

Compartment Review Presentation

Sault Ste. Marie Forest Management Unit

Compartment 45203
Entry Year 2017
Acreage: 3,054
County Mackinac

Management Area: Lake Michigan Shoreline

Revision Date: 2015-08-07

Stand Examiner: Steve Touvila

Legal Description:

T42N-R11W, Sections 23 -26, 35 and 36 and T42N-R10W Section 19

Identified Planning Goals:

Southeastern portion of Simmons Woods acquisition. This area was purchased in 1996 and had been actively managed prior to that date. This acquisition provides a contiguous link of state land between Big Knob and Point Patterson. Most of the compartment is within designated Special Conservation and Ecological Reference Areas. Stand Site Conditions exist on almost the entire compartment, limiting potential management.

Soil and topography:

Area ranges from low swamps to beach ridges and some northern hardwood stands. Soil types include Leafriver-Croswell-Wainola complex, Springlake loamy coarse sand, Eastport-Leafriver complex, Guardlake fine sandy loam, Markey and Carbondale mucks, Spot-Finch complex, Eastport sand, and Croswell sand.

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

Mostly state land, including two other Simmons Woods compartments. Duel Lake is a meandered lake and there is some private land adjacent to the northwest corner of this compartment.

Unique Natural Features:

Provides contiguous link of state land between Big Knob and Point Patterson; includes a wooded dune and swale complex. Plants associated with Lake Michigan dune complex are found along the lakeshore. There is potential for numerous raptor species to use the mature hardwood and/or pine stands.

Archeological, Historical, and Cultural Features:

Old camps located within boundaries. Sawmill was once operated on the shore of Duel Lake. Old fire tower was once located off of Tower Trail. The caretakers' house, Bethlehem House, and pole barn were removed approximately five years ago.

Special Management Designations or Considerations:

This compartment lies within the Simmons Woods area. Most of the compartment is within designated Special Conservation and Ecological Reference Areas. Stand Site Conditions exist on almost the entire compartment, limiting potential management.

Watershed and Fisheries Considerations:

Fisheries Values

Good. Duel Lake suffers from lack of pike spawning habitat. Browns Lake suffers from inability of pike to get away from anglers. And the isthmus between them is a gravel bar no wider than 150 feet. For fisheries values alone, it would be beneficial to excavate an open-water channel between the two lakes. Such excavation may never occur, and it may not even be desirable within the Simmons Woods management scheme. But the resulting two fisheries communities would become better balanced and more stable.

Wildlife Habitat Considerations:

Compartment 203 is in the Simmons Woods area, which is part of the Lake Michigan Shoreline Management Area (MA). Featured species in the MA include piping plover and white-tailed deer. Habitats in this compartment range from wooded dune and swale complex (part of an ecological reference area) to northern hardwoods. Duel Lake is located along the west side of the compartment. The majority of this compartment is part of the Simmons Woods dedicated management area, and will be left to allow natural processes to take place. Most of this area is also deer wintering complex where the conifer cover is important to wintering deer. In addition, shoreline habitat will be protected to provide habitat for endemic plants and shore birds, including the Federally Endangered piping plover.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine sand and gravel, thin in places. There is insufficient data to determine the glacial

drift thickness. The Silurian Engadine Group subcrops below the glacial drift. The Engadine is quarried for stone/limestone elsewhere in the UP. The Inland (Pfizer?) Quarry (Burnt Bluff Group) is located nine miles to the northwest. There are some old, inactive gravel pits in the area. The nearest active pits are located to the north near Gould City. Sand and gravel potential in the compartment may be limited due to the thin glacial sediments. There is no economic oil and gas production in the UP.

Vehicle Access:

Access into this compartment is via Simmons Woods Road. The county road ends before entering state land. The other roads within the compartment are now considered DNR roads. Simmons Trail is part of a larger loop road that continues into the adjacent compartment. Other roads include Bovee Road and Amadon Trail, accessing the compartment to the north; Fox Point Road, which dead-ends at Fox Point; Watson Trail, runs between Simmons Trail and Mitigwaking Trail; and Tower Trail, which heads towards Crow River. These roads vary from good to poor condition, but usually remain passable.

Survey Needs:

Since this is a new acquisition, no department corners exist.

Recreational Facilities and Opportunities:

Primarily hunting, fishing, camping and nature viewing. Nice camping spots located on Duel Lake, as well as by the Lake Michigan shoreline at Fox Point and Steak Fry.

Fire Protection:

Low fire danger area, but lightning strikes have been found in the area. The problem of ground fire exists in the area making mop-up efforts more difficult.

Additional Compartment Information:

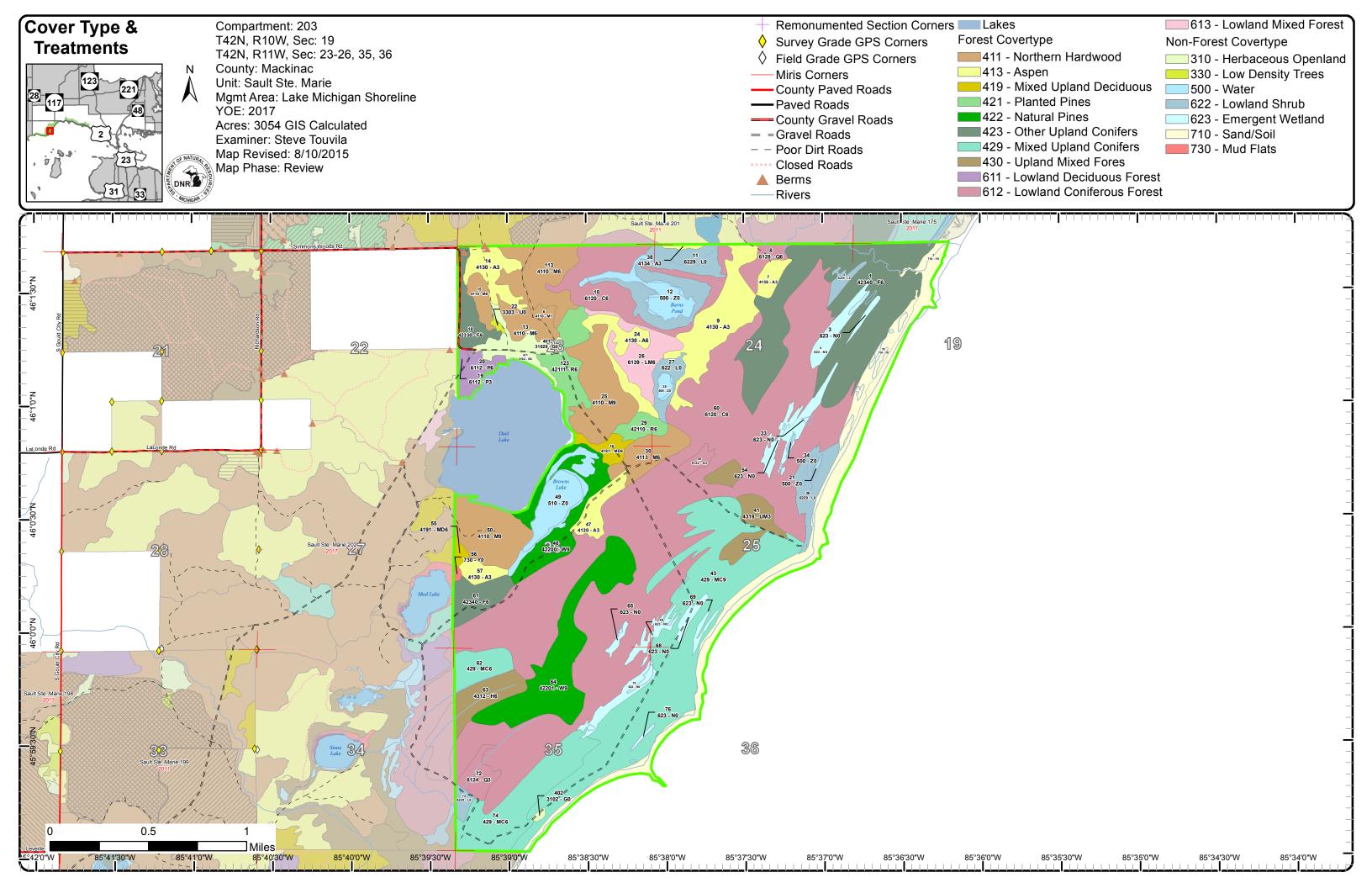
A Forest Treatment Proposal (FTP) has been approved to treat invasive phragmites along the Lake Michigan shoreline. Treatments as per work instructions and FTP may occur along the shoreline as necessary to eliminate the colonizing invasive phragmites.

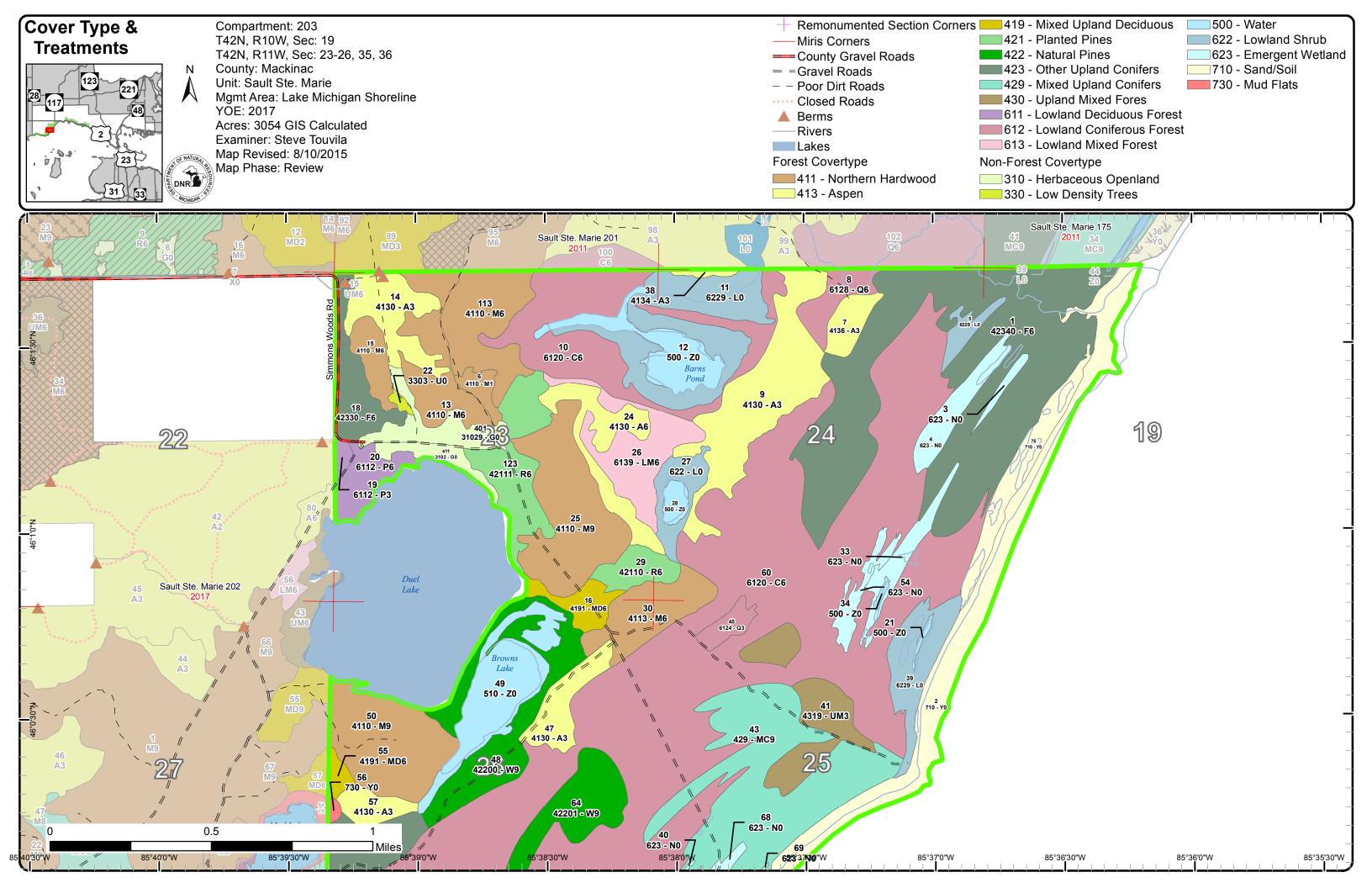
The following reports from the Inventory are attached:

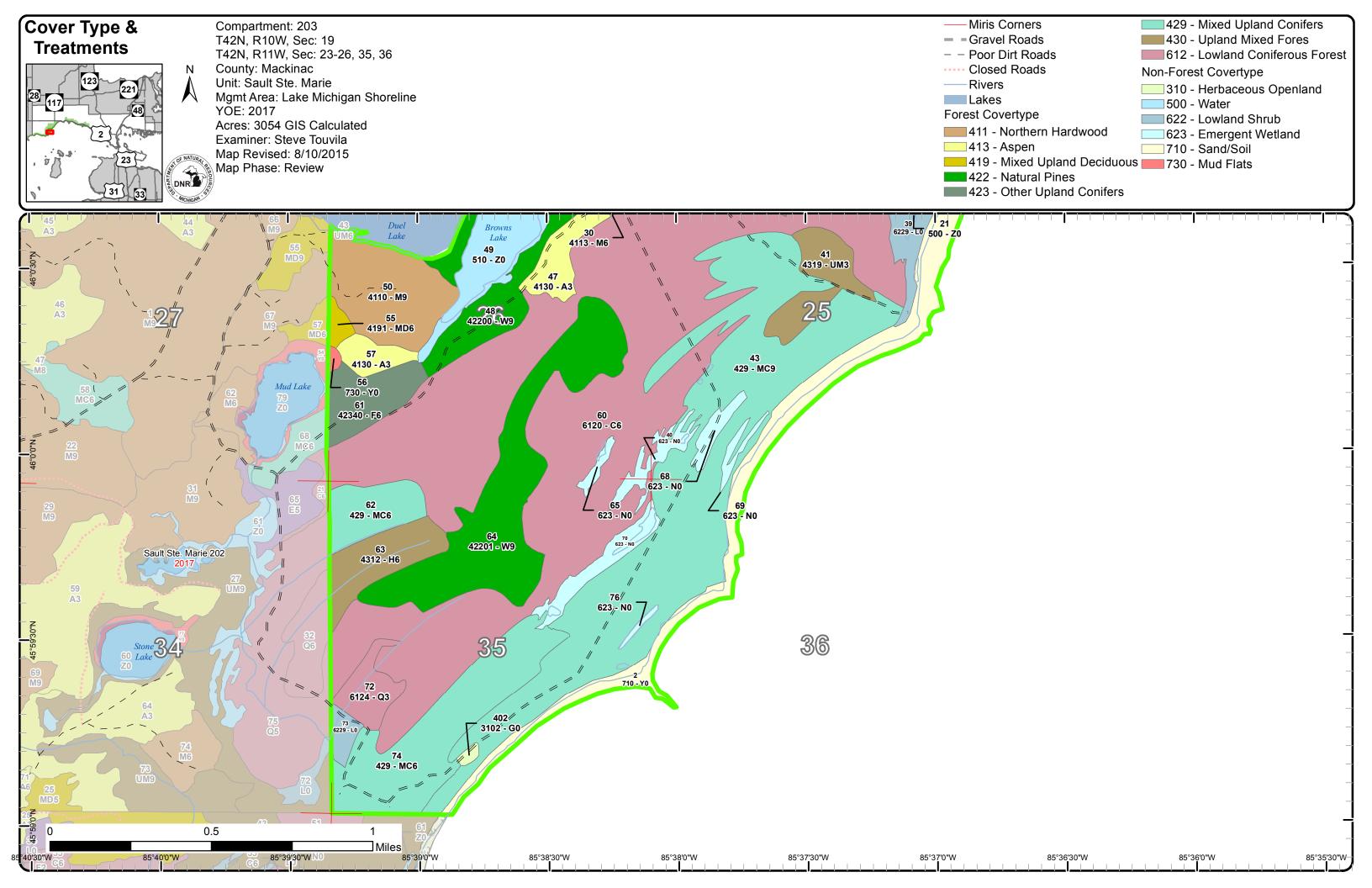
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

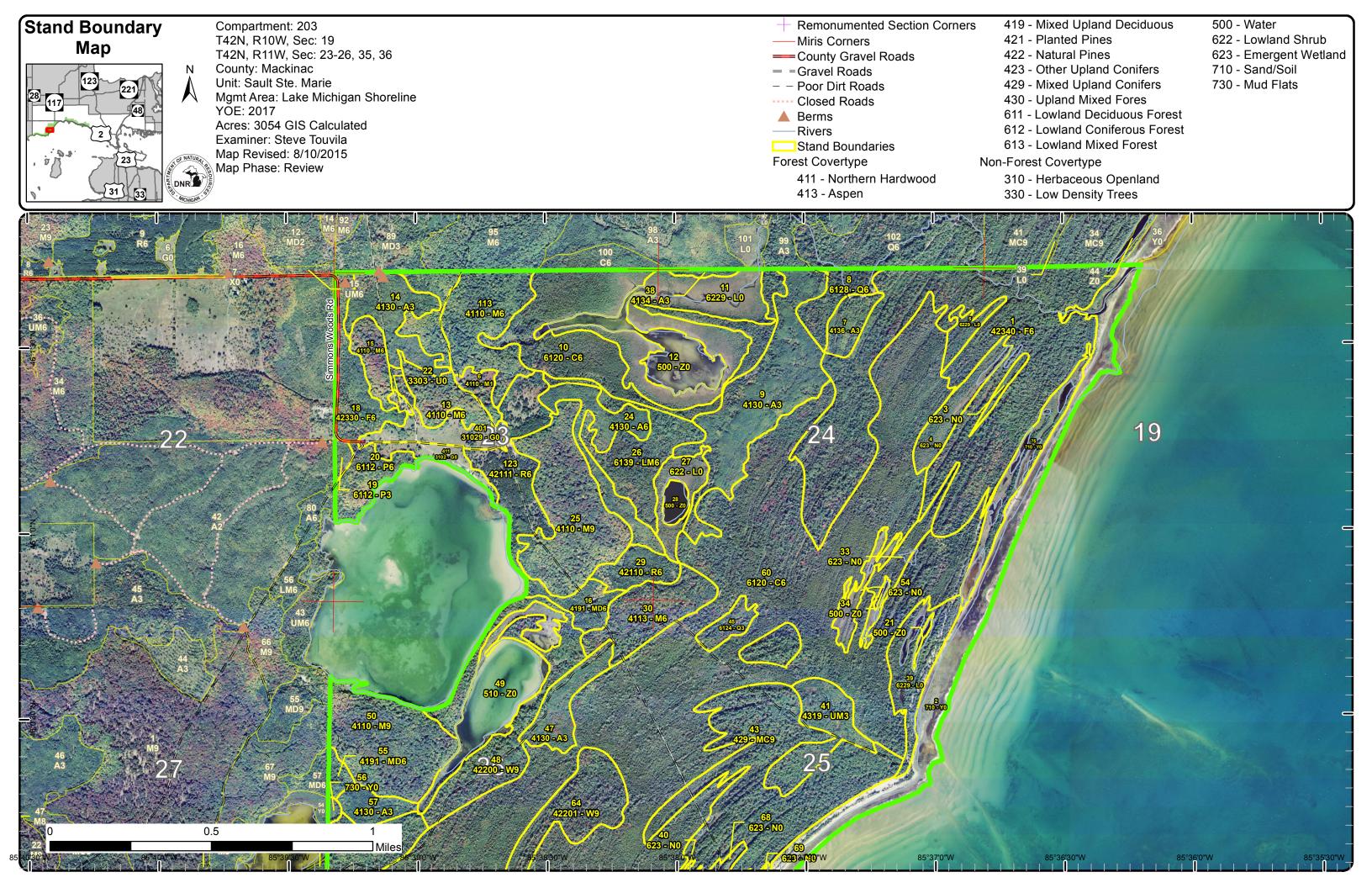
The following information is displayed, where pertinent, on the attached compartment maps:

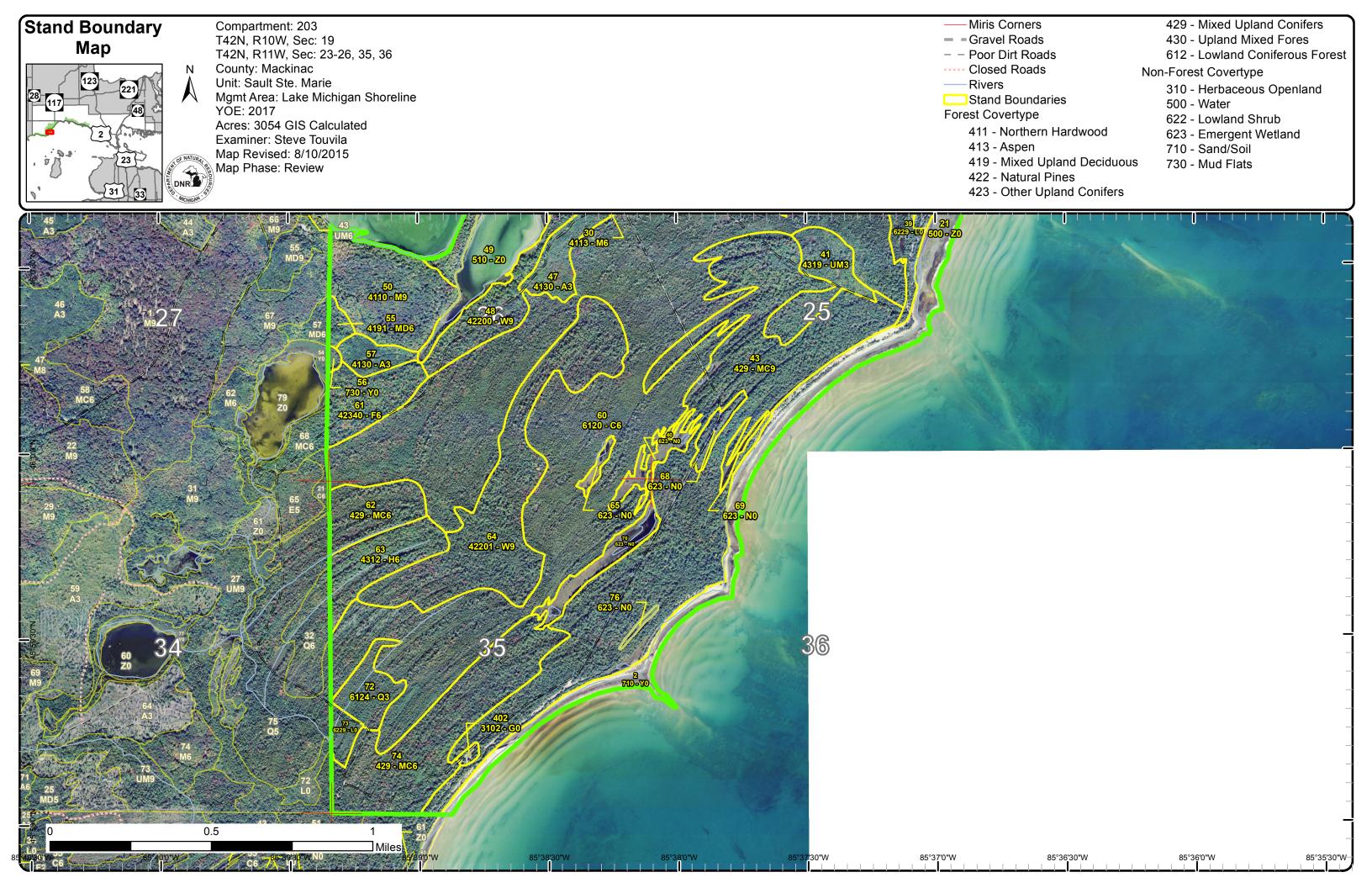
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

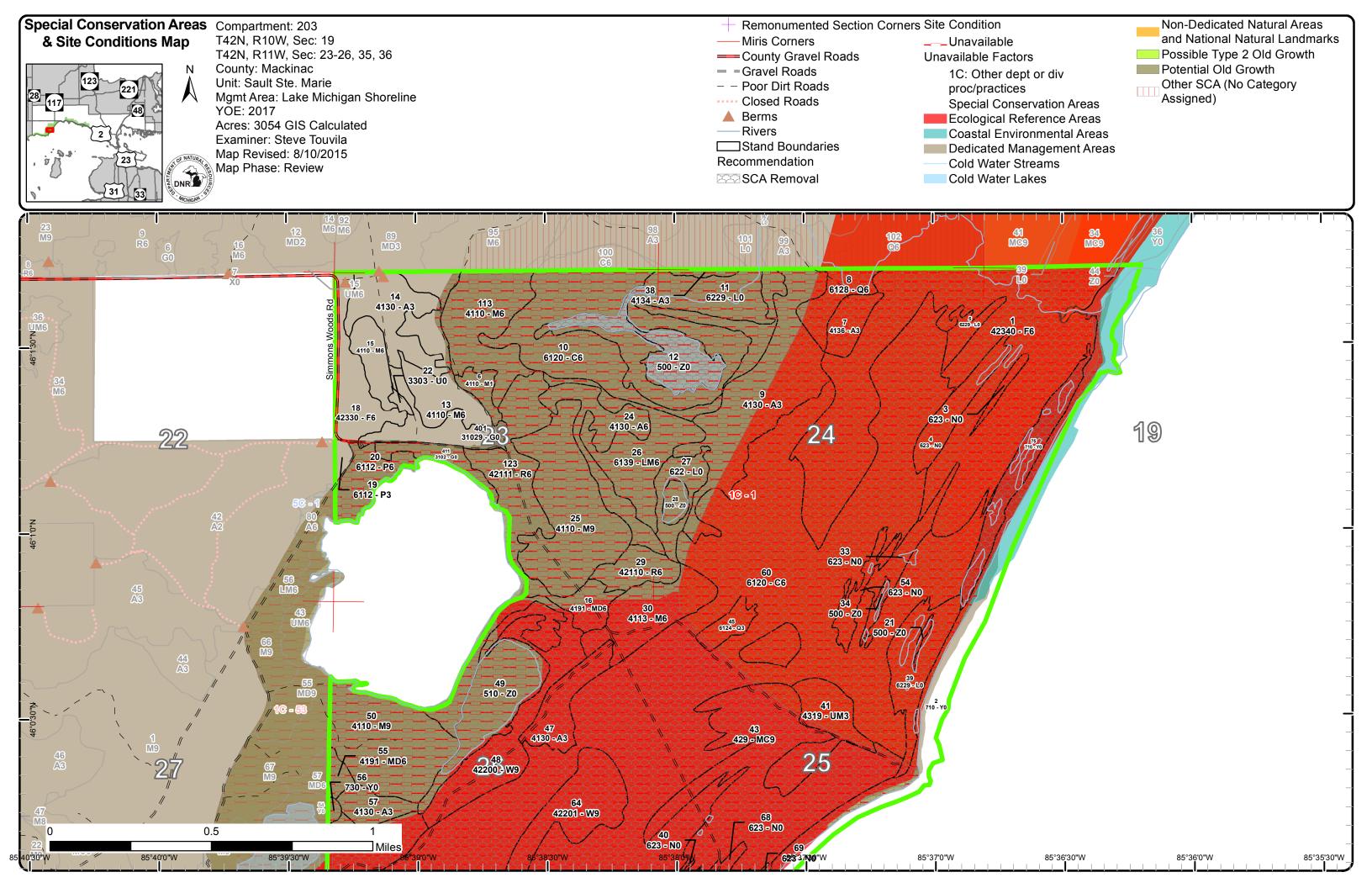


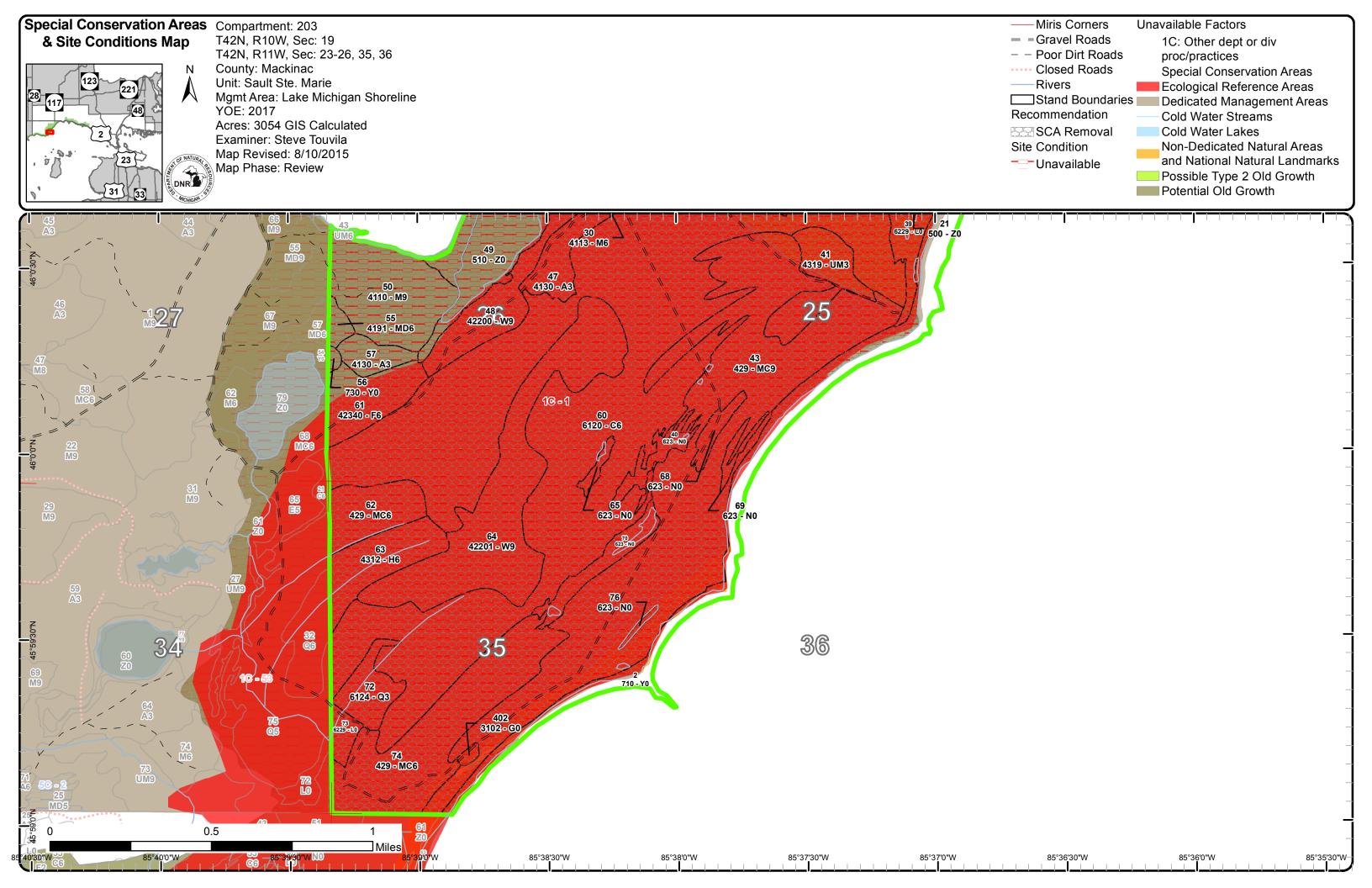












Compartment 203 Year of Entry 2017

Sault Ste. Marie Mgt. Unit

Steve Touvila : Examiner



Age Class

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Aspen	0	0	0	31	68	93	0	0	0	0	0	0	0	0	0	0	0	0	192
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	813	0	88	901
Hemlock	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	34
Herbaceous Openland	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Aspen/Balsam Poplar	0	0	0	0	3	0	20	0	0	0	0	0	0	0	0	0	0	0	23
Lowland Conifers	0	0	0	0	28	0	0	0	16	0	0	0	0	0	0	0	0	0	44
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	41
Lowland Shrub	131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	131
Marsh	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19
Northern Hardwood	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	270	277
Red Pine	0	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	59
Sand, Soil	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	95	323	0	0	0	0	0	418
Upland Mixed Forest	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	41
Upland Spruce/Fir	0	0	0	0	31	0	29	0	0	0	236	0	0	0	0	0	0	0	296
Water	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183	183
Total	523	0	0	31	178	93	108	0	16	0	270	95	323	0	0	813	0	601	3051



Report 2 – Treatment Summary

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Acres of Harvest

Compartment 203
Total Compartment Acres: 3,054

Commercial Harvest - 0 Harvests with Site Condition - 0

narvests with Site Condition - o

Next Step Harvest - 0

Habitat Cut - 0

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

Report 4 -- Treatments

#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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Dominant Site Conditions

1C

Aspen	161
Cedar	901
Hemlock	34
Herbaceous Openland	16
Low-Density Trees	
Lowland Aspen/Balsam Poplar	20
Lowland Conifers	45
Lowland Mixed Forest	41
Lowland Shrub	131
Marsh	93
Mixed Upland Deciduous	19
Northern Hardwood	230
Red Pine	59
Sand, Soil	72
Upland Conifers	418
Upland Mixed Forest	41
Upland Spruce/Fir	266
Water	91
White Pine	183
Total Forested Acres	2,822
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.

Site Dominant Site No. Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1 Unavailable	vailable 1C: Other dept or div 2,822 Unspecif proc/practices		Unspecified	Unspecified	Unspecified	Unspecified
Comments:						

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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
Big Knob Campground Comments Does not meet type 2 old gro	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	SCA Removal	795
Unspecified Comments Does not meet POG criteria	Potential Old Growth		SCA Removal	2820

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* 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	ion 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 stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	cies to persist from year to year. Suitable ey are relatively deep, have substantial fithe state. Such lakes are established by				
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen condistocked trout populations and those of other coldwater fish spective year 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.	cies (e.g., slimy sculpin) to persist from ese conditions due to substantial				
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been noming proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resonant Protection Act, 1994 PA 451. The program is administered by the DNR. Nominated require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program of proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness Areas is accomplished through legislative action.					
HCVA	Coastal Environmental Areas	The public designation process is defined by Part 323, Shorelands Protection and Management, of Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by Michigan Department of Environmental Quality (DEQ). This is an inactive program with no new area currently under consideration by the DEQ.					
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific manarules, as governed by Part 5, Department of Natural Resources 324.504). Section 38 of the Administrative Procedures Act (MCI the promulgation of rules. This is an active program, with one pr DNR.	of the NREPA (MCL 324.502(2) and 24.238) provides for public requests for				
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. No require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program of proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness Areas is accomplished through legislative action.					
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Nature context of their natural community classification system. Elemer (Excellent) or B (Good) and a Global (G) or State (S) element (rethreatened (2), or rare (3) serve as an initial base of ERAs. The the State. The system is comprised of individual or associations managed for restoration and maintenance of natural ecological submit recommendations for lands as ERAs using the DNR Core	al Features Inventory (MNFI) within the not Occurrences with viability ranks of A arity) ranking of endangered (1), y may be located upon any ownership in of natural community types that are processes and values. The public may				

S t	Sault Ste. Marie Mgt. Unit			Report 8	Forested	Stands Compartment: 203 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42340 - Upland Spruce/Fir	Poletimber Well	235.7	90	81-110	Good mix of white spruce and aspen with ridge/swale.
6	4110 - Sugar Maple Association	Sapling Poor	7.3	38	1-50	Old growth area. Opening with bushy cherry.
7	4136 - Aspen, Mixed Conifer	Sapling Well	12.7	45	1-50	Old growth area.
8	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	16.4	79	51-80	Stand is complete mix, with ridge/swale.
9	4130 - Aspen	Sapling Well	79.9	45	1-50	Mix of quaking and bigtooth aspen with some balsam fir.
10	6120 - Lowland Cedar	Poletimber Well	88.3	113	81-110	Cedar stand with open wetland in areas.
13	4110 - Sugar Maple Association	Poletimber Well	36.5	65	81-110	Beech is dying out but low stocked. Stand is not in old growth area and may be ready for a thinning in ten years.
14	4130 - Aspen	Sapling Well	31.5	21	Immature	Stand year of origin is 1994. This stand is not in the old growth area.
15	4110 - Sugar Maple Association	Poletimber Well	14.2	80	81-110	Not in old growth area. Not enough beech to cut.
16	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	14.2	85	51-80	A couple red oak found in the stand.
18	42330 - Upland Fir	Poletimber Well	29.1	50	51-80	Mix of species. Look to harvest all or partial in next inventory cycle.
19	6112 - Lowland Aspen	Sapling Well	3.3	36	1-50	Stand year of origin 1979. Slow growth low area.
20	6112 - Lowland Aspen	Poletimber Well	19.6	55	51-80	Good looking mix.
24	4130 - Aspen	Poletimber Well	31.2	35	51-80	Young aspen stand with some mix.
25	4110 - Sugar Maple Association	Sawtimber Well	73.6	82	111-140	Some large beech in the stand, beech is dying.
26	6139 - Mixed Lowland Forest	Poletimber Well	41.3	70	81-110	Good mix of species.
29	42110 - Planted Red Pine	Poletimber Well	15.6	51	51-80	Red pine is being outgrown by taller white pine, balsam fir, white spruce and aspen.
30	4113 - R.Maple, Conifer	Poletimber Well	36.1	88	81-110	The paper birch is dying off.

S t	Sault Ste. Marie Mgt. Unit			Report 8	- Forested	Stands Compartment: 203 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	4134 - Aspen, Spruce/Fir	Sapling Well	3.0	33	Immature	Old growth area.
41	4319 - Mixed Upland Forest	Sapling Well	40.7	33	Unspecified	Aspen clear cut done about thirty years ago, prior to state ownership.
43	429 - Mixed Upland Conifers	Sawtimber Well	293.7	110	111-140	Ridge and swale stand along Lake Michigan. Stand is quite variable. This stand has more upland area than the cedar to the north.
45	6124 - Lowland Spruce- Fir	Sapling Well	8.8	33	Unspecified	Small diameter swamp conifer.
47	4130 - Aspen	Sapling Well	21.8	34	Unspecified	Mix of quaking and bigtooth aspen.
48	42200 - Natural White Pine	Sawtimber Well	59.7	150	51-80	A couple red oak found in the stand.
50	4110 - Sugar Maple Association	Sawtimber Well	63.0	82	81-110	Beech is dying off.
55	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	5.1	85	51-80	Paper birch is mature and starting to die off.
57	4130 - Aspen	Sapling Well	12.5	30	1-50	Mix of quaking and bigtooth aspen.
60	6120 - Lowland Cedar	Poletimber Well	813.2	145	141-170	Ridge and swale cedar type. This stand is quite variable. There doesn't appear to be a lot of deer use.
61	42340 - Upland Spruce/Fir	Poletimber Well	31.4	33	51-80	Good mix.
62	429 - Mixed Upland Conifers	Poletimber Well	29.7	114	81-110	Ridge and swale. Pole size.
63	4312 - Hemlock, Mixed Deciduous	Poletimber Well	34.4	95	141-170	Ridge and swale hemlock.
64	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	123.4	150	81-110	Ridge and swale.
72	6124 - Lowland Spruce- Fir	Sapling Well	19.4	33	1-50	Super thick saplings.
74	429 - Mixed Upland Conifers	Poletimber Well	95.5	100	81-110	Ridge and swale stand. Smaller diameters than the stand to the east.
113	4110 - Sugar Maple Association	Poletimber Well	46.6	70	81-110	Beech is small component of stand and dying off.

S t	Sault Ste. Marie	Mgt. Unit		Report 8	Forested Sta	Compartment: 203 Year of Entry: 2017	DNR
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN
123	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	43.1	51	141-170	Red pine basal area is up to 170 in the thickes	t areas.

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Stand	Cover Type	Acres	Managed Site	General Comments:
2	710 - Sand, Soil	140.3	No	
3	623 - Emergent Wetland	3.6	No	
4	623 - Emergent Wetland	18.9	No	
5	6229 - Mixed lowland shrub	8.1	No	
11	6229 - Mixed lowland shrub	68.1	No	
12	500 - Water	30.6	No	BURNS POND.
21	500 - Water	1.3	No	
22	3303 - Mixed Low Density Trees	1.7	No	Gravel pit. Mix of red pine, balsam fire, and sugar maple.
27	622 - Lowland Shrub	15.3	No	Tamarack has mostly died off.
28	500 - Water	5.8	No	TURTLE LAKE.
33	623 - Emergent Wetland	14.5	No	
34	500 - Water	1.1	No	
39	6229 - Mixed lowland shrub	31.6	No	
40	623 - Emergent Wetland	11.1	No	
49	510- Water (OI)	52.3	No	OPIC - FMD: BROWNS LAKE. PROPOSED OLD GROWTH.
54	623 - Emergent Wetland	11.2	No	
56	730 - Mud Flats	1.7	No	
65	623 - Emergent Wetland	3.5	No	

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Stand	Cover Type	Acres	Managed Site	General Comments:
68	623 - Emergent Wetland	7.3	No	
69	623 - Emergent Wetland	4.4	No	
70	623 - Emergent Wetland	17.0	No	
73	6229 - Mixed lowland shrub	7.5	No	
75	710 - Sand, Soil	28.1	No	
76	623 - Emergent Wetland	1.5	No	
401	31029 - Grass (OI)	22.6	No	OPIC - FMD: INCLUDES BETHLEHEM HOUSE
402	3102 - Grass	1.8	No	
411	3102 - Grass	11.4	No	DISPERSED AREA ALONG NORTH SHORE OF DUEL LAKE.