste. Marie Mgt. Unit

Cory Luoto: Examiner



#### Age Class 11.00 M 70,709 70,79 10,10 20.28 . . . . . . . <sup>6</sup>0, % × × Aspen Cedar Herbaceous Openland Lowland Aspen/Balsam Poplar Lowland Deciduous Lowland Shrub Marsh Northern Hardwood Paper Birch Tamarack Upland Mixed Forest Upland Shrub Water Total



## **Report 2 – Proposed Treatment Summaries**

Sault Ste. Marie Mgt. Unit Year of Entry 2015

Compartment 192
Total Compartment Acres: 1,752

## **Acres by Treatment Type**

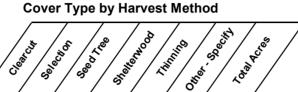
Commercial Harvest - 0

Tree Planting - 0

Other - 0

Habitat Cut - 0

Opening Maintenance - 0



#Error ##### #Error ##### #Error ##### Total 0 0 0 0 0 0 0

Sault Ste. Marie Mgt. Unit

Report 3 -- Treatments Prescribed with No Limiting Factor

Treatment

Type

**Treatment** 

Method

ВА

Range

Compartment: 192 Year of Entry 2015

**Cover Type** 

Objective

**Approval** 

Status

#Type!

Acres

**Treatment** 

Name

#Type!

CoverType

Size

Density

Stand

Age

Prescription

Specs:

s t

n

<u>Other</u>

Comments:

<u>Next</u> Steps:

Proposed Start Date: #Type!

> **Total Treatment** Acreage Proposed:

0.0

06/18/2014 3:23:58 PM - Page 1 of 1

Sault Ste. Marie Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 192 a Site Condition s Year of Entry 2015 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Objective Method Status Name Range Density Age Type #Type! #Type! **Prescription** Specs: **Other** Comment: <u>Next</u> Steps: <u>Proposed</u> #Type! Start Date:

**Total Treatment** 

**Limiting Factor** 

Acreage Proposed: 0.0

# **Report 5 – Site Conditions**

Sault Ste. Marie Mgt. Unit

**Cory Luoto: Examiner** 

Compartment 192 Year of Entry 2015

Availa	ability for I	Management								
Total	Acres	Acres		3						
Acres	Available	Not Available		No	5E	5C	5B	3J	3D	ЗА
19	19		Aspen	19						
154	154		Jack Pine	154						
109	82	27	Natural Mixed Pines	82						27
1869	1834	35	Oak	954		60	820	9	25	2
8		8	Planted Mixed Pines					8		
835	829	6	Red Pine	331	6	71	428			
114	114		Upland Mixed Forest	113			1			
9	9		White Pine	9						
3,117	3,041	76	Total Forested Acres	1,662	6	131	1,248	16	25	29
	98%	2%	Relative Percent							

<sup>\*</sup>Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition		
002	Not Available	3J: Water quality / BMPs (stream, river, or lake)	10	2G: Too wet (sensitive soils, does not include access issues)					
Comments: This stand was left as a buffer and riparian area along the stream.									
003	Available	2B: Unknown if access through adjacent landowner(s) is possible	416						
	Comments: Quarry is denying access for future logging.								

Sault Ste. Marie Mgt. Unit

Compartment: 192 Year of Entry: 2015



#### Report 6 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Sault Ste. Marie Mgt. Unit Compartment: 192





# Report 7 – 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.

Conservation Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area				
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 Area 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.					

S t	Sault Ste. Marie Mgt. Unit			Report 8	– Forested	Stands Compartment: 192 Year of Entry: 2015		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
1	6120 - Lowland Cedar	High Density Pole	10.3	110		Poor quality cedar. Very wet		
4	4130 - Aspen	High Density Sapling	18.7	32		Stand is really close to being an A6. Nice stand.		
6	6112 - Lowland Aspen	Medium Density	13.4	4		Stand was cut in 2010. Part of the Fine Nine timbersale. Regen doing great.		
10	4110 - Sugar Maple Association	High Density Pole	4.2	90	51-80	Small, sliver of adjacent stand on quarry land. The Quarry is no longer granting access through their property. Stand was thinned in 2009. Part of Quarry Access timber sale.		
11	4134 - Aspen, Spruce/Fir	High Density Sapling	19.0	21		Nice, young aspen stand. Fair amount of spruce and balsam but mostly in pockets.		
13	6112 - Lowland Aspen	High Density Sapling	33.5	15		Pretty decent lowland aspen. Growing a little slower than upland stand to the north but still doing good.		
14	6120 - Lowland Cedar	Medium Density Pole	47.0	122		Wet, poor quality cedar. No access to this stand.		
16	6120 - Lowland Cedar	High Density Pole	14.2	89		Data taken from adjacent compartment.		
19	4130 - Aspen	High Density Sapling	53.5	32		Stand is right on the edge between sapling or pole. Balsam is thick in spots.		
20	4130 - Aspen	High Density Sapling	6.5	31		Majority of stand in comp 191.		
21	4130 - Aspen	High Density Sapling	21.9	29		Nice aspen stand. Should be an A6 next inventory cycle.		
23	6118 - Lowland Deciduous with Cedar	Medium Density Pole	10.3	94	1-50	Wet drainage. Black ash, bam, cedar and red maple.		
24	4319 - Mixed Upland Forest	Medium Density Pole	4.1	27		Majority of stand in comp 191 to the east.		
25	6120 - Lowland Cedar	High Density Pole	44.3	92		Cedar stand that has no access. Quarry no longer allowing timbersales through their property.		
26	4134 - Aspen, Spruce/Fir	High Density Sapling	15.8	21		Nice young aspen stand. Not alot of conifer.		
27	6120 - Lowland Cedar	High Density Sapling	11.2	72		Small cedar. Decent coverage and about 15' tall.		
28	4110 - Sugar Maple Association	High Density Pole	6.5	84	51-80	The Quarry is no longer granting access through their property. Stand was thinned in 2009. Part of Quarry Access timber sale.		

Sault Ste. Marie Mgt. Unit S			Report 8	- Forested	Stands Compartment: 192 Year of Entry: 2015			
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
29	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	23.6	76	111-140	Decent lowland Mackinac Mix stand. Several small drainages through stand. Stand has been left previously because of the riparian influence of the stand.		
30	4130 - Aspen	High Density Sapling	21.4	16		Nice young aspen stand. Pockets of conifers.		
32	4130 - Aspen	Medium Density	19.0	4		Stand was cut in 2010. Part of Fine Nine Aspen timber sale. Regen doing great.		
33	4134 - Aspen, Spruce/Fir	High Density Sapling	177.2	33		Stand was cut in 1981-1982. More conifer in the northern part of the stand.		
34	4130 - Aspen	High Density Sapling	65.3	29		Typical of the aspen in this area. Doing really well.		
35	4130 - Aspen	Medium Density	16.7	4		Stand was cut as part of Fine Nine timber sale. Regen doing good.		
37	4130 - Aspen	Medium Density	3.4	4		Stand was part of the Fine Nine Timber sale. Cut in 2010. Regen is doing great.		
38	6120 - Lowland Cedar	High Density Pole	7.3	162		Uncut portion of cedar strips cut thirty years ago. The Quarry is no longer granting access through their property.		
39	4110 - Sugar Maple Association	High Density Pole	8.3	84	51-80	Stand was thinned in 2009. Part of the Quarry Access timber sale. The Quarry is no longer granting access through their property.		
40	6121 - Tamarack	Medium Density	3.1	27		Stand was previously typed as grassy opening. There are now enough tamarack and spruce to make it a forested stand.		
41	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	19.7	17		Decent P3 stand. Some small open spots but are mostly filled in.		
42	6120 - Lowland Cedar	High Density Pole	142.4	107		Decent cedar stand. Signs of heavy deer browse.		
45	4130 - Aspen	High Density Sapling	11.2	16		Nice young aspen stand. Not alot of conifer.		
47	4130 - Aspen	Medium Density	50.8	4		Stand was cut in 2010. Part of Fine Nine timber sale. Regen doing great.		
49	6120 - Lowland Cedar	High Density Pole	6.9	99		Uncut portion of cedar strips cut thirty years ago. The Quarry is no longer granting access through their property.		

4130 - Aspen

50

High Density Sapling

84.9

21

This stand was cut between 1986 - 1993. Impossible to tell apart

now. Really nice stand. One small pocket of mature aspen, birch and maple. It's only a couple of acres and it adds nice diversity to this stand.



	Sault Ste. Marie Mgt. Unit					Year of Entry: 2015		
Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	c	General omments:	MICHIGAN	
6120 - Lowland Cedar	High Density Log	59.5	133					
4130 - Aspen	Medium Density	5.6	5		Stand was cut as part of the	cut as part of the Fine Nine timber sale. Regen doing great.		
4130 - Aspen	Medium Density	19.5	5			was cut in 2009. Part of Fine Nine timber sale. Regen doing excellent.		
6112 - Lowland Aspen	High Density Sapling	10.2	16		Decent lov	Decent lowland poplar stand.		
6120 - Lowland Cedar	High Density Log	83.0	147		Very nice cedar log stand. Tons of deer sign.			
4130 - Aspen	High Density Sapling	36.2	14		Nice aspen. Not a ton of conifer.			
4112 - Maple, Beech, Cherry Association	High Density Pole	31.7	73	51-80	Stand was thinned pretty hard last entry. Going to be 10-15 yr before we can thin again. Tons of deer browse.			
4130 - Aspen	Medium Density	21.3	4		Stand was cut as part of Fine Nine timber sale. Regen doing really good.			
4140 - Other Upland Deciduous	Medium Density	21.2	13		Didn't visit stand. using data from adjacent comp. Heavy browse on red maple in sub-canopy; part of Heinz Lake timber sale (1999); softwood inclusion in northern half contains larger diameter fir, spruce & BAM (6") and a little cedar and paper bird average diameter in rest of stand is 1-2" for all species			
4130 - Aspen	High Density Sapling	42.3	17		Decent aspen stand. Wa	as cut over two years. 1	996-1997	
	Cover Type  6120 - Lowland Cedar  4130 - Aspen  4130 - Aspen  6112 - Lowland Aspen  6120 - Lowland Cedar  4130 - Aspen  4130 - Aspen  4112 - Maple, Beech, Cherry Association  4130 - Aspen  4140 - Other Upland Deciduous	Cover Type  6120 - Lowland Cedar High Density Log  4130 - Aspen Medium Density  4130 - Aspen Medium Density  6112 - Lowland Aspen High Density Sapling  6120 - Lowland Cedar High Density Log  4130 - Aspen High Density Sapling  4112 - Maple, Beech, Cherry Association Pole  4130 - Aspen Medium Density  4140 - Other Upland Density  4140 - Other Upland Density  High Density  High Density  High Density  High Density  High Density  High Density	Cover TypeDensityAcres6120 - Lowland CedarHigh Density Log59.54130 - AspenMedium Density5.64130 - AspenMedium Density19.56112 - Lowland AspenHigh Density Sapling10.26120 - Lowland CedarHigh Density Log83.04130 - AspenHigh Density Sapling36.24112 - Maple, Beech, Cherry AssociationHigh Density Pole31.74130 - AspenMedium Density21.34140 - Other Upland DeciduousMedium Density21.24130 - AspenHigh Density42.3	Cover Type         Density         Acres         Age           6120 - Lowland Cedar         High Density Log         59.5         133           4130 - Aspen         Medium Density         5.6         5           4130 - Aspen         Medium Density         19.5         5           6112 - Lowland Aspen         High Density Sapling         10.2         16           6120 - Lowland Cedar         High Density Log         83.0         147           4130 - Aspen         High Density Sapling         36.2         14           4112 - Maple, Beech, Cherry Association         High Density Pole         31.7         73           4130 - Aspen         Medium Density         21.3         4           4140 - Other Upland Deciduous         Medium Density         21.2         13           4130 - Aspen         High Density         24.3         17	Cover Type         Density         Acres         Age Range           6120 - Lowland Cedar         High Density Log         59.5         133           4130 - Aspen         Medium Density         5.6         5           4130 - Aspen         Medium Density         19.5         5           6112 - Lowland Aspen         High Density Sapling         10.2         16           6120 - Lowland Cedar         High Density Log         83.0         147           4130 - Aspen         High Density Sapling         36.2         14           4112 - Maple, Beech, Cherry Association         High Density Pole         31.7         73         51-80           4130 - Aspen         Medium Density         21.3         4           4140 - Other Upland Deciduous         Medium Density         21.2         13           4130 - Aspen         High Density         42.3         17	Cover Type Density Acres Age Range CC  6120 - Lowland Cedar High Density Log 59.5 133 Big cedar log stand. Part of in the compartment:  4130 - Aspen Medium Density 19.5 5 Stand was cut as part of the Density Sapling 10.2 16 Decent low Sapling 10.2 16 Decent low Sapling 14130 - Aspen High Density Log 14130 - Aspen High Density Sapling 14130 - Aspen High Density Sapling 151-80 Stand was thinned pretty he before we can thin a Density Cherry Association Density 21.3 4 Stand was cut as part of Fire 14130 - Aspen Medium Density 21.2 13 Didn't visit stand, using data on red maple in sub-cano (1999); softwood inclusic diameter fir, spruce & BAM in average diameter in reservable.	Cover Type Density Acres Age Range Comments:  6120 - Lowland Cedar High Density Log 59.5 133 Big cedar log stand. Part of a larger cedar complex in the compartment to the east. Heavy deer compartment to the east. Heavy deer the compartment to the east. Heavy deer the compartment to the east. Heavy deer the compartment to the compartment to the east. Heavy deer the	

Compartment: 192 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	623 - Emergent Wetland	7.0	Unspecified	Unspecified	
3	310 - Herbaceous Openland	3.1	Unspecified	Unspecified	
5	622 - Lowland Shrub	22.7	Unspecified	Unspecified	
7	622 - Lowland Shrub	9.1	Unspecified	Unspecified	
8	623 - Emergent Wetland	6.0	Unspecified	Unspecified	
9	320 - Upland Shrub	22.7	Unspecified	Unspecified	
12	623 - Emergent Wetland	17.0	Unspecified	Unspecified	
15	629 - Mixed non-forested wetland	22.0	Natural Reger	n/land Aspen/Balsam Po	Stand is a sparce lowland aspen and conifer.
17	623 - Emergent Wetland	16.2	Unspecified	Unspecified	
18	623 - Emergent Wetland	6.5	Unspecified	Unspecified	
22	622 - Lowland Shrub	95.3	Unspecified	Unspecified	
31	310 - Herbaceous Openland	1.8	Unspecified	Unspecified	
36	622 - Lowland Shrub	10.4	Unspecified	Unspecified	
43	622 - Lowland Shrub	20.4	Unspecified	Unspecified	
44	623 - Emergent Wetland	12.9	Unspecified	Unspecified	
46	50 - Water	14.4	Unspecified	Unspecified	
48	622 - Lowland Shrub	4.3	Unspecified	Unspecified	
53	50 - Water	58.2	Unspecified	Unspecified	

Compartment: 192 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
56	622 - Lowland Shrub	20.5	Unspecified	Unspecified	
57	622 - Lowland Shrub	43.2	Unspecified	Unspecified	
58	622 - Lowland Shrub	12.8	Unspecified	Unspecified	