

Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 45200
Entry Year 2017
Acreage: 3,468
County Mackinac

Management Area: Lake Michigan Shoreline

Revision Date: 2015-08-07

Stand Examiner: Matt Edison

Legal Description:

T41N-R11W Sections 5 - 9, Newton Township; T41N-R12W Sections 1 - 8, Newton Township; & T42N-R12W Sections 33

& 34, Newton Township

Identified Planning Goals:

The location of this compartment runs along the Lake Michigan shoreline from S. Gould City Road west to the Schoolcraft County line. The compartment has been managed over the years as a Natural Area. Although not legally dedicated, it is protected by local management to preserve its natural value. The website on Natural Areas has this to say about the area: "This area has all the characteristic and significant features of northern Great Lakes shores: dunes, interdunal wetland, cobble beach, Great Lakes endemic plants, and rare shorebirds. The interdunal swales are among the longest known and a good example of this uncommon community (fewer than 50 good sites anywhere) which is restricted to the shores of the Great Lakes. This is one of the longest stretches of Lake Michigan shoreline not bounded by roads and cottages, an example of Great Lakes shoreline mostly as it was at the time of European settlement."

Soil and topography:

This compartment follows the Lake Michigan shoreline for approximately 10 miles. Inland, it goes as far as the old Lake Nipissing shoreline. It is a dramatic bluff in most areas. Soils associated with the bluff line and following it in a narrow band are primarily. Pullup fine sand (rolling to steep areas on dunes, beach ridges and bars), Springlake loamy coarse sand (rolling to steep areas on outwash plains, ground moraines, and beach ridges), and Guardlake fine sandy loam (gently rolling to rolling to steep areas on outwash plains). Other minor components along this narrow bluff line are: Kalkaska sand (rolling to steep areas on outwash plains and ground moraines), Greylock fine sandy loam (very steep areas on ground moraines, end moraines, and drumlins), and Battydoe fine sandy loam (rolling to steep areas on ground moraines and drumlins). However, the overwhelmingly predominant soils within this compartment are Eastport-Leafriver complex, encompassing the dune-swale complex; and Leafriver-Croswell-Wainola complex, encompassing the similar swale-ridge complex along Lake Michigan. Esau-Zela complex follows the ridge-swale complex on beach ridges, and is found in a narrow band along the Lake Michigan shoreline from Hughes Point to Seiner's Point; at Birch Point, and Scott Point. Small inclusions of Alpena gravelly loam, Ensign fine sandy loam and Eastport sand are located along the lakeshore just west of Scott Point. These landforms are described as nearly level to rolling areas on glacial lake beach ridges; nearly level areas on bedrock-controlled ground moraines and glacial lake benches; and nearly level to rolling areas on dunes and beach ridges. The hardwood west of S. Gould City Road is typed as Guardlake fine sandy loam (nearly level and undulating areas on outwash plains), with a small amount of Spot-Finch complex alongside some ponds.

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

State lands abut to the north. These are above the old Lake Nipissing bluff are fairly accessible. There are two private inholdings within the compartment. One of them is by Birch Point. There are several small tracts here, with several seasonal cabins. The other private parcel is located along the S. Gould City Road. Norton-Oglebay Limestone Company is adjacent to the west. While parts of their land are actively mined for limestone, directly adjacent is still timberlands but their main thoroughfare to Port Inland is just into Schoolcraft County. Lake Michigan is the southern boundary for this compartment.

Unique Natural Features:

With the lakeshore influences, there is potential for, and are, several rare, threatened and endangered plant and animal species and communities. Many areas along the lakeshore are now considered ERA's (ecological reference areas). The compartment contains Seiner's Marsh, several named points in Lake Michigan (Hughes Point, Seiner's Point, Birch Point and Scott Point), several named creeks (Seiner's Creek, Swan Creek, Peterson Creek and Hudson Creek) and unnamed creeks, Island Lake and a couple small unnamed lakes, plus miles of sand or cobble beach.

Archeological, Historical, and Cultural Features:

There is an archeological site listed on the National Register of Historic Places and the State Register of Historic Sites located along the lakeshore. It has been the site of archeological surveys from 1960-62 and 1979-80.

Special Management Designations or Considerations:

The whole compartment is being managed as a Natural Area. Attempts have been made to stop ORV's from riding along the beach shoreline.

Watershed and Fisheries Considerations:

Hudson Creek, Swan Creek, Seiner's Creek, and Peterson Creek provide spawning and nursery areas for anadromous fish such as steelhead and sucker. No active management is occurring on any of these streams at this time.

Wildlife Habitat Considerations:

This compartment lies within the Lake Michigan Shoreline Management Area, where featured species are piping plover and white-tailed deer. Conifer dominates this compartment with a major component of cedar, fir, white pine, and hemlock. Deciduous forest is composed primarily of a birch dominated stand which occurs in a long strip near the Lake Michigan shoreline. The compartment is part of a wooded dune and swale complex adjacent to Lake Michigan, and is part of a deer wintering complex. No treatments are proposed for this compartment, which will provide un-fragmented forest critical to migratory songbirds and maintain the conifer cover for wintering deer. Shoreline areas will also be left to protect the habitat for shoreline species. Other wildlife species with the potential to benefit from the habitat here include grosbeaks, woodpeckers, nuthatches, chickadee, goldfinch, goshawk, snowshoe hare, and black bear.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine sand and gravel and minor coarse-textured till. The glacial drift thickness varies between 0 and 50 feet. The Silurian Engadine Group subcrops below the glacial drift. The Engadine is quarried for stone/limestone two miles to the west and to the north. There may be additional potential for limestone/dolomite in the compartment. There may be an old gravel pit in Section 32 (T41N R11W) and potential may be possible on the uplands. There is no current economic oil and gas production in the UP.

Vehicle Access:

The only vehicle access within the compartment is via Birch Point Road. While this is a DNR road, it does access the private cabins at Birch Point. The private landowners have helped improve the road at various times. S. Gould City Road runs along the east edge. A couple of two-tracks access the hardwood stand off S. Gould City Road and lead to the small lake areas. An old beach road used to follow the shoreline west of S. Gould City Road. This was the only access to the private parcels by Birch Point for many years. It is now gated at S. Gould City Road, and is not very discernible anymore.

Survey Needs:

None

Recreational Facilities and Opportunities:

Opportunities for bird watching, viewing Lake Michigan shoreline endemic flora, and hiking the undeveloped sandy and cobblestone beaches abound for those wishing to get away from it all. Hunting, photography, studying nature, and scenic views are also available options. Camping and picnicking is available Newton Township Park, located at the end of S. Gould City Road.

Fire Protection:

Due to the isolated nature of the shoreline, there is little potential for human caused fires. The short stretch of cabins by Birch Point harbors some potential for wildfires due to the human influences and development. Lightning strikes probably have occurred within the compartment, but have burned themselves out before being detected. The interspersing of the lowland swales probably help deter any small fires from becoming larger ones. Access to any wildfires would be difficult over much of the compartment, and a plan should be made to consider minimal impact suppression tactics if needed.

Additional Compartment Information:

A Forest Treatment Proposal (FTP) has been approved to treat invasive phragmites along the Lake Michigan shoreline. Treatments as per work instructions and FTP may occur along the shoreline as necessary to eliminate the colonizing invasive phragmites.

The following reports from the Inventory are attached:

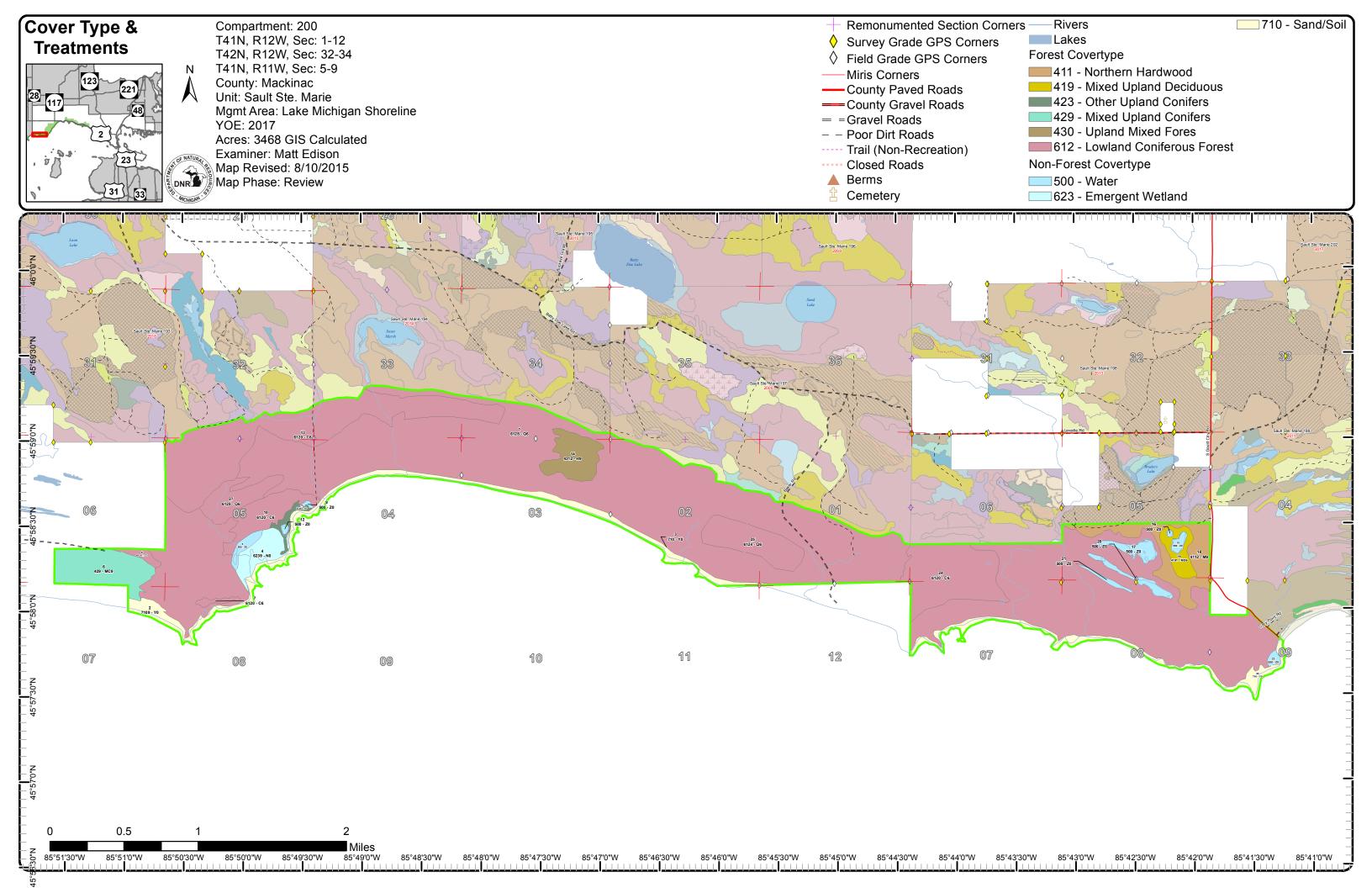
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

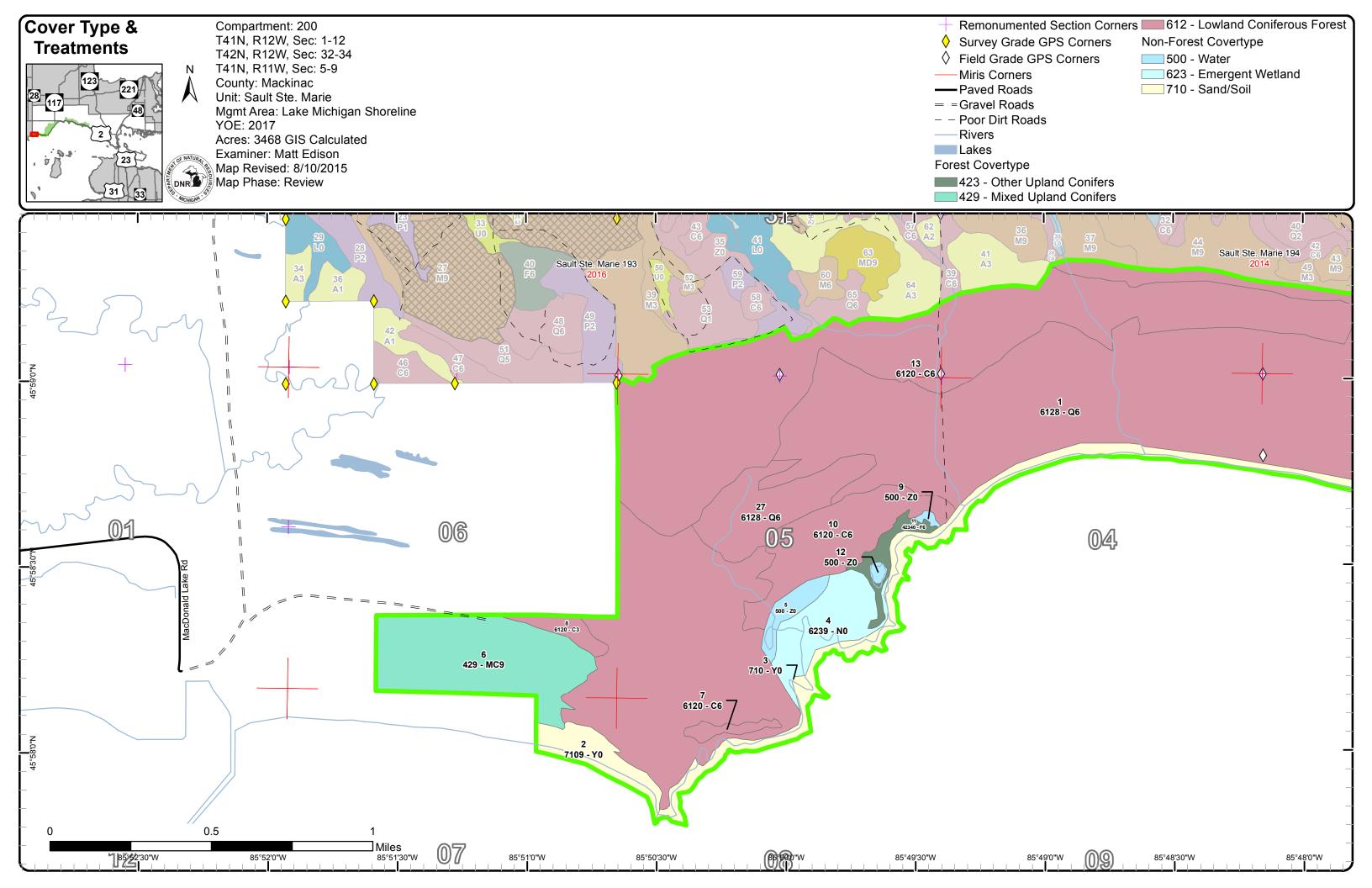
The following information is displayed, where pertinent, on the attached compartment maps:

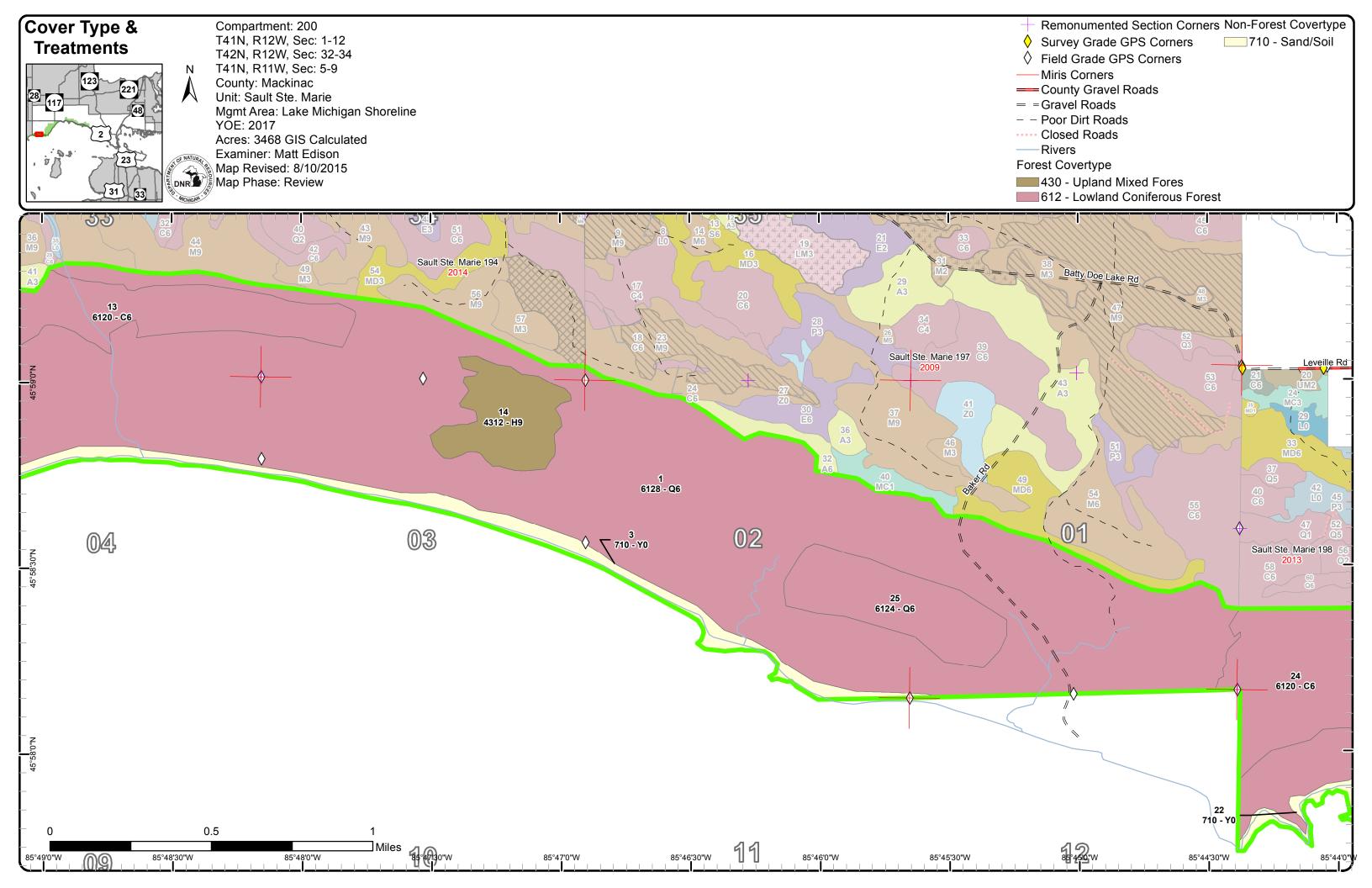
Base feature information, stand boundaries, cover types, and numbers Proposed treatments

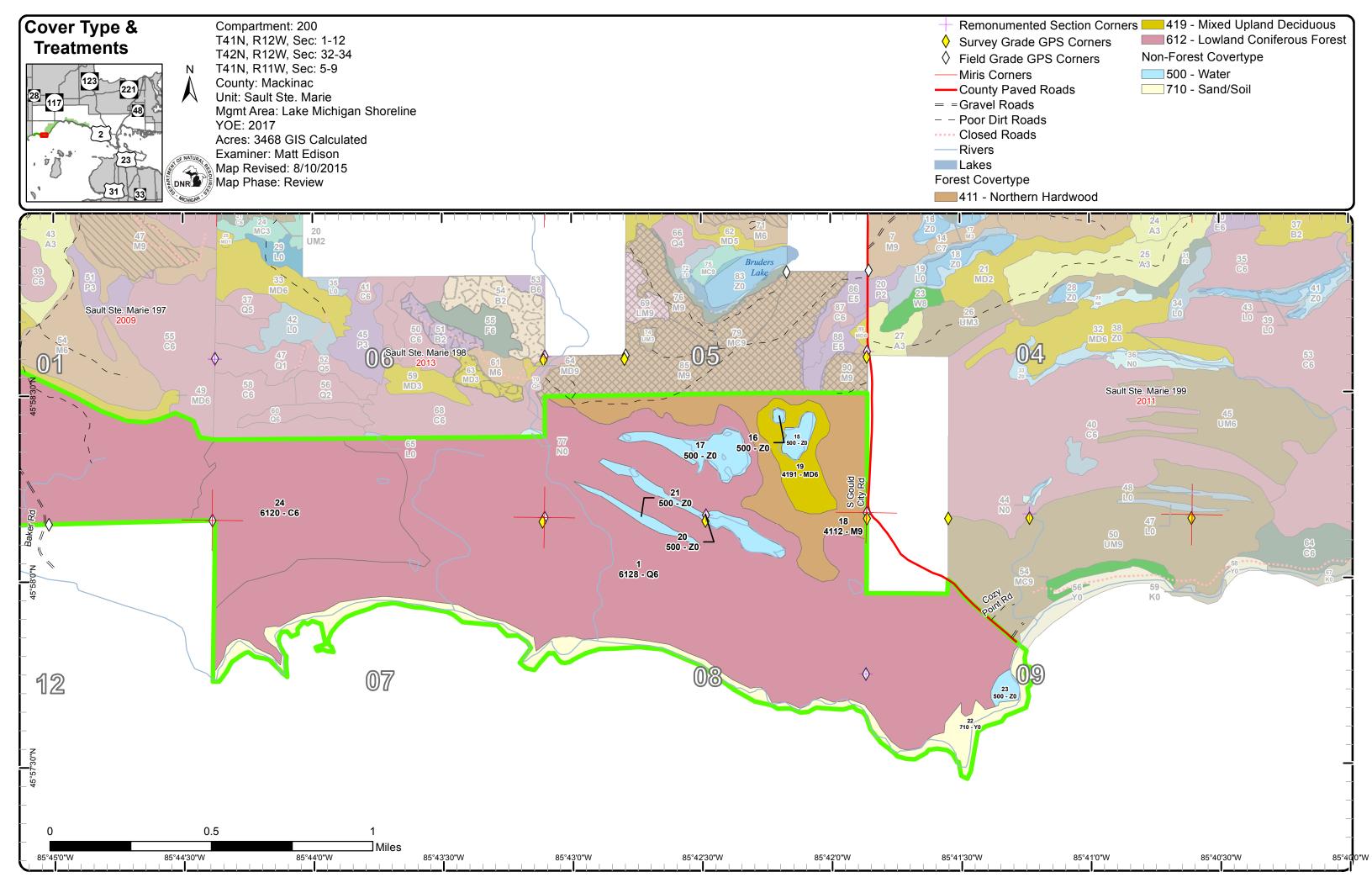
Site condition boundaries

Details on the road access system



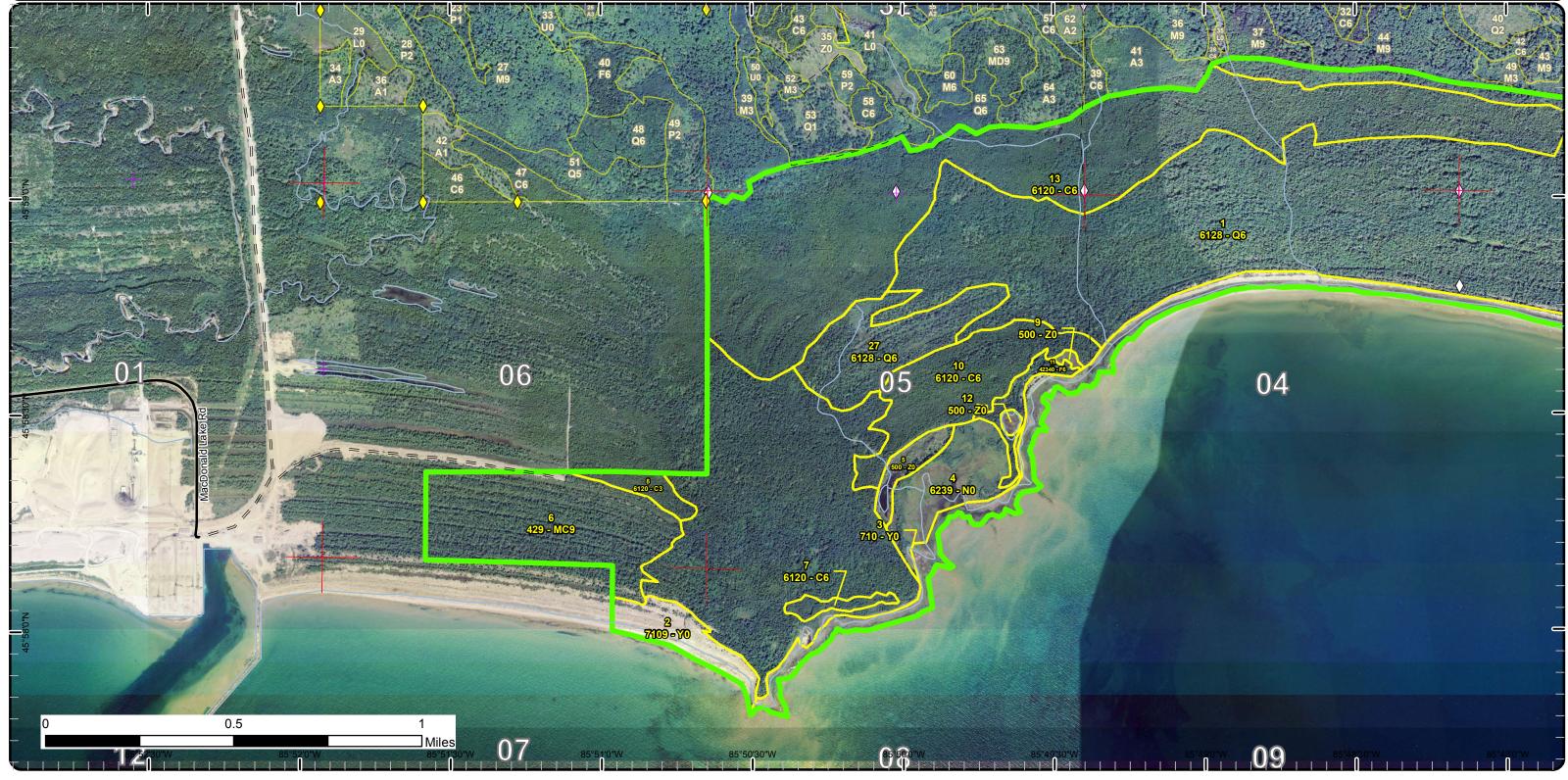


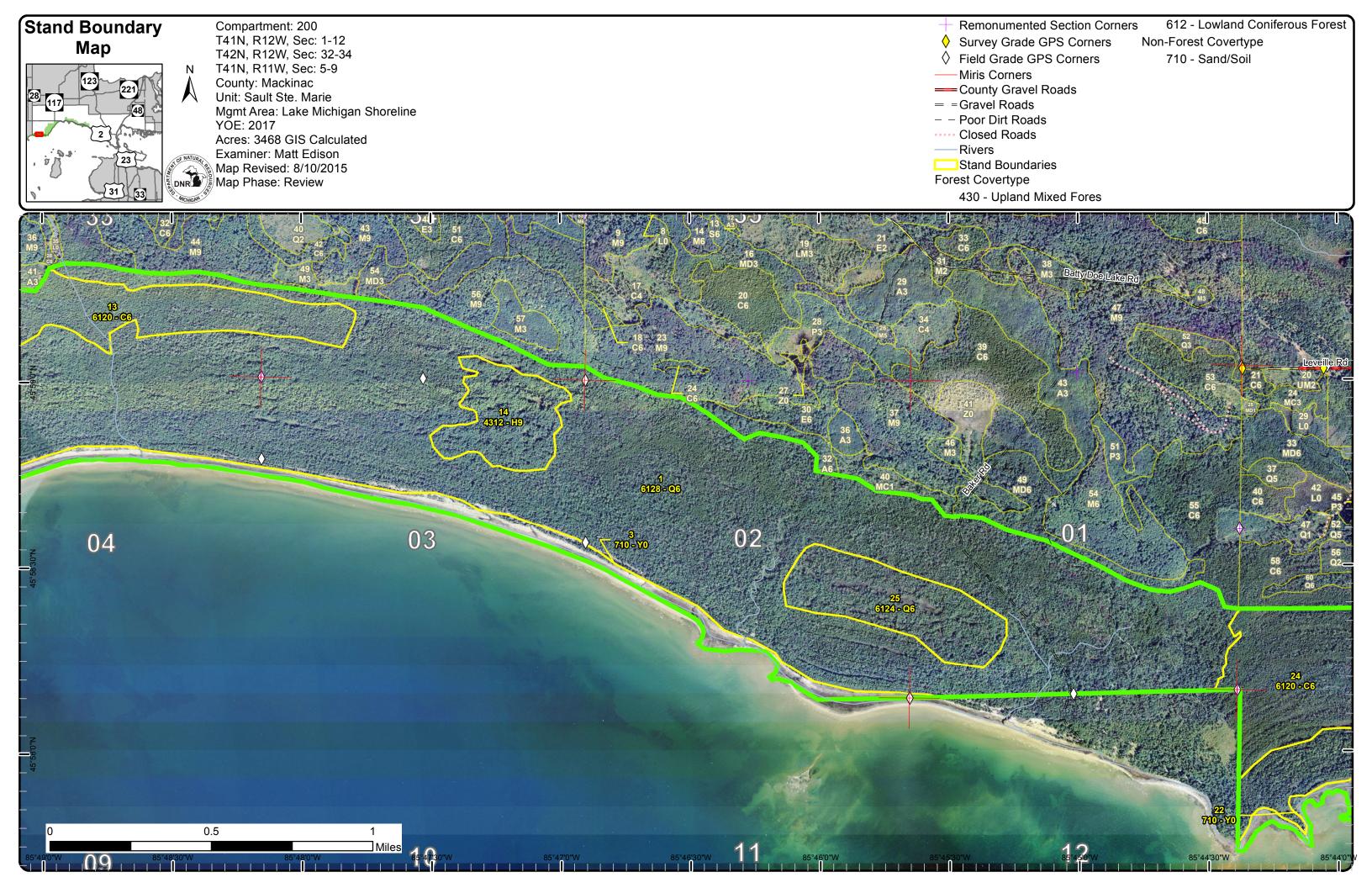


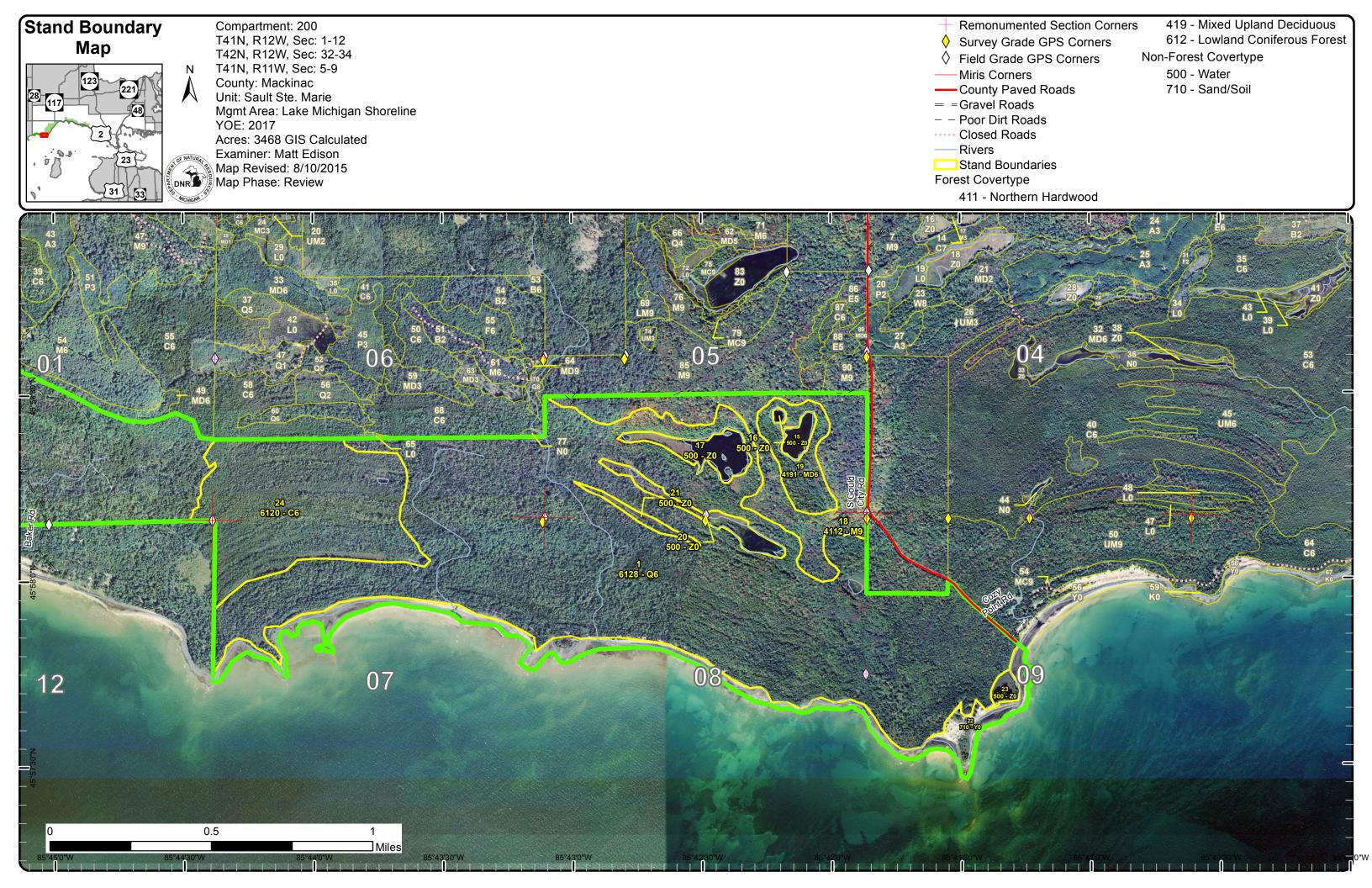


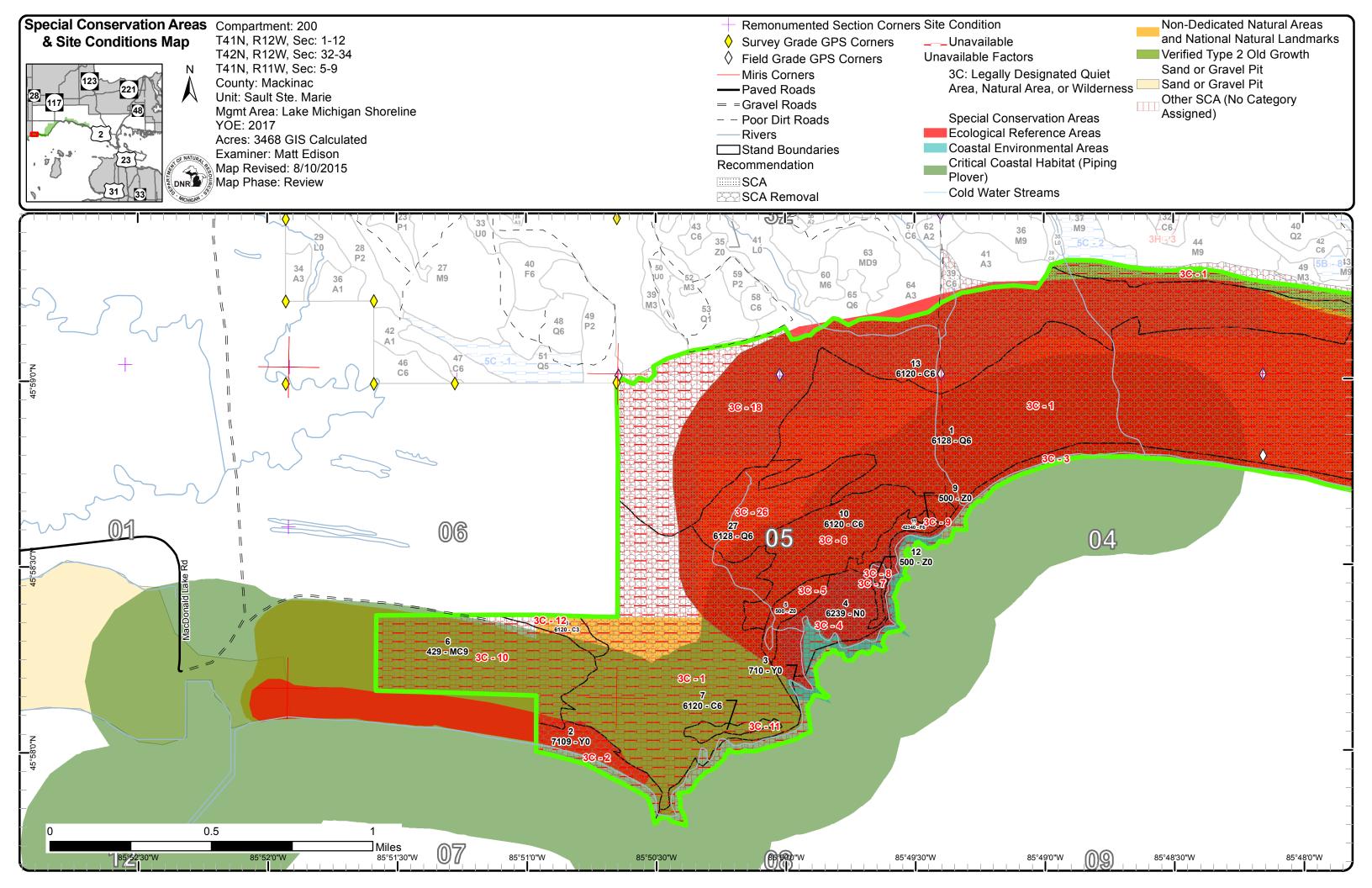
Stand Boundary Map T41N, R12W, Sec: 1-12 T42N, R12W, Sec: 32-34 T41N, R11W, Sec: 5-9 County: Mackinac Unit: Sault Ste. Marie Mgmt Area: Lake Michigan Shoreline YOE: 2017 Acres: 3468 GIS Calculated Examiner: Matt Edison Map Revised: 8/10/2015 Map Phase: Review Map Phase: Review

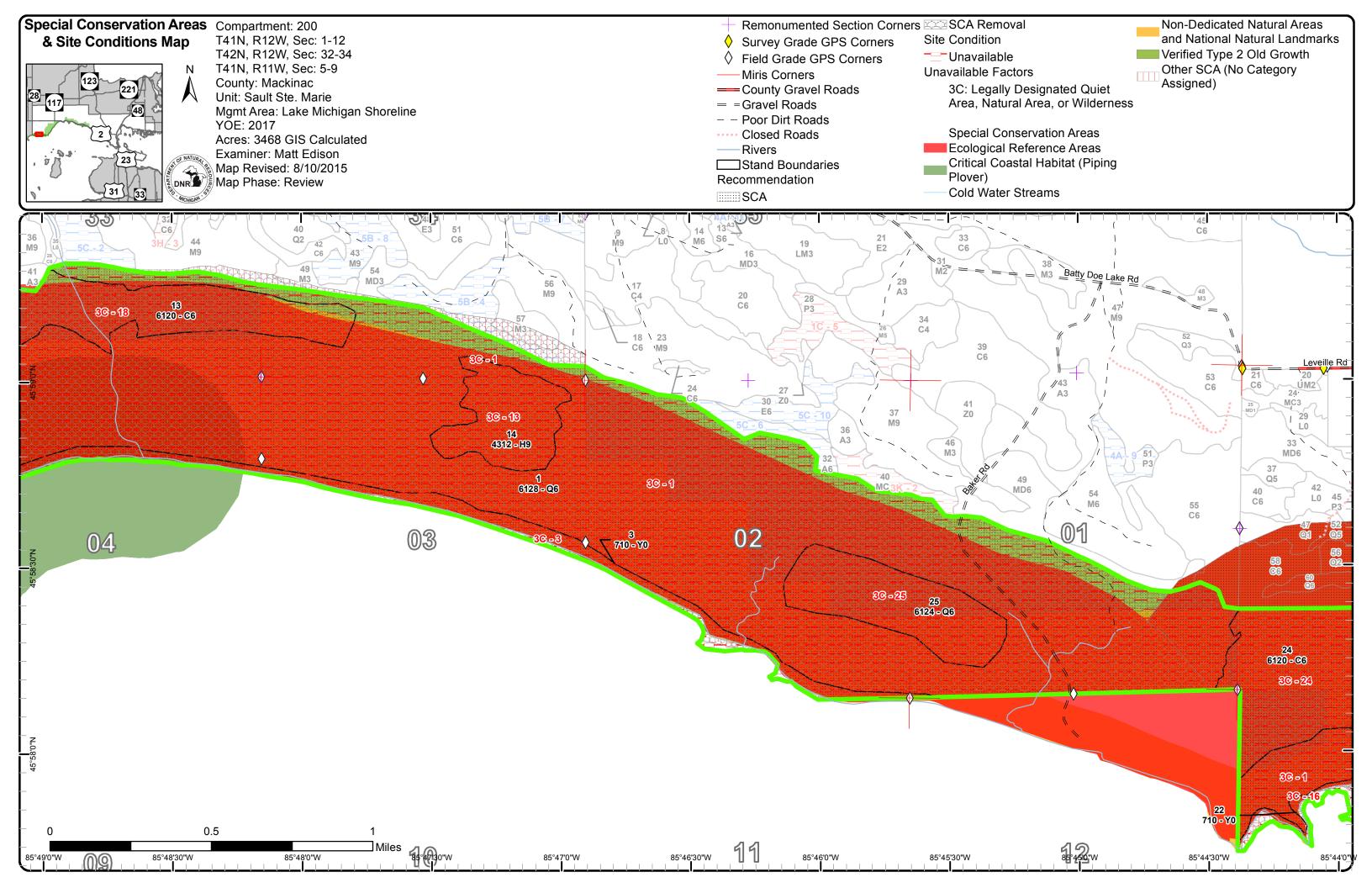
612 - Lowland Coniferous Forest Remonumented Section Corners ♦ Survey Grade GPS Corners Non-Forest Covertype ♦ Field Grade GPS Corners 500 - Water 623 - Emergent Wetland --- Miris Corners 710 - Sand/Soil --- Paved Roads = = Gravel Roads - - Poor Dirt Roads ----Rivers Stand Boundaries Forest Covertype 423 - Other Upland Conifers 429 - Mixed Upland Conifers

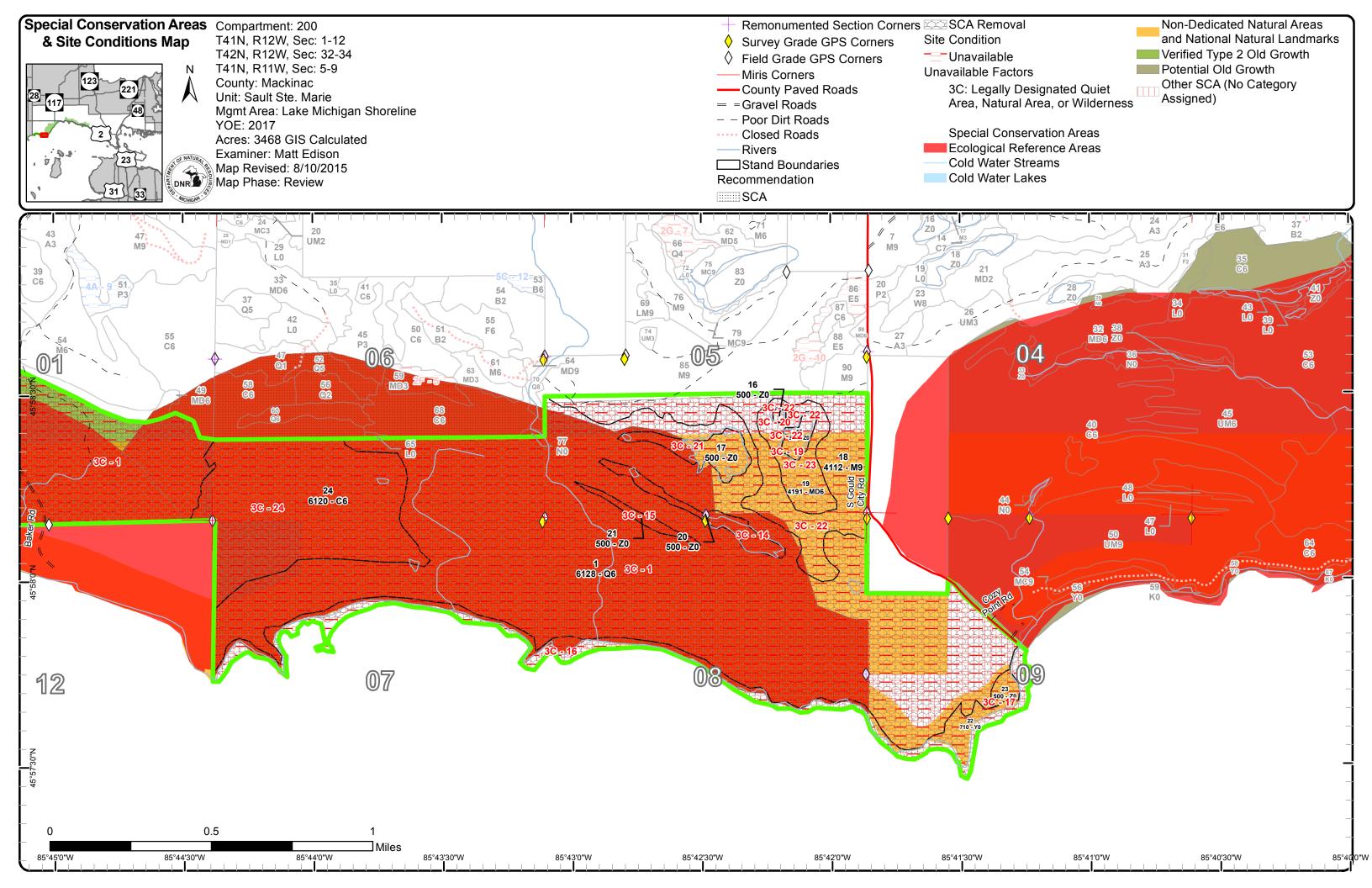






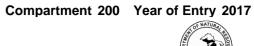






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Sault Ste. Marie Mgt. Unit





Age Class

	AQ.	Jan S	3 / 2	,	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	8 / W	No. 15 A.	» / %	\$ \ \	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	8 8	§ /g	70,	,	Z. Z			3 ^x Jres	No N	_
Cedar	0	0	0	0	0	0	0	0	0	0	0	16	156	399	0	0	0	0	571	
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	
Lowland Conifers	0	0	0	0	0	0	0	2234	54	0	0	0	0	0	0	0	0	0	2288	
Marsh	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	28	
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	95	
Sand, Soil	214	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	214	
Upland Conifers	0	0	0	0	0	0	0	0	0	0	99	0	0	0	0	0	0	0	99	
Upland Spruce/Fir	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11	
Water	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	
Total	317	0	0	0	0	0	0	2245	54	0	99	16	156	399	0	0	0	183	3469	



Report 2 – Treatment Summary

Sault Ste. Marie Mgt. Unit Year of Entry: 2017

Acres of Harvest

Compartment 200
Total Compartment Acres: 3,468

Commercial Harvest - 0

Harvests with Site Condition - 0

Next Step Harvest - 0

Habitat Cut - 0

Report 4 -- Treatments Compartment: s Year of Entry: t а **Treatment** Acres Stand Size Stand ВА **Treatment Treatment Cover Type** Age **Approval** n Density Age Method Objective Structure Status Name CoverType Range Type

#Type!

Mgt. Unit

Site Condition: Habitat Cut:

Prescription Specs:

Next Step Treatments:

<u>Acceptable</u> Regen:

<u>Other</u> Comment:

Proposed Start Date:

Total Treatment Acreage Proposed:

0.0

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Compartment: 200 Year of Entry: 2017

Dominant Site Conditions

3C

Cedar	571
Hemlock	60
Lowland Conifers	2,287
Marsh	40
Mixed Upland Deciduous	28
Northern Hardwood	95
Sand, Soil	214
Upland Conifers	99
Upland Spruce/Fir	11
Water	63
Total Forested Acres	3,468
Relative Percent	

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

1 Un	navailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	2,149	Unspecified	Unspecified	Unspecified	Unspecified
Comm	onte:						
	iciits.						
2 U n	navailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	24	Unspecified	Unspecified	Unspecified	Unspecified
Comm	nents:						

Sault Ste. Marie Mgt. Unit

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3 Unavailab	le 3C: Legally Designated Quiet Area, Natural Area, or Wilderness	118	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
4 Unavailab	le 3C: Legally Designated Quiet Area, Natural Area, or Wilderness	40	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
5 Unavailab	le 3C: Legally Designated Quiet Area, Natural Area, or Wilderness	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
6 Unavailab	le 3C: Legally Designated Quiet Area, Natural Area, or Wilderness	63	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
7 Unavailab	le 3C: Legally Designated Quiet Area, Natural Area, or Wilderness	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
8 Unavailab	le 3C: Legally Designated Quiet Area, Natural Area, or Wilderness	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						

Report 5 – Site Conditions

Compartment: 200

Sault Ste. Marie Mgt. Unit

Matt Edison : Examiner Year of Entry: 2017

9	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	1	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
10	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	99	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
11	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	10	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
13	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	60	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
14	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	15	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

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15 C o	Unavailable	3C: Legally Designated Quiet Area, Natural Area,	6	Unspecified	Unspecified	Unspecified	Unspecified
Co		or Wilderness		'	Onspecifica	опарсопіса	Onspecified
	omments:						
16	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	73	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
17	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	336	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
19	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	6	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
20	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	1	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

Report 5 – Site Conditions

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21	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	18	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
22	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	95	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
23	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	28	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
24	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	156	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
25	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	84	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
26	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	54	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Compartment: 200
Year of Entry: 2017



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
Scott Point Comments Meets Type 2 OG Criteria.	Type 1 or Type 2 Old Growth	Verified Type 2 Old Growth Area	Proposed SCA	919
Seiner's Point Comments Meets type 2 criteria	Type 1 or Type 2 Old Growth	Verified Type 2 Old Growth Area	Proposed SCA	1878
Unspecified Comments Ridge and swale complex.	Other SCA		SCA Removal	3483

Sault Ste. Marie Mgt. Unit Compartment: 200
Year of Entry 2017





* 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen corstocked trout populations and those of other coldwater fish speyear to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	ecies (e.g., slimy sculpin) to persist from nese conditions due to substantial
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and W proposed for legal dedication, but for which legal dedication by nomination process is defined by Part 351, Wilderness and Na Environmental Protection Act, 1994 PA 451. The program is acrequire the submittal of a Natural Areas Nomination Packet to 1 proposed sites in various stages of review. Final dedication of Areas is accomplished through legislative action.	legislature has not occurred. The tural Areas, of the Natural Resources and dministered by the DNR. Nominations the DNR. This is an active program, with
HCVA	Coastal Environmental Areas	The public designation process is defined by Part 323, Shorela Natural Resources and Environmental Protection Act, 1994 PA Michigan Department of Environmental Quality (DEQ). This is a currently under consideration by the DEQ.	451. The program is administered by the
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cod U.S. Fish and Wildlife service for the recovery of threatened ar 365, Endangered Species Protection, of the Natural Resources PA 451, and the Federal Endangered Species Act of 1973. This species plans in various stages of review. As of now only two Plover Habitat.	nd endangered species, as governed by Part is and Environmental Protection Act, 1994 is is an active program, with proposed
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and and Environmental Protection Act, 1994 PA 451. The program require the submittal of a Natural Areas Nomination Packet to the proposed sites in various stages of review. Final dedication of the Areas is accomplished through legislative action.	is administered by the DNR. Nominations the DNR. This is an active program, with
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples identified as Element Occurrences (EOs) by the Michigan Natu context of their natural community classification system. Eleme (Excellent) or B (Good) and a Global (G) or State (S) element (threatened (2), or rare (3) serve as an initial base of ERAs. The the State. The system is comprised of individual or association managed for restoration and maintenance of natural ecological submit recommendations for lands as ERAs using the DNR Co	aral Features Inventory (MNFI) within the ent Occurrences with viability ranks of A (rarity) ranking of endangered (1), by may be located upon any ownership in s of natural community types that are I processes and values. The public may

S t	Sault Ste. Marid	e Mgt. Unit		Report 8	- Forested	Stands Compartment: 200 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	2,149.2	60	111-140	Large variable stand throughout the compartment. True mix dependingon where you stand. Overall is lowground with some areas of higher ground.
6	429 - Mixed Upland Conifers	Sawtimber Well	98.5	95	Unspecified	Stand is comprised of ridges with mixed pine and balsam/spruce, etc. and wetland in a dune and swale formation.
7	6120 - Lowland Cedar	Poletimber Well	6.3	100	Unspecified	Small stand of cedar adjacent to beach in somewhat of a depression.
8	6120 - Lowland Cedar	Sapling Well	9.8	100	Unspecified	Small stand of very wet ground. Small diameter cedar and widely scattered spruce.
10	6120 - Lowland Cedar	Poletimber Well	62.8	120	Unspecified	Dense stand of pole diameter cedar.
11	42340 - Upland Spruce/Fir	Poletimber Well	11.5	60	Unspecified	Small upland stand between beach and low cedar. Mostly small Spruce/fir.
13	6120 - Lowland Cedar	Poletimber Well	336.2	122	Unspecified	Thick cedar stand with some mixed softwood and birch. Very wet in most places and lots of hummucks. Very dense cover.
14	4312 - Hemlock, Mixed Deciduous	Sawtimber Well	59.8	90	Unspecified	Stand of large Hemlock and mixed hardwood on higher ground ridges if dune and swale. Uniqie island stand within large lowland conifer area.
18	4112 - Maple, Beech, Cherry Association	Sawtimber Well	94.9	78	Unspecified	Hardwood stand hit hard with BBD.

4191 - Mixed Upland

Deciduous with Conifer

6120 - Lowland Cedar

6124 - Lowland Spruce-

6128 - Lowland

Coniferous, Mixed

Deciduous

19

24

25

27

Poletimber

Well

Poletimber

Well

Poletimber

Well

Poletimber

Well

27.7

155.7

84.4

53.8

60

110

60

70

Unspecified

Unspecified

Unspecified

Unspecified

mixed upland/lowland stand surrounding small lake/pond

Dune and swale with higher cedar component than surrounding

large lowland conifer stand. Low ridges, very wet in between.

Mixed softwood stand on slightly higher ridges than surrounding lowland conifer. Dune and swale complex.

Ridge and swale complex.

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
2	7109 - Sand (OI)	24.2	No	Beach with scattered rocks.
3	710 - Sand, Soil	117.6	No	Beach area with boulders and rocks in places.
4	6239 - Mixed Emergent Wetland	40.0	No	
5	500 - Water	11.0	No	
9	500 - Water	1.3	No	
12	500 - Water	1.8	No	
15	500 - Water	5.9	No	
16	500 - Water	1.0	No	
17	500 - Water	18.0	No	
20	500 - Water	14.6	No	
21	500 - Water	5.5	No	
22	710 - Sand, Soil	72.5	No	Beach with boulders and rocks scattered, some bedrock expose in areas.
23	500 - Water	4.3	No	