



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 67

Entry Year 2015

Acreage: 1,306

County Schoolcraft

Management Area: Lake Michigan Shoreline

Revision Date: 08/06/2013

Stand Examiner: Tom Burnis

Legal Description:

T41N R13W Sections 15,16,17,18

Identified Planning Goals:

The goals in this compartment are to protect the integrity of the natural resource for now and future generations.

Soil and topography:

Topography is a sand-ridge complex bordering Lake Michigan. Predominate soils are Seney on the pine ridges and rifle in the lows.

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

Mostly state with some private fragmentation and hunting camps.

Unique Natural Features:

See MNFI data base.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The West portion of the compartment is listed as critical dunes. Most of the rest of the compartment falls under the dune and swale complex.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions

Sections 15-18, and 27, T41N-R13W, Schoolcraft Co.

Surface sediments consist of lacustrine (lake) sand and gravel sometimes thin to discontinuous over bedrock. The glacial drift thickness varies between 0 and 10 feet. The Silurian Engadine and Manistique Groups subcrop below the glacial drift. The Engadine is quarried for stone to the north. Gravel pits are not located in this area and potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access:

County road 431 runs north-south through the center of section 16. A two track road gives limited access into the western portion of the compartment.

Survey Needs:

None

Recreational Facilities and Opportunities:

There are no developed recreation facilities within this compartment.

Fire Protection:

May be difficult due to limited access.

Additional Compartment Information:

The following reports from the Inventory are attached:

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

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

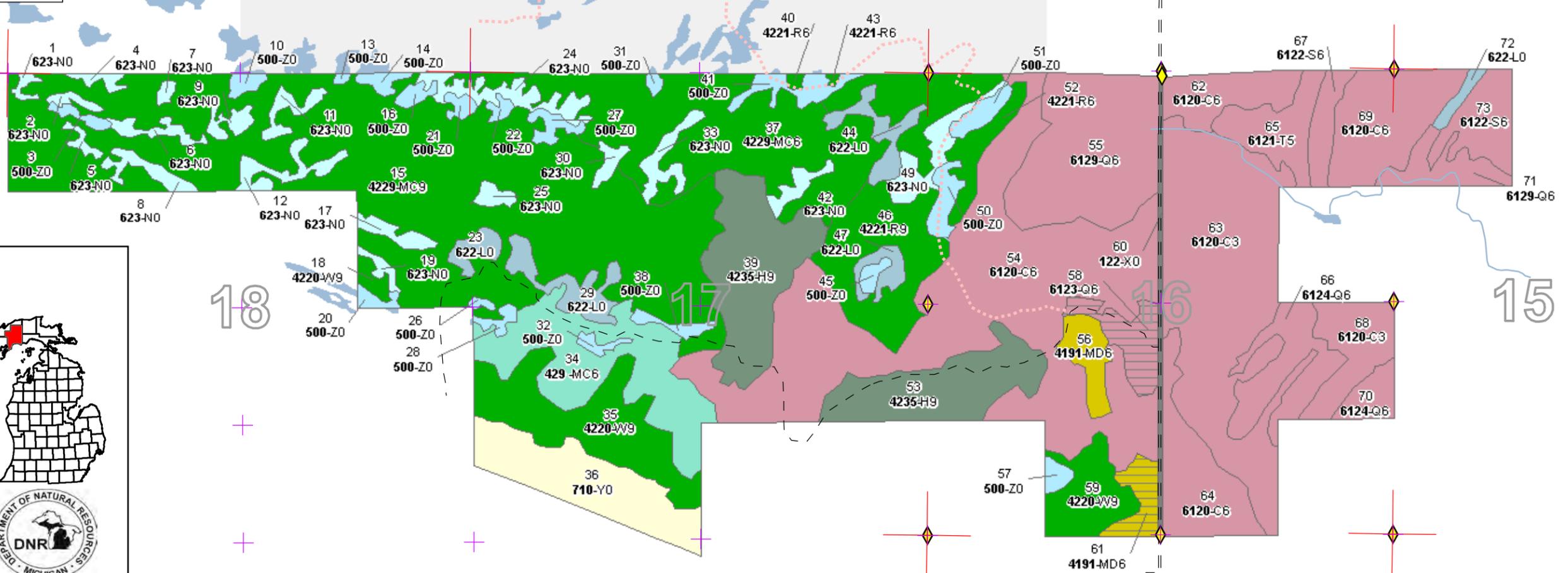
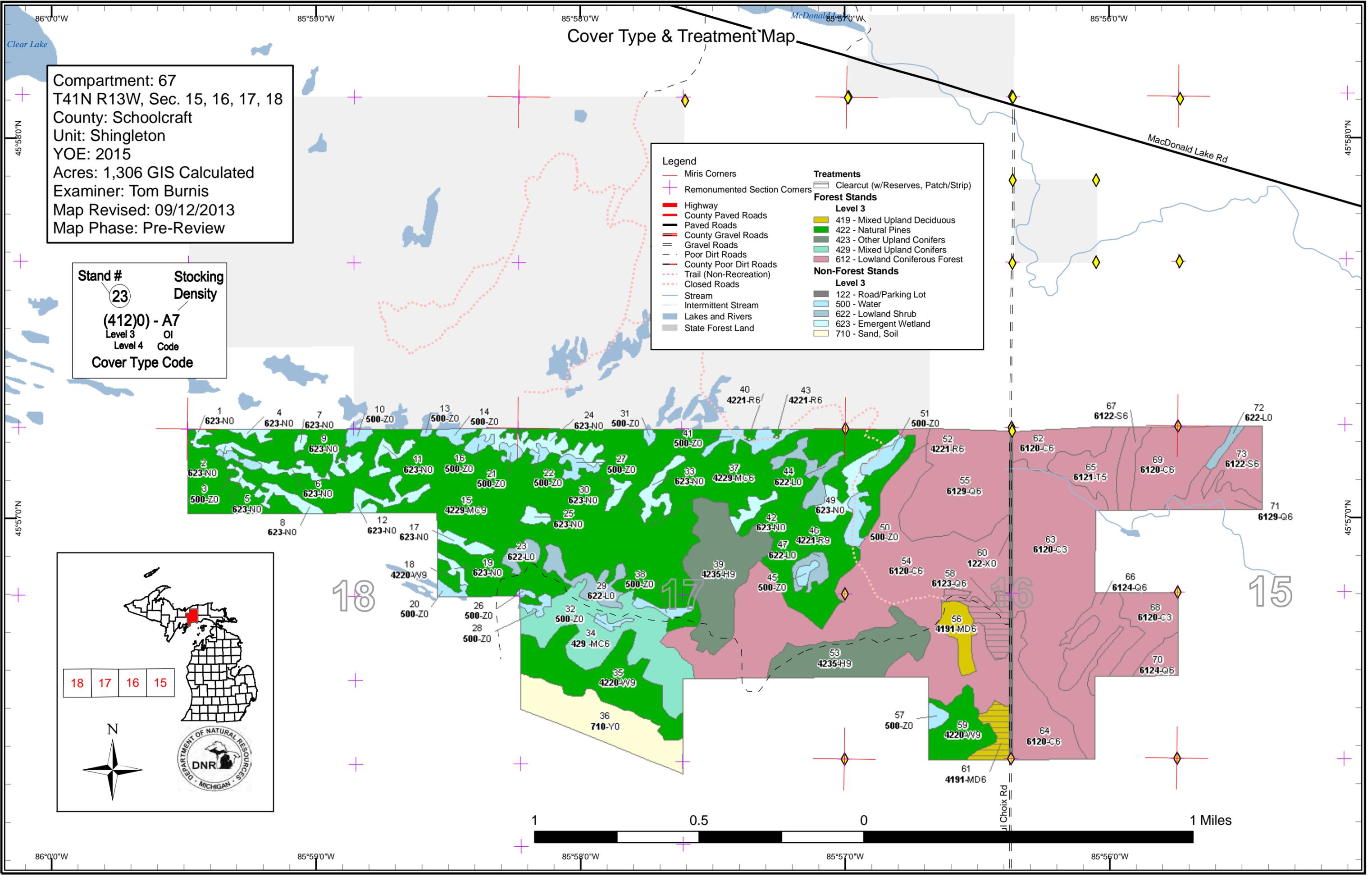
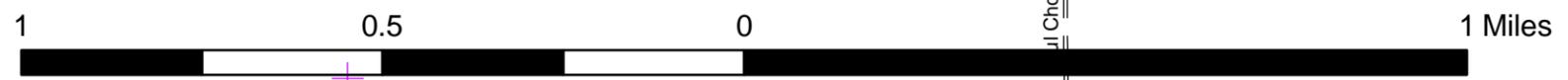
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 67
 T41N R13W, Sec. 15, 16, 17, 18
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2015
 Acres: 1,306 GIS Calculated
 Examiner: Tom Burnis
 Map Revised: 09/12/2013
 Map Phase: Pre-Review

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

Legend	
— Miris Corners	— Clearcut (w/Reserves, Patch/Strip)
⊕ Remonumented Section Corners	Forest Stands
— Highway	Level 3
— County Paved Roads	419 - Mixed Upland Deciduous
— Paved Roads	422 - Natural Pines
— County Gravel Roads	423 - Other Upland Conifers
— Gravel Roads	429 - Mixed Upland Conifers
— Poor Dirt Roads	612 - Lowland Coniferous Forest
— County Poor Dirt Roads	Non-Forest Stands
— Trail (Non-Recreation)	Level 3
— Closed Roads	122 - Road/Parking Lot
— Stream	500 - Water
— Intermittent Stream	622 - Lowland Shrub
— Lakes and Rivers	623 - Emergent Wetland
— State Forest Land	710 - Sand, Soil

Special Conservation Areas & Site Conditions Map

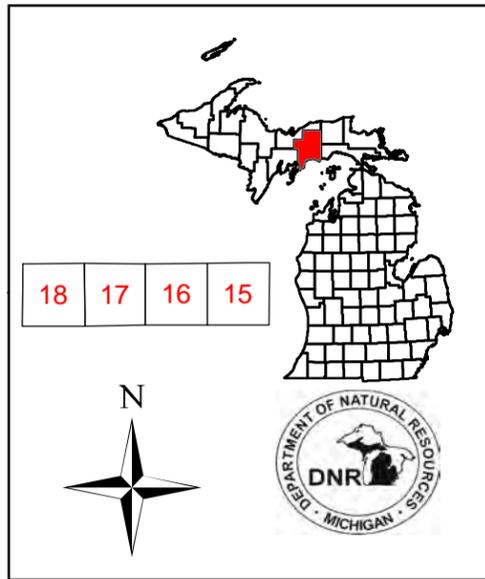
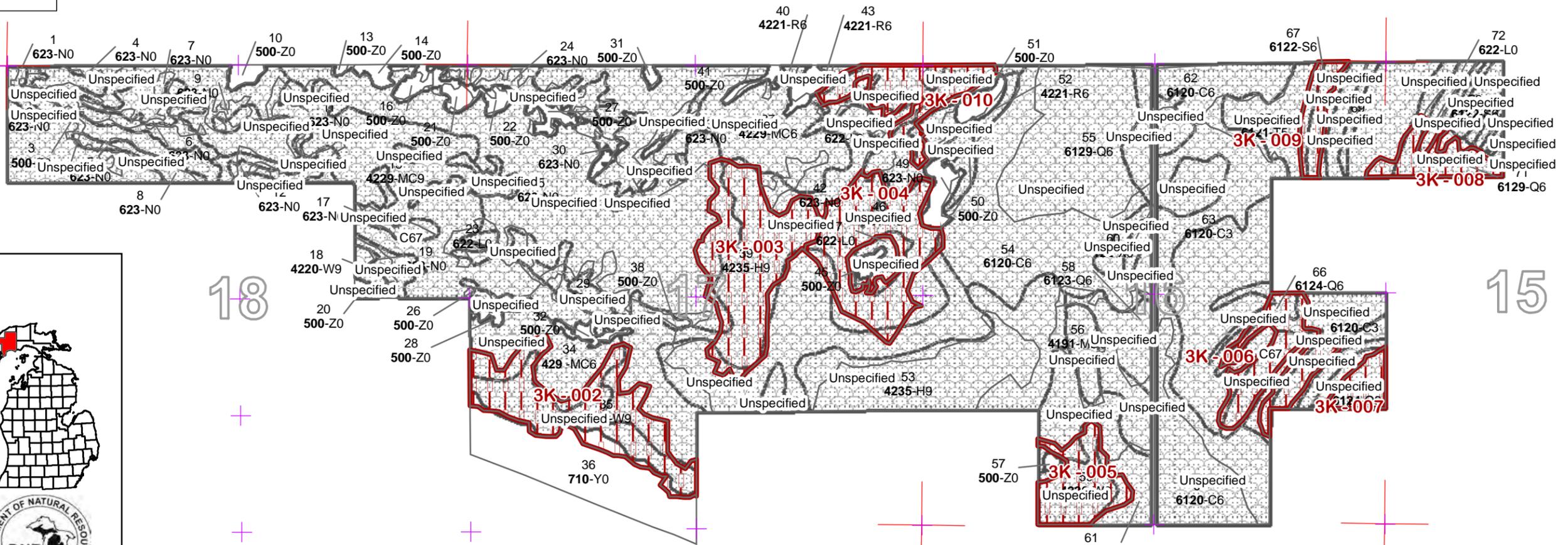
Compartment: 67
 T41N R13W, Sec. 15, 16, 17, 18
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2015
 Acres: 1,306 GIS Calculated
 Examiner: Tom Burnis
 Map Revised: 09/12/2013
 Map Phase: Pre-Review

Oglebay Norton Port Inland Operations

Legend

-  Miris Corners
-  Stand Boundaries
- Site Condition Available
 -  Available w/ Constraints (Factor - Number)
 -  Unavailable (Factor - Number)
- 3K: Rare or unique landforms
- Reviewable SCAs
 -  Proposed SCA
 -  SCA Removal

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



18 17 16 15



86°0'0"W 85°59'0"W 85°58'0"W 85°57'0"W 85°56'0"W

45°58'0"N

45°57'0"N

45°57'0"N

45°58'0"N

Report 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	
Cedar	0	0	0	0	0	104	0	19	0	0	76	171	0	0	369
Hemlock	0	0	0	0	0	0	0	0	0	0	0	34	44	0	78
Jack Pine	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20
Lowland Conifers	0	0	0	0	0	58	12	0	11	30	0	0	0	0	111
Lowland Shrub	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Lowland Spruce/Fir	0	0	0	0	0	16	0	0	8	0	0	0	0	0	24
Marsh	61	0	0	0	0	0	0	0	0	0	0	0	0	0	61
Mixed Upland Deciduous	0	0	0	0	0	9	8	0	0	0	0	0	0	0	17
Natural Mixed Pines	0	0	0	0	0	0	85	0	256	0	0	0	0	0	340
Red Pine	0	0	0	0	0	0	10	0	0	0	35	0	0	0	45
Sand, Soil	36	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Tamarack	0	0	0	0	0	17	0	0	0	0	0	0	0	0	17
Upland Conifers	0	0	0	0	0	0	0	0	50	0	0	0	0	0	50
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Water	43	0	0	0	0	0	0	0	0	0	0	0	0	0	43
White Pine	0	0	0	0	0	0	0	0	0	0	41	20	0	0	61
Total	174	0	0	0	0	203	115	39	325	30	152	225	44	0	1306



Report 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2015

Compartment 067
Total Compartment Acres: 1,306

Acres by Treatment Type

Commercial Harvest - 20	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Lowland Coniferous Forest	12	0	0	0	0	0	12
Mixed Upland Deciduous	8	0	0	0	0	0	8
Total	20	0	0	0	0	0	20

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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
58	41067058-Cut	12.2	6123 - Lowland Fir	High Density Pole	67		Harvest	Clearcut with Reserves	6123 - Lowland Fir	Cmpt. Review Proposal

Prescription Harvest all trees except white pine, hemlock and cedar. No other retention due to small acreage.

Specs:

Other Much of the fir is dead and on the ground.

Comments:

Next Monitor for success of regeneration. Acceptable regeneration mix of current species.

Steps:

Proposed

Start Date: 10/01/2014

61	41067061-Cut	7.8	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	67		Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Harvest all trees except white pine, hemlock and cedar. Exclude ridge on west side as retention.

Specs:

Other Paper birch is starting to die out.

Comments:

Next Monitor for success of regeneration. Acceptable regeneration mix of current species.

Steps:

Proposed

Start Date: 10/01/2014

**Total Treatment
Acreage Proposed: 20.0**



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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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#Type! #Type!

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Shingleton Mgt. Unit

Tom Burnis : Examiner

Compartment 067

Year of Entry 2015

Availability for Management

Total			Dominant Site Conditions		
Acres	Acres Available	Acres Not Available			
			No	3K	
369	369		Cedar	369	
78	34	44	Hemlock	34	44
20		20	Jack Pine		20
111	70	41	Lowland Conifers	70	41
24	16	8	Lowland Spruce/Fir	16	8
17	17		Mixed Upland Deciduous	17	
340	340		Natural Mixed Pines	340	
45	10	35	Red Pine	10	35
17	17		Tamarack	17	
50	50		Upland Conifers	50	
61	3	59	White Pine	3	59
1,132	926	206	Total Forested Acres	926	206
	82%	18%	Relative Percent		

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	3K: Rare or unique landforms	41				
Comments: dune and swale							
003	Not Available	3K: Rare or unique landforms	44				
Comments: Dune and Swale							
004	Not Available	3K: Rare or unique landforms	35				
Comments: Dune and Swale							

Report 5 – Site Conditions

Shingleton Mgt. Unit
Tom Burnis : Examiner

Compartment 067
Year of Entry 2015

005	Not Available	3K: Rare or unique landforms	18
Comments: Dune and Swale			
006	Not Available	3K: Rare or unique landforms	23
Comments: Dune and Swale			
007	Not Available	3K: Rare or unique landforms	7
Comments: Dune and Swale			
008	Not Available	3K: Rare or unique landforms	11
Comments: Dune and Swale			
009	Not Available	3K: Rare or unique landforms	8
Comments:			
010	Not Available	3K: Rare or unique landforms	20
Comments:			



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
C67	Potential Old Growth		SCA Removal	
Comments				
Does not meet old growth criteria				



Report 7 – 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
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	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.
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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	42290 - Natural Mixed Pine	High Density Log	255.6	86	111-140	Large stand of mixed pine, mostly white pine. Cannot determine smaller stand types from photo. Non forested ares lumped into this stand that are too numerous and small to type out.
18	42200 - Natural White Pine	High Density Log	2.6	111	81-110	
34	429 - Mixed Upland Conifers	High Density Pole	50.0	83	81-110	
35	42200 - Natural White Pine	High Density Log	41.0	109	51-80	New stand added.
37	42290 - Natural Mixed Pine	High Density Pole	84.6	66	141-170	
39	42350 - Upland Hemlock	High Density Log	43.7	169		
40	42210 - Natural Red Pine	High Density Pole	0.7	60	51-80	
43	42210 - Natural Red Pine	High Density Pole	0.4	60	51-80	
46	42210 - Natural Red Pine	High Density Log	35.3	101	81-110	
48	42220 - Natural Jack Pine	High Density Pole	19.9	70		
52	42210 - Natural Red Pine	High Density Pole	9.0	63	111-140	
53	42350 - Upland Hemlock	High Density Log	34.2	118		
54	6120 - Lowland Cedar	High Density Pole	170.7	111		
55	6129 - Mixed Coniferous Lowland Forest	High Density Pole	57.7	57		
56	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	9.4	57		
58	6123 - Lowland Fir	High Density Pole	12.2	67		Much of the fir is dead and on the ground.
59	42200 - Natural White Pine	High Density Log	17.6	110	81-110	New stand added.
61	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	7.8	67		

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Shingleton Mgt. Unit

Report 8 – Forested Stands

Compartment: 067
Year of Entry: 2015

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	6120 - Lowland Cedar	High Density Pole	16.7	108		
63	6120 - Lowland Cedar	High Density Sapling	103.7	57		
64	6120 - Lowland Cedar	High Density Pole	27.6	108		
65	6121 - Tamarack	Medium Density Pole	16.8	57		
66	6124 - Lowland Spruce-Fir	High Density Pole	22.7	92		
67	6122 - Black Spruce	High Density Pole	8.0	82		Dune and swale
68	6120 - Lowland Cedar	High Density Sapling	18.8	74		Poor quality cedar.
69	6120 - Lowland Cedar	High Density Pole	32.0	105		
70	6124 - Lowland Spruce-Fir	High Density Pole	6.9	92		
71	6129 - Mixed Coniferous Lowland Forest	High Density Pole	11.4	89		Dune and swale
73	6122 - Black Spruce	High Density Pole	15.6	55		Dune and swale.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	623 - Emergent Wetland	1.2	Unspecified	Unspecified	
2	623 - Emergent Wetland	1.6	Unspecified	Unspecified	
3	50 - Water	1.9	Unspecified	Unspecified	
4	623 - Emergent Wetland	1.7	Unspecified	Unspecified	
5	623 - Emergent Wetland	1.4	Unspecified	Unspecified	
6	623 - Emergent Wetland	3.1	Unspecified	Unspecified	
7	623 - Emergent Wetland	1.0	Unspecified	Unspecified	
8	623 - Emergent Wetland	4.2	Unspecified	Unspecified	
9	623 - Emergent Wetland	2.7	Unspecified	Unspecified	
10	50 - Water	2.0	Unspecified	Unspecified	
11	623 - Emergent Wetland	3.4	Unspecified	Unspecified	
12	623 - Emergent Wetland	5.6	Unspecified	Unspecified	
13	50 - Water	0.4	Unspecified	Unspecified	
14	50 - Water	2.2	Unspecified	Unspecified	
16	50 - Water	2.0	Unspecified	Unspecified	
17	623 - Emergent Wetland	3.5	Unspecified	Unspecified	
19	623 - Emergent Wetland	1.7	Unspecified	Unspecified	
20	50 - Water	1.7	Unspecified	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
21	50 - Water	1.7	Unspecified	Unspecified	
22	50 - Water	1.3	Unspecified	Unspecified	
23	622 - Lowland Shrub	3.9	Unspecified	Unspecified	
24	623 - Emergent Wetland	9.1	Unspecified	Unspecified	
25	623 - Emergent Wetland	2.2	Unspecified	Unspecified	
26	50 - Water	0.7	Unspecified	Unspecified	
27	50 - Water	2.9	Unspecified	Unspecified	
28	50 - Water	1.8	Unspecified	Unspecified	
29	622 - Lowland Shrub	9.9	Unspecified	Unspecified	
30	623 - Emergent Wetland	2.1	Unspecified	Unspecified	
31	50 - Water	0.9	Unspecified	Unspecified	
32	50 - Water	1.6	Unspecified	Unspecified	
33	623 - Emergent Wetland	5.2	Unspecified	Unspecified	
36	710 - Sand, Soil	36.1	Unspecified	Unspecified	
38	50 - Water	2.5	Unspecified	Unspecified	
41	50 - Water	6.2	Unspecified	Unspecified	
42	623 - Emergent Wetland	3.3	Unspecified	Unspecified	
44	622 - Lowland Shrub	7.8	Unspecified	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
45	50 - Water	1.8	Unspecified	Unspecified	
47	622 - Lowland Shrub	4.4	Unspecified	Unspecified	
49	623 - Emergent Wetland	8.4	Unspecified	Unspecified	
50	50 - Water	4.9	Unspecified	Unspecified	
51	50 - Water	3.9	Unspecified	Unspecified	
57	50 - Water	2.2	Unspecified	Unspecified	
60	122 - Road/Parking Lot	5.4	Unspecified	Unspecified	
72	622 - Lowland Shrub	2.5	No	Unspecified	