



## SAULT FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 103 ENTRY YEAR: 2011

Compartment Acreage: 1,924 County: Mackinac

---

**Revision Date:** October 22, 2009

**Stand Examiner:** Karen Rodock

**Legal Description:** T42N R6W Sections 1, 2 and 12; Moran Township

**RMU (if applicable):**

**Management Goals:** This compartment is located approximately 3 miles northeast of Brevort. It is within the Carp River Red Pine Management Area. Plans for this Management Area are currently being written. The area includes openings and upland brush that need maintenance before they are lost. Section 1 contains intensively managed red pine stands ranging in age from 11 to 73 years old. A Michigan Natural Features Inventory identified site includes a poor fen located in the northwest corner of Section 2. Stands adjacent to the fen will be used as a buffer to maintain the integrity of the site. Several seasonal drainages cross the compartment as they feed into Silver Creek. Hardwood stands need regular treatment to promote health and growth. An ORV trailhead is located at Goodereau Road and East Boundary Road intersection. ORV and snowmobile trails pass through the compartment.

**Soil and Topography:** The area is level to undulating, with seasonal drainages cutting across the compartment. Upland areas include Wallace sand and Paquin sand. Areas along the drainages include Spot-Finch complex and Spot Muck.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** State lands adjoin to the north, west and south. Hiawatha National Forest borders the east side.

**Unique, Natural Features (include only non-site specific and non-sensitive information):** MNFI has identified a poor fen in this area which will need to be protected. There are potential for other rare, threatened and endangered species of plants and animals within the compartment and adjacent to it.

**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):** There are possible sites within the compartment but none were found when doing the inventory.

**Special Management Designations or Considerations:** Buffers are left along the poor fen, MNFI identified site, to maintain the integrity of the site. ORV Trails must be signed and kept clean while logging operations are ongoing. Access is limited during winter months in some areas due to the snowmobile trails.

**Watershed and Fisheries Considerations:** This compartment contains Silver Creek and its tributaries. Silver Creek is a cold-water stream that supports brook trout, coho salmon, rainbow trout, northern redbelly dace, central mudminnow, mottled sculpin, brook stickleback, Iowa darter and Johnny darter. Most brook trout spawning activity has traditionally occurred in groundwater seepage areas in the headwaters. Implementation of BMP's will aid in preventing sediment input from road crossings and upland areas are

critically important to protect spawning areas for trout and other stream-resident fishes. Buffering the river is also critical to ensure future inputs of woody material to the stream channel and provide shading to protect water temperature from warming to a degree that will inhibit trout survival.

**Wildlife Habitat Considerations:** According to General Land Office survey notes, northern hardwoods covered a majority of this compartment, with hemlock and white pine also being important components in the southern and northeastern parts. Northern hardwoods continue to be an important type, but part of the landscape has converted to pines and open or semi-open types. Pine plantations now cover much of the northeastern corner, and continue well to the east. Three small streams flow through parts, fed by adjacent wetlands, while a marsh is located in the northwest corner.

Wildlife considerations include protecting wetlands and streams by buffering these features, maintaining early-successional habitat through timber management, and promoting diversity in northern hardwoods. Retention of hard and soft mast bearing species, snags, den trees, and coarse woody debris is important. Species use of this compartment includes white-tailed deer, beaver, moose, ruffed grouse, and broad-winged hawk.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel. 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 in the area. Gravel pits are not located in the area, but there may be potential. There is no current economic oil and gas production in the UP.

**Vehicle Access:** Access is from three DNR roads: Carp River Truck Trail, East Boundary Road, and Goodereau Road. All three roads are mainly sand and gravel roads and need regular maintenance to keep in shape. Carp River Truck Trail has had some maintenance by DNR staff, as well as through timber sale deducts, which included gravelling through the fen area. It is a high priority to keep in good shape. East Boundary Road has a washout across the drainage in Section 12. High quality USFS gravel roads, Borland and Burma Grade, are located just east of our boundary in Section 12.

**Survey Needs:** None needed this year of entry.

**Recreational Facilities and Opportunities:** Brevort –Trout Lake Motorcycle trailhead parking lot is located at East Boundary Road and Goodereau Road intersection. Brevort – Trout Lake Motorcycle trail winds through the entire compartment. Snowmobile trail # 2 follows Goodereau Road and Carp River Truck Trail.

**Fire Protection:** This compartment falls within a zone dispatch area. Extra fire units will be dispatched to a fire here if fire danger warrants. The pine component of the compartment poses higher fire intensity potential in this compartment and adjacent to it.

#### **Additional Compartment Information:**

- **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

**Compartment 103**  
 T42N, R06W, Sec. 1, 2, 12  
 County: Mackinac  
 Unit: Sault Ste Marie  
 YOE: 2011  
 Acres: 1,923 GIS Calculated  
 Stand Examiner: Karen Rodock  
 Map Revised: 08/17/2009  
 Map Phase: Pre-Review

## Legend

- Miris Corners
- ◆ RLS Corners
- Paved Road
- == Gravel Road; Public Gravel Road
- - - Poor Dirt Road; Public Poor Dirt Road
- ..... Closed Road
- Intermittent Stream/Drain
- Stream
- Trails
- 🏍 Motorcycle Trails
- 🏂 Snowmobile Trails
- 🌉 Bridges
- P Parking Lot
- 🌊 Lakes and Rivers
- Treatments
  - ▨ Clearcut (w/Reserves, Patch/Strip)
  - ▧ Thinning (Crown, Low, Systematic)
  - ▩ Selection (Group, Single Tree)
  - ☐ Pesticide

## Forest Stands

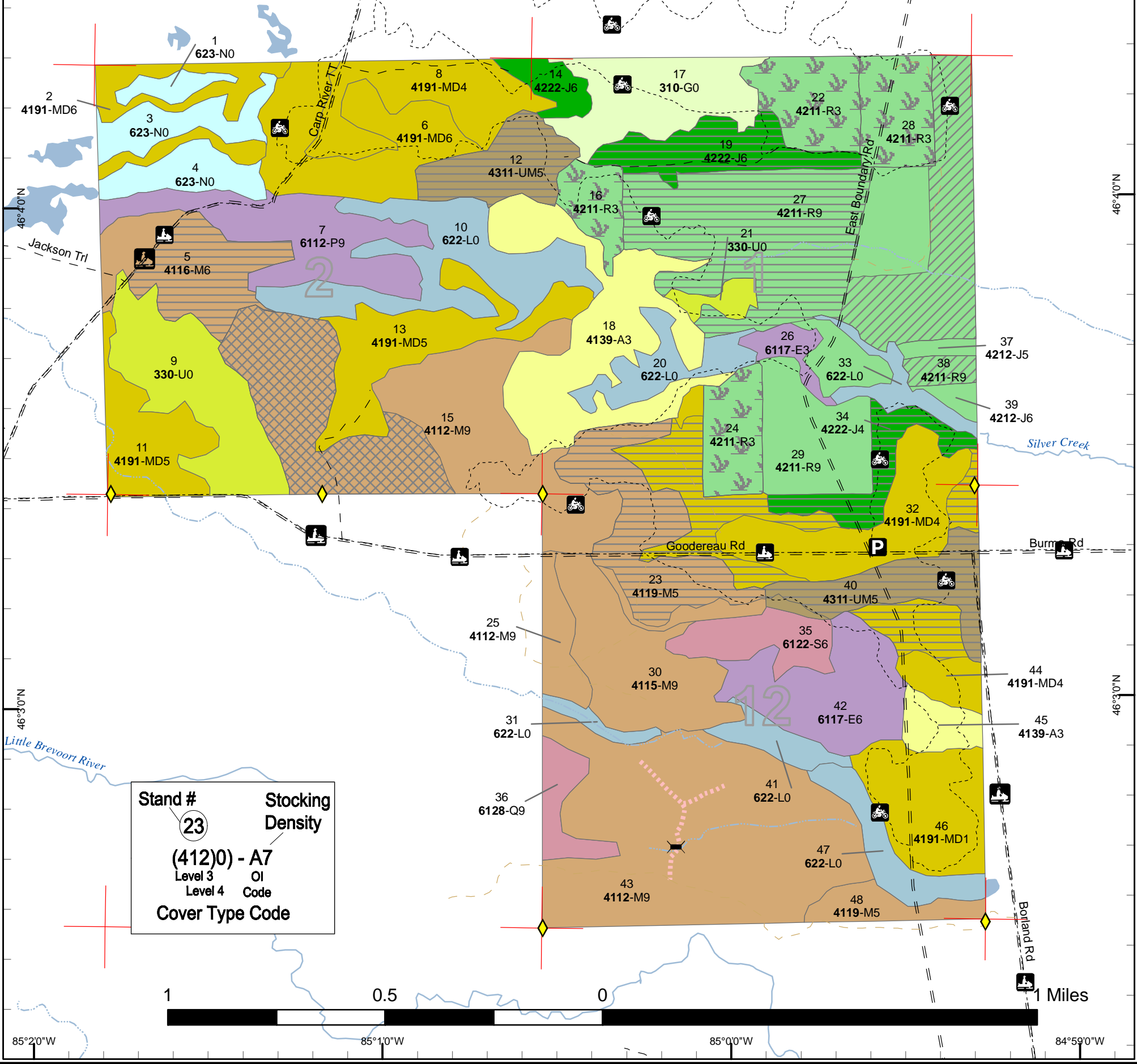
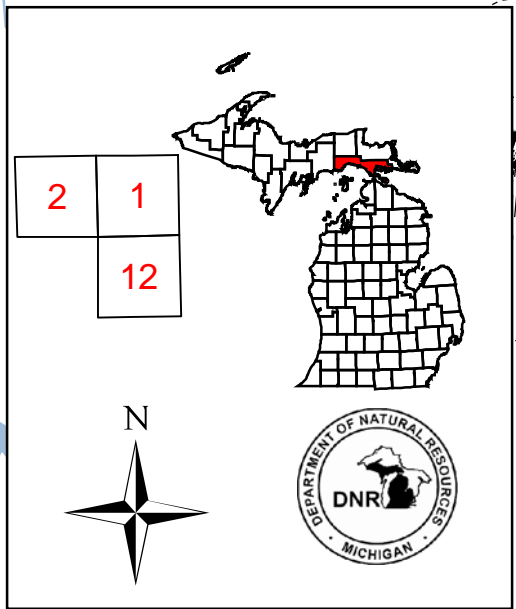
### Level 3

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

### Non-Forest Stands

#### Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland



**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

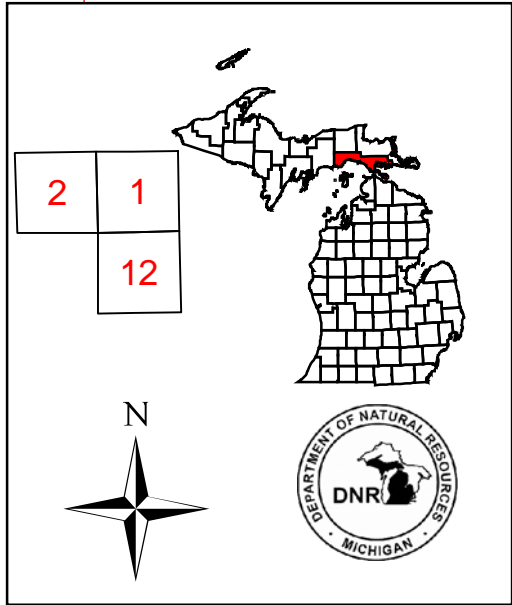


85°20'W

# Dedicated & Proposed Special Conservation Area Map

Compartment 103  
 T42N, R06W, Sec. 1, 2, 12  
 County: Mackinac  
 Unit: Sault Ste Marie  
 YOE: 2011  
 Acres: 1,923 GIS Calculated  
 Stand Examiner: Karen Rodock  
 Map Revised: 08/17/2009  
 Map Phase: Pre-Review

- Legend**
- Miris Corners
  - Stand Boundaries
  - Dedicated Special Conservation Areas
  - Cold Water Streams
  - Ecological Reference Areas
  - Deer Wintering Areas
  - Forest Stands
  - Level 3
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 431 - Upland Mixed Forest
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - Non-Forest Stands
  - Level 3
  - 310 - Herbaceous Openland
  - 330 - Low-Density Trees
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland



46°50'N

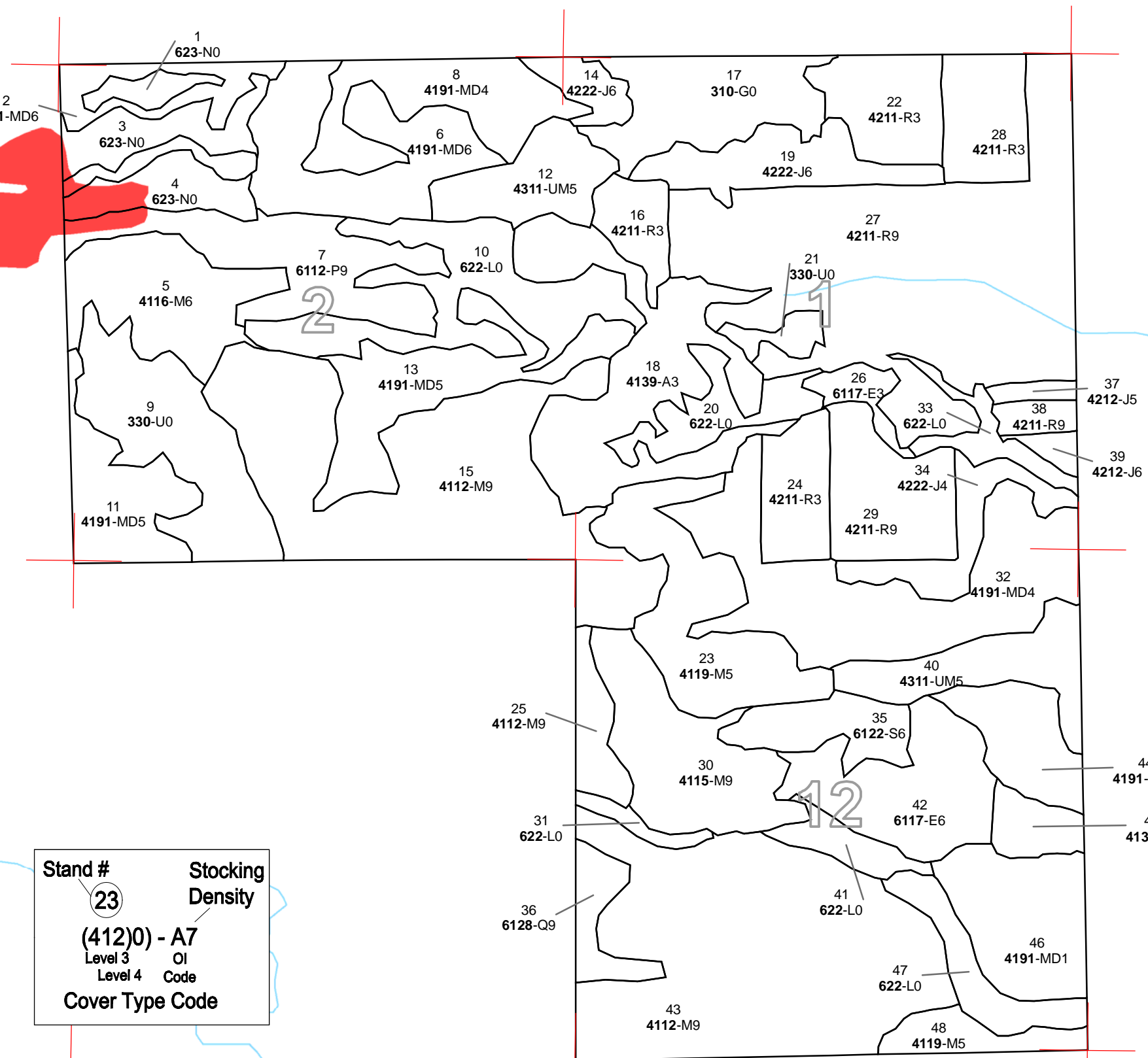
46°50'N

46°40'N

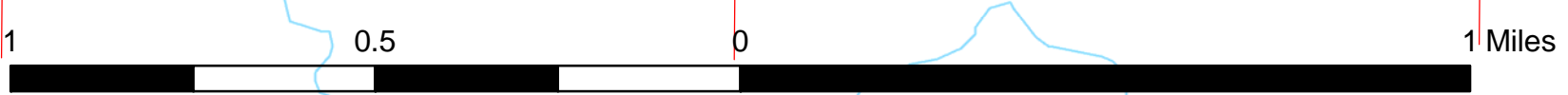
46°40'N

46°30'N

46°30'N



Stand #	Stocking Density
23	
(412)0 - A7	
Level 3	OI
Level 4	Code
Cover Type Code	



85°20'W

85°10'W

85°00'W

Sault Ste. Marie Mgt. Unit

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

Compartment 103 Year of Entry 2011

Report Date: 08/12/2009



	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	13	81	0	0	0	0	0	0	0	0	0	0	0	0	94
Emergent Wetland	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Herbaceous Openland	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
Low-Density Trees	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Lowland Coniferous Forest	0	0	0	0	0	24	0	0	0	0	0	0	0	15	0	38
Lowland Deciduous Forest	0	9	0	51	0	0	0	56	0	0	0	0	0	0	0	116
Lowland Shrub	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	135
Mixed Upland Deciduous	0	46	0	0	129	28	0	43	0	78	58	0	0	0	0	381
Natural Pines	0	0	0	0	0	33	32	0	0	0	0	0	0	0	0	66
Northern Hardwood	0	0	0	0	0	0	0	0	0	64	450	0	0	0	0	514
Planted Pines	0	0	98	0	0	0	9	0	246	0	0	0	0	0	0	353
Upland Mixed Forest	0	0	0	0	0	30	0	34	0	0	0	0	0	0	0	65
<b>Total</b>	<b>297</b>	<b>68</b>	<b>179</b>	<b>51</b>	<b>129</b>	<b>91</b>	<b>65</b>	<b>133</b>	<b>246</b>	<b>142</b>	<b>507</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>1923</b>

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**



S  
t  
a  
n  
d

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
5 45103005-Cut	36.0	4116 - Mixed N. Hardwood - Aspen	High Density Pole	86	Harvest	Clearcut with Reserves	Mixed N. Hardwood - Aspen

Rev The regeneration needs to be protected in areas within the stand. West of the Carp River Truck Trail was retained for retention and protection of the Fen.  
Cmnt:

Rev Clearcut with reserves following the retention guideline. Variable stand with small regeneration gap areas. Some paper birch, wolfy aspen and white  
Spec: pine where present should be retained for seed trees and future snags.

Next Follow-up treatment with regeneration survey as per the work instructions. Acceptable regeneration is aspen, maple, cherry, juneberry, yellow and paper  
Steps: birch, balsam fir, white spruce and white pine.

12 45103012-Cut	30.3	4311 - Pine, Aspen Mix	Medium Density Pole	47	Harvest	Clearcut with Reserves	Pine, Aspen Mix
-----------------	------	------------------------	---------------------	----	---------	------------------------	-----------------

Rev Stand is very variable with more pine areas and aspen birch areas. There are a few open areas with a few trees. Cut in the summer if possible for  
Cmnt: scarification in the pine areas for natural regeneration. No chipping of the site as want tops left for seed. Retain Cycle trail marker trees along the trail. May be cut off at 8 feet.

Rev Retain the white pine in the stand along with some birch and aspen where present adjacent to the younger aspen stand. Follow the retention guidelines  
Spec: and retain some along the lowland shrub stand to the south.

Next Portions of the site with jack pine may need to be scarified with chains and seeded as necessary to promote jack pine regeneration. Other aspen and  
Steps: birch portions of the stand should not require treatment. Follow-up treatment with regeneration survey as per the work instructions and check to see if the further cultivation treatment in necessary to get acceptable regeneration. Acceptable regeneration is aspen, maple, cherry, paper birch, jack pine, balsam fir, white spruce and white pine.

15 45103015-Cut	70.9	4112 - Maple, Beech, Cherry Association	High Density Log	94	Harvest	Single Tree Selection	Maple, Beech, Cherry Association
-----------------	------	---	------------------	----	---------	-----------------------	----------------------------------

Rev  
Cmnt: The south east portion of the stand was select harvest in 1999.

Rev Mark stand to 80 to 90 Basal Area. Retain some beech with the smooth bark and wildlife trees. Some ironwood, basswood and all juneberry and conifer  
Spec: should be left. Some larger canopy gaps may be desirable around the black cherry and yellow birch if possible to regenerate the species and enhance the advanced regeneration present.

WLD: Leave 3-5 beech per acre where present, leave some representative cherry and any hemlock, leave some large wolfy trees. Look at planting hemlock and/or white pine in canopy gaps.

Next Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration is maple, cherry, yellow and paper birch, aspen,  
Steps: juneberry, ironwood, balsam fir, white spruce and white pine.

19 45103019-Cut	32.4	42220 - Natural Jack Pine	High Density Pole	54	Harvest	Clearcut with Reserves	Natural Jack Pine
-----------------	------	---------------------------	-------------------	----	---------	------------------------	-------------------

Rev Harvest with stand 27. Retain Cycle trail marker trees along the trail. May be cut off at 8 feet.  
Cmnt:

Rev Clearcut with reserves following the retention guideline. Some larger jack pine should be retained for seed trees and future snags. Stand should have  
Spec: tops chipped.

Next Portions of the site with jack pine may need to be scarified with chains and seeded as necessary to promote jack pine regeneration. Other aspen and  
Steps: birch portions of the stand should not require treatment. Follow-up treatment with regeneration survey as per the work instructions and check to see if the further cultivation treatment in necessary to get acceptable regeneration. Acceptable regeneration is jack pine, aspen, maple, cherry, paper birch, balsam fir, white spruce and white pine.

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**



S  
t  
a  
n  
d

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
<b>23 45103023-Cut</b>	54.2	4119 - Mixed Northern Hardwoods	Medium Density Pole	94	Harvest	Clearcut	Mixed Northern Hardwoods
<p><u>Rev Cmnt:</u> The openings had filled in trees. A commercial harvest was prescribed to clear the area. Prescribe burn after the harvest.</p> <p><u>Rev Spec:</u> Cut all trees 2" or more and chip all the trees. Under t/s contract 45-108-06-01 Sled Drags with stand 24, 32, 34, 40 and 44.</p> <p><u>Next Steps:</u> After harvest treatment is completed, the stand is to be prescribed burned on FTP # W 44-525.</p>							
<b>27 45103027_thin -Cut</b>	60.0	42110 - Planted Red Pine	High Density Log	73	Harvest	Crown Thinning	Planted Red Pine
<p><u>Rev Cmnt:</u> Small portion on southwest side was thinned last year of entry. Treat stand 38 at the same time.</p> <p><u>Rev Spec:</u> Thin to around 120 Basal Area. Leave species diversity within the stand were present.</p> <p><u>Next Steps:</u></p>							
<b>27 45103027-Cut</b>	101.2	42110 - Planted Red Pine	High Density Log	73	Harvest	Clearcut	Planted Red Pine
<p><u>Rev Cmnt:</u> Harvest with stand 19. Retain Cycle trail marker trees along the trail. May be cut off at 8 feet.</p> <p><u>Rev Spec:</u> Clearcut stand with no retention of live trees. Standing trees within the stand after harvest create a hazard for aerial spraying of the stand for release and pest management. Stand should have tops chipped.</p> <p><u>Next Steps:</u> After harvest treatment is completed, the stand may be prescribed burned if only if not chipped for site prep depending on amount of slash left on site. Trenching and hand planting of red pine seedling to acceptable regeneration levels will need to be completed within 2 years of the Timber Cutting Report date. After establishment of red pine regeneration, regeneration surveys need to be scheduled for 1 year and 3 years for monitoring of regeneration. Release as necessary determined by TMS.</p>							
<b>32 45103032-Cut</b>	40.7	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	34	Harvest	Clearcut with Reserves	Warm Season Grass
<p><u>Rev Cmnt:</u> The openings had filled in trees. A commercial harvest was prescribed to clear the area. Portion of the stand was retained and will not be harvested. Prescribe burn after the harvest.</p> <p><u>Rev Spec:</u> Cut all trees 2" or more and chip all the trees. Under t/s contract 45-108-06-01 Sled Drags with stand 23, 34, 40 and 44.</p> <p><u>Next Steps:</u> After harvest treatment is completed, the stand is to be prescribed burned on FTP # W 44-525.</p>							
<b>34 45103034-Cut</b>	22.5	42221 - Natural Jack Pine, Mixed Deciduous	Low Density Pole	44	Harvest	Clearcut	Warm Season Grass
<p><u>Rev Cmnt:</u> The openings had filled in trees. A commercial harvest was prescribed to clear the area. Portion of the stand was retained and will not be harvested. Prescribe burn after the harvest.</p> <p><u>Rev Spec:</u> Cut all trees 2" or more and chip all the trees. Under t/s contract 45-108-06-01 Sled Drags with stand 23, 32, 40 and 44.</p> <p><u>Next Steps:</u> After harvest treatment is completed, the stand is to be prescribed burned on FTP # W 44-525.</p>							
<b>38 45103038-Cut</b>	6.7	42110 - Planted Red Pine	High Density Log	73	Harvest	Crown Thinning	Planted Red Pine
<p><u>Rev Cmnt:</u> Treat with stand 27_thin.</p> <p><u>Rev Spec:</u> Thin to around 120 Basal Area. Leave species diversity within the stand were present.</p> <p><u>Next Steps:</u> Check in ten years on the next year of entry.</p>							

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Page 3 of 4
40	45103040-Cut	32.6	4311 - Pine, Aspen Mix	Medium Density Pole	66	Harvest	Clearcut	Warm Season Grass	
<p><u>Rev</u> The openings had filled in trees. A commercial harvest was prescribed to clear the area. Portion of the stand was retained and will not harvested. <u>Cmnt:</u> Prescribe burn after the harvest.</p> <p><u>Rev</u> Cut all trees 2" or more and chip all the trees. Under t/s contract 45-108-06-01 Sled Drags with stand 23, 32, 34 and 44. <u>Spec:</u></p> <p><u>Next</u> After harvest treatment is completed, the stand is to be prescribed burned on FTP # W 44-525. <u>Steps:</u></p>									
44	45103044-Cut	15.5	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	47	Harvest	Clearcut with Reserves	Warm Season Grass	
<p><u>Rev</u> The openings had filled in trees. A commercial harvest was prescribed to clear the area. Portion of the stand was retained and will not harvested. <u>Cmnt:</u> Prescribe burn after the harvest.</p> <p><u>Rev</u> Cut all trees 2" or more and chip all the trees. Under t/s contract 45-108-06-01 Sled Drags with stand 23, 32, 34 and 40. <u>Spec:</u></p> <p><u>Next</u> After harvest treatment is completed, the stand is to be prescribed burned on FTP # W 44-525. <u>Steps:</u></p>									
16	45103016- Spray	16.1	42110 - Planted Red Pine		11	Pesticide	Other - Specify in Comments	Planted Red Pine	
<p><u>Rev</u> <u>Cmnt:</u></p> <p><u>Rev</u> Monitor for RHPS and if monitoring shows that treatment is recommended, then spray when/if necessary with appropriate insecticide recommended by <u>Spec:</u> Forest Health Specialist/TMS.</p> <p><u>Next</u> <u>Steps:</u></p>									
22	45103022- Spray	30.2	42110 - Planted Red Pine		15	Pesticide	Aerial	Planted Red Pine	
<p><u>Rev</u> <u>Cmnt:</u></p> <p><u>Rev</u> Monitor for RHPS and if monitoring shows that treatment is recommended, then spray when/if necessary with appropriate insecticide recommended by <u>Spec:</u> Forest Health Specialist/TMS.</p> <p><u>Next</u> <u>Steps:</u></p>									
24	45103024- Spray	24.0	42110 - Planted Red Pine		15	Pesticide	Aerial	Planted Red Pine	
<p><u>Rev</u> <u>Cmnt:</u></p> <p><u>Rev</u> Monitor for RHPS and if monitoring shows that treatment is recommended, then spray when/if necessary with appropriate insecticide recommended by <u>Spec:</u> Forest Health Specialist/TMS.</p> <p><u>Next</u> None before next YOЕ. <u>Steps:</u></p>									
28	45103028- Spray	27.5	42110 - Planted Red Pine		11	Pesticide	Aerial	Planted Red Pine	
<p><u>Rev</u> <u>Cmnt:</u></p> <p><u>Rev</u> Monitor for RHPS and if monitoring shows that treatment is recommended, then spray when/if necessary with appropriate insecticide recommended by <u>Spec:</u> Forest Health Specialist/TMS.</p> <p><u>Next</u> Continue to monitor site and the effects of spraying if treated. <u>Steps:</u></p>									

S  
t  
a  
n  
d

Sault Ste. Marie Mgt. Unit  
Inventory Method: IFMAP

**PROPOSED TREATMENTS  
NO LIMITING FACTORS**

Compartment: 103      Entry Yr: 2011  
Date 08/12/2009



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
Total Treatment Acreage Proposed:		600.7					

**PROPOSED TREATMENTS  
WITH LIMITING FACTORS**



S  
t  
a  
n  
d

Treatment Name	Acres	Stage1 Cover Type	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Page 1 of 1
----------------	-------	-------------------	--------------	-----------	----------------	------------------	----------------------	-------------

---

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



**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.
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.