



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41146

Entry Year 2020

Acreage: 849

County Schoolcraft

Management Area: Cusino Complex

Revision Date: 2018-07-16

Stand Examiner: Mario Molin

Legal Description:

T47N R15W Sections 19, 20, 27, 28, 29, 30

Identified Planning Goals:

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

Soil and topography:

The topography in this compartment is level with lower areas found near the marshes and rivers edge. The main soil type found in the compartment is the Paquin Sand. The two LTA's for this compartment are Outwash Transition mainly in section 19 and the Driggs Basin in the remainder of the compartment and the Munising Moraine II to the NE

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

Ownership around the compartment is mainly State lands and private industry lands to the east.

Unique Natural Features:

Michigan Natural Features Inventory (MNFI) has some listings of species that have the potential to be within the compartment

Archeological, Historical, and Cultural Features:

Unknown

Special Management Designations or Considerations:

Unknown

Watershed and Fisheries Considerations:

The eastern region of this compartment borders the Driggs River. The Driggs River is a designated 10BKT trout stream less than 50' width. A 300' buffer is recommended for the Driggs River in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

Located west of the intersection of County Road 450 and the Driggs River Road, this compartment is dominated by northern hardwoods. The Driggs River forms the eastern boundary of the compartment, and lowland forest and scrub/shrub are located on the south side. Hemlock, black cherry, and white pine are significant components of the forest cover in this area. Black cherry in parts of the compartment is mature, but little or no young growth is present. Wildlife management objectives include maintaining the age class and structural diversity present in the northern hardwood habitat, and encouraging black cherry regrowth in one stand.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and peat & muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River and Prairie du Chien Groups subcrop below the glacial drift. The Black River is quarried for stone/dolomite elsewhere in the UP. Gravel pits are not found in the general area, but there could be some potential. There is no commercial oil and gas production in the UP

Vehicle Access:

Access is good. County Road 450 (Driggs Lake Truck Trail) allow for easy travel on the north end of the compartment.

Survey Needs:

None known at this time.

Recreational Facilities and Opportunities:

Access is good. County Road 450 (Driggs Lake Truck Trail) allow for easy travel on the north end of the compartment.

Fire Protection:

Fire response to the area will be extended due the distance traveled from either of the offices. The majority of the area is northern hardwood and is not contusive to many wildfires.

Additional Compartment Information:

The following reports from the Inventory are attached:

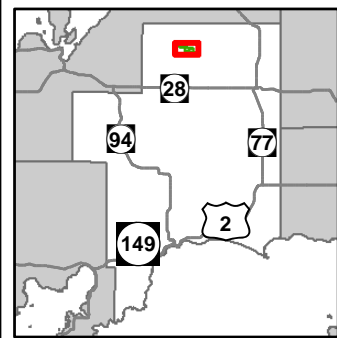
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

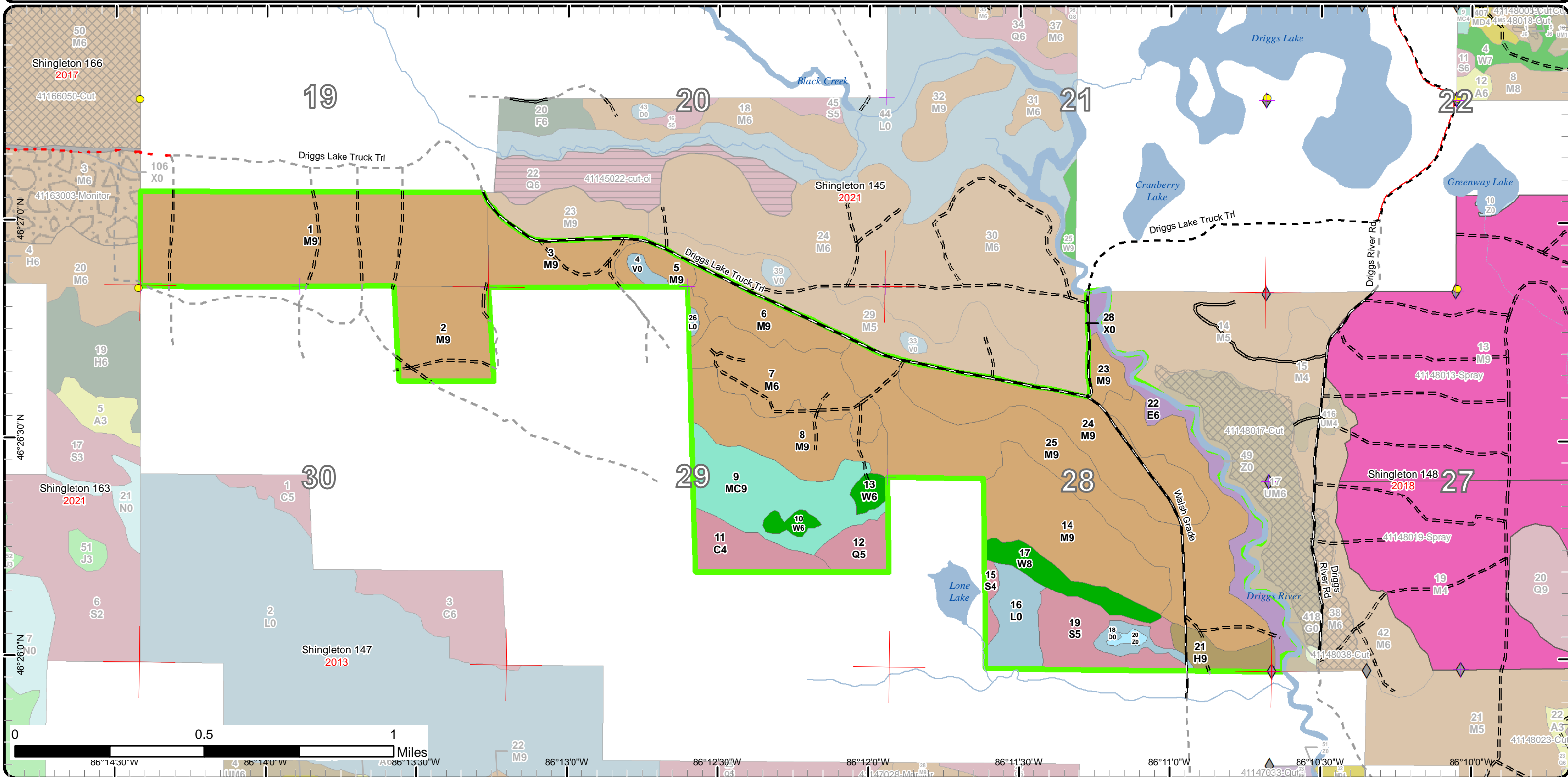
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 146
 T47N, R15W, Sec: 19, 20, 28-30
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Casino Complex
 YOE: 2020
 Acres: 849 GIS Calculated
 Examiner: Mario Molin
 Map Revised: 12/17/2018
 Map Phase: Post Review

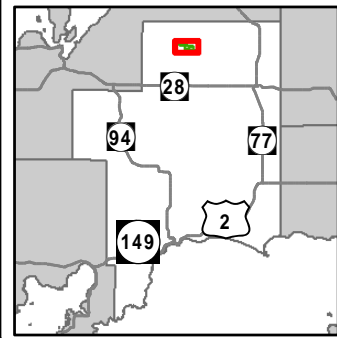


- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- ◆ Field Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- 411 - Northern Hardwood
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 500 - Water
- 622 - Lowland Shrub
- Lakes

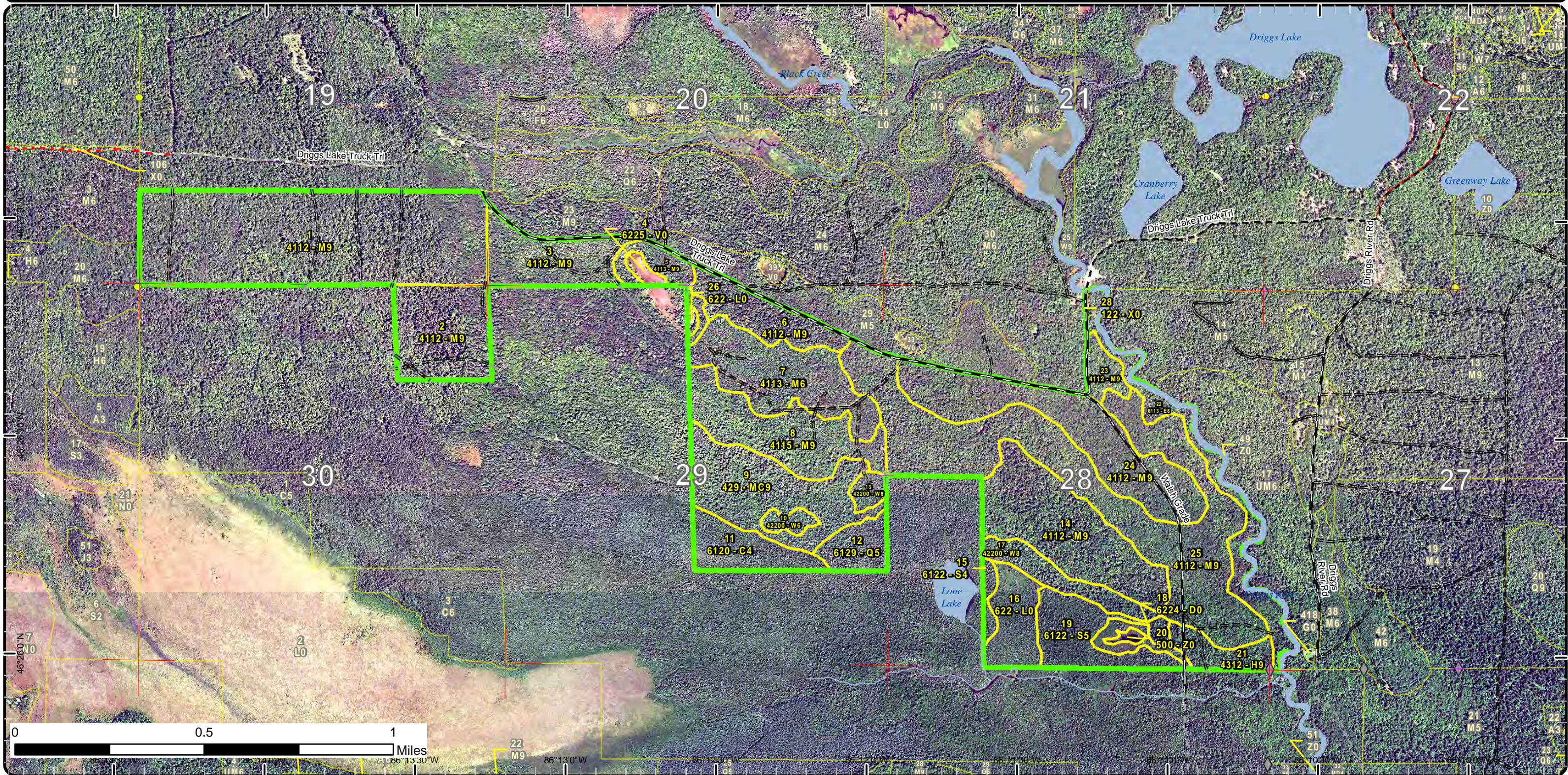


Stand Boundary Map

Compartment: 146
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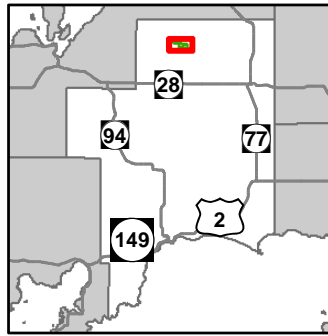


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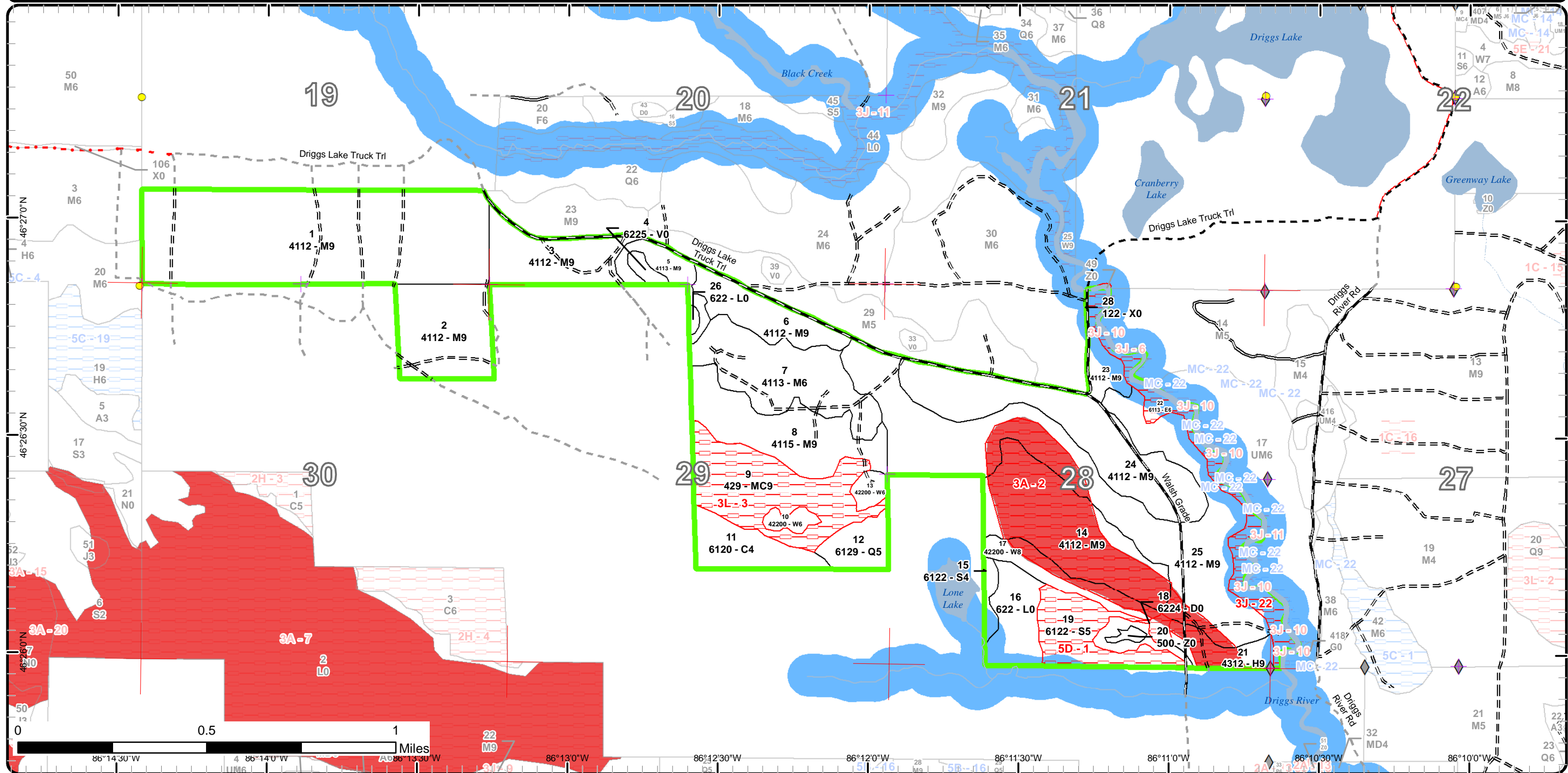


Special Conservation Areas & Site Conditions Map

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|--|---|---|
| <ul style="list-style-type: none"> — Miris Corners + Remonumented Section Corners ● Survey Grade Corners ◆ Field Grade Corners Counties DNR - Primary Forest Road DNR - Secondary Forest Road DNR - Forest Access Route Federal / State - Dirt / Gravel Road County - Gravel Road County - Dirt Road (Seasonal) Private - Dirt / Gravel Road Intermittent Stream Island in Lake or River | <ul style="list-style-type: none"> Lake/Pond Perennial River Lakes and Rivers All Compartment Boundary Unavailable 3A: Conservation Values incompatible with harvest at this time 3J: Water quality / BMPs (stream, river, or lake) 3L: Other wildlife concerns 5D: Unproductive Forest Land Stand Boundaries Ecological Reference Areas Cold Water Streams Cold Water Lakes | <ul style="list-style-type: none"> High Priority Trout Stream Buffer |
|--|---|---|



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
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	0	0	0	0	0	0	21	0	0	0	0	0	0	0	21
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13
Lowland Conifers	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	32
Lowland Shrub	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Spruce/Fir	0	0	0	0	0	0	0	4	0	0	30	0	0	0	0	0	0	0	34
Northern Hardwood	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	574	624
Treed Bog	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Pine	0	0	0	9	0	0	0	0	0	17	0	0	0	0	0	0	0	0	26
Total	35	0	0	0	59	0	14	0	4	0	17	51	0	0	0	0	0	672	850



Report 2 – Treatment Summary

Shingleton Mgt. Unit
Year of Entry: 2020

Compartment 146
Total Compartment Acres: 849

Acres of Harvest

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



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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
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#Type!

Habitat Cut:

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date:

**Total Treatment
Acreage Proposed: 0.0**

Report 4 – Site Conditions

Shingleton Mgt. Unit

Mario Molin : Examiner

Compartment: 146

Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	3A	3J	3L	5D
		With Condition	Not Available					
3	3	0	0	Bog				
21	21	0	0	Cedar				
13	5	0	7	Hemlock	7			
13	13	0	0	Lowland Conifers				
32	0	0	32	Lowland Deciduous		32		
22	22	0	0	Lowland Shrub				
34	4	0	30	Lowland Spruce/Fir				30
623	550	0	73	Northern Hardwood	73			
6	6	0	0	Treed Bog				
53	0	0	53	Upland Conifers			53	
1	1	0	0	Urban				
2	2	0	0	Water				
26	19	0	8	White Pine	8			
849	647		202	Total Forested Acres	88	32	53	30
	76%		24%	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	5D: Unproductive Forest Land	30	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Mainly sub merchantable timber.							
2	Unavailable	3A: Conservation Values incompatible with harvest at this time	88	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Shingleton Mgt. Unit
Mario Molin : Examiner

Compartment: 146
Year of Entry: 2020

3	Unavailable	3L: Other wildlife concerns	53	Unspecified	Unspecified	Unspecified	Unspecified
Comments: WLD asked to drop treatment as it's Purchased land.							
22	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	32	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	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4112 - Maple, Beech, Cherry Association	Sawtimber Well	146.2	91	81-110	2018- Good advanced regen. OPIC - FMD: Stand was cut in 1995 with FTP C41-624 completed. Oak planted in the very east part of the stand and white pine planted in the east 1/2 of the stand. Scattered large white pine and hemlock.
2	4112 - Maple, Beech, Cherry Association	Sawtimber Well	40.2	91	51-80	2018- cut in 2014 # 41-045-10-01
3	4112 - Maple, Beech, Cherry Association	Sawtimber Well	31.6	91	51-80	
5	4113 - R.Maple, Conifer	Sawtimber Well	12.4	90	1-50	2008- Stand was TSI's in '77. Removed hemlock, fir, some white pine and most hardwood over 14" DBH. Good spp mix in residual. Treat in 20-30 years.
6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	24.3	91	51-80	[10-12-11] Stand is now under contract 41-045-10-01 Lone Lake Repeat. Residual BA: yellow birch = 2; white pine = 2; hemlock = 3; black cherry = 31; mixed hardwood = 30; total = 68 sq.ft./acre.[1-3-14] Sale is now closed TCR dtd 12-10-13.
7	4113 - R.Maple, Conifer	Poletimber Well	49.7	39	1-50	OPIC - FMD: M3/M4- treated in '79 with a very heavy cut leaving white pine and hemlock. In '92 the overstory was removed. There is a great spp mix in the regeneration: white pine, hemlock, white birch, yellow birch, cherry, beech, red maple and fir. Treat again in 30 years or when the stand is operable.
8	4115 - Y.Birch, Hemlock NH	Sawtimber Well	44.8	91	81-110	OPIC - FMD: Treated in '79 with a heavy thin. Good spp mix in the understory. Another 20 years and the understory should have enough diameter to allow for treatment. Stand has patchy areas with large diameter trees. There is not enough beech in the stand for salvage work.
9	429 - Mixed Upland Conifers	Sawtimber Well	52.8	130	111-140	OPIC - FMD: Treated in '86. Suppose to have removed all spp except white pine,. However, there are areas were there is nice spruce, fir, red maple and hemlock present. Stand is mainly white pine. There are a couple 1/2 acre ridges were there is more hardwood than softwood. Treat in 20 years when understory is ready. MO should be white pine and a hemlock mix.
10	42200 - Natural White Pine	Poletimber Well	4.4	31	51-80	OPIC - FMD: Stand cut with surrounding timber in '86. When they removed the other spp this area did not have many large residual white pine. However, the amount of wp in the understory is amazing. Some hardwood mixed in.
11	6120 - Lowland Cedar	Poletimber Poor	21.2	103	1-50	Poor quality wood. Water table very high. Scattered white pine present dying or dead from water stress. Some small scattered spruce, fir and tamarack. There are areas with little to no BA and lacking regeneration.
12	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	13.5	50	1-50	OPIC - FMD: Stand has a bit more elevation than stand 11, with more spp diversity. White pine is in a little better shape. This stand has more potential for future cutting but still a poor site. 98= fir/ tamarack.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	42200 - Natural White Pine	Poletimber Well	5.0	31	1-50	2018- Cut in 1986, great regeneration.
14	4112 - Maple, Beech, Cherry Association	Sawtimber Well	61.7	91	51-80	2018- Considered and ERA. [10-12-11] Stand is now under contract 41-045-10-01 Lone Lake Repeat. Residual BA: yellow birch = 4; cedar = 1; white pine = 5; hemlock = 10; black cherry = 2; mixed hardwood = 30; total = 52 sq.ft./acre.
15	6122 - Black Spruce	Poletimber Poor	4.1	78	1-50	2018- Stand is flooded, some superstory white pine scattered about, spruce seems to be dying out and in poor condition, likely due to the high water table and possibly age. OPIC - FMD: Stand still in poor quality because of the high water table. Areas where stocking is low white pine can be found on knobs.
17	42200 - Natural White Pine	Sawtimber Medium	17.0	91	81-110	2018- Stand changes from dry to wet and also changes composition, spruce is added to the west.
19	6122 - Black Spruce	Poletimber Medium	29.9	103	51-80	OPIC - FMD: Cedar is poor quality. There are areas where stocking is very poor. Seeps in the area and high water table are making SI poor. This water flows eventually to Negro Creek and Driggs River. Scattered white pine on knobs.
21	4312 - Hemlock, Mixed Deciduous	Sawtimber Well	12.9	91	81-110	OPIC - FMD: Thinned in 83 and 95. Area is lower ground than adjacent hardwood stand. There is also more hemlock and white pine present. Some of these were removed in 83, commercially. Reproduction is doing well. Some seasonal wet areas from drains to the west.
22	6113 - Lowland Maple	Poletimber Well	31.7	91	51-80	2018- River floodplain/bottom land, most of stand is in the river buffer. Stand changes composition and density throughout.
23	4112 - Maple, Beech, Cherry Association	Sawtimber Well	8.0	91	51-80	OPIC - FMD: Treated with stand 30 in Compartment 145 to the north (1993). When this stand is ready it should be treated again with stand 30. Underplanted white pine and red oak in the stands after harvest.
24	4112 - Maple, Beech, Cherry Association	Sawtimber Well	65.2	91	81-110	OPIC - FMD: Stand was picked through in 72, where hemlock, white pine, yellow birch and red maple were removed. The wood is poor quality, lots of cherry present with the above species starting to seed in regularly.
25	4112 - Maple, Beech, Cherry Association	Sawtimber Well	139.2	91	51-80	OPIC - FMD: [2-19-02] D.Dover indicates contact w/MNFI took place at review - ok to proceed as prescribed. [a small acreage of this stand was/is being treated with adjacent stand. That portion was typed out and now the new stand 25 is not part of the sale. Thinned in 02 by inmates. Some cherry mortality but not bad.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	6225 - Bog	3.1	No	OPIC - FMD: Surrounded by a nice white pine/hemlock/hardwoods. The east side had some white pine removed.
16	622 - Lowland Shrub	20.8	No	Tag alder swamp/bog.
18	6224 - Treed Bog	6.5	No	OPIC - FMD: OI Stand Year Origin was
20	500 - Water	1.7	No	OPIC - FMD: OI Stand Year Origin was
26	622 - Lowland Shrub	1.2	No	OPIC - FMD: Surrounded by a nice white pine/hemlock/hardwoods. The east side had some white pine removed.
28	122 - Road/Parking Lot	0.5	No	