



# Compartment Review Presentation

## Traverse City Forest Management Unit

Compartment 61030

Entry Year 2020

Acreage: 2,090

County Benzie

Management Area: Benzie Outwash

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**Revision Date:** 2018-04-17

**Stand Examiner:** Craig Allen

### Legal Description:

T25N- R14W; Sections 22-27, 34, 35, 36  
Weldon Township of Benzie County, Michigan

### Identified Planning Goals:

Compartment 30 is a part of the Benzie Outwash management area (MA). Vegetation management in this MA will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character, including the Betsie River which is a designated natural river; 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, oak wilt and beech bark disease.

### Soil and topography:

The terrain is mostly level, however there are two large topographical features within the compartment. One is called "Buck Hills" and is located in the southwest corner and the other is called "North Hills" in the northeast portion of the compartment. Both have gradual to very steep hills. The soils in the compartment are variable and include Kalkaska-Rubicon and Roscommon-AuGres Associations, Leelanau- Emmet-Kalkaska Association, Carlisle-Carbondale-Kerston Association.

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

Forty percent of the land within the compartment is State-owned. State ownership in this compartment is quite fragmented with private parcels intermingled. Private land uses in the area include the village of Thompsonville, Crystal Mountain Resort, and scattered year-round as well as seasonal residences.

### Unique Natural Features:

The Betsie River and an un-named feeder creek flow through this compartment. The Betsie River is a designated Michigan Natural River system. The designation begins at the Grass Lake Dam, then extends downstream to its mouth at Betsie Lake in Frankfort.

### Archeological, Historical, and Cultural Features:

There is a potential for archaeological sites within this compartment. Early Native Americans would commonly establish settlements along the Betsie River.

### Special Management Designations or Considerations:

Visual management is an important consideration when proposing vegetative management along recreational trails in State lands. Also, all proposed land management activities near the Betsie River will reference the Betsie River Natural River Plan for guidance and consideration.

### Watershed and Fisheries Considerations:

### Wildlife Habitat Considerations:

Most of this compartment is situated on an outwash plain of dry sandy soils that currently supports a mix of aspen, hardwoods, several pine plantations and scattered non-forested stands. Forests on these soils were typically products of wildfires of varying intensities and frequencies. Aspen and pine forests are examples of fire dependent communities. Aspen harvests should be designed to increase aspen age class diversity and to perpetuate the presence of various aspen and mixed aspen habitats. Such early successional management on these fire prone soils is appropriate and

should continue. The incorporation of snags, leave trees, and downed material in these cuts will mimic a wildfire-altered forest and provide habitat elements for species like grouse, woodcock, golden-winged warbler, and deer.

Future management of pine stands should consider incorporating small (2-5 acre) islands that are left relatively un-thinned within mature stands to provide winter roosting cover for turkeys. Deciduous species should be encouraged within conifer plantations for diversity.

Parts of this landscape were, at times, shielded from fire. Consequently, some management for successional advanced hardwood/conifer stands is fitting. Hardwood treatments should incorporate preservation of tree species diversity, retention of mature mast producing trees (i.e. oak and beech), and protection of den, cavity, and downed trees. Many wildlife species, including broad-winged hawks, wild turkeys, southern flying squirrels, eastern gray squirrels, and Baltimore orioles, are associated with these forest types.

Openings are an integral part of fire prone landscapes. Various opening maintenance projects have been proposed including pruning old fruit trees, brush cutting, and some herbaceous plantings. These projects will benefit species dependant on grass/brush communities, such as cedar waxwing, deer, wild turkey, mourning dove, meadow vole, and red fox.

Compartment 30 is within the Benzie Outwash Management Area (MA) of the Regional State Forest Management Plan. Featured species for this MA include marten, woodcock, bear, black-throated blue warbler, golden-winged warbler, mallard, pileated woodpecker, red-shouldered hawk, ruffed grouse, turkey, deer, wood duck, and wood thrush. Based on the natural disturbance history of the land type associations within the Benzie Outwash MA, the MA plan calls for managing the amount of open/semi-open lands at or above the current level to provide habitat for species which use openings. (Steve Griffith, DNR Wildlife Biologist).

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

Active and/gravel pits are not located in the vicinity of the compartment, but there appears to be very good sand & gravel potential within the compartment on the uplands. There are two former Antrim test wells in the area, but the wells were not developed. The compartment is generally north of the Antrim and Niagran reef plays, and oil and gas potential within the compartment is considered moderate to low at this time. If natural gas prices rise significantly and pipeline infrastructure is extended to this area, there could be future Antrim development. There currently no active mineral leases within the compartment. There is no metallic mineral potential in this part of the state. (DNR Geologist).

### **Vehicle Access:**

There are many gravel and seasonal county roads throughout the compartment within this area offering good access to State lands. There are also many forest "2 track" roads in various areas of the compartment that are in good condition and are used for public and DNR land management access.

### **Survey Needs:**

There are survey needs in sections 22, 23, and 26.

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

The Betsie Valley Trail runs through the center of this compartment on the old railroad grade. The pathway has a nice gravel base and is used for hiking, biking, cross-country skiing and snowmobiling. There is also a spur of the Platte River State Snowmobile trail that ties into the nearby Crystal Mountain facility. Hunting, fishing, kayaking, hiking, trapping, and dispersed camping are popular recreational activities throughout the compartment. (Parks & Rec.Div.)

### **Fire Protection:**

### **Additional Compartment Information:**

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

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

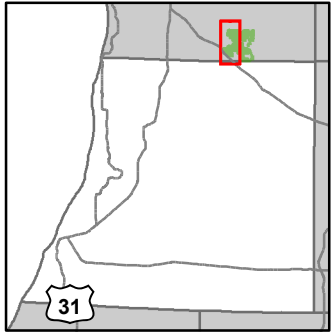
**The following information is displayed, where pertinent, on the attached compartment maps:**

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

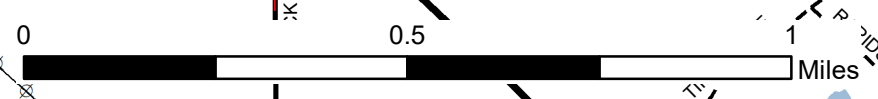
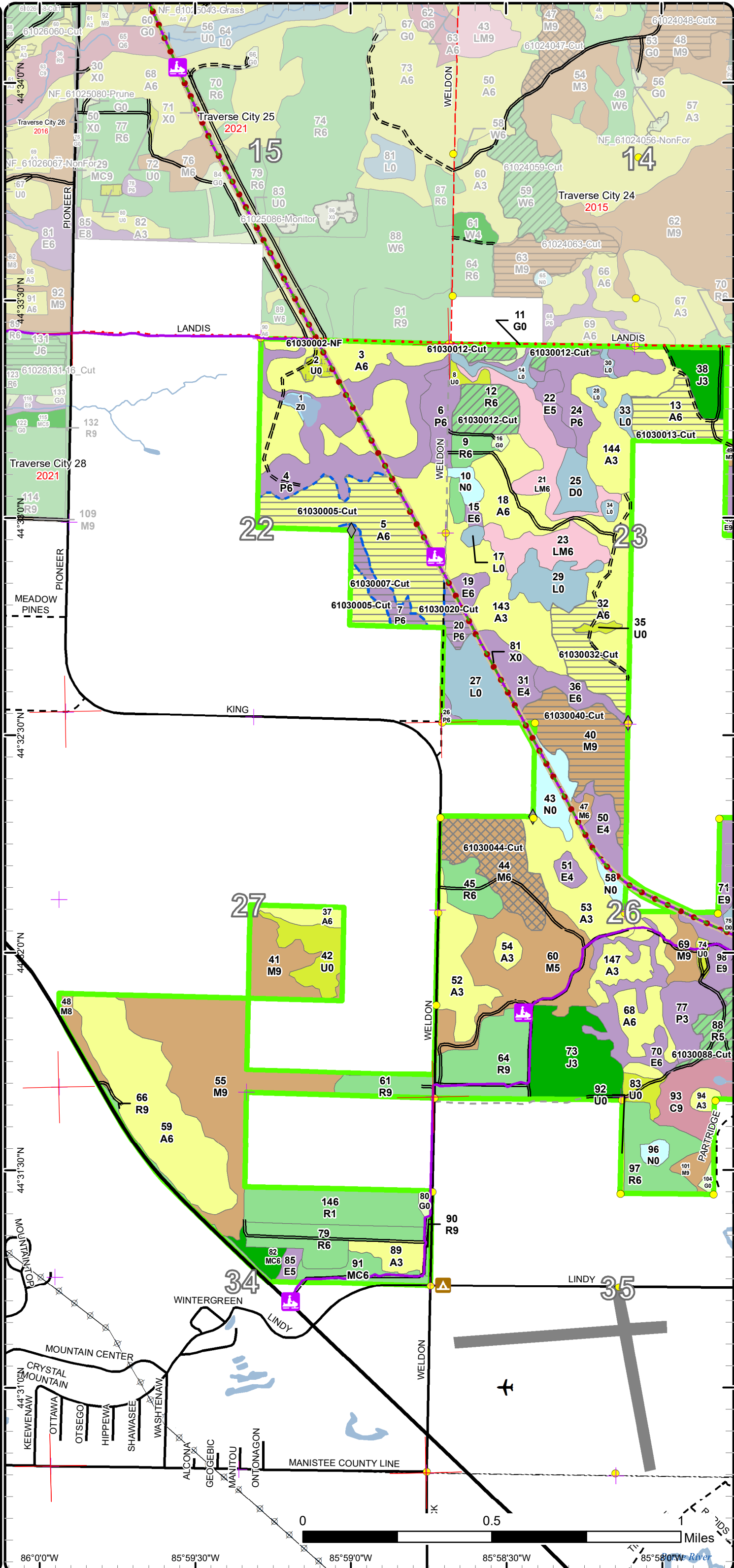
# Cover Type & Treatments Map

Compartment: 30  
T25N-R14W Sec.22-27,34-36

County: Benzie  
Unit: Traverse City  
Mgmt Area: Benzie Outwash  
YOE: 2020  
Acres: 2,090 GIS Calculated  
Examiner: Craig Allen  
Map Revised: 10/11/2018  
Map Phase: Post - Maps



- Miris Corners
- Remonumented Section Corners
- Survey Grade Corners
- Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State Highway
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Snowmobile Trails
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Snowmobile Trails
- Designated RailTrail
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Airport
- Culvert
- Campground
- Powerline
- Airports
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen
- 421 - Planted Pines
- 422 - Natural Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes

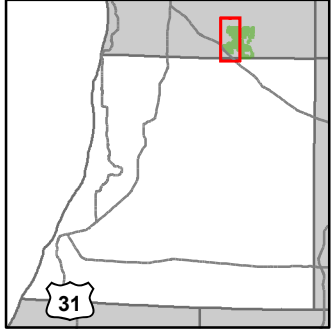


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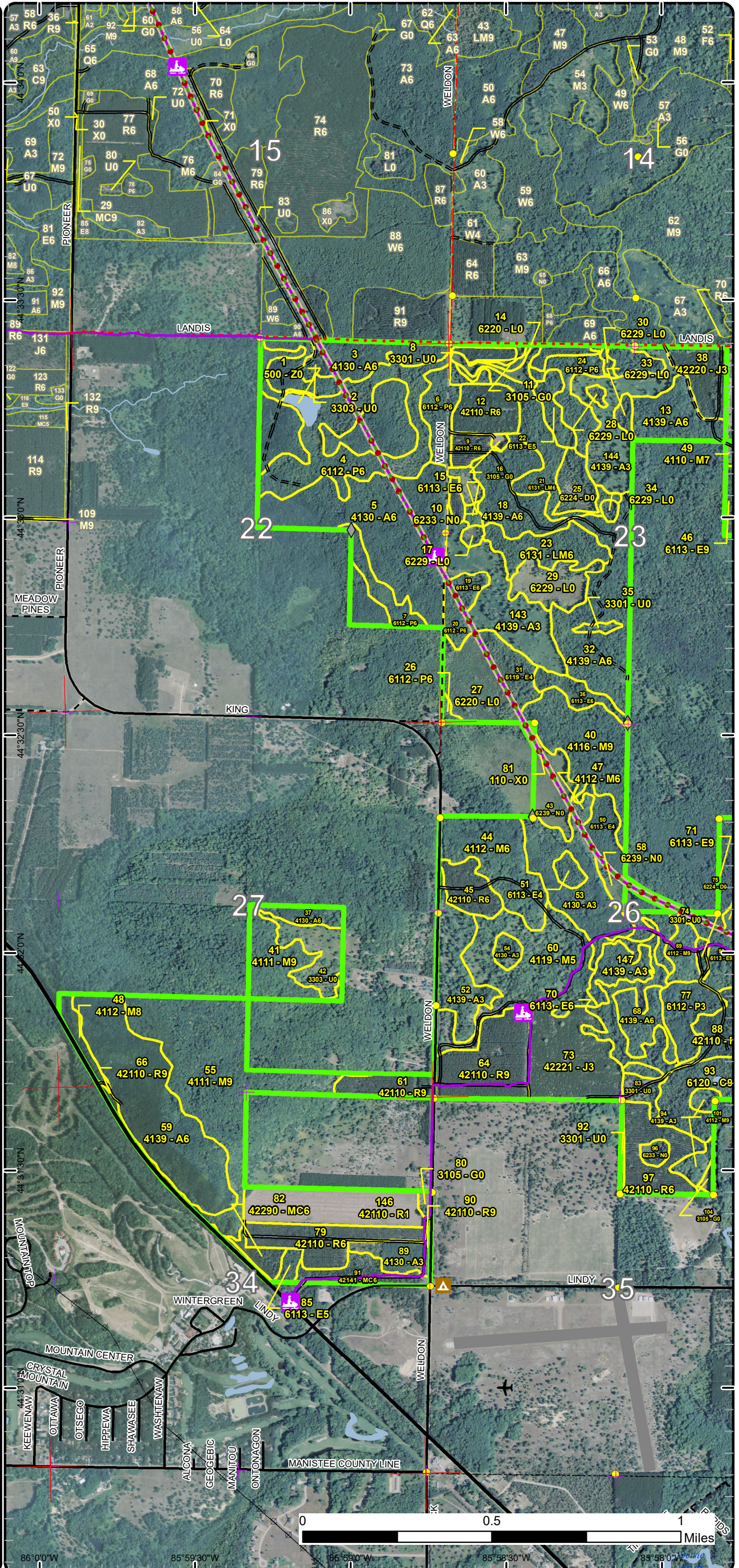
# Stand Boundary Map

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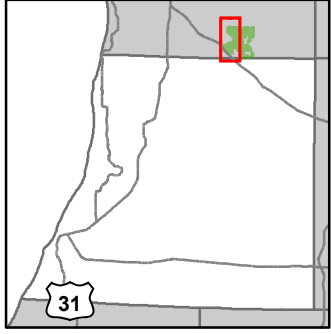
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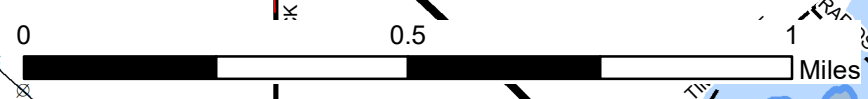
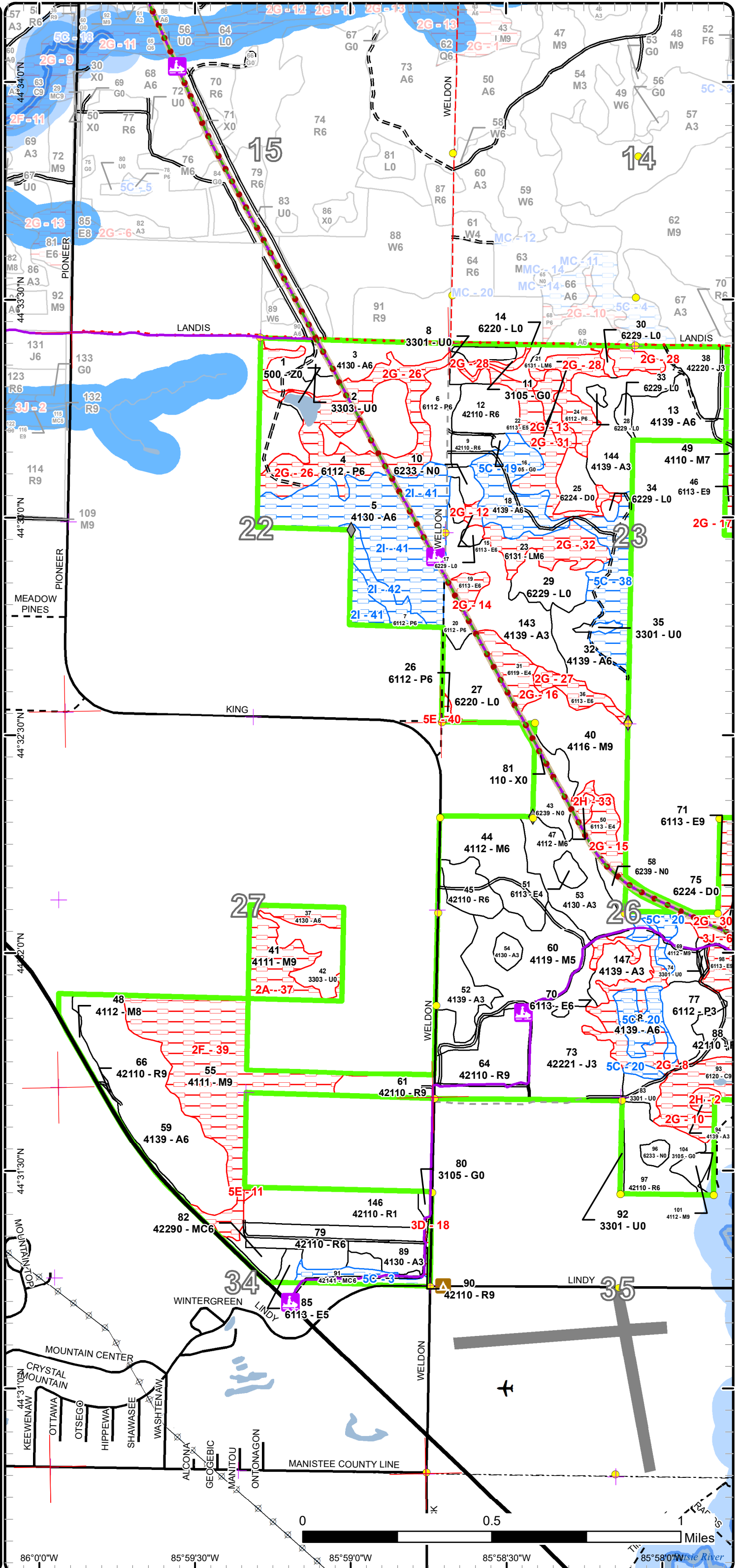
# Special Conservation Areas & Site Conditions Map

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- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2A: Adjacent landowner denied access
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
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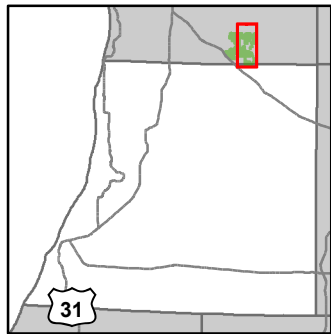


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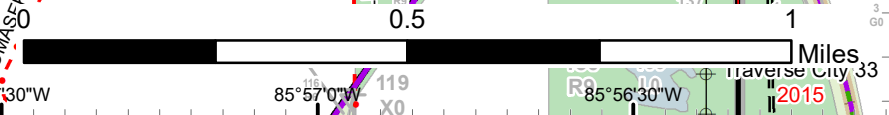
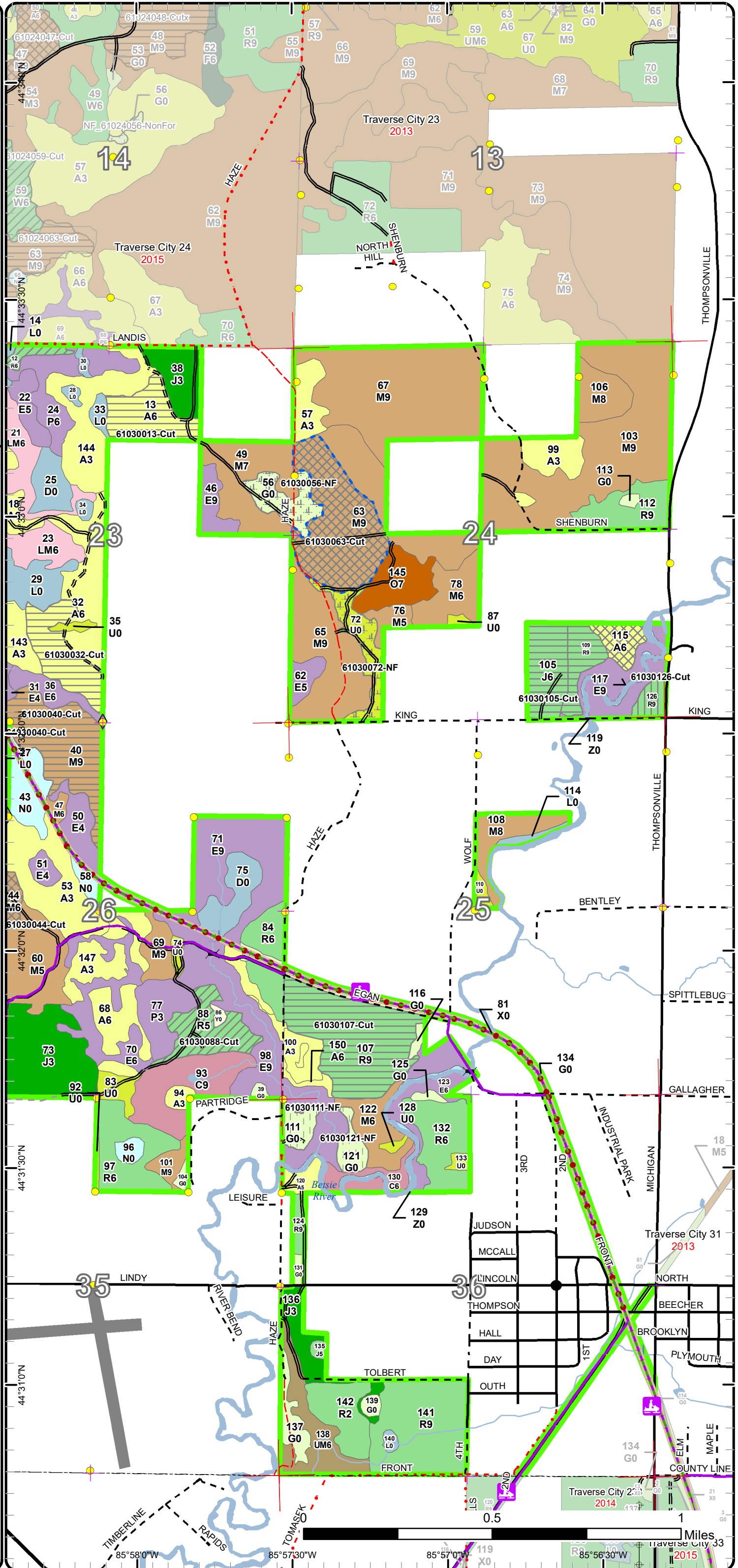
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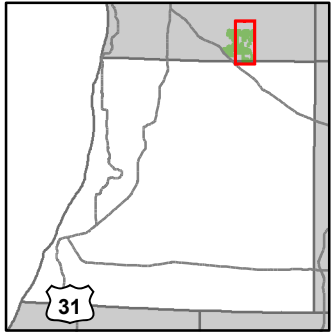
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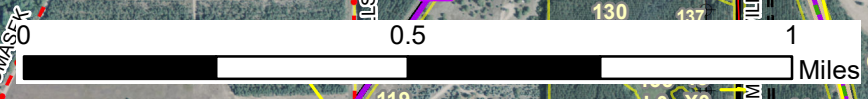
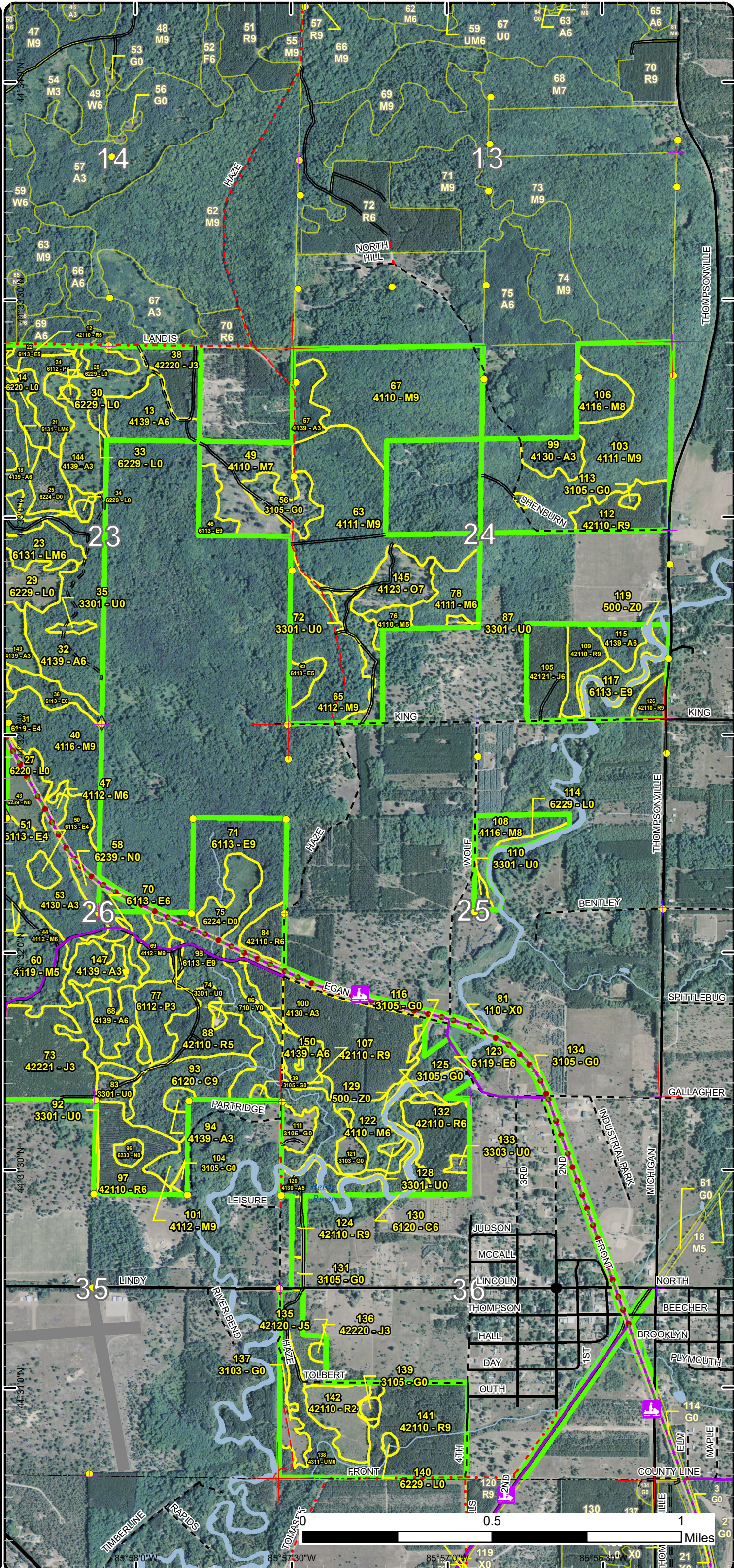
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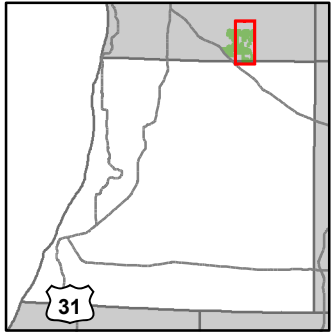
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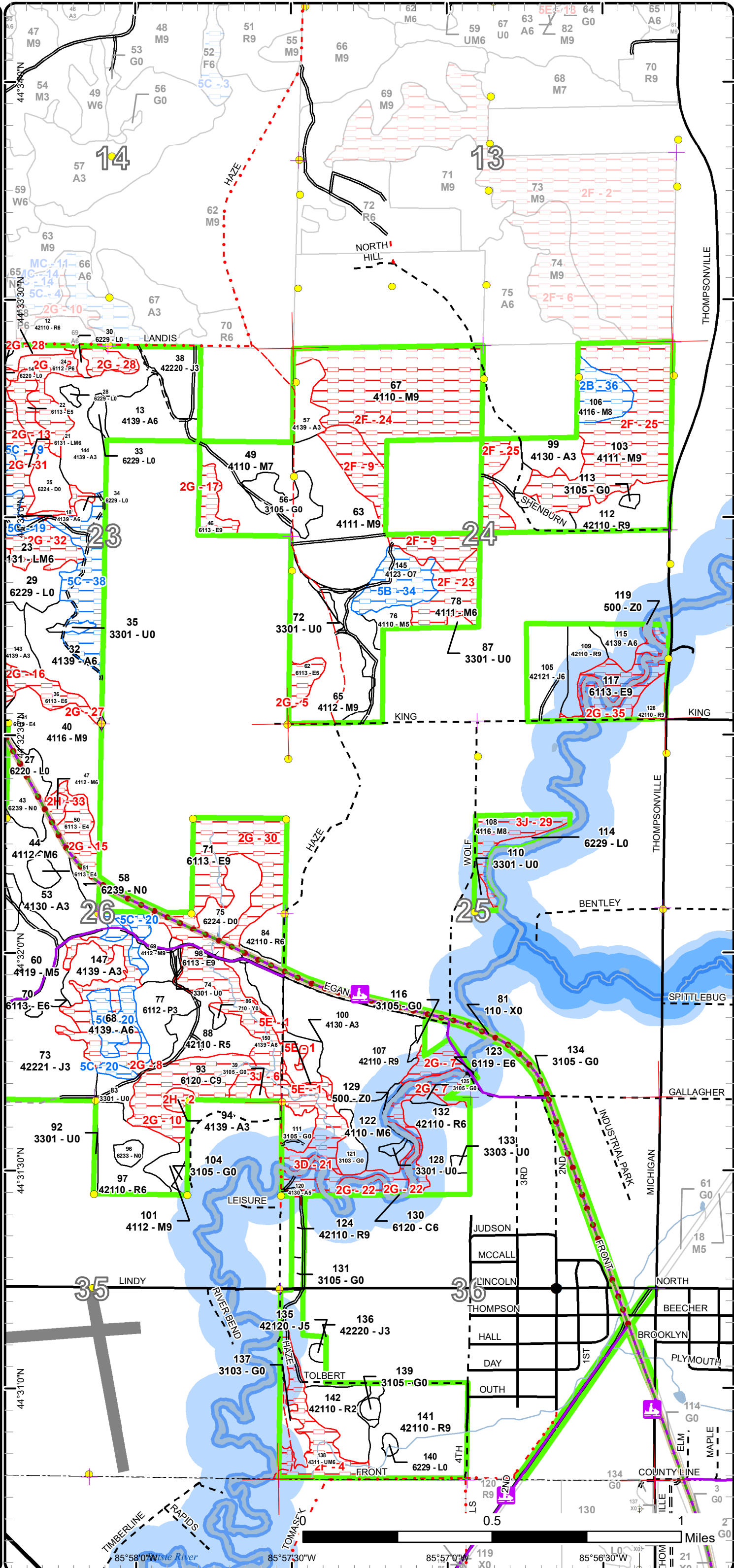
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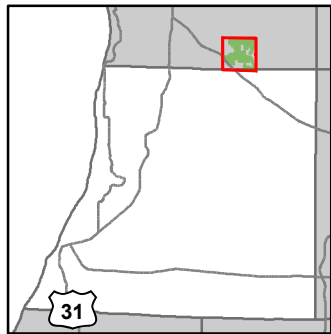
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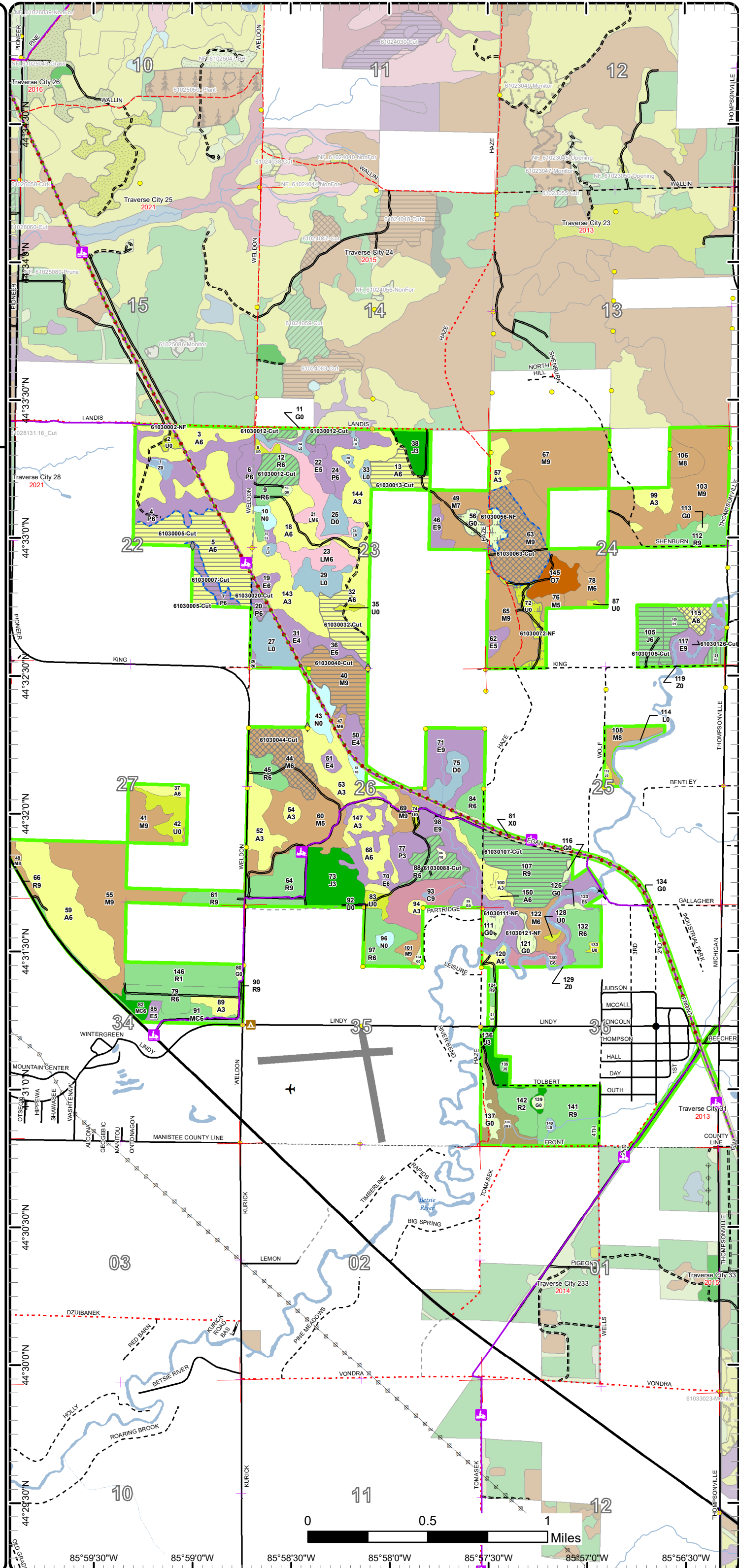
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Report 1 – Total Acres by Cover Type and Age Class



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	105	8	48	187	0	121	4	0	0	0	0	0	0	0	0	0	0	472
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	32
Herbaceous Openland	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
Jack Pine	0	0	58	17	0	0	1	0	0	0	0	0	0	0	0	0	0	0	76
Low-Density Trees	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Lowland Aspen/Balsam Poplar	0	0	0	14	68	0	6	0	0	20	0	0	0	0	0	0	0	0	108
Lowland Deciduous	0	0	0	0	0	0	15	0	18	108	5	43	0	0	0	0	0	0	189
Lowland Mixed Forest	0	0	0	0	0	0	19	16	0	0	0	0	0	0	0	0	0	0	35
Lowland Shrub	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
Marsh	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Natural Mixed Pines	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Northern Hardwood	0	0	0	0	0	49	40	0	0	326	141	0	0	0	0	0	0	0	555
Oak	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	15
Planted Mixed Pines	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	11
Red Pine	0	44	0	0	57	20	52	155	6	0	0	0	0	0	0	0	0	0	333
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Treed Bog	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Upland Mixed Forest	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	18
Urban	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Water	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
<b>Total</b>	<b>241</b>	<b>149</b>	<b>66</b>	<b>79</b>	<b>312</b>	<b>69</b>	<b>259</b>	<b>193</b>	<b>35</b>	<b>454</b>	<b>161</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2090</b>



## Report 2 – Treatment Summary

Traverse City Mgt. Unit  
Year of Entry: 2020

Acres of Harvest

Compartment 30  
Total Compartment Acres: 2,090

Commercial Harvest - 225  
Harvests with Site Condition - 107  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	94	7	0	0	0	0	0	0	0	101
Jack Pine	17	0	0	0	0	0	0	0	0	17
Lowland Aspen/Balsam Poplar	14	0	0	0	0	0	0	0	0	14
Northern Hardwood	33	71	0	0	0	0	0	0	0	104
Red Pine	55	0	0	0	5	37	0	0	0	97
<b>Total</b>	<b>212</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>332</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	332	0	0	0	0	0	0	39	0	371
Next Step	0	72	72	0	0	223	0	0	0	367
<b>Total</b>	<b>332</b>	<b>72</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>223</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>738</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
2	61030002-NF	3.2	3303 - Mixed Low Density Trees	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	320 - Upland Shrub		Approved Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or  
Specs: conifers for wildlife food and cover. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Could also 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  
Comment:

Proposed Start Date: 10/1 /2019

5	61030005-Cut	57.9	4130 - Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition: Survey Needed**

Prescription Final harvest area to re-start and expand aspen component and continue age class diversity of aspen stands in the area. Cut all hardwood  
Specs: species. Mark several retention islands within the area. May need crane mats and/or temp bridge to access west part of stand that is isolated due to lowland stand 7 and private property. Add drumming log spec.

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

Acceptable aspen, maple, cherry  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

7	61030007-Cut	8.7	6112 - Lowland Aspen	Poletimber Well	37	Unspecified	Harvest	Clearcut with Retention	6112 - Lowland Aspen	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition: Survey Needed**

Prescription Final harvest area (with adjacent stand) to re-start and expand aspen component and continue age class diversity of aspen stands in the area.  
Specs: Cut all hardwood species. Mark several retention islands within the area. May only be able to harvest this stand during dry summer months. Note: This stand harvest acres may be significantly reduced due to lowland wet conditions. add drumming specs.

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

Acceptable aspen, maple, cherry  
Regen:

Other may need crane mats  
Comment: Stand may be too wet to harvest...could keep as retention and keep from soil damage. Could still use crane mats or temp bridge to cross this stand to harvest stand 5 on west side of it.

Proposed Start Date: 10/1 /2019

12	61030012-Cut	20.2	42110 - Planted Red Pine	Poletimber Well	38	171-200	Harvest	Systematic Thinning	42110 - Planted Red Pine	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin by harvesting every 3rd row of the plantation. (first thinning).  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019



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
13	61030013-Cut	17.5	4139 - Aspen, Mixed Deciduous	Poetimber Well	57	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Approved Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Harvest to expand aspen type in upland areas of the stand. Cut all hardwood types and leave any conifer....will have some uncut areas where drainage or wet areas exist...these areas could be used for retention. Parts of the south line may be too lowland for cutting. Also, some retention island possibilities around hemlock and sugar maple zones. Add drumming log spec.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: aspen, maple, cherry, white pine

Other Comment:

Proposed Start Date: 10/1 /2019

20	61030020-Cut	4.8	6112 - Lowland Aspen	Poetimber Well	57	51-80	Harvest	Clearcut with Retention	6112 - Lowland Aspen	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Harvest more upland portions of stand when adjacent aspen stand west of weldon road is harvested. Cut all aspen, maple, fir and beech to expand and regenerate aspen. For retention...leave lowland areas and protect areas of hemlock. Add drumming log spec.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: aspen, maple, cherry

Other Comment:

Proposed Start Date: 10/1 /2019

32	61030032-Cut	18.3	4139 - Aspen, Mixed Deciduous	Poetimber Well	57	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Final harvest stand to regenerate and expand aspen component and continue age class diversity in the area. Keep most pine within stand. Leave retention along adjacent lowland edges or as retention island(s). Add drumming log spec.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: aspen, maple, cherry, white pine

Other Comment:

Proposed Start Date: 10/1 /2019

40	61030040-Cut	32.9	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	58	81-110	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut to regenerate and expand aspen component. Cut all aspen, maple, birch, cherry, beech (if present). Leave retention along wetland edges and around areas of hemlock...could possibly have a few small interior retention islands if needed. Due to low ground, may want to harvest only in dry summer months. Add drumming log spec.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: aspen, maple, birch, cherry, hemlock

Other Comment: Will need to use temporary bridge (and possible crane mats) to access this stand across lowland stand 36 from stand 32 to the north during harvest.

Proposed Start Date: 10/1 /2019



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
44	61030044-Cut	30.0	4112 - Maple, Beech, Cherry Association	Poletimber Well	80	51-80	Harvest	Group Selection	4116 - Mixed N. Hardwood - Aspen	Two-Aged	Approved Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Harvest most of the trees in areas heavy to aspen to open-up for aspen regeneration. Cut all beech throughout the stand (due to beech bark disease) and select mark all other species, leaving pockets of better form/health trees in groups in areas where aspen is not as prevalent. Add drumming log spec.  
Specs:

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

Acceptable Regen: aspen, maple, mixed hardwood

Other Comment:

Proposed Start Date: 10/1 /2019

56	61030056-NF	11.5	3105 - Mixed Upland Herbaceous	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3105 - Mixed Upland Herbaceous		Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Selectively 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. Could also 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.  
Specs: Do not cut any sugar maple or aspen saps/poles along edges of openings as per agreed at pre-review meeting.

Next Step  
Treatments:

Acceptable Regen:

Other Comment: Do not cut any sugar maple or aspen saps/poles along edges of openings as per agreed at pre-review meeting.

Proposed Start Date: 10/1 /2019

63	61030063-Cut	40.7	4111 - S.Maple, Hard Mast Association	Sawtimber Well	90	111-140	Harvest	Single Tree Selection	4116 - Mixed N. Hardwood - Aspen	Uneven-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition: Too Steep**

Prescription Harvest majority of aspen and beech, then select mark remaining species to remove poor health, form, multiple stem as needed. Retain approx 80 BA residual, except possibly open up areas where aspen is in higher concentration.  
Specs:

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

Acceptable Regen: aspen, maple, cherry, ash, basswood, oak.

Other Comment:

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
72	61030072-NF	13.0	3301 - Low Density Deciduous Trees	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3205 - Mixed Upland Shrub		Approved Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Selectively 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. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

88	61030088-Cut	16.7	42110 - Planted Red Pine	Poletimber Medium	38	171-200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Harvest every 3rd row to thin stand by 1/3 volume (first thinning).

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

105	61030105-Cut	17.3	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	27	Unspecified	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut the existing jack pine (no retention) to convert this area to red pine by trenching and replanting the site after harvest.

Next Step SitePrep, Trenching; Planting, Replant  
Treatments:

Acceptable red pine  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

107	61030107-Cut	45.2	42110 - Planted Red Pine	Sawtimber Well	68	141-170	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut mature plantation, then trench and re-plant to red pine. Leave some retention areas near SE stand edge toward river. Also, possibly leave a couple islands in within stand as well. Also, may have to mechanically treat area after harvest with roller chopping if slash too thick for trenching.

Next Step SitePrep, Trenching; Planting, Replant  
Treatments:

Acceptable red pine  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019





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
109	61030109-Cut	9.6	42110 - Planted Red Pine	Sawtimber Well	68	111- 140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Approved Proposal

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

Prescription Clearcut existing mature red pine plantation and re-plant to red pine to start plantation anew. Leave some uncut retention areas along edge of bluff near river. Keep harvest boundary minimum of 100 feet from river. May need some mechanical site prep prior to replanting.

Next Step SitePrep, Trenching; Planting, Replant  
Treatments:

Acceptable red pine  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

111	61030111-NF	5.7	3105 - Mixed Upland Herbaceous	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		Approved Proposal
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**Habitat Cut: No****Site Condition:**

Prescription This opening is dominated by bracken fern due to lack of natural disturbances. Mechanically treat bracken to reduce its extent, plant to annual rye for several years and then convert to an appropriate perennial pasture mix (i.e. clover/alfalfa) or native mix if soils will allow. Periodic maintenance such as mowing, fertilization, reseeding, burning, and/or removal of woody encroachment. Could also plant native shrubs or mast producing trees for wildlife.

Next Step  
Treatments:

Acceptable  
Regen:

Other This stand is very near the Thompsonville Sportsmen's Club HQ and might be a great wildlife opening for them to adopt as a club project. Blue  
Comment: bird houses?

Proposed Start Date: 10/1 /2019

115	61030115-Cut	7.2	4139 - Aspen, Mixed Deciduous	Poletimber Well	50	Unspec ified	Harvest	Group Selection	4116 - Mixed N. Hardwood - Aspen	Even-Aged	Approved Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Cut all aspen and select mark all other hardwood species to open up canopy in areas heavy to aspen and leaving the areas of sugar maple. Can  
Specs: mark maple (and other hardwood species) of poor health or form as needed in maple areas, but leaving best tree in place to leave higher BA's in those areas of sugar maple. Keep any conifers unless need to remove in aspen zones. Add drumming log spec.

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

Acceptable aspen, maple, basswood, cherry, white pine, ash  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

121	61030121-NF	5.3	3103 - Rubus-Fern	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		Approved Proposal
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**Habitat Cut: No****Site Condition:**

Prescription This opening is dominated by bracken fern due to lack of natural disturbances. Mechanically treat bracken to reduce its extent, plant to annual rye for several years and then convert to an appropriate perennial pasture mix (i.e. clover/alfalfa) or native mix if soils will allow. Periodic maintenance such as mowing, fertilization, reseeding, burning, and/or removal of woody encroachment. Could also plant native shrubs or mast producing trees for wildlife.

Next Step  
Treatments:

Acceptable  
Regen:

Other This stand is very near the Thompsonville Sportsmen's Club HQ and might be a great wildlife opening for them to adopt as a club project. Blue  
Comment: bird houses?

Proposed Start Date: 10/1 /2019



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
126	61030126-Cut	5.0	42110 - Planted Red Pine	Sawtimber Well	68	111-140	Harvest	Shelterwood with Retention	411 - Northern Hardwood	Uneven-Aged	Approved Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Convert stand to hardwood management. Shelterwood cut stand Leaving scattered red pine overstory to shelter existing sugar maple saps in the understory to continue to seed into the area. Protect advanced sugar maple saps as much as possible during harvest operations. Keep residual red pine trees in the stand over time for species diversity.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Sugar maple, basswood, ash, cherry, red maple,

Other

Comment:

Proposed Start Date: 10/1 /2019

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**Total Treatment Acreage Proposed: 370.7**

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

### Availability for Management

Total Acres	Acres Available	Acres Avail With Condition	Acres Not Available
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### Dominant Site Conditions

	Availability for Management			Dominant Site Conditions											
	Total Acres	Acres Available	Acres Avail With Condition	Acres Not Available	2B	2I	5B	5C	2A	2F	2G	2H	3D	3J	5E
473	317	<b>139</b>	17	Aspen		<b>72</b>		<b>67</b>	6			2	5		4
32	0	<b>0</b>	32	Cedar							32				
63	63	<b>0</b>	0	Herbaceous Openland											
76	76	<b>0</b>	0	Jack Pine											
48	48	<b>0</b>	0	Low-Density Trees											
107	30	<b>9</b>	69	Lowland Aspen/Balsam Poplar		<b>9</b>					68				1
189	6	<b>0</b>	183	Lowland Deciduous							139			43	
36	0	<b>0</b>	36	Lowland Mixed Forest							36				
51	51	<b>0</b>	0	Lowland Shrub											
22	22	<b>0</b>	0	Marsh											
5	5	<b>0</b>	0	Natural Mixed Pines											
554	222	<b>12</b>	321	Northern Hardwood	<b>12</b>				19	288		2		13	
15	0	<b>15</b>	0	Oak			<b>15</b>								
11	0	<b>11</b>	0	Planted Mixed Pines				<b>11</b>							
333	303	<b>0</b>	30	Red Pine									1		29
1	1	<b>0</b>	0	Sand, Soil											
21	21	<b>0</b>	0	Treed Bog											
18	0	<b>0</b>	18	Upland Mixed Forest						18					
21	21	<b>0</b>	0	Urban											
14	14	<b>0</b>	0	Water											
2,090	1,199	<b>185</b>	706	Total Forested Acres	<b>12</b>	<b>80</b>	<b>15</b>	<b>78</b>	25	306	275	4	6	56	34
	57%	<b>9%</b>	34%	Relative Percent											

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

Site No.	Dominant Site Cond	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

2	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Clearcut and convert this stand to red pine when adjacent red pine stand is final harvested and re-planted.							
4	<b>Unavailable</b>	<b>2F: Too steep</b>	18	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	43	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> creek corridor...feeds into Betsie River.							
7	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	16	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	19	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
9	Unavailable	2F: Too steep	23	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> very steep hillside along private land boundary							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> wet year round							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
18	Unavailable	3D: Recreational / Scenic values	2	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Road side, edge stand...leave for aesthetics and wind break							
19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	24	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> staggering aspen age class in the area...some adjacent stands cut recent or scheduled for harvest so hang on to this one for later age.							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

20	<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> delay to stagger age class in area..adjacent stand 143 recently cut							
21	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	5	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> leave for recreational use along river. Also, small stand too close to natural river for harvesting.							
22	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	8	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
23	<b>Unavailable</b>	<b>2F: Too steep</b>	15	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Majority of stand is too steep for operation of logging equipment. The steep area is also where the highest BA volume exists.							
24	<b>Unavailable</b>	<b>2F: Too steep</b>	69	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> majority of stand is too steep for equipment operation, especially difficult to find operable access and landing due to terrain and private boundaries.							
25	<b>Unavailable</b>	<b>2F: Too steep</b>	68	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

26	<b>Unavailable</b>	2G: Too wet (sensitive soils, does not include access issues)	48	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
27	<b>Unavailable</b>	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
28	<b>Unavailable</b>	2G: Too wet (sensitive soils, does not include access issues)	20	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
29	<b>Unavailable</b>	3J: Water quality / BMPs (stream, river, or lake)	13	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
30	<b>Unavailable</b>	2G: Too wet (sensitive soils, does not include access issues)	35	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



## Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

31	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	19	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
32	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	16	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
33	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
34	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	15	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> regeneration harvest done in 2013							
35	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	18	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
36	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

**Report 4 – Site Conditions**

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 30

Year of Entry: 2020

37	<b>Unavailable</b>	<b>2A: Adjacent landowner denied access</b>	25	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
38	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	24	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
39	<b>Unavailable</b>	<b>2F: Too steep</b>	72	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
40	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
41	<b>Available</b>	<b>2I: Survey needed</b>	72	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Coded at pre-review. Nate							
42	<b>Available</b>	<b>2I: Survey needed</b>	9	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Coded at pre-review. Nate							

Mgt. Unit

Compartment: #Type!

Year of Entry:



## Report 5 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments

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**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	4130 - Aspen	Poletimber Well	54.3	37	Unspecified	
4	6112 - Lowland Aspen	Poletimber Well	48.0	37	Unspecified	
5	4130 - Aspen	Poletimber Well	71.7	37	Unspecified	
6	6112 - Lowland Aspen	Poletimber Well	11.4	37	Unspecified	
7	6112 - Lowland Aspen	Poletimber Well	8.7	37	Unspecified	
9	42110 - Planted Red Pine	Poletimber Well	7.7	56	111-140	
12	42110 - Planted Red Pine	Poletimber Well	20.2	38	171-200	
13	4139 - Aspen, Mixed Deciduous	Poletimber Well	17.5	57	Unspecified	Also contains scattered yellow birch, balsam fir, hemlock The stand is mostly upland, but has pockets of lowland wet areas and drainages.
15	6113 - Lowland Maple	Poletimber Well	1.5	57	Unspecified	
18	4139 - Aspen, Mixed Deciduous	Poletimber Well	23.5	52	Unspecified	
19	6113 - Lowland Maple	Poletimber Well	4.0	80	Unspecified	
20	6112 - Lowland Aspen	Poletimber Well	4.8	57	51-80	
21	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	19.4	57	81-110	
22	6113 - Lowland Maple	Poletimber Medium	6.8	80	Unspecified	
23	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	16.3	60	81-110	
24	6112 - Lowland Aspen	Poletimber Well	19.7	80	51-80	Standing water throughout
26	6112 - Lowland Aspen	Poletimber Well	1.4	57	1-50	
31	6119 - Mixed Lowland Deciduous Forest	Poletimber Poor	9.9	80	Unspecified	

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## Traverse City Mgt. Unit

## Report 7 – Forested Stands

Compartment: 30  
Year of Entry: 2020

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4139 - Aspen, Mixed Deciduous	Poletimber Well	42.2	57	Unspecified	
36	6113 - Lowland Maple	Poletimber Well	7.3	80	Unspecified	
37	4130 - Aspen	Poletimber Well	6.1	56	Unspecified	
38	42220 - Natural Jack Pine	Sapling Well	13.2	18	Unspecified	
40	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	32.9	58	81-110	Also has a few cherry, hemlock, fir
41	4111 - S.Maple, Hard Mast Association	Sawtimber Well	19.0	80	81-110	
44	4112 - Maple, Beech, Cherry Association	Poletimber Well	30.0	80	51-80	Not much ground cover.
45	42110 - Planted Red Pine	Poletimber Well	10.7	56	111-140	
46	6113 - Lowland Maple	Sawtimber Well	7.4	85	Unspecified	
47	4112 - Maple, Beech, Cherry Association	Poletimber Well	1.9	58	51-80	
48	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	5.6	80	81-110	
49	4110 - Sugar Maple Association	Sawtimber Poor	25.9	94	1-50	
50	6113 - Lowland Maple	Poletimber Poor	10.1	58	1-50	
51	6113 - Lowland Maple	Poletimber Poor	3.4	80	Unspecified	
52	4139 - Aspen, Mixed Deciduous	Sapling Well	22.1	6	1-50	
53	4130 - Aspen	Sapling Well	28.3	25	Unspecified	
54	4130 - Aspen	Sapling Well	3.4	6	Unspecified	
55	4111 - S.Maple, Hard Mast Association	Sawtimber Well	72.1	80	81-110	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
57	4139 - Aspen, Mixed Deciduous	Sapling Well	9.4	26	Unspecified	
59	4139 - Aspen, Mixed Deciduous	Poletimber Well	61.0	36	Unspecified	
60	4119 - Mixed Northern Hardwoods	Poletimber Medium	49.2	40	1-50	
61	42110 - Planted Red Pine	Sawtimber Well	9.7	68	141-170	
62	6113 - Lowland Maple	Poletimber Medium	5.0	90	1-50	
63	4111 - S.Maple, Hard Mast Association	Sawtimber Well	64.4	90	111-140	South end of stand was thinned in 1983 (south of 2-track). Very steep hill as proceed easterly.
64	42110 - Planted Red Pine	Sawtimber Well	28.9	68	141-170	Plantation was originally alternating rows of Jack & red. 2001- rows of jp were cut out & red pine select marked thinning.
65	4112 - Maple, Beech, Cherry Association	Sawtimber Well	35.5	90	51-80	
66	42110 - Planted Red Pine	Sawtimber Well	4.3	70	1-50	
67	4110 - Sugar Maple Association	Sawtimber Well	68.9	85	141-170	ok quality...although lots of multi stems Occasional red oak
68	4139 - Aspen, Mixed Deciduous	Poletimber Well	19.5	58	Unspecified	Also contains some ash, cherry, cedar, birch
69	4112 - Maple, Beech, Cherry Association	Sawtimber Well	7.9	80	81-110	Mostly upland, but has some wet areas. Also has scattered aspen and yellow birch.
70	6113 - Lowland Maple	Poletimber Well	19.2	80	Unspecified	
71	6113 - Lowland Maple	Sawtimber Well	34.8	87	81-110	High water table, Lots of windthrow, Some decent quality sawlogs. Pockets of blueberry. Remnant old road bed along east boundary. Also contains scattered yellow birch.
73	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	33.1	18	Unspecified	
76	4110 - Sugar Maple Association	Poletimber Medium	4.6	50	1-50	Has some semi-open holes in stand. Quite a dry site. Occasional wolfy sugar maple or oak

Stand	Traverse City Mgt. Unit		Report 7 – Forested Stands			Compartment: 30	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2020	
77	6112 - Lowland Aspen	Sapling Well	13.6	25	Unspecified		
78	4111 - S.Maple, Hard Mast Association	Poletimber Well	14.6	90	81-110		
79	42110 - Planted Red Pine	Poletimber Well	20.3	58	111-140		
82	42290 - Natural Mixed Pine	Poletimber Well	4.7	50	1-50		Also has some scattered cherry trees
84	42110 - Planted Red Pine	Poletimber Well	13.5	50	81-110		
85	6113 - Lowland Maple	Poletimber Medium	2.7	50	81-110		
88	42110 - Planted Red Pine	Poletimber Medium	16.7	38	171-200		very sandy and hilly in places. some areas of stunted growth
89	4130 - Aspen	Sapling Well	8.0	17	Unspecified		
90	42110 - Planted Red Pine	Sawtimber Well	1.5	70	111-140		
91	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	10.8	79	1-50		
93	6120 - Lowland Cedar	Sawtimber Well	24.4	130	111-140		Lots of course woody debris. Heavy moss on ground Some grape vines. A few scattered pockets of Hemlock regen. small bog pond in center of stand
94	4139 - Aspen, Mixed Deciduous	Sapling Well	2.5	8	Immature		Was habitat cut by wildlife division in 2010 to regen aspen, maple.
97	42110 - Planted Red Pine	Poletimber Well	19.9	49	111-140		
98	6113 - Lowland Maple	Sawtimber Well	43.4	102	81-110		
99	4130 - Aspen	Sapling Well	10.7	26	Unspecified		
100	4130 - Aspen	Sapling Well	10.5	3	Immature		
101	4112 - Maple, Beech, Cherry Association	Sawtimber Well	4.6	85	81-110		







	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
103	4111 - S.Maple, Hard Mast Association	Sawtimber Well	80.5	80	81-110	
105	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	17.3	27	Unspecified	Also has some scattered Red pine
106	4116 - Mixed N. Hardwood - Aspen	Sawtimber Medium	11.5	80	81-110	Could clearcut for aspen regen, and mark some leave oak trees.
107	42110 - Planted Red Pine	Sawtimber Well	45.2	68	141-170	
108	4116 - Mixed N. Hardwood - Aspen	Sawtimber Medium	12.5	85	51-80	
109	42110 - Planted Red Pine	Sawtimber Well	9.6	68	111-140	
112	42110 - Planted Red Pine	Sawtimber Well	15.6	68	141-170	Was thinned twice: 1990, 2000
115	4139 - Aspen, Mixed Deciduous	Poletimber Well	7.2	50	Unspecified	Harvest stand when adjacent pine stands are cut.
117	6113 - Lowland Maple	Sawtimber Well	17.6	70	81-110	Flood plain along Betsie River. Also contains a few yellow birch, red oak, and cedar.
120	4130 - Aspen	Poletimber Medium	4.5	55		
122	4110 - Sugar Maple Association	Poletimber Well	12.7	85	81-110	Medium quality overall lots of multi-stems not much ground plants some log trees on north end. was grazed?? long ago?? A few beech, hemlock
123	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	15.6	85	1-50	+Occasional elm
124	42110 - Planted Red Pine	Sawtimber Well	3.3	68	81-110	
126	42110 - Planted Red Pine	Sawtimber Well	5.0	68	111-140	
130	6120 - Lowland Cedar	Poletimber Well	7.7	130		Mostly river bottom land along the Betsie river.
132	42110 - Planted Red Pine	Poletimber Well	19.7	38	141-170	
135	42120 - Planted Jack Pine	Poletimber Medium	1.2	57	Unspecified	A deep frost pocket topographic depression that was left uncut when the surrounding stand was harvested.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
136	42220 - Natural Jack Pine	Sapling Well	11.5	17	Unspecified	
138	4311 - Pine, Aspen Mix	Poletimber Well	18.2	68	51-80	
141	42110 - Planted Red Pine	Sawtimber Well	38.0	68	141-170	Thinned in 2000 and jack pine was removed too.
142	42110 - Planted Red Pine	Sapling Medium	14.8	7	Immature	Area was low quality sparse jack pine regeneration from a previous harvest. Was prescribed to be converted to red pine. Area was then roller chopped to cut jack pine and maple and prepare area for planting. Was then trenched and planted to red pine seedlings on 4/30/2011
143	4139 - Aspen, Mixed Deciduous	Sapling Well	31.1	6	Unspecified	
144	4139 - Aspen, Mixed Deciduous	Sapling Well	26.1	5	Unspecified	Area was harvested in feb. 2013.
145	4123 - Red Oak	Sawtimber Poor	15.2	90	1-50	Some decent quality red oak and some big & wolfy.
146	42110 - Planted Red Pine	Sapling Poor	28.5	3	Immature	This was an experimental red pine plantation signed as "forest insect study" Spacing is varied in 5 different areas in the stand. Project ended so stand was clearcut in fall 2013 and scheduled to trench and replant to back to red pine in effort to properly space new trees and create more age diversity in RP plantations in the management area. Trenched and re-planted to red pinenote: there is .47 acre area of mature pine in NW corner of stand that was left as retention island.
147	4139 - Aspen, Mixed Deciduous	Sapling Well	9.5	3	Immature	Also contains some cherry, cedar, birch
150	4139 - Aspen, Mixed Deciduous	Poletimber Well	3.8	67		Contains a small isolated vernal pond.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	500 - Water	2.1	No	Ponded water in low area with scattered shrubs.
2	3303 - Mixed Low Density Trees	3.2	No	Goldenrod, moss.
8	3301 - Low Density Deciduous Tree	2.1	No	filling in with pine
10	6233 - Wet Meadow	3.6	No	Some rubus, aspen, white pine.
11	3105 - Mixed Upland Herbaceous	2.0	No	
14	6220 - Alder/willow	4.4	No	Red osier dogwood, white pine poles along edge and some seedlings within, goldenrod, sedge, rubus. There is a cement culvert under Landis Rd.
16	3105 - Mixed Upland Herbaceous	1.0	No	
17	6229 - Mixed lowland shrub	1.7	No	
25	6224 - Treed Bog	8.9	No	
27	6220 - Alder/willow	20.2	No	Willow shrubs, red maple.
28	6229 - Mixed lowland shrub	1.2	No	
29	6229 - Mixed lowland shrub	14.6	No	
30	6229 - Mixed lowland shrub	1.2	No	
33	6229 - Mixed lowland shrub	2.4	No	
34	6229 - Mixed lowland shrub	1.4	No	
35	3301 - Low Density Deciduous Tree	1.6	No	
39	3105 - Mixed Upland Herbaceous	1.1	No	
42	3303 - Mixed Low Density Trees	14.2	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
43	6239 - Mixed Emergent Wetland	12.3	No	Scattered snags.
56	3105 - Mixed Upland Herbaceous	11.5	No	Stump sprout red maples.
58	6239 - Mixed Emergent Wetland	3.0	No	Similar to stand 43.
72	3301 - Low Density Deciduous Tree	13.0	No	Traces of SJW, sheep sorrel, rubus, and oak seedlings. Old autumn olive planting at south end. Shrubs looking healthy.
74	3301 - Low Density Deciduous Tree	1.8	No	Goldenrod and SJW. Lots if maple and aspen encroachment.
75	6224 - Treed Bog	12.0	No	
80	3105 - Mixed Upland Herbaceous	1.4	No	Small block or notch that was not planted out of rectangular pine plantation. Scattered trees and herbaceous cover. Contains some old apple orchard trees.
81	110 - Low Intensity Urban	21.0	Yes	
83	3301 - Low Density Deciduous Tree	5.0	No	Scattered honeysuckle and some autumn olive planted along perimeter. Traces of SKW, cladonia, lycapodia.
86	710 - Sand, Soil	1.0	No	Small sand blowout in pine plantation.
87	3301 - Low Density Deciduous Tree	1.1	No	Same opening as stand 72, just is isolated by a private parcel.
92	3301 - Low Density Deciduous Tree	1.3	No	This opening is a long and narrow stand running down the edge a pine plantation. Species composition is similar to stand 83.
96	6233 - Wet Meadow	2.7	No	
104	3105 - Mixed Upland Herbaceous	1.3	No	Goldenrod, hoary alysum, autumn olive, brome, daisy fleabane, St. John's wort, and several pine saps.
110	3301 - Low Density Deciduous Tree	2.1	No	Part of small isolated parcel along Betsie River. Clump of trees to the north and mostly open on south end. Possible minor trespass from private property to the west.
111	3105 - Mixed Upland Herbaceous	5.7	No	
113	3105 - Mixed Upland Herbaceous	1.0	No	Scattered red pine and beech saplings. This opening was created by localized red pine die-off within a plantation.



Stand	Cover Type	Acres	Managed Site	General Comments:
114	6229 - Mixed lowland shrub	2.4	No	Betsie River and adjacent lowland shrub stand.
116	3105 - Mixed Upland Herbaceous	1.4	No	Grassy area directly behind Betsie River Sportsmans Club. Several of their items are in trespass (trailer, targets). Apple trees and some scattered red pine saps.
119	500 - Water	3.7	No	Betsie River
121	3103 - Rubus-Fern	5.3	No	Goldenrod, SJW, choke cherry, hoary alysum, mullin, juneberry, hawthorn.
125	3105 - Mixed Upland Herbaceous	1.2	No	Similar to stand 128.
128	3301 - Low Density Deciduous Tree	1.0	No	
129	500 - Water	7.8	No	Betsie River
131	3105 - Mixed Upland Herbaceous	1.8	No	South end has some trees. Snowmobile trail connector. Large bowl depression with old wooden steps and foundation. Phlox, hoary alysum, honeysuckle, wormwood.
133	3303 - Mixed Low Density Trees	1.5	No	Old well pad of off Wells Rd.
134	3105 - Mixed Upland Herbaceous	19.6	Yes	Betsie Valley Snowmobile trail corridor on an old RR grade. Mix of grasses, skw, seedlings.
137	3103 - Rubus-Fern	6.9	No	Hoary alysum, vetch, timothy, yarrow, 1 hawthorne, goldenrod, goatsbeard, mullin, daisy fleabane, hoary vervain, white clover.
139	3105 - Mixed Upland Herbaceous	1.7	No	On an isolated but accessible 80 of state land. Target shooting in depression/bowl. Slash piles on east edge. Hoary alysum, milkweed, mullin, wild grape, rubus, honeysuckle, phlox.
140	6229 - Mixed lowland shrub	1.2	No	