



# Compartment Review Presentation

## Traverse City Forest Management Unit

Compartment 61011

Entry Year: 2017

Acreage: 2,552

County: Benzie

Management Area: Benzie Outwash

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**Revision Date:** 2015-06-12

**Stand Examiner:** Tim Webb

**Legal Description:**

T27N R13W Sections 25-27, 34-36

**Identified Planning Goals:**

This compartment is in the Benzie Outwash management area (MA). The plan for this MA is to 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. Northern hardwoods management includes continued selective or regeneration harvesting of northern hardwoods to achieve an uneven age-class structure or improve timber quality. 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, especially emerald ash borer and beech bark disease.

The plan's call for increased efforts to balance age-classes of even-aged forest types has to be tempered in this compartment by the higher-than-average amount of recreation, significant interface with residential areas, and the continuing effort to manage much of the aspen acreage in a patchwork configuration for ruffed grouse habitat.

**Soil and topography:**

Upland areas are primarily Benona, Nessen-Kaleva, Shavenaugh, and Benzonia sands, with Houghton-Adrian muck in lowlands. The northwest part of the compartment, generally north of the Platte River and west of Lake Ann, is hilly landscape containing several small lakes. The area generally south of the Platte River and west of Lake Ann and Sanford Lake is on outwash plain and is flat to gently rolling with several wetlands. The remainder of the compartment is on pitted outwash plain and is flat to gently rolling. It includes Lake Ann, Sanford Lake, several other small lakes and associated swamps, pothole bogs, and portions of the Platte River valley.

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

Adjacent ownership is private to the north, mixed public/private to the south and west, and predominantly state land to the east. Residential subdivisions on Lake Ann and Sanford Lake abut state lands. Lake Ann is nearly surrounded by seasonal and permanent homes. Local residents appear to have maintained numerous unofficial foot paths on state lands. There is frequent dumping, particularly landscaping debris, along 2-tracks on state lands. The Ransom Lake Natural Area abuts the northeast part of the compartment.

**Unique Natural Features:**

The compartment contains a portion of the Platte River and numerous lakes. There are small patches of particularly old, large white pines scattered around the compartment.

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

None known.

**Special Management Designations or Considerations:**

Portions of sections 34, 35, and 26 are managed for ruffed grouse and other species requiring young deciduous habitat.

**Watershed and Fisheries Considerations:**

The Platte River and numerous lakes are found within this compartment. The Platte River is a designated trout stream with naturally reproducing populations of both brown trout and rainbow trout. Reasonable buffers (as outlined in Water Quality Management Practices on Forest Land) should be adhered to around all the lakes and ponds in this compartment. Existing buffers appear to be appropriate for the proposed treatments.

**Wildlife Habitat Considerations:**

On outwash plain within this compartment, sugar maple and aspen associations are dominant. There are also some forest

openings. Pitted outwash plain areas within this compartment harbor lowland mixed forests, aspen associations, and planted pine. The north half of section 27 consists of a broad till plain ridge. Northern hardwoods and aspen again dominate within this landscape in Compartment 11. A few small lakes, a wet meadow, and a pond are also present.

Wildlife considerations for northern hardwood stands involve maintaining tree species diversity, the protection of den/nesting trees & snags, coarse woody debris (CWD), and maintaining a scattering of mast-producing trees/shrubs. This will insure use by many species of wildlife. Examples of species found include ovenbird, gray fox, broad-winged hawk, wild turkey, and white-tailed deer. Ruffed grouse use different aged aspen throughout their life cycle. Younger stands provide cover while older stands provide buds and catkins (food source) for the winter months. Periodic clearcutting creates patches of different sizes and ages of aspen necessary for the full array of habitat conditions. The inclusion of CWD trees for drumming logs and maintaining berry-producing shrubs is also desirable. Woodcock prefer areas that are similar to grouse, but with a higher water table. The moist soils allow woodcock to forage. Openings are evaluated for wildlife value and may require hand-felling to maintain this habitat type. Many wildlife species rely on small forest openings. These openings provide grassy nest sites, plentiful seeds and insects, and cover. Examples of species include northern flicker, deer mouse, and garter snake. The lowland mixed forests provide a wintering ground for white-tailed deer. A small clearcut near these stands may provide a food source during winter. These forest types also provide good habitat for such species as barred owl, veery, black bear, and wood frog. Buffer zones should be used to protect bogs and wet meadows.

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

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Ellsworth Shale. The Ellsworth is used for cement products. A gravel pit is located two miles to the east and there may be potential. This area is located in an area of recent Antrim Shale leasing. The Compartment is mostly leased for oil and gas development and the Antrim Shale appears to have potential.

### **Vehicle Access:**

Access is fair to good throughout the compartment. Section 27 north of the river and west of Reynolds Road has only footpaths; a temporary access and stream crossing, approaching from compartment 10 to the west, may have to be constructed if timber harvesting occurs there. Access to much of section 35 is via a dirt road running west from Lake Ann Road. This road crosses the Platte River over a culvert and has had beaver problems in the past, but is currently stable. This road will need some blading and gravel if used for truck access. An illegal ATV access into the south end of section 35 from private land was blocked with slash during a past timber sale, but re-opened. A short access road in the northeast of section 34 has chronic dumping of landscape debris. The debris should be burned and the road closed at Reynolds Road. Timber stands in section 26 and the north part of section 35 are accessed via Maple Grove road, which is the entry to residential subdivisions on Sanford Lake and Lake Ann.

### **Survey Needs:**

Part of the fenced boundary between state and private lands in section 34 appears to be off. A survey request was submitted during the last planning period, but has yet to be completed. The property line between state land and a 5 acre private parcel in the northeast corner of section 27 is unclear and may need to be surveyed. Some corners of the SESE of section 35 may have to be set.

### **Recreational Facilities and Opportunities:**

There are numerous recreational opportunities within this compartment, including Lake Ann State Forest Campground, Lake Ann Pathway, Shore to Shore Riding & Hiking Trail, and the Lake Ann Boating Access site. There are also unimproved boating access sites on Mary's Lake, Sanford Lake, and Mud Lake. The access to Peanut Lake is badly eroded, and should be closed to vehicles. The YOE 1997 review of this compartment conceptually approved expansion of the Lake Ann Pathway to connect with the Lost Lake Pathway, however funding needed to bridge the Platte River was unsuccessful. At this time, the connector pathway remains conceptual. Undesignated footpaths associated with private residential areas are common in this compartment. Protection specifications for these recreational amenities should be included in the timber sale contracts. Specifically, appropriate measures identified in the DNR Policy & Procedures "32.22XX Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails" should be incorporated into timber sale contracts. Local PRD staff should work with local FRD staff to identify any hazard trees in the campground that could be included in any prescribed treatment. Guidance provided in the "Logging Operations & Horse Events on State Land" document should be followed for timber sales impacting the Shore to Shore Riding & Hiking Trail.

### **Fire Protection:**

This area is protected by the Platte River DNR field office (when staffed) as well as by Almira Township Fire and Rescue. Access is not a big problem in this area. Fuel types here are primarily hardwood, and while there are some homes in the private land/urban interface, it is not too much of a problem. Close proximity to both the local VFD as well as the Platte River Field Office provide rapid response.

### **Additional Compartment Information:**

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

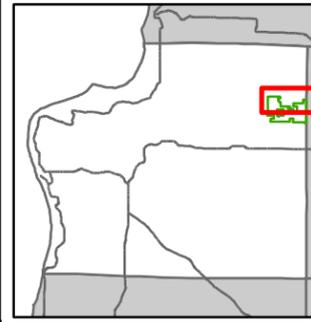
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

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



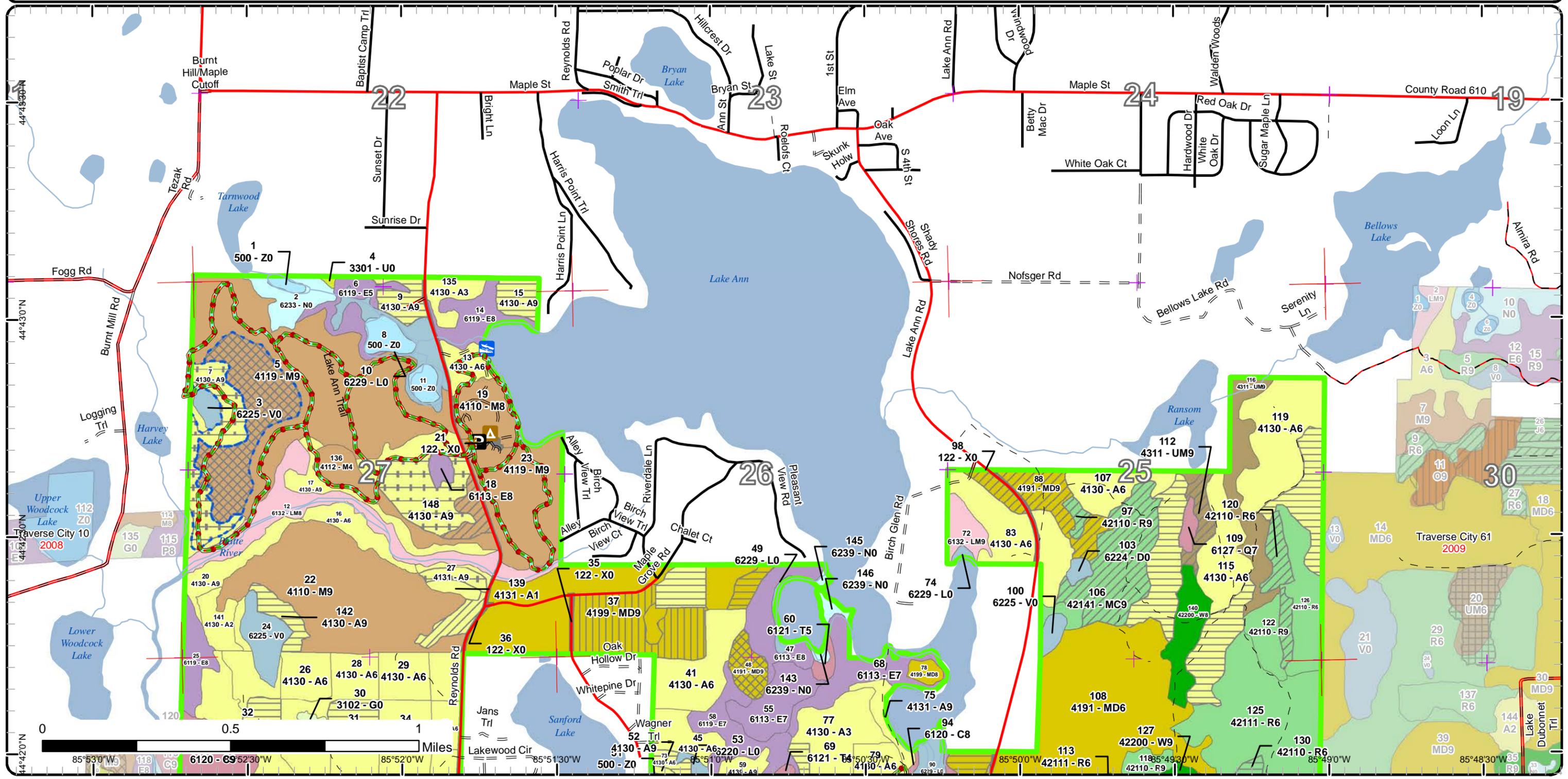
# Cover Type & Treatments



Compartment: 11  
 T27N,R13W Sec. 25-27,34-36  
 Benzie  
 Unit: Traverse City  
 Mgmt Area: Benzie Outwash  
 YOE: 2017  
 Acres: 2552 GIS Calculated  
 Examiner: Tim Webb  
 Map Revised: 6/26/2015  
 Map Phase: Pre-Review

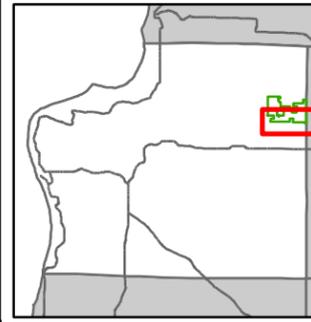


- ✚ Remonumented Section Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Designated Hiking Pathways
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- Boating Access Site
- Campground
- Parking Lot
- Trailhead
- Rivers
- Lakes
- Treatments with Site Conditions
- Treatments
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Havest, Overstory Removal
- Thinning (Crown, Low, Systematic)
- Shelter Wood (w/Reserves)
- Forest Covertype
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Fores
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Covertype
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

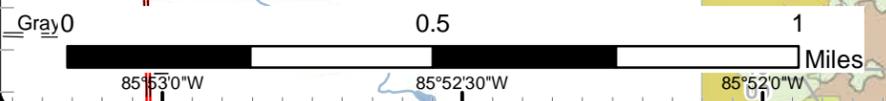
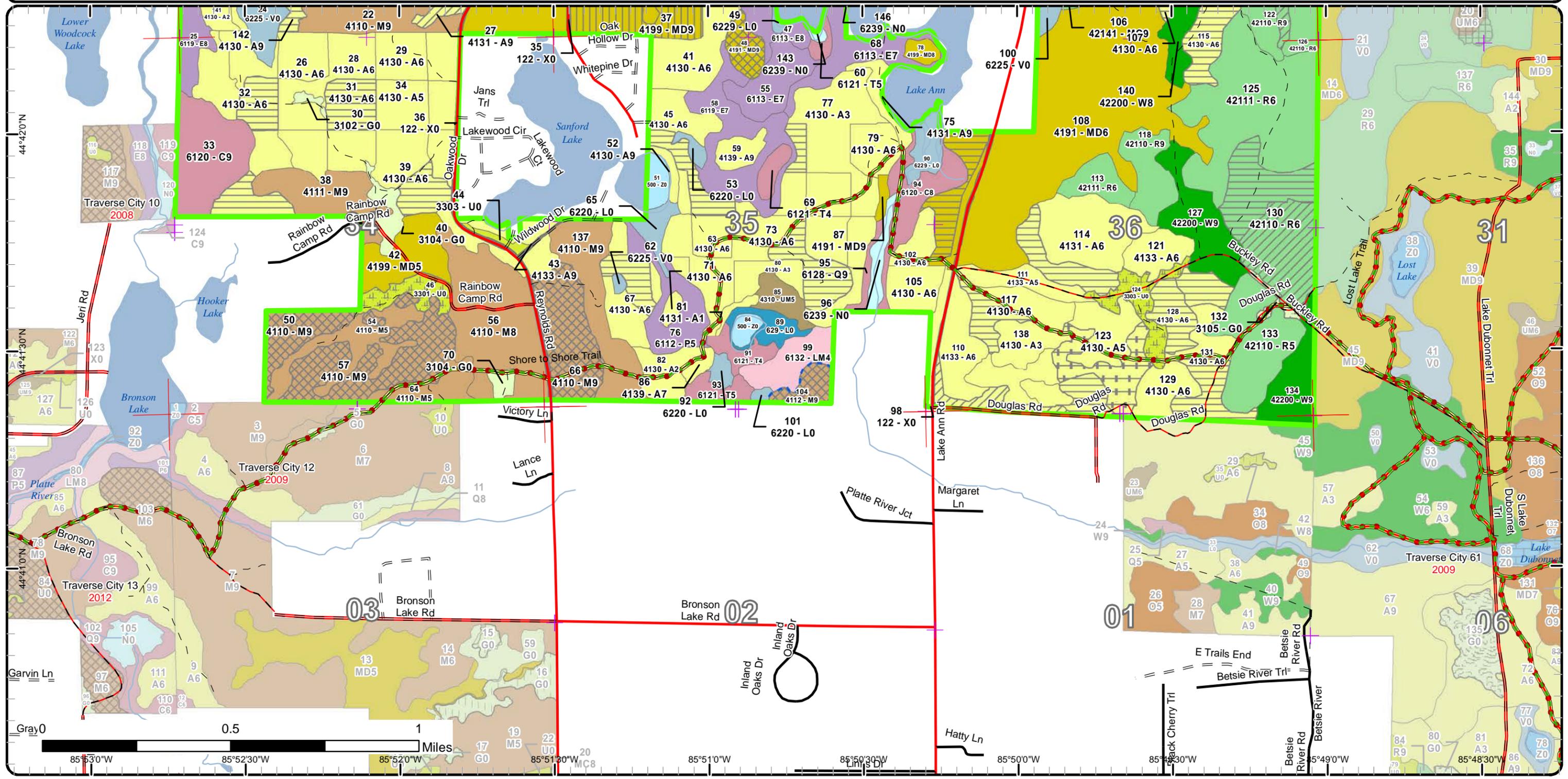


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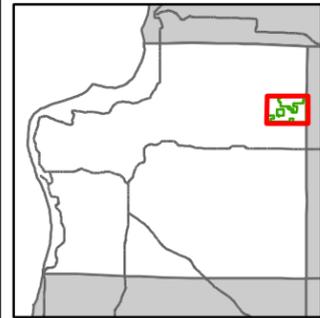
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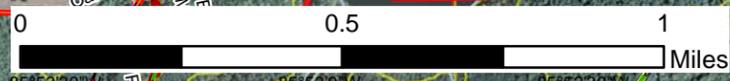
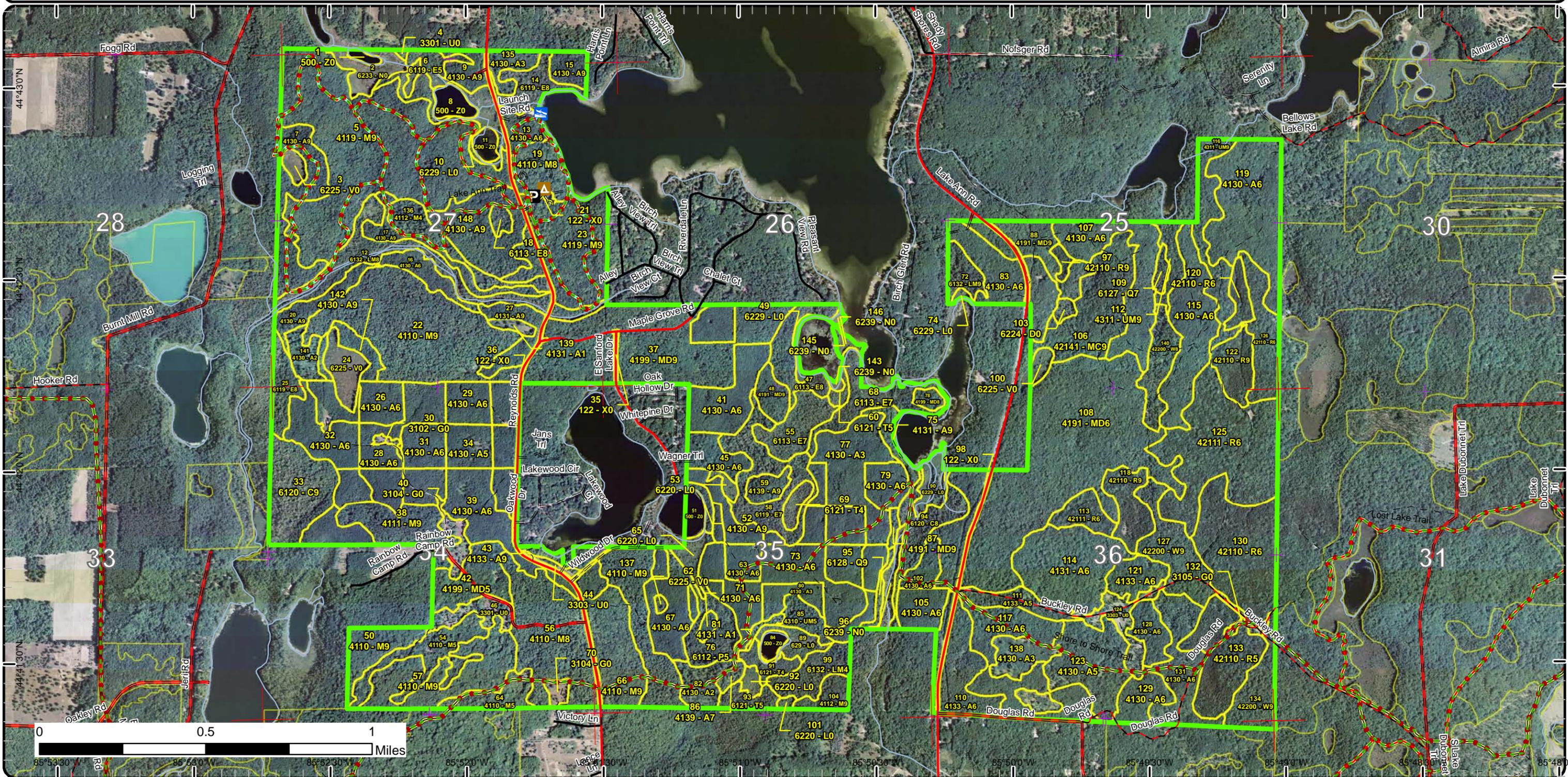
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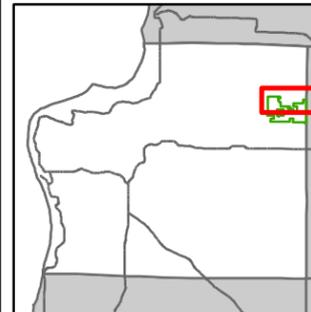
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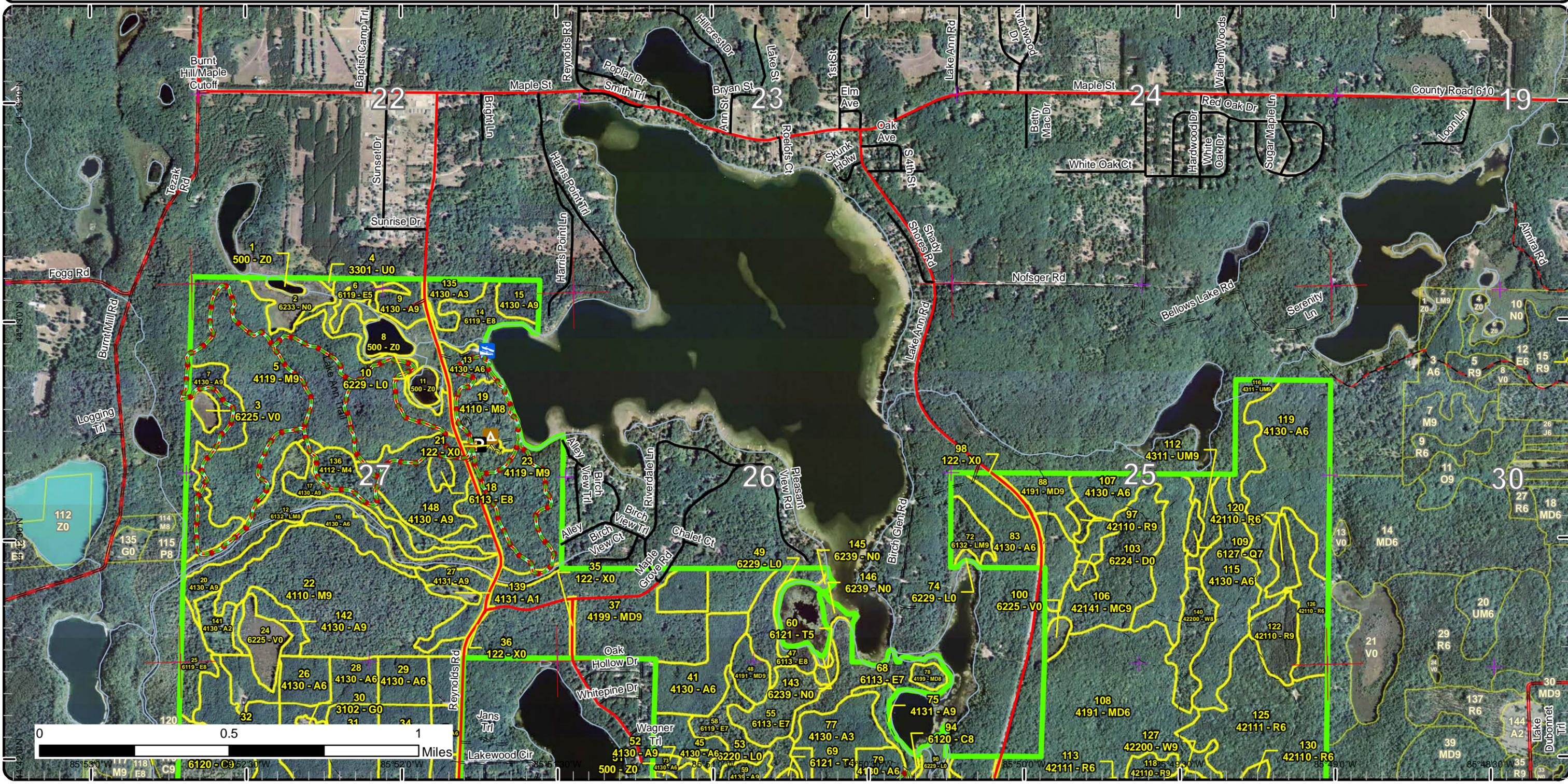
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# Stand Boundary Map

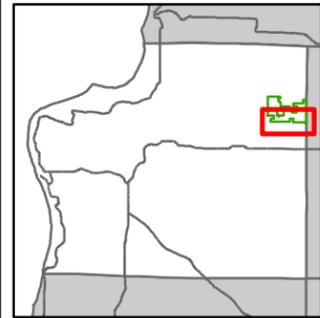
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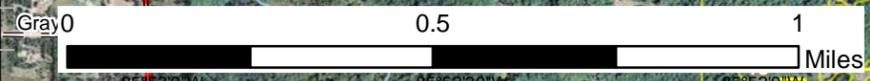
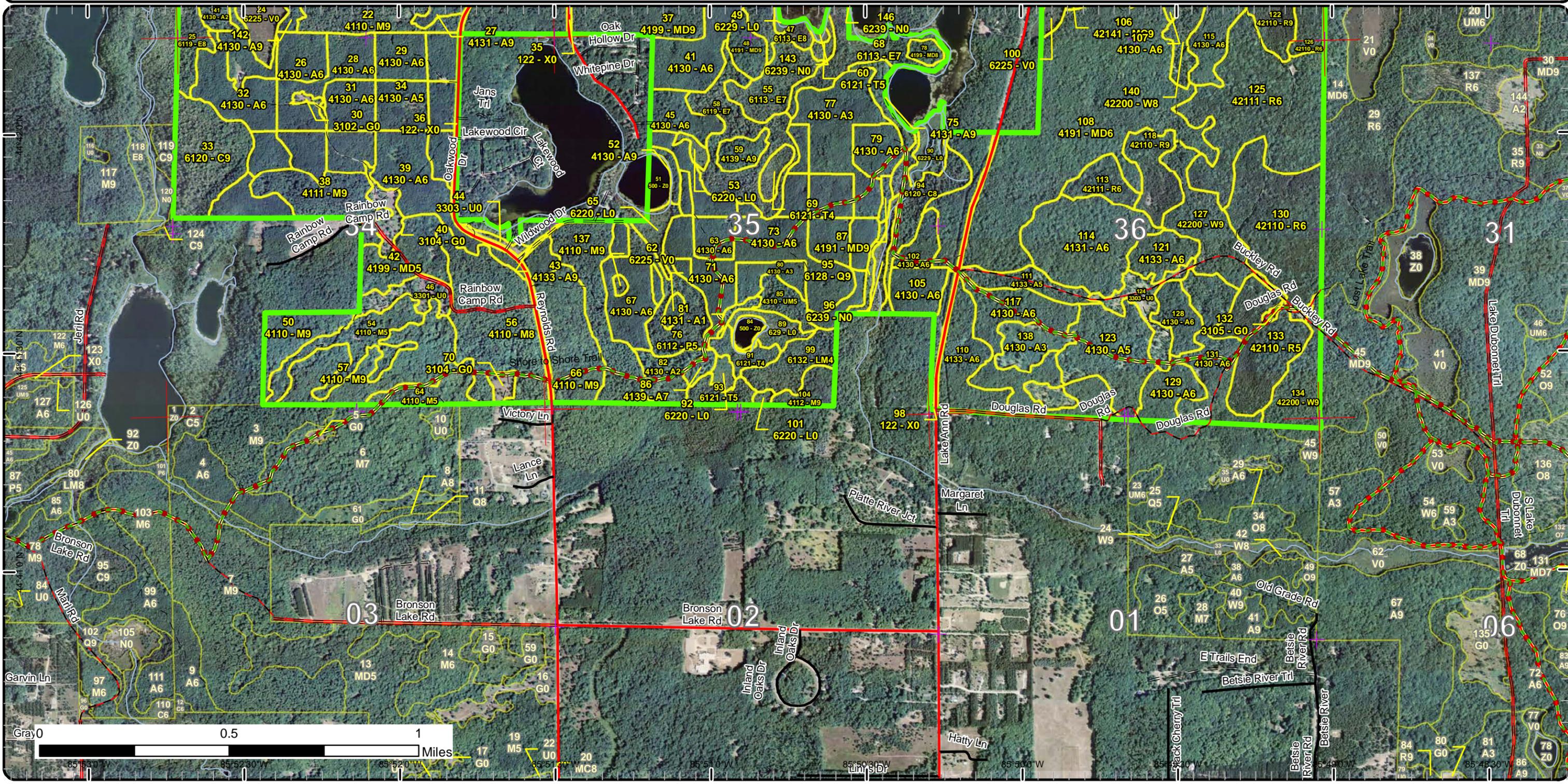


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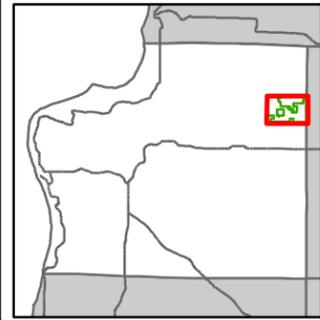
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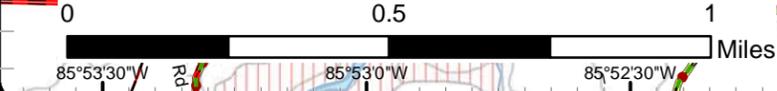
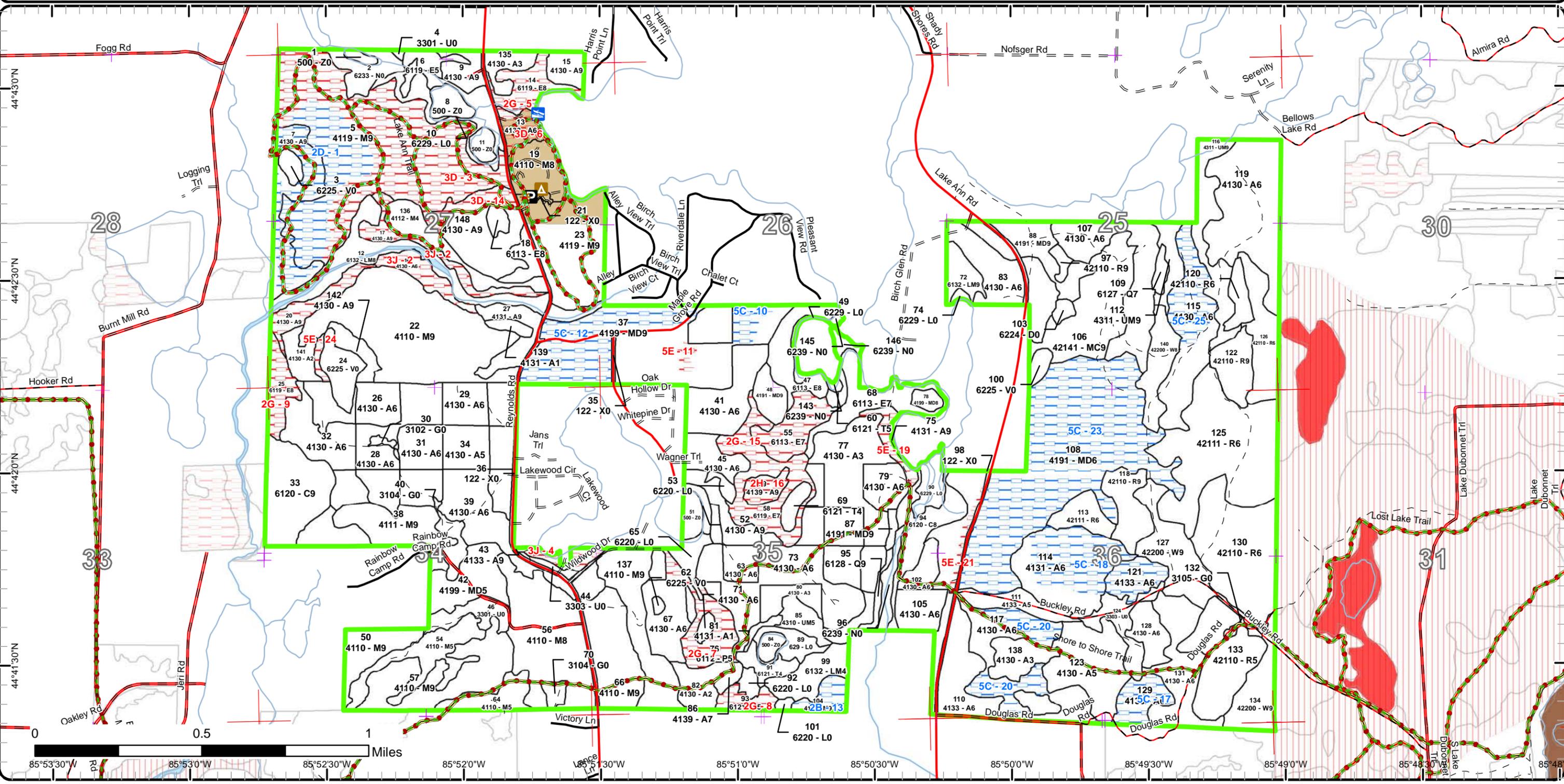


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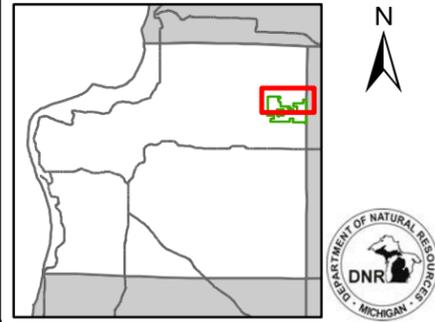
- Available Factors W/ Constraints
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  - 2D: Portable Bridge Needed (Dept. bridge will be adequate)
  - 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)

- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
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  - 3J: Water quality / BMPs (stream, river, or lake)
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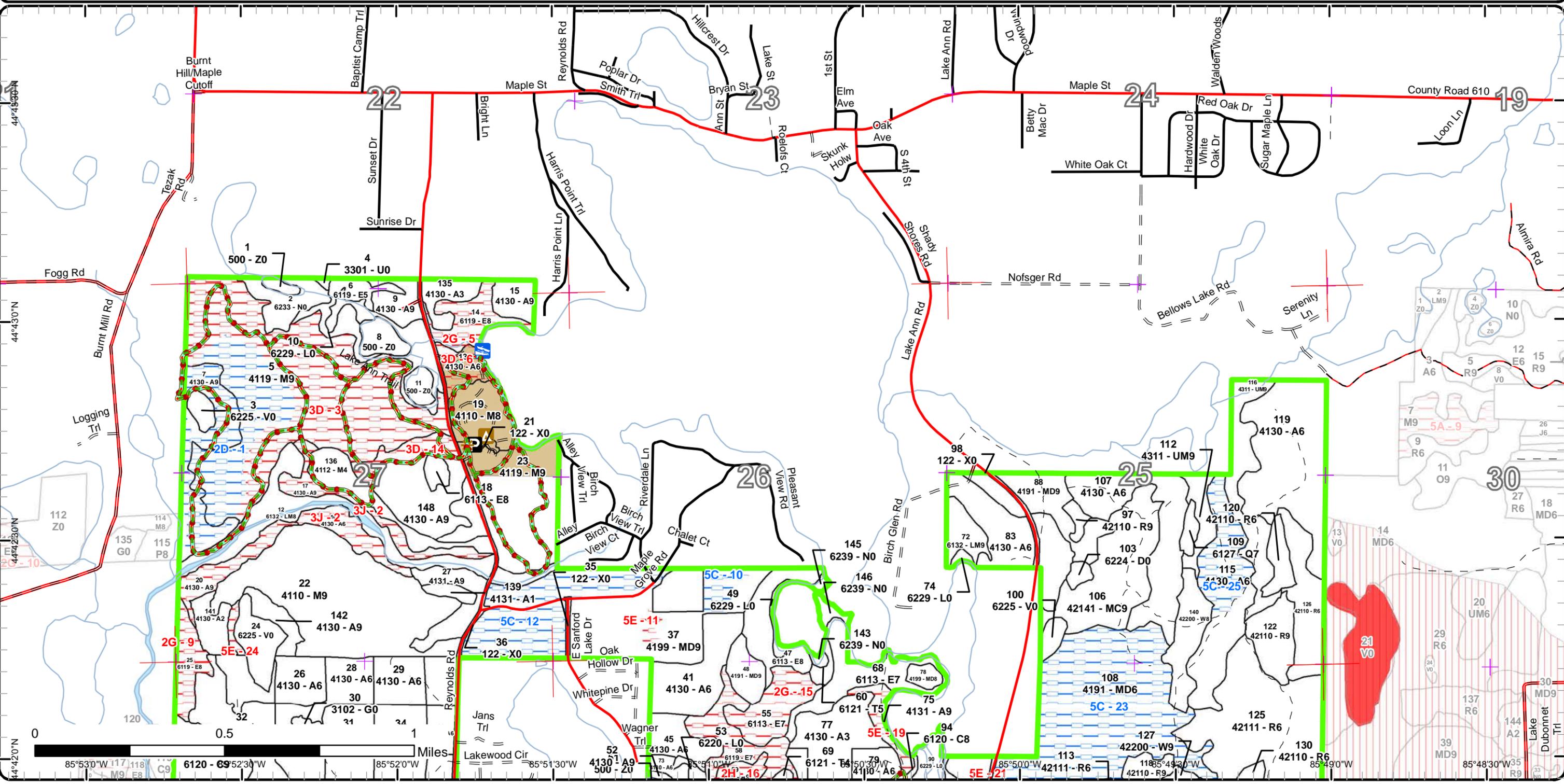
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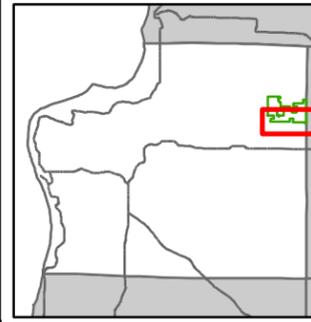
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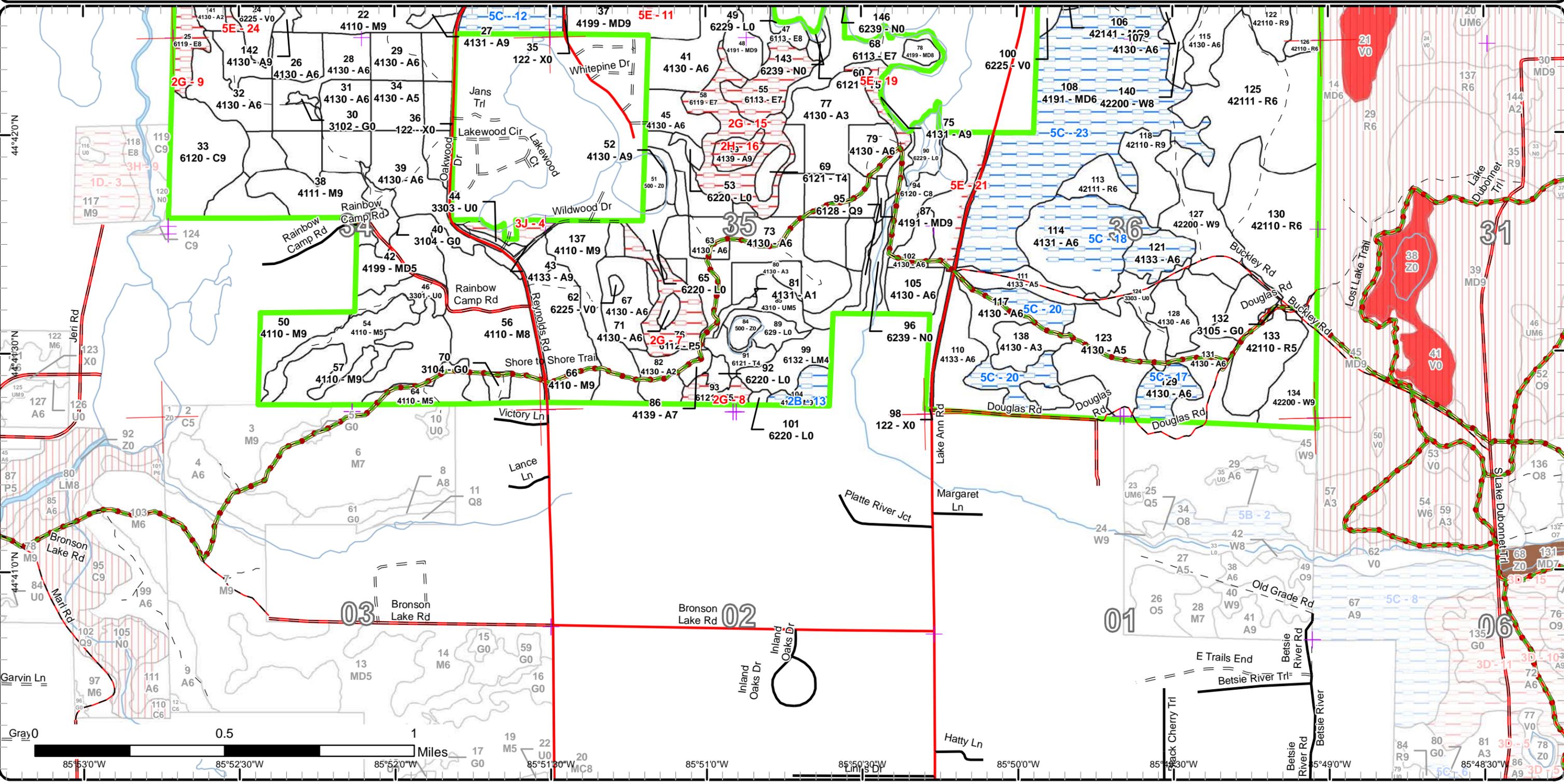


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Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	44	0	161	255	154	155	47	28	29	32	0	0	0	0	0	0	58	963
Bog	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0	18	49
Herbaceous Openland	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Low-Density Trees	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	18
Lowland Conifers	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	6
Lowland Deciduous	0	0	0	0	0	0	0	30	19	29	17	13	11	0	0	0	0	0	119
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	47	55
Lowland Shrub	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Marsh	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Mixed Upland Deciduous	0	0	0	0	0	0	0	3	0	0	28	89	0	0	0	0	0	168	288
Northern Hardwood	0	0	0	0	0	0	0	0	64	16	296	15	87	23	0	0	0	22	523
Planted Mixed Pines	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	37
Red Pine	0	0	0	0	0	0	217	0	0	0	0	0	0	0	0	0	0	0	217
Tamarack	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	6	18
Treed Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Upland Mixed Forest	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	21	37
Urban	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
White Pine	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	42	57
<b>Total</b>	<b>165</b>	<b>44</b>	<b>0</b>	<b>161</b>	<b>255</b>	<b>154</b>	<b>435</b>	<b>91</b>	<b>126</b>	<b>80</b>	<b>379</b>	<b>117</b>	<b>101</b>	<b>31</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>382</b>	<b>2552</b>



## Report 2 – Treatment Summary

Traverse City Mgt. Unit  
Year of Entry: 2017

Acres of Harvest

Compartment 11  
Total Compartment Acres: 2,552

Commercial Harvest - 0  
Harvests with Site Condition - 68  
Next Step Harvest - 0  
Habitat Cut - 33

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	214	0	0	0	14	65	0	0		293
Mixed Upland Deciduous	17	8	0	0	32	20	0	0		77
Northern Hardwood	0	127	0	0	6	0	0	0		133
Planted Mixed Pines	0	0	0	0	34	0	0	0		34
Red Pine	22	0	0	0	40	0	0	0		62
Upland Mixed Forest	0	0	0	0	7	0	0	0		7
<b>Total</b>	<b>254</b>	<b>135</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>121</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>605</b>

### Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	605	0	0	0	0	0	0	33		639
Next Step	0	22	22	0	0	507	0	0		551
<b>Total</b>	<b>605</b>	<b>22</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>507</b>	<b>0</b>	<b>33</b>		<b>1190</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
5	61011005-Cut	38.0	4119 - Mixed Northern Hardwoods	Sawtimber Well	90	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven-Aged	Proposal

**Habitat Cut: No**      **Site Condition: Portable Bridge Needed**

Prescription Mark for selection to a residual BA of about 90, focusing harvest on aspen, beech, and lower quality hardwoods. Retain any oak for mast, plus  
Specs: any underrepresented species if present (elm, yellow birch, etc.). Include specs to minimize disturbance to the pathway. Outer trail loop should be closed during harvest operations.

Next Step  
Treatments:

Acceptable Regen: Sugar maple, basswood, and cherry are preferred regeneration species in gaps, although ironwood may be dominant in the short term.

Other Comment: Access will most likely be from the west, including a temporary bridge across a stream. Old next step comments:

Proposed Start Date: 10/1 /2016

7	61011007-Cut	22.5	4130 - Aspen	Sawtimber Well	95	Unspecified	Harvest	Overstory Removal	4139 - Aspen, Mixed Deciduous	Two-Aged	Proposal
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**Habitat Cut: No**      **Site Condition: Portable Bridge Needed**

Prescription Remove beech and overmature aspen. Retain other species as much as possible, but mark any disfigured or hazard trees near the pathway.  
Specs: Include specs to protect the pathway surface. Close the outer trail loop during harvest operations. OK cutting and leveling of saplings as needed to facilitate aspen harvest. Specify post-harvest cleanup and felling of any damaged or hazardous trees near the pathway. Create CWD (1-2 downed trees/acre) away from the pathway.

Next Step  
Treatments:

Acceptable Regen: aspen sprouts in more open areas, plus some mixed hardwood seedlings

Other Comment: Streamside area in SW corner and steeper banks were left out of the proposed sale area. Access will most likely be from the west, including a temporary bridge across the stream. Specify a one-entry harvest of short duration during the least-conflicting time of year for recreation (likely fall). Old next step comments:

Proposed Start Date: 10/1 /2016

9	61011009-Cut	7.8	4130 - Aspen	Sawtimber Well	63	111-140	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Two-Aged	Proposal
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**Habitat Cut: No**      **Site Condition:**

Prescription Cut all aspen, red maple, and birch; cut WP less than 10" dbh. Leave all oak, WP > 10", plus some green-marked RM, WP, BTA if needed for  
Specs: aesthetics. Leave a fringe of mature trees along the wetland edges (via sale boundary placement).

Next Step  
Treatments:

Acceptable Regen: Result will be a two-aged stand, with older retained oak/pine over aspen regeneration in gaps, and likely some white pine and red maple regeneration as well.

Other Comment: Consider effects of cutting on neighboring private land. Old next step comments:

Proposed Start Date: 10/1 /2016

15	61011015-Cut	7.1	4130 - Aspen	Sawtimber Well	55	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**      **Site Condition:**

Prescription Cut all trees to a 2" min. diameter. Leave uncut island(s) and/or mark some scattered trees to retain; leave all oak. Create CWD (1-2 downed  
Specs: trees/acre).

Next Step  
Treatments:

Acceptable Regen: Cutting will likely result in fully stocked aspen regeneration. Some oak and mixed hardwood seedlings and sprouts are also possible and desirable.

Other Comment: May need a survey for east side. Only state access is from Reynolds Road, through stands 135 and 14; may need crane mats to cross north end of stand 14. Could possibly access via private land to north. Old next step comments:

Proposed Start Date: 10/1 /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
23	61011023-Cut	6.0	4119 - Mixed Northern Hardwoods	Sawtimber Well	73	81-110	Harvest	Low Thinning	4119 - Mixed Northern Hardwoods	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Thin part of stand west of road this YOY. Mark to a residual BA of 90.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

27	61011027-removal	3.9	4131 - Aspen, Oak	Sawtimber Well	80	141-170	Harvest	Overstory Removal	4139 - Aspen, Mixed Deciduous	Two-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Remove mature aspen from this part of stand 27, retaining all other species for partial shading near the Platte River. Create some CWD.

Specs:

Next Step

Treatments:

Acceptable aspen sprouts, and possibly some oak and mixed hardwoods

Regen:

Other Cut boundary should be to the top of the bluff, leaving the slope uncut. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

27	61011027-thin	5.9	4131 - Aspen, Oak	Sawtimber Well	80	141-170	Harvest	Low Thinning	4119 - Mixed Northern Hardwoods	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin to favor better oak and maple, taking out aspen, beech, and poorer quality oak and red maple. Residual BA of about 80. Create some

Specs: CWD.

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

30	61011030-NF	1.3	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3205 - Mixed Upland Shrub		Draft Proposal
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**Habitat Cut: Yes**

**Site Condition:**

Prescription Native fruiting shrubs were planted here during the last inventory cycle. Current treatment is to replant and/or maintain native shrubs as needed.

Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Next Step

Treatments:

Acceptable

Regen:

Other Non-forest treatments should be timed to occur after any nearby timber in case the opening is needed for a timber landing.

Comment: Old next step comments:

Proposed Start Date: 10/1 /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
31	61011031-Cut	11.2	4130 - Aspen	Poletimber Well	37	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Cut to 2" dbh. Leave oaks and 1-2 small retention islands, including a patch with more maple toward the NE corner. Create some CWD as possible (initial diameters are small, however).

Next Step  
Treatments:

Acceptable aspen; also possibly some oak and mixed hardwoods  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

32	61011032-Cut	9.6	4130 - Aspen	Poletimber Well	37	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all aspen and red maple, leave cherry, oak, and pine. Also leave a small mixed species retention island. Create some CWD as possible (initial diameters are small, however).

Next Step  
Treatments:

Acceptable aspen sprouts; also possibly some white pine and mixed hardwoods  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

32	61011032-Cutx	8.6	4130 - Aspen	Poletimber Well	37	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all aspen and red maple, leave any cherry, oak, and pine. Also leave a small mixed species retention island or two. Create some CWD as possible (initial diameters are small, however).

Next Step  
Treatments:

Acceptable aspen; also possibly some cherry, maple, and oak  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

37	61011037-Cut	4.1	4199 - Other Mixed Upland Deciduous	Sawtimber Well	102	111-140	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut to 2" dbh. Mark scattered trees/clumps of mixed species for retention (about 5% cover), including some oak for mast. Create 1-2 downed trees per acre for CWD.

Next Step  
Treatments:

Acceptable aspen sprouts; some mixed oak and hardwood regeneration is also desirable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016



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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
37 61011037-Cutx	31.8	4199 - Other Mixed Upland Deciduous	Sawtimber Well	102	111-140	Harvest	Shelterwood	4191 - Mixed Upland Deciduous with Conifer	Two-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Mark oak and mixed hardwoods to retain for shading and seed source; also leave all conifers. Cut most of the beech. Target BA of 40-60, Specs: heavier along roads. Eliminate advanced beech regeneration as much as possible during harvest operations. Create CWD (1-2 downed trees/acre).

Next Step  
Treatments:

Acceptable Regen: Preferred regeneration includes white pine seedlings and oak/mixed hardwood sprouts and seedlings. Less desirable beech may be dominant in the short term.

Other Comment: Denser hemlock patch was excluded from the sale area for long-term retention. Old next step comments:

Proposed Start Date: 10/1 /2016

39 61011039-Cut	8.6	4130 - Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all aspen and red maple; mark some oak and hardwoods for retention. Also leave a small mixed species retention island or two. Create Specs: some CWD as possible (initial diameters are small, however).

Next Step  
Treatments:

Acceptable Regen: aspen; also possibly some oak and mixed hardwoods

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

40 61011040-NF	6.8	3104 - Degraded	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3205 - Mixed Upland Shrub		Draft Proposal
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**Habitat Cut: Yes**

**Site Condition:**

Prescription Native fruiting shrubs were planted here during the last inventory cycle. Current treatment is to replant and/or maintain native shrubs as needed. Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Next Step  
Treatments:

Acceptable Regen:

Other Comment: Non-forest treatments should be timed to occur after any nearby timber in case the opening is needed for a timber landing. Old next step comments:

Proposed Start Date: 10/1 /2016

41 61011041-Cut	8.7	4130 - Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut to 2" dbh; retain oak/cherry poles, conifers, plus a small retention island near the middle. Create 1-2 downed trees per acre for CWD. Specs:

Next Step  
Treatments:

Acceptable Regen: aspen sprouts, plus some red maple stump sprouts and cherry seedlings

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /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
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46	61011046-NF	9.6	3301 - Low Density Deciduous Trees	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3205 - Mixed Upland Shrub		Proposal
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**Habitat Cut: Yes**

**Site Condition:**

Prescription Native fruiting shrubs were planted here during the last inventory cycle. Current treatment is to replant and/or maintain native shrubs as needed.  
Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Next Step  
Treatments:

Acceptable  
Regen:

Other Non-forest treatments should be timed to occur after any nearby timber in case the opening is needed for a timber landing.  
Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

48	61011048-Cut	7.9	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	98	141- 170	Harvest	Single Tree Selection	4113 - R.Maple, Conifer	Uneven- Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Remove most of the aspen and oak, and some of the red maple and white pine, moving the stand toward a RM/WP climax. Mark to a residual  
Specs: BA of about 90-100.

Next Step  
Treatments:

Acceptable Mixed hardwood and pine/hemlock regen is desirable in gaps. Some aspen may also sprout in larger gaps.  
Regen:

Other Probably include this stand in with a cut in nearby stand 41. Set up a forwarding trail through adjacent uncut stands. Short-wood harvest only.  
Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

50	61011050-Cut	14.5	4110 - Sugar Maple Association	Sawtimber Well	105	141- 170	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven- Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark for selection to a residual BA of about 90. Create some CWD. Focus on removing beech, poor quality basswood, and multi-stemmed  
Specs: maple.

Next Step  
Treatments:

Acceptable Mixed hardwood regeneration in regen gaps is desired; less desirable beech and ironwood may dominate in the short term over more desirable  
Regen: maple and basswood.

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

57	61011057-Cut	38.2	4110 - Sugar Maple Association	Sawtimber Well	117	111- 140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven- Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark for selection to a residual BA of 90. Focus cutting on beech, multi-stemmed maple. Create some CWD. Include specs to protect the  
Specs: pathway surface and to avoid conflicts with users.

Next Step  
Treatments:

Acceptable Mixed hardwood regeneration in regen gaps is desired; less desirable beech and ironwood may dominate in the short term over more desirable  
Regen: maple and basswood.

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
66	61011066-Cut	28.7	4110 - Sugar Maple Association	Sawtimber Well	90	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven-Aged	Proposal

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

Prescription Select cut to 90 BA. Hit beech and aspen hard (but leave some for wildlife), plus low quality maple and some basswood. Create some CWD.  
Specs: Mark less along pathway. Include specs to protect the pathway surface and reduce conflicts with users.

Next Step  
Treatments:

Acceptable Regen: Mixed hardwood regeneration is desirable in gaps. Beech and ironwood are less desirable than maple and basswood, but may dominate in the short term.

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

67	61011067-Cut	8.1	4130 - Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut all trees to 2" dbh. Retain any conifers or oaks, and a couple small islands, including one along the bog edge. Create 1-2 downed trees per acre for CWD.  
Specs:

Next Step  
Treatments:

Acceptable Regen: predominantly aspen, also some red maple stump sprouts

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

73	61011073-Cut	3.4	4130 - Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut to 2" dbh; retain any oak and some scattered white pine and aspen. Create 1-2 downed trees per acre for CWD.  
Specs:

Next Step  
Treatments:

Acceptable Regen: aspen sprouts, some white pine seedlings

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

73	61011073-Cutx	13.8	4130 - Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut to 2" dbh; retain some scattered oak and pine, plus a retention island in each lobe of the sale area. Include specs to protect the rec. trail and to avoid trail user conflicts. Create 1-2 downed trees per acre for CWD.  
Specs:

Next Step  
Treatments:

Acceptable Regen: aspen sprouts, plus some white pine seedlings and red maple stump sprouts

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /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
73	61011073-Cutxx	10.0	4130 - Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Cut to 2" dbh. Retain a few scattered uncut islands, plus any oak or conifer. Retain longer-lived species, if any, along the property line. Create 1-2 downed trees per acre for CWD.

Next Step  
Treatments:

Acceptable aspen, plus some red maple stump sprouts  
Regen:

Other May need crane mats to cross a low area toward the NW end of the sale area. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

88	61011088-Cut	20.2	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	98	111-140	Harvest	Low Thinning	4122 - Oak, Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark for thinning, focusing on taking all the beech, much of the aspen, and lower quality oak and pine. Target BA of 90-100. Leave most larger trees along the road for aesthetics.

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

97	61011097-Cut	2.4	42110 - Planted Red Pine	Sawtimber Well	58	141-170	Harvest	Low Thinning	42110 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Mark for thinning down to a residual BA of 110-120.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

104	61011104-Cut	7.2	4112 - Maple, Beech, Cherry Association	Sawtimber Well	97	141-170	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Uneven-Aged	Proposal
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**Habitat Cut: No**

**Site Condition: Unknown Access**

Prescription Mark for selection harvest with a residual BA of 90. Create some CWD.  
Specs:

Next Step  
Treatments:

Acceptable mixed hardwood and white pine; less desirable beech may dominate initially  
Regen:

Other Would need private access from the south. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /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
106	61011106-Cut	33.9	42141 - Planted Mixed Pine, Mixed Deciduous	Sawtimber Well	58	141- 170	Harvest	Low Thinning	42140 - Planted Mixed Pine	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Do a marked thinning for better spacing/quality on pine and take out much of the aspen, moving to a mixed pine stand. Target BA 110-120.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

107	61011107-Cut	20.6	4130 - Aspen	Poletimber Well	41	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees to 2" dbh, except leave all oak and red pine, some scattered older white pine, and a couple small retention islands. Create 1-2  
Specs: downed trees per acre for CWD.

Next Step  
Treatments:

Acceptable Stand should regenerate well with aspen sprouts. Some pine, oak, and red maple regeneration would also be acceptable in the mix.  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

108	61011108-Cut	13.0	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	53	111- 140	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees to a 2" dbh. Retention patch is south of the south end of the sale area to preserve cover by the rec. trail. Strip between paved road  
Specs: and powerline will not be cut. Also retain some mixed species trees along the swamp edge, either by marking residuals or excluding them by sale border placement. Also mark a few scattered oak and pine to retain. Create 1-2 downed trees per acre for CWD.

Next Step  
Treatments:

Acceptable Site should regenerate well with aspen sprouts. Some oak, red maple and pine regeneration is desirable along with the expected aspen.  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

110	61011110-Cut	8.1	4133 - Aspen, Mixed Pine	Poletimber Well	48	81-110	Harvest	Low Thinning	42201 - Natural White Pine, Mixed Deciduous	Uneven- Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Remove most of the aspen; thin other species. Reduce BA to about 80-90 (although this may vary depending on aspen density, etc.)  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Goal is to manage this roadside area with long-lived species, improving the aesthetics and creating a pleasant foreground for potential future cuts  
Comment: behind this strip away from the roads. Treatment includes parts of both stand 110 and 117. Old next step comments:

Proposed Start Date: 10/1 /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
112	61011112-Cut	6.8	4311 - Pine, Aspen Mix	Sawtimber Well	65	111-140	Harvest	Crown Thinning	42201 - Natural White Pine, Mixed Deciduous	Even-Aged	Proposal

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

Prescription Remove most of the aspen and thin other species to favor WP, RP, oak residuals. Target residual BA about 100.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other                      Old next step comments:

Comment:

Proposed Start Date:    10/1 /2016

114	61011114-Cut	12.4	4131 - Aspen, Oak	Poletimber Well	50	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut all trees >2" dbh. Retain scattered individuals or clumps of primarily oak and pine. Create 1-2 downed trees per acre for CWD.

Specs:

Next Step  
Treatments:

Acceptable Stand should regenerate well with aspen sprouts. Some oak, pine, and red maple sprouts and seedlings would also be acceptable along with the aspen.  
Regen:

Other                      Old next step comments:

Comment:

Proposed Start Date:    10/1 /2016

115	61011115-Cut	16.2	4130 - Aspen	Poletimber Well	50	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut to 2" dbh, with a couple of small retention islands and some scattered residual oak and pine. Create 1-2 downed trees per acre for CWD.

Specs:

Next Step  
Treatments:

Acceptable Stand should regenerate well with aspen sprouts. Some oak, pine, and red maple regeneration is also acceptable along with the expected aspen.  
Regen:

Other                      Old next step comments:

Comment:

Proposed Start Date:    10/1 /2016

117	61011117-Cut	15.5	4130 - Aspen	Poletimber Well	65	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut all trees greater than 2" dbh, with small retention patches and scattered marked residual red oak and pine, especially along the rec. trail.

Specs: Include specs to protect the trail surface and minimize conflicts with trail users. Create 1-2 downed trees per acre for CWD.

Next Step  
Treatments:

Acceptable Stand should regenerate well with aspen sprouts. Some oak, pine, and red maple seedlings & sprouts would also be acceptable along with the expected aspen.  
Regen:

Other                      Two portions of the parent stand are being proposed for clearcutting this YOY; 2 other patches to be held for local age-class diversity and to minimize cutting along the rec. trail. Old next step comments:  
Comment:

Proposed Start Date:    10/1 /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
119	61011119-Cut	16.3	4130 - Aspen	Poletimber Well	40	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal

**Habitat Cut: No Site Condition:**

Prescription Cut to 2" dbh, with 2-3 small retention islands focused on pine/oak pockets, plus maybe some additional scattered residual oak and pine. Create  
Specs: 1-2 downed trees per acre for CWD.

Next Step  
Treatments:

Acceptable Stand should regenerate well with aspen sprouts. Oak, pine and red maple regeneration would also be acceptable along with the expected  
Regen: aspen.

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

120	61011120-Cut	6.4	42110 - Planted Red Pine	Poletimber Well	58	201+	Harvest	Systematic Thinning	42110 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No Site Condition:**

Prescription 3rd-row thin. Will have to be marked, as rows are erratic. Leave hardwoods as much as possible for diversity. Mark rows to cut plus some  
Specs: additional small diameter RP in adjacent rows.

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

122	61011122-Cut	3.8	42110 - Planted Red Pine	Sawtimber Well	58	141-170	Harvest	Systematic Thinning	42110 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No Site Condition:**

Prescription 3rd-row thin.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

123	61011123-Cut	17.5	4130 - Aspen	Poletimber Medium	45	Unspec ified	Harvest	Overstory Removal	42201 - Natural White Pine, Mixed Deciduous	Even-Aged	Proposal
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**Habitat Cut: No Site Condition:**

Prescription Remove most of the aspen and thin the pine and oak where dense, resulting in a moderately well stocked pine-oak mix with a component of  
Specs: aspen and red maple. Include specs to protect the trail surface and minimize impacts to trail users.

Next Step  
Treatments:

Acceptable White pine and oak regeneration is preferred in canopy gaps. Larger gaps will likely have some aspen sprouts as well, which is acceptable in the  
Regen: mix.

Other North part of the parent stand was excluded from this sale proposal. It has far less pine/oak, and could be managed for aspen regeneration in a  
Comment: future YOY; retained for now to minimize harvest along the rec. trail. Old next step comments:

Proposed Start Date: 10/1 /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
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124	61011124-NF	12.7	3303 - Mixed Low Density Trees	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3205 - Mixed Upland Shrub		Proposal
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**Habitat Cut: Yes**                      **Site Condition:**

Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover.  
Specs: Work around some of the existing beneficial vegetation to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other Non-forest treatments should be timed to occur after any nearby timber in case the opening is needed for a timber landing.  
Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

128	61011128-Cut	10.3	4130 - Aspen	Poletimber Well	50	Unspec ified	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Cut all trees >2" dbh, except retain all oak and some scattered white pine. Include a +/- 1/2 acre retention island. Create 1-2 downed trees per acre for CWD.  
Specs:

Next Step  
Treatments:

Acceptable Site should regenerate well with aspen sprouts, plus some white pine seedlings and red maple sprouts.  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

130	61011130-clearcut	22.0	42110 - Planted Red Pine	Poletimber Well	58	171-200	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Clearcut, retaining some scattered oaks and a small uncut island or two.  
Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)  
Treatments:

Acceptable red pine  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

130	61011130-thin	27.0	42110 - Planted Red Pine	Poletimber Well	58	171-200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**                      **Site Condition:**

Prescription Row thin the stand, but it will probably need to be marked because of erratic rows. Cut all aspen. Leave other species uncut as much as possible. Include specs to protect the trail surface and minimize conflicts with trail users.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
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131	61011131-Cut	19.8	4130 - Aspen	Poletimber Well	45	Unspecified	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	Proposal
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**Habitat Cut: No Site Condition:**

Prescription Clearcut, retaining one or more islands per cut patch. Include a retention island or marked residual trees along the rec. trail. Include specs to protect the trail surface and minimize conflicts with trail users. Create 1-2 downed trees per acre for CWD.

Next Step  
Treatments:

Acceptable Site should regenerate well with aspen sprouts and white pine seedlings.  
Regen:

Other North and south parts of stand 131 to be cut; middle part to be held uncut this YOE for age class diversity and to minimize harvesting along the rec. trail. Old next step comments:

Proposed Start Date: 10/1 /2016

132	61011132-NF	2.7	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3205 - Mixed Upland Shrub		Proposal
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**Habitat Cut: Yes Site Condition:**

Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Work around some of the existing beneficial vegetation to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other Non-forest treatments should be timed to occur after any nearby timber in case the opening is needed for a timber landing. Old next step comments:

Proposed Start Date: 10/1 /2016

142	61011142-Cut	6.5	4130 - Aspen	Sawtimber Well	78	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No Site Condition:**

Prescription Cut to 2" dbh. Retention: leave all oak and cherry, mark some white pine and hardwoods to retain, including some clumps of trees along the bog edge. Create some CWD.

Next Step  
Treatments:

Acceptable aspen and white pine; also possibly some mixed hardwoods  
Regen:

Other Part of stand on a slope on the west side of the bog to remain uncut. Old next step comments:

Proposed Start Date: 10/1 /2016

148	61011148-Cut	21.2	4130 - Aspen	Sawtimber Well	53	81-110	Harvest	Overstory Removal	4139 - Aspen, Mixed Deciduous	Two-Aged	Proposal
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**Habitat Cut: No Site Condition:**

Prescription Cut all aspen, ironwood, and beech >2". Oak, maple, basswood and cherry: mark some to cut where poor form, denser, hazard trees, leave the rest. Protect advanced hardwood regeneration as much as possible.

Next Step  
Treatments:

Acceptable Aspen should regenerate well in more open gaps, supplementing existing hardwood saplings. This will result in a 2-aged stand, with retained oak and mixed hardwoods over mixed regeneration.  
Regen:

Other Cut only south of the pathway, and leave a buffer along the south side of the trail. Old next step comments:

Proposed Start Date: 10/1 /2016

**Total Treatment Acreage Proposed: 638.5**



Dominant Site Conditions

	2D	2G	2H	3D	3J	5C	5E
Aspen	23		6	17	38	92	8
Bog							
Cedar							
Herbaceous Openland							
Low-Density Trees							
Lowland Aspen/Balsam Poplar		18					
Lowland Conifers							
Lowland Deciduous		69					
Lowland Mixed Forest							
Lowland Shrub							
Marsh							
Mixed Upland Deciduous						180	7
Northern Hardwood	38			100			
Planted Mixed Pines							
Red Pine							
Tamarack		6					
Treed Bog							
Upland Mixed Forest							
Urban							
Water							
White Pine							
Total Forested Acres	61	94	6	117	38	272	14
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 Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	61	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 5 – Site Conditions

Traverse City Mgt. Unit  
Tim Webb: Examiner

Compartment: 11  
Year of Entry: 2017



2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	32	3D: Recreational / Scenic values	2F: Too steep	Unspecified	Unspecified
<b>Comments:</b>							
3	Unavailable	3D: Recreational / Scenic values	100	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> High recreational use from Lake Ann Pathway and State Forest Campground users.							
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	3J: Water quality / BMPs (stream, river, or lake)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b>							
6	Unavailable	3D: Recreational / Scenic values	8	3J: Water quality / BMPs (stream, river, or lake)	5B: Maintain for regeneration purposes	Unspecified	Unspecified
<b>Comments:</b> Boat launch, pathway, and adjacent campground. Allow stand to succeed naturally from aspen to red maple/white pine.							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 5 – Site Conditions

Traverse City Mgt. Unit  
Tim Webb: Examiner

Compartment: 11  
Year of Entry: 2017



8	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	6	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
9	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
10	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	7	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	3	3H: Deer Wintering Areas	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
12	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	42	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
13	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 5 – Site Conditions

Traverse City Mgt. Unit  
Tim Webb: Examiner

Compartment: 11  
Year of Entry: 2017



14	Unavailable	3D: Recreational / Scenic values	10	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Lake Ann Pathway. Allow aspen to die off naturally and let succeed to northern hardwoods.							
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	45	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
16	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	40	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Manage long-term for white pine/oak/red maple.							
19	Unavailable	5E: Long-Term Retention	6	2F: Too steep	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
<b>Comments:</b>							

## Report 5 – Site Conditions

Traverse City Mgt. Unit  
Tim Webb: Examiner

Compartment: 11  
Year of Entry: 2017



20	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	21	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> also abut rec trail							
21	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	4	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
23	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	131	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
24	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	2	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
25	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	20	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

Mgt. Unit

Compartment: #Type!

Year of Entry:



## Report 6 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments

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**Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
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:
5	4119 - Mixed Northern Hardwoods	Sawtimber Well	137.6	90	111-140	Will self-thin as aspen drops out. Very little understory. Rolling terrain, including a N-S valley through the stand heavier to aspen. Trace amounts of white pine, elm, paper birch. Birch is declining; ash is dead/dying; beech scale is present. Stand includes a vernal pond. 2015 BAs: mean 133 from 17 plots, range 80-200. Lake Ann Pathway runs all through the stand.
6	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	10.9	60	Unspecified	Lots of standing dead black ash. Some sapling ash and a few poles still look alive, but are probably on the way out.
7	4130 - Aspen	Sawtimber Well	26.6	95	Unspecified	Old aspen, moderate amount of cavities/CWD. Aspen is at risk because of age; some mortality. Need to consider future look/maintenance of pathway if aspen starts to fall apart rapidly. May be enough hardwood to remain moderately stocked if aspen drops out. Scattered beech, cherry. Two aspen bored in 2005, one about 80 rings, another very roughly 88 rings - averaged about 85. SW part of stand is an inclusion of lowland forest along a stream.
9	4130 - Aspen	Sawtimber Well	7.8	63	111-140	Lakefront, recreational value. Some older veteran WP & RO. WP & BC seedlings. Scattered sugar maple, hemlock.
12	6132 - Mixed Lowland Forest with Cedar	Sawtimber Medium	33.4	85	Unspecified	Platte River floodplain, numerous seeps. Cedar concentrated along river banks. Some fir, tamarack, sugar maple, cherry, red oak, bigtooth aspen. Finger north up a draw is more deciduous, aspen larger and declining there and opening up, with some cattail patches. Paper birch declining, ash dead/dying. Lake Ann Pathway through stand. Popular skiing/hiking/mushrooming.
13	4130 - Aspen	Poletimber Well	7.6	57	111-140	Birch is declining. 2015 BAs: 100, 110, 170; mean 127.
14	6119 - Mixed Lowland Deciduous Forest	Sawtimber Medium	13.0	104	1-50	Chokecherry and spicebush. Leeks in places. Some blowdown. Adjacent to boat launch and Lake Ann. Stand was formerly well stocked by black ash of all sizes, which is now almost all dead. A creek runs through the stand.
15	4130 - Aspen	Sawtimber Well	7.1	55	Unspecified	Fence post line along north edge, some monuments. Birch patch at east end, dying. A few dying white ash; a few red oak.
16	4130 - Aspen	Poletimber Well	9.8	49	Unspecified	Trace amounts of red oak, black cherry. River floodplain.
17	4130 - Aspen	Sawtimber Well	11.8	86	Unspecified	Aspen is old and declining with a moderate amount of cavities/CWD. Some cherry. Paper birch is dead/dying. Most of the stand is on a slope leading down to the Platte River.
18	6113 - Lowland Maple	Sawtimber Medium	3.1	73	Unspecified	Blueberry & leatherleaf. Deciduous and pools on edges, conifers in middle. Numerous snags and CWD.
19	4110 - Sugar Maple Association	Sawtimber Medium	15.5	80	81-110	A few white pine, bigtooth aspen. Beech scale present. 2015 BAs: 100, 110, 140, 80; mean 107.

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## Traverse City Mgt. Unit

## Report 8 – Forested Stands

Compartment: 11  
Year of Entry: 2017

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4130 - Aspen	Sawtimber Well	10.5	78	Unspecified	Riparian area - on steep bank along Platte River.
22	4110 - Sugar Maple Association	Sawtimber Well	82.5	99	81-110	Aspen old, declining, creating cavity trees and CWD. Medium quality timber. Traces of RO, WA (now dead), BC retained for diversity in last harvest. Thinned 1/2008 through 7/2010 under TSC #610640701. Cruised post-sale residual BA of 86, including 20sqft of cavity, mast, under-represented spp. trees. Cut and left some aspen and basswood for additional CWD where needed. Little in regen gaps except raspberry and some ironwood. 2015 BAs: 110, 110, 80, 90, 90, 70; mean 92.
23	4119 - Mixed Northern Hardwoods	Sawtimber Well	48.5	73	81-110	Dead/dying white ash throughout. South end is more aspen/red maple/white pine; patch of aspen northeast corner by lake. Some areas heavier to sapling/pole sized trees including dead white ash poles and more ironwood. Lake Ann Pathway through stand. Popular skiing/hiking/mushrooming. 2015 BAs: mean 94 from 8 plots, range 20 to 140.
25	6119 - Mixed Lowland Deciduous Forest	Sawtimber Medium	11.0	116	141-170	Quite variable in size, age, species. Numerous large blowdowns. Several springs and tributary streams arise in this stand, flowing toward Platte River, rendering the stand practically unharvestable. 2015 BAs: 130, 160, 190; mean 160.
26	4130 - Aspen	Poletimber Well	10.7	37	Unspecified	Scattered WP saplings and poles, some juneberry. Some patches with good sugar maple stocking.
27	4131 - Aspen, Oak	Sawtimber Well	11.5	80	141-170	Q. aspen poor condition, bigtooth OK. Some nice RO, RM. Moderate CWD. Scattered WP/hemlock sapling-pole understory. A few white oak and basswood. Heavier to aspen north, oak south. Some veteran oak. 2015 BAs: 130, 150 north; 200, 130 south; mean 152.
28	4130 - Aspen	Poletimber Well	34.2	27	Unspecified	
29	4130 - Aspen	Poletimber Well	11.1	37	Unspecified	RO/BC/RM stump sprouts. Occasional WP sapling and juneberry.
31	4130 - Aspen	Poletimber Well	11.2	37	Unspecified	Scattered WP saplings and poles. Some juneberry. Good growth on BTA.
32	4130 - Aspen	Poletimber Well	36.7	37	Unspecified	Also scattered BF, WP, seedlings and saplings.
33	6120 - Lowland Cedar	Sawtimber Well	31.3	142	Unspecified	Moderate blowdown. No browse available, but lots of winter deer sign. Streams originate in the stand. Mixed conifer regen., especially in canopy gaps: fir, hemlock, black spruce, white pine. Stand includes steep bank along east side, with mature hemlock, red maple, aspen and beech. In 2005: counted 105 rings in first 10.5" of a 27" dbh white pine, est. 125+ years old.
34	4130 - Aspen	Poletimber Medium	32.6	27	Unspecified	RM/BC/RO stump sprouts. AB/WP/BC seedlings. Low quality quaking aspen.

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## Traverse City Mgt. Unit

## Report 8 – Forested Stands

Compartment: 11  
Year of Entry: 2017

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4199 - Other Mixed Upland Deciduous	Sawtimber Well	87.6	102	111-140	High quality red oak & tall, straight hardwoods. Patches of hemlock understory. Steep slope north of E-W road to Platte River valley and east to Lake Ann. Beech scale present. Numerous white pine seedlings filled in canopy gaps from previous cut, plus lots of beech regeneration through much of the stand. Areas of concentrated hemlock cover and slopes along wetland/lake/river were left out of previous thinning operation. 2015 BA: mean 118 on 16 plots.
38	4111 - S.Maple, Hard Mast Association	Sawtimber Well	22.7	123	81-110	2005 comments: Ring count approximate on sugar maple age - heartwood difficult to read. Club moss, trout lily. 2015 BAs: 90, 100, 110; mean 100. Lots of beech, some patches of white pine seedlings came in after previous cut.
39	4130 - Aspen	Poletimber Well	35.9	37	Unspecified	Barely merchantable; best to hold 10 or more years. Older WP is east of Reynolds Rd. North-most patch along Reynolds Rd. could be managed for oak.
41	4130 - Aspen	Poletimber Well	31.9	37	Unspecified	RO/RM stump sprouts. Beech & ironwood saplings.
42	4199 - Other Mixed Upland Deciduous	Poletimber Medium	19.7	70	81-110	Stand has mixed sizes, from old basswood to mixed NH seedlings. Nice oak, mixed sawlog/pole/sapling throughout. Aspen old & declining. Possibly result of past high-grade. 2015 BAs: 70, 90, 110, 60; mean 82. Poor quality quaking aspen.
43	4133 - Aspen, Mixed Pine	Sawtimber Well	5.4	90	Unspecified	Irregularly shaped parcel between road and lake. Let old aspen die out naturally, will provide cavity trees/snags/CWD in riparian area. Will eventually convert to WP/NH forest. More hardwoods to west, more aspen to east. Lakeshore; adjacent homes.
45	4130 - Aspen	Poletimber Well	10.8	25	Unspecified	Aspen regen w/numerous residual WP & oak, especially SW corner. Oak was aged on a larger (20" dbh) residual tree in 2005.
47	6113 - Lowland Maple	Sawtimber Medium	15.7	71	111-140	Numerous rotten down logs. Heavy cherry/WP seedlings in places. Scattered cedar, fir, hemlock, red oak, elm. Dead and dying black ash and paper birch. Patch of veteran WP in NE part of stand. 2015 BAs: 80, 130, 90; mean 133.
48	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	7.9	98	141-170	Tall, big old trees. Some yellow birch, beech, cherry. 2015 BAs: 220, 110, 160; mean 163.
50	4110 - Sugar Maple Association	Sawtimber Well	14.5	105	141-170	Cherry dying out. Low CWD. Pretty good quality stand. Little understory or vertical diversity. Some IW/AB seedlings. Trace of veteran red oak. Dead ash. 2015 BAs: 100, 170, 170, 150, 120; mean 142.
52	4130 - Aspen	Sawtimber Well	2.7	76	Unspecified	Side slope on east side of Mud Lake. Let it go to WP/RM for habitat diversity and riparian cover. A few beech, w. oak. Some CWD. Veteran WP.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
54	4110 - Sugar Maple Association	Poletimber Medium	21.5	29	51-80	Poor quality, open grown, sparse older BC/SM/A/WP over NH regen. SM, AB, IW saplings re-invading old field in shallow draws. Mixed NH/WP seedlings. Two patches mature NH near north end. 2015 BAs: 90, 50, 50, 40; mean 58.
55	6113 - Lowland Maple	Sawtimber Poor	16.6	98	51-80	Mucky, hummocky, about 1/2 in puddles. Scattered balsam fir. This stand was previously dominated by black ash pole timber, which is now almost all dead. Thus, what were minor species before are now the dominant canopy trees, but sparsely stocked. Functionally, this is almost a tag alder swamp.
56	4110 - Sugar Maple Association	Sawtimber Medium	50.7	111	51-80	Some nice straight basswood. Some canopy gaps with sugar maple saplings in the south part of stand. Trace amounts of red oak, black cherry, and big-toothed aspen. Scattered hemlock. Dead ash throughout. Selection harvest in 2009; cruised residual BA of 78. 2015 BAs: 60, 80, 60, 80, 50; mean 66. Lower than 2009 due to ash mortality. Shore-to-Shore trail crosses the stand.
57	4110 - Sugar Maple Association	Sawtimber Well	36.1	117	111-140	Decent quality hardwoods. Little CWD. Trout lily, spring beauty. Trace of black cherry, oak. 2015 BAs: 90, 160, 130, 160, 150, 130; mean 137.
58	6119 - Mixed Lowland Deciduous Forest	Sawtimber Poor	28.9	84	51-80	Fair amount of blowdown. Some quite large lowland hardwoods. Patches of alder, some elm. 2015 BAs: 110, 50, 50; mean 70.
59	4139 - Aspen, Mixed Deciduous	Sawtimber Well	6.1	87	111-140	A few black cherry. Older aspen is dying out, succeeding to RM. Balsam understory is patchy. 2015 BAs: 160, 110, 160; mean 143.
60	6121 - Tamarack	Poletimber Medium	2.4	89	Unspecified	Sphagnum, pitcher plant, leatherleaf. Mucky.
63	4130 - Aspen	Poletimber Well	16.5	25	Unspecified	
64	4110 - Sugar Maple Association	Poletimber Medium	11.2	93	51-80	Old, poor, sparse NH mix over NH regen. Good stocking of SM, IW saplings and poles. Probably a past high-grade cut. 2015 BAs: 120, 30, 50; mean 67.
66	4110 - Sugar Maple Association	Sawtimber Well	28.7	90	111-140	A few older and seedling hemlock in places. Aspen patchy, in clones. Trace amounts RO, RM, BC. Beech scale present. Some aspen mortality. Ash snags. BAs 110, 110, 150, 150, 120; mean 128.
67	4130 - Aspen	Poletimber Well	16.6	37	Unspecified	
68	6113 - Lowland Maple	Sawtimber Poor	19.3	66	Unspecified	Paper birch dying out. Lots of black cherry seedlings, some white pine and balsam fir. Numerous snags, CWD. Trace amounts of cedar, beech. Lots of standing dead black ash.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
69	6121 - Tamarack	Poletimber Poor	4.5	80	Unspecified	Lots of marsh marigold, some pitcher plant. More open in middle - floating mat. Many of the tamaracks have dead tops.
71	4130 - Aspen	Poletimber Well	2.2	37	Unspecified	"Island" in swamp regenerating to aspen, though north end was uncut. A handful of firs, red maple poles.
72	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	8.1	124	Unspecified	Lots of blowdown. Inclusion of alder/tamarack. Seeps & flows from hillside to Mud lake.
73	4130 - Aspen	Poletimber Well	67.1	37	Unspecified	Mature WP here and there.
75	4131 - Aspen, Oak	Sawtimber Well	6.0	71	Unspecified	Banks down to floodplain. Unmanageable, best left as riparian habitat. Aspen will die out, RM & RO will hold the site. Old RR grade runs through the stand. Scattered cherry, white oak.
76	6112 - Lowland Aspen	Poletimber Medium	18.3	55	Unspecified	Denser timber on east side of stand.
77	4130 - Aspen	Sapling Well	49.6	25	Unspecified	scattered beech
78	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	3.2	68	81-110	Good riparian mature habitat. Slopes/uplands adjacent to Mud Lake. 2015 BAs: 120, 80, 90; mean 97.
79	4130 - Aspen	Poletimber Well	10.3	37	Unspecified	
80	4130 - Aspen	Sapling Well	8.2	25	Unspecified	
81	4131 - Aspen, Oak	Sapling Poor	1.8	20	Immature	Old opening with sparse mixed poles, filling in with mixed deciduous saplings.
82	4130 - Aspen	Sapling Medium	10.7	6	Immature	Clearcut summer 2009 with residuals. 2-storied: variable density of retained trees from 2009 cut, more retained north of trail. Scattered retained white oak, basswood, too. Rogue ATV trails.
83	4130 - Aspen	Poletimber Well	28.7	45	Unspecified	Aspen regen with remnant oak and WP. WP is of all ages. Good growth on WP where not over-topped. Small amounts of paper birch, beech, and hemlock.
85	4310 - Pine, Oak Mix	Poletimber Medium	7.7	57	51-80	Two-storied stand: residual oak/pine over sapling aspen regen. Some veteran WP. About 1/2 acre inclusion of leatherleaf/sphagnum bog with WP/Tamarack. 2015 BAs: 60, 50, 130; mean 80.
86	4139 - Aspen, Mixed Deciduous	Sawtimber Poor	2.8	65	1-50	Potpourri of species, sizes. Semi-open stand on a hillside. Leave for diversity and trail-side aesthetics.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
87	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	1.9	105	111-140	Small block of mature trees on slope, aspen dying out and giving way to RM/WP climax. Leave for local diversity. 2015 BAs: 140, 110, 120; mean 123.
88	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	20.2	98	111-140	Low shrubs = blueberry & wintergreen; seedlings = WP. 2015 BAs: 80, 140, 40, 140, 200, 150; mean 125.
91	6121 - Tamarack	Poletimber Poor	6.2	49	Unspecified	
93	6121 - Tamarack	Poletimber Medium	6.4	97	Unspecified	Aspen on fringes. Fair amount of blowdown. Some black spruce saplings.
94	6120 - Lowland Cedar	Sawtimber Medium	18.5	110	Unspecified	Diverse swamp along Platte River floodplain. BF regen in blowdown pockets, plus some WP, BS, T seedlings. 2-track on old RR grade runs through stand. Small numbers of black cherry, yellow birch, and balsam fir.
95	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	3.0	110	111-140	Mature conifer on river floodplain. Some very tall, large white pine and hemlock with fairly clear boles. Much blowdown. Old growth quality. Adjacent to Platte River.
97	42110 - Planted Red Pine	Sawtimber Well	2.4	58	141-170	Some blueberry & wintergreen. 2015 BAs: 130, 190, 150; mean 157.
99	6132 - Mixed Lowland Forest with Cedar	Poletimber Poor	14.3	95	Unspecified	Mixed regen in blowdown parts of stand, including BF, WP, EH, WC seedlings. Numerous WC, unbrowsed. Mucky. Hill inclusion. Lots of dead black ash.
102	4130 - Aspen	Poletimber Well	6.9	25	Unspecified	Remnant WP/O over aspen regen. A few remnant RP, WO. Some blueberry. Just breaking into pole class.
104	4112 - Maple, Beech, Cherry Association	Sawtimber Well	7.2	97	141-170	Small acreage, but decent quality NH. Could thin, but would need private access. Fairly open understory. Aspen is at the SW end. Scattered basswood, red oak. 2015 BAs: 180, 140, 130; mean 150.
105	4130 - Aspen	Poletimber Well	11.0	37	Unspecified	Very well stocked.
106	42141 - Planted Mixed Pine, Mixed Deciduous	Sawtimber Well	37.1	58	141-170	Much of type is patchy RP plantation where aspen and WP have filled gaps. Some veteran oak & WP. Aspen varies in size, maybe in age. 2005 RP height = 47'. 2015 BAs: 210, 100, 80, 270, 130, 150; mean 157.  A narrow, wet draw running NE from SW end of type has very large old WP to 34" dbh, plus WC poles.
107	4130 - Aspen	Poletimber Well	34.4	41	Unspecified	North end has less pine, smaller diameter aspen. Bluff on north side drops down to Ransom Lake.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
108	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	147.7	53	111-140	Aspen variable in size & age, could have gradually regenerated and spread clones. Remnant RO & WP in scattered patches, old WP stumps. Quite a variable type, but no obvious places to break out separate stands. 2005 age of 43 on aspen poles, also cored 29 and 66 year old aspen. Short rows/patches of planted RP in some places. Basal areas from 15 plots in 2015: WP 38, RO 24, BTA 29, RM 15, WO 1, AB 7, RP 5, other 1; total 120.
109	6127 - Lowland Pine	Sawtimber Poor	3.0	63	81-110	Leatherleaf/blueberry bog, a few BS/T poles. 2015 BAs: 60, 150, 100. Mixed shrubs: tag alder, wild raisin, holly. Mixed conifer saplings: black spruce, tamarack, white pine.
110	4133 - Aspen, Mixed Pine	Poletimber Well	26.4	48	81-110	Remnant WP/RO over pole A/WP/RO, with WP regen. in all ages/sizes. A few red maple. 2005 ages taken: BTA = 38, RO poles = 48, WP pole/log = 53/88. 2015 BAs: 80, 40, 110, 90, 100, 150; mean 95.
111	4133 - Aspen, Mixed Pine	Poletimber Medium	10.4	37	Unspecified	Sparse timber in shallow draw along road. WP in several size/age classes, trying to reclaim site. A few WO.
112	4311 - Pine, Aspen Mix	Sawtimber Well	7.6	65	111-140	Aspen age approximate from iffy ring count. Patches of planted red pine. WP mixed sizes/ages. Good growth on WP. Aspen declining. Gradual slope down to bog and lake, mostly in a draw. 2015 BAs: 140, 90, 170.
113	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	9.8	58	111-140	Same plantings as adjacent stand, but much more aspen/oak competition. Many RP are suppressed. Some decent red oak poles. 2005 RP heights: 43, 46, 48'. 2015 BAs: 100, 130, 160.
114	4131 - Aspen, Oak	Poletimber Well	41.0	50	Unspecified	RM & RO stump sprouts from previous cut. Slow growth on aspen, maybe from partial shading and competition during establishment. Old WP stumps. Some or all of this stand might best be managed for WP/RM/O. Cladonia, wintergreen. Same ring count on both a 7" and 5" aspen in 2005.
115	4130 - Aspen	Poletimber Well	35.7	50	Unspecified	A few cherry. Some remnant RO. Lots of wintergreen. 2005 aspen height = 64'.
116	4311 - Pine, Aspen Mix	Sawtimber Well	21.4	71	111-140	Mixed timber, some old trees. Along slopes to Ransom Lake and Ransom Creek at north end, in a draw to south. Some hemlock along creek bottom. All sizes/ages of WP; aspen variable. South end has some bits and pieces of RP plantation rows. Wintergreen and blueberry. 2015 BAs: 120, 130, 130.
117	4130 - Aspen	Poletimber Well	38.9	65	Unspecified	Trace of white birch. Lots of old WP stumps. Aspen is variable in size, maybe in age.
118	42110 - Planted Red Pine	Sawtimber Well	15.1	58	141-170	Relatively low stocking for a RP plantation. 2005 RP heights: 49, 47, 50'. A few white oak. 2015 BAs: 130, 130, 130, 190.
119	4130 - Aspen	Poletimber Well	50.6	40	Unspecified	Some remnant WP, RO, RP, especially around kettle depressions. Blueberry, wintergreen.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
120	42110 - Planted Red Pine	Poletimber Well	6.4	58	201+	Some RO are stump sprouts, some remnants. Some WO and WP. Scattered WP seedlings and saplings. 2005 RP heights: 52, 55'. 2015 BAs: 160, 210, 210, 240.
121	4133 - Aspen, Mixed Pine	Poletimber Well	11.0	55	Unspecified	Remnant WP/RM/RO over mixed polewood. Aspen quite variable in size, but probably all the same age. Most is small for its age. Let WP fill in, maybe cut out aspen in future entry period. Club moss, cladonia. A few white oak and beech. WP & RO ages on 10" dbh average sized trees in 2005. Some good quality red oaks in the small sawlog size class.
122	42110 - Planted Red Pine	Sawtimber Well	13.2	58	141-170	West 2/3 was previously 3rd-row thinned. 2005 RP heights: 54, 51'. 2015 BAs: 110, 180, 90, 180, 160, 140; mean 143.
123	4130 - Aspen	Poletimber Medium	31.7	45	Unspecified	Lots of old WP stumps. Bracken fern, poverty grass, cladonia. Low quality sparse aspen, but bigger and more well stocked at north end of stand. Should let this stand return to white pine.
125	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	69.0	58	141-170	Large crowned veteran RO (some WO) throughout. 2005 RP heights: 52, 48, 56, 49'. Wintergreen & blueberry. 2015: 8 BA plots, mean 145 (range 100-170).
126	42110 - Planted Red Pine	Poletimber Well	19.8	58	141-170	RO and RM stump sprouts. 2005 RP heights: 39', 49'. 2015 BAs: 150, 170, 140, 150, 160; mean 154.
127	42200 - Natural White Pine	Sawtimber Well	24.4	60	141-170	Some veteran RO, WP, and beech. Age on average size WP - poles predominant, but WP in all age/size classes. Wintergreen, blueberry. A few RM. 2015 BAs: 160, 170, 110, 110, 160; mean 142.
128	4130 - Aspen	Poletimber Well	10.3	50	Unspecified	RM stump sprouts. Old WP stumps. Wintergreen, club moss.
129	4130 - Aspen	Poletimber Well	11.7	54	Unspecified	Could cut if needed for age diversity, but it will hold. A few white oak and beech.
130	42110 - Planted Red Pine	Poletimber Well	49.0	58	171-200	Above average diversity for a RP plantation. Blueberry, wintergreen. Old WP stumps. 2005 RP heights: 50, 56, 55, 52 feet. 2015 BAs: 180, 140, 210, 230, 150; mean 182.
131	4130 - Aspen	Poletimber Well	27.6	45	Unspecified	Lots of club moss patches & WP stumps. A few veteran RO, some RM. More WP on the north end.
133	42110 - Planted Red Pine	Poletimber Medium	32.1	58	141-170	Was row thinned. 2015 BAs: 140, 160, 170, 160, 110; mean 148.
134	42200 - Natural White Pine	Sawtimber Well	17.5	70	141-170	Nice multi-aged stand of natural WP with veteran oak. All sizes/ages of WP, predominantly 8-12" dbh. Occasional pockets of aspen. Trace of red pine. 2015 BAs: 170, 150, 130; mean 150.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
135	4130 - Aspen	Sapling Well	7.5	7	Unspecified	Harvested in early summer of 2008.
136	4112 - Maple, Beech, Cherry Association	Poletimber Poor	15.1	70	51-80	Lake Ann Pathway & riparian considerations. Stand was cut in 2009, most aspen & some red maple removed; sugar maple, birch (now dying), pine, some red maple retained. Aspen regeneration came in through much of the stand, fairly well stocked. An island of timber surrounding a small wetland (vernal pond) in the NW part of the stand was left uncut for retention. Small numbers of white pine, beech, and basswood. 2015 BAs: 70, 50, 40; mean 53.
137	4110 - Sugar Maple Association	Sawtimber Well	29.1	90	51-80	A few older and seedling hemlock in places; traces of cherry, red oak. Select cut in 2009-2010. Cruised residual BA from that sale of 81sqft. w/ a 'retention BA' (mast trees, under-represented, cavity, snag, etc.) of 19sqft (23% of total). 2015 BAs (lower due to ash mortality): 100, 60, 60, 50, 70, 90; mean 72.
138	4130 - Aspen	Sapling Well	15.1	7	Unspecified	Lots of old WP stumps. Most of the oak and maple stump sprouts were thinned down to 1-3 shoots per stump by volunteers in 2014. Retained WP, RO, RM, and RP individuals and scattered clumps throughout.
139	4131 - Aspen, Oak	Sapling Poor	2.8	7	1-50	Some mature oak and other hardwoods were retained during 7/2008 harvest. Stand is not regenerating well. Aspen regen is mostly along edges, slowly filling in the cleared area, but may take several years before fully stocked. Some residual oak poles were broken by a March 2012 snowstorm. Some oak stump sprouts, but heavily browsed.
140	42200 - Natural White Pine	Sawtimber Medium	15.0	71	81-110	Patches of planted red pine. WP mixed sizes/ages. Gradual slope down to bog and lake. 2015 BAs: 140, 100, 90; mean 110.
141	4130 - Aspen	Sapling Medium	7.8	4	Immature	Clearcut fall 2011. Red maple stump sprouts throughout, heavily browsed, but some getting past the deer. Scattered retained hardwoods, plus white pine in the south end of the stand.
142	4130 - Aspen	Sawtimber Well	8.4	78	Unspecified	Scattered cherry, basswood.
148	4130 - Aspen	Sawtimber Well	30.7	53	81-110	Older, deteriorating aspen giving way to NH mix. Many cavities/CWD in aspen. Mixed NH seedlings/saplings. 2015 BAs: 110, 130, 90, 90, 100; mean 104. Lake Ann Pathway through stand. Popular skiing/hiking/mushrooming.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	500 - Water	1.8	No	Tarnwood Lake
2	6233 - Wet Meadow	10.9	No	2005 field notes: Numerous dead cedar, especially along lake. Many old stumps. Has water in it. A few autumn olive along edge. Areas of dead trees. Large area of bulrushes and grass/sedges. Clumps of cattails underneath dead cedar. - BJR
3	6225 - Bog	3.5	No	Several well cured snags and blowdowns. Droughty last inventory visit (2005), now inundated.
4	3301 - Low Density Deciduous Tree	0.6	No	Small bit of upland opening on state side of property line. Ground cover data from 2005 survey.
8	500 - Water	6.3	No	Mary's Lake. Path alongside northside leads to pond.
10	6229 - Mixed lowland shrub	11.7	No	2005 comments (Bill Rollo): Areas of alder/willow. Other areas of lowland deciduous (ash, willow, maple). A few dead snags in spots and an occasional hemlock and cedar. Various grasses, forbs, grape, and berry shrubs (buckthorn?). Some purple loosestrife and ground rose seen.
11	500 - Water	4.0	No	Shavenaugh Lake. 2005 comments: Appears to be a little shallower and has more waterlilies than other ponds that are close by.
21	122 - Road/Parking Lot	1.0	No	parking lot and check-in area for Lake Ann Campground
24	6225 - Bog	11.3	No	Dead standing and fallen WP throughout. Ground cover info is mostly from 2005.
30	3102 - Grass	1.3	No	Built up fire pit; some landscaping debris.
35	122 - Road/Parking Lot	1.2	No	East Sanford Lake Road
36	122 - Road/Parking Lot	13.4	No	Reynolds and Wildwood Roads
40	3104 - Degraded	6.8	No	A lot of spotted knapweed. Some black cherry with maple underneath. Bushy, open-grown white pine. Ground cover data from 2005.
44	3303 - Mixed Low Density Trees	1.8	No	Alongside road. Open area is degraded. Ground cover data is from 2005.
46	3301 - Low Density Deciduous Tree	9.6	No	Ground cover is full of spotted knapweed. A few beech & oak. Old field succeeding to northern hardwoods. Ground cover data is from 2005.
49	6229 - Mixed lowland shrub	2.0	No	Lakeshore, floating mat. Ground cover data are from 2005.



Stand	Cover Type	Acres	Managed Site	General Comments:
51	500 - Water	5.0	No	Mud Lake
53	6220 - Alder/willow	2.3	No	Lots of duckweed. Ground cover info from 2005.
62	6225 - Bog	1.0	No	Data is mostly from 2005; quick field check with snow cover in 3/2015.
65	6220 - Alder/willow	6.0	No	Some elm and ash, but mostly dead. Ground cover data from 2005.
70	3104 - Degraded	3.0	No	Mostly spotted knapweed with clumps of bracken fern. One clump of basswood. Trailer on private side, immediately to south. Ground cover data is from 2005.
74	6229 - Mixed lowland shrub	1.0	No	North edge of Mud Lake. 2015: stand checked from edge, but stand data unchanged from 2005 inventory.
84	500 - Water	3.3	No	Peanut Lake. 2005 comments (BJR): Nice little pond. Two-track leads to pond. Three new woodduck boxes were place here. WLD did not place. Lily pads along edge.
89	629 - Mixed non-forested wetland	7.3	No	Dead wood with mixed lowland saplings. Mainly forbs and grasses. Joe-pye weed, cattails along flowage, rubus, a few shrubs. Some young cedar mixed in. Ground cover is from 2005 survey.
90	6229 - Mixed lowland shrub	8.0	No	Platte River flowage. Ground cover data are from 2005.
92	6220 - Alder/willow	2.8	No	Filling in with tamarack. Ground cover is from 2005 survey.
96	6239 - Mixed Emergent Wetland	5.7	No	Flood-killed timber along flowage, much blowdown. A bunch of dead wood along creek. Occasional cedar pole tree. Mostly grasses/mixed forbs with young balsam fir, some fern. Platte River runs through type. Mixed conifer seedlings and saplings: white pine, white cedar, balsam fir.
98	122 - Road/Parking Lot	6.2	No	Lake Ann Road
100	6225 - Bog	3.4	No	Grass/sedge and alder is in NW corner. BJR 2005: Mixture of grasses/forbs with leatherleaf. Shrubs around perimeter with sedges. Dry. A few pole white pine mixed in. Iris. TLW 2015: stand checked from edge; stand data mostly unchanged from 2005 inventory.
101	6220 - Alder/willow	1.2	No	Ground cover is from 2005 survey.
103	6224 - Treed Bog	2.2	No	BJR, 7/22/05 - Leatherleaf bog with a fair amount of white pine mixed in. TLW 2015: stand checked in 2015, stand data mostly unchanged from 2005 inventory.



Stand	Cover Type	Acres	Managed Site	General Comments:
124	3303 - Mixed Low Density Trees	12.7	No	Bracken fern with poverty grass underneath. Clumps of aspen, occasional cherry. Ground cover data are from 2005. Wolfy, open grown white pine. South lobe is heavily furrowed from past use in fire plow training. Shore-to-Shore Trail crosses the south end of the stand.
132	3105 - Mixed Upland Herbaceous	2.7	No	2005 notes (Bill Rollo): Mixture of bracken fern and poverty grass. One lobe has blueberry in it. Ground cover data from 2005. Has depressions: old cellar holes?
143	6239 - Mixed Emergent Wetland	0.9	No	
145	6239 - Mixed Emergent Wetland	0.8	No	lakeshore
146	6239 - Mixed Emergent Wetland	2.4	No	Lakeshore. Surveyed with snow, but looks sedgy.