



# Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41096

Entry Year 2019

Acreage: 2,134

County Delta

Management Area: Lake Michigan Shoreline

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**Revision Date:** 2017-08-09

**Stand Examiner:** Tori Irving

**Legal Description:**

T39N R18W Sections 21, 28, 29 & 31-34

**Identified Planning Goals:**

The goals in this compartment include conducting multiple resource management for current and future generations. Forest Health, Recreation, Biodiversity Stewardship, Wildlife and Timber Management are some of the key management components within this compartment.

**Soil and topography:**

The soils in this compartment are generally poorly drained due to their proximity to bedrock. The terrain in the area is relatively flat with the exception of the areas close to the lake which take on a dune and swale effect from glaciation and receding lake levels. The Eastern Upper Peninsula Eco-Regional Planning Process is using a Management Area Concept to manage on a broader scale and Land Type Associations (LTA's) are key components to defining the soils and topography within the Management Areas. This majority of this compartment lies within the Garden Wetlands/Outcrop LTA. In addition, there is a small amount of the compartment that lies within the Garden Outcrop LTA.

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

The compartment is nearly all contiguous State land with a single piece of private in the center of the compartment which is mainly hunting land. The edges of the compartment and most of the Garden Peninsula are fairly fragmented. There is little development within the compartment except for the Portage Bay State Forest Campground which increases the amount of use in the area.

**Unique Natural Features:**

Currently under review by Michigan Natural Features Inventory (MNFI).

**Archeological, Historical, and Cultural Features:**

None known.

**Special Management Designations or Considerations:**

**Watershed and Fisheries Considerations:**

This compartment contains which borders the western shore of Big Bay De Noc (Lake Michigan) contains Fishery Lake, Bog Lake, and Charboneau Lake. For all riparian areas, Best Management Practices should be followed.

**Wildlife Habitat Considerations:**

This compartment lies on the shores of Lake Michigan at Berndt and Portage Bays. The coast is lined with old beach ridges and interdunal wetlands which have been placed in the nomination for oldgrowth. Alvar dominates section 32. Pre-settlement data show the uplands contained a diverse mixture of white pine, hemlock, birch, beech, sugar maple and aspen. Lowlands were dominated by cedar with tamarack, spruce, and balsam fir scattered about. The current lowlands appear to be quite similar to circa 1850 conditions. The uplands, however, have shown a shift toward more aspen and less northern hardwoods. This compartment not only serves as an active deer yard, but also provides important resting areas for neo-tropical migrants after crossing Lake Michigan. Additionally the compartment contains sensitive habitats and plant species. As such, wildlife habitat management objectives are diverse ranging from maintaining coastal closed canopy coniferous forests to providing early successional deciduous forest and protecting unique alvar habitat and the associated plant community.

**Mineral Resource and Development Concerns and/or Restrictions**

A gravel pit is located in Section 20 and there may be some sand and gravel potential within the compartment. There may also be some limestone/dolostone potential. There is no known metallic mineral potential in this region, and there is no commercial oil and gas production in the UP.

**Vehicle Access:**

The compartment has poor access to the majority of the interior of the compartment due to lack of roads or gates on private land. However, due to the sensitive areas within the compartment this bodes well for management of those sensitive areas.

**Survey Needs:**

None at the present time.

**Recreational Facilities and Opportunities:**

The Portage Bay State Forest Campground is within the compartment located on Lake Michigan in section 33. The campground offers 31 rustic camping sites, a primitive boat launch and a hiking trail. The trail is called the Ninga Aki Pathway and is a 2 looped interpretive pathway which starts and ends within the campground. In addition the area gets a lot of recreational users including hunters, birdwatchers, berry pickers, ORV users and snowmobilers.

**Fire Protection:**

This area is nearly an hour away from the Thompson Station so response times to a wildfire will be lengthy, however, there is a small pumper located at Fayette State Park with 2 qualified firefighters which will help in getting personnel to a fire more quickly. The area has very rocky terrain and also contains some very sensitive areas. The Wooded Dune and Swale ERA plan should contain guidance on fire protection when the plan is completed. However, due to the moist micro-climate that is created by Lake Michigan fire threats are relatively low.

**Additional Compartment Information:**

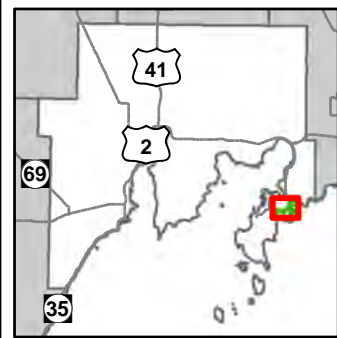
The following reports from the Inventory are attached:

- 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:

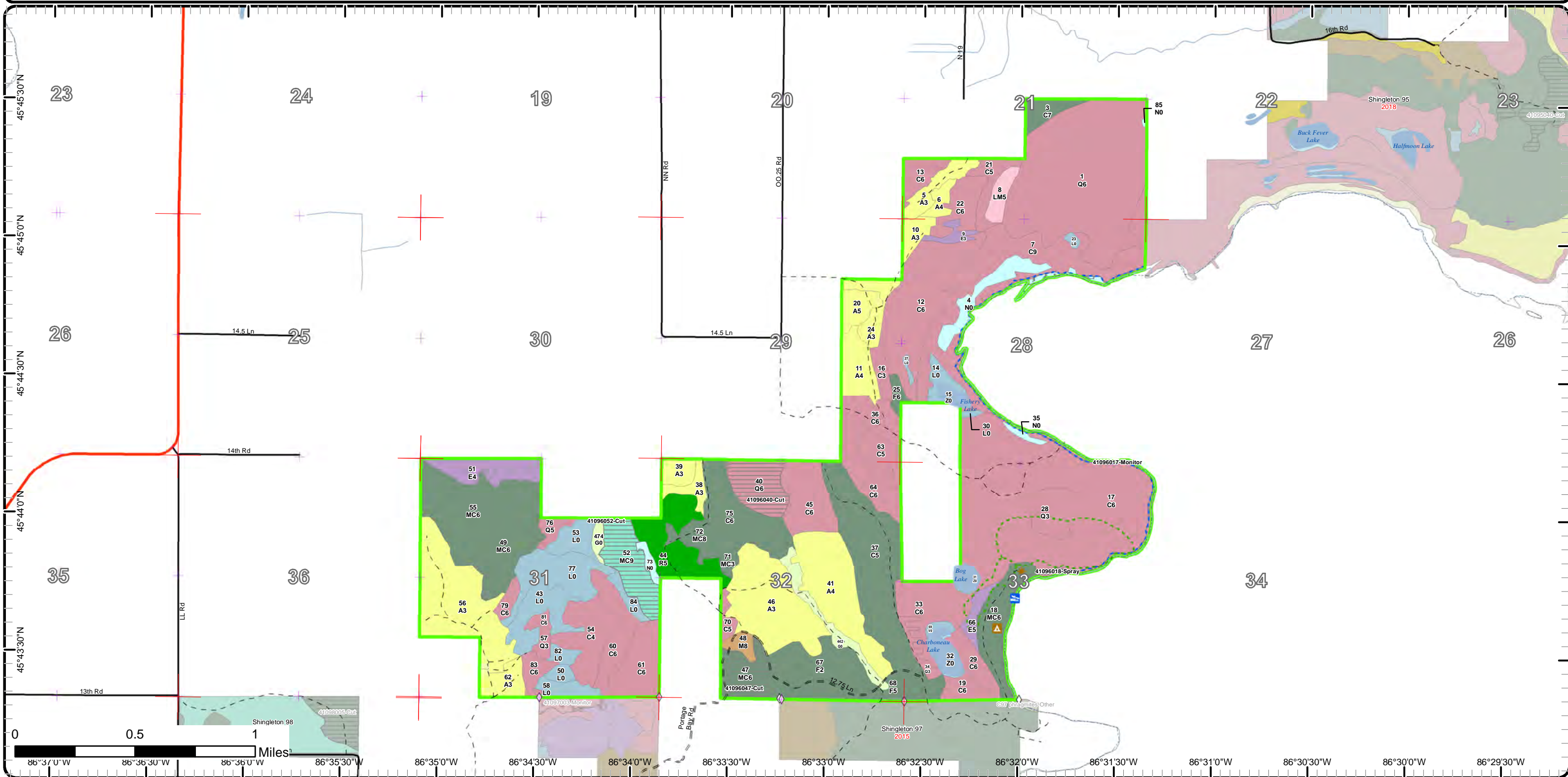
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

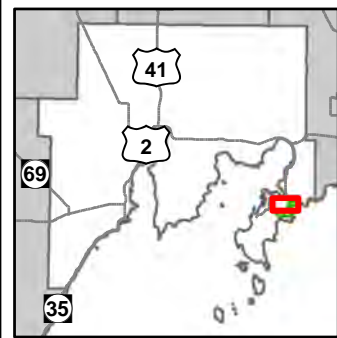


Compartment: 96  
 T39N, R18W, Sec: 21, 28, 29, 31-34  
 County: Delta  
 Unit: Shingleton  
 Mgmt Area: Lake Michigan Shoreline  
 YOE: 2019  
 Acres: 2134.4 GIS Calculated  
 Examiner: Tori Irving  
 Map Revised: 8/23/2017  
 Map Phase: Review

- Miris Corners
- + Remonumented Section Corners
- Field Grade GPS Corners
- Counties
- Boating Access Site
- Campground
- \* Trailhead
- - - Designated Hiking Trails
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- State Boundary
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Pesticide
- Monitoring
- 411 - Northern Hardwood
- 413 - Aspen
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes

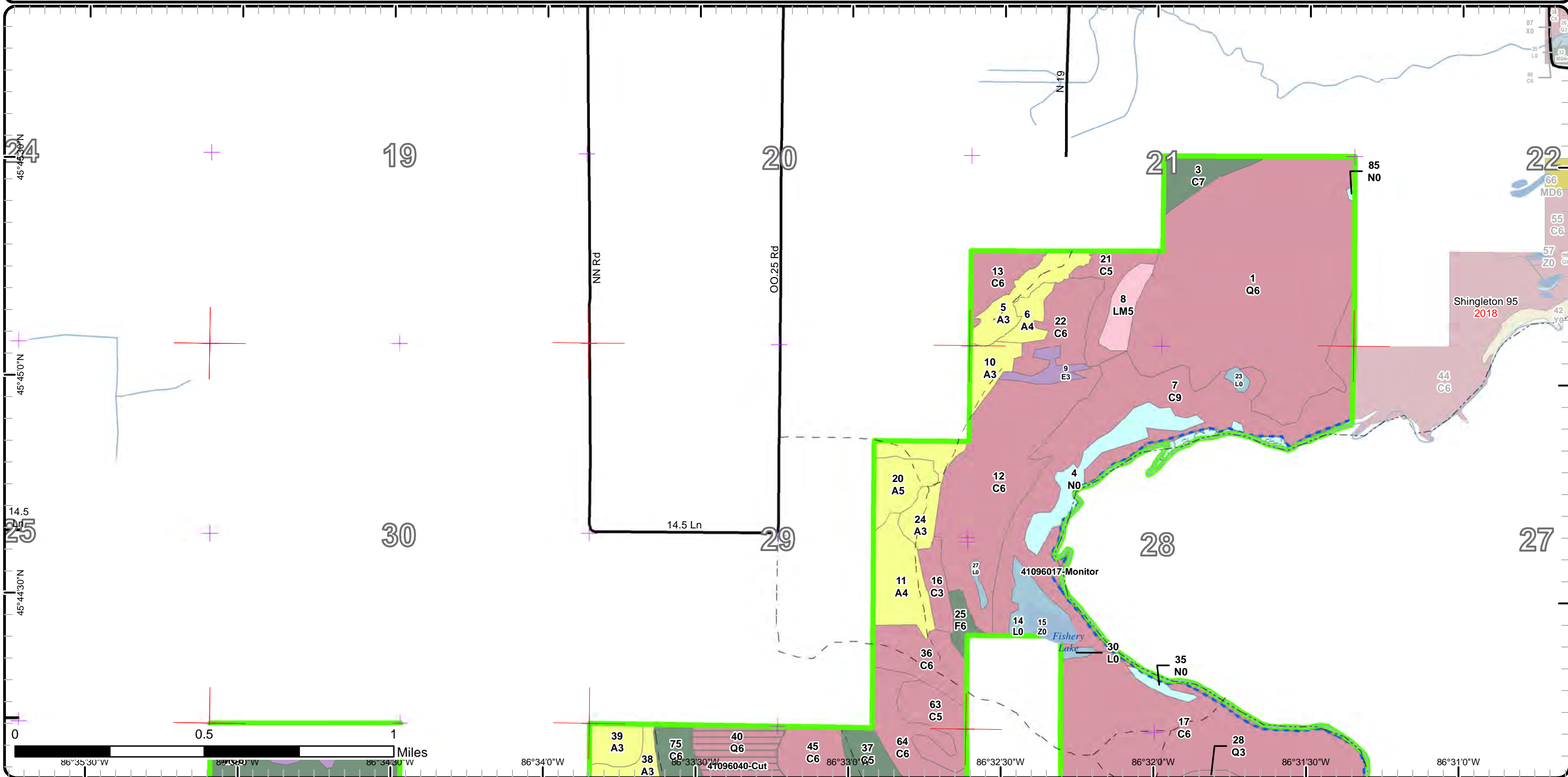


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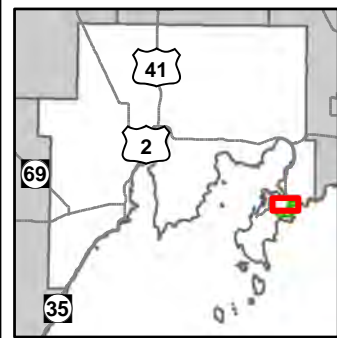
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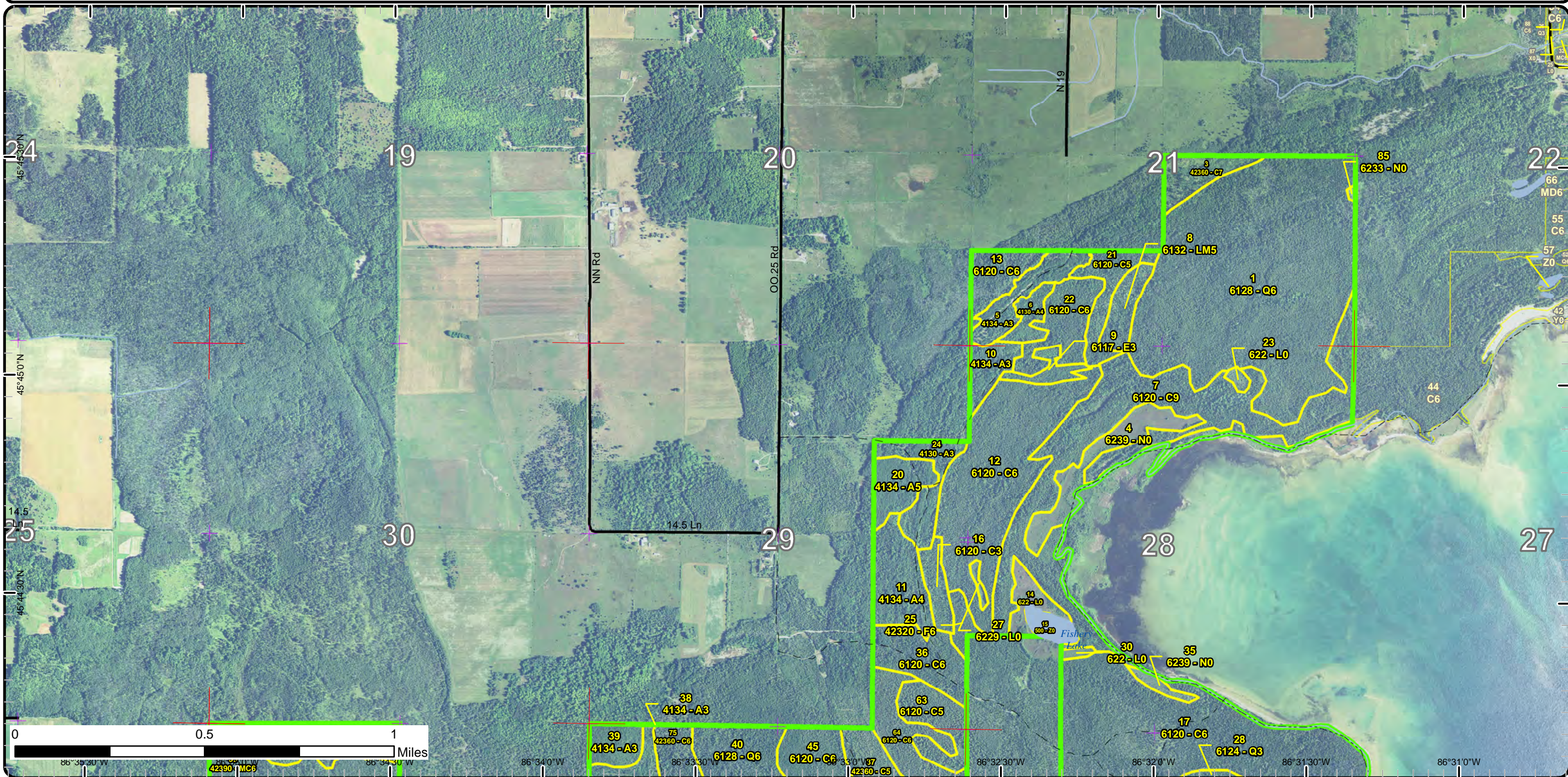


# Stand Boundary Map

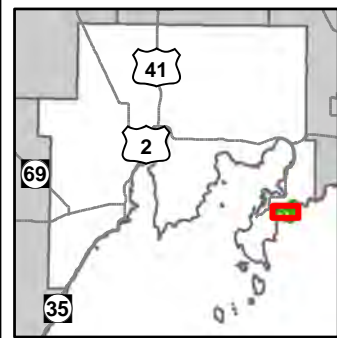


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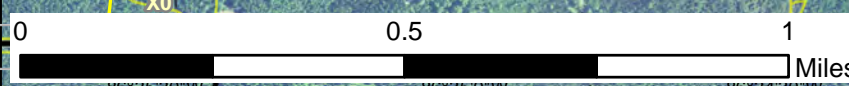
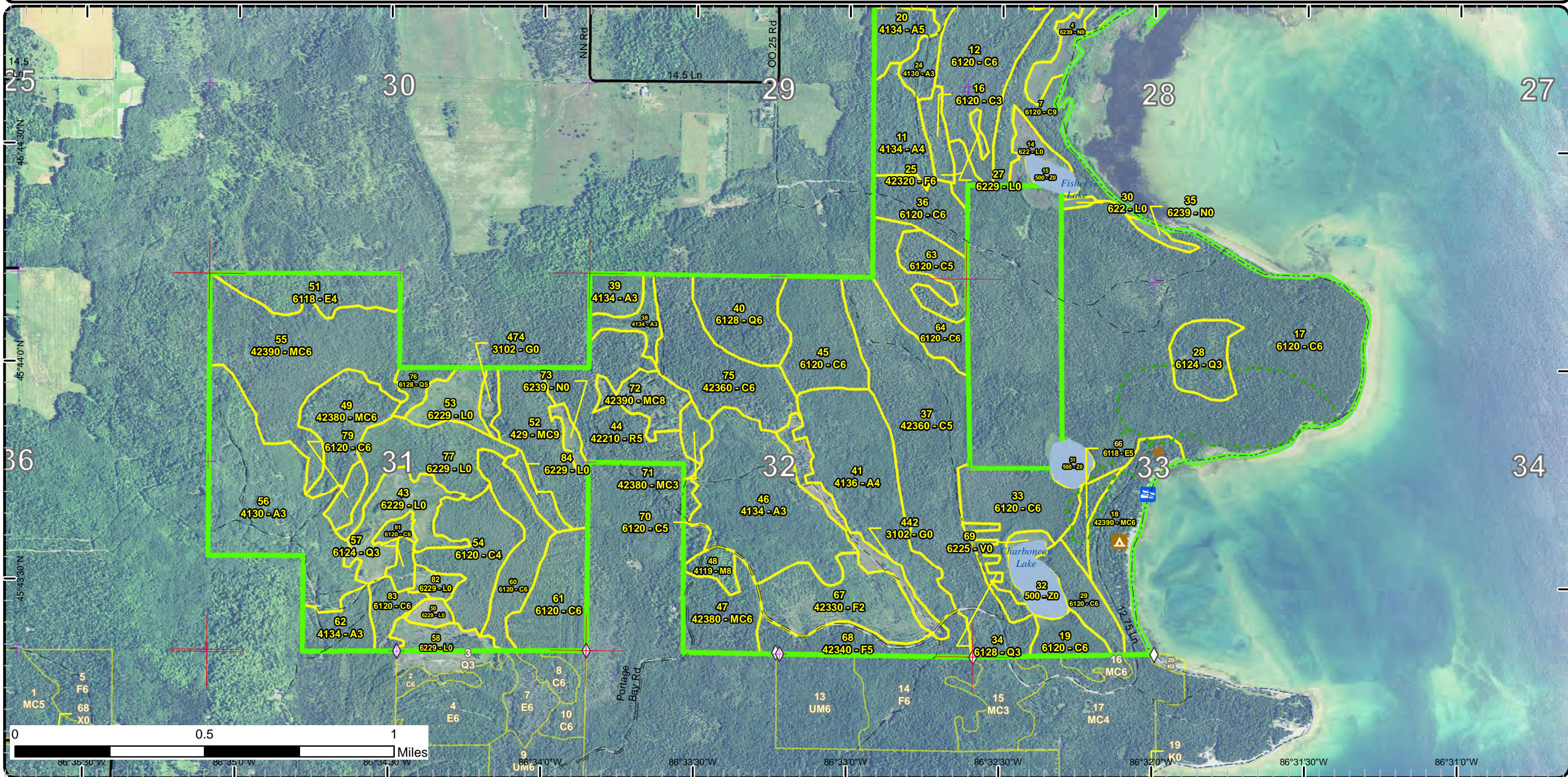


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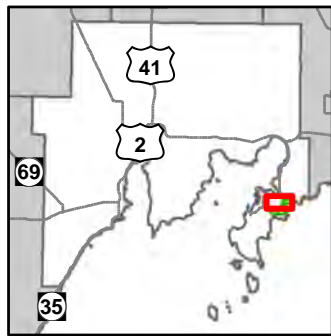
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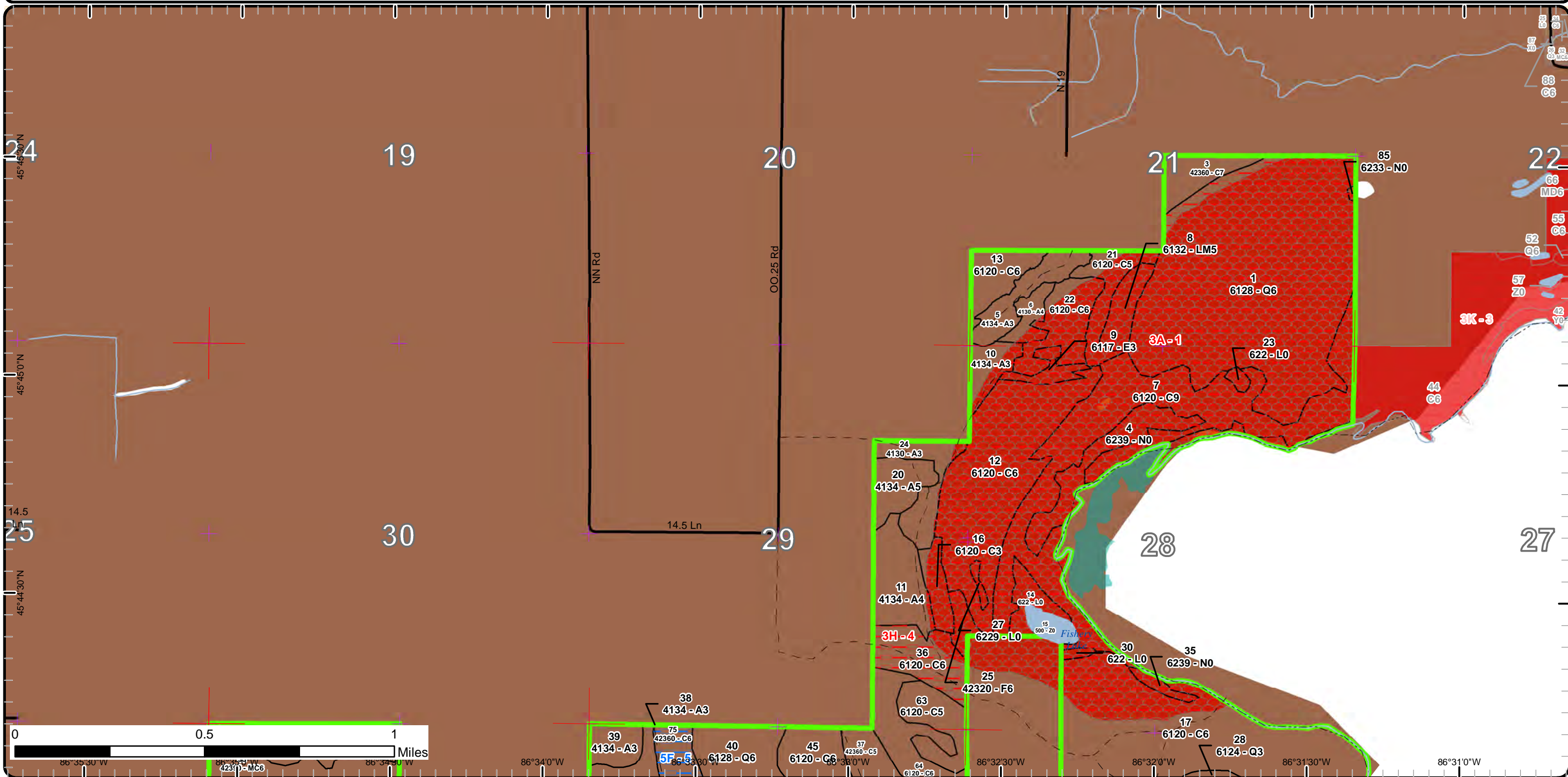
86°35'30"W
86°35'0"W
86°34'30"W
86°33'30"W
86°33'0"W
86°32'30"W
86°32'0"W
86°31'30"W
86°31'0"W

# Special Conservation Areas & Site Conditions Map

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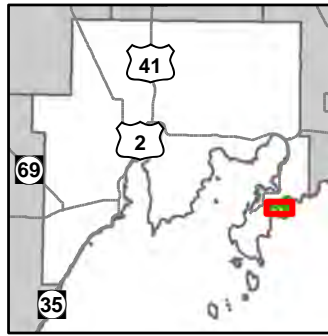
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- Compartment Boundary
- SCA Removal
- Available w/ Constraints
- Unavailable
- Ecological Reference Areas
- Coastal Environmental Areas
- Deer Winter Range
- Possible Type 2 Old Growth
- Stand Boundaries



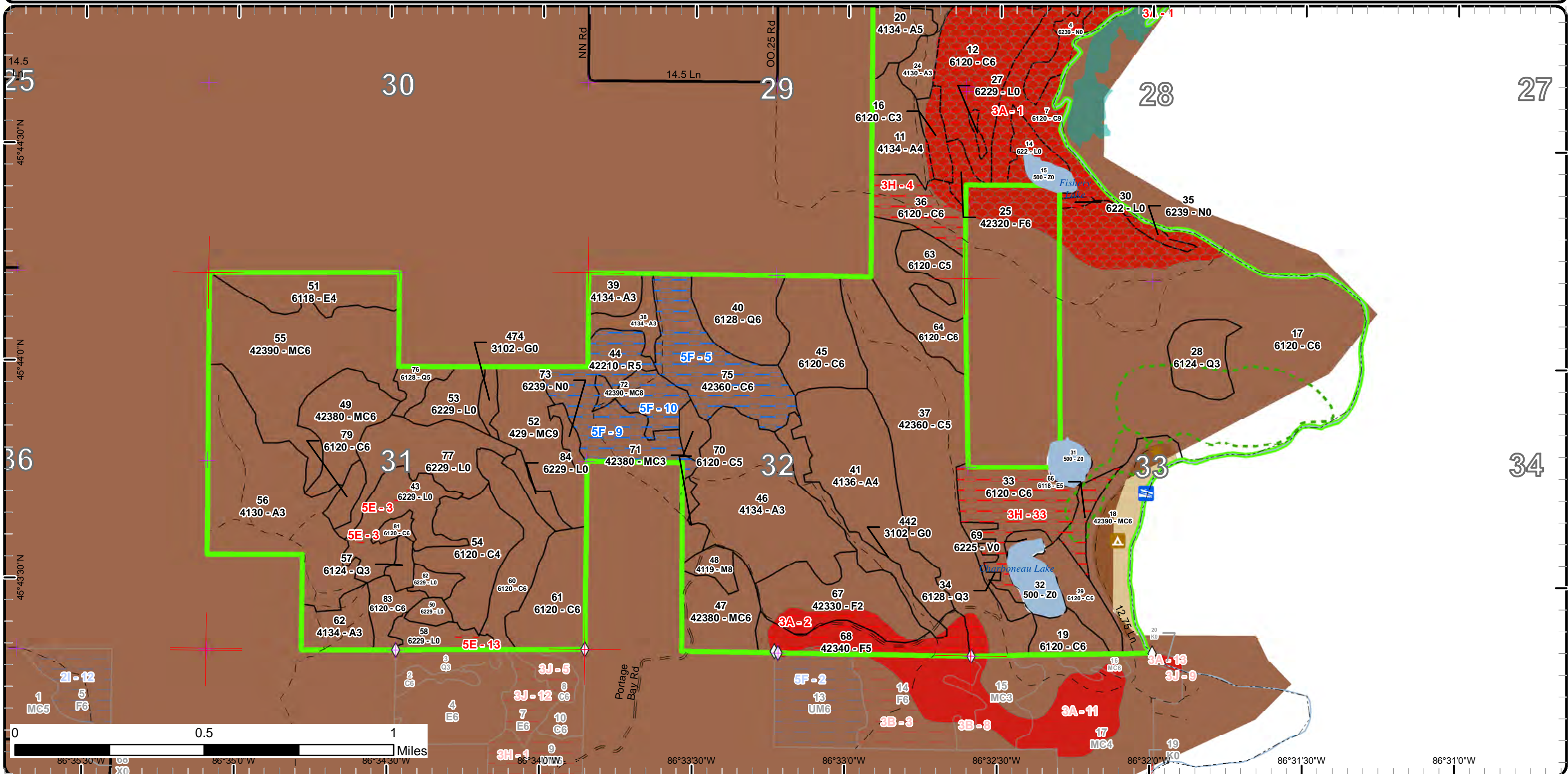


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- SCA Removal
- Available w/ Constraints
- Unavailable
- 3A: Conservation Values incompatible with harvest at this time
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Coastal Environmental Areas
- Deer Winter Range
- State Forest Campground
- Possible Type 2 Old Growth



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	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+	Uneven-Aged	Total
Aspen	0	0	15	191	61	70	0	0	0	0	0	0	0	0	0	0	0	0	337
Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Cedar	0	0	0	0	8	0	0	12	14	21	310	368	167	0	0	0	37	0	936
Herbaceous Openland	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Lowland Conifers	0	0	0	5	19	14	0	0	0	0	31	0	0	193	0	0	0	0	261
Lowland Deciduous	0	0	0	0	6	26	0	0	0	0	8	0	0	0	0	0	0	0	40
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	10
Lowland Shrub	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118
Marsh	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
Red Pine	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	0	0	0	44
Upland Conifers	0	0	0	6	0	0	0	26	0	16	35	38	112	0	0	0	0	0	232
Upland Spruce/Fir	0	0	0	40	0	0	24	0	0	0	5	0	0	0	0	0	0	0	69
Water	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
<b>Total</b>	<b>200</b>	<b>0</b>	<b>15</b>	<b>242</b>	<b>94</b>	<b>110</b>	<b>24</b>	<b>82</b>	<b>14</b>	<b>47</b>	<b>389</b>	<b>406</b>	<b>279</b>	<b>193</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>7</b>	<b>2135</b>



## Report 2 – Treatment Summary

Shingleton Mgt. Unit  
Year of Entry: 2019

Compartment 96  
Total Compartment Acres: 2,134

### Acres of Harvest

Commercial Harvest - 91  
Harvests with Site Condition - 0  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Lowland Conifers	31	0	0	0	0	0	0	0	0	31
Upland Conifers	60	0	0	0	0	0	0	0	0	60
<b>Total</b>	<b>91</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	91	0	0	0	0	6	30	0	0	127
Next Step	0	0	0	0	0	0	97	0	0	97
<b>Total</b>	<b>91</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>127</b>	<b>0</b>	<b>0</b>	<b>224</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
17	41096017-Monitor	20.4	6120 - Lowland Cedar	Poletimber Well	108	81-110	Monitoring	Herbicide Use	6120 - Lowland Cedar	Uneven-Aged	Proposal
<b>Habitat Cut: No</b>		<b>Site Condition: Conservation Values</b>									
<u>Prescription</u> Treat stand for possible phragmites.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable Regen:</u>											
<u>Other Comment:</u>											
<u>Proposed Start Date:</u>		08/17/2017									
17	41096018-Spray	6.3	6120 - Lowland Cedar	Poletimber Well	108	81-110	Pesticide	Hand Application	6120 - Lowland Cedar	Even-Aged	Field Boundary
<b>Habitat Cut: No</b>		<b>Site Condition:</b>									
<u>Prescription</u> continue to monitor and treat phragmites when needed											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Herbicide Use											
<u>Treatments:</u>											
<u>Acceptable Regen:</u>											
<u>Other Comment:</u> Percent to Treat = 100%											
<u>Proposed Start Date:</u>		02/25/2015									
40	41096040-Cut	30.5	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	93	111-140	Harvest	Clearcut with Retention	612 - Lowland Coniferous Forest	Even-Aged	Proposal
<b>Habitat Cut: No</b>		<b>Site Condition:</b>									
<u>Prescription</u> Cut all trees. Leave a few scattered pockets in areas with thicker cedar.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> A mix of species currently found on-site.											
<u>Other Comment:</u>											
<u>Proposed Start Date:</u>		10/01/2018									
47	41096047-Cut	25.7	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	61	51-80	Harvest	Clearcut with Retention	42380 - Non Pine Upland Conifer, Mixed Deciduous	Even-Aged	Proposal
<b>Habitat Cut: No</b>		<b>Site Condition:</b>									
<u>Prescription</u> Cut all trees. Leave a few scattered retention pockets in the areas that are thicker with cedar.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> A mix of species currently found on-site.											
<u>Other Comment:</u>											
<u>Proposed Start Date:</u>		10/01/2018									



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
52 41096052-Cut	34.5	429 - Mixed Upland Conifers	Sawtimber Well	93	171-200	Harvest	Clearcut with Retention	429 - Mixed Upland Conifers	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Cut all species. Leave some scattered retention pockets in thicker areas of cedar.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of species found onsite.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

**Total Treatment  
Acreage Proposed: 117.4**

## Report 4 – Site Conditions

Shingleton Mgt. Unit

Tori Irving : Examiner

Compartment: 96

Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions				
		With Condition	Not Available		5F	3A	3H	3J	5E
338	330	0	8	Aspen		8			
3	3	0	0	Bog					
936	523	47	366	Cedar	47	252	56	58	
21	21	0	0	Herbaceous Openland		0			
260	68	0	193	Lowland Conifers		193			
40	26	0	14	Lowland Deciduous		6	8		
10	0	0	10	Lowland Mixed Forest		10			
118	101	0	17	Lowland Shrub		13			4
35	0	4	31	Marsh	4	31			
7	7	0	0	Northern Hardwood					
44	0	44	0	Red Pine	44				
231	216	16	0	Upland Conifers	16				
69	34	0	35	Upland Spruce/Fir		35			
23	18	0	5	Water		5			
2,134	1,345	110	679	Total Forested Acres	110	553	64	58	4
	63%	5%	32%	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
1	Unavailable	3A: Conservation Values incompatible with harvest at this time	519	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Unavailable	3A: Conservation Values incompatible with harvest at this time	34	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

Report 4 – Site Conditions

Shingleton Mgt. Unit

Tori Irving : Examiner

Compartment: 96

Year of Entry: 2019

3	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	5F: Evaluated for Forest Health Considerations	47	Unspecified	Unspecified	Unspecified	Unspecified
Comments: best to be scheduled during inventory due to survey issues, MNFI issues, and deer yard. fir is only a component of the stand.							
9	Available	5F: Evaluated for Forest Health Considerations	44	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 10 sq. ft. balsam fir in red pine stand							
10	Available	5F: Evaluated for Forest Health Considerations	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: fir is only a minor component of stand							
13	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

**Report 4 – Site Conditions**

**Shingleton Mgt. Unit**

**Tori Irving : Examiner**

**Compartment: 96**

**Year of Entry: 2019**

33	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	45	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							





**Report 5 – 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
Portage Bay	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	SCA Removal	529
<b>Comments</b>				
Element Occurrence; Proposed removal				



**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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

Conservation Area	Type	Description
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	Coastal Environmental Areas	The public designation process is defined by Part 323, Shorelands 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). This is an inactive program with no new areas currently under consideration by the DEQ.
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:
1	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	192.7	121	141-170	
3	42360 - Upland Cedar	Sawtimber Poor	12.3	60	1-50	[9/21/09 BB] Sale is now on proposal, 41-15-09 Wooded Dune & Swale Sale. Actual acres = 12. Red Paint line was put at the top of ridge to protect the Wooded Dune and Swale ERA, this created a 5 acre reduction which is retention. Residual BA = Cedar 34 sq ft, hemlock .6 sq ft, white pine 1.8 sq ft. FTP W41-1417 submitted to underplant oak.  [7/19/11 AP] Sale is now closed, TCR date is 6/22/11. Cut winter 2011.
5	4134 - Aspen, Spruce/Fir	Sapling Well	15.0	18	Immature	
6	4130 - Aspen	Poletimber Poor	6.9	40	1-50	
7	6120 - Lowland Cedar	Sawtimber Well	103.8	102	81-110	OPIC - FMD: ERA - Wooded Dune Swale Complex HCVA - Environmental Area SCA- POG Nominated in 1997 for Lakeshore protection and integrity as well as wildlife corridor. SCA - Deeryard Some white pine within stand not showing up well on plots.
8	6132 - Mixed Lowland Forest with Cedar	Poletimber Medium	10.2	88	1-50	
9	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Well	5.9	38	Unspecified	
10	4134 - Aspen, Spruce/Fir	Sapling Well	9.7	24	Immature	
11	4134 - Aspen, Spruce/Fir	Poletimber Poor	22.7	30	Immature	
12	6120 - Lowland Cedar	Poletimber Well	78.0	95	171-200	
13	6120 - Lowland Cedar	Poletimber Well	13.5	70	81-110	
16	6120 - Lowland Cedar	Sapling Well	8.3	39	1-50	Stand contains some old strip cuts.
17	6120 - Lowland Cedar	Poletimber Well	248.7	108	81-110	
18	42390 - Mixed Non-Pine Upland Conifers	Poletimber Well	37.9	108	141-170	Portage Bay Campground. Phragmites was sprayed by UP RDD in summer 2013. stewardship record in Wyman compartment files

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## Shingleton Mgt. Unit

## Report 7 – Forested Stands

Compartment: 96  
Year of Entry: 2019

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	6120 - Lowland Cedar	Poletimber Well	10.9	97	141-170	
20	4134 - Aspen, Spruce/Fir	Poletimber Medium	13.4	37	1-50	
21	6120 - Lowland Cedar	Poletimber Medium	14.5	117	1-50	
22	6120 - Lowland Cedar	Poletimber Well	20.0	99	141-170	
24	4130 - Aspen	Sapling Well	15.9	24	Immature	
25	42320 - Upland Spruce	Poletimber Well	5.0	91	51-80	
28	6124 - Lowland Spruce-Fir	Sapling Well	19.0	35	1-50	
29	6120 - Lowland Cedar	Poletimber Well	15.3	108	111-140	
33	6120 - Lowland Cedar	Poletimber Well	36.8	175	141-170	
34	6128 - Lowland Coniferous, Mixed Deciduous	Sapling Well	6.8	41	Unspecified	
36	6120 - Lowland Cedar	Poletimber Well	21.3	81	111-140	
37	42360 - Upland Cedar	Poletimber Medium	106.8	93	1-50	
38	4134 - Aspen, Spruce/Fir	Sapling Well	9.1	25	Immature	
39	4134 - Aspen, Spruce/Fir	Sapling Well	9.7	36	Unspecified	
40	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	30.5	93	111-140	
41	4136 - Aspen, Mixed Conifer	Poletimber Poor	63.5	41	1-50	
44	42210 - Natural Red Pine	Poletimber Medium	43.8	61	51-80	
45	6120 - Lowland Cedar	Poletimber Well	35.8	93	51-80	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	4134 - Aspen, Spruce/Fir	Sapling Well	74.1	25	Immature	
47	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	25.7	61	51-80	
48	4119 - Mixed Northern Hardwoods	Sawtimber Medium	6.6	90	51-80	[9/21/09 BB] Sale is now on proposal 11-09 Portage Bay Sale, Unit 6, 7 acres. Stand is on FTP W41-1436 for hemlock underplanting.  [8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.
49	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	28.7	110	111-140	
51	6118 - Lowland Deciduous with Cedar	Poletimber Poor	26.3	40	1-50	
52	429 - Mixed Upland Conifers	Sawtimber Well	34.5	93	171-200	
54	6120 - Lowland Cedar	Poletimber Poor	35.6	92	1-50	
55	42390 - Mixed Non- Pine Upland Conifers	Poletimber Well	83.1	110	141-170	
56	4130 - Aspen	Sapling Well	82.2	22	Immature	
57	6124 - Lowland Spruce- Fir	Sapling Well	4.7	22	Immature	
60	6120 - Lowland Cedar	Poletimber Well	26.8	116	171-200	
61	6120 - Lowland Cedar	Poletimber Well	31.3	115	111-140	
62	4134 - Aspen, Spruce/Fir	Sapling Well	15.5	35	Unspecified	
63	6120 - Lowland Cedar	Poletimber Medium	16.9	92	51-80	
64	6120 - Lowland Cedar	Poletimber Well	27.3	110	141-170	
66	6118 - Lowland Deciduous with Cedar	Poletimber Medium	8.2	90	1-50	

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Shingleton Mgt. Unit

## Report 7 – Forested Stands

Compartment: 96  
Year of Entry: 2019

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
67	42330 - Upland Fir	Sapling Medium	40.0	25	Immature	OPIIC - FMD: SCA - Deeryard Stand was cut around 1992. Soils are Limestone Rock very poor. The area is regenerating with fir but slowly.
68	42340 - Upland Spruce/Fir	Poletimber Medium	24.0	54	51-80	
70	6120 - Lowland Cedar	Poletimber Medium	5.7	92	1-50	[9/21/09 BB] Sale is now on proposal 11-09 Portage Bay Sale, Unit 5, 5 acres. Residual basal area = white pine 8.3 sq ft, hemlock 5 sq ft, cedar 28.3 sq ft, yellow birch 3.3 sq ft Stand is on FTP W41-1436 for hemlock underplanting.  [8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.
71	42380 - Non Pine Upland Conifer, Mixed Deciduous	Sapling Well	5.6	25	Immature	OPIIC - FMD: SCA - Deeryard No soils available, Limestone Rock. Some residual cedar and aspen in stand, aspen is snagging out. Lots of fir regen.
72	42390 - Mixed Non-Pine Upland Conifers	Sawtimber Medium	15.6	82	51-80	
75	42360 - Upland Cedar	Poletimber Well	46.8	110	51-80	
76	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	6.7	40	1-50	
79	6120 - Lowland Cedar	Poletimber Well	6.1	110	171-200	
81	6120 - Lowland Cedar	Poletimber Well	3.4	110	Unspecified	
83	6120 - Lowland Cedar	Poletimber Well	10.2	110	Unspecified	



Stand	Cover Type	Acres	Managed Site	General Comments:
4	6239 - Mixed Emergent Wetland	27.1	No	<p>OPIC - FMD: ERA - Wooded Dune Swale Complex            HCVA - Environmental Area            SCA- POG Nominated in 1997 for Lakeshore protection and integrity as well as wildlife corridor.            SCA - Deeryard</p> <p>Stand consists of a mix of L and N types. At one time the stand was part of Lake Michigan. Some areas are starting to regenerate with cedar and tamarack. Stand is N overall.</p>
14	622 - Lowland Shrub	8.6	No	
15	500 - Water	4.7	No	Fishery Lake
23	622 - Lowland Shrub	1.7	No	<p>OPIC - FMD: ERA - Wooded Dune Swale Complex            HCVA - Environmental Area            SCA- POG Nominated in 1997 for Lakeshore protection and integrity as well as wildlife corridor.            SCA - Deeryard</p>
27	6229 - Mixed lowland shrub	1.5	No	Stand was at one time likely ponds but have dried up some over the past decades and are beginning to regenerate.
30	622 - Lowland Shrub	1.4	No	
31	500 - Water	5.6	No	Bog Lake
32	500 - Water	12.2	No	Charboneau Lake
35	6239 - Mixed Emergent Wetland	3.1	No	<p>OPIC - FMD: ERA - Wooded Dune Swale Complex            HCVA - Environmental Area            SCA- POG Nominated in 1997 for Lakeshore protection and integrity as well as wildlife corridor.            SCA - Deeryard</p>
43	6229 - Mixed lowland shrub	28.1		<p>[6/13/2017 TI] Stand is coming in slowly. Mostly balsam fir and scattered red maple.            [8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.</p>
50	6229 - Mixed lowland shrub	4.3		<p>[9/21/09 BB] Sale is now on proposal 11-09 Portage Bay Sale, Unit 4, 4 acres. Cedar was excluded with red line.            [8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.</p>



Stand	Cover Type	Acres	Managed Site	General Comments:
53	6229 - Mixed lowland shrub	14.5		<p>[9/21/09 BB] Sale is now on proposal 11-09 Portage Bay Sale, Unit 1, 13 acres. Retention occurs on the edges.</p> <p>[8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.</p>
58	6229 - Mixed lowland shrub	10.6		<p>[9/21/09 BB] Sale is now on proposal 11-09 Portage Bay Sale, Unit 4, 8 acres. Residual basal area = red pine .5 sq ft (all), white pine 1 sq ft in addition 2.5 acres were left as a patch.</p> <p>[8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.</p>
69	6225 - Bog	2.6	No	<p>OPIC - FMD: SCA- POG Nominated in 1997 for Lakeshore protection and integrity as well as wildlife corridor. SCA - Deeryard</p>
73	6239 - Mixed Emergent Wetland	4.2	No	OPIC - FMD: SCA - Deeryard
77	6229 - Mixed lowland shrub	36.3		<p>Spruce, cedar, and tamarack are acceptable regeneration species.</p> <p>[9/21/09 BB] Sale is now on proposal 11-09 Portage Bay Sale, Unit 2, 22 acres. Residual basal area = 7 sq ft white birch, additional tamarack were excluded with paint line.</p> <p>[8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.</p>
82	6229 - Mixed lowland shrub	4.9		<p>OPIC - FMD: SCA - Deeryard</p> <p>Fairly even composition of swamp conifers. Retention should be thicker patches of cedar. Any of the current species mix will be an acceptable alternative for regenerating the stand.</p> <p>[1/12/09 BB] Due to comments from MNFI for the stands prescribed in this compartment for the 2009 YOE Compartment Review a survey request was submitted to root out if any of the "potential" rare plants were actually within the prescribed stands as well as the endangered Calypso Orchid. The request was funded and a survey was conducted in the fall of 2008 by MNFI field staff. MNFI did not survey for the orchid since it was the wrong time of year but they did survey for Dwarf Lake Iris but only in stand 48 and Stand 16 Compartment 97. The results of the survey were they found Dwarf Lake Iris in openings outside of the prescribed stands. In addition, MNFI found a significant population of Glossy Buckthorn an invasive species. After discussions with MNFI they agreed that winter cutting would not impact the Dwarf Lake Iris and though they did not survey for Calypso Orchid it likely is not the right habitat for it and again winter logging would not adversely effect it. However, MNFI was concerned about cutting the stand which may allow the buckthorn to take over the site. There is no access to the area currently so any buckthorn would have likely been established through a wildlife vector. Without access there is no way to treat the invasive therefore in discussions with Mike Paluda and Jeff Stampfly it was agreed to cut the stands, establish the access and monitor the buckthorn after harvest. See the compartment file for more detailed information.</p> <p>[9/21/09 BB] Sale is now on proposal 11-09 Portage Bay Sale, Unit 4, 3 acres. Retention was entirely excluded with paint line.</p> <p>[8/20/2014 TI] This stand was cut as part of sale #41-011-09-01 Portage Bay Road. Sale is now closed. TCR date 6/9/2014.</p>





Stand	Cover Type	Acres	Managed Site	General Comments:
84	6229 - Mixed lowland shrub	6.3	No	OPIC - FMD: SCA - Deeryard
85	6233 - Wet Meadow	0.5	No	
442	3102 - Grass	16.6	No	OPIC - FMD: SCA - Deeryard Stand is essentially a flat drainage which is filling in with aspen and fir.
474	3102 - Grass	4.5	No	OPIC - FMD: SCA - Deeryard Stand is an old grass type beginning to fill in with fir and cedar. Some juniper bushes as well. 2 blinds in stand and a lot of illegal supplemental feeding as well. 2 Round bales present, delivered from private to north. Could possibly do opening maintenance this decade?