



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41048

Entry Year 2019

Acreage: 2,510

County Schoolcraft

Management Area: Seney Manistique Swamp

Revision Date: 2017-02-23

Stand Examiner: Adam Petrelius

Legal Description:

T43N R14W Sections 1-3, 10-12

Identified Planning Goals:

The main goal of this compartment is to conduct multiple resource management for current and future generations.

Soil and topography:

The topography within the compartment is mostly flat. Slight elevation changes occur in the forested areas. About 60% of the compartment is non-forested with the majority of that acreage classified as marsh. Approximately half of the remaining acreage is dominated by jack pine, and the other half is a mixture of red pine, aspen, black spruce, hardwood, hemlock, and mixed swamp conifers. The major soil types found within the compartment, in order of abundance, are Markey Mucky Peat, Neconish-Defordrarely flooded wainola, and Rousseau-Neconish-Finch. Habitat types within the compartment, in order of abundance, are unclassified wetland, PVE, PArVAa, and AFPo.

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

State land within this compartment was acquired between 1906 and 1990. Approximately 60% of the compartment boundary is bordered by state land. The entire northern boundary of the compartment borders the Seney National Wildlife Refuge. A few private parcels exist along the boundaries, and some parcels contain camps. Access to the compartment is limited and it is mostly used by these adjacent landowners.

Unique Natural Features:

Approximately 80% of this compartment burned in the Seney Fire of 1976. Burned areas include mostly marsh forest types with islands of jack pine. Jack pine regeneration on those islands that burned is excellent and nearing time for harvest.

Archeological, Historical, and Cultural Features:

None know.

Special Management Designations or Considerations:

Eastern portion of the compartment is a designated SCA for the Manistique River Corridor.

Watershed and Fisheries Considerations:

The Manistique River is found along the eastern boundary of this compartment and supports a cool-water fish community of walleye, smallmouth bass, pike, and suckers. Standard BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

Wildlife Habitat Considerations:

The wildlife habitat management objectives in the compartment center on maintaining a corridor of mature forests along the Manistique River and protecting the ecological integrity of the marsh/ridge complex.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel and peat & muck. There is insufficient data to determine the glacial drift thickness. The Silurian Cabothead Shale and Manitoulin Dolomite subcrop below the glacial drift. The Manitoulin could be used for stone/dolostone. A clay pit is located to the north and a gravel pit is located in Section 24, but there appears to be limited potential. There is no commercial oil and gas production in the UP.

Vehicle Access:

Access to the compartment is very difficult. There is no vehicle access into the compartment. One forest road travels into the compartment, but enters private land first and is gated. The closest main

road is County Road 436, located about ¼ mile east of the compartment. The Manistique River is the eastern boundary of the compartment and prevents access from County Road 436 into the compartment. The north, west, and parts of the southern compartment boundaries are mostly marsh with scattered islands of jack pine. Foot access from these directions is also difficult.

Survey Needs:

Survey work is needed within the compartment.

Recreational Facilities and Opportunities:

There are no recreational facilities located within the compartment. Opportunities for hunting, fishing, and other forms of recreational activity exist within the compartment. However, access is limited and the compartment receives very little use by anyone other than the adjacent private landowners.

Fire Protection:

Response time to fires within this compartment will be slow. It is located approximately half way between the Seney and Thompson Fire stations. It is about a 5 mile drive on forest roads to get into the compartment. Most of the compartment is low ground and roads within the compartment are sparse. A combination of organic soils, limited access, drought conditions, and lightning activity could make firefighting efforts difficult here. Most of this compartment burned in the Seney Fire of 1976. The main water source for firefighting efforts here would be the Manistique River.

Additional Compartment Information:

The following reports from the Inventory are attached:

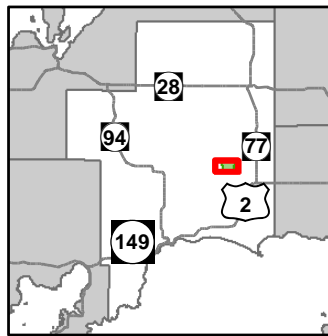
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

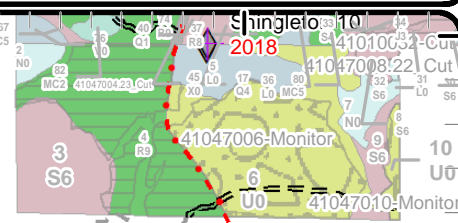
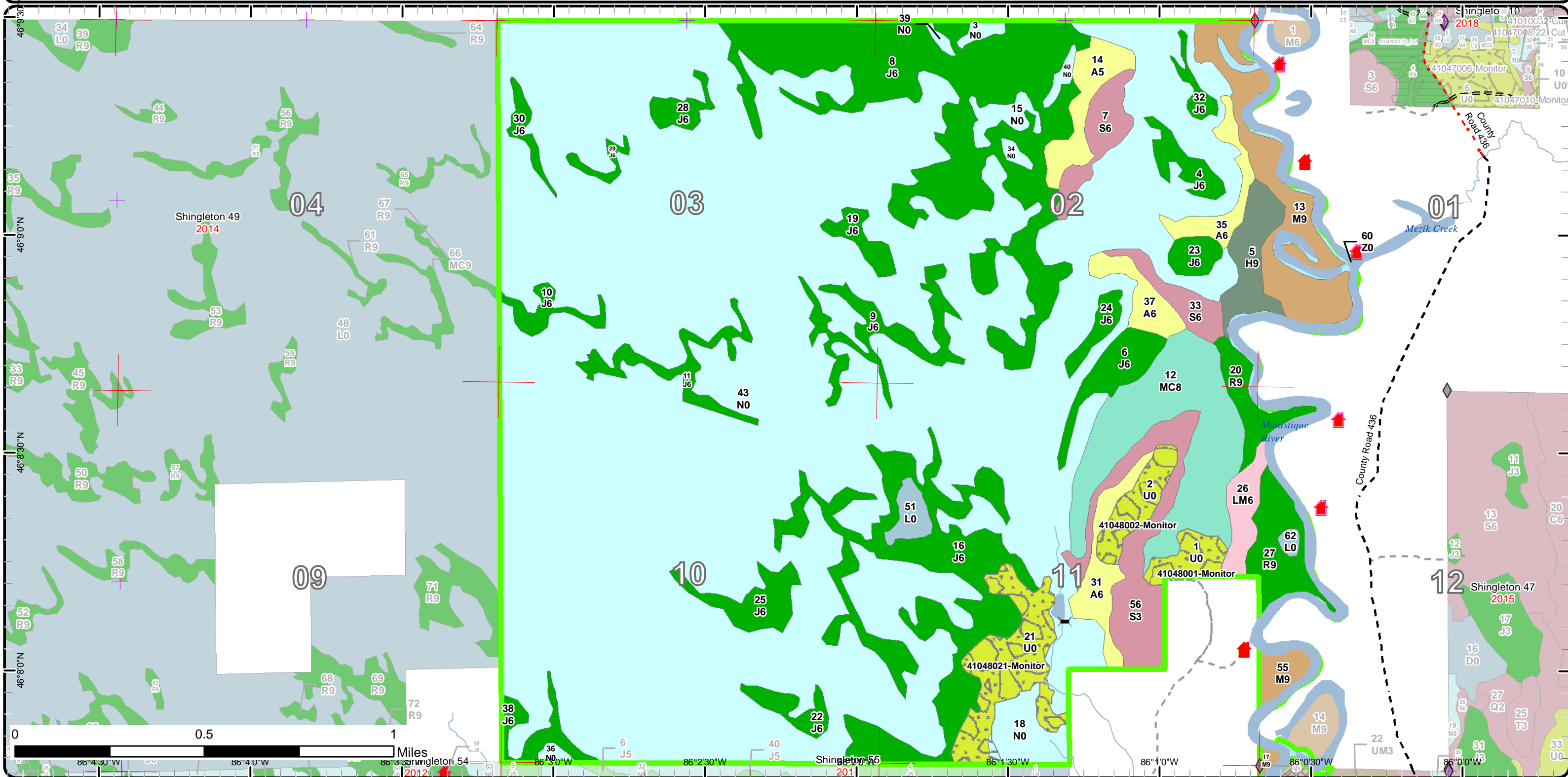
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 48
 T43N, R14W, Sec: 1-3, 10-12
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Seney Manistique Swamp
 YOE: 2019
 Acres: 2,510 GIS Calculated
 Examiner: Adam Petrelius
 Map Revised: 7/30/2018
 Map Phase: Post Review

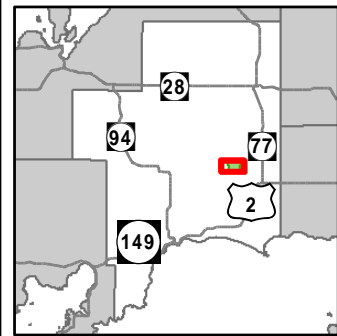


- | | | |
|----------------------------------------|-----------------------------------|--------------------------|
| — Miris Corners | — Lake/Pond | ■ 622 - Lowland Shrub |
| — Remonumented Section Corners | — Perennial River | ■ 623 - Emergent Wetland |
| ◆ Field Grade Corners | — Lakes and Rivers All | ■ Lakes |
| — Counties | — Compartment Boundary | |
| — DNR - Secondary Forest Road | — Selection (Group, Single Tree) | |
| — DNR - Forest Access Route | — Regeneration Survey | |
| — Federal / State - Dirt / Gravel Road | ■ 411 - Northern Hardwood | |
| — County - Gravel Road | ■ 413 - Aspen | |
| — Private - Dirt / Gravel Road | ■ 422 - Natural Pines | |
| — Unspecified Structure | ■ 423 - Other Upland Conifers | |
| ■ Cabin | ■ 429 - Mixed Upland Conifers | |
| — Bridges | ■ 612 - Lowland Coniferous Forest | |
| ■ Structures | ■ 613 - Lowland Mixed Forest | |
| | ■ 330 - Low Density Trees | |
| | ■ 500 - Water | |



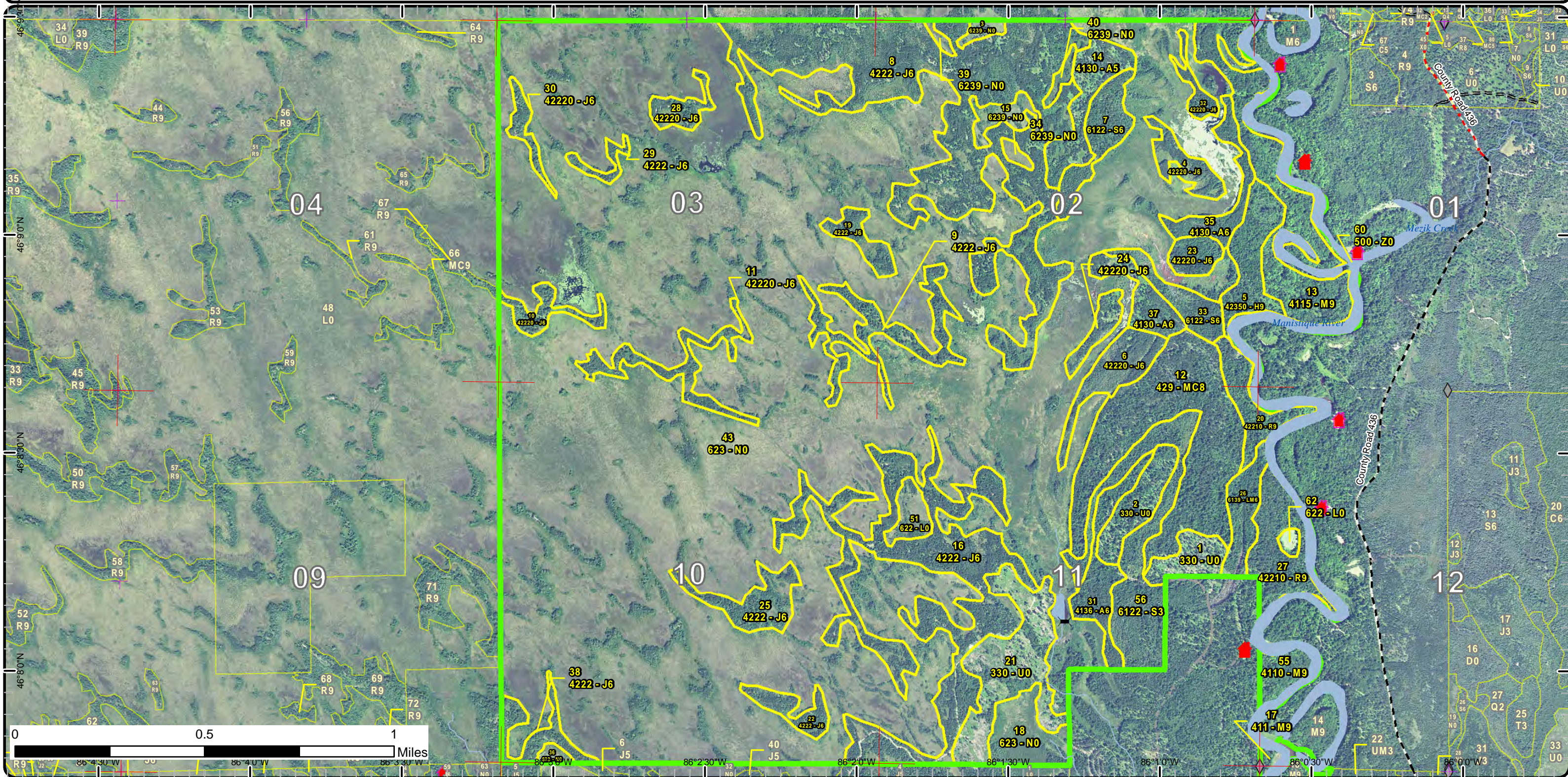
Stand Boundary Map

Compartment: 48
 T43N, R14W, Sec: 1-3, 10-12
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Seney Manistique Swamp
 YOE: 2019
 Acres: 2,510 GIS Calculated
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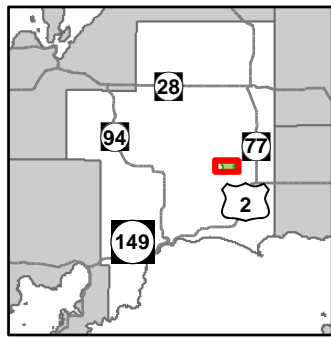
- | | |
|----------------------------------------|---------------------------------|
| — Miris Corners | — Lake/Pond |
| — Remonumented Section Corners | — Perennial River |
| ◆ Field Grade Corners | — Lakes and Rivers All |
| — Counties | — Compartment Boundary |
| — DNR - Secondary Forest Road | — Stand Boundaries |
| — DNR - Forest Access Route | 411 - Northern Hardwood |
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| | 500 - Water |
| | 622 - Lowland Shrub |

623 - Emergent Wetland

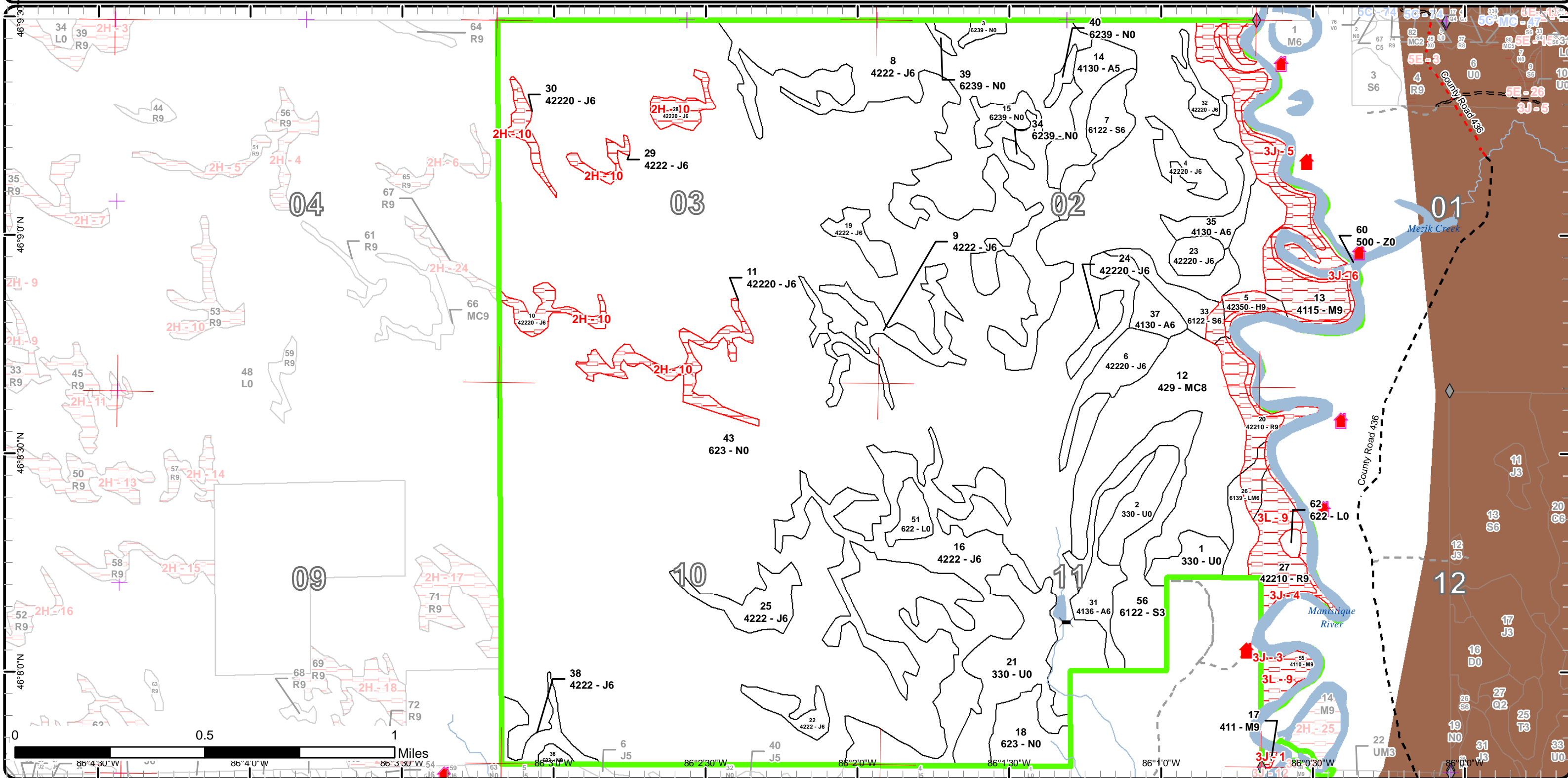


Special Conservation Areas & Site Conditions Map

Compartment: 48
 T43N, R14W, Sec: 1-3, 10-12
 County: Schoolcraft
 Unit: Shingleton
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- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Unspecified Structure
- Cabin
- Bridges
- Structures
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Unavailable
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3J: Water quality / BMPs (stream, river, or lake)
- 3L: Other wildlife concerns
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- Deer Winter Range



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	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	66
Hemlock	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	22
Jack Pine	0	0	0	0	0	452	0	0	0	0	0	0	0	0	0	0	0	0	452
Low-Density Trees	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
Lowland Mixed Forest	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
Lowland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Lowland Spruce/Fir	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	74
Marsh	1569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1569
Northern Hardwood	0	0	0	0	0	0	0	0	0	11	56	0	0	0	0	0	0	0	67
Red Pine	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	41
Upland Conifers	0	0	0	0	0	0	0	0	0	85	0	0	0	0	0	0	0	0	85
Water	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Total	1690	0	0	0	0	607	0	0	0	0	137	78	0	0	0	0	0	0	2510



Report 2 – Treatment Summary

Shingleton Mgt. Unit
Year of Entry: 2019

Acres of Harvest

Compartment 48
Total Compartment Acres: 2,510

Commercial Harvest - 7
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
Water		0	7	0	0	0	0	0	0	0	7
	Total	0	7	0	0	0	0	0	0	0	7

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		7	0	0	0	0	73	0	0	0	79
Next Step		0	0	0	0	0	7	0	0	0	7
	Total	7	0	0	0	0	79	0	0	0	86



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
1	41048001-Monitor	11.8	330 - Low-Density Trees	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Intermediate)	42210 - Natural Red Pine	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Count regeneration.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> A mix of current canopy species.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
2	41048002-Monitor	16.2	330 - Low-Density Trees	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Intermediate)	42260 - Natural Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Count regeneration for success.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> A mixture of aspen, fir, black spruce, white pine, red pine, jack pine, red maple, and white birch.											
<u>Regen:</u>											
<u>Other</u> Percent to Treat = 100%											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
21	41048021-Monitor	44.5	330 - Low-Density Trees	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Intermediate)	429 - Mixed Upland Conifers	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Portions of stand were scarified by DNR staff in summer 2014.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> any species currently found onsite											
<u>Regen:</u>											
<u>Other</u> Percent to Treat = 100%											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
60	41048060.21_Cut	6.8	500 - Water	Nonstocked		Unspecified	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Uneven-Aged	Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Mark to cut down to 80 sqft/acre. No cut on hemlock. Avoid plugging any drainages to the river and stay out of oxbows. Maintain a 50 foot buffer along Manistique river.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> mixed deciduous and conifer											
<u>Regen:</u>											
<u>Other</u> Previously classified as old growth. Received a select cut in 1987. Stand next to river and has seasonal drains and oxbows present. Stand must be accessed during frozen winter conditions. An old sleugh must be crossed for access. Old next step comments: Monitor for success of regeneration. Mix of current species is acceptable.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2014											
Total Treatment Acreage Proposed:		79.3									

Report 4 – Site Conditions

Shingleton Mgt. Unit
Adam Petrelius : Examiner

Compartment: 48
Year of Entry: 2019

Availability for Management

Total Acres	Acres Available	Acres Avail <i>With Condition</i> Not Available			Dominant Site Conditions		
					2H	3J	3L
66	66	0	0	Aspen			
22	16	0	6	Hemlock		2	4
452	409	0	43	Jack Pine	43		
72	72	0	0	Low-Density Trees			
14	9	0	5	Lowland Mixed Forest		0	5
10	10	0	0	Lowland Shrub			
74	44	0	30	Lowland Spruce/Fir			30
1569	1569	0	0	Marsh			
66	0	0	66	Northern Hardwood		20	46
41	0	0	41	Red Pine		9	32
85	85	0	0	Upland Conifers			
38	38	0	0	Water			
2,510	2,318		192	Total Forested Acres	43	31	118
	92%		8%	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	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Shingleton Mgt. Unit
Adam Petrelius : Examiner

Compartment: 48
Year of Entry: 2019

4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	3L: Other wildlife concerns	90	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	43	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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
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Comments



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	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4	42220 - Natural Jack Pine	Poletimber Well	10.6	41	51-80	Burned in Seney Fire 1976
5	42350 - Upland Hemlock	Sawtimber Well	21.7	106	111-140	Stand is mostly hemlock with some lowland hardwood and softwood. Creeks are present within stand.
6	42220 - Natural Jack Pine	Poletimber Well	17.4	41	51-80	Burned in Seney Fire 1976
7	6122 - Black Spruce	Poletimber Well	17.4	41	51-80	Burned in Seney Fire.
8	4222 - Natural Jack Pine	Poletimber Well	179.4	41	1-50	Burned in Seney Fire.
9	4222 - Natural Jack Pine	Poletimber Well	26.2	41	1-50	Stand burned in Seney Fire.
10	42220 - Natural Jack Pine	Poletimber Well	8.7	41	1-50	Stand burned in Seney Fire.
11	42220 - Natural Jack Pine	Poletimber Well	16.9	41	1-50	Stand burned in Seney Fire.
12	429 - Mixed Upland Conifers	Sawtimber Medium	84.8	91	51-80	Stand is 2 aged. It appears that wood was salvaged after the Seney Fire however the red pine and white pine were left. Resulting stand is red pine, white pine, and hemlock with a barely merchantable canopy/subcanopy of birch, spruce, and aspen.
13	4115 - Y.Birch, Hemlock NH	Sawtimber Well	53.2	102	111-140	Stand is a mixture of upland hardwood and lowland hardwood with a lot of vernal ponds and seasonal drainages present.
14	4130 - Aspen	Poletimber Medium	20.0	41	1-50	
16	4222 - Natural Jack Pine	Poletimber Well	109.8	41	1-50	Stand burned in Seney Fire. High stocking of jack pine. Some trees are reaching merchantable size.
17	411 - Northern Hardwood	Sawtimber Well	2.4	102	111-140	
19	4222 - Natural Jack Pine	Poletimber Well	8.6	41	1-50	
20	42210 - Natural Red Pine	Sawtimber Well	15.4	91	81-110	
22	4222 - Natural Jack Pine	Poletimber Well	8.9	41	1-50	Stand burned in Seney Fire.
23	42220 - Natural Jack Pine	Poletimber Well	7.8	41	51-80	Burned in Seney Fire 1976



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	42220 - Natural Jack Pine	Poletimber Well	7.2	41	51-80	Burned in Seney Fire 1976
25	4222 - Natural Jack Pine	Poletimber Well	16.6	41	1-50	Stand burned in Seney Fire.
26	6139 - Mixed Lowland Forest	Poletimber Well	14.2	42	1-50	
27	42210 - Natural Red Pine	Sawtimber Well	25.9	91	81-110	
28	42220 - Natural Jack Pine	Poletimber Well	7.8	41	1-50	Stand burned in Seney Fire.
29	4222 - Natural Jack Pine	Poletimber Well	3.8	41	1-50	Stand burned in Seney Fire.
30	42220 - Natural Jack Pine	Poletimber Well	5.8	41	1-50	Stand burned in Seney Fire.
31	4136 - Aspen, Mixed Conifer	Poletimber Well	18.8	41	1-50	
32	42220 - Natural Jack Pine	Poletimber Well	5.2	41	51-80	Burned in Seney Fire 1976
33	6122 - Black Spruce	Poletimber Well	12.9	41	51-80	Burned in Seney Fire.
35	4130 - Aspen	Poletimber Well	13.6	41	1-50	
37	4130 - Aspen	Poletimber Well	13.6	41	1-50	
38	4222 - Natural Jack Pine	Poletimber Well	11.4	41	1-50	Stand burned in Seney Fire.
55	4110 - Sugar Maple Association	Sawtimber Well	10.6	91	111-140	
56	6122 - Black Spruce	Sapling Well	44.2	46	1-50	



Stand	Cover Type	Acres	Managed Site	General Comments:
1	330 - Low-Density Trees	11.8		[9/18/09 BB] Stand is now on proposal 16-09 Zellar Camp Sale Unit 2, actual acres = 11. Residual Basal Area = 7 sq ft red pine, 11 sq ft white pine, 3 sq ft hemlock. Stand was cut as part of Zellar Camp Sale #41-016-09-01. TCR date 8/18/15. Cut in winter 2013.
2	330 - Low-Density Trees	16.2		[9/18/09 BB] Stand is now on proposal 16-09 Zellar Camp Sale Unit 1, actual acres = 21. Residual Basal Area = red pine 10 sq ft , white pine 10 sq ft, red maple 3 sq ft , cedar 4 sq ft [10/28/2015 TI] Stand has been cut as part of sale #41-016-09-01 Zellar Camp. TCR date 8/18/2015. Cut in winter of 2013.
3	6239 - Mixed Emergent Wetland	3.1	No	
15	6239 - Mixed Emergent Wetland	8.2	No	
18	623 - Emergent Wetland	19.4	No	
21	330 - Low-Density Trees	43.5		[9/18/09 BB] Stand is now on proposal 16-09 Zellar Camp Sale Unit 3-7, actual acres = 35. Residual Basal Area = 3 sq ft red pine, 8 sq ft white pine Stand was scarified in summer 2014.
34	6239 - Mixed Emergent Wetland	2.1	No	
36	623 - Emergent Wetland	2.3	No	OPIC - FMD: SCA-Jack pine island in middle of marsh. Formerly designated as potential old growth. Stand burned in Seney Fire.
39	6239 - Mixed Emergent Wetland	1.7	No	
40	6239 - Mixed Emergent Wetland	3.0	No	
43	623 - Emergent Wetland	1529.4	No	
51	622 - Lowland Shrub	7.9	No	
60	500 - Water	38.5	No	Manistique River
62	622 - Lowland Shrub	2.1	No	