



SAULT FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 199 ENTRY YEAR: 2011

Compartment Acreage: 2,261 County: Mackinac

Revision Date: August 11, 2009

Stand Examiner: Amy Douglass

Legal Description: T41N-R11W Sections 2, 3, 4, 9, 10 & 11; and T42N-R11W Section 33; Newton Township

RMU (if applicable):

Management Goals: This compartment is located at the end of S. Gould City Road and follows the Lake Michigan shoreline to the east. It is within the proposed Lake Michigan Shoreline Management Area. Plans for this Management Area are currently being written. A proposed old growth corridor following the Lake Michigan shoreline links areas to the east and west. No active management is being considered in this corridor except for the possibility of exotic plant eradication efforts and curtailing illegal ORV problems. Hardwood and aspen stands north of this corridor have been actively managed to promote health and growth. The beech in the area is showing evidence of beech scale and possibly beech bark disease. Some healthy trees appear here and will be looked at more closely. Maintaining the beech component within the hardwood stands is desirable.

Soil and Topography: Most of the proposed old growth corridor is rolling dune/swale complex consisting primarily of Leafriver-Croswell-Wainola complex. Other associated soils are Esau-Zela complex, Alpena gravelly loam, Markey and Carbondale mucks, and Eastport sand. The rest of the compartment is generally upland areas ranging from level terrain, to rocky outcrops, to rolling sandy ridges. Kalkaska sand, Amadon-Longrie sandy loam, and Springlake loamy coarse sand dominate this area, with minor components of Longrie-Battydoe, stony, complex; Eastport-Leafriver complex; Amadon-Rock outcrop complex; Paquin sand; Spot-Finch complex; Pickford silty clay loam; and Alcona fine sandy loam.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State land and LaPine farm adjoin the far north border. A mix of state land and private land are adjacent immediately to the west. State land presides to the east (part of the Simmons Woods purchase). Lake Michigan is the southern boundary of this compartment. A township park has been used for many years at the end of S. Gould City Road.

Unique, Natural Features: Large boulders and rocky fissures are located within compartment. Walking fern has been found on some of the boulders. Two former Champion Trees are located in Section 33. The former Champion yellow birch was found on the ground in 2006. The former Champion showy mountain ash lost its status due to the lack of a recorded location. It is still present. MNFI has identified several threatened and endangered plant species along the lakeshore. Other lakeshore dependent T&E species may be located here too. Bald eagles and red-shouldered hawks have found the area to their liking.

Archeological, Historical, and Cultural Features: Old foundation found by Cozy Point.

Special Management Designations or Considerations: Special Conservation Areas (SCA's) include a deer wintering complex covering a majority of the compartment, a proposed old growth corridor linking lakeshore corridors to the east and west, and a non-dedicated Natural Area (Seiner's Point) following the shoreline and which continues to the east and west. A wooded dune and swale complex Ecological Reference Area (ERA) is found in the northern portion of Sections 2 and 3, and extends to the north and east. Known occurrences of walking fern and hawk nests will be protected appropriately within treatment areas.

Watershed and Fisheries Considerations: This compartment contains Point Patterson Creek, Newton's Creek, and a small reach of the Cataract River. All three streams are cold-water and support brook trout. White sucker, central mudminnow, mottled sculpin, longnose dace, brook stickleback, slimy sculpin round out the fish the fish community. These streams are also important in that they support natural reproduction of Lake Michigan adfluvial fishes such as steelhead. Implementation of BMP's will aid in preventing sediment input from road crossings and upland areas are critically important to protect spawning areas for stream-resident fishes. Information in the files indicates that Batty Doe Lake has supported northern pike and yellow perch in the past. No active fisheries management is being implemented at this time.

Wildlife Habitat Considerations: This compartment is located along the Lake Michigan shoreline approximately 7 miles south of Gould City. Wooded dune-and-swale complex dominates the southern part of the compartment, while northern hardwoods cover the majority of the northern half. According to GLO survey notes, the land cover was similar to that of the current conditions. Rocks and boulders are prevalent in areas. Recent management in hardwoods has promoted age class diversity while preserving mature forest growth in areas. However, there is little conifer component within the hardwoods. The habitat supports walking fern and red-shouldered hawk, both of which are state threatened species. Point Patterson Creek, the Catarac River, and associated drainages are also present, serving as travel corridors.

Wildlife objectives include maintaining closed canopy hardwood habitat suitable for red-shouldered and other hawks (particularly around nesting sites), protecting sites where walking fern are identified, maintaining a conifer component and general stand diversity within hardwoods, and preserving the wooded dune-and-swale complex and shoreline habitat by allowing natural processes to continue. Retention of hard and soft mast producing trees, trees with suitable raptor nest potential, snags, den trees, and coarse woody debris is important. The streams and drainages mentioned above, as well as any wetlands or vernal ponds, will be buffered to protect these features. Red-shouldered hawk nests, active or inactive, will have a no-cut buffer of at least 5 chains surrounding them. Other raptor nests should also be buffered. Wildlife species benefiting from such management include waterfowl and migratory songbirds, black bear, white-tailed deer, and red-shouldered hawks.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel. 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 elsewhere in the UP. Gravel pits are located just to the west and potential is good on the uplands. There is no current economic oil and gas production in the UP.

Vehicle Access: S. Gould City Road (county road) runs along western edge of compartment. Access to the north half is via two-tracks. There is no vehicle access in the proposed old growth area east of the Newton Township Park. However, there is still illegal ORV activity along the old lakeshore road and beach.

Survey Needs: None needed.

Recreational Facilities and Opportunities: Currently working with Newton Township to assume a long-term lease of Newton Township Park, a day use area, at the end of S. Gould City Road. This area was acquired in 1987 from the Nature Conservancy. Hunting activity occurs within the compartment, including

deer, bear, small game, duck and goose hunting. A walk along the beach can be nice here without seeing anyone for miles.

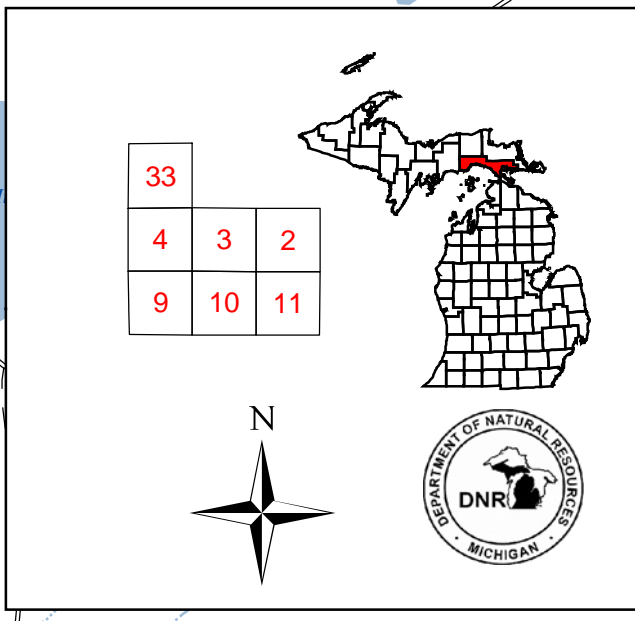
Fire Protection: Due to the isolated nature of the shoreline, there is little potential for human caused fires. The Newton Township Park harbors limited potential for wildfires due to the human influences. Lightning strikes probably have occurred within the compartment, but have burned themselves out before being detected. The interspersing of the lowland swales probably help deters any small fires from becoming larger ones. Access to any wildfires would be difficult over the southern part of the compartment, and a plan should be made to consider minimal impact suppression tactics if needed. The northern section of the compartment is generally northern hardwoods and has limited potential for fires. However, the private land to the north burn their fields in the spring. This could lead to a small slop-over onto state land.

Additional Compartment Information: In an effort to curb the illegal ORV activity on the beach, the boulders currently in place at the end of S. Gould City Road may be moved. Removal of invasive plants including spotted knapweed and phragmites may be desirable along the lakeshore.

- **Cover Type details, Proposed Treatments, and Stand listings are listed in the attached reports:**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Listing – Forested**
 - ◆ **Stand Listing – Non Forested**
 - ◆ **Special Conservation Area (SCA) Details**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **SCA – Special Conservation Areas**

Cover Type & Treatment Map



Stand #
23
(412)0 - A7
Level 3 CI
Level 4 Code
Cover Type Code

Legend

- Miris Corners
- RLS Corners
- Berns
- County Paved Road
- County Gravel Road
- Gravel Road
- Poor Dirt Road
- Closed Road
- Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments

- Thinning (Crown, Low, Systematic)
- Pesticide

Forest Stands

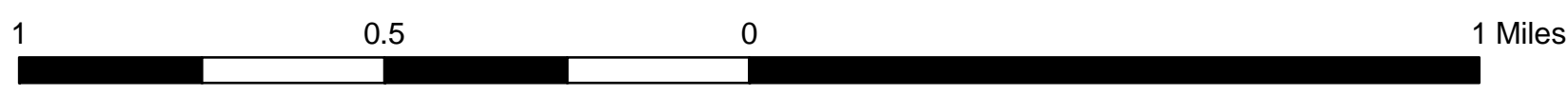
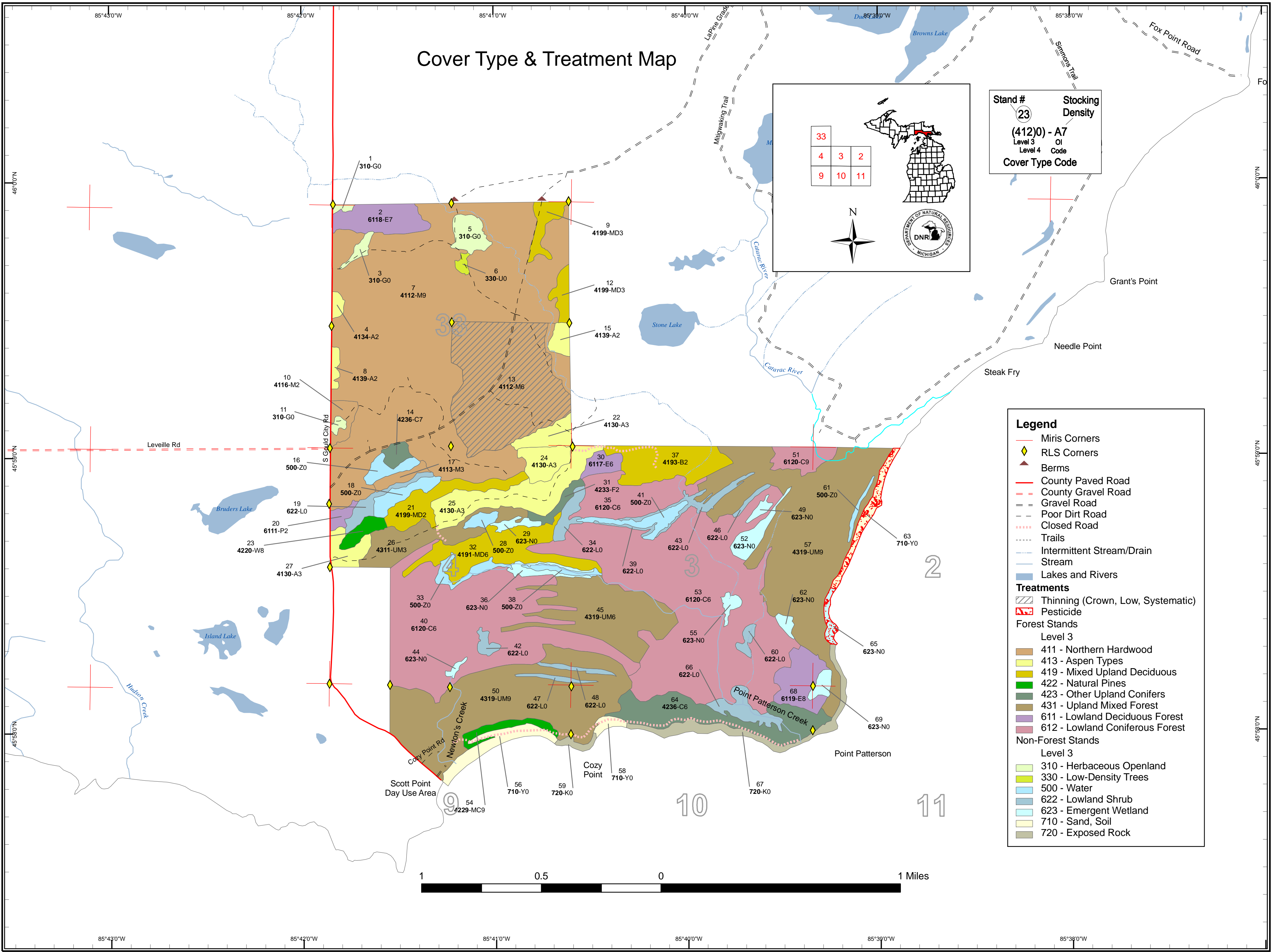
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

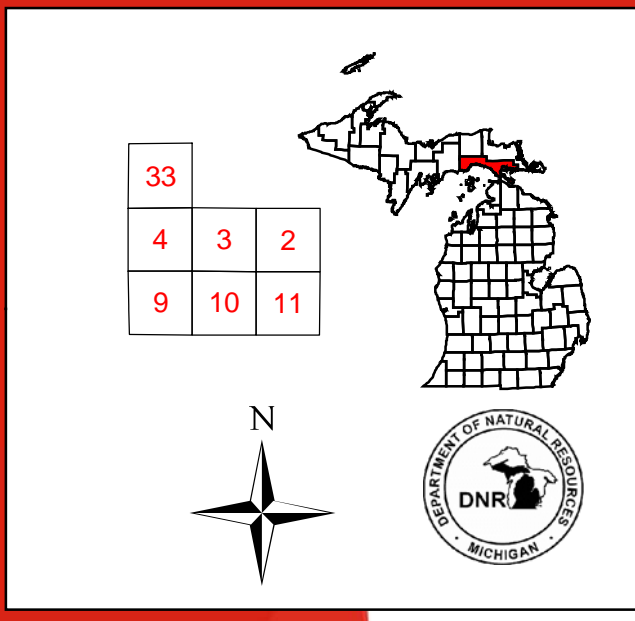
Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil
- 720 - Exposed Rock



Dedicated & Proposed Special Conservation Area Map

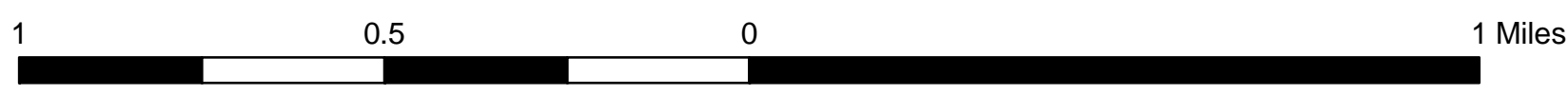
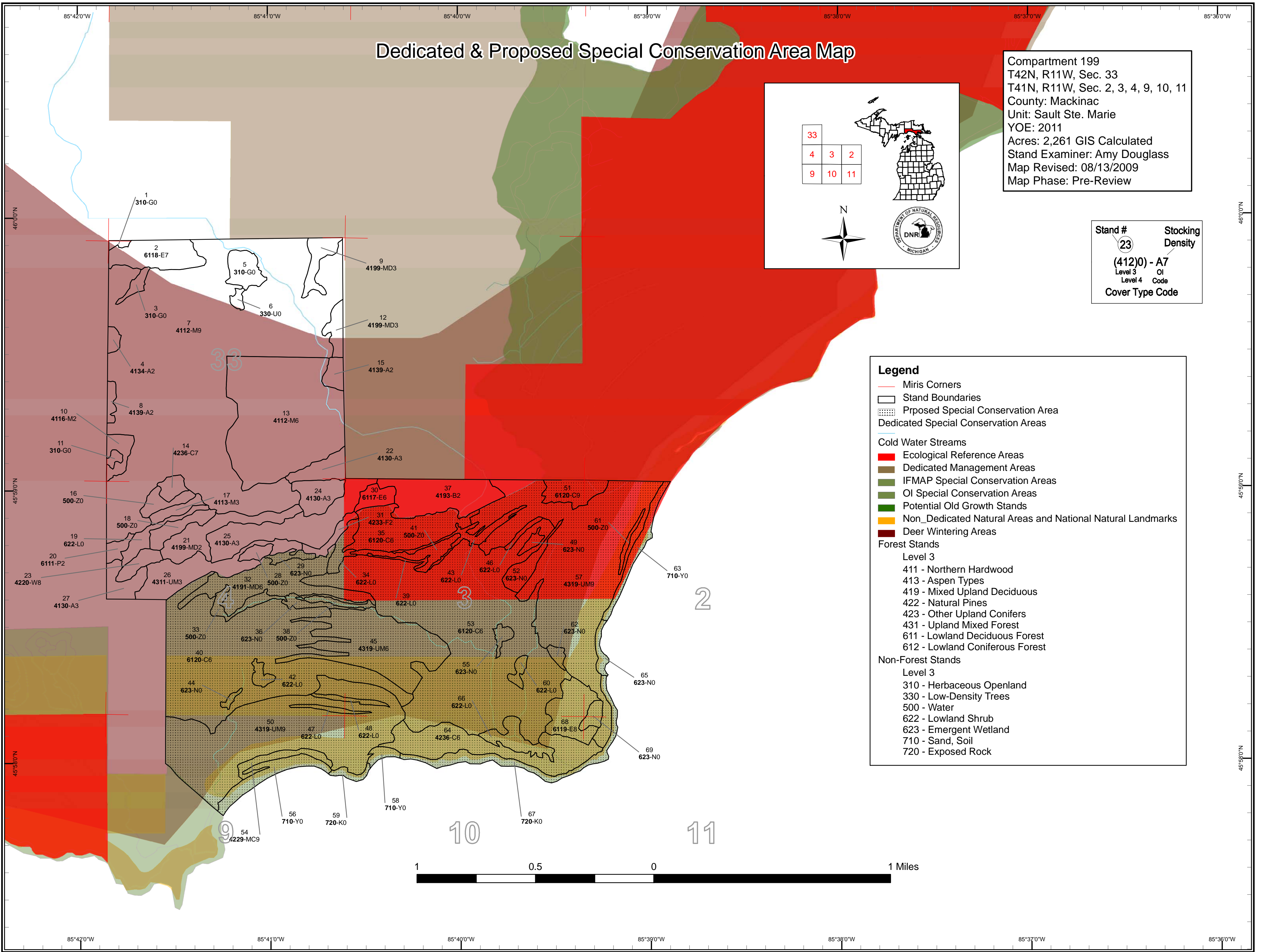
Compartment 199
 T42N, R11W, Sec. 33
 T41N, R11W, Sec. 2, 3, 4, 9, 10, 11
 County: Mackinac
 Unit: Sault Ste. Marie
 YOE: 2011
 Acres: 2,261 GIS Calculated
 Stand Examiner: Amy Douglass
 Map Revised: 08/13/2009
 Map Phase: Pre-Review



Stand # **23**
 Stacking Density
(4120) - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Legend

- Miris Corners
- Stand Boundaries
- ▨ Proposed Special Conservation Area
- Dedicated Special Conservation Areas
- Cold Water Streams
- Ecological Reference Areas
- Dedicated Management Areas
- IFMAP Special Conservation Areas
- OI Special Conservation Areas
- Potential Old Growth Stands
- Non-Dedicated Natural Areas and National Natural Landmarks
- Deer Wintering Areas
- Forest Stands
 - Level 3
 - 411 - Northern Hardwood
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Sault Ste. Marie Mgt. Unit

Covertypes, Acres, and Age summary
(Level 3 Cover Type)

Compartment 199 Year of Entry 2011

Report Date: 08/13/2009



	Age Class															Total
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	
Aspen Types	0	26	27	48	0	0	0	0	0	0	0	0	0	0	0	100
Emergent Wetland	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
Exposed Rock	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Herbaceous Openland	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Coniferous Forest	0	0	0	0	0	0	0	0	0	194	0	344	0	0	0	538
Lowland Deciduous Forest	0	5	0	0	0	0	0	0	8	0	27	0	0	25	0	65
Lowland Shrub	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Mixed Upland Deciduous	0	68	19	0	0	0	0	0	50	0	0	0	0	0	0	136
Natural Pines	0	0	0	0	0	0	0	9	8	0	0	0	0	0	0	17
Northern Hardwood	0	9	0	6	0	0	0	0	143	0	0	464	0	0	0	622
Other Upland Conifers	0	0	0	6	0	0	0	0	0	0	54	6	0	0	0	66
Sand, Soil	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Upland Mixed Forest	0	0	0	36	0	0	0	0	0	0	372	78	0	0	0	485
Water	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Total	231	106	46	97	0	0	0	9	208	194	452	891	0	25	0	2261

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



S
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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
13 45199013-Cut	135.2	4112 - Maple, Beech, Cherry Association	High Density Pole	76	Harvest	Crown Thinning	Maple, Beech, Cherry Association

Rev
Cmnt: Look at harvest timing due to fissures/boulders and low areas. Also in a deer wintering area. But may need to adjust harvest timing.

Rev
Spec: Thin pole stand to approximately 80 BA. Maintain species diversity. Target beech that are exhibiting BBD signs, but leave beech component within the stand. Maintain conifer component (i.e. do not cut conifers). Be on the lookout for walking fern on the boulders; maintain canopy closure around those found. Also look out for red-shouldered hawk nests. Adjust harvest as needed to protect nest sites. Stay away from the intermittent stream.

WLD: Promote stand diversity by leaving 3-5 beech per acre where present, leaving some large wolfy trees, and leaving all conifers. Maintain a 5 chain minimum no-cut buffer around any red-shouldered hawk nests, active or inactive, in this and the adjacent stand (stand 7), and leave 75% or greater canopy closure in a 5 chain buffer beyond the initial no-cut buffer. Also, buffer around any area with walking fern. Conduct a T/E species survey prior to any management activities. Winter cut; no cutting after March 1 (March 1 - August 31).

Next
Steps: N/A.

63 NF_45199063-Spray	11.9	Unspecified		0	Pesticide	Hand Sprayer	Multiple/Other – Specify in Comments
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Rev
Cmnt: Possible phragmites patches along beach.

Rev
Spec: Spray invasive species of phragmites found along beach. Choose appropriate herbicide based on site, work instructions and manufacturer recommendations.

Next
Steps: Check for success of herbicide. Follow up with herbicide or other methods deemed necessary if needed.

65 NF_45199065-Spray	4.4	Unspecified		0	Pesticide	Hand Sprayer	Multiple/Other – Specify in Comments
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Rev
Cmnt: Possible phragmites patches along beach.

Rev
Spec: Spray invasive species of phragmites found along beach. Choose appropriate herbicide based on site, work instructions and manufacturer recommendations.

Next
Steps: Check for success of herbicide. Follow up with herbicide or other methods deemed necessary if needed.

**Total Treatment
Acreage Proposed: 151.5**

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**



S
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Treatment Name	Acres	Stage1 Cover Type	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Page 1 of 1
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Limiting Factor
and Comment:

Rev
Cmnt:

Rev
Spec:

Next
Steps:

No Treatment
Reason

**Total Treatment
Acreage Proposed: 0**



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.

Inventory Method: IFMAP

Stand	SCA Name	Acres	Comments
multiple - see map	C_199_SCA	1295.3	Was originally coded as POG, stand condition 8 during Simmons Woods committee meetings. It links up the POG lakeshore corridor (and natural area) to the east, and C-200 (POG and natural area) to the west, which is managed in a hands-off fashion. With little to no access, this lakeshore corridor covers a good amount of varying cover types and habitats good for many different species. Keep in a natural state as much as possible.



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.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific management uses through the promulgation of rules, as governed by Part 5, Department of Natural Resources, of the NREPA (MCL 324.502(2) and 324.504). Section 38 of the Administrative Procedures Act (MCL 24.238) provides for public requests for the promulgation of rules. This is an active program, with one proposed site currently under review by the DNR.
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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 Areas 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.
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or 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 Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
SCA	Potential Old Growth Areas	This category contains stands were identified for a broad range of reasons and were coded in the OI database as stand condition 8 as potential old growth (POG). Approximately 310,000 acres have been identified through the Operations Inventory (OI)/Compartment Review process. For stands in Year of Entry 2008 and forward, potential old growth is managed for the identified objective until it is: 1) vetted through the Biodiversity Conservation Planning Process (BCPP) and given a specific designation and objective (as an ERA, HCVA, or other type of SCA) and is released from the potential old growth designation; or 2) it is released from the potential old growth designation via the Compartment Review process.