



## Shingleton Forest Management Unit Compartment Review Presentation

**Compartment 66**

**Entry Year: 2014**

**Compartment Acreage: 1575**

**County: Schoolcraft**

**Revision Date:** 8/6/2012

**Stand Examiner:** Tom Burnis

**Legal Description:** T41N R13W Sections 4,5,7,8,9; T42N R13W Section 32

**RMU (if applicable):** Compartment 66 lies within Lake Michigan Shoreline Management Area.

**Management Goals:** The main goal in this compartment is to conduct sound multiple resource management for the good of the citizens of the State of Michigan

**Soil and Topography:** The soils data in this area is very limited, the upland ridges are well drained sands the lower types are unknown. The northern portion of the compartment lies within the Buried Moraine Land Type Association (LTA) and the southern portion lies within the Lake Beds LTA. The topography throughout the area was cast by glacial movements.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** McDonald Lake is built up with both summer and year round homes. The compartment is contiguous to the south and has small non-contiguous state acreage along east side of McDonald Lake. Land use in the area is very limited.

**Unique, Natural Features:** Currently under review by Michigan Natural Features Inventory.

**Archeological, Historical, and Cultural Features:** None Known.

**Special Management Designations or Considerations:** All of sections 7, 8 and west part of 9 are part of a Wooden Dune and Swale Ecological Reference Area. In addition, a large portion of the compartment is within the Critical Dunes HCVA and a Deer Wintering Complex SCA.

**Watershed and Fisheries Considerations:** Fisheries Values Good. McDonald Lake is good for largemouth bass, bluegills, pike, walleyes, and some perch. Bulldog Creek, which drains McDonald Lake, is classified SQWW. Fisheries Concerns in General: Streams are classified from First Quality Cold Water (FQCW) down to Second Quality Warm Water (SQWW). In this area, the FQCW means an excellent trout fishery, one that is supplemented by a Fisheries Division annual stocking program. These waters are generally the famous ones, but also include somewhat smaller waters that are capable of supporting the fish population density necessary to provide a superior angling experience. SQCW implies a cold stream that supports a natural trout population, but is limited by either physical size or lack of spawning/foraging habitat. Its limitations mean that it will never support a heavy angling pressure and harvest, so Fisheries Division does not publicize the water. Local anglers, however, know what the streams support, and do fish them quite a bit. In-stream habitat is usually in the form of large woody debris, or downed trees. Fish need them because they provide protection from overhead predators and because they force water currents to scour holes under and around them. The holes provide more water volume in the stream, keeping it cooler, as well as giving the fish more volume to "hide" in. The woody structure also forces more eddy currents, breaking the "solid" water flow so that fish can get out of the current to rest. First Quality Warm Waters, (FQWW) are large, productive waters capable of supporting a good fishery for either warm-water species or cool-water species. In the Upper

Peninsula, the designation generally applies to walleye, pike, musky or smallmouth bass waters. SQWW means small, possibly stagnant, warm streams that produce little to no actual fishery. Although small, their warm temperatures and generally high nutrient levels imply generally a higher productivity than the more “fishable” streams. Their value is attained from the production of forage that migrates downstream into areas of either cold-water or warm-water sports fish populations. For that reason, they are NOT useless waters, and they should be protected somewhat for the aquatic invertebrate and fish forage that they produce. Beaver populations in these streams could be a benefit, as their dams will increase productivity as well as inhibit sand bedload migration.

**Wildlife Habitat Considerations:** This compartment lies within the St. Ignace sub-subsection. The growing season last approximately 130 days. Extreme winter low temperature approaches  $-46^{\circ}$  F. Annual snowfall averages 80 inches. The compartment falls within the Lake Michigan Shoreline Management Area which highlights the following Featured Species: Piping plover and white-tailed deer. Most of this compartment lies within the dune and swale complex associated with the Lake Michigan shoreline. General Land Office (GLO) Surveyor notes show the circa 1850 upland forest consisted primarily of white pine and red pine. Lowlands held spruce, balsam fir, tamarack, and cedar. Windthrow was likely the major natural disturbance regime. Current upland forests have shifted to jack pine and red pine. Lowlands are similar to pre-settlement conditions. Deer are distributed throughout this compartment during winter months. The majority of this compartment has been nominated for potential old growth designation. Wildlife habitat objectives in this compartment include maintaining the integrity of the dune and swale complex, providing natural functioning systems within the dune and swale complex, and maintaining closed canopy conifer for yarding deer. Although not recorded, there are possibilities of occurrence for many rare species. Other wildlife species of interest that may utilize this compartment include garter snake, gray jay, spruce grouse, least chipmunk and coyote.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel and thin to discontinuous glacial till over bedrock. The glacial drift thickness varies between 0 and 50 feet. The Silurian Engadine and Manistique Groups subcrop below the glacial drift. The Engadine is quarried for stone to the east. The nearest gravel pit is two miles to the west and there appears to be some potential in the Compartment. There is no commercial oil and gas production in the UP.

**Vehicle Access:** There is no vehicle access to the southern portion of the compartment. To access the east side of McDonald Lake access is across private land.

**Survey Needs:** There will likely be a need for survey work in Sections 4 and 5.

**Recreational Facilities and Opportunities:** There are no recreational facilities within this compartment however, there are several recreational opportunities including hunting and fishing.

**Fire Protection:** Fire response times will be moderate given adequate detection, however due to the lack of roads within the compartment access and fire suppression efforts will be challenging.

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

- **The following reports from the Inventory are attached:**
  - ◆ **Total Acres by Cover Type and Age Class**
  - ◆ **Proposed Treatment Summary**
  - ◆ **Proposed Treatments – No Limiting Factors**
  - ◆ **Proposed Treatments – With Limiting Factors**
  - ◆ **Stand Details (Forested and Nonforested)**

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

**Table 1 – Total Acres by Cover Type and Age Class**



	Age Class													Total	
	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 +		Uneven Age
Aspen	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Cedar	0	0	0	0	0	0	0	0	0	81	43	0	47	0	172
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Jack Pine	0	0	0	0	0	0	535	0	0	0	0	0	0	0	535
Lowland Aspen/Balsam Poplar	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Lowland Conifers	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
Lowland Deciduous	0	0	0	0	0	5	55	0	17	0	0	0	0	0	76
Lowland Shrub	57	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Lowland Spruce/Fir	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23
Marsh	132	0	0	0	0	0	0	0	0	0	0	0	0	0	132
Northern Hardwood	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Paper Birch	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Red Pine	0	0	0	0	0	12	352	0	0	0	0	0	0	0	364
Tamarack	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10
Upland Spruce/Fir	3	0	23	17	0	0	2	0	5	0	0	0	0	0	50
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	74	0	0	0	0	0	0	0	0	0	0	0	0	0	74
White Pine	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14
<b>Total</b>	<b>317</b>	<b>0</b>	<b>23</b>	<b>27</b>	<b>0</b>	<b>23</b>	<b>988</b>	<b>0</b>	<b>25</b>	<b>81</b>	<b>43</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>1575</b>



## Table 2 – Proposed Treatment Summaries

**Shingleton Mgt. Unit**  
**Year of Entry 2014**

**Compartment 066**  
**Total Compartment Acres: 1575**

### Acres by Treatment Type

Commercial Harvest - 84	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Lowland Conifers	7	0	0	0	0	0	7
Lowland Deciduous	66	0	0	0	0	0	66
Northern Hardwood	3	0	0	0	0	0	3
Upland Spruce/Fir	7	0	0	0	0	0	7
<b>Total</b>	<b>84</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>84</b>



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	41066001-Cut	7.6	6119 - Mixed Lowland Deciduous Forest	High Density Pole	83		Harvest	Clearcut with Reserves	6119 - Mixed Lowland Deciduous Forest	Cmpt. Review Proposal - Incomplete
<u>Prescription:</u> Cut all except cedar and hemlock. Exclude NW portion of stand so as not to cross the drainage. 100 foot buffer on Mc Donald lake. Retention will be lake buffer and NW portion of stand.										
<u>Specs:</u>										
<u>Other</u> Acceptable regeneration will be mix of current spp.										
<u>Comments:</u>										
<u>Next</u> Monitor for reproduction.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
2	41066002-Cut	9.1	6119 - Mixed Lowland Deciduous Forest	High Density Pole	83		Harvest	Clearcut with Reserves	6119 - Mixed Lowland Deciduous Forest	Cmpt. Review Proposal - Incomplete
<u>Prescription:</u> Cut all trees except cedar and hemlock. 100 foot buffer on lake. Buffer will be retention.										
<u>Specs:</u>										
<u>Other</u> Mix of current spp. acceptable regen.										
<u>Comments:</u>										
<u>Next</u> Monitor regeneration.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
5	41066005-Cut	5.4	42320 - Upland Spruce	High Density Pole	83		Harvest	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription:</u> Cut all trees. Small stand, no retention.										
<u>Specs:</u>										
<u>Other</u> acceptable regen spruce/fir mix.										
<u>Comments:</u>										
<u>Next</u> Monitor regen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
6	41066006-Cut	45.0	6118 - Lowland Deciduous with Cedar	High Density Pole	66		Harvest	Clearcut with Reserves	6118 - Lowland Deciduous with Cedar	Cmpt. Review Proposal - Incomplete
<u>Prescription:</u> Cut all trees except cedar and hemlock. Buffer lake 100 feet. Exclude solid patches of cedar with red line to prevent cutting cedar in order to reach a cuttable tree. There is an area of solid cedar in the southern portion of the stand. Retention will be lake buffer and cedar exclusions.										
<u>Specs:</u>										
<u>Other</u> Acceptable regen mix of current spp.										
<u>Comments:</u>										
<u>Next</u> Monitor regen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	41066013-Cut	7.4	6124 - Lowland Spruce-Fir	High Density Pole	66		Harvest	Clearcut with Reserves	6124 - Lowland Spruce-Fir	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Harvest stand. do not cut cedar or hemlock. No retention due to small size.										
<u>Specs:</u>										
<u>Other</u> Acceptable regen mix of current spp.										
<u>Comments:</u>										
<u>Next</u> Monitor regen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
14	41066014-Cut	3.4	4111 - S.Maple, Hard Mast Association	High Density Pole	80	111-140	Harvest	Clearcut	4111 - S.Maple, Hard Mast Association	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Clear cut stand. Mostly hard maple but very poor quality and small stand. No retention. Maintain a few large beech.										
<u>Specs:</u>										
<u>Other</u> Current spp mix acceptable regen.										
<u>Comments:</u>										
<u>Next</u> Monitor regen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
19	41066019-Cut	4.6	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	54		Harvest	Clearcut	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Cut all trees. No retention due to small acreage.										
<u>Specs:</u>										
<u>Other</u> mix of current spp acceptable regen.										
<u>Comments:</u>										
<u>Next</u> Monitor regen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
25	41066025-Cut	1.8	42330 - Upland Fir	High Density Pole	60		Harvest	Clearcut	42330 - Upland Fir	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Cut all trees if stand can be accessed. No retention due to small size.										
<u>Specs:</u>										
<u>Other</u> mix of current spp. acceptable regen.										
<u>Comments:</u> Harvest of stand will depend on route of access.										
<u>Next</u> Monitor regen.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
<b>Total Treatment Acreage Proposed: 84.3</b>										



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Error

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Error

Limiting Factor and No  
Treatment Reason

**Total Treatment  
Acreage Proposed: 0**



**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
	1.8	Unspecified				Harvest	Unspecified	Unspecified	Cmpt. Review Proposal - Incomplete

Prescription  
Specs:

Other  
Comments:

Next  
Steps:

Proposed  
Start Date:

<b>41009014-Cut1</b>	5.2	6120 - Lowland Cedar	High Density Pole	141		Harvest	Patch or Strip Clearcut	6120 - Lowland Cedar	Cmpt. Review Proposal - Incomplete
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Prescription patch cut app. 5 acres, determined at time of prep  
Specs:

Other  
Comments:

Next Monitor according to work instructions.  
Steps:

Proposed  
Start Date: 10/01/2011

<b>41044_OutOfYOE-Cut</b>	0.9					Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal - Incomplete
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Prescription Mark red pine and white pine to 80 sq.ft. where densities are high enough. Cut all other species except hemlock, oak, and cedar.  
Specs:

Other Retention will be a portion of the red pine and white pine trees remaining.  
Comments:

Next Possible regeneration harvest next year of entry.  
Steps:

Proposed  
Start Date: 10/01/2013

**Total Treatment  
Acreage Proposed: 7.8**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6119 - Mixed Lowland Deciduous Forest	High Density Pole	7.6	83		
2	6119 - Mixed Lowland Deciduous Forest	High Density Pole	9.1	83		
5	42320 - Upland Spruce	High Density Pole	5.4	83		New stand added.
6	6118 - Lowland Deciduous with Cedar	High Density Pole	45.0	66		
13	6124 - Lowland Spruce-Fir	High Density Pole	7.4	66		Harvest stand. do not cut cedar or hemlock. No retention due to small size.
14	4111 - S.Maple, Hard Mast Association	High Density Pole	3.4	80	111-140	
18	42330 - Upland Fir	High Density Sapling	17.5	26		
19	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	4.6	54		New stand added.
20	6112 - Lowland Aspen	High Density Sapling	18.7	4		Sale Contract 41-013-04-01 [3/21/07 BB] Stand was cut winter 2007, Mead Contract, actual acres was 17. Regenerated nicely to quaking aspen. Fully stocked, 10-15 feet tall.
21	6120 - Lowland Cedar	High Density Pole	34.4	144		
25	42330 - Upland Fir	High Density Pole	1.8	60		Cut all trees if stand can be accessed. No retention due to small size.
26	42220 - Natural Jack Pine	High Density Pole	43.6	64		
27	6116 - Lowland Birch	Medium Density Pole	6.1	59		
31	42210 - Natural Red Pine	High Density Log	62.1	63		
33	42210 - Natural Red Pine	High Density Log	13.1	63		
34	6120 - Lowland Cedar	High Density Pole	7.6	94		
36	42330 - Upland Fir	High Density Pole	17.0	36		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	42220 - Natural Jack Pine	High Density Pole	443.9	64		
38	42210 - Natural Red Pine	High Density Pole	225.7	63		
48	42340 - Upland Spruce/Fir	High Density Pole	5.5	29		
53	6120 - Lowland Cedar	High Density Pole	13.0	135		Had some selective cutting in 1954.
54	42210 - Natural Red Pine	High Density Pole	2.6	63		
61	4130 - Aspen	High Density Sapling	12.5	6		[5/18/05] Stand was cut in the winter of 2005. Sale acres = 13 (9/08/05 AP) FTP W41-1194 has been completed Aspen TSI.
73	6120 - Lowland Cedar	High Density Pole	73.8	90		Stand has been cut through many years ago. Could find no record of this cutting. An old woods road is still visible and old stumps can still be found. Areas that were cut heavier regenerated well to cedar that are now 3-4 inches dbh.
75	42210 - Natural Red Pine	High Density Pole	12.4	56		
76	6120 - Lowland Cedar	High Density Pole	25.4	104		
82	6121 - Tamarack	High Density Sapling	10.3	30		
83	42210 - Natural Red Pine	High Density Pole	48.4	60		
84	6122 - Black Spruce	High Density Pole	22.8	62		
87	42220 - Natural Jack Pine	High Density Pole	47.6	60		
89	42330 - Upland Fir	High Density Sapling	3.3	6		[5/18/05 BB] Stand was cut winter of 2005, sale acres= 3. [9/8/05 BB] FTP W41-1194 has been completed, Aspen TSI.  Previous MO= aspen but stand filling in with spruce fir and white pine . Large white pine left for visual along road .
93	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	10.0	64		
95	4136 - Aspen, Mixed Conifer	High Density Sapling	4.9	2		Stand cut winter 2010, sale number 41-039-08-02. Original stand was 12 acres but only 5 acres were cut due to stream buffers and an ERA. Residual basal areas are; white pine= 12 sqft. red pine = 7 sqft.

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 066

Year of Entry: 2014



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
97	6120 - Lowland Cedar	High Density Pole	17.4	107		
98	4136 - Aspen, Mixed Conifer	High Density Sapling	3.3	2		Stand cut winter 2010, sale number 41-039-08-02. Original stand was 12 acres but only 5 acres were cut due to stream buffers and an ERA. Residual basal areas are; white pine= 12 sqft. red pine = 7 sqft.
100	42200 - Natural White Pine	High Density Pole	14.2	65		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	623 - Emergent Wetland	0.9	N/A	Unspecified	
4	623 - Emergent Wetland	2.0	N/A	Unspecified	
7	310 - Herbaceous Openland	6.0	N/A	Unspecified	
8	50 - Water	1.1	N/A	Unspecified	
9	623 - Emergent Wetland	4.1	N/A	Unspecified	
10	622 - Lowland Shrub	1.6	N/A	Unspecified	
11	50 - Water	3.5	N/A	Unspecified	
12	623 - Emergent Wetland	1.2	N/A	Unspecified	
15	623 - Emergent Wetland	2.7	N/A	Unspecified	
16	623 - Emergent Wetland	5.6	N/A	Unspecified	
17	623 - Emergent Wetland	4.5	N/A	Unspecified	
22	622 - Lowland Shrub	4.2	N/A	Unspecified	
23	623 - Emergent Wetland	1.7	N/A	Unspecified	
24	623 - Emergent Wetland	4.5	N/A	Unspecified	
28	623 - Emergent Wetland	1.2	N/A	Unspecified	
29	50 - Water	7.1	N/A	Unspecified	
30	622 - Lowland Shrub	24.2	N/A	Unspecified	
32	50 - Water	4.5	N/A	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
35	623 - Emergent Wetland	2.2	N/A	Unspecified	
39	623 - Emergent Wetland	4.9	N/A	Unspecified	
40	623 - Emergent Wetland	5.9	N/A	Unspecified	
41	50 - Water	8.9	N/A	Unspecified	
42	623 - Emergent Wetland	3.4	N/A	Unspecified	
43	50 - Water	3.0	N/A	Unspecified	
44	622 - Lowland Shrub	2.3	N/A	Unspecified	
45	623 - Emergent Wetland	5.8	N/A	Unspecified	
46	623 - Emergent Wetland	14.4	N/A	Unspecified	
47	50 - Water	9.6	N/A	Unspecified	
49	50 - Water	2.3	N/A	Unspecified	
50	50 - Water	1.7	N/A	Unspecified	
51	623 - Emergent Wetland	9.0	N/A	Unspecified	
52	623 - Emergent Wetland	15.0	N/A	Unspecified	
55	50 - Water	0.6	N/A	Unspecified	
56	622 - Lowland Shrub	14.0	N/A	Unspecified	
57	50 - Water	5.2	N/A	Unspecified	
58	50 - Water	2.4	N/A	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
59	623 - Emergent Wetland	11.9	N/A	Unspecified	
60	50 - Water	1.3	N/A	Unspecified	
62	122 - Road/Parking Lot	3.8	N/A	Unspecified	
63	623 - Emergent Wetland	3.9	N/A	Unspecified	
64	50 - Water	1.5	N/A	Unspecified	
65	50 - Water	1.0	N/A	Unspecified	
66	50 - Water	4.5	N/A	Unspecified	
67	50 - Water	2.6	N/A	Unspecified	
68	623 - Emergent Wetland	1.6	N/A	Unspecified	
69	623 - Emergent Wetland	1.3	N/A	Unspecified	
70	623 - Emergent Wetland	2.1	N/A	Unspecified	
71	50 - Water	1.1	N/A	Unspecified	
72	622 - Lowland Shrub	1.3	N/A	Unspecified	
74	623 - Emergent Wetland	3.4	N/A	Unspecified	
77	623 - Emergent Wetland	1.9	N/A	Unspecified	
78	623 - Emergent Wetland	2.3	N/A	Unspecified	
79	623 - Emergent Wetland	2.5	N/A	Unspecified	
80	623 - Emergent Wetland	3.4	N/A	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
81	50 - Water	2.4	N/A	Unspecified	
85	50 - Water	6.9	N/A	Unspecified	
86	623 - Emergent Wetland	0.8	N/A	Unspecified	
88	623 - Emergent Wetland	1.8	N/A	Unspecified	
90	622 - Lowland Shrub	3.5	N/A	Unspecified	
91	50 - Water	2.9	N/A	Unspecified	
92	623 - Emergent Wetland	2.6	N/A	Unspecified	
94	623 - Emergent Wetland	2.2	N/A	Unspecified	
96	623 - Emergent Wetland	0.9	N/A	Unspecified	
99	622 - Lowland Shrub	2.7	N/A	Unspecified	
101	310 - Herbaceous Openland	1.3	N/A	Unspecified	
102	622 - Lowland Shrub	2.9	N/A	Unspecified	





**7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments
multiple - see	SCA Removal	41066_SCARemoval	1242.1	RAU has added SCA. Please enter comments.



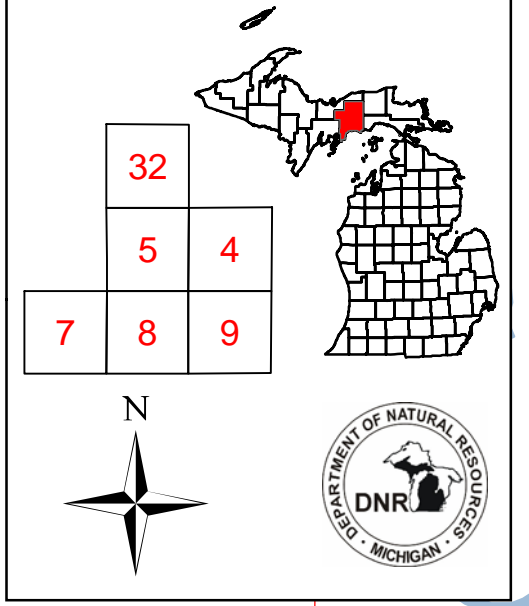
## 8 – DEDICATED CONSERVATION AREA DETAILS

\* 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.

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.
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	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.

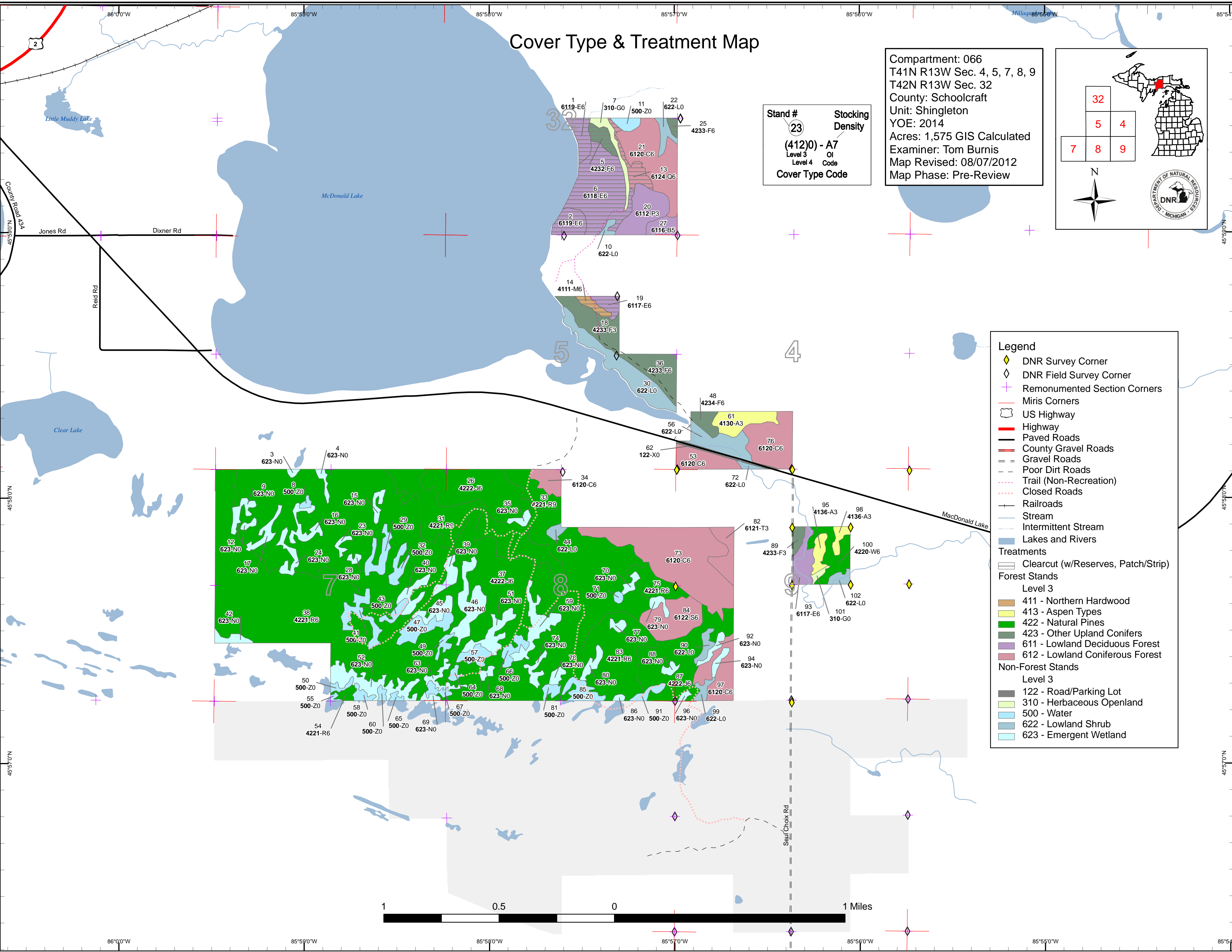
# Cover Type & Treatment Map

Compartment: 066  
 T41N R13W Sec. 4, 5, 7, 8, 9  
 T42N R13W Sec. 32  
 County: Schoolcraft  
 Unit: Shingleton  
 YOE: 2014  
 Acres: 1,575 GIS Calculated  
 Examiner: Tom Burnis  
 Map Revised: 08/07/2012  
 Map Phase: Pre-Review



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

**Stocking Density**  
 OI  
 Code



- Legend**
- ◆ DNR Survey Corner
  - ◇ DNR Field Survey Corner
  - ⊕ Remonumented Section Corners
  - ⊕ Miris Corners
  - ⬡ US Highway
  - Highway
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
  - Trail (Non-Recreation)
  - Closed Roads
  - Railroads
  - Stream
  - Intermittent Stream
  - Lakes and Rivers
- Treatments**
- ▭ Clearcut (w/Reserves, Patch/Strip)
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 422 - Natural Pines
  - 423 - Other Upland Conifers
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- 122 - Road/Parking Lot
  - 310 - Herbaceous Openland
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland



**Table 1 – Total Acres by Cover Type and Age Class**



	Age Class													Total	
	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 +		Uneven Age
Aspen	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Cedar	0	0	0	0	0	0	0	0	0	81	43	0	47	0	172
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Jack Pine	0	0	0	0	0	0	535	0	0	0	0	0	0	0	535
Lowland Aspen/Balsam Poplar	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Lowland Conifers	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
Lowland Deciduous	0	0	0	0	0	5	55	0	17	0	0	0	0	0	76
Lowland Shrub	57	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Lowland Spruce/Fir	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23
Marsh	132	0	0	0	0	0	0	0	0	0	0	0	0	0	132
Northern Hardwood	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Paper Birch	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Red Pine	0	0	0	0	0	12	352	0	0	0	0	0	0	0	364
Tamarack	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10
Upland Spruce/Fir	3	0	23	17	0	0	2	0	5	0	0	0	0	0	50
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	74	0	0	0	0	0	0	0	0	0	0	0	0	0	74
White Pine	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14
<b>Total</b>	<b>317</b>	<b>0</b>	<b>23</b>	<b>27</b>	<b>0</b>	<b>23</b>	<b>988</b>	<b>0</b>	<b>25</b>	<b>81</b>	<b>43</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>1575</b>



## Table 2 – Proposed Treatment Summaries

**Shingleton Mgt. Unit**  
**Year of Entry 2014**

**Compartment 066**  
**Total Compartment Acres: 1575**

### Acres by Treatment Type

Commercial Harvest - 76	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Lowland Conifers	7	0	0	0	0	0	7
Lowland Deciduous	58	0	0	0	0	0	58
Northern Hardwood	3	0	0	0	0	0	3
Upland Spruce/Fir	7	0	0	0	0	0	7
<b>Total</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>76</b>



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	41066001-Cut	3.8	6119 - Mixed Lowland Deciduous Forest	High Density Pole	83		Harvest	Clearcut with Reserves	6119 - Mixed Lowland Deciduous Forest	Cmpt. Review Proposal
<u>Prescription:</u> Cut all except cedar and hemlock. Exclude NW portion of stand so as not to cross the drainage. 100 foot buffer on Mc Donald lake. Retention <u>Specs:</u> will be lake buffer and NW portion of stand. Cut stand in winter.										
<u>Other</u> Acceptable regeneration will be mix of current spp. <u>Comments:</u>										
<u>Next</u> Monitor for reproduction. <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
2	41066002-Cut	7.2	6119 - Mixed Lowland Deciduous Forest	High Density Pole	83		Harvest	Clearcut with Reserves	6119 - Mixed Lowland Deciduous Forest	Cmpt. Review Proposal
<u>Prescription:</u> Cut all trees except cedar and hemlock. 100 foot buffer on lake. Buffer will be retention. Cut stand in winter <u>Specs:</u>										
<u>Other</u> Mix of current spp. acceptable regen. <u>Comments:</u>										
<u>Next</u> Monitor regeneration. <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
5	41066005-Cut	5.4	42320 - Upland Spruce	High Density Pole	83		Harvest	Clearcut	3102 - Grass	Cmpt. Review Proposal
<u>Prescription:</u> Cut all trees. Small stand, no retention. Cut stand in winter. <u>Specs:</u>										
<u>Other</u> acceptable regen spruce/fir mix. <u>Comments:</u>										
<u>Next</u> Monitor regen. <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
6	41066006-Cut	42.2	6118 - Lowland Deciduous with Cedar	High Density Pole	66		Harvest	Clearcut with Reserves	6118 - Lowland Deciduous with Cedar	Cmpt. Review Proposal
<u>Prescription:</u> Cut all trees except cedar and hemlock. Buffer lake 100 feet. In addition, exclude solid patches of cedar with red line to prevent cutting cedar in <u>Specs:</u> order to reach a cuttable tree. There is an area of solid cedar in the southern portion of the stand. Retention will be lake buffer and cedar exclusions. Cut stand in winter.										
<u>Other</u> Acceptable regen mix of current spp. <u>Comments:</u>										
<u>Next</u> Monitor regen. <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										

**Table 3 -- Treatments Prescribed  
with No Limiting Factor**



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	41066013-Cut	7.4	6124 - Lowland Spruce-Fir	High Density Pole	66		Harvest	Clearcut with Reserves	6124 - Lowland Spruce-Fir	Cmpt. Review Proposal
<p><u>Prescription</u> Harvest stand. do not cut cedar or hemlock. No retention due to small size. Cut stand in winter.  <u>Specs:</u>  <u>Other</u> Acceptable regen mix of current spp.  <u>Comments:</u>  <u>Next</u> Monitor regen.  <u>Steps:</u>  <u>Proposed</u>  <u>Start Date:</u> 10/01/2013</p>										

14	41066014-Cut	3.4	4111 - S.Maple, Hard Mast Association	High Density Pole	80	111-140	Harvest	Clearcut with Reserves	4111 - S.Maple, Hard Mast Association	Cmpt. Review Proposal
<p><u>Prescription</u> Clear cut stand. Mostly hard maple but very poor quality and small stand. Maintain a few large beech and all yellow birch. Cut stand in winter.  <u>Specs:</u>  <u>Other</u> Current spp mix acceptable regen.  <u>Comments:</u>  <u>Next</u> Monitor regen.  <u>Steps:</u>  <u>Proposed</u>  <u>Start Date:</u> 10/01/2013</p>										

19	41066019-Cut	4.6	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	54		Harvest	Clearcut	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all trees. No retention due to small acreage. Cut stand in winter.  <u>Specs:</u>  <u>Other</u> mix of current spp acceptable regen.  <u>Comments:</u>  <u>Next</u> Monitor regen.  <u>Steps:</u>  <u>Proposed</u>  <u>Start Date:</u> 10/01/2013</p>										

**Total Treatment  
Acreage Proposed: 74.0**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25 41066025-Cut	1.8	42330 - Upland Fir	High Density Pole	60		Harvest	Clearcut	42330 - Upland Fir	Cmpt. Review Proposal

Prescription Cut all trees if stand can be accessed. No retention due to small size.

Specs:

Other mix of current spp. acceptable regen.

Comment: Harvest of stand will depend on route of access.

Next Monitor regen.

Steps:

Proposed

Start Date: 10/01/2013

Limiting Factor and No  
Treatment Reason

2B: Unknown if access through adjacent landowner(s) is possible  
Difficult access through private for small acreage and low volume.

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**Total Treatment  
Acreage Proposed: 1.8**

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>41009014-Cut1</b>	5.2	6120 - Lowland Cedar	High Density Pole	141		Harvest	Patch or Strip Clearcut	6120 - Lowland Cedar	Cmpt. Review Proposal - Incomplete

Prescription patch cut app. 5 acres, determined at time of prep  
Specs:

Other  
Comments:

Next Monitor according to work instructions.  
Steps:

Proposed  
Start Date: 10/01/2011

<b>41044_OutOfY OE-Cut</b>	0.9					Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal - Incomplete
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Prescription Mark red pine and white pine to 80 sq.ft. where densities are high enough. Cut all other species except hemlock, oak, and cedar.  
Specs:

Other Retention will be a portion of the red pine and white pine trees remaining.  
Comments:

Next Possible regeneration harvest next year of entry.  
Steps:

Proposed  
Start Date: 10/01/2013

<b>41172002-Cut</b>	4.4	4112 - Maple, Beech, Cherry Association	High Density Pole	49		Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Treatment=Thin stand down to 80 BA on average while putting in regen gaps to promote species diversity and Sugar Maple. Put stand up with adjacent hardwood in comp 169 in 2014.  
Specs: MO=Un-even aged hardwoods with quality Sugar Maple stems  
Retention=Residual BA

Other  
Comments:

Next Natural regen survey to follow harvest during the next inventory cycle.  
Steps:

Proposed  
Start Date: 10/01/2014

**Total Treatment  
Acreage Proposed: 10.5**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6119 - Mixed Lowland Deciduous Forest	High Density Pole	7.6	83		
2	6119 - Mixed Lowland Deciduous Forest	High Density Pole	9.1	83		
5	42320 - Upland Spruce	High Density Pole	5.4	83		New stand added.
6	6118 - Lowland Deciduous with Cedar	High Density Pole	45.0	66		
13	6124 - Lowland Spruce-Fir	High Density Pole	7.4	66		Harvest stand. do not cut cedar or hemlock. No retention due to small size.
14	4111 - S.Maple, Hard Mast Association	High Density Pole	3.4	80	111-140	
18	42330 - Upland Fir	High Density Sapling	17.5	26		
19	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	4.6	54		New stand added.
20	6112 - Lowland Aspen	High Density Sapling	18.7	4		Sale Contract 41-013-04-01 [3/21/07 BB] Stand was cut winter 2007, Mead Contract, actual acres was 17. Regenerated nicely to quaking aspen. Fully stocked, 10-15 feet tall.
21	6120 - Lowland Cedar	High Density Pole	34.4	144		
25	42330 - Upland Fir	High Density Pole	1.8	60		Cut all trees if stand can be accessed. No retention due to small size.
26	42220 - Natural Jack Pine	High Density Pole	43.6	64		
27	6116 - Lowland Birch	Medium Density Pole	6.1	59		
31	42210 - Natural Red Pine	High Density Log	62.1	63	51-80	
33	42210 - Natural Red Pine	High Density Log	13.1	63	51-80	
34	6120 - Lowland Cedar	High Density Pole	7.6	94		
36	42330 - Upland Fir	High Density Pole	17.0	36		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	42220 - Natural Jack Pine	High Density Pole	443.9	64		
38	42210 - Natural Red Pine	High Density Pole	225.7	63	51-80	
48	42340 - Upland Spruce/Fir	High Density Pole	5.5	29		
53	6120 - Lowland Cedar	High Density Pole	13.0	135		Had some selective cutting in 1954.
54	42210 - Natural Red Pine	High Density Pole	2.6	63	51-80	
61	4130 - Aspen	High Density Sapling	12.5	6		[5/18/05] Stand was cut in the winter of 2005. Sale acres = 13 (9/08/05 AP) FTP W41-1194 has been completed Aspen TSI.
73	6120 - Lowland Cedar	High Density Pole	73.8	90		Stand has been cut through many years ago. Could find no record of this cutting. An old woods road is still visible and old stumps can still be found. Areas that were cut heavier regenerated well to cedar that are now 3-4 inches dbh.
75	42210 - Natural Red Pine	High Density Pole	12.4	56	51-80	
76	6120 - Lowland Cedar	High Density Pole	25.4	104		
82	6121 - Tamarack	High Density Sapling	10.3	30		
83	42210 - Natural Red Pine	High Density Pole	48.4	60	51-80	
84	6122 - Black Spruce	High Density Pole	22.8	62		
87	42220 - Natural Jack Pine	High Density Pole	47.6	60		
89	42330 - Upland Fir	High Density Sapling	3.3	6		[5/18/05 BB] Stand was cut winter of 2005, sale acres= 3. [9/8/05 BB] FTP W41-1194 has been completed, Aspen TSI.  Previous MO= aspen but stand filling in with spruce fir and white pine . Large white pine left for visual along road .
93	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	10.0	64		
95	4136 - Aspen, Mixed Conifer	High Density Sapling	4.9	2		Stand cut winter 2010, sale number 41-039-08-02. Original stand was 12 acres but only 5 acres were cut due to stream buffers and an ERA. Residual basal areas are; white pine= 12 sqft. red pine = 7 sqft.

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 066  
Year of Entry: 2014



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
97	6120 - Lowland Cedar	High Density Pole	17.4	107		
98	4136 - Aspen, Mixed Conifer	High Density Sapling	3.3	2		Stand cut winter 2010, sale number 41-039-08-02. Original stand was 12 acres but only 5 acres were cut due to stream buffers and an ERA. Residual basal areas are; white pine= 12 sqft. red pine = 7 sqft.
100	42200 - Natural White Pine	High Density Pole	14.2	65	81-110	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	623 - Emergent Wetland	0.9	N/A	Unspecified	
4	623 - Emergent Wetland	2.0	N/A	Unspecified	
7	310 - Herbaceous Openland	6.0	N/A	Unspecified	
8	50 - Water	1.1	N/A	Unspecified	
9	623 - Emergent Wetland	4.1	N/A	Unspecified	
10	622 - Lowland Shrub	1.6	N/A	Unspecified	
11	50 - Water	3.5	N/A	Unspecified	
12	623 - Emergent Wetland	1.2	N/A	Unspecified	
15	623 - Emergent Wetland	2.7	N/A	Unspecified	
16	623 - Emergent Wetland	5.6	N/A	Unspecified	
17	623 - Emergent Wetland	4.5	N/A	Unspecified	
22	622 - Lowland Shrub	4.2	N/A	Unspecified	
23	623 - Emergent Wetland	1.7	N/A	Unspecified	
24	623 - Emergent Wetland	4.5	N/A	Unspecified	
28	623 - Emergent Wetland	1.2	N/A	Unspecified	
29	50 - Water	7.1	N/A	Unspecified	
30	622 - Lowland Shrub	24.2	N/A	Unspecified	
32	50 - Water	4.5	N/A	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
35	623 - Emergent Wetland	2.2	N/A	Unspecified	
39	623 - Emergent Wetland	4.9	N/A	Unspecified	
40	623 - Emergent Wetland	5.9	N/A	Unspecified	
41	50 - Water	8.9	N/A	Unspecified	
42	623 - Emergent Wetland	3.4	N/A	Unspecified	
43	50 - Water	3.0	N/A	Unspecified	
44	622 - Lowland Shrub	2.3	N/A	Unspecified	
45	623 - Emergent Wetland	5.8	N/A	Unspecified	
46	623 - Emergent Wetland	14.4	N/A	Unspecified	
47	50 - Water	9.6	N/A	Unspecified	
49	50 - Water	2.3	N/A	Unspecified	
50	50 - Water	1.7	N/A	Unspecified	
51	623 - Emergent Wetland	9.0	N/A	Unspecified	
52	623 - Emergent Wetland	15.0	N/A	Unspecified	
55	50 - Water	0.6	N/A	Unspecified	
56	622 - Lowland Shrub	14.0	N/A	Unspecified	
57	50 - Water	5.2	N/A	Unspecified	
58	50 - Water	2.4	N/A	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
59	623 - Emergent Wetland	11.9	N/A	Unspecified	
60	50 - Water	1.3	N/A	Unspecified	
62	122 - Road/Parking Lot	3.8	N/A	Unspecified	
63	623 - Emergent Wetland	3.9	N/A	Unspecified	
64	50 - Water	1.5	N/A	Unspecified	
65	50 - Water	1.0	N/A	Unspecified	
66	50 - Water	4.5	N/A	Unspecified	
67	50 - Water	2.6	N/A	Unspecified	
68	623 - Emergent Wetland	1.6	N/A	Unspecified	
69	623 - Emergent Wetland	1.3	N/A	Unspecified	
70	623 - Emergent Wetland	2.1	N/A	Unspecified	
71	50 - Water	1.1	N/A	Unspecified	
72	622 - Lowland Shrub	1.3	N/A	Unspecified	
74	623 - Emergent Wetland	3.4	N/A	Unspecified	
77	623 - Emergent Wetland	1.9	N/A	Unspecified	
78	623 - Emergent Wetland	2.3	N/A	Unspecified	
79	623 - Emergent Wetland	2.5	N/A	Unspecified	
80	623 - Emergent Wetland	3.4	N/A	Unspecified	





Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
81	50 - Water	2.4	N/A	Unspecified	
85	50 - Water	6.9	N/A	Unspecified	
86	623 - Emergent Wetland	0.8	N/A	Unspecified	
88	623 - Emergent Wetland	1.8	N/A	Unspecified	
90	622 - Lowland Shrub	3.5	N/A	Unspecified	
91	50 - Water	2.9	N/A	Unspecified	
92	623 - Emergent Wetland	2.6	N/A	Unspecified	
94	623 - Emergent Wetland	2.2	N/A	Unspecified	
96	623 - Emergent Wetland	0.9	N/A	Unspecified	
99	622 - Lowland Shrub	2.7	N/A	Unspecified	
101	310 - Herbaceous Openland	1.3	N/A	Unspecified	
102	622 - Lowland Shrub	2.9	N/A	Unspecified	

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\* 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.

<b>Stand</b>	<b>SCA Type</b>	<b>SCA Name</b>	<b>Acres</b>	<b>Comments</b>
multiple - see	SCA Removal	41066_SCARemoval	1242.1	Area removed from POG. Does not meet requirements for type 1 or type 2 old growth.



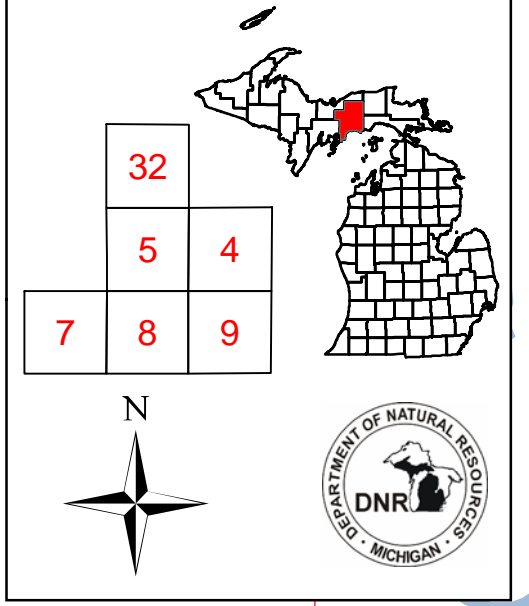
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Conservation Area	Type	Description
HCVA	Critical Dunes	Critical dune areas are established via the public legislative process, and governed by Part 353, Sand Dune Protection and Management, of the Natural Resources and Environmental Protection Act, 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.
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	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.

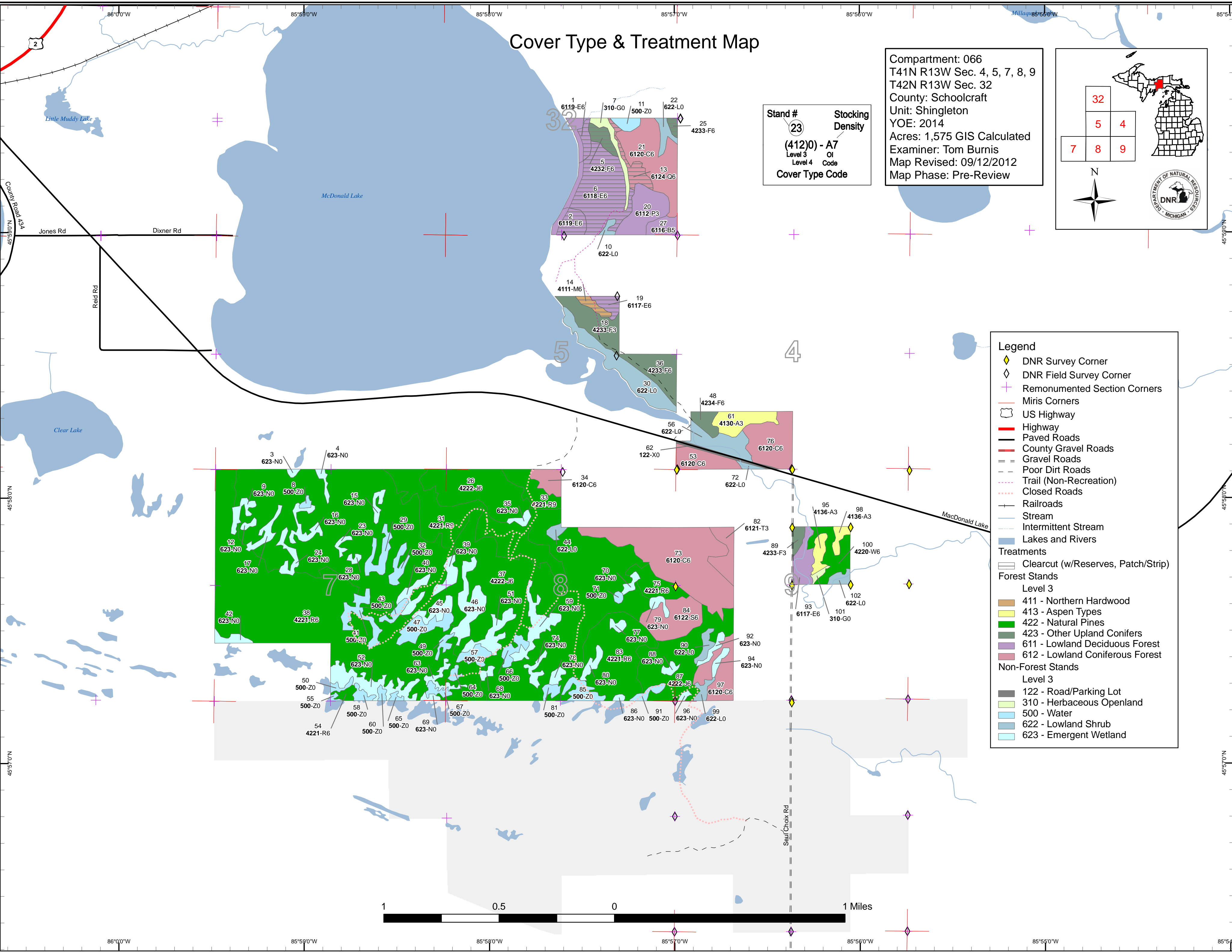
# Cover Type & Treatment Map

Compartment: 066  
 T41N R13W Sec. 4, 5, 7, 8, 9  
 T42N R13W Sec. 32  
 County: Schoolcraft  
 Unit: Shingleton  
 YOE: 2014  
 Acres: 1,575 GIS Calculated  
 Examiner: Tom Burnis  
 Map Revised: 09/12/2012  
 Map Phase: Pre-Review

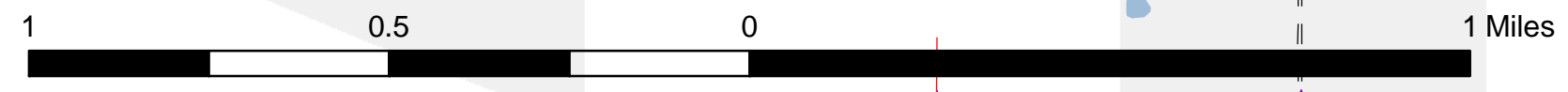


**Stand #**  
 23  
**(4120) - A7**  
 Level 3  
 Level 4  
**Cover Type Code**

**Stocking Density**  
 OI  
 Code



- Legend**
- ◆ DNR Survey Corner
  - ◇ DNR Field Survey Corner
  - ⊕ Remonumented Section Corners
  - ⊕ Miris Corners
  - ⬡ US Highway
  - Highway
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
  - Trail (Non-Recreation)
  - Closed Roads
  - Railroads
  - Stream
  - Intermittent Stream
  - Lakes and Rivers
  - Treatments**
  - Clearcut (w/Reserves, Patch/Strip)
  - Forest Stands**
  - Level 3**
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 422 - Natural Pines
  - 423 - Other Upland Conifers
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - Non-Forest Stands**
  - Level 3**
  - 122 - Road/Parking Lot
  - 310 - Herbaceous Openland
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland



# Stand Boundary Map

Compartment: 066  
 T41N R13W Sec. 4, 5, 7, 8, 9  
 T42N R13W Sec. 32  
 County: Schoolcraft  
 Unit: Shingleton  
 YOE: 2014  
 Acres: 1,575 GIS Calculated  
 Examiner: Tom Burnis  
 Map Revised: 09/12/2012  
 Map Phase: Pre-Review

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

N

**Legend**

- ◆ DNR Survey Corner
- ◇ DNR Field Survey Corner
- ✦ Remonumented Section Corners
- ✦ Miris Corners
- Highway
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Railroads
- Stream
- Intermittent Stream
- Stand Boundaries

**Forest Stands**

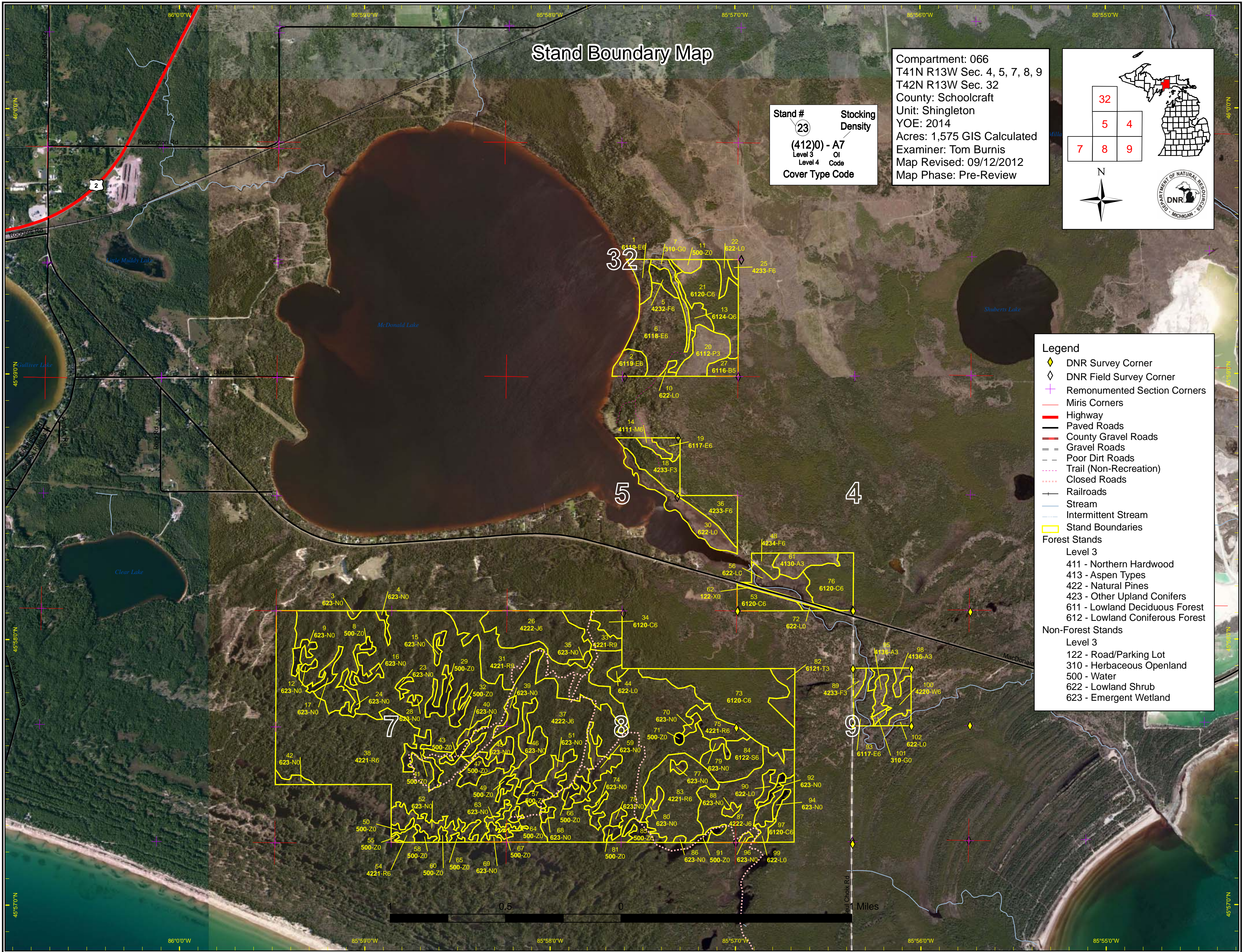
Level 3

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

**Non-Forest Stands**

Level 3

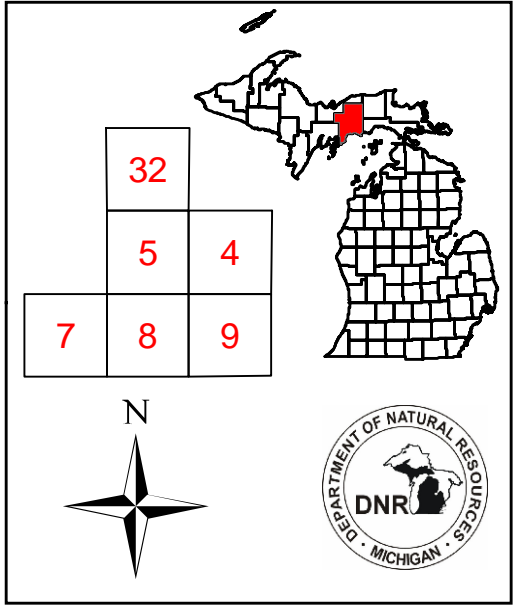
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



# Dedicated & Proposed Special Conservation Area Map

- Legend**
- + Remonumented Section Corners
  - Miris Corners
  - Stand Boundaries
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 422 - Natural Pines
  - 423 - Other Upland Conifers
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- 122 - Road/Parking Lot
  - 310 - Herbaceous Openland
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland
- Dedicated Special Conservation Areas**
- Ecological Reference Areas
  - Critical Dunes
  - Boat Access Sites
  - Mineral Resource Polygon
  - Deer Wintering Areas

Compartment: 066  
 T41N R13W Sec. 4, 5, 7, 8, 9  
 T42N R13W Sec. 32  
 County: Schoolcraft  
 Unit: Shingleton  
 YOE: 2014  
 Acres: 1,575 GIS Calculated  
 Examiner: Tom Burnis  
 Map Revised: 08/07/2012  
 Map Phase: Pre-Review



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

