



# Compartment Review Presentation

## Traverse City Forest Management Unit

Compartment 61061

Entry Year 2019

Acreage: 4,009

County Grand Traverse

Management Area: Benzie Outwash

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**Revision Date:** 2017-06-02

**Stand Examiner:** Tim Webb

### Legal Description:

T26N - R12W - sections 3, 4, 5, 6, 7, 8, 10

T27N - R12W - sections 29, 30, 31, 32, 33, 36

### Identified Planning Goals:

According to the Northern Lower Peninsula Regional State Forest Management Plan, vegetation management in the Benzie Outwash Management Area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character and threatened, endangered and special concern species; and provide for forest-based recreational uses and Native American non-commercial uses of forest products. Timber management for the next 10 years includes improving the age-class distribution of aspen and red pine. Wildlife management objectives include increasing the structural complexity of northern hardwood communities for interior forest species and perpetuating early-successional communities for species adapted to young forests. Expected trends in this 10-year planning period are increased recreational pressure on recreational trails and introduced insect and disease concerns.

This particular compartment within the MA presents a wide array of management considerations and concerns, including diverse recreational use (2 campgrounds, 4 boat launches, 2 multi-use recreational trails, hunting, fishing, etc.), ecologically important bogs, numerous adjacent private residences, riparian habitat, oak wilt and beech bark disease, and rare wildlife. Balancing these resource concerns while attempting to harvest a portion of the numerous acres of mature to over-mature aspen and oak will be challenging. Staggering harvest blocks temporally, employing strategically placed retention areas, moving some stands toward later-successional forest types, and re-routing or temporarily closing segments of pathway are all tools to consider in mitigating forest harvest impacts.

### Soil and topography:

Rubicon sand occupies most of this compartment, with small areas of Kalkaska, Croswell, and other sand types. Peat and muck soils are found in low areas. The topography is generally flat to gently rolling, punctuated with lakes, numerous bogs, and other wetlands.

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

Private ownership borders the compartment on the north, east, and south. State land in compartment 11 borders the west edge of the compartment. The smaller block of state land around Ellis Lake is completely surrounded by private land. Much of the compartment boundary abuts residential properties and subdivisions. The Cedar Hedge Lake area to the south, the Long Lake area to the east, and the northern edge of the compartment are all heavily developed with single family residential properties, as are the south and west edges of the Ellis Lake block. The Village of Interlochen is located just south of the compartment. The Village of Lake Ann is about one mile west of the compartment.

### Unique Natural Features:

Common loons, bald eagles, and ospreys nest in and around the compartment. The ebony bog haunter, a rare dragonfly, occurs here. The compartment includes numerous bogs. Several lakes are within or adjacent to the compartment, including Bellows, Cedar Hedge, Dubonnet, Ellis, Lost, and Christmas Tree lakes.

### Archeological, Historical, and Cultural Features:

An old rail grade runs through the southwest part of the compartment. There is an associated old foundation near this grade.

### Special Management Designations or Considerations:

Lost Lake Bog and North Lost Lake Bog have been identified as Ecological Reference Areas. Lake Dubonnet was a small natural lake that was enlarged with the construction of a dam on Sherman Creek in the late 1950's. The project was a joint effort between Fisheries and Wildlife Divisions, with Fisheries Division taking responsibility for the care and maintenance of the dam.

## **Watershed and Fisheries Considerations:**

This compartment is within the Platte River watershed, and contains many of the more popular lakes that are found in this area such as Ellis, Cedar Hedge, Dubonnet, and Bellows Lakes. Appropriate buffers (as outlined in Water Quality Management Practices on Forest Land) should be adhered to around all streams, wetlands, and shorelines found in this compartment. Existing buffers appear to be appropriate for the proposed treatments.

## **Wildlife Habitat Considerations:**

Most of this compartment lies within a pitted outwash plain with many kettle lakes on well drained sand or loamy sand soils. Pre-settlement vegetation was dominated by a white pine-mixed deciduous association in the uplands and mixed conifer, cedar, and hemlock-white pine associations in and around wetland areas. Lake Dubonnet and its outlet through Sherman Creek dominate the wetland community, and many small lakes, bogs, and forested wetlands are interspersed among the aspen-oak-pine types on upland sites. White-tailed deer, ruffed grouse, wild turkey, flying squirrel, wood pewee, and hog-nosed snake are common to the uplands, and mink, raccoon, wood duck, kingfisher, great blue heron, and leopard frog inhabit the wetlands. Several State Threatened (ST) and Special Concern (SSC) species have the potential to be found in this compartment and approved forest treatments need to include appropriate specifications for these species.

The quantity and distribution of oak in this compartment is an exceptional resource for wildlife, and its active management and long term regeneration is a priority. Managing the oak-pine-aspen association provides an opportunity to maintain a prominent oak component while periodically harvesting the aspen. Even aged management of aspen types should progress towards a mosaic of smaller aspen stands of differing ages interspersed with wetlands and existing stands of oak, hardwoods, and natural pine. Leave islands dominated by oak and pine, and scattered mature oak and cherry should be retained when harvesting aspen stands for diversity and mast production. Potential den trees, snags, and coarse woody debris should be retained to improve structural diversity and provide drumming logs and cover for small mammals, reptiles, and amphibians. Small wetlands can be focal points for retention of the surrounding mesic habit, and provide important vertical structure when harvesting adjacent stands. Many of the bogs are acidic, with fruiting shrubs on edges, and associated with white pine. Mature white pines near bogs and lakes provide potential bald eagle perches and nesting sites. The few openings that exist in this compartment should be maintained by cutting woody encroachment, mowing, and protection of the young fruit trees planted in two of the openings from browsing.

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

Surface sediments consist of glacial outwash sand and gravel and post-glacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Devonian Ellsworth Shale, used for cement products. A gravel pit is located in Section 29 and there should be potential. This area is located north of the prolific Guelph (Niagaran) reef trend. Most of the Compartment is leased for oil and gas exploration, primarily for the Antrim Shale.

## **Vehicle Access:**

Most of the compartment has adequate vehicle access for recreation and forest management. However, forest stands surrounding the east end of Lake Dubonnet are for the most part inaccessible to logging equipment because private lands and lowlands restrict access. A dirt road accessing a wetland north of Ellis Lake is used by duck hunters, but is badly rutted and would benefit from a short re-route onto higher ground.

## **Survey Needs:**

None.

## **Recreational Facilities and Opportunities:**

This compartment is heavily used for recreational purposes. Lake Dubonnet State Forest Campground, Lake Dubonnet Group Camp, Lost Lake Pathway, and the Michigan Shore to Shore equestrian and hiking trail are located within the compartment. Trail protection specifications, as well as aesthetic values should be taken into consideration if forest treatments impact these recreational facilities. (T.M.N. 10/10/16)

## **Fire Protection:**

Local fire protection is provided by either Green Lake Township Emergency Services or Long Lake Township Fire & Rescue. DNR fire protection is provided by the Traverse City Field Office. Urban interface is a concern. There is a fair amount of pine and oak within these sections, and access, travel times, and remoteness could allow fires to grow appreciably before suppression forces could make attack. However, DNR response time has improved recently with the relocation of the field office to the Chums Corner area.

## **Additional Compartment Information:**

A private 40-acre parcel (NWNW sec. 32) is desirable to acquire for state forest ownership if it becomes available for sale.

**The following reports from the Inventory are attached:**

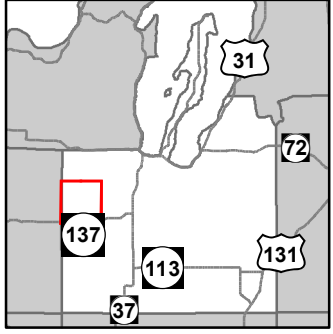
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

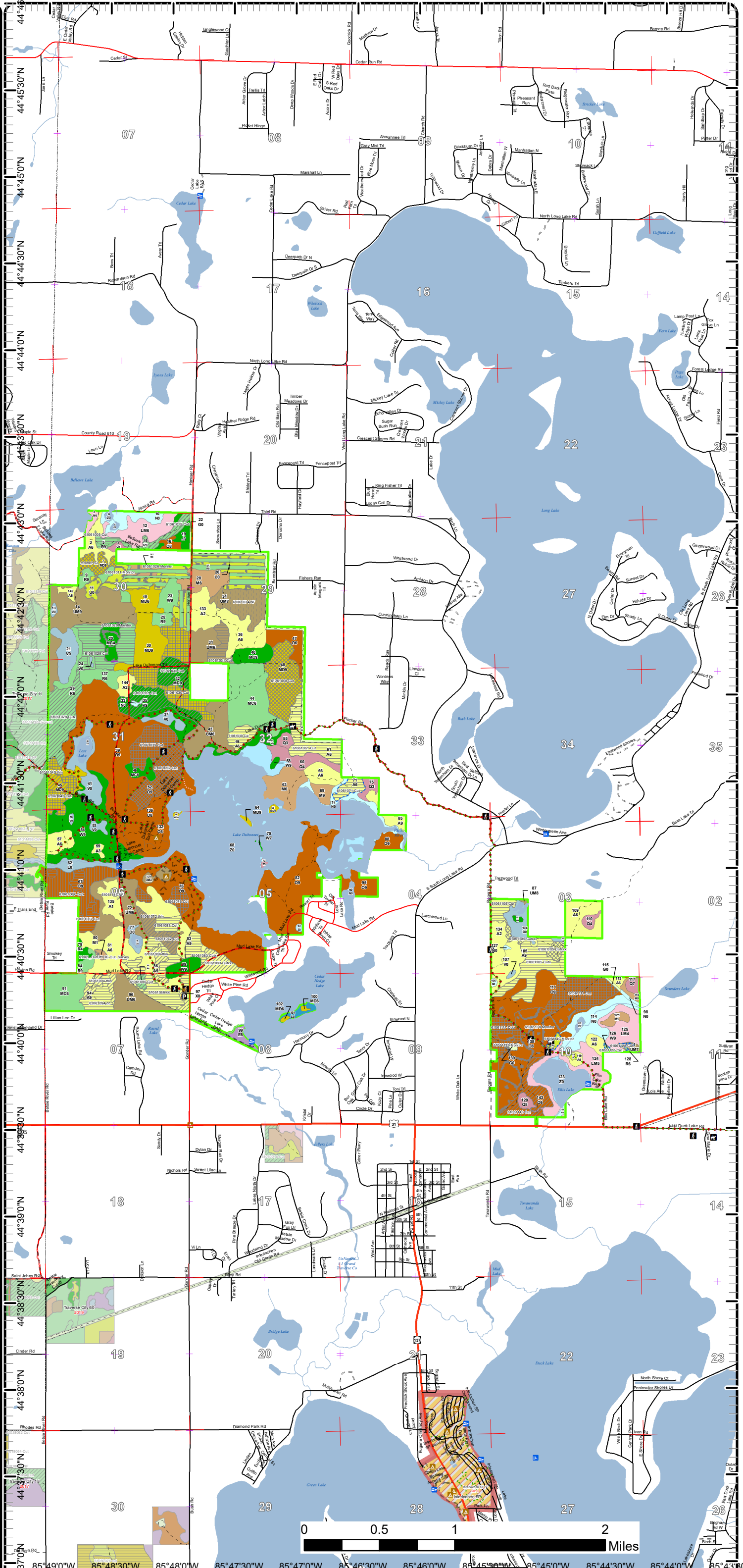
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 61  
 T26NR12W Sec. 17,19,30,31-34  
 County: Grand Traverse  
 Unit: Traverse City  
 Mgmt Area: Benzie Outwash  
 YOE: 2019  
 Acres: 4008.8 GIS Calculated  
 Examiner: Tim Webb  
 Map Revised: 8/14/2017  
 Map Phase: Post-Review



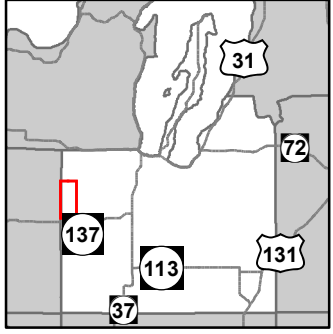
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- + Remonumented Section Corners
- ▭ Counties
- ▭ Dams
- ▭ Boating Access Site
- ▭ Campground
- ▭ Parking Lot
- ★ Trailhead
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- ▭ Compartment Boundary
- ▭ Treatments with Site Conditions
- ▭ Selection (Group, Single Tree)
- ▭ Clearcut (w/Reserves)
- ▭ Monitoring
- ▭ Opening Maintenance
- ▭ Regeneration Survey
- ▭ Thinning (Crown, Low, Systematic)
- ▭ Shelter Wood (w/Reserves)
- ▭ Seed Tree (w/Reserves)
- ▭ 411 - Northern Hardwood
- ▭ 412 - Oak Types
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- ▭ 330 - Low Density Trees
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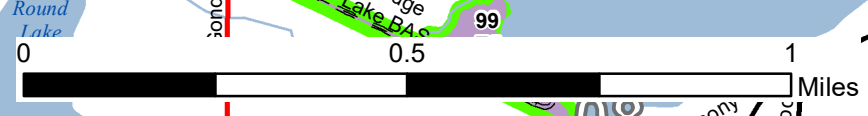
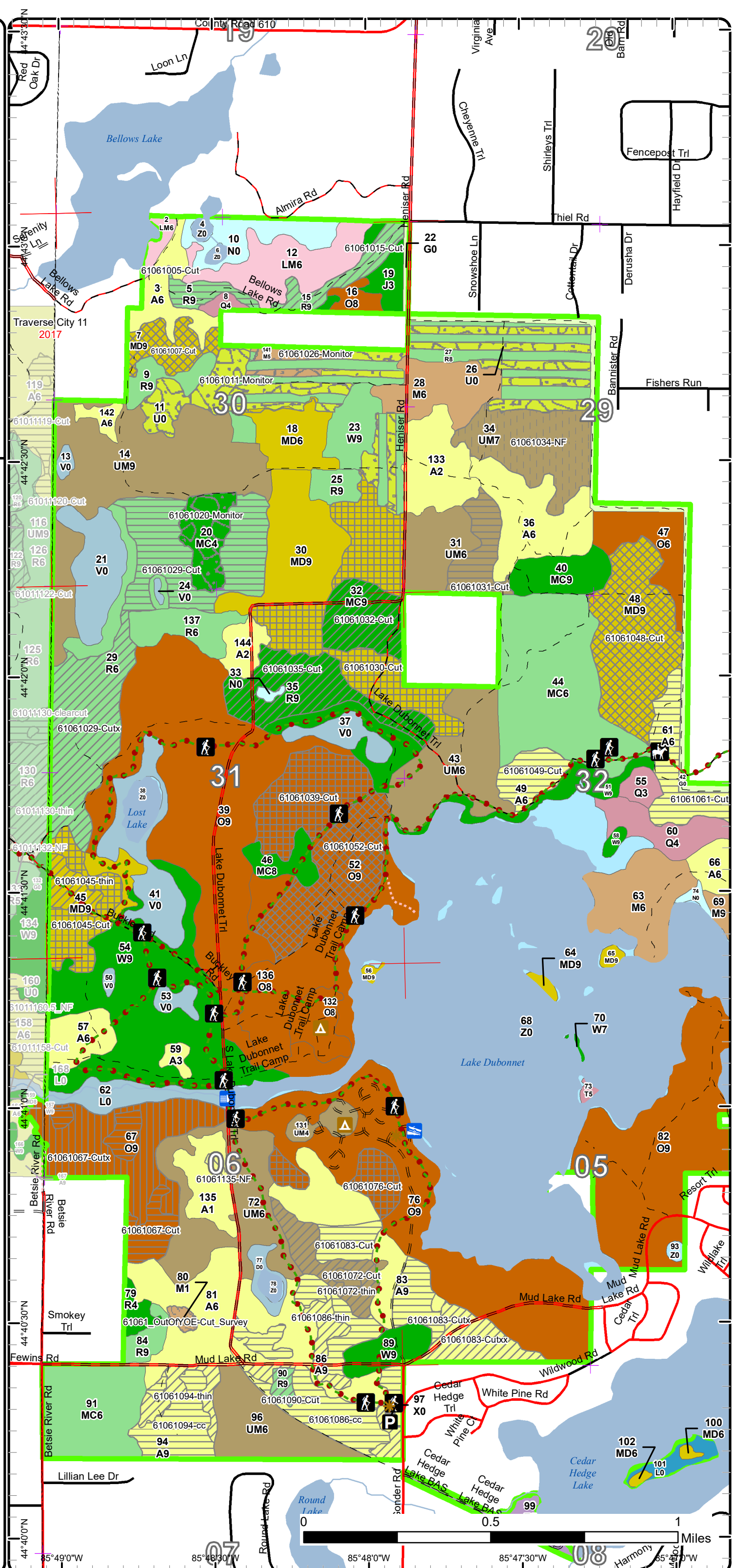
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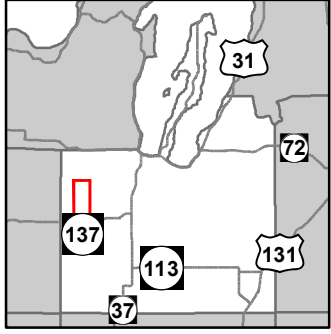
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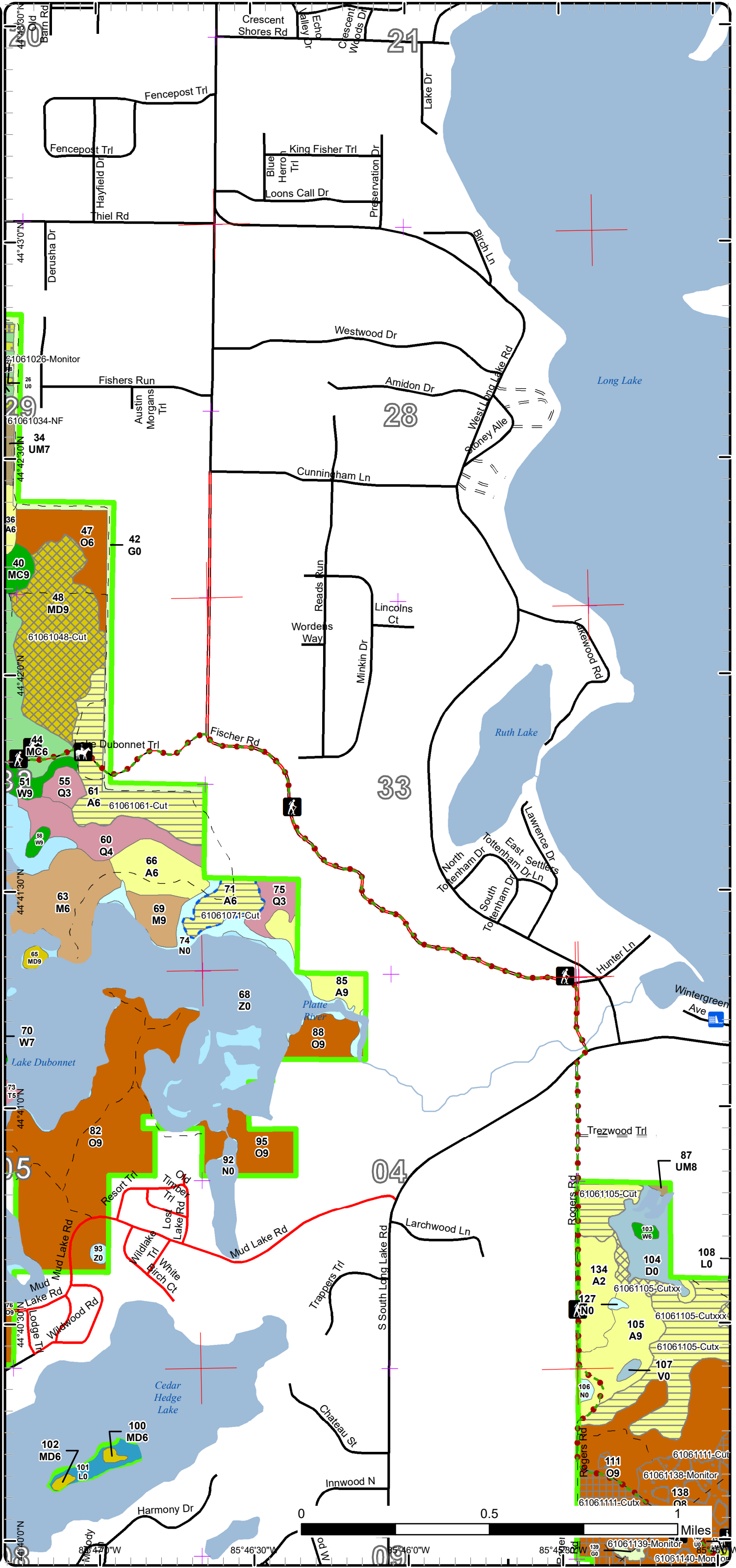
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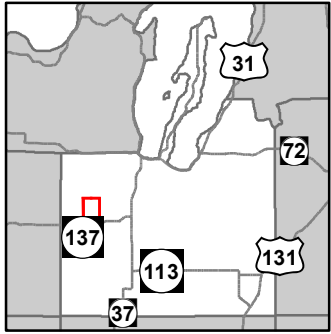


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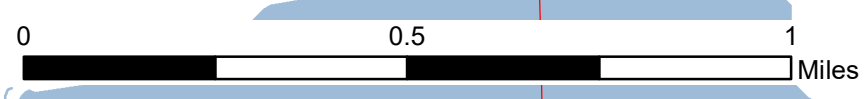
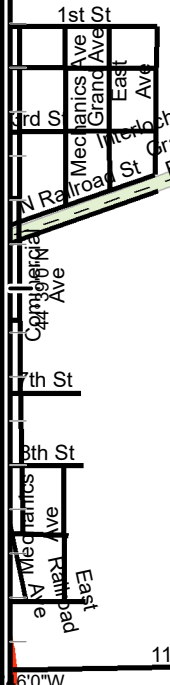
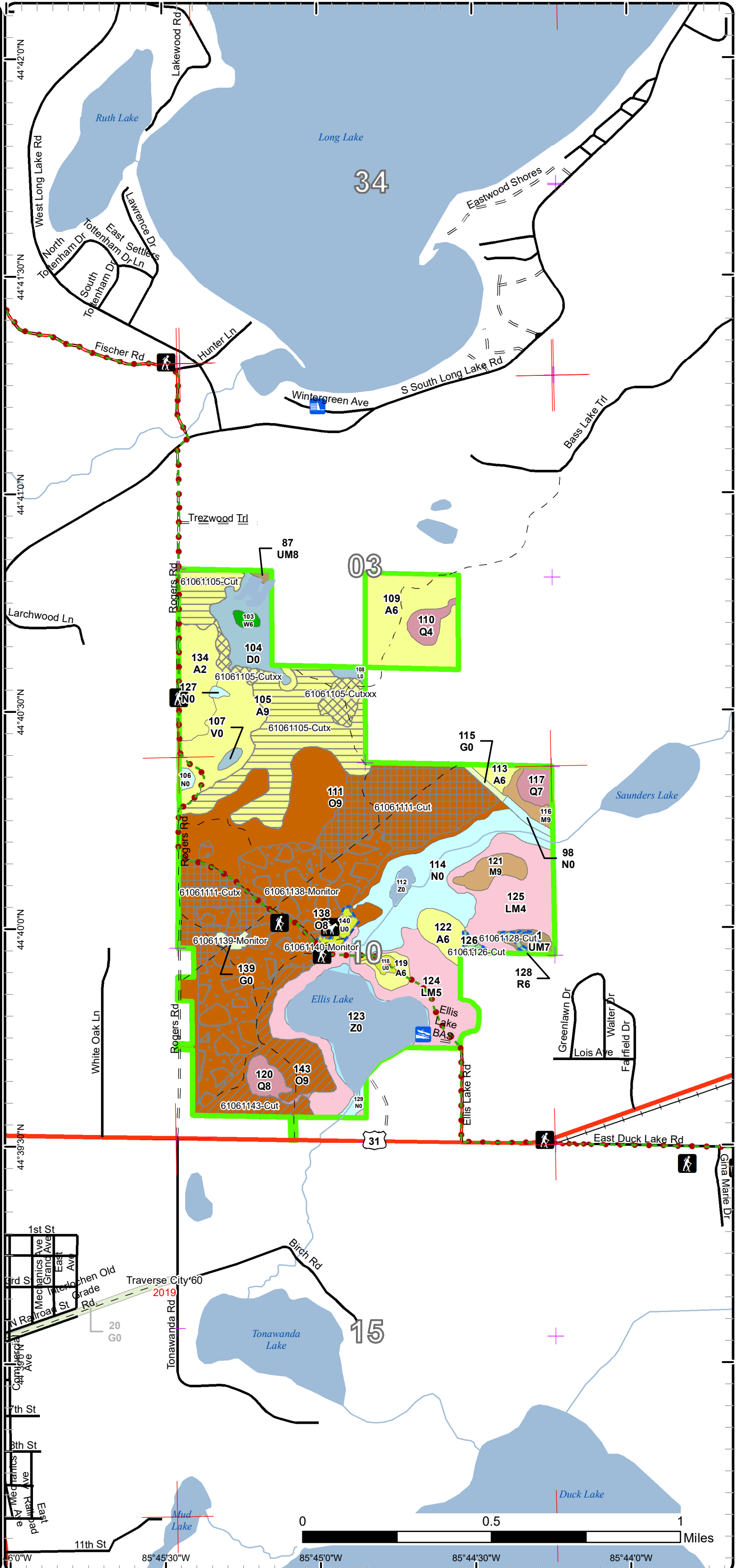


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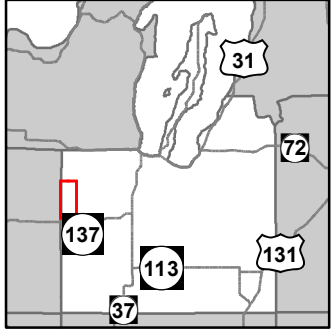
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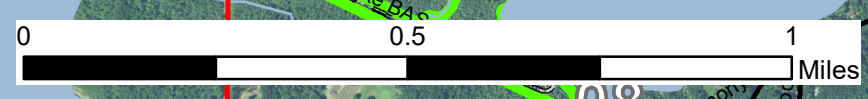
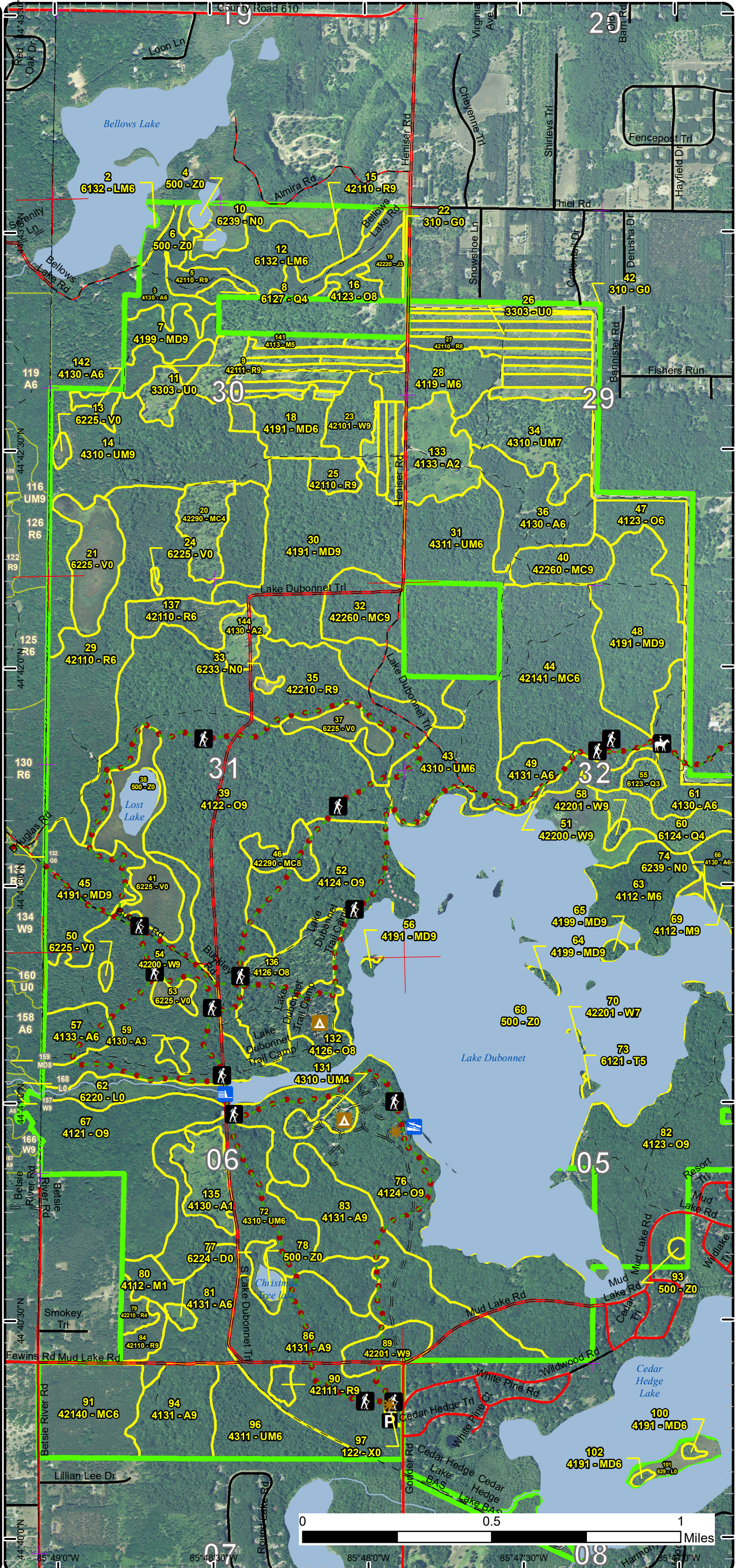
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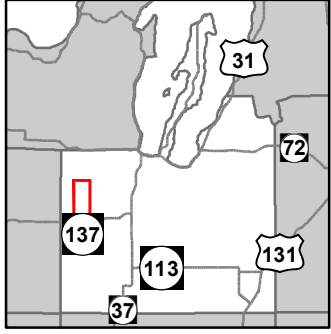


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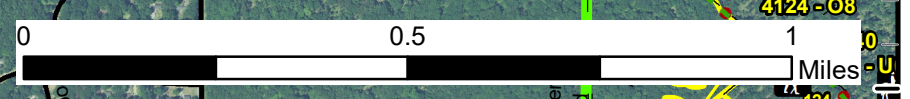
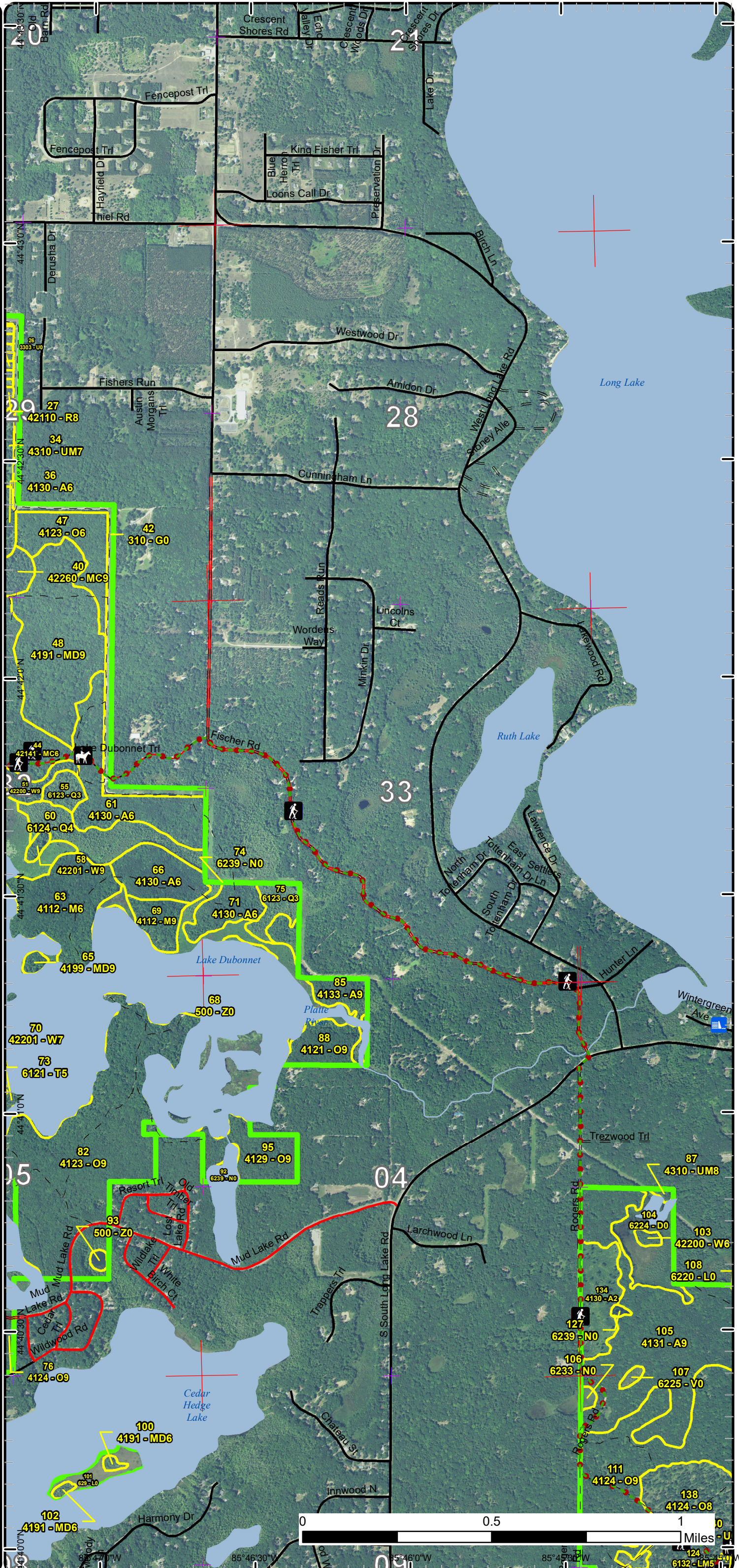


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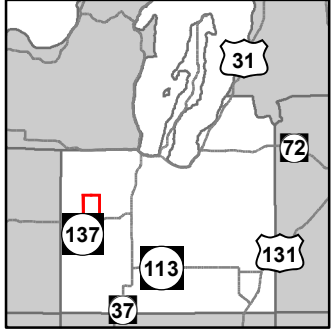
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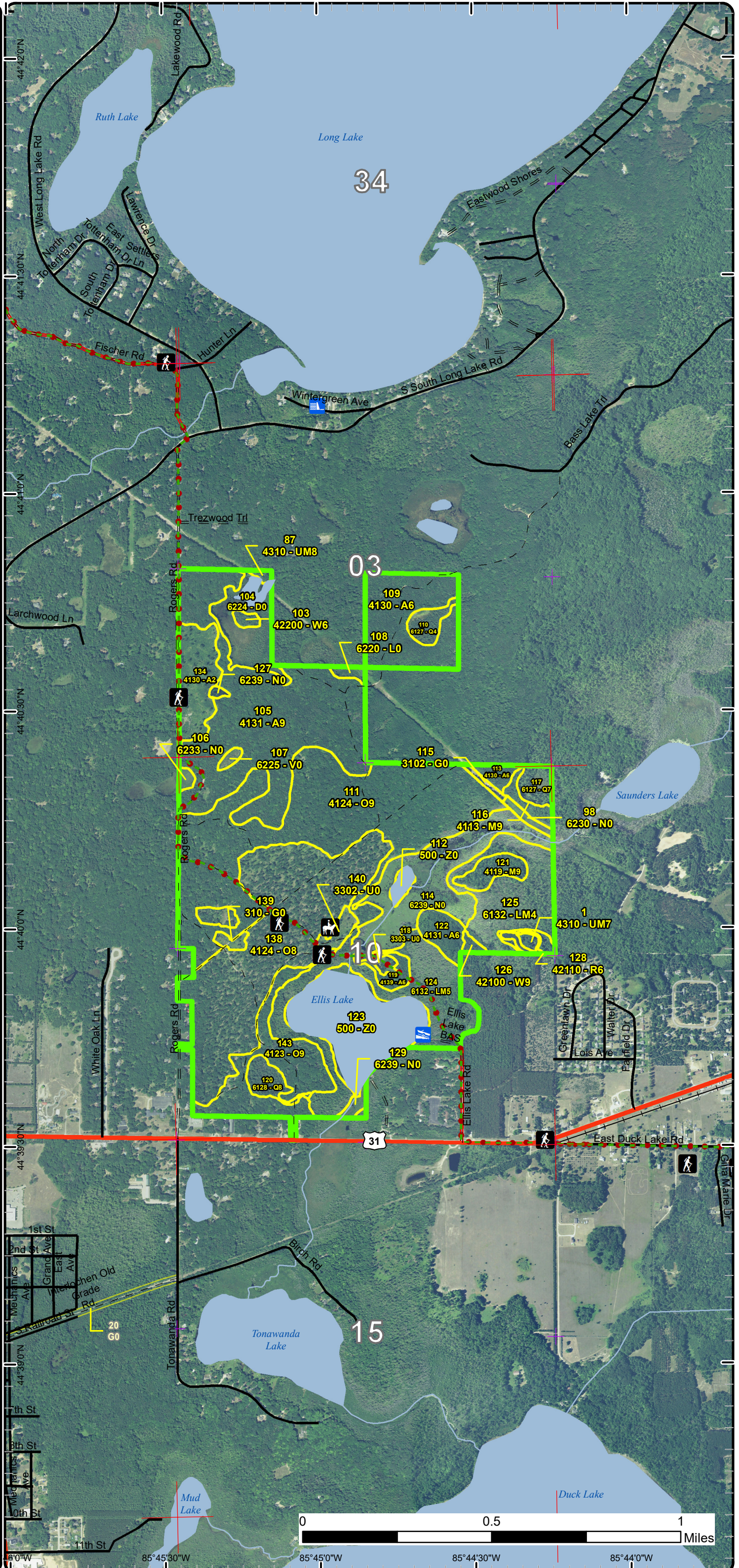
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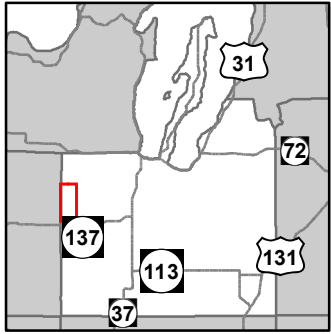


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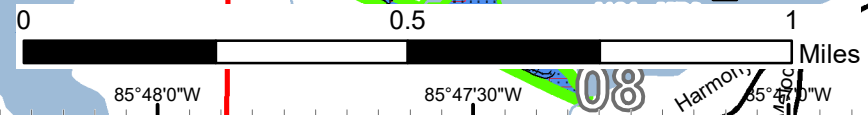
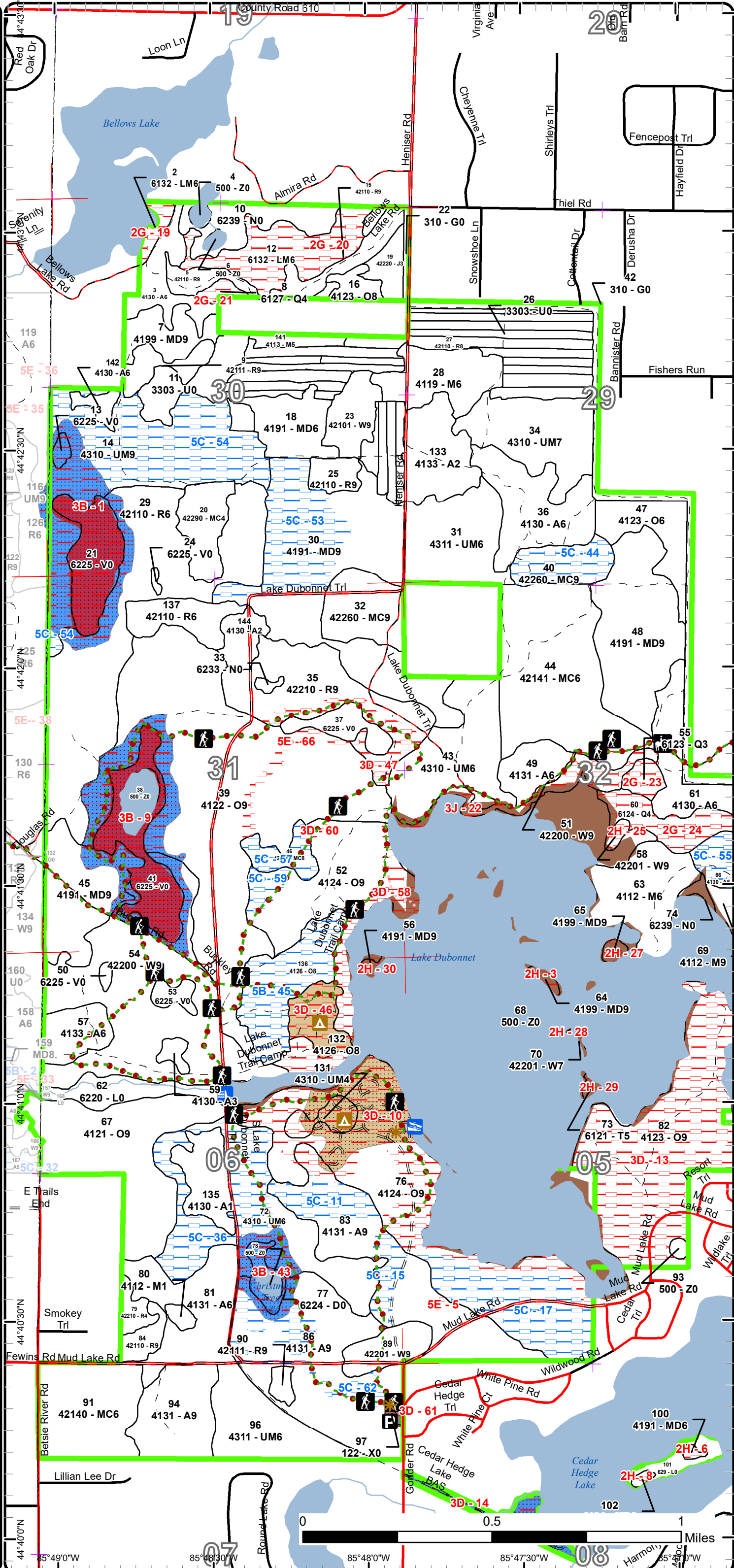


# Special Conservation Areas & Site Conditions Map

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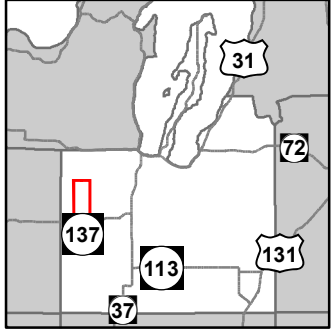


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- SCA Proposed
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Cold Water Streams
- Wildlife Management Areas
- Riparian Area
- Boat Access Site
- State Forest Campground
- Trail Head

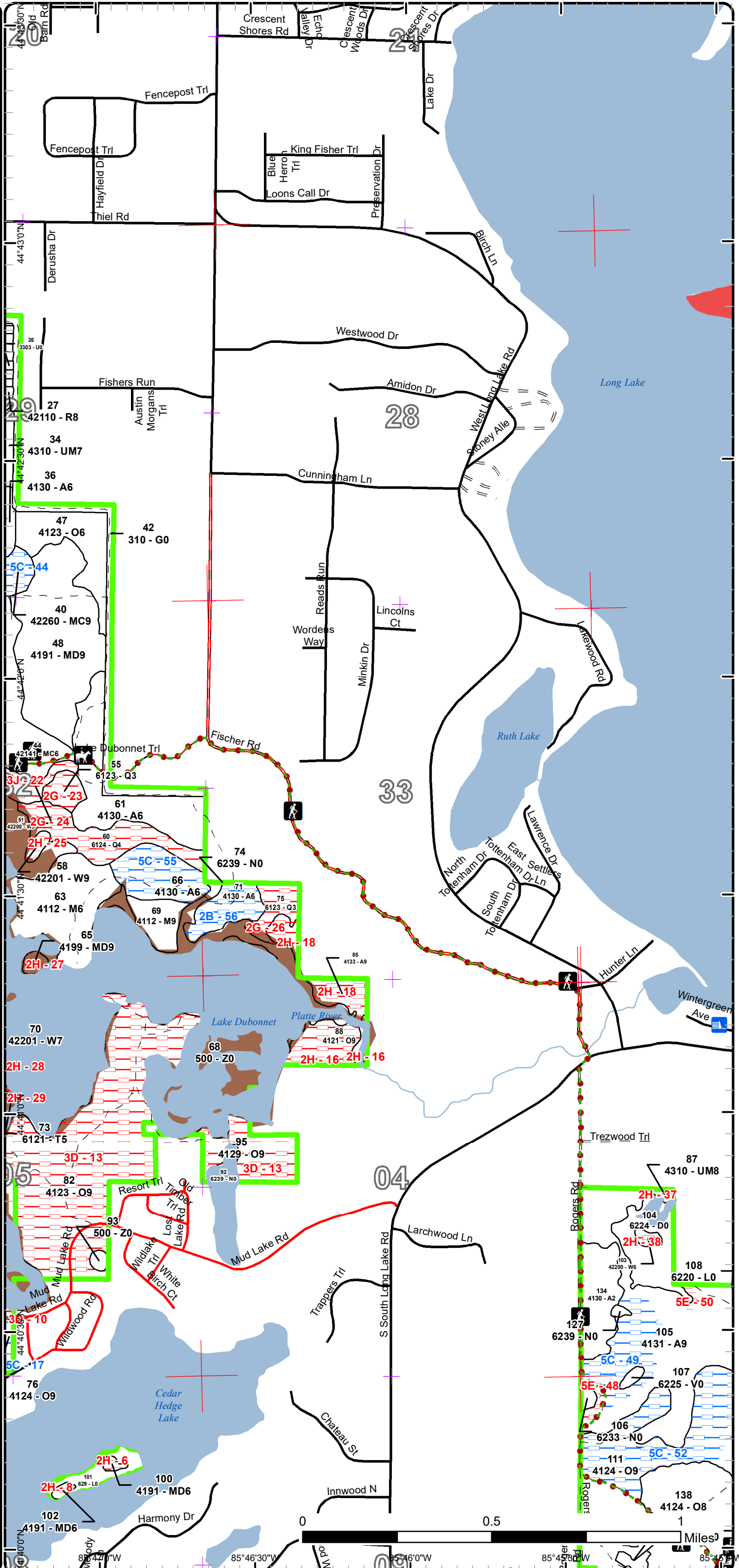


# Special Conservation Areas & Site Conditions Map

Compartment: 61  
 T26NR12W Sec. 17,19,30,31-34  
 County: Grand Traverse  
 Unit: Traverse City  
 Mgmt Area: Benzie Outwash  
 YOE: 2019  
 Acres: 4008.8 GIS Calculated  
 Examiner: Tim Webb  
 Map Revised: 8/14/2017  
 Map Phase: Post-Review

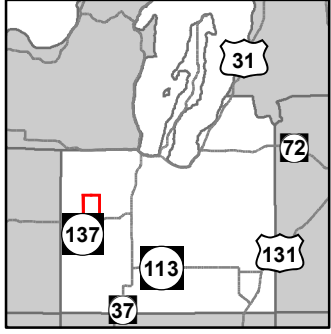


- Miris Corners
- + Remonumented Section Corners
- Counties
- Dams
- Hiking Trails
- Horse Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 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)
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Cold Water Streams
- Wildlife Management Areas

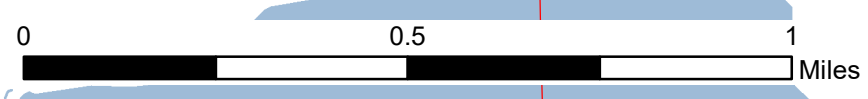
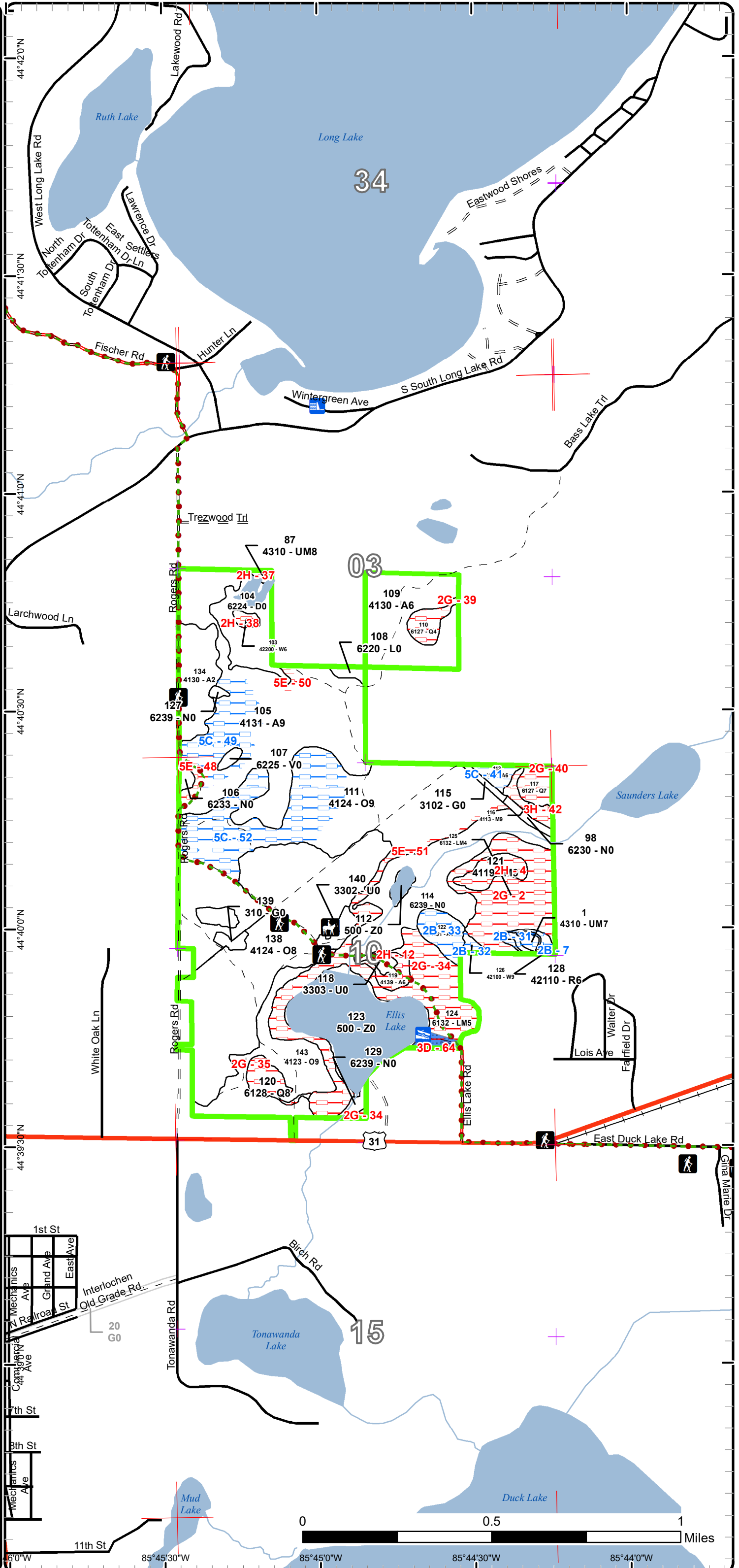


# Special Conservation Areas & Site Conditions Map

Compartment: 61  
 T26NR12W Sec. 17,19,30,31-34  
 County: Grand Traverse  
 Unit: Traverse City  
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 Map Revised: 8/14/2017  
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- - - Counties
- Dams
- Boating Access Site
- Hiking Trails
- Horse Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- Highway
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- + Active Railroads
- Streams
- Lakes and Rivers All
- Compartment Boundary
- SCA Proposed
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- Boat Access Site



86°0'W 85°45'30"W 85°45'0"W 85°44'30"W 85°44'0"W

Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	73	0	42	78	88	44	186	69	0	0	0	0	0	0	0	0	26	606
Bog	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
Herbaceous Openland	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Jack Pine	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Low-Density Trees	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
Lowland Conifers	0	0	0	0	5	0	0	27	0	0	0	6	0	0	0	0	0	16	54
Lowland Deciduous	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12
Lowland Mixed Forest	0	0	0	0	0	0	0	33	0	0	50	0	0	31	0	0	0	0	114
Lowland Shrub	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Marsh	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95
Mixed Upland Deciduous	0	0	0	0	21	0	0	58	0	0	23	1	0	0	0	0	0	146	249
Natural Mixed Pines	0	0	0	0	0	17	0	0	17	0	0	0	0	0	0	0	0	34	68
Northern Hardwood	0	2	0	0	0	0	0	0	0	45	0	4	0	0	0	0	0	42	93
Oak	0	0	0	0	0	21	0	6	0	0	267	435	0	0	0	0	0	222	950
Planted Mixed Pines	0	0	0	42	0	0	0	82	0	0	0	0	0	0	0	0	0	0	124
Red Pine	0	0	0	0	0	0	0	232	0	0	0	53	0	0	0	0	0	5	290
Tamarack	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Treed Bog	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Upland Mixed Forest	0	0	0	0	0	8	79	69	1	0	0	0	0	0	0	0	0	172	329
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Water	635	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	635
White Pine	0	0	0	0	0	0	0	17	14	0	0	18	0	0	0	0	0	101	150
<b>Total</b>	<b>957</b>	<b>75</b>	<b>11</b>	<b>84</b>	<b>104</b>	<b>134</b>	<b>123</b>	<b>679</b>	<b>134</b>	<b>45</b>	<b>279</b>	<b>532</b>	<b>58</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>764</b>	<b>4008</b>



## Report 2 – Treatment Summary

Traverse City Mgt. Unit  
Year of Entry: 2019

Acres of Harvest

Compartment 61  
Total Compartment Acres: 4,009

Commercial Harvest - 895  
Harvests with Site Condition - 14  
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
Aspen	205	10	0	0	0	42	0	0	0	258
Mixed Upland Deciduous	0	73	0	84	0	9	0	0	0	166
Natural Mixed Pines	0	0	0	0	0	24	0	0	0	24
Oak	19	44	0	122	49	31	0	0	0	263
Red Pine	55	0	0	0	0	107	0	0	0	162
Upland Mixed Forest	19	0	0	0	0	17	0	0	0	36
White Pine	0	0	0	0	0	1	0	0	0	1
<b>Total</b>	<b>298</b>	<b>127</b>	<b>0</b>	<b>205</b>	<b>49</b>	<b>231</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>910</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	910	0	0	0	0	192	0	40	0	1142
Next Step	0	111	55	0	0	55	696	0	0	917
<b>Total</b>	<b>910</b>	<b>111</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>888</b>	<b>0</b>	<b>40</b>	<b>2059</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
80	61061_OutOfY OE- Cut_Survey	2.4	4112 - Maple, Beech, Cherry Association	Sapling Poor	4	1-50	Monitoring	Other - Specify	412 - Oak Types	Unspecified	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u>											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
Proposed Start Date: 04/01/2014											
5	61061005-Cut	7.6	42110 - Planted Red Pine	Sawtimber Well	67	171- 200	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut, retaining a 1/2 acre mixed species island. Specify low stumps, and chipping if possible.											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Natural Regen (Intermediate); Pesticide, Skidder/Mechanical											
<u>Treatments:</u>											
<u>Acceptable</u> planted red pine											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
Proposed Start Date: 10/01/2018											
7	61061007-Cut	15.4	4199 - Other Mixed Upland Deciduous	Sawtimber Well	103	81-110	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Uneven- Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Could do a heavy selection cut: spec cut all beech, mark the rest. Retain some good quality oaks and maples, plus some older oak for structure and											
<u>Specs:</u> mast. Protect younger white pine as possible Residual BA 60-80.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Oak, maple, and pine regeneration are desirable in gaps; beech and ironwood will likely come in as well, though less desirable.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
Proposed Start Date: 10/01/2018											
11	61061011- Monitor	17.9	3303 - Mixed Low Density Trees	Nonstocked			Monitoring	Natural Regen (Re-Inventory)	4122 - Oak, Pine	Two-Aged	Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> monitor for regeneration											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Some WP regen already established; additional WP along with mixed oak, red pine, and some red maple would be acceptable.											
<u>Regen:</u>											
<u>Other</u> Percent to Treat = 100%											
<u>Comment:</u>											
Proposed Start Date: 10/01/2016											





S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
15	61061015-Cut	12.1	42110 - Planted Red Pine	Sawtimber Well	67	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut:** No      **Site Condition:**

Prescription Mark for thinning; residual BA about 120.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

20	61061020-Monitor	17.3	42290 - Natural Mixed Pine	Poletimber Poor	47	1-50	Monitoring	Natural Regen (Re-Inventory)	42250 - Pine, Oak	Two-Aged	Field Boundary
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**Habitat Cut:** No      **Site Condition:**

Prescription monitor for regeneration

Specs:

Next Step  
Treatments:

Acceptable Goal was to release already established pine poles/saplings; additional pine and oak regeneration in gaps is also acceptable.  
Regen:

Other Percent to Treat = 100%  
Comment:

Proposed Start Date: 10/01/2016

26	61061026-Monitor	55.0	3303 - Mixed Low Density Trees	Nonstocked		Unspecified	Monitoring	Natural Regen (Re-Inventory)	42120 - Planted Jack Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut:** No      **Site Condition:**

Prescription

Specs:

Next Step  
Treatments:

Acceptable jack pine, red maple, aspen, white pine and some oak and BC are expected.  
Regen:

Other Percent to Treat = 100%  
Comment:

Proposed Start Date: 04/20/2017

29	61061029-Cut	47.8	42110 - Planted Red Pine	Poletimber Well	60	141-170	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut:** No      **Site Condition:**

Prescription Clearcut to a 2" diameter limit. Specify low stumps. Specify chipping if possible. A retention patch has already been excluded from the treatment area surrounding a bog (stand 24); an additional retention island of about 1/2 to 1 acre should be excluded from each of the 2 major lobes of the treatment area.

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Natural Regen (Intermediate); Pesticide, Aerial  
Treatments:

Acceptable planted red pine, plus some oak volunteers  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
29 61061029-Cutx	52.6	42110 - Planted Red Pine	Poletimber Well	60	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Mark for thinning with a residual BA of about 120. Target low quality or suppressed trees for removal.

Specs: Remove some of the older oak where possible.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

30 61061030-Cut	60.8	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	52	111-140	Harvest	Seed Tree with Retention	42260 - Natural Pine, Mixed Deciduous	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Retain about 10-30 BA of mixed species seed trees, favoring retention of white pine, white oak, and red pine. Retain advanced white pine

Specs: regeneration where possible. Create some CWD.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable mixed pines, oaks, red maple and aspen  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

31 61061031-Cut	16.8	4311 - Pine, Aspen Mix	Poletimber Well	50	111-140	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain 2-3 mixed-species cover islands covering about 5% of the acreage. Create some CWD.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory); Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen and white pine, with possibly some red maple and oak  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

32 61061032-Cut	23.6	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	103	111-140	Harvest	Crown Thinning	42260 - Natural Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin to better space pines, remove some older oak, and remove most of the aspen, and highlight mature pine along the road corridor. Target residual BA at about 100.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
34	61061034-NF	39.4	4310 - Pine, Oak Mix	Sawtimber Poor	50	1-50	NonForestMgt	Brush Cutting	330 - Low-Density Trees		Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Brush hog (or hand fell) around select leave trees and/or patches . Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Maintain pockets of thick stem density such as aspen or clonal shrubs for thickets of cover/browse. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.

Next Step  
Treatments:

Acceptable  
Regen:

Other Portions of this stand have been treated by mowing/brush hogging in 2001 and 2015. The goal is maintain a mosaic of single trees, clumps of trees/shrubs, and patches of herbaceous cover. There is a nice parch of native grasses within this stand.  
Comment: Work around some of the trees to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization. Maintain as needed with brush hogging, mowing, seeding of natives or pasture mix, fertilizing, burning, or removal of woody encroachment.

Proposed Start Date: 10/01/2018

35	61061035-Cut	37.5	42210 - Natural Red Pine	Sawtimber Well	118	111-140	Harvest	Crown Thinning	42210 - Natural Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark a light thinning to about 120 residual BA, targeting some of the over-mature red pine and oak for removal.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Treatment area is set back about 100 feet from the Lost Lake pathway.  
Comment:

Proposed Start Date: 10/01/2018

39	61061039-Cut	35.3	4122 - Oak, Pine	Sawtimber Well	101	111-140	Harvest	Seed Tree with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Retain 10-30 BA of seed trees, favoring retention of white oak, white pine, and red pine. Retain additional trees along the pathway for aesthetics.  
Specs: Create some CWD. Restrict harvest to late fall/winter; temporarily re-route the pathway onto nearby dirt roads during harvest. Use contract specifications to protect/restore the pathway surface.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable any combination of oaks, pines, red maple, and aspen  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

45	61061045-Cut	22.7	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	101	111-140	Harvest	Seed Tree with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark about 10-20 BA of mixed species for retention as seed trees and partial shading. Favor retention of white oak, white pine, and red pine. Create some CWD during harvest operations. Protect advanced white pine regeneration as much as possible.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable mix of aspen, white pine, red maple, and oak  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
45	61061045-thin	9.2	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	101	111-140	Harvest	Crown Thinning	42201 - Natural White Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Thin to a residual BA of about 100. Remove much of the over-mature oak where possible. Feature retention of white pine, white oak, and red pine  
Specs: for long-term aesthetics along the trail corridor.

Next Step  
Treatments:

Acceptable  
Regen:

Other Manage long-term as an all-aged oak-pine mix.  
Comment:

Proposed Start Date: 10/01/2018

48	61061048-Cut	57.6	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	64	111-140	Harvest	Group Selection	4191 - Mixed Upland Deciduous with Conifer	Uneven-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut regeneration gaps around and including some of the older oaks; thin the remainder of the stand to release better quality trees of all species.  
Specs: Leave pine regen intact as possible, moving toward an uneven-aged mix.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable In regen gaps, any mix of oak, pine, aspen and red maple is acceptable.  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

49	61061049-Cut	13.4	4131 - Aspen, Oak	Poletimber Well	52	81-110	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain individual trees, clumps, or strips adjacent to the Shore-to-Shore Trail, and a 1/2 acre island. Consider  
Specs: retaining all red pine by specification. Create some CWD.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen and oak, with some mixed pine and red maple  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

52	61061052-Cut	43.6	4124 - Red with White Oak	Sawtimber Well	93	111-140	Harvest	Group Selection	4121 - Oak, Aspen	Two-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Create regeneration gaps centered on mature aspen patches; mark the rest of the stand to thin oak. Reduce red oak component to reduce oak wilt  
Specs: risk.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable predominantly aspen, with some oak and pine, in regeneration gaps  
Regen:

Other Treatment covers the north part of stand 52 between the recreation trails; buffer the trails by about 50 feet.  
Comment:

Proposed Start Date: 10/01/2018



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
61	61061061-Cut	33.7	4130 - Aspen	Poletimber Well	49		Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Draft Field Boundary

**Habitat Cut: No**                      **Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain about 2 acres in 2-4 cover islands; also retain a few scattered mature pine, oak, and maple, especially along the Shore-to-Shore Trail. Create some CWD.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen; some oak, pine and maple are also desirable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

67	61061067-Cut	18.8	4121 - Oak, Aspen	Sawtimber Well	101	81-110	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Clearcut to a 2" dbh limit. Retention: about 5% cover, marking individual trees and clumps in the two smaller patches to the north, and in 1 or 2 leave islands in teh larger south patch. Create some CWD during harvest.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen sprouts, oak, red maple stump sprouts, white pine seedlings  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

67	61061067-Cutx	48.7	4121 - Oak, Aspen	Sawtimber Well	101	81-110	Harvest	Shelterwood with Retention	4199 - Other Mixed Upland Deciduous	Two-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut to retain about 50% crown cover for shelterwood prep. Retain most or all of the white pine and white oak.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable any mix of oak, aspen, pine, and red maple  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

71	61061071-Cut	11.7	4130 - Aspen	Poletimber Well	49		Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition: Unknown Access**

Prescription Clearcut to a 2" diameter limit. Retain hemlock and veteran white pine, plus about 1/2 acre in 1 or 2 retention islands. Create some CWD.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen, with red maple, white pine and balsam fir mixed in  
Regen:

Other Needs private access.  
Comment:

Proposed Start Date: 10/01/2018



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
72	61061072-Cut	1.8	4310 - Pine, Oak Mix	Poletimber Well	62	141-170	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

**Habitat Cut: No**                      **Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain scattered mixed-species tree clumps, 3-5% cover. Create some CWD.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, with maybe some mixed oak, pine, and red maple

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

72	61061072-thin	17.0	4310 - Pine, Oak Mix	Poletimber Well	62	141-170	Harvest	Low Thinning	42141 - Planted Mixed Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Thin to a residual BA of about 110. Remove most of the aspen, but otherwise maintain a species mix.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Consider relocating the Lost Lake Pathway into this treatment area some time post-harvest, then treat the other side of the parent stand in the next entry period.

Comment:

Proposed Start Date: 10/01/2018

76	61061076-Cut	14.7	4124 - Red with White Oak	Sawtimber Well	97	81-110	Harvest	Seed Tree with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Retain about 30 BA of mixed species for seed and partial shading, favoring retention of pines, white oak, and red maple. Create some CWD. Protect advanced white pine regeneration as much as possible.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable any mix of oak, pine, red maple, and aspen

Regen:

Other Use seasonal restrictions to minimize oak wilt risk and recreational impacts.

Comment:

Proposed Start Date: 10/01/2018

83	61061083-Cut	9.6	4131 - Aspen, Oak	Sawtimber Well	70		Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain about 5% in scattered islands, incorporating pine patches. Create some CWD.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen sprouts, plus some white pine, oak, and red maple

Regen:

Other Sale area excludes a buffer along the pathway. Use seasonal restrictions to minimize oak wilt risk and recreational impacts.

Comment:

Proposed Start Date: 10/01/2018



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
83 61061083-Cutx	11.8	4131 - Aspen, Oak	Sawtimber Well	70		Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain about 5% in several patches abutting the road. Create some CWD.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventary)

Treatments:

Acceptable Regen: aspen, with some oak, red maple, and pine

Other

A retention patch surrounding a small wetland has been excluded from the sale area.

Comment:

Proposed Start Date: 10/01/2018

83 61061083-Cutxx	18.1	4131 - Aspen, Oak	Sawtimber Well	70		Harvest	Crown Thinning	42201 - Natural White Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary
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**Habitat Cut: No Site Condition:**

Prescription Reduce BA to about 100. Mark to remove most of the aspen and to improve spacing and quality of residual oak, pine, and red maple.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other

Steer this part of stand 83 away from aspen and toward pine-oak-maple.

Comment:

Proposed Start Date: 10/01/2018

86 61061086-cc	41.8	4131 - Aspen, Oak	Sawtimber Well	62	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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**Habitat Cut: No Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retention: use a combination of individually marked trees and patches, located to mitigate impacts to recreational values. Choose sturdy, long-lived trees along roads and trails.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventary)

Treatments:

Acceptable Regen: aspen, with additional mixed oak, pine, and red maple

Other

These 4 clearcut patches are being prescribed now to harvest mature aspen, while deferring some parts of the stand for harvest in future entry periods. Still other parts of the parent stand with lower amounts of aspen are being prescribed for thinning to reduce aspen and manage long-term for long-lived, uneven-aged forest to better complement recreational use of this area.

Proposed Start Date: 10/01/2018

86 61061086-thin	14.4	4131 - Aspen, Oak	Sawtimber Well	62	Unspecified	Harvest	Low Thinning	42260 - Natural Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary
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**Habitat Cut: No Site Condition:**

Prescription Mark for thinning, with a residual BA of about 100. Favor retention of longer-lived species; remove most of the aspen. Place slash to thwart illegal ORV use in the southeast part of the treatment area.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other

Manage these 3 parts of parent stand 86 toward uneven-aged long-lived forest stands to complement local recreational use. We could possibly re-route sections of the Lost Lake Pathway into these stands some time post-harvest to move them out of aspen management areas.

Proposed Start Date: 10/01/2018



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
90	61061090-Cut	3.3	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	67	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Thin to a residual BA of about 120. Remove some of the older OK where possible.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

94	61061094-cc	21.1	4131 - Aspen, Oak	Sawtimber Well	51	81-110	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain most or all of the pine. Retain about 5% of the larger cut block in mixed-species islands.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen, with some oak and red maple sprouts and white pine  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

94	61061094-thin	9.4	4131 - Aspen, Oak	Sawtimber Well	51	81-110	Harvest	Low Thinning	4123 - Red Oak	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin to a residual BA of 80-90. Remove most of the aspen.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

105	61061105-Cut	11.9	4131 - Aspen, Oak	Sawtimber Well	62	81-110	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain about 5% mixed-species cover in small islands and scattered marked individual trees, especially along wetland edges and along Shore-to-Shore Trail. Create some CWD during harvest operations.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen with a component of oak, red maple, and pine  
Regen:

Other Employ oak wilt specs as needed.  
Comment:

Proposed Start Date: 10/01/2018





S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
105	61061105-Cutx	50.3	4131 - Aspen, Oak	Sawtimber Well	62	81-110	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut to a 2" diameter limit. Retain about 5% mixed-species cover in small islands and scattered marked individual trees, especially along wetland edges (a retention patch is already excluded along the wetland edge on the north end of the stand). Create some CWD during harvest operations.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Regen: aspen with a component of oak, red maple, and pine

Other Comment: Employ oak wilt specs as needed.

Proposed Start Date: 10/01/2018

105	61061105-Cutxx	3.7	4131 - Aspen, Oak	Sawtimber Well	62	81-110	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark for harvest down to a residual BA of about 80, retaining a mix of hardwood and oak, plus conifers where present. Reduce aspen, but retain some for potential cavity trees.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Regen: oak, maple, and white pine in canopy gaps

Other Comment: Manage long-term as a mixed hardwood/oak stand, serving as mature riparian cover adjacent to the wetland to the east, and breaking up the surrounding contiguous aspen cover. This is an area of stand 105 with sparse aspen.

Proposed Start Date: 10/01/2018

105	61061105-Cutxxx	6.7	4131 - Aspen, Oak	Sawtimber Well	62	81-110	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark for harvest down to a residual BA of about 80, retaining a mix of hardwood, oak, and pine. Reduce aspen, but retain some for potential cavity trees.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Regen: oak, maple, and white pine in canopy gaps

Other Comment: Manage long-term as a mixed hardwood/oak stand, serving as mature riparian cover adjacent to the wetland to the north, and maintaining mature cover patch along part of the forest road within the stand. This is part of stand 105 with sparse aspen.

Proposed Start Date: 10/01/2018

111	61061111-Cut	48.5	4124 - Red with White Oak	Sawtimber Well	107	111-140	Harvest	Seed Tree with Retention	4122 - Oak, Pine	Two-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark 10-30 BA for seed trees and partial shade. Favor retention of white oak and pines, but include some red oak and red maple seed trees as well. Protect advanced white pine regeneration as possible. Retain one or two uncut islands straddling the SW-NE road through the stand.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Regen: red & white oak, red & white pine (including existing advanced regen.), red maple, and aspen mix

Other Comment: A narrow strip of this stand abutting the adjacent wetland (stand 114) has been excluded from the proposed treatment for long-term retention.

Proposed Start Date: 10/01/2018



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
111	61061111-Cutx	23.0	4124 - Red with White Oak	Sawtimber Well	107	111-140	Harvest	Seed Tree with Retention	4122 - Oak, Pine	Two-Aged	Draft Field Boundary

**Habitat Cut: No**                      **Site Condition:**

Prescription Mark 10-30 BA for seed trees and partial shade. Favor retention of white oak and pines, but include some red oak and red maple seed trees as well. Protect advanced white pine regeneration as possible. Retain higher BA along Shore-to-Shore Trail and adjacent to private residence.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Regen: red & white oak, red & white pine (including existing advanced regen.), red maple, and aspen mix

Other Comment:

Proposed Start Date: 10/01/2018

126	61061126-Cut	1.3	42100 - Planted White Pine	Sawtimber Well	64	201+	Harvest	Systematic Thinning	42100 - Planted White Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**    **Unknown Access**

Prescription 3rd-row thin.  
Specs:

Next Step  
Treatments:

Acceptable Regen:

Other Comment: Depends on private access from the south.

Proposed Start Date: 10/01/2018

128	61061128-Cut	1.4	42110 - Planted Red Pine	Poletimber Well	62	201+	Harvest	Low Thinning	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**    **Unknown Access**

Prescription Mark sturdy trees to retain and cut the rest, with a residual BA of 150 or more.  
Specs:

Next Step  
Treatments:

Acceptable Regen:

Other Comment: Depends on private access from the south.

Proposed Start Date: 10/01/2018

135	61061135-NF	0.9	4130 - Aspen	Sapling Poor	4	1-50	NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Work around some of the trees to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization.  
Specs: Maintain as needed with brush hogging, mowing, seeding of natives or pasture mix, fertilizing, burning, or removal of woody encroachment.

Next Step  
Treatments:

Acceptable Regen:

Other Comment:

Proposed Start Date: 05/02/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
138	61061138-Monitor	93.8	4124 - Red with White Oak	Sawtimber Medium	107	51-80	Monitoring	Natural Regen (Re-Inventory)	4124 - Red with White Oak	Two-Aged	Field Boundary

**Habitat Cut: No**                      **Site Condition:**

Prescription monitor for natural regeneration

Specs:

Next Step

Treatments:

Acceptable any mix of oak, pine, red maple

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2016

139	61061139-Monitor	1.8	310 - Herbaceous Openland	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Re-Inventory)	4130 - Aspen	Even-Aged	Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription monitor for natural regeneration

Specs:

Next Step

Treatments:

Acceptable aspen desired; some oak, pine or red maple would also be acceptable in the mix

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2016

111	61061140-Monitor	3.7	4124 - Red with White Oak	Sawtimber Well	107	111-140	Monitoring	Natural Regen (Re-Inventory)	4131 - Aspen, Oak	Even-Aged	Field Boundary
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**Habitat Cut: No**                      **Site Condition: Too Wet**

Prescription monitor for natural regeneration

Specs:

Next Step

Treatments:

Acceptable aspen and oak; some white pine also acceptable in the mix

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2016

143	61061143-Cut	30.8	4123 - Red Oak	Sawtimber Well	107	111-140	Harvest	Low Thinning	4123 - Red Oak	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Mark for thinning to a residual BA of 80-90. Favor retention of better quality oak, pine, and maple. Remove some of the over-mature oak.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

**Total Treatment Acreage Proposed: 1141.7**

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Tim Webb : Examiner

Compartment: 61

Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions											
		With Condition	Not Available		2B	5B	5C	2G	2H	3B	3D	3H	3J	5E	
605	467	109	30	Aspen	19		89		15	4	5				5
74	19	0	56	Bog						56					
33	33	0	0	Herbaceous Openland											
11	11	0	0	Jack Pine											
70	70	0	0	Low-Density Trees											
54	0	0	54	Lowland Conifers				54							
12	0	0	12	Lowland Deciduous							12				
115	0	0	115	Lowland Mixed Forest				112			3				
26	26	0	0	Lowland Shrub											
94	94	0	0	Marsh											
248	186	43	19	Mixed Upland Deciduous			43		8	7	4				
68	41	27	0	Natural Mixed Pines			27								
92	82	0	11	Northern Hardwood					7			4			
951	525	130	296	Oak		35	95		12	22	247				15
124	124	0	0	Planted Mixed Pines											
291	264	1	26	Red Pine	1					10	16				
2	0	0	2	Tamarack					2						
23	18	0	5	Treed Bog						5					
329	176	111	41	Upland Mixed Forest	3		108		1	32	8				
1	0	0	1	Urban							1				
635	625	0	10	Water						10	0				
151	121	1	28	White Pine	1				5	8				16	
4,009	2,881	422	705	Total Forested Acres	25	35	363	166	49	154	295	4	16	20	
	72%	11%	18%	Relative Percent											

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3B: Threatened, endangered, and special concern species	65	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> North Lost Lake Bog ERA							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Tim Webb : Examiner

Compartment: 61

Year of Entry: 2019

2	<b>Unavailable</b>	2G: Too wet (sensitive soils, does not include access issues)	31	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	<b>Unavailable</b>	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	3J: Water quality / BMPs (stream, river, or lake)	3B: Threatened, endangered, and special concern species	3D: Recreational / Scenic values	Unspecified
<b>Comments:</b> Island in Lake Dubonnet.							
4	<b>Unavailable</b>	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<b>Unavailable</b>	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	<b>Unavailable</b>	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	1	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Island in Cedar Hedge Lake.							
7	<b>Available</b>	2B: Unknown if access through adjacent landowner(s) is possible	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Tim Webb : Examiner

Compartment: 61

Year of Entry: 2019

8	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	1	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Island in Cedar Hedge Lake.							
9	<b>Unavailable</b>	<b>3B: Threatened, endangered, and special concern species</b>	73	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Lost Lake Bog ERA							
10	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	84	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	16	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
12	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	4	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Shore-to-Shore Trail runs through the stand.							
13	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	130	3J: Water quality / BMPs (stream, river, or lake)	1D: Interest Group / Neighbor	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified
<b>Comments:</b> Urban interface, residential roads, riparian habitat, and high amount of dispersed recreation.							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Tim Webb : Examiner

Compartment: 61

Year of Entry: 2019

14	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	12	2G: Too wet (sensitive soils, does not include access issues)	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
<b>Comments:</b> Cedar Hedge Lake public access site							
15	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	9	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
16	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
17	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	45	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
18	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Tim Webb : Examiner

Compartment: 61

Year of Entry: 2019

19	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	5	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Riparian to Bellows Lake							
20	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	33	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> streams/springs in the stand							
21	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
22	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	16	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Large white pines along shore of Lake Dubonnet; adjacent to the Shore-to-Shore Trail.							
23	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	6	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
24	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	21	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Adjacent to Lake Dubonnet.							



## Report 4 – Site Conditions

Traverse City Mgt. Unit

Tim Webb : Examiner

Compartment: 61

Year of Entry: 2019

25	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Island in Lake Dubonnet.							
26	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	8	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Adjacent to Lake Dubonnet.							
27	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Island in Lake Dubonnet.							
28	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	1	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Island in Lake Dubonnet.							
29	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Island in Lake Dubonnet.							

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Traverse City Mgt. Unit

Tim Webb : Examiner

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30	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Island in Lake Dubonnet.							
31	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
32	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
33	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
34	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	43	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
<b>Comments:</b>							

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35	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
36	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	43	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
37	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	1	2B: Unknown if access through adjacent landowner(s) is possible	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
<b>Comments:</b>							
38	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> island in a bog							
39	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

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40	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
41	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
42	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	4	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> stream runs through stand							
43	Unavailable	3B: Threatened, endangered, and special concern species	19	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Christmas Tree Lake & bog, plus surrounding upland buffer							
44	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

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45	Available	5B: Maintain for regeneration purposes	35	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Previously thinned to reduce red oak component in this oak-wilt high risk area. Recreation trail runs through the stand. Allow regeneration to get established and develop.</p>							
46	Unavailable	3D: Recreational / Scenic values	14	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Lake Dubonnet Trail Camp</p>							
47	Unavailable	3D: Recreational / Scenic values	16	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Very scenic stand of old, natural red pine along the Lost Lake Pathway</p>							
48	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Retention along wetland edge and Shore-to-Shore Trail</p>							
49	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	21	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							
50	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							

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51	Unavailable	5E: Long-Term Retention	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
52	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	44	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
53	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	43	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
54	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	66	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
55	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	2B: Unknown if access through adjacent landowner(s) is possible	2D: Portable Bridge Needed (Dept. bridge will be adequate)	Unspecified	Unspecified
<b>Comments:</b> Needs portable bridge and/or crane mats.							

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56	Available	2B: Unknown if access through adjacent landowner(s) is possible	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
57	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
58	Unavailable	3D: Recreational / Scenic values	29	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
59	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Leave this part of stand 52 out of the proposed treatment this year of entry to minimize recreation trail impacts.							
60	Unavailable	3D: Recreational / Scenic values	1	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
61	Unavailable	3D: Recreational / Scenic values	2	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Lost Lake Pathway trailhead/parking area							

## Report 4 – Site Conditions

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62	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
63	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Bass Lake boat launch							
64	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	3	2G: Too wet (sensitive soils, does not include access issues)	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
<b>Comments:</b> Ellis Lake boat launch							
66	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retain this strip long-term as a wildlife travel corridor between the part of stand 39 being treated this entry period (YOE 2019) and the rest of stand 39 to the west which could potentially be harvested in a future entry year. This strip will also serve as a filter strip & buffer to the bog to the north (stand 37).							





**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
<b>Comments</b> North Lost Lake Bog ERA	Spring-Seeps, Riparian Areas	Riparian Area	<b>Proposed SCA</b>	65
<b>Comments</b> Lost Lake Bog ERA	Spring-Seeps, Riparian Areas	Riparian Area	<b>Proposed SCA</b>	73
<b>Comments</b> Cedar Hedge Lake public access site	Concentrated Recreation Area	Boat Access Site	<b>Proposed SCA</b>	12
<b>Comments</b> Bass Lake boat launch	Concentrated Recreation Area	Boat Access Site	<b>Proposed SCA</b>	4
<b>Comments</b> Ellis Lake boat launch	Concentrated Recreation Area	Boat Access Site	<b>Proposed SCA</b>	3
<b>Comments</b> Lost Lake Pathway trailhead/parking area	Concentrated Recreation Area	Trail Head	<b>Proposed SCA</b>	2
<b>Comments</b> Christmas Tree Lake & bog, plus surrounding upland buffer	Spring-Seeps, Riparian Areas	Riparian Area	<b>Proposed SCA</b>	
<b>Lake Dubonnet Campground</b> <b>Comments</b> boat launch	Concentrated Recreation Area	State Forest Campground	<b>Proposed SCA</b>	35



**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 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.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4310 - Pine, Oak Mix	Sawtimber Poor	3.2	45	51-80	Private access only. Wolfy, open-grown white pine.
2	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	4.8	108		
3	4130 - Aspen	Poletimber Well	17.4	40		
5	42110 - Planted Red Pine	Sawtimber Well	7.6	67	171-200	2017 BA about 180.
7	4199 - Other Mixed Upland Deciduous	Sawtimber Well	15.4	103	81-110	2017 BA about 150. BBD present. Pocket of red pine poles toward west edge. (2009 comments: Some good quality red oak sawlogs. Stand has great mast producing value. No sign of decadence. Mixed northern hardwood oak type level 4 would be an accurate stand description. Stand was disced in 1989 to encourage oak regeneration. This was unsuccessful. OI age was 555 uneven. Stand is like 95-105 years old.)
8	6127 - Lowland Pine	Poletimber Poor	3.0	42	1-50	
9	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	10.1	69	111-140	Stand treated under contract 610711101 by Potlatch Lumber.
12	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	33.3	70	81-110	Numerous springs and streams. Patches of dense cedar and hemlock cover.
14	4310 - Pine, Oak Mix	Sawtimber Well	90.8	84	141-170	2017 BAs: 180, 120, 120, 170, 140, 140, 150; mean 146. Patches of planted red pine embedded in a natural oak-pine mix. 1977 aspen patch noted in last inventory was split out into a separate stand (142). Trace amounts of beech and jack pine. (2009 comments: Oak /pine mix, OI indicates an area approx. 13 acres of red pine (west) that was planted to red pine in 1957, also some planting occurred in 1952 and 1955, DOQ appears to be poor survival. Oak/white pine age is 76 from OI; also OI shows small A3 stand from 1977.)
15	42110 - Planted Red Pine	Sawtimber Well	12.1	67	171-200	2017 BA about 190.
16	4123 - Red Oak	Sawtimber Medium	5.9	64	51-80	Regeneration: red maple plus some aspen and jack pine in canopy gaps. Stand was treated in 2003. All jack pine, aspen, and red maple were removed leaving multiple ages/sizes of red oak. Age is an average of pole size oaks and is based on the age of the original jack pine and adjacent red pine stands. There are some older sawlog oaks also in the stand.
18	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	20.6	36	81-110	
19	42220 - Natural Jack Pine	Sapling Well	10.6	13	Unspecified	Cut in summer 2003; dense regeneration.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	42290 - Natural Mixed Pine	Poletimber Poor	17.4	47	1-50	Deciduous trees cut in fall 2014; conifers and a few white oak were retained. Post harvest basal area = 24 based on 5 plots. [2009 comments: Recommend for release of red pine by removing deciduous overstory. Not sure how well red pine will respond to release, but overstory is mature and ready for removal. Good component of natural white pine in the sub-canopy will supplement if red pine is slow to release. Previous inventory comments indicated "monitor for release needs."]
23	42101 - Planted White Pine, Mixed Deciduous	Sawtimber Well	15.1	66	111-140	Stand was thinned under tsale contract 610711101 by Potlatch FP. Good quality, very little weevil damage.
25	42110 - Planted Red Pine	Sawtimber Well	7.3	65	111-140	Stand thinned under tsale contract 610711101 by Potlatch Lumber.
27	42110 - Planted Red Pine	Sawtimber Medium	55.1	66	141-170	Stand was thinned under tsale contract 610711101 by Potlatch FP. Small amount of log-sized white pine and black cherry poletimber.
28	4119 - Mixed Northern Hardwoods	Poletimber Well	26.8	36	81-110	Remnant old red oak scattered throughout the stand. Much of the aspen is in a single patch at the east end of the stand. Red pine is in a patch southeast of the center of the stand.
29	42110 - Planted Red Pine	Poletimber Well	112.5	60	141-170	2017 BAs: 230, 110, 130, 180, 130, 210, 140, 200, 160; mean 166. Diameters are quite variable; many suppressed stems. (2009 comments: Basal area is highly variable throughout stand. Most areas, basal area is lower because of 30% deciduous canopy components. Few areas with less competition: basal areas are higher. Delineate these areas for thinning. Stand is in a potential BSA, so treatments should be consistent with setting up the stand to resemble a natural pine stand or begin moving it in that direction.)
30	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	103.7	52	111-140	Age is from a mature white pine; WP sizes/ages are varied.
31	4311 - Pine, Aspen Mix	Poletimber Well	38.6	50	111-140	2017 BAs: 90, 140, 130, 70, 140, 130; mean 117.
32	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	23.6	103	111-140	Mean of 5 BAs in 2017 = 126.
34	4310 - Pine, Oak Mix	Sawtimber Poor	39.6	50	1-50	Stand swapped from non-forested to forested. In 2001 portions of this stand were treated under WLD FTP W-61-349 to set back woody encroachment. Stand was treated again in 2014.
35	42210 - Natural Red Pine	Sawtimber Well	53.4	118	111-140	2017 BAs: 130, 210, 120, 120, 100; mean 136. Small amounts of white oak, aspen. (2009 comments: Possible candidate for a larger old growth area. Stand somewhat similar to older red pine stands in Sand Lakes Area. Pathway runs through stand. Check planting records.)
36	4130 - Aspen	Poletimber Well	35.9	34		



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
39	4122 - Oak, Pine	Sawtimber Well	202.9	101	111-140	2017 BA mean 115 from 13 plots.
40	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	17.1	78	141-170	2017 BAs: 140,180, 170, 150, 130. ; mean 154
43	4310 - Pine, Oak Mix	Poletimber Well	45.5	58	81-110	2017 BAs: 100, 60, 80, 150, 60, 120, 90; mean 94. (2009 comments: Aspen was cut in 1983, age of planted red pine 54, red pine is only plantation species, and it is for the most part suppressed and not likely to respond to release.)
44	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	81.6	60	111-140	Interplanted with red pine at 500 trees/acre in 1957. Stand is a combination of planted red pine and natural white pine with a significant deciduous component. 2017 BAs: 80, 170, 170, 170, 90, 90, 150, 190; mean 139. Scattered white oak and beech, and a few veteran oak and white pine.
45	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	38.7	101	111-140	2017 BAs: 150, 110, 140, 150; mean 137. Shore to Shore Trail and Lost Lake Pathway cross the stand.
46	42290 - Natural Mixed Pine	Sawtimber Medium	10.0	89	141-170	2017 BAs: 130, 160, 140, 140; mean 142. (2009 comments: East half of stand occupies a small depression or frost pocket previously typed as upland brush. This area is now dominated by white pine regeneration. Age is from oldest seed trees located in the western part of the stand. Stand is multi-aged.)
47	4123 - Red Oak	Poletimber Well	20.8	49	111-140	BAs: 90, 120, 110, 130; mean 112.
48	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	57.6	64	111-140	BAs: 80, 110, 130, 130, 110; mean 112. Small amount of white oak.
49	4131 - Aspen, Oak	Poletimber Well	13.4	52	81-110	OI age 99 from a white pine.
51	42200 - Natural White Pine	Sawtimber Well	15.9	107	201+	Old OI comments: "manage for old growth".
52	4124 - Red with White Oak	Sawtimber Well	74.2	93	111-140	2017 BAs: 60, 140, 190, 110, 100, 110; mean 118. Small amount of red pine present. (2009 comments: Southern portion of original stand was harvested under t-sale contract 012-11-01. Older oak, oak wilt concerns, possible selection cut to release healthy oaks and white pine sub canopy. Winter cut only.)
54	42200 - Natural White Pine	Sawtimber Well	99.8	64	111-140	2017 BAs: 130, 50, 190, 80, 130, 210, 60, 100, 120; mean 119. Trace amounts of JP, QA. Scattered older remnant oaks and white pines Lost Lost Lake Pathway and Shore to Shore Trail traverse the stand. Age is from a 14" dominant WP; there are some older WP (94 yrs. from previous inventory). WP appears to be all-aged.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
55	6123 - Lowland Fir	Sapling Well	5.5	35	Unspecified	Stand is replacing itself. There are a few scattered remnant/overstory trees and some poletimber (cedar, tamarack) around the edges, but understory fir and cedar are now the dominant cover. Dense conifer saplings. Scattered white pine log-sized trees. Age is from a rough whorl count on an advanced BF sapling.
56	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	1.8	103	81-110	island in Lake Dubonnet
57	4133 - Aspen, Mixed Pine	Poletimber Well	14.7	32	81-110	Scattered old remnant oak and white pine.
58	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	2.0	107	111-140	Stand age from similar type stand.
59	4130 - Aspen	Sapling Well	3.2	25		
60	6124 - Lowland Spruce-Fir	Poletimber Poor	21.3	60		
61	4130 - Aspen	Poletimber Well	33.7	49		
63	4112 - Maple, Beech, Cherry Association	Poletimber Well	35.2	80	81-110	Scattered low, wet spots. (2007 comments: OI indicates two age classes, formerly 4 stands. M3 from 1968 (41) and M6 from 1937 (72)).
64	4199 - Other Mixed Upland Deciduous	Sawtimber Well	2.0	103	81-110	island in Lake Dubonnet
65	4199 - Other Mixed Upland Deciduous	Sawtimber Well	1.9	103	81-110	island in Lake Dubonnet
66	4130 - Aspen	Poletimber Well	17.9	49		
67	4121 - Oak, Aspen	Sawtimber Well	67.5	101	81-110	2017 BAs: 110, 110, 70,110, 160,110; mean 112. Scattered red pine, paper birch, beech, and hemlock.
69	4112 - Maple, Beech, Cherry Association	Sawtimber Well	9.4	80	81-110	
70	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Poor	1.1	63	1-50	island in Lake Dubonnet
71	4130 - Aspen	Poletimber Well	11.7	49		OI age 115 from cedar
72	4310 - Pine, Oak Mix	Poletimber Well	69.1	62	141-170	2017 BAs: 160,110, 170,120, 160, 190, 90, 230, 220; mean 164. Nice species mix. Aspen has a patchy distribution. Stand is "natural", but the red pine is planted. (2009 comments: Red pine is planted. Manage stand on longer rotation because of recreational considerations.)



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
73	6121 - Tamarack	Poletimber Medium	1.6	60	Unspecified	(2007 comment: I believe this is the former "floating island" that stopped floating several years ago.)
75	6123 - Lowland Fir	Sapling Well	7.9	32		Numerous snags; stand is being replaced by understory.
76	4124 - Red with White Oak	Sawtimber Well	132.2	97	81-110	2017 BAs: 110, 110, 100, 50, 140, 130, 80; mean 103. Some planted pole-sized pines in the NW part of the stand. Scattered beech, red pine, paper birch. Stand includes some oak wilt treatment cut patches. Stand includes Lake Dubonnet State Forest Campground.
79	42210 - Natural Red Pine	Poletimber Poor	5.3	24	51-80	Small patches of log-sized planted red pine over multi-aged pine volunteers. Compartment file notes indicate that this stand was a red pine plantation that burned, and then was planted to hybrid aspen. Some of the existing aspen may have originated from the hybrid planting.
80	4112 - Maple, Beech, Cherry Association	Sapling Poor	2.4	4	1-50	oak wilt treatment patch
81	4131 - Aspen, Oak	Poletimber Well	38.8	25		Remnant red oak over aspen regeneration. Old RR grades cross through the stand. There is an old concrete slab in the northeast part of the stand.
82	4123 - Red Oak	Sawtimber Well	113.6	100	81-110	(2007 comments: White pine sub-canopy is medium density overall, but there is an area of full stocking in the south/southwest part of stand.) 2017 BA mean 108 from 6 plots. Scattered clones of aspen, various sizes and ages. Some of the pines look fairly old.
83	4131 - Aspen, Oak	Sawtimber Well	68.9	70		May be some variation in age of aspen; appears younger at the north end, older at the south end. Part of the south end could be managed for pine/oak. Scattered patches of planted red pine.
84	42110 - Planted Red Pine	Sawtimber Well	6.7	62	111-140	Inventory data is from 5/8/14. Stand was thinned in fall of 2013 under tsale contract 101-11-01 by Bisballe FP. -PC (2009 comments: Stand row thinned in 2003. Row spacing is narrow. Will need to take equipment access into consideration when marking stand. Remove poor quality and suppressed trees and reduce basal area to around 120.)
85	4133 - Aspen, Mixed Pine	Sawtimber Well	11.4	88	81-110	Aspen and birch are old and dying out. Stand is succeeding to white pine. Trace amounts of red pine, cedar, and hemlock. Patch of aspen regeneration near east edge of the stand.
86	4131 - Aspen, Oak	Sawtimber Well	83.6	62	Unspecified	
87	4310 - Pine, Oak Mix	Sawtimber Medium	0.9	70	81-110	lots of standing dead red oak
88	4121 - Oak, Aspen	Sawtimber Well	12.1	97	81-110	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
89	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	13.9	73	141-170	Lost Lake Pathway and road to Dubonnet Campground run through the stand. 2017 BAs: 130, 110, 200; mean 147.
90	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	3.3	67	171-200	Lost Lake Pathway nearby. Manage on a longer rotation with less frequent treatments than typical red pine plantation. 2017 BAs: 130, 170, 160, 240; mean 175.
91	42140 - Planted Mixed Pine	Poletimber Well	42.3	24	1-50	Most of the red oak is in a retention patch in the south-central part of the stand. Q. aspen is mostly on the north end.
94	4131 - Aspen, Oak	Sawtimber Well	30.5	51	81-110	2017 BAs: 90, 60, 160, 130; mean 110. (2009 comments: Property cards indicate timber cutting records from 1966. Two aged stand. Stand is a mix of pole sized aspen and log sized red oak. Aspen appears to be several different age classes. There is a small pockets of log size red pine on west edge of stand and an older clone of bigtooth aspen.)
95	4129 - Mixed Oak	Sawtimber Well	19.0	93	81-110	Pole-sized patch of planted white pine in the northeast part of the stand. Aspen is declining.
96	4311 - Pine, Aspen Mix	Poletimber Well	33.5	50	51-80	2-aged stand: remnant oak and white pine over regenerating aspen. Pine age is from a small log-sized tree, WP age varies considerably.
99	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	12.4	93	Unspecified	
100	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	1.1	118	81-110	Island in Cedar Hedge Lake.
102	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	1.0	118	111-140	Island in Cedar Hedge Lake.
103	42200 - Natural White Pine	Poletimber Well	1.5	56	81-110	island in a bog
105	4131 - Aspen, Oak	Sawtimber Well	98.0	62	81-110	This stand is a mosaic of aspen patches interspersed with older pine, oak, and maple. Most of the canopy pines and many of the red maples and oaks are in the older age class.
109	4130 - Aspen	Poletimber Well	34.3	34		Small amounts of beech, white oak, and hemlock.
110	6127 - Lowland Pine	Poletimber Poor	5.2	36	1-50	Open water area along north edge.
111	4124 - Red with White Oak	Sawtimber Well	122.9	107	111-140	2017 BAs: 140, 70, 120, 120, 100, 140; mean 115.
113	4130 - Aspen	Poletimber Well	3.3	48		



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## Traverse City Mgt. Unit

## Report 7 – Forested Stands

Compartment: 61  
Year of Entry: 2019

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
116	4113 - R.Maple, Conifer	Sawtimber Well	3.9	115	141-170	Stream runs through the stand. Small amount of white oak, paper birch.
117	6127 - Lowland Pine	Sawtimber Poor	5.5	65	1-50	
119	4139 - Aspen, Mixed Deciduous	Poletimber Well	3.9	63	Unspecified	
120	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Medium	6.1	101	111-140	
121	4119 - Mixed Northern Hardwoods	Sawtimber Well	6.8	93	81-110	Surrounded by wetlands. Scattered beech.
122	4131 - Aspen, Oak	Poletimber Well	7.6	34	Immature	There is an area of retention in the southeast part of stand on a slope: large bigtooth aspen, approximately 1-2 acres.
124	6132 - Mixed Lowland Forest with Cedar	Poletimber Medium	45.1	109		Stand is a lowland area around Ellis Lake. Small creeks draining into the lake flow through the stand. The Shore-to-Shore Trail passes through the stand. Includes Ellis Lake boat access. Large areas with standing dead timber.
125	6132 - Mixed Lowland Forest with Cedar	Poletimber Poor	31.4	134	81-110	Small amount of cedar regen. Lots of blowdown. Lots of standing dead black ash. Scattered black spruce.
126	42100 - Planted White Pine	Sawtimber Well	1.3	64	201+	2017 BAs: 190, 230, 170; mean 197. Some mortality. No understory.
128	42110 - Planted Red Pine	Poletimber Well	1.4	62	201+	2017 BA = 400. No understory.
130	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	3.9	103	111-140	Bass Lake Access site managed by Parks & Recreation Division.
131	4310 - Pine, Oak Mix	Poletimber Poor	7.5	48	1-50	8 acres that was treated to remove red oak due to oak wilt, area was also plowed with a vibratory plow around the perimeter to try and stop the spread of the disease, contract # 61-002-09-02. Within Lake Dubonnet State Forest Campground.
132	4126 - White, Black, N. Pin Oak	Sawtimber Medium	14.0	93	51-80	Lake Dubonnet Trail Camp occupies this stand. Red oak was removed from stand by commercial timber sale, contract #61-002-09-01, to help control the spread of oak wilt.
133	4133 - Aspen, Mixed Pine	Sapling Medium	27.1	5	1-50	Stand was harvested under tsale contract 011-11-01 in Winter of 2012-2013 by Rothig Forest Products. A combination of white and red pine along with some oak were marked w/ green paint to be left as residual following harvest. This is reflected in the canopy species data. -PC, 2/7/2013.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
134	4130 - Aspen	Sapling Medium	18.2	4		Stand was clearcut in Jan.-Feb. 2013. Scattered residual oaks, pines, and red maple were left standing throughout the sale area. Numerous downed trees were left for woody debris/drumming logs.
135	4130 - Aspen	Sapling Poor	18.0	4	1-50	Stand was clearcut 12/2012, with scattered residual white pine and red oak, plus a few red pine, beech, and red maple.
136	4126 - White, Black, N. Pin Oak	Sawtimber Medium	34.7	93	51-80	Following harvest, stand density/canopy closure ranges from 50-75% with some areas less and some greater. Portion of original stand was harvested under t-sale contract 012-11-01. (Stand data/comments are from a post-sale update by Cotant, 2/11/14.)
137	42110 - Planted Red Pine	Poletimber Well	16.3	60	111-140	Stand was thinned in fall of 2013 under tsale contract 101-11-01 by Bisballe FP. All aspen was removed as well. -PC
138	4124 - Red with White Oak	Sawtimber Medium	99.2	107	51-80	Shelterwood cut 2014. Some spots cut heavier to remove red oak within vibratory-plowed oak wilt treatment patches.
141	4113 - R.Maple, Conifer	Poletimber Medium	7.8	50	51-80	This is part of a former JP strip plantation where the JP was not as dense. This area has some open patches where the JP was removed. Mixed ages/sizes of hardwoods.
142	4130 - Aspen	Poletimber Well	4.1	40	Unspecified	
143	4123 - Red Oak	Sawtimber Well	31.6	107	111-140	2017 BAs: 90, 170, 160, 60, 90, 80, 140; mean 113. Scattered red pine, beech, paper birch, and cherry.
144	4130 - Aspen	Sapling Medium	9.3	4		Stand was harvested in fall of 2013 under tsale contract 101-11-01 by Bisballe FP. -PC



Stand	Cover Type	Acres	Managed Site	General Comments:
4	500 - Water	1.9	No	
6	500 - Water	1.2	No	
10	6239 - Mixed Emergent Wetland	19.6	No	patches of standing dead cedar
11	3303 - Mixed Low Density Trees	18.0		Shelterwood cut fall 2014. Scattered individuals/clumps of mature trees retained. Heavy slash. [2009 comments:Reduce oak ba to 40-50 to release established WP.]
13	6225 - Bog	2.0	No	
21	6225 - Bog	25.5	No	North Lost Lake Bog. Bands of tamarack , white pine, black spruce.
22	310 - Herbaceous Openland	2.3	No	power line corridor
24	6225 - Bog	0.8	No	
26	3303 - Mixed Low Density Trees	46.6		Stand was cut under tsale contract 610711101 by Potlatch FP. Was formerly a JP strip plantation. Numerous JP snags remain, plus lots of slash. Slowly filling in; possibly lots of JP seedlings under the snow. Regeneration amount and species varies considerably from strip to strip, some reasonably well stocked, others with little apparent regeneration to date. Snags and slash variable as well, depending on when a particular strip was cut during the life of the timber sale (parts were cut after major storm damage & mortality).
33	6233 - Wet Meadow	1.3	No	Wet area in the middle of stand.
37	6225 - Bog	10.6	No	
38	500 - Water	7.7	No	Lost Lake
41	6225 - Bog	28.2	No	Lost Lake Bog
42	310 - Herbaceous Openland	27.1	No	
50	6225 - Bog	1.3	No	
53	6225 - Bog	4.7	No	
62	6220 - Alder/willow	15.6	No	Platte River and floodplain.



Stand	Cover Type	Acres	Managed Site	General Comments:
68	500 - Water	575.8	Yes	Lake Dubonnet. Areas of emergent aquatic vegetation, standing dead trees.
74	6239 - Mixed Emergent Wetland	23.9	No	
77	6224 - Treed Bog	5.0	No	
78	500 - Water	2.6	No	Christmas Tree Lake
92	6239 - Mixed Emergent Wetland	3.2	No	
93	500 - Water	1.3	No	
97	122 - Road/Parking Lot	1.0	No	Trailhead parking lot.
98	6230 - Cattail	2.0	No	powerline R.O.W
101	629 - Mixed non-forested wetland	8.2	No	Island in Cedar Hedge Lake. Not field visited. Unsure of pre-inventory call. Parts of stand may actually be upland open herbaceous.
104	6224 - Treed Bog	18.4	No	
106	6233 - Wet Meadow	1.3	No	
107	6225 - Bog	1.3	No	
108	6220 - Alder/willow	1.8	No	
112	500 - Water	2.3	No	
114	6239 - Mixed Emergent Wetland	40.3	No	Beaver flooding. Lots of standing dead timber.
115	3102 - Grass	1.4	No	Powerline R.O.W,
118	3303 - Mixed Low Density Trees	2.0	Yes	15-20 Planted caged trees. Most are dead or heavily browsed.
123	500 - Water	42.3	No	Ellis Lake



Stand	Cover Type	Acres	Managed Site	General Comments:
127	6239 - Mixed Emergent Wetland	0.7	No	
129	6239 - Mixed Emergent Wetland	2.0	No	
139	310 - Herbaceous Openland	1.8		Stand was clearcut in 2014, inventory updated 4/15.
140	3302 - Low Density Conifer Trees	3.6		Clearcut with residuals in 2014. Lots of slash and coarse woody debris. Stretch of 2-track through stand to flowage is muddy, rutted.