



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41166

Entry Year 2017

Acreage: 2,388

County Schoolcraft

Management Area: Cusino Complex

Revision Date: 2015-08-04

Stand Examiner: Scott Kentner

Legal Description:

T47N R16W Sections 4, 9, 11, 14, 15

Identified Planning Goals:

Recreation is important as this compartment contains five State Forest Campgrounds, and the snowmobile trail goes through the northwest corner. Also emphasized is timber production through selection cutting in hardwood stands, and wildlife habitat management.

Soil and topography:

The upland soils consist of Garlic & Paquin Sands, and the lowland soils include Dawson and Carbondale Peats & Mucks. Topography is flat to slightly rolling.

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

Several of the lakes in the compartment have vacation and year round residences. The majority of the land to the north and east is commercial forest land managed for northern hardwoods.

Unique Natural Features:

Currently under review by Michigan Natural Features Inventory (MNFI)

Archeological, Historical, and Cultural Features:

None identified at this time.

Special Management Designations or Considerations:

None identified at this time.

Watershed and Fisheries Considerations:

Gemini Lake; This lake was last surveyed by Fisheries Division in 2003. Six age-classes of walleye were captured and growth rates were acceptable. Further stocking has been suspended to determine if the walleye population can support itself through natural reproduction. Survey results also indicate good fisheries for northern pike, smallmouth bass, and pumpkinseed sunfish.

Ross Lake. This lake was last surveyed by Fisheries Division in 2004. The most attractive fisheries are for northern pike, largemouth and smallmouth bass, and bluegills. No fish stocking occurs at this time.

Canoe Lake; This lake is not actively managed by Fisheries Division as it is a suspected winterkill lake.

Cusino Lake; This lake is actively managed by Fisheries Division. Walleye have previously been stocked here along with northern muskellunge. Cusino Lake also produces a nice bass fishery.

Upland management activities should be concerned with avoiding practices which would allow sediment to enter these lake systems or the drainages that flow into/out of them, therefore, BMP practices should be followed.

Wildlife Habitat Considerations:

This compartment lies in northern Schoolcraft County and contains Canoe Lake and portions of Ross and Gemini Lakes. Early surveyor notes show that the uplands were dominated by a mixed forest containing sugar maple, hemlock, yellow birch, beech, white pine, balsam fir, and red maple. Lowland forest consisted of tamarack, spruce, and cedar. Current upland forest appear to have more black cherry and less hemlock, yellow birch, and white pine than the circa 1850 forests. Low lying conifer stands appear to be fairly similar in species composition to the pre-settlement forests. Featured species in this compartment are American marten, moose, bear, gray jay, northern goshawk, ruffed grouse, and white-tailed deer. Wildlife habitat objectives in this compartment include promoting species diversity in the northern hardwood stands by enhancing the black cherry, yellow birch, hemlock and white pine components, maintaining closed canopy hemlock stands, and protecting the ecological integrity of the wetlands systems.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and coarse-textured till. There is

insufficient data to determine the glacial drift thickness. The Ordovician Prairie du Chien (PdC) and the Cambrian Trempealeau Formations subcrop below the glacial drift. The PdC and Trempealeau could be used for stone. The nearest gravel pit is two miles to the northwest and there should be potential in the compartment. There is no commercial oil and gas production in the UP.

Vehicle Access:

Vehicle access is good; there are county roads and dirt two-track roads throughout.

Survey Needs:

None identified at this time.

Recreational Facilities and Opportunities:

This compartment contains the following State Forest Campgrounds: North & South Gemini Lakes, Canoe Lake, Cusino Lake, and Ross Lake. There is also a short hiking trail at South Gemini Campground.

Fire Protection:

There is a low occurrence of fires in this area mainly due to hardwood timber types.

Additional Compartment Information:

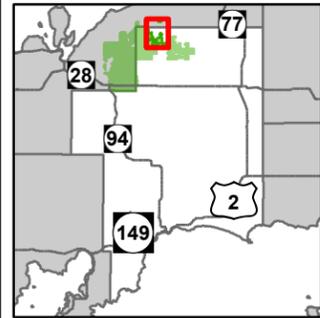
The following reports from the Inventory are attached:

- 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**

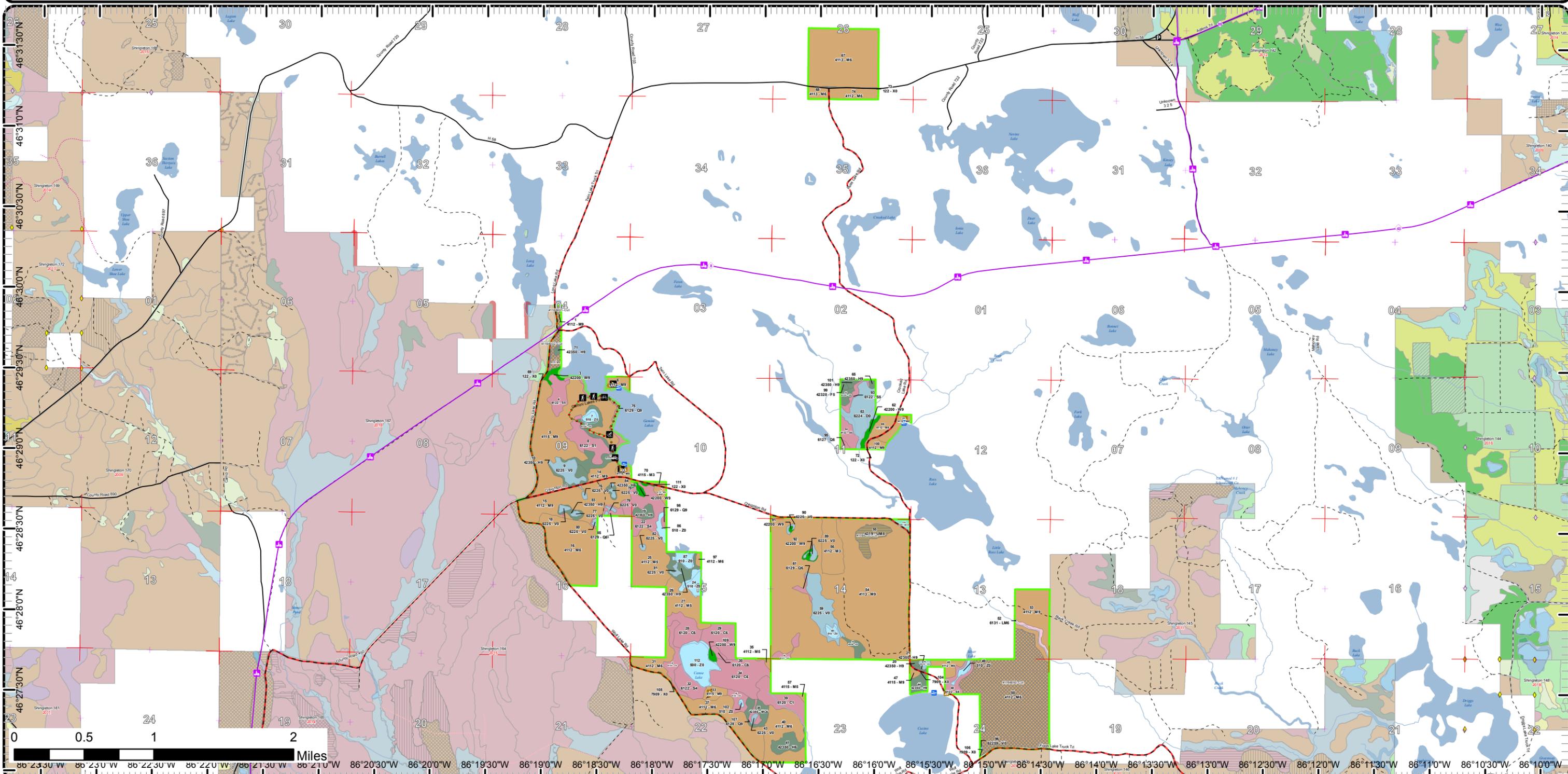
Cover Type & Treatments Map



Compartment: 166
 T47N, R16W, Sec: 4, 9-16, 22-24
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Casino Complex
 YOE: 2017
 Acres: 2388 GIS Calculated
 Examiner: Scott Kentner
 Map Revised: 8/18/2015
 Map Phase: Review

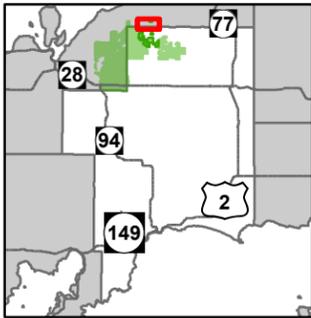


- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ✚ Remonumented Section Corners ◆ Survey Grade GPS Corners ◇ Field Grade GPS Corners — Miris Corners — Paved Roads — County Gravel Roads — Gravel Roads — Poor Dirt Roads — County Poor Dirt Roads — Trail (Non-Recreation) — Closed Roads 🚤 Boating Access Site 🏕️ Campground | <ul style="list-style-type: none"> 🅓 Parking Lot 🌟 Trailhead 🚲 Bike Trails 🚶 Hiking Trails 🎿 Ski Trails 🚙 Snowmobile Trails — Designated Hiking Pathways — Designated Bicycle Trails ● Designated Equestrian Trails — Designated Ski Trails — Designated Snowmobile Trails — Rivers | <ul style="list-style-type: none"> 🌊 Lakes — Pipeline Treatments ▨ Selection (Group, Single Tree) — Clearcut (w/Reserves) Forest Covertype 411 - Northern Hardwood 422 - Natural Pines 423 - Other Upland Conifers 429 - Mixed Upland Conifers 430 - Upland Mixed Fores 612 - Lowland Coniferous Forest 613 - Lowland Mixed Forest | <ul style="list-style-type: none"> Non-Forest Covertype 122 - Roads/Parking Lot 500 - Water 622 - Lowland Shrub 790 - Other Bare/Sparsely Vegetated |
|---|---|---|--|

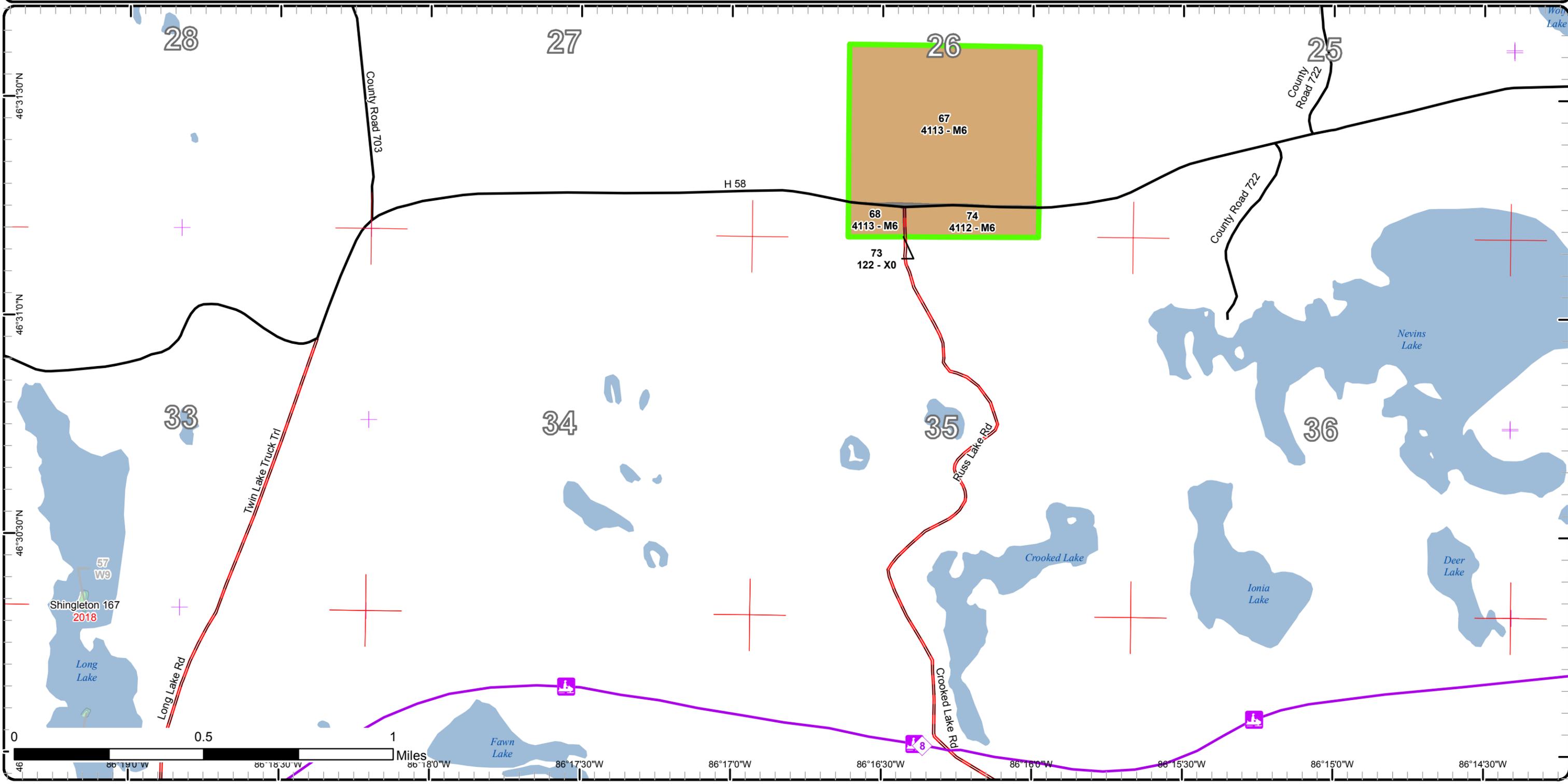


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- Remonumented Section Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- Snowmobile Trails
- Designated Snowmobile Trails
- Rivers
- Lakes
- Forest Coverture
- 411 - Northern Hardwood
- Non-Forest Coverture
- 122 - Roads/Parking Lot

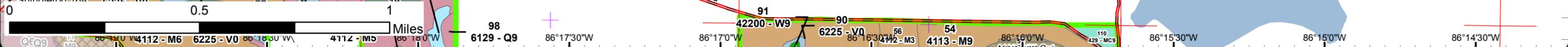
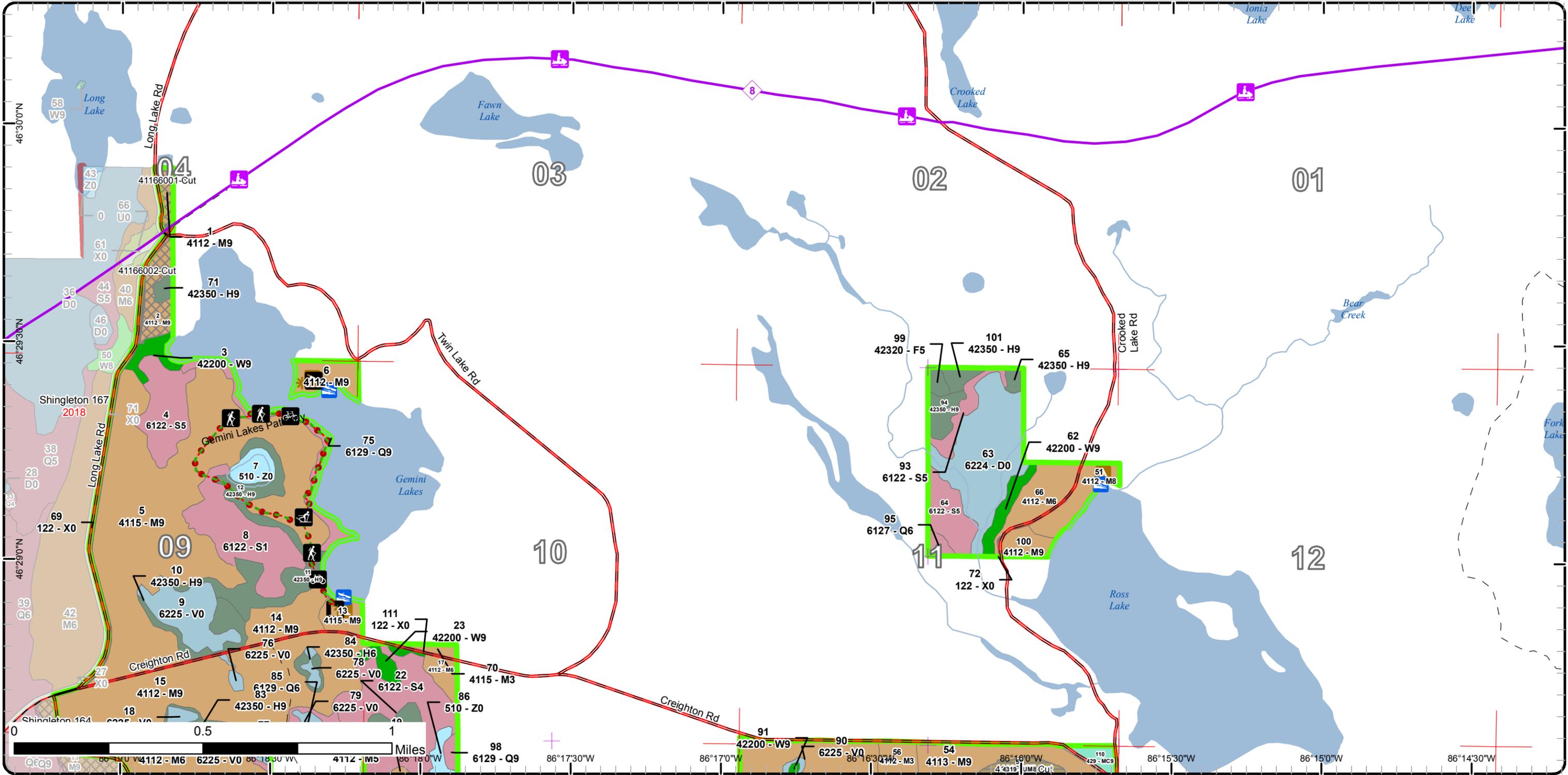


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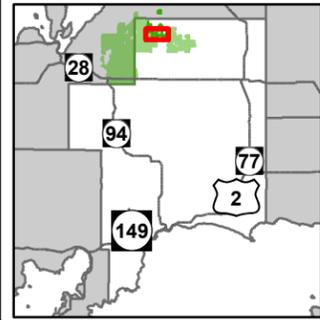


- Remonumented Section Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Boating Access Site
- Campground
- Trailhead
- Bike Trails
- Hiking Trails
- Ski Trails
- Snowmobile Trails
- Designated Hiking Pathways
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- Designated Snowmobile Trails
- Rivers
- Lakes
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Forest Covertype
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Fores
- 612 - Lowland Coniferous Forest
- Non-Forest Covertype
- 122 - Roads/Parking Lot
- 500 - Water
- 622 - Lowland Shrub

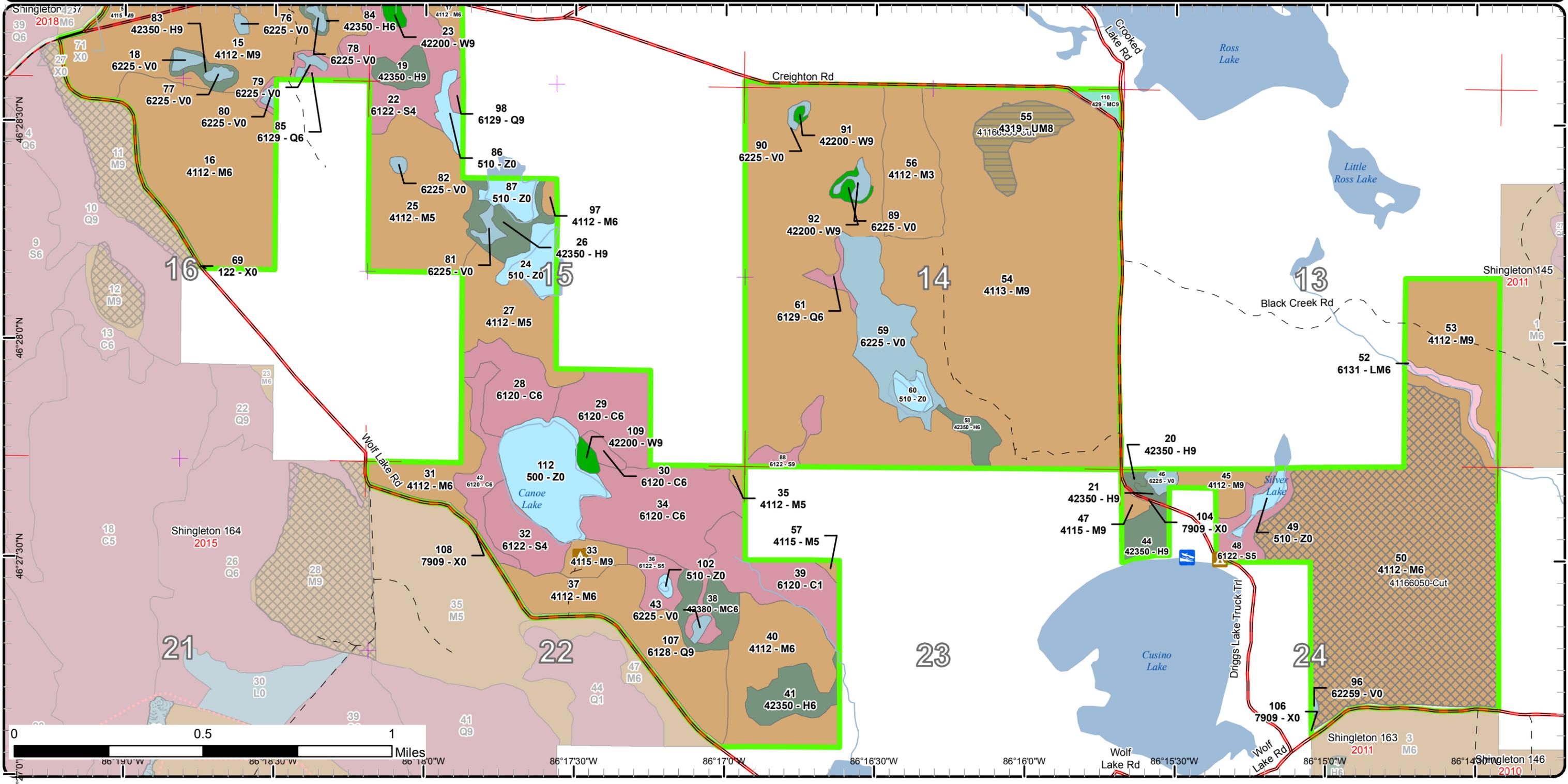


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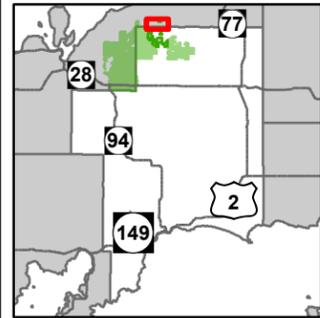


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- | Non-Forest Covertype | |
|-----------------------------------|--|
| 122 - Roads/Parking Lot | |
| 500 - Water | |
| 622 - Lowland Shrub | |
| 790 - Other Bare/Sparse Vegetated | |

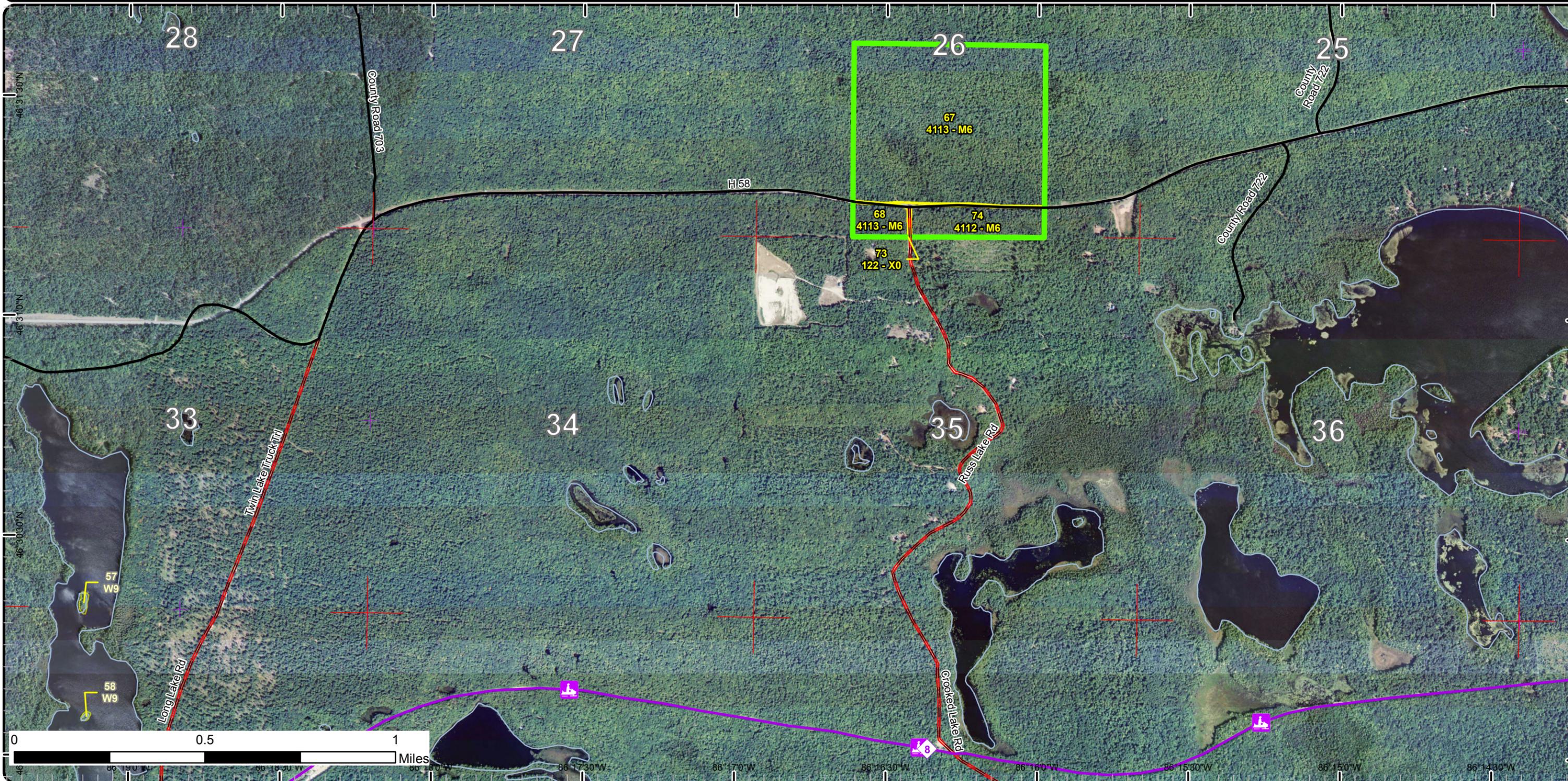


Stand Boundary Map

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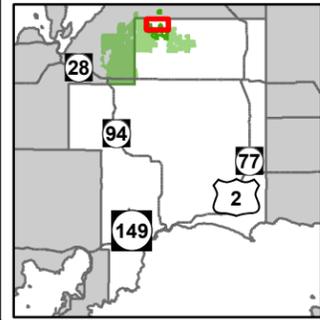


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- County Gravel Roads
- Snowmobile Trails
- Designated Snowmobile Trails
- Rivers
- Stand Boundaries
- Forest Coverture
 - 411 - Northern Hardwood
- Non-Forest Coverture
 - 122 - Roads/Parking Lot



Stand Boundary Map

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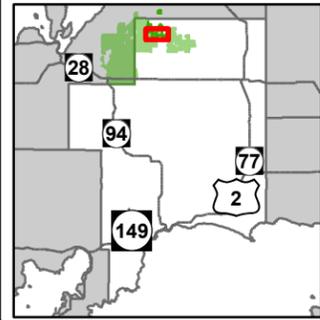


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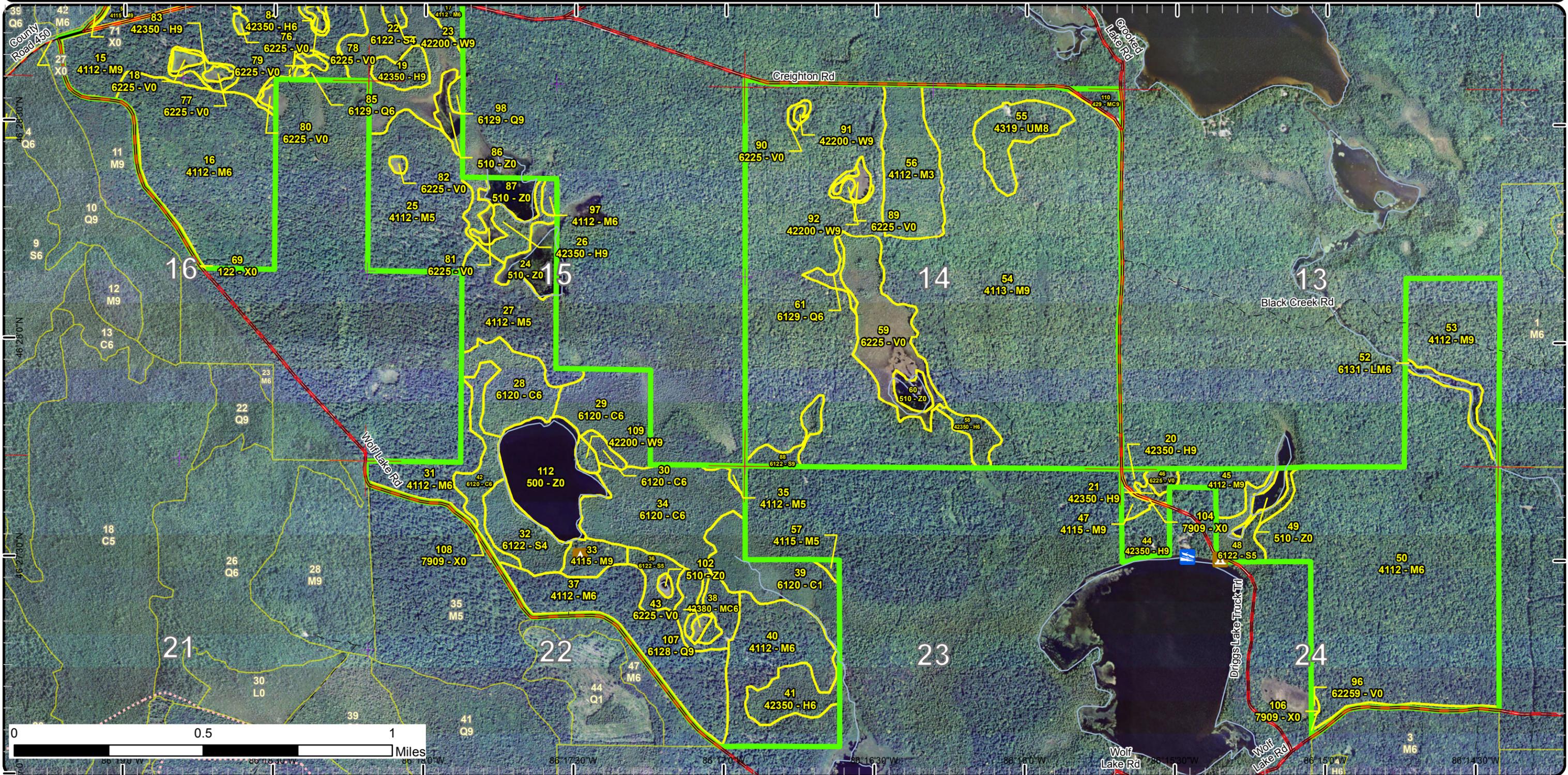


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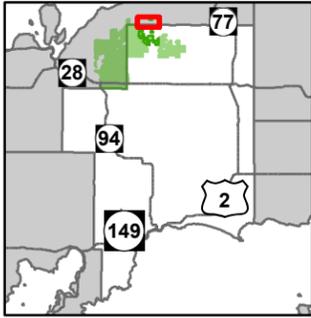


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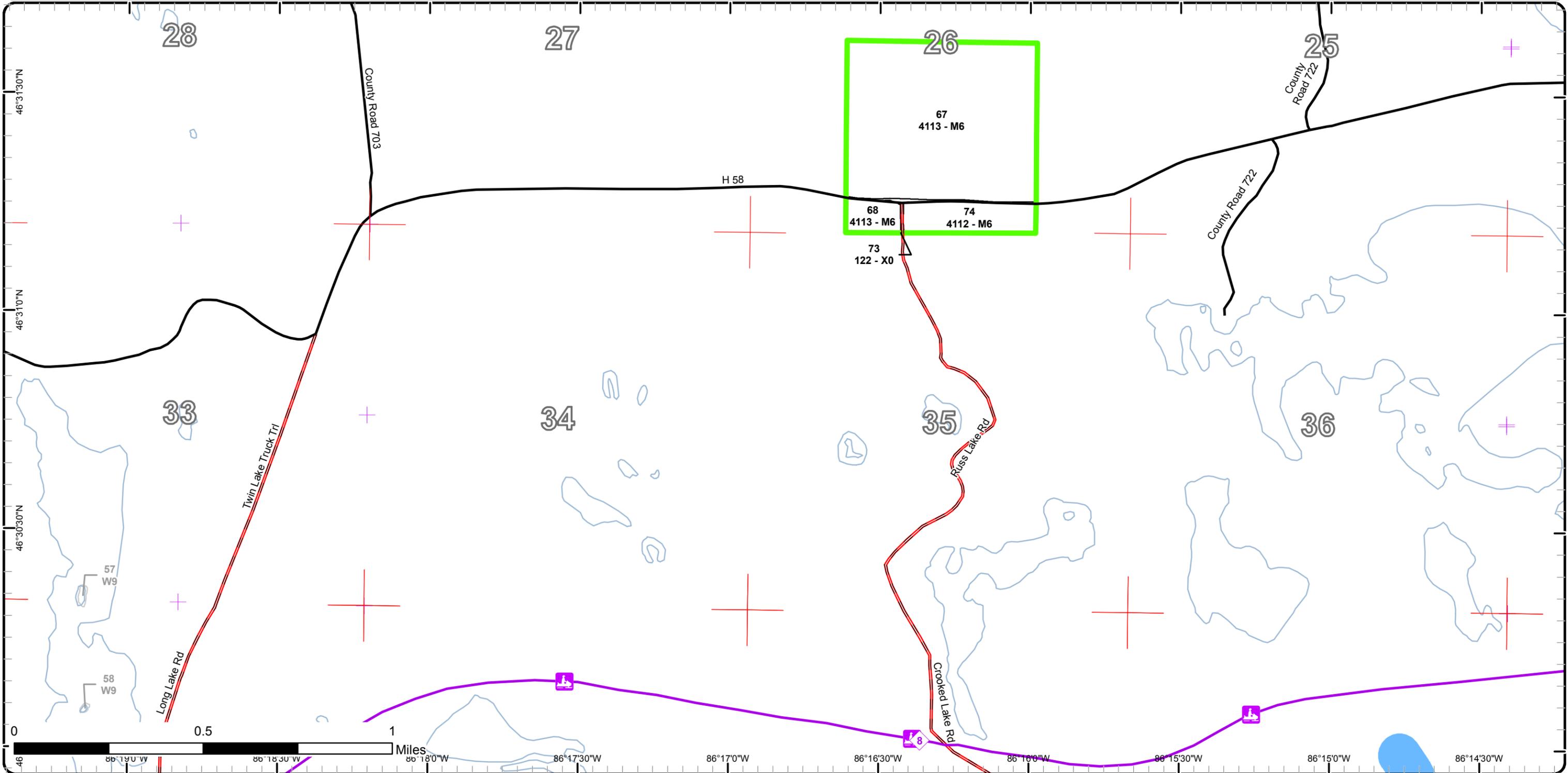


Special Conservation Areas & Site Conditions Map

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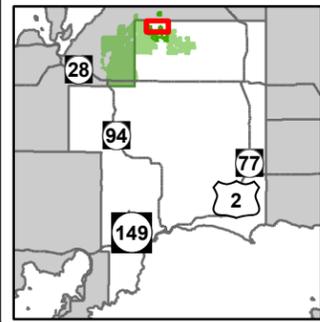


- + Remonumented Section Corners
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- Snowmobile Trails
- Designated Snowmobile Trails
- Rivers
- Stand Boundaries
- Special Conservation Areas
- High Priority Trout Stream Buffer

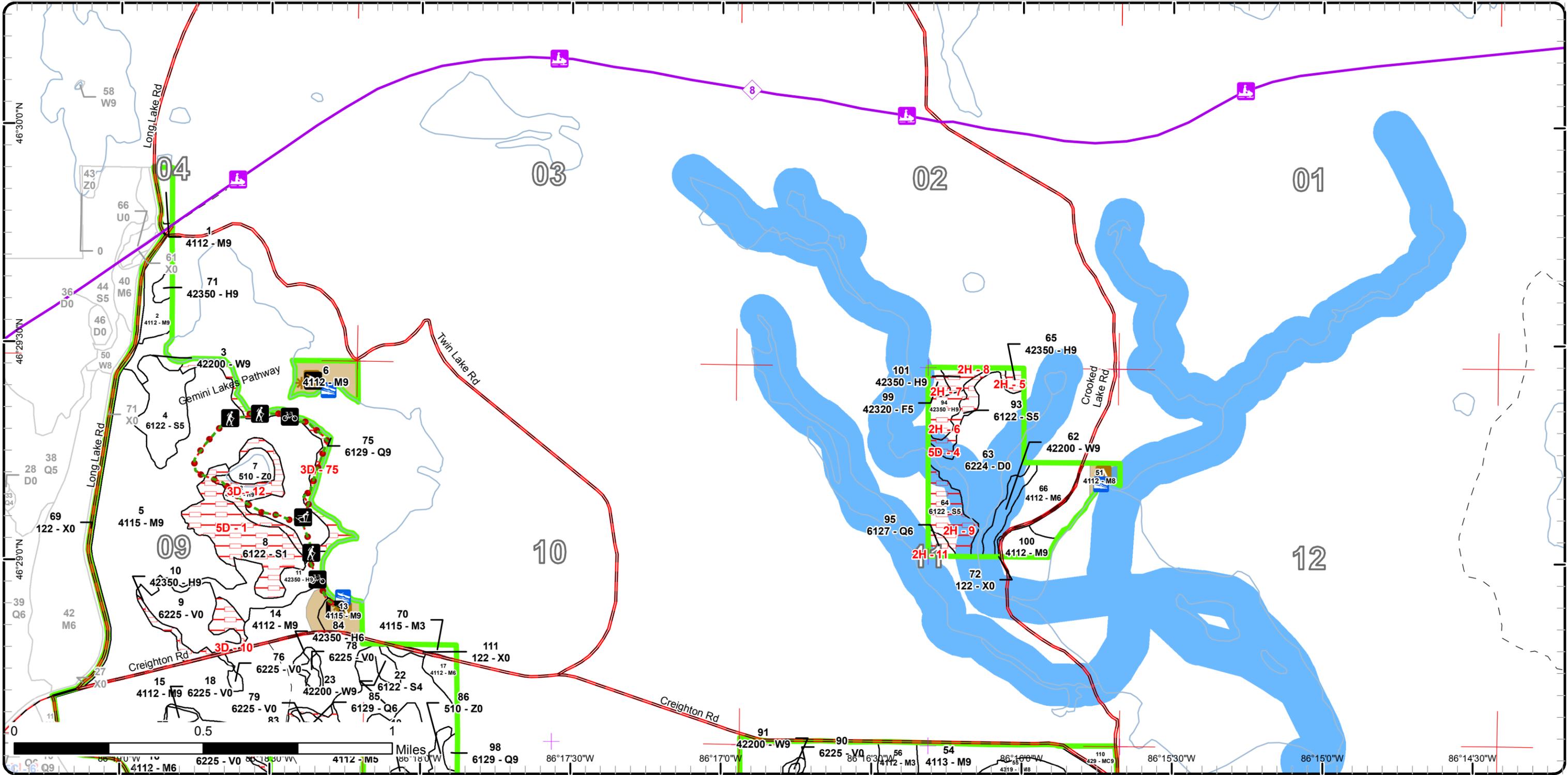


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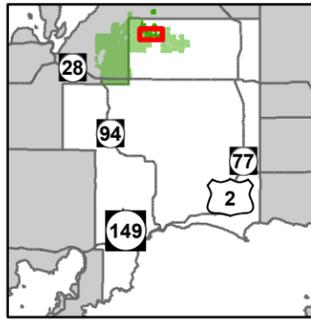


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 - Designated Snowmobile Trails
 - Rivers
 - Stand Boundaries
 - Site Condition
 - Unavailable
- Unavailable Factors**
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
 - 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
 - 5D: Unproductive Forest Land
 - Special Conservation Areas
 - High Priority Trout Stream Buffer
 - State Forest Campground

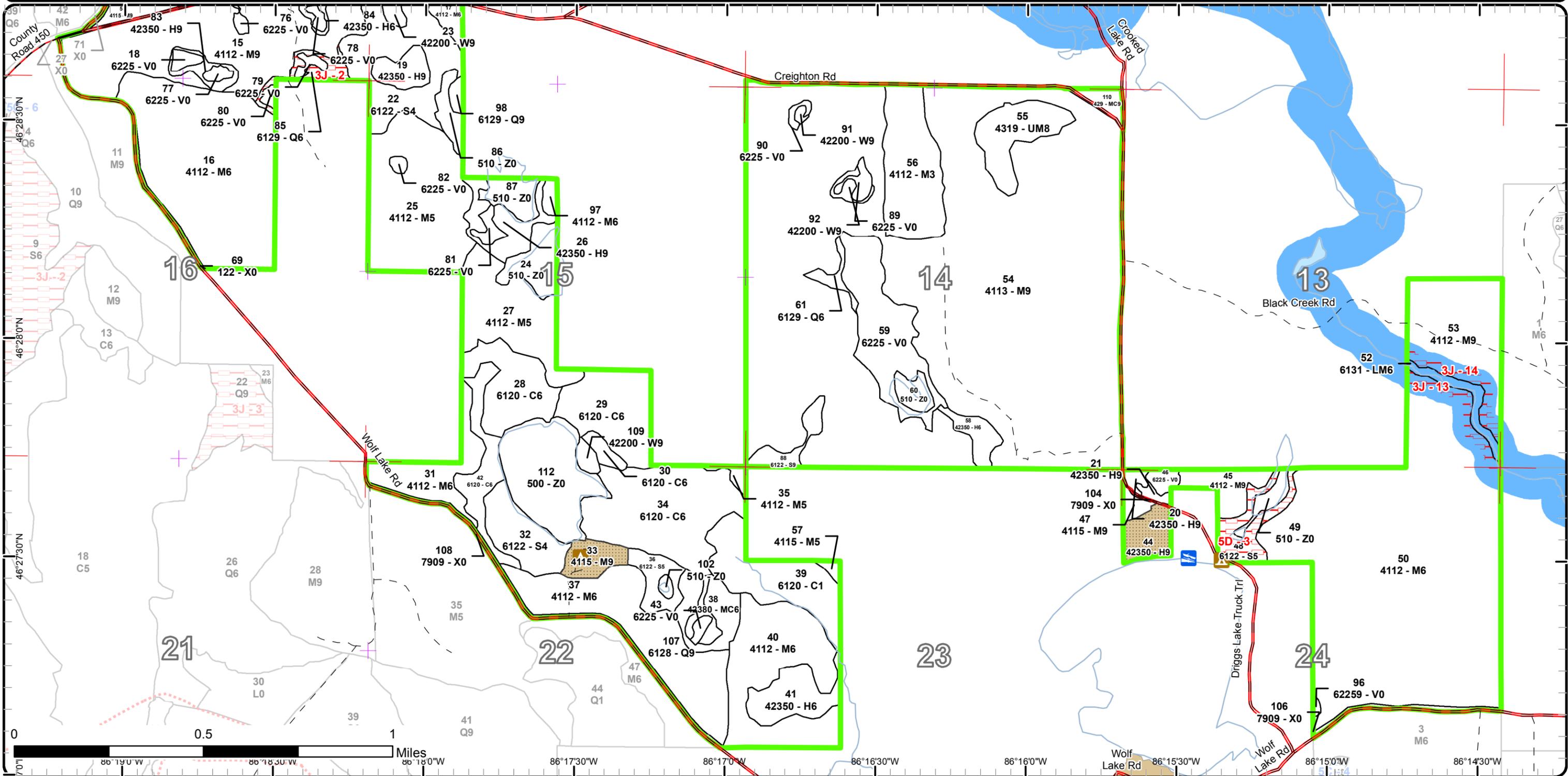


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|---|--|



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
Bare/Sparsely Vegetated	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Bog	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Cedar	0	0	0	0	0	0	0	0	0	3	0	30	0	0	0	0	0	125	158
Hemlock	0	0	0	0	0	0	0	0	16	0	16	0	0	0	0	0	0	76	108
Lowland Conifers	0	0	0	0	0	0	0	0	2	0	0	0	6	0	0	0	0	20	28
Lowland Mixed Forest	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
Lowland Spruce/Fir	0	0	0	0	0	0	38	9	37	46	0	0	0	0	0	0	0	19	149
Northern Hardwood	0	0	35	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1620	1657
Treed Bog	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18
Upland Mixed Forest	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	20
Upland Spruce/Fir	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Urban	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Water	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78
White Pine	0	0	0	0	0	0	0	0	0	2	5	0	0	0	0	0	0	13	20
Total	222	0	35	2	0	0	38	37	55	51	21	30	6	0	0	0	0	1891	2388



Report 2 – Treatment Summary

Shingleton Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 166
Total Compartment Acres: 2,388

Commercial Harvest - 269
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
Northern Hardwood	0	249	0	0	0	0	0	0	0	249
Upland Mixed Forest	20	0	0	0	0	0	0	0	0	20
Total	20	249	0	0	0	0	0	0	0	269

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	269	0	0	0	0	0	0	0	0	269
Next Step	0	0	246	0	0	0	269	0	0	515
Total	269	0	246	0	0	0	269	0	0	784



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	41166001-Cut	3.1	4112 - Maple, Beech, Cherry Association	Sawtimber Well	69	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Mark stand to 60-80 BA of residual. Cut all Beech except trees that have bear claw marks. Do not cut cedar or hemlock.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Northern hardwoods											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
2	41166002-Cut	9.1	4112 - Maple, Beech, Cherry Association	Sawtimber Well	69	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Mark stand to create canopy gaps to promote regeneration. Residual Basal area should be 60 - 80. Cut all beech, but leave any bear clawed trees.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory); Planting, Underplant											
<u>Treatments:</u>											
<u>Acceptable</u> Any species currently on site.											
<u>Regen:</u>											
<u>Other</u> WLD comment - This harvest will regenerate a diverse stand while retaining large diameter cull trees, it will also supply appropriate habitat for											
<u>Comment:</u> prey species of which the goshawk depends upon. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											
50	41166050-Cut	237.3	4112 - Maple, Beech, Cherry Association	Poletimber Well	65	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Mark stand to create canopy gaps that promote regeneration, especially around Black cherry. Residual Basal area should be 60 - 80. Cut all											
<u>Specs:</u> beech, but leave any bear clawed trees.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory); Planting, Underplant											
<u>Treatments:</u>											
<u>Acceptable</u> Any species currently on site.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
55	41166055-Cut	19.5	4319 - Mixed Upland Forest	Sawtimber Medium	60	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Uneven-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Clear-cut stand leaving a retention pocket that is 3-5% of stand's area. Access stand through sand pit.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Any species currently on site.											
<u>Regen:</u>											
<u>Other</u> WLD comment - This harvest will regenerate a diverse stand while retaining large diameter cull trees, it will also supply appropriate habitat for											
<u>Comment:</u> prey species of which the goshawk depends upon. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											

Total Treatment Acreage Proposed: 269.0

Dominant Site Conditions

	2H	3D	3J	5D
Bare/Sparsely Vegetated				
Bog				
Cedar				
Hemlock	10	18		
Lowland Conifers	2	11	6	
Lowland Mixed Forest				
Lowland Spruce/Fir	12			45
Northern Hardwood			14	
Treed Bog				
Upland Conifers				
Upland Mixed Forest				
Upland Spruce/Fir	2			
Urban				
Water				
White Pine				
Total Forested Acres	26	30	20	45
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	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Treed Bog.							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
Comments: Hemlock stand surrounding bog.							

Report 5 – Site Conditions

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3	Unavailable	5D: Unproductive Forest Land	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: treed bog							
4	Unavailable	5D: Unproductive Forest Land	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Treed bog.							
5	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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9	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	3D: Recreational / Scenic values	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	3D: Recreational / Scenic values	11	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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75	Unavailable	3D: Recreational / Scenic values	11	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
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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
Canoe Lake Campground Comments	Concentrated Recreation Area	State Forest Campground	Proposed SCA	9
Cusino Lake Campground Comments	Concentrated Recreation Area	State Forest Campground	Proposed SCA	10



Report 7 – 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.

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Report 8 – Forested Stands

Compartment: 166
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Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4112 - Maple, Beech, Cherry Association	Sawtimber Well	3.1	69	81-110	80-100 BA of red maple, 8-12 inches DBH. Small acreage. Beech brush understory.
4112 - Maple, Beech, Cherry Association	Sawtimber Well	9.1	69	111-140	OPIC - FMD: Along Twin Lake T.T.. Snowmobile Trail is at the north edge of the stand. Ancillary data is available. Soil=Garlic Sand Hab type=ATFD 80-100 BA of Red maple, 8-12 inches DBH, small acreage stand.
42200 - Natural White Pine	Sawtimber Well	5.0	87	111-140	White pine stand along road and bog, Thick canopy.
6122 - Black Spruce	Poletimber Medium	18.1	70	51-80	OPIC - FMD: A lot of spruce are 1-4" DBH. Soil=Dawson- Kinross Mucks North edge is open area of treed bog. South end is a black sand with Extra large White pine trees mixed in. High Basal area in south.



S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
5	4115 - Y.Birch, Hemlock NH	Sawtimber Well	142.4	69	51-80	<p data-bbox="971 233 1497 279">OPIC - FMD: Along Twinn Lake T.T.. Ancillary data is available. Soil=Garlic Sand hab.type=ATFD</p> <p data-bbox="933 310 1534 504">5/10/11 BB This stand was reviewed at the 2012 Compartment Review as part of a Unit Wide Beech Analysis Project. It was decided at the Review to harvest all the beech and not leave any residual besides the standing dead. The reason was to eradicate the seed source. After the harvest at some point it was agreed to treat the beech brush with a glyphosate chemical. Below is the original write-up for the beech bark stands.</p> <p data-bbox="933 531 1534 1535">Beech Bark Disease (BBD) has moved across much of the Shingleton Management Unit over the passed several years, moving from east to west. There has been some salvage operations that have occurred as well as implementing the beech bark management guidance into regular northern hardwood prescriptions. However, BBD has advanced faster than expected and since the State operates on a 10 year inventory cycle it is feared that many of the stands with the highest component of beech may be in a stage of decline that will make them in-operable with the current timber markets if they are not treated immediately. It is widely known that regenerating stands with high components of beech is problematic due to the root suckering of beech. Since beech is a prolific sprouter especially under stress most of the initial stands in the outbreak area have regenerated to beech brush. This beech brush gets the disease and never recruits into the overstory all the while shading out desirable competing regeneration. It is evident that within these types of stands if something is not done Forest Certification could be threatened by the in-ability to regenerate them. Most of these stands are not stocked high enough for a traditional commercial treatment and if the beech dies along with subsequent sprouting these stands may never again be viable. The current beech bark guidelines recommend retaining at least 10% of the beech resource when treating stands. However, by retaining potential trees that will get the disease it will forever be perpetuated in the stand. The Shingleton Management Unit is proposing cutting all beech within these prescribed stands unless dead to eradicate the seed source. In addition, different techniques will be applied to also eradicate the beech brush. If successful, beech resistant trees will be re-introduced in the stands as it becomes available. In the short term oak will be planted on many of the sites to provide diversity and a hard mast resource. One of the techniques being contemplated for follow up treatment is an application of herbicide. Many of the New England states have been dealing with BBD for decades and what they have gleaned successful for dealing with beech brush is mist blowing a glyphosate product during the growing season. The proposed prescriptions account for approximately 919 acres which is less than 2% of the northern hardwood resource within the Shingleton Management Unit.</p> <p data-bbox="933 1562 1534 1705">10/10/11 BB Sale is now on proposal 32-11 Loon Call Beech Removal. Stand is 133 acres. After the sale it will be evaluated for herbicide application, seed viability is approx 1 year so herbicide should be done in year 2. Residual BA = hard maple 50 sq ft, red maple 20 sq ft, hemlock 5 sq ft, yellow birch 2 sq ft, cherry 1 sq ft.</p> <p data-bbox="933 1732 1534 1829">[8-10-12] Stand is now under contract. Sale has been Cut and Closed Check beech brush during OI 1982 Oak Seedlings were planted in the spring of 2014 under FTP #w41-1578 at a cost of \$25576.80. (7/30/14 RH)</p> <p data-bbox="1003 1856 1469 1885">[8-5-14] Sale completed/closed TCR dtd 6-11-14.</p> <p data-bbox="933 1906 1534 1974">2015 - Salvage Sale stand: BA between 50 and 80 BA. Hard maple and Re maple between pole and log size. Beech brush in understory.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	9.1	69	51-80	<p>OPIC - FMD: North Gemini Lake State Forest Campground. Planted with white pine & oak in 2002. Soil=Garlic Sand Hab. Type=ATFD</p> <p>[12/8/10 jb] stand is being treated with a salvage cut on the beech and other spp that are hazard trees to the campground.41-004-11-02</p> <p>[10-19-2011] Sale is now completed TCR dtd 10-19-2011.</p> <p>North Gemini Lake Campground Beech Salvage sale, very low BA of Red maple saw logs. Beech brush growing up as understory.</p>
8	6122 - Black Spruce	Sapling Poor	27.1	80	1-50	<p>OPIC - FMD: Low, wet site. White pine, b. spruce and tamarack; especially near the edges. The Gemini Lake hiking path is in the north part of this stand. Shrubs are growing over the trail and making it difficult to follow. 98=white pine & b.spruce soil=Dawson, Greenwood & Loxley Peats</p> <p>treed bog with Black spruce and tamarack scattered. Extra large White pine scattered throughout.</p>
10	42350 - Upland Hemlock	Sawtimber Well	7.8	155	111-140	<p>OPIC - FMD: Narrow stand around a bog, next to Co Rd 450 and near S.Gemini Campground. Large diameter hemlock & white pine. Soil=Finch-Spot Complex habitat type=PARVAa</p> <p>Hemlock stand surrounded by bog. Old trees, large in size. Next to the road.</p>
11	42350 - Upland Hemlock	Sawtimber Well	14.7	105	111-140	<p>OPIC - FMD: Transition between upland hardwoods and bogs. Large diameter white pine and hemlock with mixed conifers and hardwood poles. The Gemini pathway is in the east part of this stand. Soil=Finch-Spot Complex habitat type=PARVAa</p> <p>Hemlock stand with scattered white pine and red maple. White pine are near shore of lake. Varying ages and BA of hemlock.</p>
12	42350 - Upland Hemlock	Sawtimber Well	10.7	119	111-140	<p>OPIC - FMD: A narrow stand around the edge of a bog, consisting of large diameter hemlock and white pine, with a mix of conifer and hardwood poles. The Gemini Lake hiking path goes through this stand. Soil=Finch-Spot Complex and Garlic Sand</p> <p>Mixed conifer stand, mostly hemlock surrounding lowland. Transition zone.</p>
13	4115 - Y.Birch, Hemlock NH	Sawtimber Well	6.0	69	51-80	<p>OPIC - FMD: South Gemini Lake State Forest Campground. Soil=Paquin Sand Hab. Type=ATFD</p> <p>South Gemini Lake Camp ground. Beech salvage cut, scattered large hemlock near shore, understory full of Beech brush.</p>
14	4112 - Maple, Beech, Cherry Association	Sawtimber Well	12.4	78	81-110	<p>OPIC - FMD: Along Co Rd 450, near S. Gemini Campground. Thinned in 1999. Ancillary data is available. Soil=Paquin Sand Hab. Type=ATFD</p> <p>Red maple and beech stand, not cut during salvage operations. Stand has been thinned before. BA is still 50 to 80, about 1/2 Red maple and 1/2 Beech. all beech ahs bbd.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4112 - Maple, Beech, Cherry Association	Sawtimber Well	88.8	69	51-80	<p>OPIC - FMD: Along Co Rd 450. Ancillary data is available. Soil=Paquin Sand hab. Type=ATFD</p> <p>5/10/11 BB This stand was reviewed at the 2012 Compartment Review as part of a Unit Wide Beech Analysis Project. It was decided at the Review to harvest all the beech and not leave any residual besides the standing dead. The reason was to eradicate the seed source. After the harvest at some point it was agreed to treat the beech brush with a glyphosate chemical. Below is the original write-up for the beech bark stands.</p> <p>Beech Bark Disease (BBD) has moved across much of the Shingleton Management Unit over the passed several years, moving from east to west. There has been some salvage operations that have occurred as well as implementing the beech bark management guidance into regular northern hardwood prescriptions. However, BBD has advanced faster than expected and since the State operates on a 10 year inventory cycle it is feared that many of the stands with the highest component of beech may be in a stage of decline that will make them in-operable with the current timber markets if they are not treated immediately. It is widely known that regenerating stands with high components of beech is problematic due to the root suckering of beech. Since beech is a prolific sprouter especially under stress most of the initial stands in the outbreak area have regenerated to beech brush. This beech brush gets the disease and never recruits into the overstory all the while shading out desirable competing regeneration. It is evident that within these types of stands if something is not done Forest Certification could be threatened by the in-ability to regenerate them. Most of these stands are not stocked high enough for a traditional commercial treatment and if the beech dies along with subsequent sprouting these stands may never again be viable. The current beech bark guidelines recommend retaining at least 10% of the beech resource when treating stands. However, by retaining potential trees that will get the disease it will forever be perpetuated in the stand. The Shingleton Management Unit is proposing cutting all beech within these prescribed stands unless dead to eradicate the seed source. In addition, different techniques will be applied to also eradicate the beech brush. If successful, beech resistant trees will be re-introduced in the stands as it becomes available. In the short term oak will be planted on many of the sites to provide diversity and a hard mast resource. One of the techniques being contemplated for follow up treatment is an application of herbicide. Many of the New England states have been dealing with BBD for decades and what they have gleaned successful for dealing with beech brush is mist blowing a glyphosate product during the growing season. The proposed prescriptions account for approximately 919 acres which is less than 2% of the northern hardwood resource within the Shingleton Management Unit.</p> <p>10/10/11 BB Sale is now on proposal 32-11 Loon Call Beech Removal. Stand is 87 acres. After the sale it will be evaluated for herbicide application, seed viability is approx 1 year so herbicide should be done in year 2. Residual BA = hard maple 31 sq ft, red maple 20 sq ft, hemlock 9 sq ft, yellow birch 2 sq ft.</p> <p>[8-10-12] Stand is now under contract. Sale is Closed Check Beech Brush during OI. 1982 Oak Seedlings were planted in the spring of 2014 under FTP #w41-1578 at a cost of \$25576.80. (7/30/14 RH)</p> <p>[8-5-14] Sale is now closed/completed TCR dtd 6-11-14.</p> <p>Beech salvage sale: red maple that remain range from pole to log size. Scattered mis. species. beech brush fills understory.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	4112 - Maple, Beech, Cherry Association	Poletimber Well	97.0	79	51-80	OPIC - FMD: Along Wolf Lake T.T.. Thinned in 2002-2003. Ancillary data is available. Soil=Paquin Sand & Garlic Sand hab type=ATFD Red maple stand with BA ranging from 70-90. Pole size trees.
17	4112 - Maple, Beech, Cherry Association	Poletimber Well	4.6	69	51-80	OPIC - FMD: Small stand along Co Rd 450. Ancillary data is available. Soil=Garlic Sand hab type=ATFD Pole size red maple stand with beech mixed in. beech has bbd, lots of beech brush in understory.
19	42350 - Upland Hemlock	Sawtimber Well	7.8	115	141-170	OPIC - FMD: Island in marsh. Large diameter hemlock & white pine, with a mix of hardwood & conifer 6-10"DBH. Soil=Spot Peat island of conifer within treed bog. Very large "super-canopy" hemlock and white pine. Dense canopy with high BA,
20	42350 - Upland Hemlock	Sawtimber Well	1.9	110	51-80	OPIC - FMD: Along Co Rd 450, near Cusino Lake Campground. Ancillary data is available. Soil=Garlic Sand hab. type=ATFD Log size Hemlock stand with young Red maple growing up around/under canopy.
21	42350 - Upland Hemlock	Sawtimber Well	1.7	105	111-140	OPIC - FMD: Narrow stand around a bog containing large diameter hemlock and white pine. The stand is adjacent to Co Rd 450, and near Cusino Lake campground. Soil=Garlic Sand hemlock and White pine between road and bog, large trees.
22	6122 - Black Spruce	Poletimber Poor	37.7	50	1-50	OPIC - FMD: Stand is visible from Co Rd 450. Scattered trees - b.spruce, w.pine & tamarack - especially around the edges of the stand. Soil=Dawson, Greenwood & Loxley Peats Treed bog with black spruce, scattered tamarack and cedar. Open bog in spots, pit and mound type ground.
23	42200 - Natural White Pine	Sawtimber Well	4.3	90	81-110	OPIC - FMD: Along Co Rd 450. Soil=Paquin Sand hab. Type=ATFD White pine with mixed hemlock on edge of road and bog. Larger size trees.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4112 - Maple, Beech, Cherry Association	Poletimber Medium	62.1	69	51-80	<p>OPIC - FMD: Thinned in 1987. Variable BA (70-130); thin to 80 BA where applicable. There are more hemlock trees near the bogs & ponds; mark to favor hemlock reproduction in these areas. Must cross private land to access this stand (Forest Land Group). Follow BMP guidelines near the bogs & ponds. Acceptable regeneration species are any combination of the existing tree species. Ancillary data is available. 99=yellow birch and cherry Soil=Paquin Sand & Garlic Sand hab. Type=ATFD</p> <p>[8-13-08] Stand is now under contract TS 41-020-07-01 Loon Call Hardwood. Residual BA: Sugar maple - 11; red maple - 36; y.birch - 1; beech - 19; w.spruce - 1; w.pine - 1; hemlock - 5; b.cherry - 2; total = 76 sq.ft./acre.</p> <p>[8-26-09] sale completed TCR dtd 8-26-09.</p> <p>5/10/11 BB This stand was reviewed at the 2012 Compartment Review as part of a Unit Wide Beech Analysis Project. It was decided at the Review to harvest all the beech and not leave any residual besides the standing dead. The reason was to eradicate the seed source. After the harvest at some point it was agreed to treat the beech brush with a glyphosate chemical. Below is the original write-up for the beech bark stands.</p> <p>Beech Bark Disease (BBD) has moved across much of the Shingleton Management Unit over the passed several years, moving from east to west. There has been some salvage operations that have occurred as well as implementing the beech bark management guidance into regular northern hardwood prescriptions. However, BBD has advanced faster than expected and since the State operates on a 10 year inventory cycle it is feared that many of the stands with the highest component of beech may be in a stage of decline that will make them in-operable with the current timber markets if they are not treated immediately. It is widely known that regenerating stands with high components of beech is problematic due to the root suckering of beech. Since beech is a prolific sprouter especially under stress most of the initial stands in the outbreak area have regenerated to beech brush. This beech brush gets the disease and never recruits into the overstory all the while shading out desirable competing regeneration. It is evident that within these types of stands if something is not done Forest Certification could be threatened by the in-ability to regenerate them. Most of these stands are not stocked high enough for a traditional commercial treatment and if the beech dies along with subsequent sprouting these stands may never again be viable. The current beech bark guidelines recommend retaining at least 10% of the beech resource when treating stands. However, by retaining potential trees that will get the disease it will forever be perpetuated in the stand. The Shingleton Management Unit is proposing cutting all beech within these prescribed stands unless dead to eradicate the seed source. In addition, different techniques will be applied to also eradicate the beech brush. If successful, beech resistant trees will be re-introduced in the stands as it becomes available. In the short term oak will be planted on many of the sites to provide diversity and a hard mast resource. One of the techniques being contemplated for follow up treatment is an application of herbicide. Many of the New England states have been dealing with BBD for decades and what they have gleaned successful for dealing with beech brush is mist blowing a glyphosate product during the growing season. The proposed prescriptions account for approximately 919 acres which is less than 2% of the northern hardwood resource within the Shingleton Management Unit.</p> <p>[6/26/12 bb] Stand is now on proposal 25-12 Beech Savages Salvage Sale. Residual BA = Red Maple 39', hard maple 17', yellow birch 2' and hemlock 2' for a total of 60'</p> <p>[12/4/12 RFT] Stand is now under contract 41-025-12-01 Beech Savage Salvage Sale.</p> <p>[7-3-13] Sale is now completed TCR dtd 6-28-13.</p>

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Report 8 – Forested Stands

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S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	42350 - Upland Hemlock	Sawtimber Well	13.1	90	111-140	OPIC - FMD: Between 2 ponds. Large diameter hemlock and white pine with a lot of 6-10" mixed conifers. 99=red maple, yellow birch & beech 98=b.spruce, cedar and white pine soil=Finch-Spot Complex hab.type=PArVAa Mixed conifer sand surrounding bog. Mostly Hemlock, some sparse Red maple.



S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	4112 - Maple, Beech, Cherry Association	Poletimber Medium	35.8	69	51-80	<p>OPIC - FMD: Thinned in 2002. Dense hardwood regeneration less than 2' tall. Ancillary data is available. Soil=Garlic Sand Hab.Type=ATFD</p> <p>5/10/11 BB This stand was reviewed at the 2012 Compartment Review as part of a Unit Wide Beech Analysis Project. It was decided at the Review to harvest all the beech and not leave any residual besides the standing dead. The reason was to eradicate the seed source. After the harvest at some point it was agreed to treat the beech brush with a glyphosate chemical. Below is the original write-up for the beech bark stands.</p> <p>Beech Bark Disease (BBD) has moved across much of the Shingleton Management Unit over the passed several years, moving from east to west. There has been some salvage operations that have occurred as well as implementing the beech bark management guidance into regular northern hardwood prescriptions. However, BBD has advanced faster than expected and since the State operates on a 10 year inventory cycle it is feared that many of the stands with the highest component of beech may be in a stage of decline that will make them in-operable with the current timber markets if they are not treated immediately. It is widely known that regenerating stands with high components of beech is problematic due to the root suckering of beech. Since beech is a prolific sprouter especially under stress most of the initial stands in the outbreak area have regenerated to beech brush. This beech brush gets the disease and never recruits into the overstory all the while shading out desirable competing regeneration. It is evident that within these types of stands if something is not done Forest Certification could be threatened by the in-ability to regenerate them. Most of these stands are not stocked high enough for a traditional commercial treatment and if the beech dies along with subsequent sprouting these stands may never again be viable. The current beech bark guidelines recommend retaining at least 10% of the beech resource when treating stands. However, by retaining potential trees that will get the disease it will forever be perpetuated in the stand. The Shingleton Management Unit is proposing cutting all beech within these prescribed stands unless dead to eradicate the seed source. In addition, different techniques will be applied to also eradicate the beech brush. If successful, beech resistant trees will be re-introduced in the stands as it becomes available. In the short term oak will be planted on many of the sites to provide diversity and a hard mast resource. One of the techniques being contemplated for follow up treatment is an application of herbicide. Many of the New England states have been dealing with BBD for decades and what they have gleaned successful for dealing with beech brush is mist blowing a glyphosate product during the growing season. The proposed prescriptions account for approximately 919 acres which is less than 2% of the northern hardwood resource within the Shingleton Management Unit.</p> <p>[6/26/12 bb] Stand is now on proposal 25-12 Beech Savages Salvage Sale. Residual BA = Red Maple 36', hard maple 11', yellow birch 3' and hemlock 3' for a total of 53'</p> <p>[12/4/12 RFT] Stand is now under contract 41-025-12-01Beech Savage Salvage Sale.</p> <p>[7-3-13] Sale is now completed TCR dtd 6-28-13.</p> <p>Beech salvage sale: 50-80 BA of residual. Mostly a pole stand with some scattered logs.</p>

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Report 8 – Forested Stands

Compartment: 166
Year of Entry: 2017



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	6120 - Lowland Cedar	Poletimber Well	24.6	95	111-140	OPIC - FMD: Along the north part of Cusino Lake. 98=b.fir, hemlock, tamarack soil=Finch-Spot Complex and Carbondale-Lupton-Tawas Mucks Stand of mixed conifer and deciduous, towards lake stand is more cedar and Black spruce. Lots of cedar.
29	6120 - Lowland Cedar	Poletimber Well	29.5	105	111-140	OPIC - FMD: A portion of this stand borders Canoe Lake. Low, wet ground. Regeneration species include: cedar, b.fir, b.spruce & r.maple. Soil=Carbondale-Lupton-Tawas Mucks Cedar stand, lowland and thick. Terrible to walk through.
30	6120 - Lowland Cedar	Poletimber Well	3.3	85	111-140	OPIC - FMD: Low, wet ground. Soil=Carbondale-Lupton-Tawas Mucks Cedar stand with mixed conifer. Terrible stand to navigate by foot, never go here.



S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
31	4112 - Maple, Beech, Cherry Association	Poletimber Well	20.2	69	51-80	<p>OPIC - FMD: Along Wolf Lake TT. BA is variable (70-140), thin to 80 BA where applicable. Ancillary data is available. Acceptable regeneration species are any combination of the existing tree species. Soil=Paquin Sand & Garlic Sand Hab.Type=ATFD</p> <p>[8-13-08] Stand is now under contract TS 41-020-07-01 Loon Call Hardwood. Residual BA: Sugar maple - 20; red maple - 21; y.birch - 3; beech - 18; balsam fir - 1; w.spruce - 1; w.pine - 2; hemlock - 7; b.cherry - 1; total = 74 sq.ft./acre.</p> <p>5/10/11 BB This stand was reviewed at the 2012 Compartment Review as part of a Unit Wide Beech Analysis Project. It was decided at the Review to harvest all the beech and not leave any residual besides the standing dead. The reason was to eradicate the seed source. After the harvest at some point it was agreed to treat the beech brush with a glyphosate chemical. Below is the original write-up for the beech bark stands.</p> <p>Beech Bark Disease (BBD) has moved across much of the Shingleton Management Unit over the passed several years, moving from east to west. There has been some salvage operations that have occurred as well as implementing the beech bark management guidance into regular northern hardwood prescriptions. However, BBD has advanced faster than expected and since the State operates on a 10 year inventory cycle it is feared that many of the stands with the highest component of beech may be in a stage of decline that will make them in-operable with the current timber markets if they are not treated immediately. It is widely known that regenerating stands with high components of beech is problematic due to the root suckering of beech. Since beech is a prolific sprouter especially under stress most of the initial stands in the outbreak area have regenerated to beech brush. This beech brush gets the disease and never recruits into the overstory all the while shading out desirable competing regeneration. It is evident that within these types of stands if something is not done Forest Certification could be threatened by the in-ability to regenerate them. Most of these stands are not stocked high enough for a traditional commercial treatment and if the beech dies along with subsequent sprouting these stands may never again be viable. The current beech bark guidelines recommend retaining at least 10% of the beech resource when treating stands. However, by retaining potential trees that will get the disease it will forever be perpetuated in the stand. The Shingleton Management Unit is proposing cutting all beech within these prescribed stands unless dead to eradicate the seed source. In addition, different techniques will be applied to also eradicate the beech brush. If successful, beech resistant trees will be re-introduced in the stands as it becomes available. In the short term oak will be planted on many of the sites to provide diversity and a hard mast resource. One of the techniques being contemplated for follow up treatment is an application of herbicide. Many of the New England states have been dealing with BBD for decades and what they have gleaned successful for dealing with beech brush is mist blowing a glyphosate product during the growing season. The proposed prescriptions account for approximately 919 acres which is less than 2% of the northern hardwood resource within the Shingleton Management Unit.</p> <p>[6/26/12 bb] Stand is now on proposal 6-12 Canoe Lake Beech Salvage Sale. Residual BA = Red Maple 10', hard maple 46', yellow birch 2' and hemlock 6', cherry 2', white pine 2' for a total of 68'</p> <p>[12/4/12 RFT] Stand is now under contract 41-006-12-01 Canoe Lake Beech Salvage Sale.</p> <p>12/18/12 RFT - Sale is now closed/completed TCR dtd 12-17-12. 535 Oak Seedlings were planted in the spring of 2014 under FTP #w41-1579 at a cost of \$6634.00. (7/30/14 RH)</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	6122 - Black Spruce	Poletimber Poor	18.6	85	81-110	<p>OPIC - FMD: Along the shore of Canoe Lake, and near Canoe Lake campground. Low, wet ground. Soil=Carbondale-Lupton-Tawas Mucks</p> <p>Mixed conifer stand with Black spruce being dominate component.</p>
33	4115 - Y.Birch, Hemlock NH	Sawtimber Well	8.5	69	51-80	<p>OPIC - FMD: Canoe Lake State Forest Campground. Soil=Garlic Sand Hab.Type=ATFD</p> <p>Canoe lake camp ground. red maple with beech brush within the understory. Hemlock and White pine hear lake.</p>
34	6120 - Lowland Cedar	Poletimber Well	53.6	95	81-110	<p>OPIC - FMD: Stand is next to Canoe Lake & Canoe Lake Campground. Low, wet ground. Small creek within stand. Soil=Carbondale-Lupton-Tawas Mucks</p> <p>Lowland cedar stand, very large in size (acreage). Dense canopy of thick cedar. Hard walking.</p>
35	4112 - Maple, Beech, Cherry Association	Poletimber Medium	2.0	70	51-80	<p>OPIC - FMD: Ridge in swamp with a mix of hardwoods & conifers. Difficult access across private land and a drainage to the north. Soil=Garlic Sand Hab.Type=ATFD</p> <p>Mixed stand of Northern hardwoods. Poorer quality of trees on low part of ridge. Hard access due to swampy land to the south and private land on north and west.</p>
36	6122 - Black Spruce	Poletimber Medium	9.0	65	51-80	<p>OPIC - FMD: Surrounds a small bog. 98=w.pine & hemlock soil=Finch-Spot Complex hab.type=PArVAa</p> <p>Black spruce stand with other conifers mixed in. Stand surrounds a treed bog with a low spot that can be a seasonal pond.</p>



S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4112 - Maple, Beech, Cherry Association	Poletimber Well	54.5	65	51-80	<p>OPIC - FMD: Along Wolf Lake T.T., and around Canoe Lake Campground. Ancillary data is available. Thinned in 2001. Soil=Garlic Sand Hab.Type=ATFD</p> <p>5/10/11 BB This stand was reviewed at the 2012 Compartment Review as part of a Unit Wide Beech Analysis Project. It was decided at the Review to harvest all the beech and not leave any residual besides the standing dead. The reason was to eradicate the seed source. After the harvest at some point it was agreed to treat the beech brush with a glyphosate chemical. Below is the original write-up for the beech bark stands.</p> <p>Beech Bark Disease (BBD) has moved across much of the Shingleton Management Unit over the passed several years, moving from east to west. There has been some salvage operations that have occurred as well as implementing the beech bark management guidance into regular northern hardwood prescriptions. However, BBD has advanced faster than expected and since the State operates on a 10 year inventory cycle it is feared that many of the stands with the highest component of beech may be in a stage of decline that will make them in-operable with the current timber markets if they are not treated immediately. It is widely known that regenerating stands with high components of beech is problematic due to the root suckering of beech. Since beech is a prolific sprouter especially under stress most of the initial stands in the outbreak area have regenerated to beech brush. This beech brush gets the disease and never recruits into the overstory all the while shading out desirable competing regeneration. It is evident that within these types of stands if something is not done Forest Certification could be threatened by the in-ability to regenerate them. Most of these stands are not stocked high enough for a traditional commercial treatment and if the beech dies along with subsequent sprouting these stands may never again be viable. The current beech bark guidelines recommend retaining at least 10% of the beech resource when treating stands. However, by retaining potential trees that will get the disease it will forever be perpetuated in the stand. The Shingleton Management Unit is proposing cutting all beech within these prescribed stands unless dead to eradicate the seed source. In addition, different techniques will be applied to also eradicate the beech brush. If successful, beech resistant trees will be re-introduced in the stands as it becomes available. In the short term oak will be planted on many of the sites to provide diversity and a hard mast resource. One of the techniques being contemplated for follow up treatment is an application of herbicide. Many of the New England states have been dealing with BBD for decades and what they have gleaned successful for dealing with beech brush is mist blowing a glyphosate product during the growing season. The proposed prescriptions account for approximately 919 acres which is less than 2% of the northern hardwood resource within the Shingleton Management Unit.</p> <p>[6/26/12 bb] Stand is now on proposal 6-12 Canoe Lake Beech Salvage Sale. Residual BA = Red Maple 18', hard maple 43', yellow birch 3' and hemlock 1', cherry 4' for a total of 68'</p> <p>[12/4/12 RFT] Stand is now under contract 41-006-12-01 Canoe Lake Beech Salvage Sale.</p> <p>12/18/12 RFT - Sale is now closed/completed TCR dtd 12-17-12. 535 Oak Seedlings were planted in the spring of 2014 under FTP #w41-1579 at a cost of \$6634.00. (7/30/14 RH)</p> <p>Beech salvage sale: Remaining trees are mostly hard and red maple (pole size) with a BA ranging from 50-80. A few larger logs are scattered.</p>

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Shingleton Mgt. Unit

Report 8 – Forested Stands

Compartment: 166
Year of Entry: 2017



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	13.1	65	81-110	OPIC - FMD: Mainly red maple and b.fir. Dry ground with old logging trails. 99=r.maple, beech & cherry soil=Garlic Sand & Finch-Spot Complex Mixed pole stand of Red maple, hemlock and Balsam fir.
39	6120 - Lowland Cedar	Sapling Poor	31.4	80	1-50	OPIC - FMD: Low, wet ground with seasonal drain & ponds that flows toward Worchester Lake. Tall brush (alder, willow etc), and some trees (spruce, cedar, birch) especially near the edges of the stand. Soil=Carbondale-Lupton-Tawas Mucks Treed bog with cedar and tamarack with many drainages running thru it. Areas of tick cedar near the edge of stand with a few scattered hemlock.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	4112 - Maple, Beech, Cherry Association	Poletimber Well	50.7	70	51-80	<p>OPIC - FMD: Thinned in 1991. Underplanted with white pine and oak in 1992. Ancillary data is available. Soil=Garlic Sand Hab.Type=ATFD</p> <p>5/10/11 BB This stand was reviewed at the 2012 Compartment Review as part of a Unit Wide Beech Analysis Project. It was decided at the Review to harvest all the beech and not leave any residual besides the standing dead. The reason was to eradicate the seed source. After the harvest at some point it was agreed to treat the beech brush with a glyphosate chemical. Below is the original write-up for the beech bark stands.</p> <p>Beech Bark Disease (BBD) has moved across much of the Shingleton Management Unit over the passed several years, moving from east to west. There has been some salvage operations that have occurred as well as implementing the beech bark management guidance into regular northern hardwood prescriptions. However, BBD has advanced faster than expected and since the State operates on a 10 year inventory cycle it is feared that many of the stands with the highest component of beech may be in a stage of decline that will make them in-operable with the current timber markets if they are not treated immediately. It is widely known that regenerating stands with high components of beech is problematic due to the root suckering of beech. Since beech is a prolific sprouter especially under stress most of the initial stands in the outbreak area have regenerated to beech brush. This beech brush gets the disease and never recruits into the overstory all the while shading out desirable competing regeneration. It is evident that within these types of stands if something is not done Forest Certification could be threatened by the in-ability to regenerate them. Most of these stands are not stocked high enough for a traditional commercial treatment and if the beech dies along with subsequent sprouting these stands may never again be viable. The current beech bark guidelines recommend retaining at least 10% of the beech resource when treating stands. However, by retaining potential trees that will get the disease it will forever be perpetuated in the stand. The Shingleton Management Unit is proposing cutting all beech within these prescribed stands unless dead to eradicate the seed source. In addition, different techniques will be applied to also eradicate the beech brush. If successful, beech resistant trees will be re-introduced in the stands as it becomes available. In the short term oak will be planted on many of the sites to provide diversity and a hard mast resource. One of the techniques being contemplated for follow up treatment is an application of herbicide. Many of the New England states have been dealing with BBD for decades and what they have gleaned successful for dealing with beech brush is mist blowing a glyphosate product during the growing season. The proposed prescriptions account for approximately 919 acres which is less than 2% of the northern hardwood resource within the Shingleton Management Unit.</p> <p>[6/26/12 bb] Stand is now on proposal 6-12 Canoe Lake Beech Salvage Sale. Residual BA = Red Maple 18', hard maple 36', yellow birch 3' and hemlock 11', cherry 2', white pine 1', balsam 1' for a total of 71'</p> <p>[12/4/12 RFT] Stand is now under contract 41-006-12-01 Canoe Lake Beech Salvage Sale.</p> <p>12/18/12 RFT - Sale is now closed/completed TCR dtd 12-17-12. 535 Oak Seedlings were planted in the spring of 2014 under FTP #w41-1579 at a cost of \$6634.00. (7/30/14 RH)</p> <p>Beech Salvage stand with low BA of Red maple with scattered Balsam fir and Yellow birch. Pole stand with beech brush filling the understory.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	42350 - Upland Hemlock	Poletimber Well	16.4	70	81-110	OPIC - FMD: Soil=Carbondale-Lupton-Tawas Mucks Hemlock stand with mixed conifer, very dense canopy.
42	6120 - Lowland Cedar	Poletimber Well	16.0	75	81-110	OPIC - FMD: Mix of conifers and hardwoods along the edge of a hardwood stand. 99=red maple, yellow birch 98=w.pine, b.spruce Soil=Carbondale-Lupton-Tawas Mucks Cedar stand, especially near lake shore. Inland the stand becomes more deciduous. Thick canopy cover.
44	42350 - Upland Hemlock	Sawtimber Well	9.9	110	81-110	OPIC - FMD: Cusino Lake State Forest Campground. Many of the large Hemlock are dying from the Hemlock looper, and a lot of the trees near the campsites have been removed. (spring 2005) 99=red maple, yellow birch & beech soil=Garlic Sand & Finch-Spot Complex hab.type= PARVAa Hemlock and White pine stand with dense canopy that varies in size and age classes.
45	4112 - Maple, Beech, Cherry Association	Sawtimber Well	11.2	80	1-50	OPIC - FMD: Ancillary data is available. Soils= Garlic Sands Hab. Type=ATFD Beech salvaged stand, very little in overstory (20-40BA) filled with beech brush.
47	4115 - Y.Birch, Hemlock NH	Sawtimber Well	2.8	65	81-110	OPIC - FMD: Along Co Rd 450 and the entrance to Cusino Lake Campground. Ancillary data is available. Soil=Garlic Sand Hab.Type=ATFD Beech Salvage near Cusino Lake camp ground. Very low BA mostly Red maple, all beech has BBD. Super-canopy hemlock. Red maple is between pole and log size classes.
48	6122 - Black Spruce	Poletimber Medium	12.7	80	1-50	OPIC - FMD: Low, wet area with a pond in the middle. Along Co Rd 450. Soil=Dawson, Greenwood & Loxley PeatsBlack spruce bog surrounding water hole. Mix of other species scattered throughout. Pit and mound type stand.
50	4112 - Maple, Beech, Cherry Association	Poletimber Well	244.5	65	81-110	OPIC - FMD: Underplanted with oak and white pine in 1992. Ancillary data is available. Soil=Garlic Sand & Paquin Sand hab.type=ATFD Thinned stand, stand large in size. Pole stand that is mostly Red maple and Black cherry, scattered beech is dead from BBD. Beech brush in understory with Red maple.
51	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	10.4	81	1-50	OPIC - FMD: Ross Lake State Forest Campground. Soil=Garlic Sand Hab.type=ATFD [12/8/10 jb] stand is being treated with a salvage cut on the beech and other spp that are hazard trees to the campground.41-004-11-02 [10-19-2011] Sale is now completed TCR dtd 10-19-2011. Ross lake camp ground, nice trees that are big in size. Beech in the understory and White pine near the shoreline.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	6.0	65	81-110	OPIC - FMD: Ross Creek goes through the stand. The stand includes the short, steep hill & the flat area next to the creek. This stand was left as a buffer when logging the adjacent stands. Soil=Garlic Sand Hab.type=ATFD River buffer stand left after last harvest.
53	4112 - Maple, Beech, Cherry Association	Sawtimber Well	45.4	80	51-80	OPIC - FMD: Thinned in 1998. The bridge on private land (across Ross Creek) is broken. Ancillary data is available. Soil=Garlic Sand Hab.type=ATFD Log stand, very poorly stocked Red maple (BA 30 - 50). Beech is filling understory. Stand must have been hit hard at last rotation. Nice looking cherry.
54	4113 - R.Maple, Conifer	Sawtimber Well	516.9	70	51-80	OPIC - FMD: Cut heavily in 1989-1991. This stand contains areas of planted Oak (east of s.56), and planted White Pine (SW part of stand). Ancillary data is available. Soil=Garlic Sand Hab.type=ATFD [6/4/08 jb] Went into the oak stand to look for the planted oak to show new wildlife tech. The oak are about 25-30' tall and 3"DBH. Most of the trees are found within old skid trails. When the area is ready to be harvested again consideration to this regeneration is important. May want to consider using an inmate crew to assure no damage is done to the small oak. Hardwood stand, some thick patches of Balsam fir in spots. Mix of species, lots of poles that will move up size classes within the next 10 years.
55	4319 - Mixed Upland Forest	Sawtimber Medium	19.5	60	81-110	OPIC - FMD: There is a small sandy borrow pit in the north part of the stand. 99=beech & sugar maple soil=Garlic Sand Hab. Type=ATFD Mostly a red maple stand with some black spruce intermixed within the stand.
56	4112 - Maple, Beech, Cherry Association	Sapling Well	35.3	16	Immature	OPIC - FMD: Clearcut in 2000. Some residual trees including: hemlock, white pine and beech. (<10 BA total) During a field check with the OI audit team (11/02), it was mentioned to plant Oak in this stand. Soil=Garlic Sand Hab.type=ATFD Stump sprouts of Red maple, dog hair thick. [9/19/05 pre-review] Also plant Hemlock - contact Bill Scullen (Deer Range Improvement Program Coordinator) to get Hemlock seedlings. [6/19/06 km] W41-1295 oak & hemlock underplanting. [6/6/07 jb] Planted 1595 oak and 14860 hem. Regen check in 2008 good survival, close FTP 380 t/a 80% survival
57	4115 - Y.Birch, Hemlock NH	Poletimber Medium	1.4	70	51-80	OPIC - FMD: Borders a low, wet area. Access through private to north. Soil=Garlic Sand Hab. Type=ATFD Small corner of a Hardwood stand, very similar to stand 40. Beech has BBD
58	42350 - Upland Hemlock	Poletimber Well	6.7	85	171-200	OPIC - FMD: Small drainage through stand. 98=b.fir, cedar and w.pine 99=r.maple, beech, and y.birch soil=Finch-Spot Complex Hab.type=PARVAa Hemlock stand on edge of small pond/bog. Very thick, high BA stand 170-200.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
61	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	3.3	87	81-110	<p>OPIC - FMD: Along the edge of a large bog; the stand is on a hill down to a low, wet area. Large white pine and hemlock, with a variety of conifers and hardwoods under. Soil=Dawson, Greenwood & Ioxley Peats</p> <p>Small sliver of mixed conifer stand butting up to a large treed bog.</p>
62	42200 - Natural White Pine	Sawtimber Well	5.5	81	81-110	<p>OPIC - FMD: Steep hill with flat, wet area at the bottom. Soil=Garlic Sand (on hill) and Deford-AuSable-Tawas Mucks (at bottom of hill)</p> <p>Stand on steep ridge that is a buffer between hardwood stand and lowland bog. Mixed conifer stand.</p>
64	6122 - Black Spruce	Poletimber Medium	11.6	71	1-50	<p>OPIC - FMD: Low, wet ground near Ross Creek. Regeneration species are: black spruce, tamarack, white pine and cedar. Soil=Finch-Spot Complex Hab.type=PARVAa</p> <p>Spruce stand with a mix of other species on the opposite side of a stream.</p>
65	42350 - Upland Hemlock	Sawtimber Well	1.9	111	51-80	<p>OPIC - FMD: Ridge with difficult access across a drainage or through private property. Some large diameter white pine and hemlock with poor quality hardwood poles, and dense b.fir regeneration. Soil=Finch-Spot Complex Hab.type=PARVAa</p> <p>Ridge next to bog with hemlock and white pine, both large in size. Good Hemlock regeneration.</p>
66	4112 - Maple, Beech, Cherry Association	Poletimber Well	12.8	61	51-80	<p>OPIC - FMD: Thinned in 2000. Along Co Rd, across from Ross Lake Campground. Ancillary data is available. 99=red maple, sugar maple, b.cherry Soil=Garlic Sand Hab.type=ATFD</p> <p>Nice uneven aged stand of Red maple poles. Poles will develop into nice stand in 10 years. Scattered Black cherry and dead and dying Beech.</p>
67	4113 - R.Maple, Conifer	Poletimber Well	133.9	76	81-110	<p>OPIC - FMD: Stand is next to H-58. Thinned in 1999 by D.O.C.. Oak was planted in 2001. Ancillary data is available. 98=white pine, hemlock & white spruce Soil=Kalkaska</p> <p>Red Maple stand with a mix of other species. Scattered large beech that are mostly dead.</p>
68	4113 - R.Maple, Conifer	Poletimber Well	8.0	76	51-80	<p>OPIC - FMD: Thinned in 1999 by D.O.C.. Oak acorns planted in 2001. Along H-58 and Ross Lake Rd. Ancillary data is available. 99=b.cherry, beech & y.birch 98=white pine & hemlock Soil=Kalkaska</p> <p>Pole stand mostly Red maple beech in the understory.</p>
70	4115 - Y.Birch, Hemlock NH	Sapling Well	1.8	20	51-80	<p>OPIC - FMD: Narrow stand along Co Rd 450. Soil=Garlic Sand Hab. Type=ATFD</p> <p>Sapling/pole stand, very dense, young stand. Very few large trees.</p>
71	42350 - Upland Hemlock	Sawtimber Well	2.0	72	111-140	<p>OPIC - FMD: Low, wet ground. 98=b.spruce & tamarack soil=Spot Peat</p> <p>Mixed lowland deciduous and Coniferous stand, mostly consisting of hemlock.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
74	4112 - Maple, Beech, Cherry Association	Poletimber Well	18.0	76	51-80	OPIC - FMD: Along H-58 and the Ross Lake Rd. Thinned in 1999 by D.O.C.. Oak acorns planted in 2001. Ancillary data is available. 99=b.cherry, beech & y.birch 98=white pine & hemlock Soil=Kalkaska Red Maple stand, very similar to adjacent stands. Lower BA but some nice log size trees that can wait until next inventory to cut.
75	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	11.1	175	111-140	OPIC - FMD: A narrow stand along the shore of Gemini Lake consisting of large diameter hemlock and white pine. The Gemini Lake hiking path goes through this stand. Soil=Garlic Sand Very old strip of hemlock along lake shore. Pathway for hikers runs thru stand.
83	42350 - Upland Hemlock	Sawtimber Well	3.9	115	111-140	OPIC - FMD: Narrow stand between hardwoods and small bog. Large diameter hemlock and w.pine with a mixture of conifer and hardwoods apx 6-10" DBH. Soil=Dawson, Greenwood & Loxley Peats Hemlock stand around the edge of a bog.
84	42350 - Upland Hemlock	Poletimber Well	2.1	115	111-140	OPIC - FMD: Narrow stand between hardwoods and small bog. Large diameter hemlock and w.pine with a mixture of conifer and hardwoods apx 6-10" DBH. Soil=Paquin Sand Transition stand between Hardwood and bog. Mostly hemlock, with a range in size.
85	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	5.9	115	111-140	OPIC - FMD: Narrow stand between hardwoods and small bog. Large diameter hemlock and w.pine with a mixture of conifer and hardwoods apx 6-10" DBH. Soil=Finch-Spot Complex Hemlock stand surrounding bog. Buffer between Red maple stand and bog.
88	6122 - Black Spruce	Sawtimber Well	6.7	71	51-80	OPIC - FMD: Small creek within the stand. Low, wet ground. Regeneration is comprised of: b.fir, hemlock and red maple. 98=cedar & b.fir soil=Finch-Spot Complex & Dawson, Greenwood & Loxley Peats Hab.type=PArVAa Nice Black spruce stand, tall trees with other species sparsely mixed in, dense stand.
91	42200 - Natural White Pine	Sawtimber Well	0.7	96	51-80	OPIC - FMD: Narrow stand on a steep slope around the edge of a bog. 99=red maple, beech and yellow birch soil=Dawson, Greenwood & Loxley Peats Small ridge surrounded by lowland bog/wet area, mostly White pine.
92	42200 - Natural White Pine	Sawtimber Well	2.3	87	111-140	OPIC - FMD: Narrow stand on a steep slope around the edge of a bog. 99=red maple, beech and yellow birch soil=Dawson, Greenwood & Loxley Peats White pine surrounding bog.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
93	6122 - Black Spruce	Poletimber Medium	5.8	81	81-110	OPIC - FMD: Low, wet ground between bog and higher ground with hardwoods. Soil=Finch-Spot Complex Hab.type=PARVAa Lowland spruce stand bordering bog. Even aged stand.
94	42350 - Upland Hemlock	Sawtimber Well	5.5	111	81-110	OPIC - FMD: Ridge with hardwoods, surrounded by low wet ground. Difficult access across private. Soil=Garlic Sand Hab.type=ATFD Mixed stand with conifer and deciduous trees. Very large, old trees near the edge of the lowland, diverse stand with lots of thermal cover.
95	6127 - Lowland Pine	Poletimber Well	2.2	73	81-110	OPIC - FMD: Ridge with a mix of conifers and poor quality hardwoods. Access is across private land. Dense b.fir, b.spruce & hemlock regeneration. 98=b.spruce & b.fir soil=Garlic Sand & Finch-Spot Complex Poor quality lowland conifer mix. Access impossible/worthless.
97	4112 - Maple, Beech, Cherry Association	Poletimber Well	2.3	55	51-80	OPIC - FMD: Small stand from private property line to conifers around a bog. Access through private. Soil=Garlic Sand hab type=ATFD Red maple stand that is mostly poles, some scattered hemlock and beech, both are super-canopy. All beech has bbd, lots of beech brush in understory.
98	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	1.9	90	111-140	OPIC - FMD: A small stand between a pond and private property; consisting of a few large diameter hemlock and white pine with mixed conifer poles near the pond, switching to hardwood poles on higher ground near the private line. Soil=Garlic Sand & Finch-Spot Complex Hab.type=PARVAa Hemlock stand on edge of bog, large hemlock trees.
99	42320 - Upland Spruce	Poletimber Medium	2.1	67	81-110	OPIC - FMD: Low, wet ground. Soil=Finch-Spot Complex Black spruce stand with scattered white pine and lower ground.
100	4112 - Maple, Beech, Cherry Association	Sawtimber Well	5.8	81	51-80	OPIC - FMD: Next to Ross Lake Campground, adjacent to Ross Lake and along the Ross Lake Rd. Thinned by D.O.C. in 2000. Ancillary data is available. 99=b.cherry, beech, y.birch Soil=Garlic Sand Hab.type=ATFD Poorly stocked red maple with larger trees, white pine near shore.
101	42350 - Upland Hemlock	Sawtimber Well	2.9	95	81-110	OPIC - FMD: Ridge of hemlock, surrounded by low, wet ground. Difficult access across private land. Soil=Garlic Sand & Finch-Spot Complex Hemlock stand with good regeneration, almost a pure hemlock stand with other species scattered on stands edges.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
107	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	3.5	65	81-110	<p>OPIC - FMD: Narrow stand of conifers, around a small bog, on a small hill (and flat at bottom) sloping down from the hardwoods to the bog. Soil=Finch-Spot Complex Hab.type=PArVAa</p> <p>Small mixed conifer stand surrounding a small bog. Mostly Hemlock and white pine.</p>
109	42200 - Natural White Pine	Sawtimber Well	2.5	85	81-110	<p>OPIC - FMD: Next to Canoe Lake. Slightly higher ground than the surrounding stands. 98=b.spruce & w.pine Soil=Finch-Spot Complex Hab.Type=PArVAa</p> <p>Mixed stand mainly consisting of extra large white pine and hemlock with pole sized understory.</p>
110	429 - Mixed Upland Conifers	Sawtimber Well	4.7	60	81-110	<p>OPIC - FMD: At the intersection of Co Rd 450 & the Ross Lake Rd. Small stand on a hill sloping away from the road, with a low, wet area at the bottom. Soil=Finch-Spot Complex</p> <p>Red Maple stand with hemlock and white pine intermixed. Red maple is poor form and low quality, but large in size.</p>



Stand	Cover Type	Acres	Managed Site	General Comments:
7	510- Water (OI)	5.4	No	OPIC - FMD: small pond Pond.
9	6225 - Bog	16.7	No	OPIC - FMD: Bog along Co Rd 450. soil=Dawson, Greenwood & Loxley Peats Bog along side Co Rd 450. Some very small islands of trees within bog.
18	6225 - Bog	2.0	No	OPIC - FMD: small bog soil=Dawson, Greenwood & Loxley Peats Small bog.
24	510- Water (OI)	11.6	No	OPIC - FMD: pond Pond with bog around the edges.
43	6225 - Bog	1.5	No	OPIC - FMD: small bog soil=Finch-Spot Complex Small bog.
46	6225 - Bog	2.9	No	OPIC - FMD: small bog soil=Dawson, Greenwood, & Loxley Peats Open small bog with water. White pine trees and small Black spruce.
49	510- Water (OI)	4.1	No	OPIC - FMD: small pond Small bond with bog around the edges.
59	6225 - Bog	35.6	No	OPIC - FMD: large bog - some spruce and alder near the egdes Treed bog of tamarack, black spruce, and white pine.
60	510- Water (OI)	5.0	No	OPIC - FMD: beaver pond in bog pretty much a lake.
63	6224 - Treed Bog	38.4	No	OPIC - FMD: Bog containing Ross Creek and a tributary. Scattered black spruce, cedar & tamarack. Soil=Deford, AuSable, Tawas Mucks, frequently flooded
69	122 - Road/Parking Lot	15.5	No	OPIC - FMD: Twin Lake TT, Wolf Lake TT, and Co Rd 450.Roads: Twin Lake TT, Wolf Lake TT, and Co Rd 450.
72	122 - Road/Parking Lot	0.9	No	OPIC - FMD: Ross Lake Rd. Ross Lake road.



Stand	Cover Type	Acres	Managed Site	General Comments:
73	122 - Road/Parking Lot	2.5	No	OPIC - FMD: H-58 & Ross Lake Rd. Intersection of H-58 and Ross Lake RD.
76	6225 - Bog	1.4	No	OPIC - FMD: small bog soil=Dawson, Greenwood & Loxley Peats Small pond along roadside.
77	6225 - Bog	1.5	No	OPIC - FMD: small bog soil=Dawson, Greenwood & Loxley Peats small bog.
78	6225 - Bog	1.8	No	OPIC - FMD: small bog small bog.
79	6225 - Bog	1.7	No	OPIC - FMD: small bog soil=Finch-Spot Complex Small bog.
80	6225 - Bog	1.2	No	OPIC - FMD: small bog soil=Dawson, Greenwood & Loxley Peats small bog, other half on private land.
81	6225 - Bog	2.6	No	OPIC - FMD: small bog soil=Finch-Spot Complex Small bog.
82	6225 - Bog	1.1	No	OPIC - FMD: small bog soil=Dawson, Greenwood & Loxley Peats Small bog within hardwood stand.
86	510- Water (OI)	5.6	No	OPIC - FMD: pond Small pond with drainage from the north.
87	510- Water (OI)	8.1	No	OPIC - FMD: pond Pond with bog around the edges.
89	6225 - Bog	2.8	No	OPIC - FMD: small bog
90	6225 - Bog	1.2	No	OPIC - FMD: small bog



Stand	Cover Type	Acres	Managed Site	General Comments:
96	62259 - Bog (OI)	0.6	No	OPIC - FMD: small bog Small corner of larger bog in adjacent property.
102	510- Water (OI)	1.2	No	OPIC - FMD: Small pond in the center of a bog. small pond within a bog.
104	7909 - Nonstocked (OI)	0.5	No	OPIC - FMD: Co Rd 450 Co Rd 450
106	7909 - Nonstocked (OI)	3.6	No	OPIC - FMD: Co Rd 450 Co Rd 450
108	7909 - Nonstocked (OI)	7.3	No	OPIC - FMD: Wolf Lake TT. Wolf Lake Truck trail.
111	122 - Road/Parking Lot	0.8	No	OPIC - FMD: Co.Rd.450 Co Road 450
112	500 - Water	37.4	No	Canoe lake.