



# Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63063

Entry Year 2018

Acreage: 3,102

County Wexford

Management Area: Benzie Moraines

**Revision Date:** 2016-06-10

**Stand Examiner:** Joe Ventimiglia

**Legal Description:**

T23N R12W, Section: 6, 7, 18

T24N R12W, Section: 19, 20, 21, 28, 29, 31, 32

**Identified Planning Goals:**

Vegetative management in the Benzie Moraines management area (MA) will produce various forest products; maintain or enhance biodiversity conservation and wildlife habitat; protect areas of unique character and threatened, endangered and special concern species; provide for forest-based recreational uses; and Native American non-commercial use of forest products. Timber management for this 10-year planning period includes improving the age-class structure of aspen and red pine and continued selection harvesting in high-quality northern hardwoods to achieve an all-age structure. 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 within this 10-year planning period are forest pest issues, particularly beech bark disease and emerald ash borer and an increase in recreational trail use.

**Soil and topography:**

Kalkaska-Rubicon Association. Rolling uplands.

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

Relatively solid block of State land intermixed with various private ownership. Primarily seasonal homes although some full time residence.

**Unique Natural Features:**

The Michigan Natural Features Inventory lists the Bigmouth shiner, wood turtle, bald eagle, and red-shouldered hawk as having occurred in the compartment. The compartment has the potential for goshawk, red-shouldered hawk, and the eastern box turtle.

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

In west end of Stand 86- old foundation of Union School District # 8 (1903-1914) remains with commemorative sign off 14rd. Otherwise nothing noted.

**Special Management Designations or Considerations:**

M-115 bisects the compartment. A State-operated roadside park is situated on the north side of M-115 on the eastern side of the compartment.

**Watershed and Fisheries Considerations:**

There are no watershed or fisheries considerations for Compartment 63.

**Wildlife Habitat Considerations:**

Priority wildlife species are marten, black-throated blue warbler, deer, turkey and grouse. Management emphasis for the former two species will include managing large, contiguous tracts of mature stands, maintenance of vertical stand structure by promoting uneven-aged management and a well-developed shrub layer, increasing coarse woody debris, and retention of large diameter trees. Management for the latter three species will include maintaining openings complexes, oak regeneration, and balancing aspen age classes. Timber sale specifications for these featured species (where applicable) will include protection of mast bearing shrubs and ironwood, protection of standing dead snags, creation of drumming logs (1-2 per acre) and woody debris (tops or whole trees) in aspen cuts. (Victory, 5/24/16)

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

Surface sediments consist of an end moraine of coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. The Coldwater does not have an economic use. Gravel pits are located in Section 7 & 18 and potential

appears to be good. Most of this area lies south of the prolific Silurian Niagaran reef trend. There may be some potential for Niagaran reefs in the northern portion of the Compartment. Part of this area is currently leased for oil and gas exploration.

**Vehicle Access:**

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. Also indicated are forest roads and trails under the jurisdiction of the DNR that are proposed for abandonment. These roads were determined to be in excess of the access needs in the area, are a threat to the resources, or are a concern environmentally.

**Survey Needs:**

None at this time.

**Recreational Facilities and Opportunities:**

A new section of the Betsie Valley Rail Trail cuts across the southern part of this compartment. This old rail grade is currently in process to be approved for designated snowmobile and non-motorized trail use. Trail protection specifications should be considered if treatments will impact this new section of rail trail. (T.N. 1/29/16)

**Fire Protection:**

This area is predominantly hardwoods, with numerous red pine plantations within the compartment. There is the potential for moderate to large fire growth, due to the terrain. The area would have fairly good access for suppression equipment; however there are some areas that are very steep, which could cause difficulty for suppression equipment. Remote camping in summer and fall hunting season may add to the chance of having a remote wildfire start.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

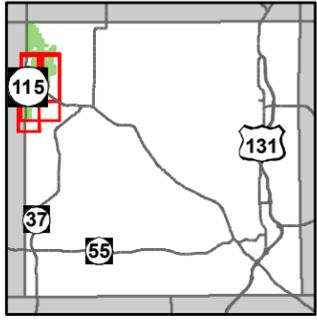
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

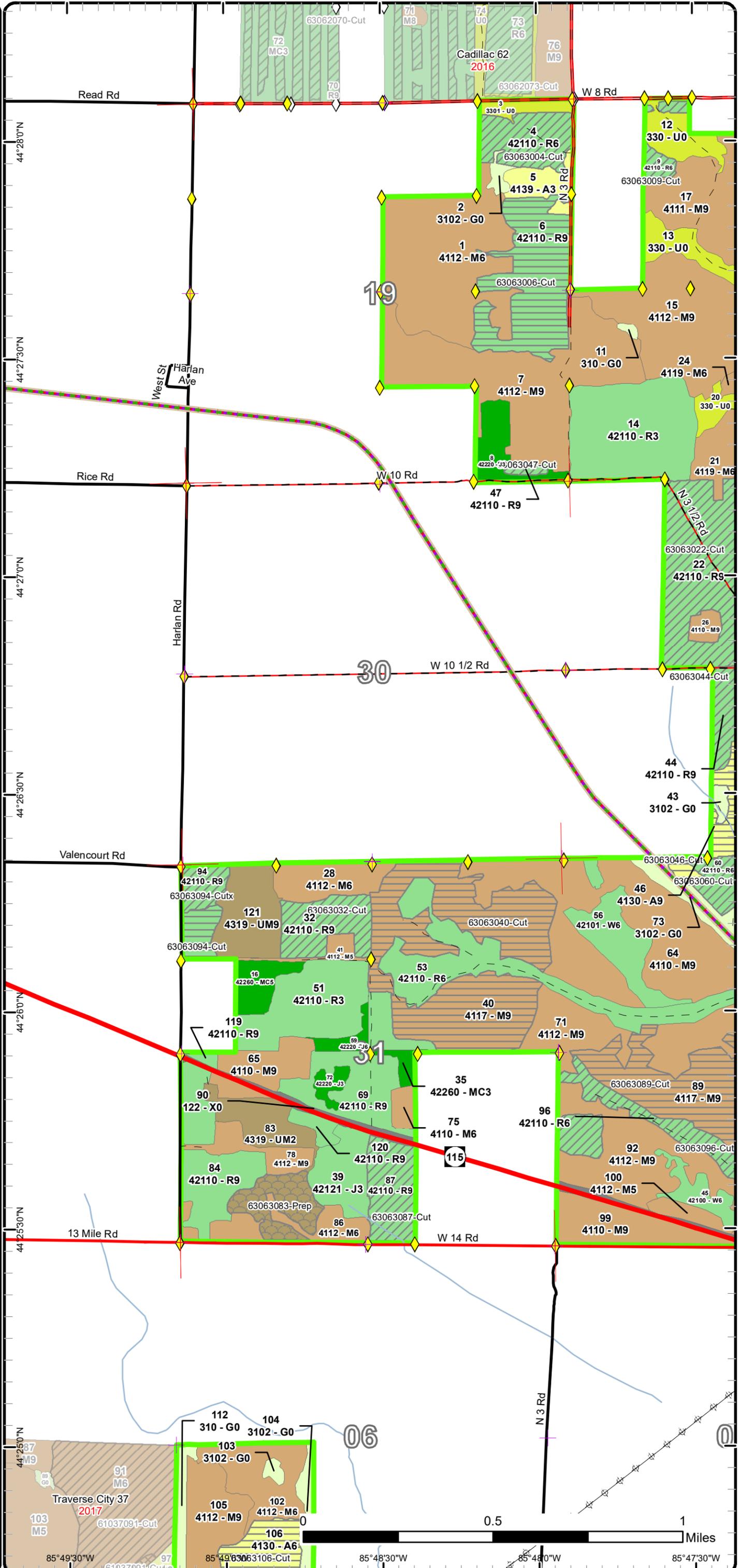
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**



# Cover Type & Treatments Map



- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◆ Field Grade GPS Corners
- Designated Hiking Trails
- - Designated Bicycle Trails
- Designated Snowmobile Trails
- Designated Railtrail
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Powerline
- Compartment Boundary
- Site Prep
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees



19

30

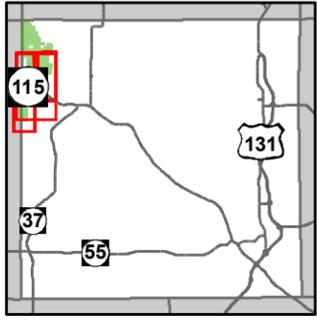
31

06

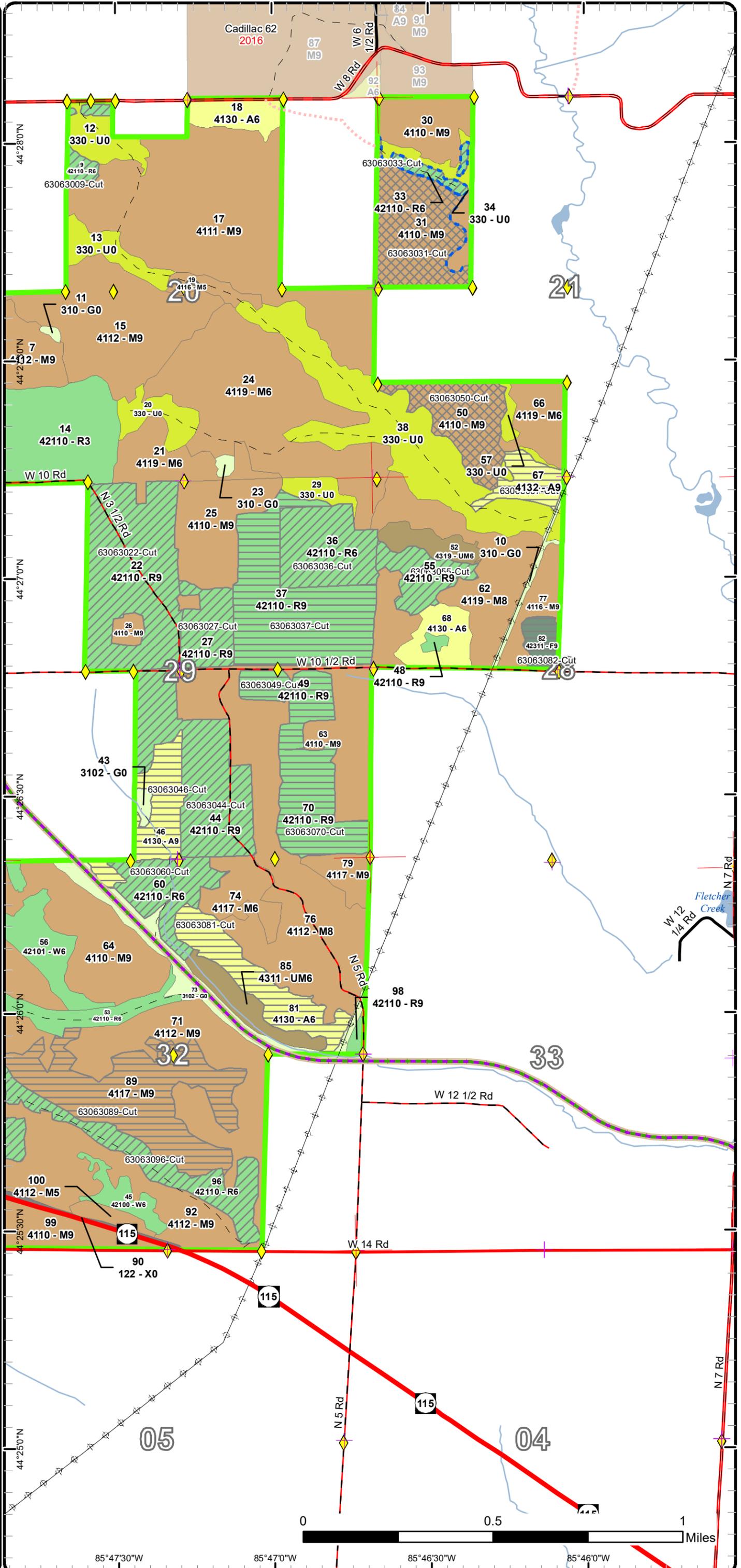
115

85°49'30"W 85°48'30"W 85°48'0"W 85°47'30"W

# Cover Type & Treatments Map

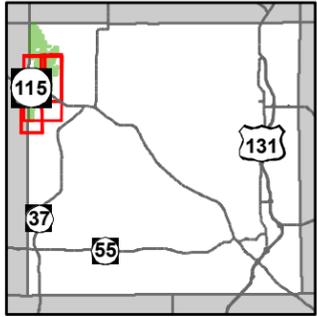


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- Rivers
- Powerline
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- Treatments with Site Conditions
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- Lakes

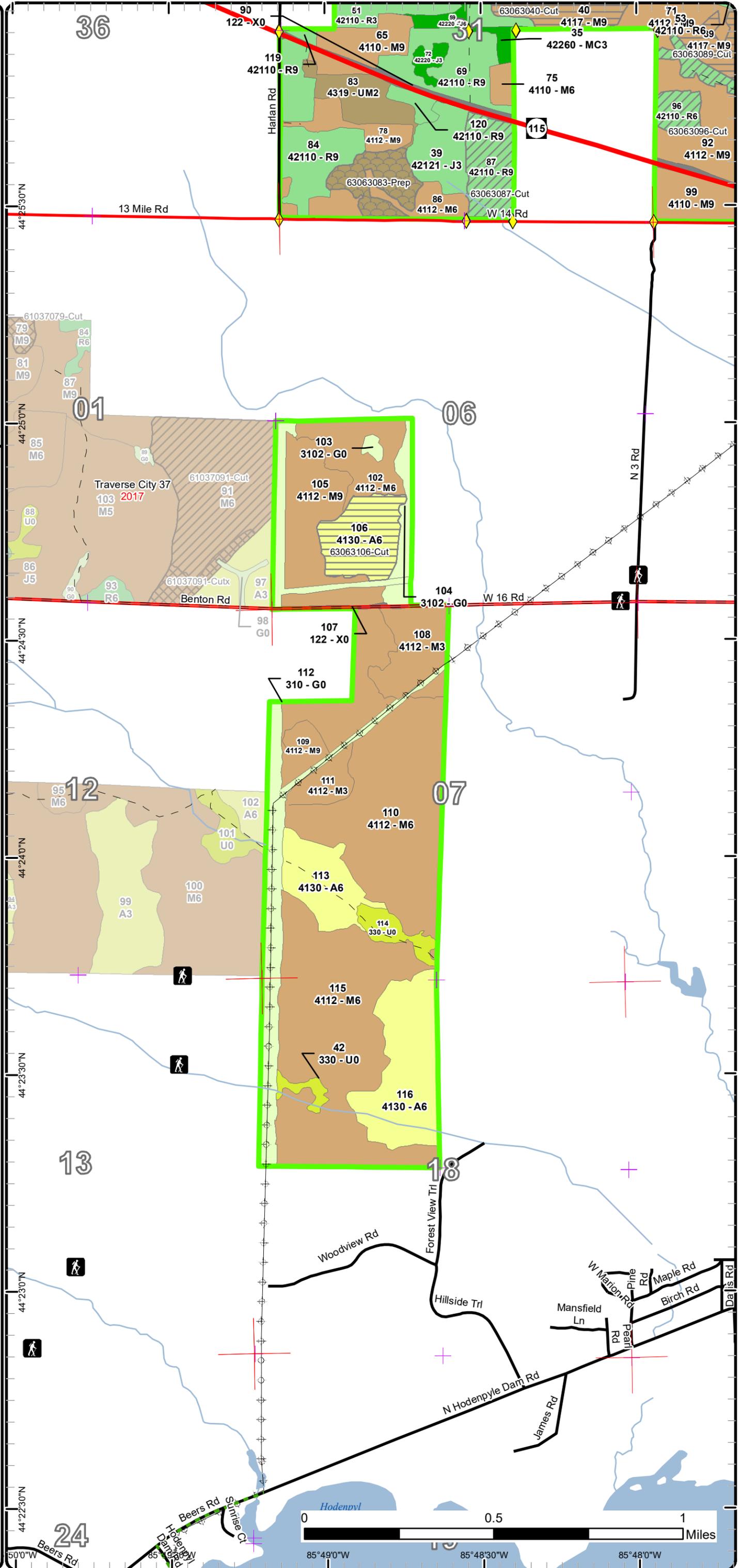


85°47'30"W      85°47'0"W      85°46'30"W      85°46'0"W

# Cover Type & Treatments Map



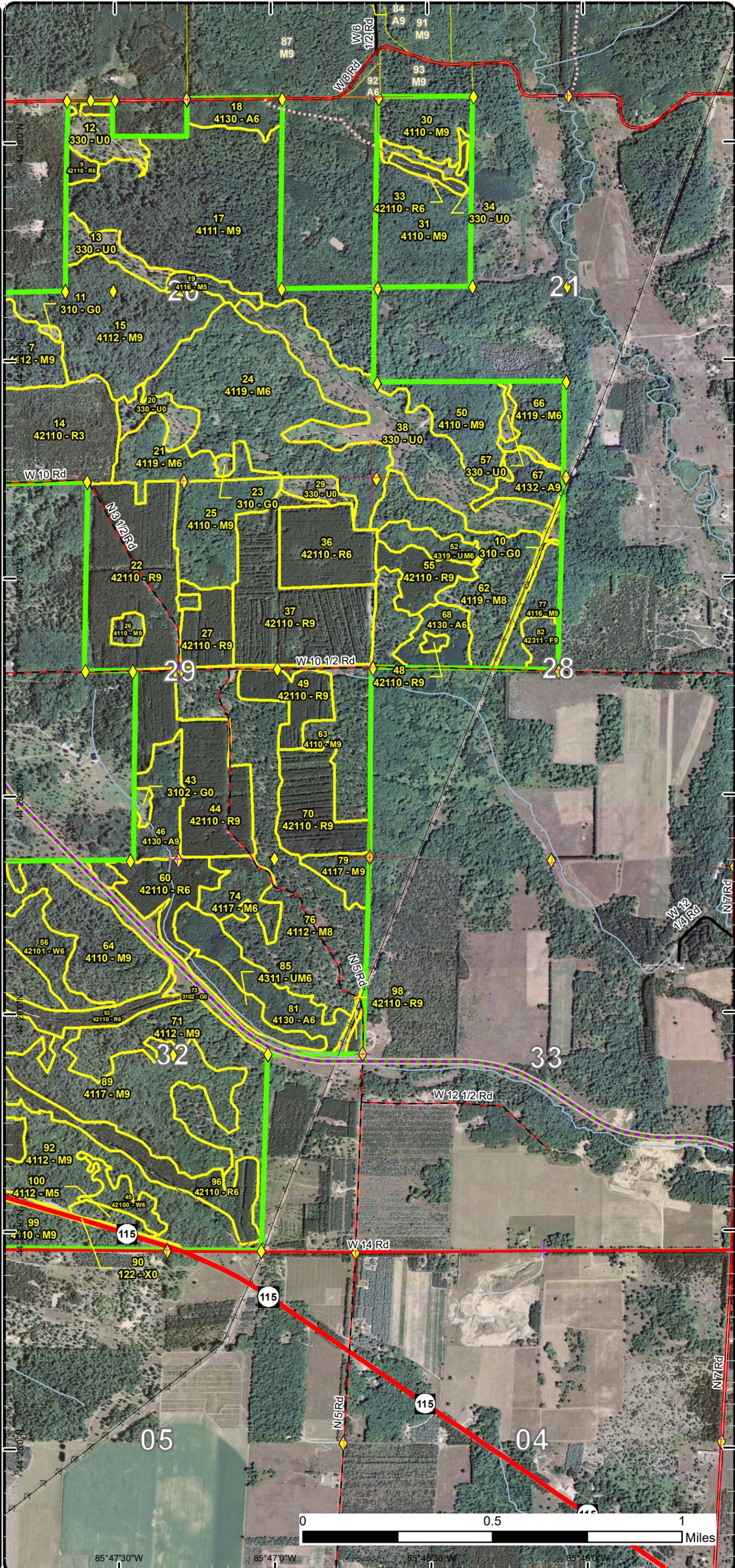
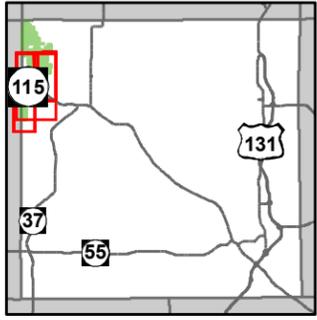
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- Hiking Trails
- Ski Trails
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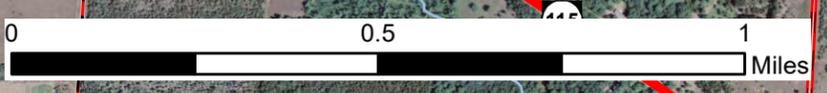
85°49'0"W      85°48'30"W      85°48'0"W



# Stand Boundary Map

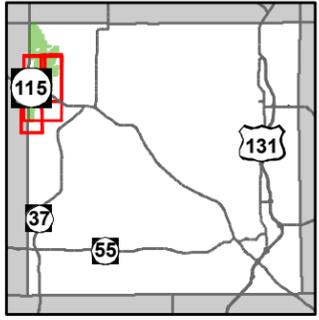


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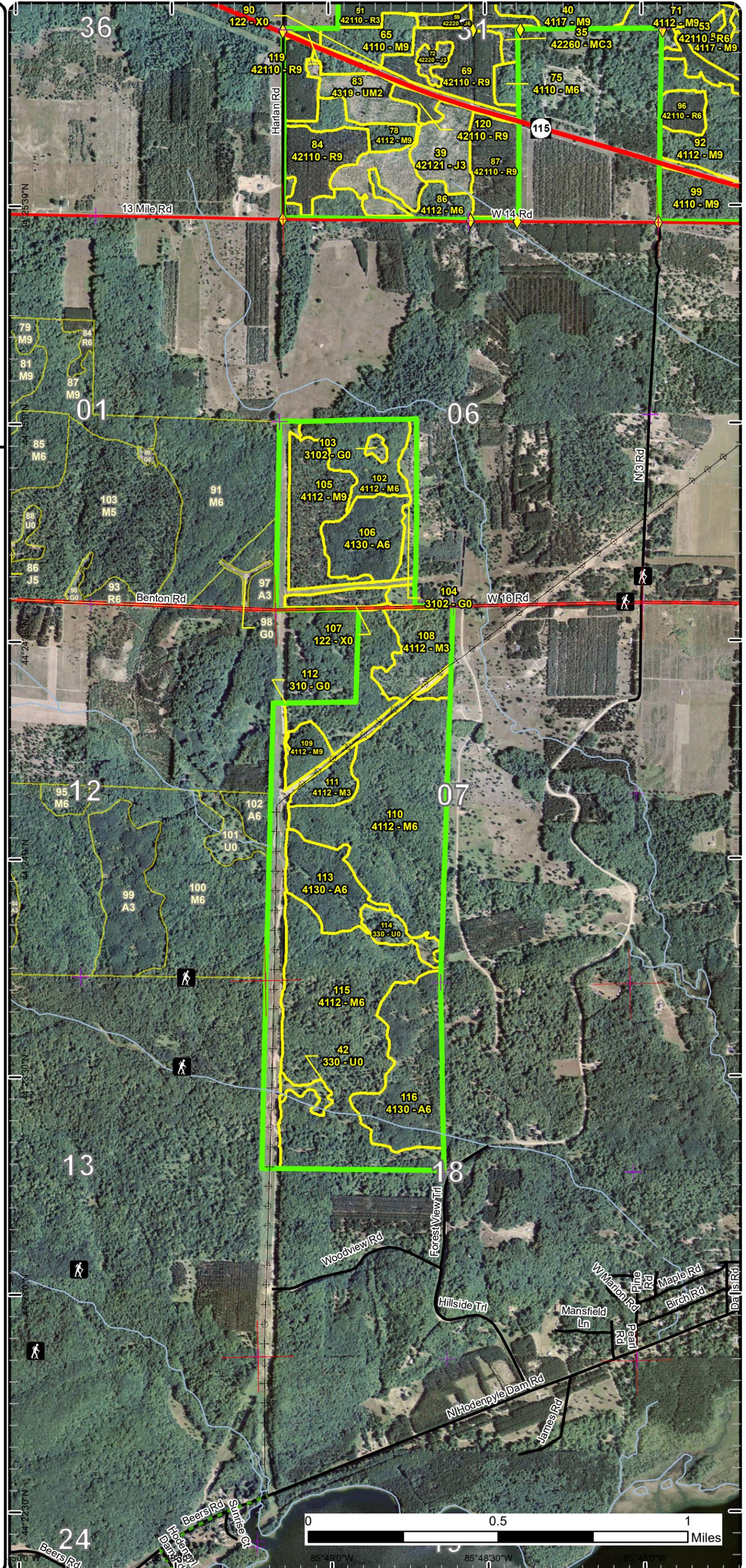


85°47'30"W      85°47'0"W      85°46'30"W      85°46'0"W

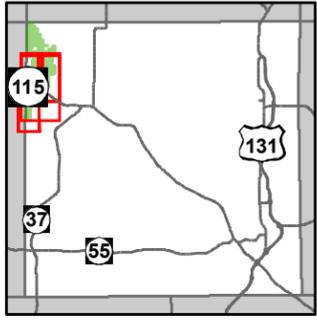
# Stand Boundary Map



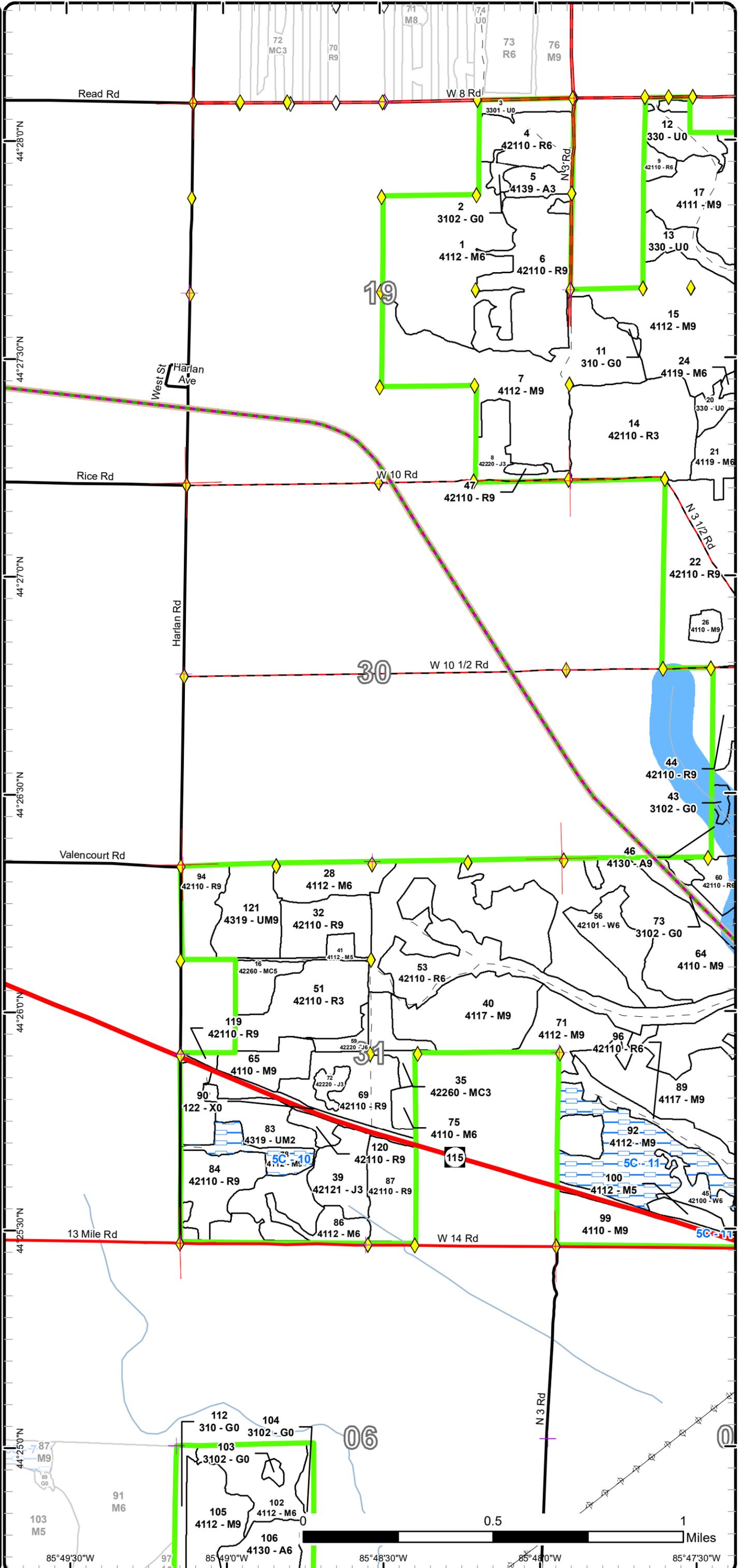
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# Special Conservation Areas & Site Conditions Map



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- - Poor Dirt Roads
- - County Poor Dirt Roads
- Rivers
- Powerline
- Compartment Boundary
- Available w/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Stand Boundaries
- High Priority Trout Stream Buffer



30

19

31

06

115

0

0.5 1 Miles

85°49'30"W 85°49'0"W 85°48'30"W 85°48'0"W 85°47'30"W

44°25'30"N

44°26'0"N

44°26'30"N

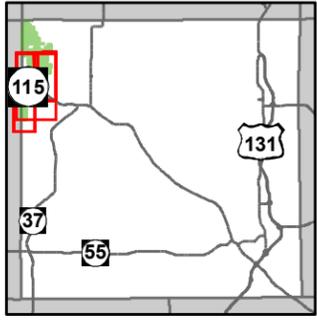
44°27'0"N

44°27'30"N

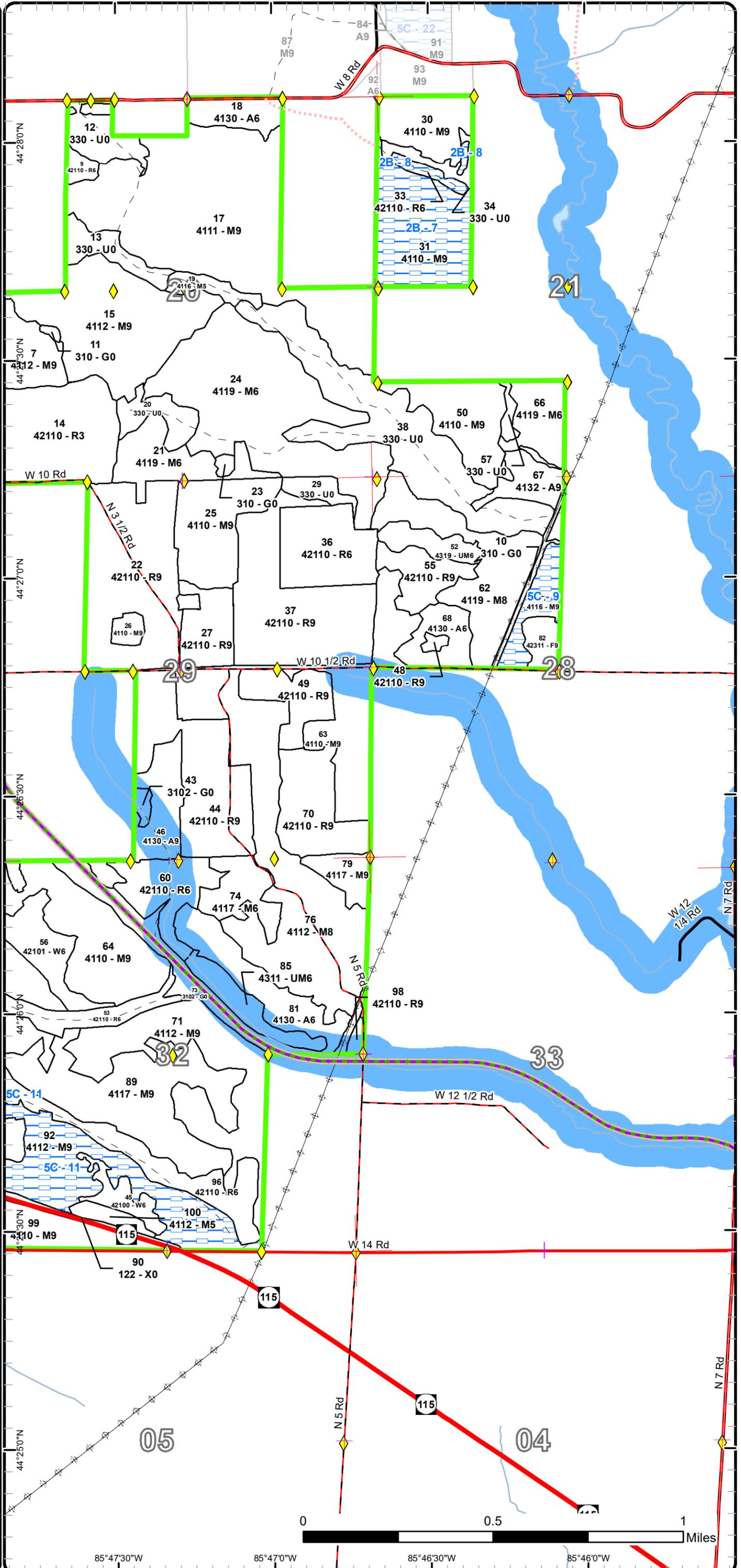
44°28'0"N



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- - - Closed Roads
- Rivers
- Powerline
- ▭ Compartment Boundary
- ▭ Available w/ Constraints
- 2B: Unknown if access through adjacent landowner(s) is possible
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



85°47'30"W      85°47'0"W      85°46'30"W      85°46'0"W

Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	10	0	28	73	54	0	36	0	0	0	0	0	0	0	0	0	0	201
Herbaceous Openland	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103
Jack Pine	0	22	0	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Low-Density Trees	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148
Natural Mixed Pines	0	4	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Northern Hardwood	0	0	25	0	74	0	31	74	600	517	167	44	0	0	0	0	0	201	1732
Red Pine	0	0	0	91	0	0	122	510	4	0	0	0	0	0	0	0	0	0	727
Upland Mixed Forest	0	34	0	0	0	0	14	25	0	0	0	0	0	0	0	0	0	10	83
Upland Spruce/Fir	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Urban	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
White Pine	0	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	32
<b>Total</b>	<b>266</b>	<b>70</b>	<b>25</b>	<b>144</b>	<b>151</b>	<b>54</b>	<b>199</b>	<b>653</b>	<b>604</b>	<b>517</b>	<b>167</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>211</b>	<b>3104</b>



## Report 2 – Treatment Summary

Cadillac Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 63

Total Compartment Acres: 3,102

Commercial Harvest - 800  
 Harvests with Site Condition - 47  
 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	90	0	0	0	0	0	0	0	0	90
Northern Hardwood	165	72	0	0	0	0	0	0	0	237
Red Pine	173	0	0	0	0	340	0	0	0	513
Upland Spruce/Fir	8	0	0	0	0	0	0	0	0	8
<b>Total</b>	<b>435</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>340</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>847</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	847	17	0	0	0	0	0	0	0	864
Next Step	0	163	182	0	0	201	706	0	0	1253
<b>Total</b>	<b>847</b>	<b>180</b>	<b>182</b>	<b>0</b>	<b>0</b>	<b>201</b>	<b>706</b>	<b>0</b>	<b>0</b>	<b>2117</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
4	63063004-Cut	21.1	42110 - Planted Red Pine	Poletimber Well	58	111-140	Harvest	Low Thinning	4212 - Planted Jack Pine	Even-Aged	Proposal

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

Prescription Second thin red pine, target poor form and doubles. Cut all aspen as well.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

6	63063006-Cut	48.2	42110 - Planted Red Pine	Sawtimber Well	68	141-170	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final Harvest no retention.

Specs:

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

Treatments:

Acceptable Planted Red pine

Regen:

Other

1 inch spec and require chipping.

Comment:

Proposed Start Date: 10/01/2017

9	63063009-Cut	5.6	42110 - Planted Red Pine	Poletimber Well	57	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Second thin pine stand. Remove poor form and suppressed stems.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Lump in with larger sale.

Comment:

Proposed Start Date: 10/01/2017

22	63063022-Cut	72.2	42110 - Planted Red Pine	Sawtimber Well	67	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Thin stand. Mark for quality leaving best behind and marking to cut poor formed and suppressed stems.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

This will set stand up for potential final harvest and replant next YOY.

Comment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
27	63063027-Cut	17.7	42110 - Planted Red Pine	Sawtimber Well	67	111- 140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal

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

Prescription Thin stand. Mark for quality leaving best behind and marking to cut poor formed and suppressed stems.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

31	63063031-Cut	42.2	4110 - Sugar Maple Association	Sawtimber Well	81	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
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**Habitat Cut: No****Site Condition: Unknown Access**

Prescription Thin hardwoods using "complete mark handbook as guide. Focus on taking out the poor form and suppressed stems.

Specs:

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable

Sugar maple, cherry, beech and red maple.

Regen:

Other

Landowner was open to access at time of inventory . Eastern edge of stand is too steep for commercial operation and red line will need to back

Comment:

sale off that valley as treatment layer shows.

Proposed Start Date: 10/01/2017

32	63063032-Cut	20.9	42110 - Planted Red Pine	Sawtimber Well	67	141- 170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Third Thin Stand, this will likely be the final thinning. Mark for quality leaving best trees in place to promote maximum growth.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

33	63063033-Cut	4.9	42110 - Planted Red Pine	Poletimber Well	57	171- 200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition: Unknown Access**

Prescription Third row thin.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Lump in with hardwood thinning as a result of private access concerns. Landowner to west is open to the idea of allowing access through his road at

Comment:

time of inventory. JV.

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
36	63063036-Cut	32.0	42110 - Planted Red Pine	Poletimber Well	67	111-140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal

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

Prescription Second thin red pine plantation. Note old orange paint is present from when stand was attempted to be set up in the past(very faded)

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

37	63063037-Cut	66.1	42110 - Planted Red Pine	Sawtimber Well	67	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final Harvest. No retention. Require chipping and low stumps.

Specs:

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

Treatments:

Acceptable Red pine

Regen:

Other Place a 1 inch spec with the idea of making the site as clean as possible and ready for planting operation. Will require site prep by TMS following treatment. Allow TMS to use any tools including herbicide.

Comment:

Proposed Start Date: 10/01/2017

40	63063040-Cut	94.1	4117 - Mixed N. Hardwood - Pine	Sawtimber Well	76	111-140	Harvest	Clearcut with Retention	4112 - Maple, Beech, Cherry Association	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest stand leaving all white pine over 8 inches in diameter. Green ring quality sugar maple seed trees where present. (This should be only 10

Specs: BA roughly over whole stand.) Green ring a few beech as future wildlife trees as well.

Next Step Monitoring, Natural Regen (Re-Inventary)

Treatments:

Acceptable Hardwood regeneration is management goal.

Regen:

Other Stand was targeted for restart based on low quality and concerns over beech regeneration with traditional hardwood management . White pine left to maintain conifer and cover, as well as shade needed to regenerate sugar maple.

Comment:

Proposed Start Date: 10/01/2017

44	63063044-Cut	54.8	42110 - Planted Red Pine	Sawtimber Well	67	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Thin stand. Mark for quality leaving best behind and marking to cut poor formed and suppressed stems.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other This thinning will set stand up for likely final harvest next YOY.

Comment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
46	63063046-Cut	23.0	4130 - Aspen	Sawtimber Well	65	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal

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

Prescription Final harvest stand, leave one retention island 3 to 10 percent of acreage and map this retention following harvest with appropriate site condition.  
Specs:

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

Acceptable Aspen.  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

47	63063047-Cut	1.8	42110 - Planted Red Pine	Sawtimber Well	67	141- 170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Thin stand, remove poor form and suppressed. Focus on proper spacing.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other This stand will likely not get replanted as a result of small size.  
Comment:

Proposed Start Date: 10/01/2017

49	63063049-Cut	19.1	42110 - Planted Red Pine	Sawtimber Well	67	171- 200	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest no retention. Require chipping and low stumps. One inch spec and clean up all understory beech.  
Specs:

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

Acceptable Red pine planted.  
Regen:

Other Replant to red pine.  
Comment:

Proposed Start Date: 10/01/2017

50	63063050-Cut	29.5	4110 - Sugar Maple Association	Sawtimber Well	89	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription This sale has already been marked and cruised and sold. Was Unit 4 of N Nelson Hardwood and was never cut, sale has been closed. Re bid and  
Specs: possibly re mark sale if needed. Include all aspen in south end as well.

Next Step Monitoring, Natural Regen (Intermediate)  
Treatments:

Acceptable Mixed hardwood  
Regen:

Other Lump in with aspen stand to east.  
Comment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
55	63063055-Cut	16.2	42110 - Planted Red Pine	Sawtimber Well	66	201+	Harvest	Systematic Thinning	42210 - Natural Red Pine	Even-Aged	Proposal

**Habitat Cut: No****Site Condition:**Prescription Third thin plantation.Specs:Next StepTreatments:AcceptableRegen:Other Responsibility of producer to find row and work within them,. Rows in fairly good shape.Comment:Proposed Start Date: 10/01/2017

60	63063060-Cut	23.6	42110 - Planted Red Pine	Poletimber Well	67	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Third row thin stand. As well cut all aspen.Specs:Next StepTreatments:AcceptableRegen:Other Hilly, but should not be too big of a issue.Comment:Proposed Start Date: 10/01/2017

67	63063067-Cut	12.5	4132 - Aspen, Jack Pine	Sawtimber Well	65	51-80	Harvest	Clearcut	4132 - Aspen, Jack Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Final harvest no retention as a result of small size and cover type objectives.Specs:Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Aspen and jack pine.Regen:Other Note steep side slope. Make sure red line is not placed on side slope and place all the way up the hill.Comment:Proposed Start Date: 10/01/2017

70	63063070-Cut	31.5	42110 - Planted Red Pine	Sawtimber Well	67	141-170	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Final Harvest no Retention. Make site as clean as possible. Require low stumps and chipping.Specs:Next Step SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)Treatments:Acceptable Red pineRegen:Other 1 inch spec.Comment:Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
81	63063081-Cut	29.0	4130 - Aspen	Poletimber Well	42	51-80	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Final harvest. Leave one retention island 3 to 10 percent of acreage.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen.											
<u>Regen:</u>											
<u>Other</u> Avoid running red line on side slopes.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
82	63063082-Cut	7.7	42311 - Planted Spruce, Mixed Deciduous	Sawtimber Well	67	171- 200	Harvest	Clearcut	4140 - Other Upland Deciduous	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Final harvest no retention as a result of small size and forest health concerns.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Mixed upland deciduous.											
<u>Regen:</u>											
<u>Other</u> Stand was targeted as a result spruce bug worm concerns.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
83	63063083- Prep	17.3	4319 - Mixed Upland Forest	Sapling Medium	6	Immatu re	SitePrep	Roller Chopping	42110 - Planted Red Pine	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Roller Chop and plant to red pine. Work with TMS on any other site prep needs as needed.											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Planted red pine											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 06/28/2016											
87	63063087-Cut	21.2	42110 - Planted Red Pine	Sawtimber Well	67	141- 170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Perform thinning to promote best quality trees and capture mortality in small pocket of thin crowned red pine in north end. Likely final thinning before final harvest next YOE.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Not regeneration harvest.											
<u>Regen:</u>											
<u>Other</u> Hold for another YOE from final harvest as a result of amount of final harvest that took place to west. Protect any remnants of old homestead in southeast end of stand.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
89	63063089-Cut	70.7	4117 - Mixed N. Hardwood - Pine	Sawtimber Well	76	111- 140	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u>			Final harvest stand leaving all white pine over 8 inches in diameter. Green ring quality sugar maple seed trees where present. (This should be only 10								
<u>Specs:</u>			BA roughly over whole stand.) Green ring a few beech as snags as well.								
<u>Next Step</u>			Monitoring, Natural Regen (Re-Inventory)								
<u>Treatments:</u>											
<u>Acceptable</u>			Mixed hardwood, aspen and some conifer.								
<u>Regen:</u>											
<u>Other</u>			More aggressive treatment as a result of concerns over beech understory development and lower quality of the stand to begin with. Thinning not a								
<u>Comment:</u>			appropriate option at this point.								
<u>Proposed Start Date:</u>			10/01/2017								
94	63063094-Cut	7.7	42110 - Planted Red Pine	Sawtimber Well	67	141- 170	Harvest	Clearcut	4112 - Maple, Beech, Cherry Association	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u>			Final Harvest no retention. Split clear-cut and thinning portion based on regeneration.								
<u>Specs:</u>											
<u>Next Step</u>			Monitoring, Natural Regen (Intermediate)								
<u>Treatments:</u>											
<u>Acceptable</u>			Maple, beech and cherry.								
<u>Regen:</u>											
<u>Other</u>			Hardwood harvest objective. 2 inch spec to clear up site and create one clean flush of hardwood sprouting.								
<u>Comment:</u>											
<u>Proposed Start Date:</u>			10/01/2017								
94	63063094- Cutx	8.4	42110 - Planted Red Pine	Sawtimber Well	67	141- 170	Harvest	Low Thinning	42110 - Planted Red Pine	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u>			Third thin pine to promote growth of best quality stems.								
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u>			Power line in west end of stand. Wood will likely need to be forwarded though cut to south.								
<u>Comment:</u>											
<u>Proposed Start Date:</u>			10/01/2017								
96	63063096-Cut	39.6	42110 - Planted Red Pine	Poletimber Well	54	111- 140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u>			Second thin pine. Mark to cut low quality and suppressed stem to open up crown space for best stems. Traditional pine second thinning.								
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u>			Easy access.								
<u>Comment:</u>											
<u>Proposed Start Date:</u>			10/01/2017								



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
106	63063106-Cut	25.4	4130 - Aspen	Poletimber Well	45	51-80	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Final harvest leaving one retention island 3 to 10 % of acreage. Green ring and map this island as long term retention in MIFI.  
Specs:

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

Acceptable Aspen with some hardwood mixed in.  
Regen:

Other Stand is slowly converting to hardwood, treatment objective of maintaining aspen in this stand. Mostly hardwood in area.  
Comment:

Proposed Start Date: 10/01/2017

**Total Treatment  
Acreage Proposed: 864.0**

## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Joe Ventimiglia : Examiner

Compartment: 63  
Year of Entry: 2018

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	2B		5C	
		With Condition	Not Available					
201	201	0	0	Aspen				
103	103	0	0	Herbaceous Openland				
41	41	0	0	Jack Pine				
148	148	0	0	Low-Density Trees				
14	14	0	0	Natural Mixed Pines				
1731	1579	152	0	Northern Hardwood	57		95	
726	721	5	0	Red Pine	5			
83	83	0	0	Upland Mixed Forest				
8	8	0	0	Upland Spruce/Fir				
15	15	0	0	Urban				
32	32	0	0	White Pine				
3,102	2,945	157		Total Forested Acres	62		95	
	95%	5%	0%	Relative Percent				

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	9	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	Available	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Cadillac Mgt. Unit

Compartment: 63

Joe Ventimiglia : Examiner

Year of Entry: 2018

7	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	47	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Landowner to west agreed to access. Check again at time of sale set up and then let logger who buys sale set up agreement if access is granted.							
8	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Landowner to west agreed to access at time of inventory.							
9	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	14	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>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	62	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> With sale to north don't want to impact area too much in one YOY.							

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

<b>Conservation Area</b>	<b>Type</b>	<b>Description</b>
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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4112 - Maple, Beech, Cherry Association	Poletimber Well	73.9	65	81-110	Small pole hardwood stand overall, heavy to red maple and cherry with low volume of sugar maple. A few log red maple that must have been left from the previous harvest although mostly a younger hardwood stand that needs some time to mature. Correct old map road layer incorrect.
4	42110 - Planted Red Pine	Poletimber Well	21.1	58	111-140	Stand was third row thinned in 2009. Mature aspen clone in stand and a other aspen mixed in.
5	4139 - Aspen, Mixed Deciduous	Sapling Well	10.2	3	Immature	Low quality hardwood stand final harvested in the summer of 2012. Came back fairly well to mix of aspen and cherry. Slight rolling hills.
6	42110 - Planted Red Pine	Sawtimber Well	48.2	68	141-170	Stand was second thinned in 1994 and was third thinned again in 2009. Good quality log red pine stand. Limited beech understory compared to stand to the south. Random old jack pine strips have all but fallen apart. Old a few remain standing. Large such strip in the middle has fallen over and is converting to maple and beech.
7	4112 - Maple, Beech, Cherry Association	Sawtimber Well	84.3	81	51-80	Treated with N Nelson HDWD sale Fall 2012. Short wood traditional hardwood thinning in 2012. Thinning performed should help put growth on maple left, hard to evaluate regeneration at time of inventory.
8	42220 - Natural Jack Pine	Sapling Well	13.8	22	Immature	Stand was final harvested in 1994. Random strips of red pine were left in the over story. Jack pine has naturally seeded in, with significant snow damage to regeneration it appears. American chestnut seeds were handplanted in the southwest part of the stand in April of 1995. FTP#C-61-297. 3 sapling chestnuts were found during survey. They are about 2 feet tall and bushy. Browse damage appears on all 3 saplings. Jack pine appears to be choking the chestnuts out.
9	42110 - Planted Red Pine	Poletimber Well	5.6	57	141-170	Stand was row thinned in 2009.
14	42110 - Planted Red Pine	Sapling Well	54.2	21	Immature	Stand was final harvested in 1994 and planted to red pine in 1995. Appears from the records the stand was a overgrown scotch pine Christmas tree plantation prior to State ownership. Red pine appears in good shape and winning overall against competing vegetation.
15	4112 - Maple, Beech, Cherry Association	Sawtimber Well	70.1	76	51-80	Clumps, poor formed red and sugar maples. Slight rolling terrain.
16	42260 - Natural Pine, Mixed Deciduous	Poletimber Medium	10.7	21	1-50	Old scotch pine plantation which was final harvested and allowed to regenerate naturally. Good cover for wildlife at this time, stand is more open to east edge.
17	4111 - S.Maple, Hard Mast Association	Sawtimber Well	137.0	85	51-80	Good quality hardwood stand. Stand was recently thinned in 2012. Small hemlock component and slight rolling hills. Stand treated with N Nelson Hdwd Sale Fall 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	4130 - Aspen	Poletimber Well	13.0	22	Immature	Stand was final harvested in 1994. Sapling trembling aspen with occasional sugar maple log and hemlock pole trees. Southern edge of stand has less aspen and more small sapling (<2") ironwood, sugar maple, and white ash, as well as a small amount of serviceberry and blackberry/raspberry bushes. There is also a small amount of autumn olive.
19	4116 - Mixed N. Hardwood - Aspen	Poletimber Medium	6.7	56	1-50	Low volumes. Just a small valley of pole hardwood, transition area between tow ridges.
21	4119 - Mixed Northern Hardwoods	Poletimber Well	24.1	86	81-110	Medium quality hardwood pole-log stand that appears to have not been thinned. Better quality than stand to north.
22	42110 - Planted Red Pine	Sawtimber Well	72.2	67	141-170	Stand third row thinned in 1994. Beech understory well developed, thicker in spots. Pine plantation doesn't quite touch private line to west, is a mix of hardwood and pine from the private too small to manage on its own.
24	4119 - Mixed Northern Hardwoods	Poletimber Well	101.4	72	51-80	Very mixed low quality stand. Hard to
25	4110 - Sugar Maple Association	Sawtimber Well	35.9	86	81-110	This stand last thinned in 1994. Regen gaps have beech, ironwood, and a small amount of black cherry saplings 10-20 feet tall, as well as blackberry and raspberry bushes. Old skid rows contain blackberry and raspberry bushes as well as beech, ironwood, and sugar maple seedlings. Some orange paint still on trees that were left uncut.
26	4110 - Sugar Maple Association	Sawtimber Well	4.1	81	81-110	East side of stand consists of hardwoods, west side is more open and has a few apple trees. Some trees in hardwood side have barbed wire running through them.
27	42110 - Planted Red Pine	Sawtimber Well	17.7	67	111-140	Row thinned in 1994. .
28	4112 - Maple, Beech, Cherry Association	Poletimber Well	17.6	34	51-80	Young medium quality hardwood stand, with open frost pocket in west side.
30	4110 - Sugar Maple Association	Sawtimber Well	22.9	81	51-80	Stand has alternate areas of sawlog and pulp sized trees. After thinning large pulp trees should move to logs by next YOE. Heavy sugar maple saplings along north edge where private land was cut. NE corner of stand is heavy sugar maple and ironwood saplings. Stand was treated with N Nelson Hdwd sale spring 2012. (Hand Cut) Trespass occurred with road and a gate was put in place by logger to appease landowner.
31	4110 - Sugar Maple Association	Sawtimber Well	47.1	81	111-140	Good quality with good amount of single stem sugar maple. Very difficult access with the eastern portion of stand potentially being too hilly for equipment to operate. Very good quality stand.
32	42110 - Planted Red Pine	Sawtimber Well	20.9	67	141-170	Stand second thinned in the mid 90's. All jack pine was cut and the red pine was third thinned in mid 2000's. Limited regeneration mostly beech. Slight rolling hills.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	42110 - Planted Red Pine	Poletimber Well	4.9	57	171-200	Small strips of planted red, never been thinned.
35	42260 - Natural Pine, Mixed Deciduous	Sapling Well	3.6	6	Immature	Portion of red pine plantation that was heavy to jack pine. Stand was final harvested and scattered red pine was left.
36	42110 - Planted Red Pine	Poletimber Well	32.0	67	111-140	Stand was thinned in 1994. Pocket of dead and dying red pine. Small amount of cull/sweep trees/doubles. Jack pine seedlings in thinned rows.
37	42110 - Planted Red Pine	Sawtimber Well	66.1	67	111-140	Pine was row thinned with all jack pine cut as well in 1994. Some red pine was also cut in the un thinned rows for access. Old jack pine rows have filled in thick with a mix of beech and jack pine. Beech is very thick in the remainder of the plantation.
39	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	18.4	6	Immature	Old jack pine plantation which was final harvested in 2010 and was attempted to be planted to red pine. This failed as thick jack pine volunteers overtook the stand. Only this portion of original stand was attempted to be planted.
40	4117 - Mixed N. Hardwood - Pine	Sawtimber Well	94.1	76	111-140	Stand was under planted with white pine in 1962. Most of the white pine is being topped and has double stems. Hardwood and pine scattered and not able to be typed out.
41	4112 - Maple, Beech, Cherry Association	Poletimber Medium	4.6	36	1-50	Per OI comments: This stand was clear cut by trespass firewood cutters (1980). Open clump mixed lower quality hardwood stand. Very open.
44	42110 - Planted Red Pine	Sawtimber Well	54.8	67	141-170	Jack pine planted in rows. JP is dead and dying. Beech subcanopy heavy where jack pine had fallen out. Red pine in good shape, although thick beech understory. Old jack pine completely fallen out. Third row thinned in 1997? (No TCR)
45	42100 - Planted White Pine	Poletimber Well	9.5	55	141-170	Stand was planted to white pine in 1962, hardwood mixed in in spots. This is the highest concentration of planted pine that can be typed out, other portions of planted white pine are scattered throughout adjacent stands.
46	4130 - Aspen	Sawtimber Well	23.0	65	81-110	Aspen stand with slight rolling hills. Stand is showing signs of age. Keep eye on stand in Spring appears landowner to west is mowing two track?
47	42110 - Planted Red Pine	Sawtimber Well	1.8	67	141-170	Small piece of log red pine not previously inventoried. Appears to have been row thinned.
48	42110 - Planted Red Pine	Sawtimber Well	1.7	66	201+	Has not been thinned previously. Aspen was final harvested all around. Skid road would need to be created through regeneration. Stand only 1.5 acres.
49	42110 - Planted Red Pine	Sawtimber Well	19.1	67	171-200	Third row thinned in 1997? (No TCR) Stand was originally part of stand to the south but this area was not thinned when the other part was.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	4110 - Sugar Maple Association	Sawtimber Well	29.5	89	111-140	Stand was contract marked and set up under as sale N. Nelson Hardwoods in 2008. Sale was sold and this Unit 4 was missed and never cut. (Orange paint still visible at time of inventory) Sale was closed and unit missed.
51	42110 - Planted Red Pine	Sapling Well	36.5	21	Immature	Red Pine planted by DNR crew in spring 1995, appears it was a open field prior to planting. 3-0 red pines were used and were noted to be in poor condition by planting crew. Stand seems in good shape still short trees at this time.
52	4319 - Mixed Upland Forest	Poletimber Well	10.3	63	111-140	White pine planted May 1953 throughtout hardwood stand; FTP #8-53. Some mortality and double stems in white pine. Stand sits mostly in a small valley. Pine more concentrated in east while hardwood more established in west.
53	42110 - Planted Red Pine	Poletimber Well	48.8	54	141-170	Stand was third row thinned in 2010.
55	42110 - Planted Red Pine	Sawtimber Well	16.2	66	201+	Has not been thinned previously. Beech understory with a few hardwood scattered in stand.
56	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	22.1	53	111-140	Planted white pine with hardwood mixed in in spots.
59	42220 - Natural Jack Pine	Poletimber Well	4.4	30	1-50	Thick strip of open grown jack pine.
60	42110 - Planted Red Pine	Poletimber Well	23.6	67	141-170	Stand never has been thinned, pocket of mature aspen in middle as well as a dew hardwood scattered.
62	4119 - Mixed Northern Hardwoods	Sawtimber Medium	45.5	83	51-80	Stand combines small area of planted red and white pine on east side that has heavy hardwood sub-canopy. Maple mostly in clumps but some single stem. Pockets of aspen logs. Northern edge of stand has heavy witch hazel component. Stand was thinned in Spring 2014 with sale #63-015-08-01. Small side slopes on north edge were missed during Harwood thinning as a result of topography.
63	4110 - Sugar Maple Association	Sawtimber Well	44.2	101	51-80	Good amount of single stemmed sugar maple. Stand was cut in Spring 2014 with sale #63-015-08-01. Beech was salvaged. Too early to tell success of regeneration, will need to give it a few more years to truly tell.
64	4110 - Sugar Maple Association	Sawtimber Well	85.2	76	51-80	Stand was cut in Spring 2014 with sale #63-017-08-01. Short wood operation too early to tell success of regeneration, deer browse noted .
65	4110 - Sugar Maple Association	Sawtimber Well	17.7	96	81-110	Medium quality hardwood stand, ash component is completely dead. North east corner is a younger cohort of pole hardwood that is too small to map.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
66	4119 - Mixed Northern Hardwoods	Poletimber Well	17.9	34	1-50	Rough looking stand, stand appears was final harvested with only scattered basswood left. Regenerated heavy to ironwood or ironwood was left when cut? Appears stand was final harvested in the early 1980's judging from records.
67	4132 - Aspen, Jack Pine	Sawtimber Well	12.5	65	51-80	Mix of old falling apart aspen in north with a strip of rough looking planted jack pine in southern edge. Much of aspen is on side slope, should be able to be operated with equipment.
68	4130 - Aspen	Poletimber Well	14.9	22	1-50	Stand was final harvested in 1994, appears it was a mixed aspen/hardwood stand prior to harvest.
69	42110 - Planted Red Pine	Sawtimber Well	32.9	67	111-140	Stand was second thinned in 2010 with all jack pine spec cut from stand.
70	42110 - Planted Red Pine	Sawtimber Well	31.5	67	141-170	Old jack pine strips have either fallen out or was cut. No TCR available. Extremely thick beech understory. Third row thinned in 1997? (No TCR)
71	4112 - Maple, Beech, Cherry Association	Sawtimber Well	82.0	84	51-80	Stand was cut in Spring 2014 with sale #63-017-08-01. A little soon to tell success of hardwood thinning. Beech a concern.
72	42220 - Natural Jack Pine	Sapling Well	4.0	6	Immature	Portion of plantation that was heavy to jack pine which was final harvested in 2010, scattered red pine left. Stand regenerated well to jack pine and cherry.
74	4117 - Mixed N. Hardwood - Pine	Poletimber Well	17.2	88	81-110	Underplanted white pine 1962 FTP #61-823. Hardwood stand with planted white pine scattered randomly through stand. Hardwood of poor to medium quality.
75	4110 - Sugar Maple Association	Poletimber Well	4.4	83	81-110	Small piece of hardwood with private to east.
76	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	102.2	98	51-80	Stand was cut in Spring 2014 with sale #63-015-08-01. All beech and ash was salvaged as well. As a result stand is very open in spots with large gaps in canopy. Very close to pole stand but just enough log stems to push it to log stand overall. Still too easy to comment on success of regeneration. Small red pine finger was seed tree cut in middle of stand, will become part of hardwood stand as time goes on. Slight rolling hills. High stumps noted.
77	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	14.0	81	111-140	Hardwood stand with some aspen mixed in, as well as tiny red pine plantation and some white pine mixed in southern end. Steep hill on north tip is no operable with equipment. Potential trespass of set up timber sale on east line.(paint on what appears to be state trees)
78	4112 - Maple, Beech, Cherry Association	Sawtimber Well	11.0	73	111-140	Lower quality hardwood stand with significant beech component particularly in the east end. Slight rolling hills, not much evidence of past thinning's. West side has just a few beech while east end is almost half beech and cherry.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
79	4117 - Mixed N. Hardwood - Pine	Sawtimber Well	10.2	88	81-110	Underplanted white pine 1962. Small stand of hardwood with planted white pine mixed in. Low to medium quality.
81	4130 - Aspen	Poletimber Well	29.0	42	51-80	Side slope of decent quality aspen with hardwood filling in in understory. Close to a log stand overall. Significant side slope on south border in spots.
82	42311 - Planted Spruce, Mixed Deciduous	Sawtimber Well	7.7	67	171-200	Plantation white spruce with scattered log sugar maple open grown.
83	4319 - Mixed Upland Forest	Sapling Medium	33.9	6	Immature	Old jack pine and red pine plantation which was final harvested in 2010. No attempt made to plant this portion of stand. Surprising in areas to see some natural red pine regeneration. Variable stand with some pockets all jack and cherry, with others being more open and having some red pine. Will be mixed stand.
84	42110 - Planted Red Pine	Sawtimber Well	32.1	67	141-170	Stand was second thinned in 1994 and third thinned in 2010. Good quality log red pine stand, some beech regeneration but not too bad yet.
85	4311 - Pine, Aspen Mix	Poletimber Well	14.1	54	141-170	Mix of planted white pine and aspen. Thick understory development.
86	4112 - Maple, Beech, Cherry Association	Poletimber Well	18.3	34	51-80	Stand was final harvested in 1982. Young pole hardwood stand. Some larger hardwood left along road and in southwest corner. Southwest corner is location of old foundation of Union School District # 8 (1903-1914) Just the foundation remains. West side was too small to map on its own but includes a small pocket of mature hardwood and aspen.
87	42110 - Planted Red Pine	Sawtimber Well	21.2	67	141-170	Stand was marked second thinning performed in 2010. Stand in good condition with a trace of jack pine still standing scattered in. One small pocket of thin pine crowns noted in stand. Old likely farmstead in southeast corner of stand along with a old farm silo built from concrete in the stand.
89	4117 - Mixed N. Hardwood - Pine	Sawtimber Well	70.7	76	111-140	Under planted white pine 1962. Variable Log pole hardwood stand with planted white pine fingers throughout. Hardwood is mostly stump sprout and of lower to medium quality. Portions of stand are pole size but overall a log average stand. Beech is still solid although scale is present.
92	4112 - Maple, Beech, Cherry Association	Sawtimber Well	61.6	76	111-140	Variable small log hardwood stand with small slivers of planted white pine mixed in. Slight Rolling terrain with the southern border of stand being M-115. Quality slightly better then stand to north although overall a lower end hardwood stand which should not be approached like a traditional higher quality stand when treated.
94	42110 - Planted Red Pine	Sawtimber Well	16.1	67	141-170	Stand thinned in the mid 90's. And third thinned again in the 2000's. Power line runs through stand. Rolling hills. Southern 3/4 is thick to maple regeneration and northern 1/4 has no maple understory and only beech understory.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
96	42110 - Planted Red Pine	Poletimber Well	39.6	54	111-140	Stand was third row thinned in 2010. Stand is semi variable and in better condition in some spots. Hardwood understory in beginning to take hold in spots.
98	42110 - Planted Red Pine	Sawtimber Well	2.0	51	141-170	Very small stand on power line that has never been thinned. Power company has plans to widen there right of way which will make the stand nearly un manageable at less then 2 acres.
99	4110 - Sugar Maple Association	Sawtimber Well	25.2	86	51-80	Medium quality hardwood which was just thinned last in 2014, stand is high visibility stand of slight rolling hardwood off M-115. Open spots along 14 road otherwise decent hardwood stand. Not enough beech to warrant salvage particularly considering recent sale that just occurred.
100	4112 - Maple, Beech, Cherry Association	Poletimber Medium	5.4	31	51-80	Small piece of hardwood that was final harvested. No record in the files, but regenerated well to red maple, a few log maple and cherry were left. Some white pine in understory.
102	4112 - Maple, Beech, Cherry Association	Poletimber Well	24.1	57	51-80	Small pole hardwood stand. Heavy to red maple and cherry. Northern edge of stand transitions to more of a log stand, but too small to map(just the north edge).
105	4112 - Maple, Beech, Cherry Association	Sawtimber Well	38.7	93	51-80	Stand was cut in Spring 2014 with sale #63-017-08-01. Mostly red maple, better quality and size on southern half of stand, lower quality and more of pole hardwood in north part of thinning.
106	4130 - Aspen	Poletimber Well	25.4	45	51-80	Aspen stand slowly converting to hardwood. Rolling terrain, with aspen showing signs of stress in spots. Open pocket in the middle of stand.
108	4112 - Maple, Beech, Cherry Association	Sapling Well	24.5	15	Immature	Stand was planted in 1951 appears to have been planted to help erosion issues at least partial reason. Planted jack pine has all but fallen out of stand and hardwood has naturally taken over on the site. A few large hardwood stems on north end, otherwise sapling hardwood.
109	4112 - Maple, Beech, Cherry Association	Sawtimber Well	8.7	92	111-140	Small hardwood stand of slightly better quality then stand 110.
110	4112 - Maple, Beech, Cherry Association	Poletimber Well	122.5	88	81-110	Areas in stand were planted with acorns in 1993. Found some oak saplings. May want to do a follow up survey on the regen. Approximately 21 acres were under planted in northwest part of stand. Slight rolling hardwood, medium quality. Some open pockets as well too small to map.
111	4112 - Maple, Beech, Cherry Association	Sapling Well	10.2	37	51-80	Stand was final harvested around 1979.
113	4130 - Aspen	Poletimber Well	24.9	30	Immature	Younger looking pole aspen in valley. Very rough looking in pockets.
115	4112 - Maple, Beech, Cherry Association	Poletimber Well	116.8	75	81-110	Low grade rolling hardwood with open pockets as well as a few aspen clones scattered in. A few log maple stems but overall a pole stand.

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Cadillac Mgt. Unit

## Report 7 – Forested Stands

Compartment: 63  
Year of Entry: 2018

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
116	4130 - Aspen	Poletimber Well	48.0	30	51-80	Stand final harvested in 1986. Mixed hardwood and aspen.
119	42110 - Planted Red Pine	Sawtimber Well	1.4	67	171-200	Less than two acre chunk of planted red pine which has never been thinned. Too small and in peculiar position which has resulted in no management.
120	42110 - Planted Red Pine	Sawtimber Well	4.3	70	111-140	Stand was second thinned in 1994 and third thinned in 2010 as part of larger pine sale.
121	4319 - Mixed Upland Forest	Sawtimber Well	24.7	67	141-170	Stand is a mix mature hardwood and scattered partially failed red pine plantation. Portions of the pine have been thinned. Thick hardwood regeneration in pockets. Rolling terrain. Stand is a mix. Some portions are mostly pine with others being all over mature hardwood.



Stand	Cover Type	Acres	Managed Site	General Comments:
2	3102 - Grass	2.6	No	
3	3301 - Low Density Deciduous Trees	6.1	No	Hawkweed, bracken fern, scattered aspen and cherry, some red pine seedlings invading. Has powerline running the length of it. Wet pocket of aspen on west end.
10	310 - Herbaceous Openland	6.3	No	
11	310 - Herbaceous Openland	0.9	No	Small opening in the hardwood.
12	330 - Low-Density Trees	13.2	No	
13	330 - Low-Density Trees	12.2	No	
20	330 - Low-Density Trees	11.6	No	
23	310 - Herbaceous Openland	1.6	No	
29	330 - Low-Density Trees	6.5	No	
34	330 - Low-Density Trees	6.0	No	
38	330 - Low-Density Trees	76.1	No	RDR tree planting occurred in stand to prevent illegal orv hill clime. Was trenched and planted around 2008. Roughly 7 acres were planted to mostly red pine. Very variable with scattered cherry, aspen clones(very small patches, jack pine, white pine and witch hazel.
42	330 - Low-Density Trees	3.6	No	
43	3102 - Grass	2.5	No	Illegal two track access created from private land to west. Appears they even mow the two track.
57	330 - Low-Density Trees	4.3	No	
73	3102 - Grass	22.9	No	Old railroad grade. Plans to become snowmobile trail at some point in near future. Scattered trees but otherwise open.
90	122 - Road/Parking Lot	13.1	No	
103	3102 - Grass	1.7	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
104	3102 - Grass	11.4	No	Mostly open although trees filling in in spots. Private to east.
107	122 - Road/Parking Lot	2.2	No	16 rd
112	310 - Herbaceous Openland	53.5	No	Power Line
114	330 - Low-Density Trees	8.4	No	Small opening in valley with scattered trees.