



**SHINGLETON FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 101 ENTRY YEAR: 2011

Compartment Acreage: 1574 County: Alger

Revision Date: August 25, 2009

Stand Examiner: Kristen Matson

Legal Description: T50N, R13W, sec. 35, 36; T49N, R13W, sec. 1.

RMU (if applicable):

Management Goals: To manage the compartment in accordance with the principles of sustainable forest eco-system management.

Soil and Topography: The north part of the compartment is within the critical dunes area, and has steep ridges. Soils include Deer Park Sand 0-60% slopes, and Rubicon Sand 0-6% slopes. The south half of section 1 is more level, and soils include Hiawatha Sand 0-10% slopes, Kalkaska Sand 0-15% slopes, and Rubicon Sand 0-6% slopes.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is solid State ownership. To the east is State owned land in Luce County. To the west and south are private landowners, and Grand Marais School Forest land.

Unique, Natural Features (include only non-site specific and non-sensitive information):

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None known.

Special Management Designations or Considerations: HCVA - Critical Coastal Habitat (Piping Plover) along Lake Superior. HCVA - Critical Dunes Act within sec 35, 36, and the north half of sec 1.

Watershed and Fisheries Considerations: The Sucker River is classified as second quality cold water. Although it supports native brook trout, the fishery it is known for is the spring steelhead run. There is already a heavy sand bedload in the river, which Fisheries will probably be targeting in the near future. We will manipulate the large woody debris to protect eroding banks, provide scour pools, and to channelize the current to re-deposit the sand into backwater areas and expose more gravel habitat.

Wildlife Habitat Considerations: This compartment borders the shore of Lake Superior, and lies within the Grand Marais Sandy End Moraine and Outwash sub-subsection as defined by Albert's Regional Landscape Ecosystem classification system. All the stands immediately adjacent to the Lake are designated as potential old growth. This designation serves a number of purposes. First, it provides a movement corridor along the lakeshore for species that predominantly use closed canopy upland conifer habitats. Second, it protects a somewhat unique pine/lichen habitat. Third, it buffers the wind coming off the lake thereby reducing soil erosion further inland. In addition, the stands along the shore lie within the critical

habitat designation for the federally endangered Piping Plover. The remainder of the habitat within this compartment is dominated by upland pine system, with northern hardwood stands providing further habitat diversity. The wildlife goals within this compartment include maintaining the old growth corridor along the lakeshore, providing age and structural diversity within the pine systems, creating north/south wildlife movement corridors, promoting super-canopy trees, and enhancing nutrition for a wide variety of wildlife species through the planting of oak within the compartment.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand, gravel, clay & silt. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was used as a building stone in the past. Gravel pits are located five miles to the west, but there could be some potential. There is no commercial oil and gas production in the UP.

Vehicle Access: Dirt two-track roads are found throughout the compartment. Illegal ORV use is prevalent.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: The North Country Trail runs through the compartment along the Lake Superior shoreline. The area is often used for dispersed camping along the lakeshore, blueberry picking, and hunting.

Fire Protection:

Additional Compartment Information:

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **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**
 - ◆ **Suggested potential old growth**

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST MGT UNIT

ALGER COUNTY

COMPARTMENT: 101

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not Coded	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	All Aged	Total
Aspen			23	62	21														106
Jack Pine		82	126	84	194	5				130	55								676
Oak								12											12
Red Pine							223	206	76	35								85	625
Sand Dune	35																		35
Spruce Fir			3		3	28													34
Upland Hdwds					25													41	66
White Pine								26	14	35									75
Total	35	82	152	146	243	33	223	244	90	200	55							126	1574

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST MGT UNIT

ALGER COUNTY

COMPARTMENT: 101

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
A Aspen	100															6											106
J Jack Pine							676																				676
O Oak														12													12
R Red Pine																625											625
Y Sand Dune																		35									35
F Spruce Fir																			34								34
M Upland Hdwds																								66			66
W White Pine																										75	75
Total	100						676							12	631		35	34						66		75	1550

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST MGT UNIT

ALGER COUNTY

COMPARTMENT: **101**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	1596 Cds	Softwood	3355 Cds
Hardwood	90 Mbf	Softwood	46 Mbf
Softwood	13440 Cds	Sum CutVol	3447 Cds
Softwood	1198 Mbf		
Sum TotVol	17612 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	144
1574			

SHINGLETON FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 101 **Entry Year: 2011**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
2	J6	15	84	48	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : HCVA-Critical Dunes Act. Cut all Jack Pine; leave all other trees for retention. In accordance with the Critical Dunes legislation, retention areas will be left on all slopes >25%. DEQ permit will be needed. Habitat type is PVE. Soil types are Deer Park sand 0-60% slopes, and Rubicon Sand 10-25% slopes.</p>										
5	J6	94	85	48	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : HCVA-Critical Dunes Act, north part is also in the Critical Coastal Habitat (piping plover). Cut jack pine and leave all other trees for retention. In accordance with Critical Dunes legislation, retention areas will be left on all slopes (or portions thereof) greater than 25%. DEQ permit will be needed. Habitat type is PVE. Soil types are Rubicon Sand 0-6% slopes, and Deer Park Sand, 25-60% slopes.</p> <p>Wld : Retain jack pine on slopes per FMFM comments.</p>										
29	R9	35	79	49	red pine	mature	shelterwood-seed	1	natural regeneration	
<p>comnts Fmd : Red pine with white throughout, with areas of jack pine. Rolling terrain. Mark red and white pine where dense; cut all merchantable jack pine; leave all other trees for retention. Acceptable regeneration will be a mix of pine species. Scarify and/or plant to ensure pine regeneration. Soil=Rubicon Sand 0-6% slopes.</p> <p>Wld : Retain some of the large diameter red and white pine, and leave any deciduous trees.</p>										
31	J2	10	2	50	jack pine	immature		0	planting	
<p>comnts Fmd : Harvested in 2004. Residual red and white pine less than 10 BA. Regeneration includes: jack pine, white pine, red pine, aspen, red maple, b.fir, and w.spruce. Soil=Rubicon Sand, 0-6% slopes.</p> <p>FTP #C41-1047 (JP regeneration). [6/5/07 jb] Stand was planted with inmates. [6/3/08 jb] Replant in 2009.</p>										
51	J2	2	2	50	jack pine	immature		0	planting	
<p>comnts Fmd : Harvested in 2004. Residual red and white pine < 10 BA. Regeneration includes: j.pine, white pine, red pine, b.fir, w.spruce, aspen and r. maple. Soil=Hiawatha Sand, 0-2% slopes.</p> <p>See FTP #C41-1047 (JP regeneration). [6/5/07 jb] Stand was planted with inmates. [6/3/08 jb] Replant in 2009.</p>										
Total Acres.....		156								

**Proposed Treatments
With Limiting Factors**

Compartment: 101

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
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TREATMENT LIMITING FACTORS:

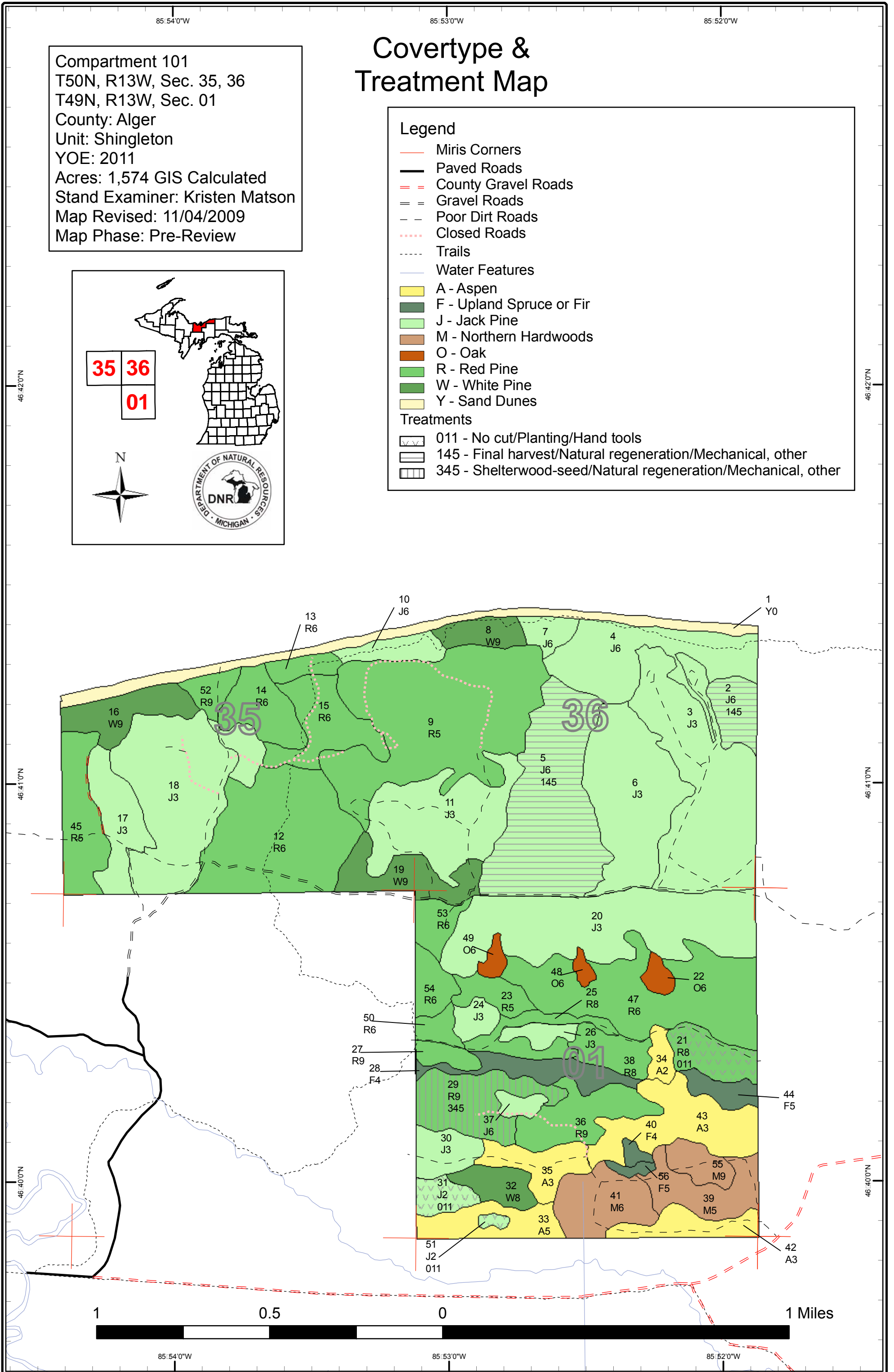
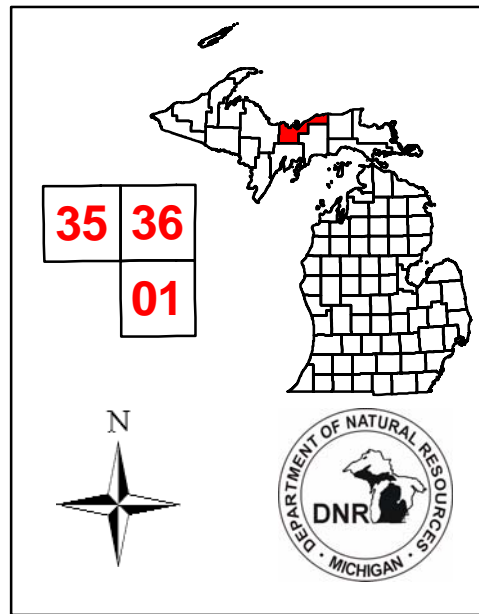
Total Acres..... 0

Compartment 101
 T50N, R13W, Sec. 35, 36
 T49N, R13W, Sec. 01
 County: Alger
 Unit: Shingleton
 YOE: 2011
 Acres: 1,574 GIS Calculated
 Stand Examiner: Kristen Matson
 Map Revised: 11/04/2009
 Map Phase: Pre-Review

Covertypes & Treatment Map

Legend

- Miris Corners
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - Closed Roads
 - Trails
 - Water Features
 - A - Aspen
 - F - Upland Spruce or Fir
 - J - Jack Pine
 - M - Northern Hardwoods
 - O - Oak
 - R - Red Pine
 - W - White Pine
 - Y - Sand Dunes
- Treatments**
- 011 - No cut/Planting/Hand tools
 - 145 - Final harvest/Natural regeneration/Mechanical, other
 - 345 - Shelterwood-seed/Natural regeneration/Mechanical, other



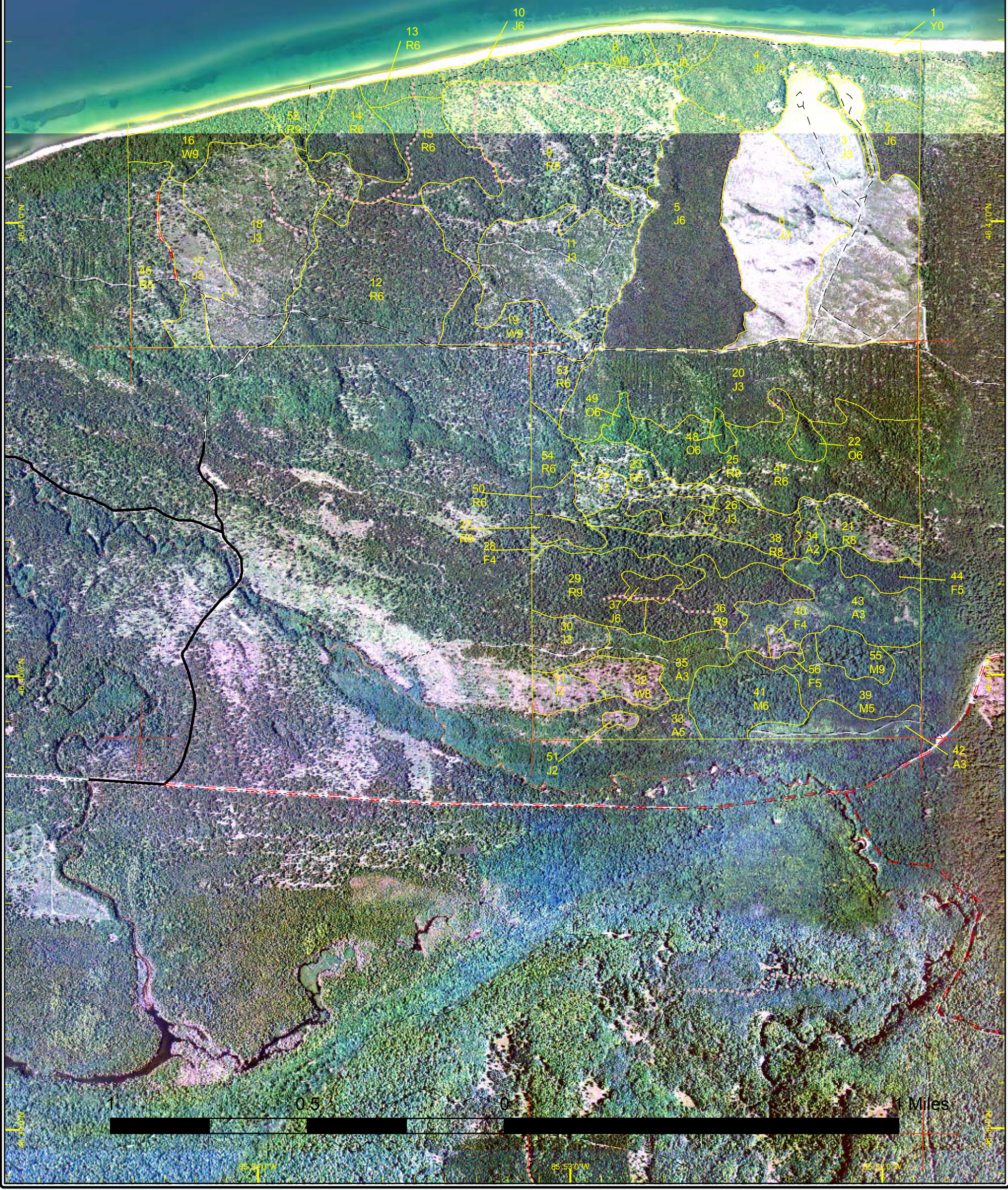
Compartment 101
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Stand Boundary Map

Legend

- Miris Corners
- Paved Roads
- - - County Gravel Roads
- - - Trails
- Stand Boundaries

35	36
01	

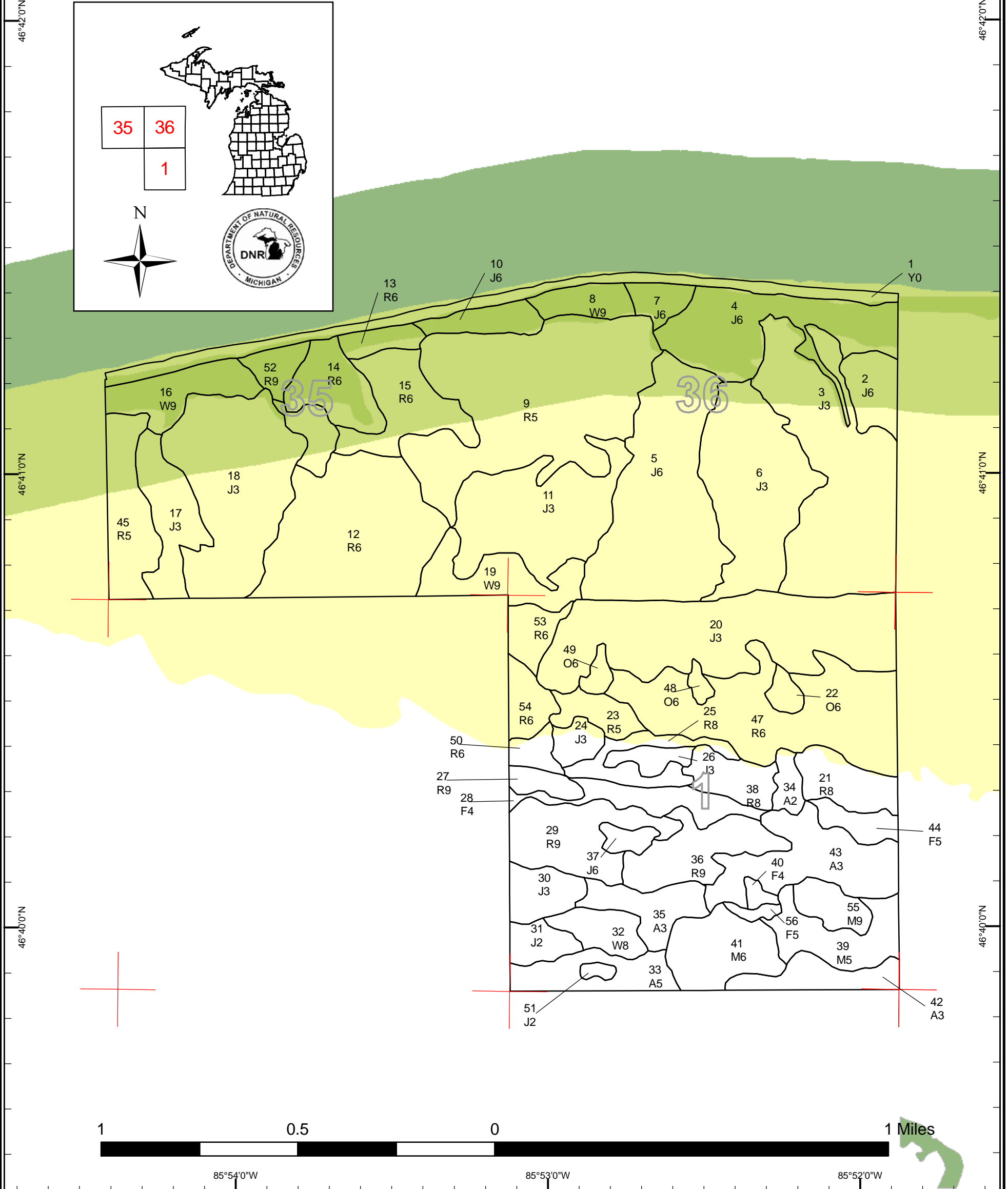
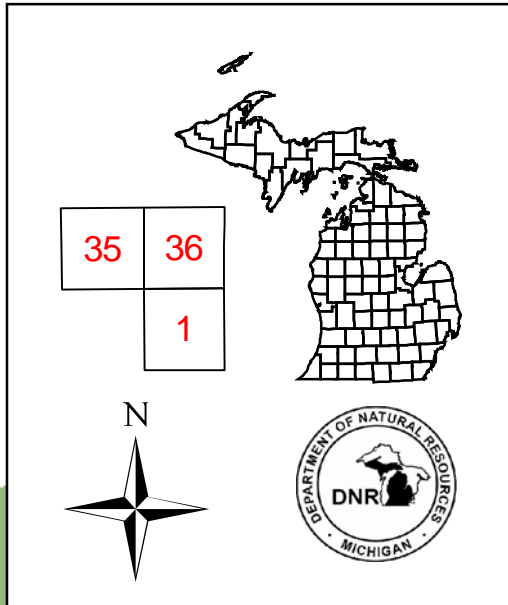


Dedicated & Proposed Special Conservation Area Map

Compartment 101
 T50N, R13W, Sec. 35, 36
 T49N, R13W, Sec. 01
 County: Alger
 Unit: Shingleton
 YOE: 2011
 Acres: 1,574 GIS Calculated
 Stand Examiner: Kristen Matson
 Map Revised: 11/04/2009
 Map Phase: Pre-Review

Legend

- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas**
- Critical Dunes
- Critical Coastal Habitat (Piping Plover)
- Potential Old Growth Stands





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
HCVA	Critical Dunes	Critical dune areas are established via the public legislative process, and governed by Part 353, Sand Dune Protection and Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the Michigan Department of Environmental Quality (DEQ). The current distribution of designated critical dunes is established by the DEQ 1989 Atlas of Critical Dune Areas.
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	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.