



# Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63104

Entry Year 2018

Acreage: 1,724

County Missaukee

Management Area: Upper Muskegon

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**Revision Date:** 2016-07-01

**Stand Examiner:** Derek Cross

**Legal Description:**

T21N, R05W, sections 29,30,31,32.

**Identified Planning Goals:**

Vegetation management in the Upper Muskegon management area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year period will focus on harvesting older jack pine and balancing age class distributions of oak, aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation. Expected trends within this 10-year planning period are the need to manage exotic species (especially Phragmites and glossy buckthorn), the need to continue to manage cover types for a balanced age-class distribution and an expected increase in recreation pressure.

**Soil and topography:**

Lupton muck, ribicon sands and Montcalm. Level to gently rolling terrain with small wet pockets scattered throughout the area.

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

Solid state ownership except for consumers energy land in section 31 and a few private residences along Stoney Corners road. Dispersed hunting is the main activity in the compartment, there is also some snowmobile use.

**Unique Natural Features:**

Cranberry lake is in the southwest corner of the compartment.

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

There are some old rock fences in several stands.

**Special Management Designations or Considerations:**

Two pipelines are in the compartment, one active on the east side, and one abandoned on the west side.

**Watershed and Fisheries Considerations:**

Several small tributaries of Cranberry Creek flow through Compartment 104. Cranberry Creek is a Designated Trout Stream with a self-sustaining population of brook trout. Cranberry Lake is also slightly within Compartment 104, although very little fisheries information exists for that lake.

**Wildlife Habitat Considerations:**

Featured wildlife species are deer, golden-winged warbler, hare, ruffed grouse, and woodcock. Maintenance of aspen, lowland shrub and forested types, and oak regeneration are management priorities. Timber sale specifications to benefit these featured species (where applicable) will include brush pile creation along lowland edges, protection of mast-bearing wildlife shrubs and ironwood, protection of standing dead snags, and 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 ice-contact outwash sand and gravel. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw is quarried for clay/shale in other parts of the State. A gravel pit is located in Section 19 and potential is good. The compartment is located one mile east of Cranberry Lake Field. The field has produced nearly 2 million BO from the Richfield Formation and over 7.5 Bcf gas from the Stray Sandstone. The field is now in secondary recovery and gas storage operations. The southern two thirds of the Compartment are leased for gas storage purposes.

**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.

**Survey Needs:**

Adequate corners exist for management activities in this compartment.

**Recreational Facilities and Opportunities:**

There are no designated trails within this compartment. (T.N. 1/29/16)

**Fire Protection:**

This area has had a history of moderate sized fires. There is the potential for larger fires in this compartment. Initial attack is from the Houghton Lake Field Office for this area.

**Additional Compartment Information:****The following reports from the Inventory are attached:**

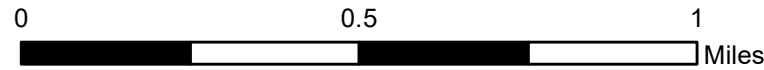
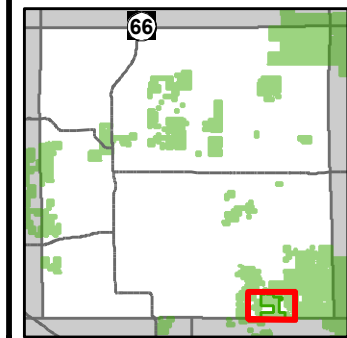
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

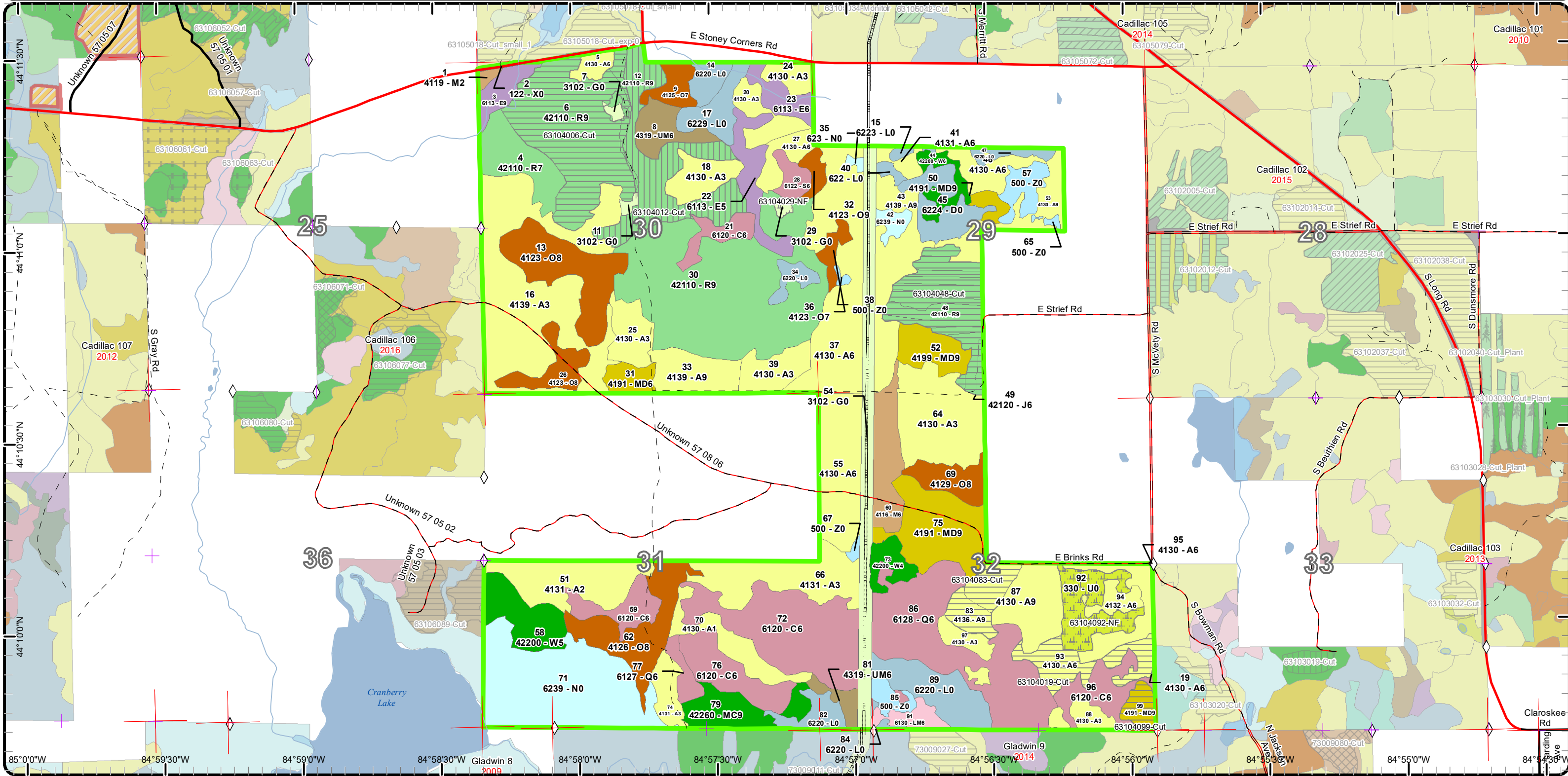
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 104  
 T21N R05W Sec. 29-32  
 County: Missaukee  
 Unit: Cadillac  
 Mgmt Area: Upper Muskegon  
 YOE: 2018  
 Acres: 1724 GIS Calculated  
 Examiner: Derek Cross  
 Map Revised: 7/5/2016  
 Map Phase: Web-Post



- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- - Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Pipeline
- Compartment Boundary
- Clearcut (w/Reserves)
- Other Treatment - See Comments
- Shelter Wood (w/Reserves)
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes







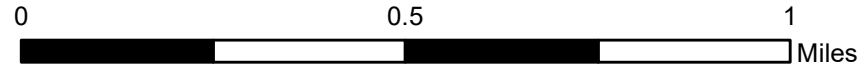
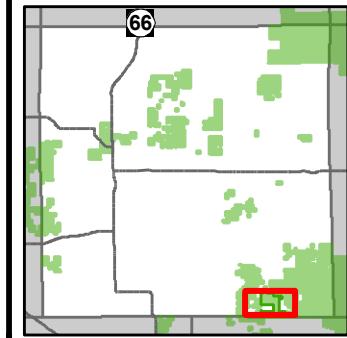






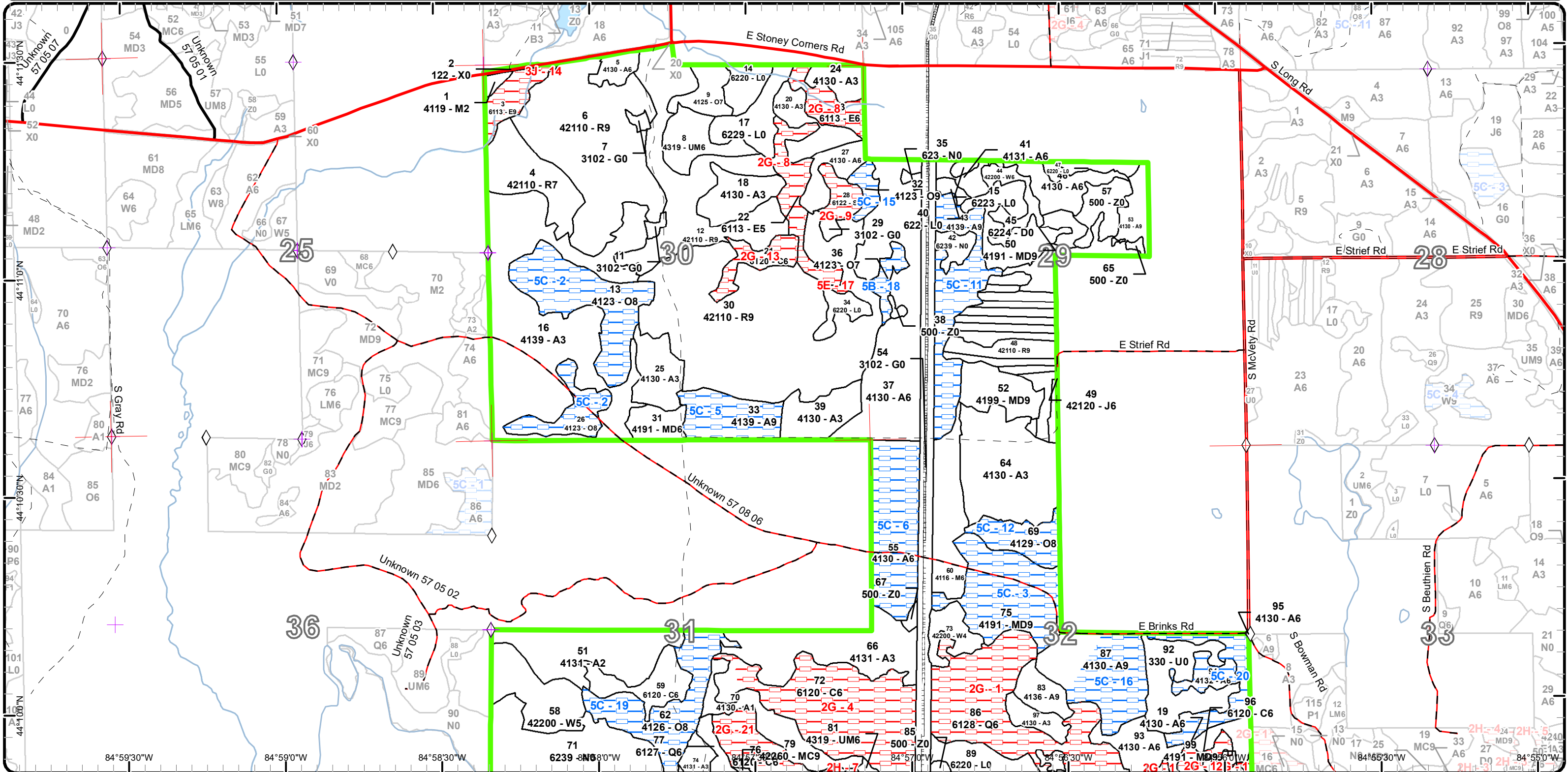
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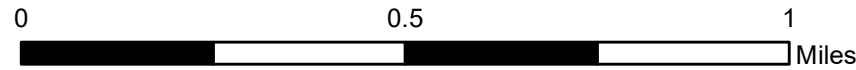
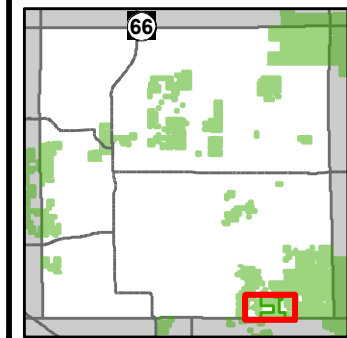
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- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes

- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes

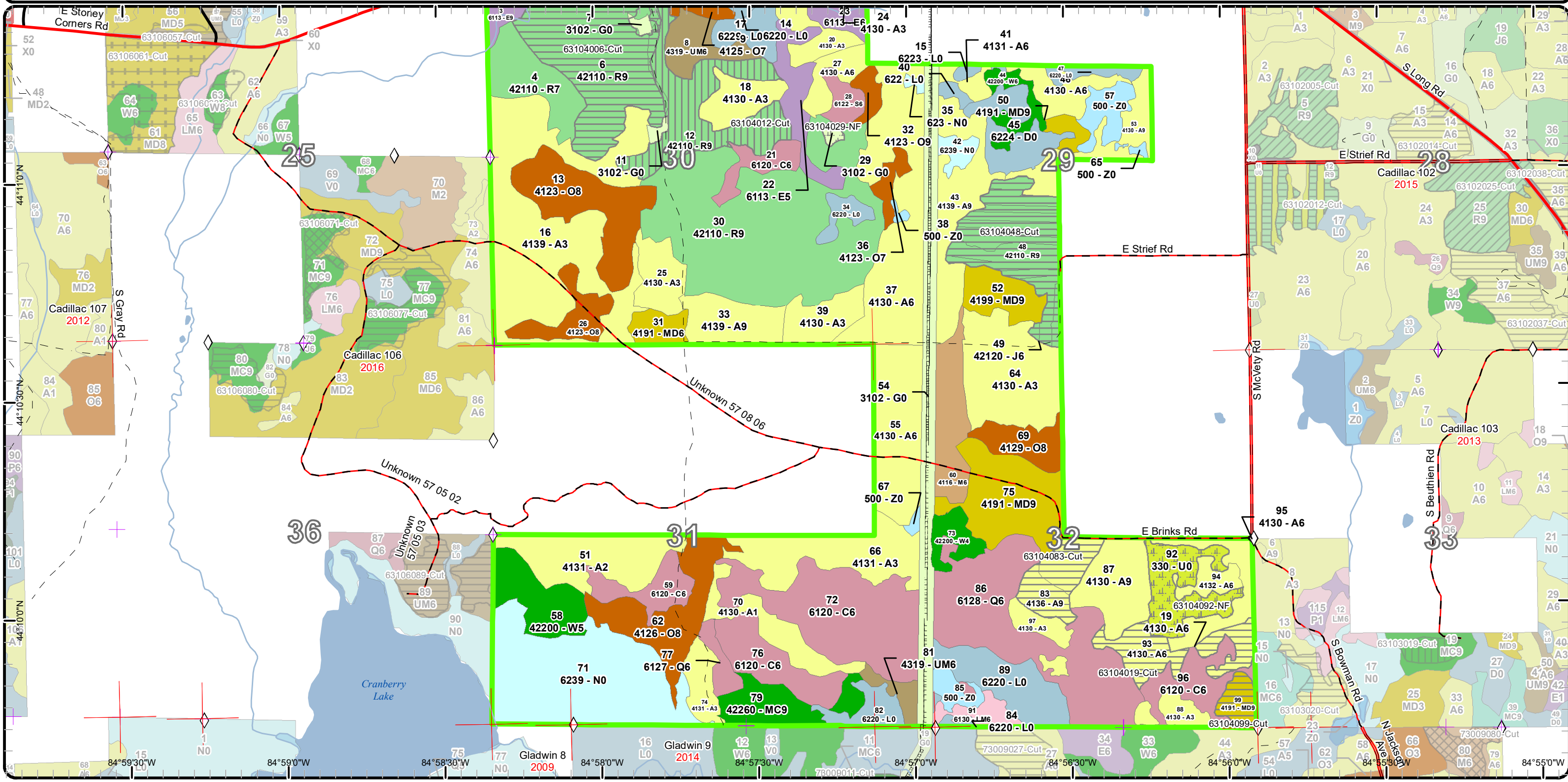


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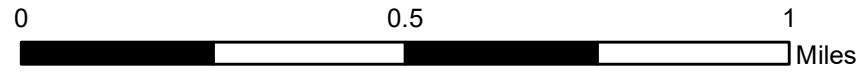
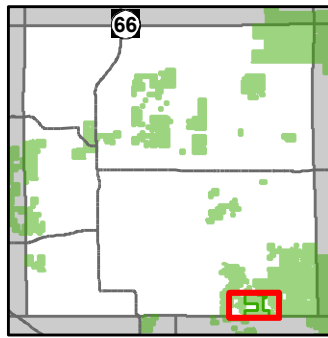
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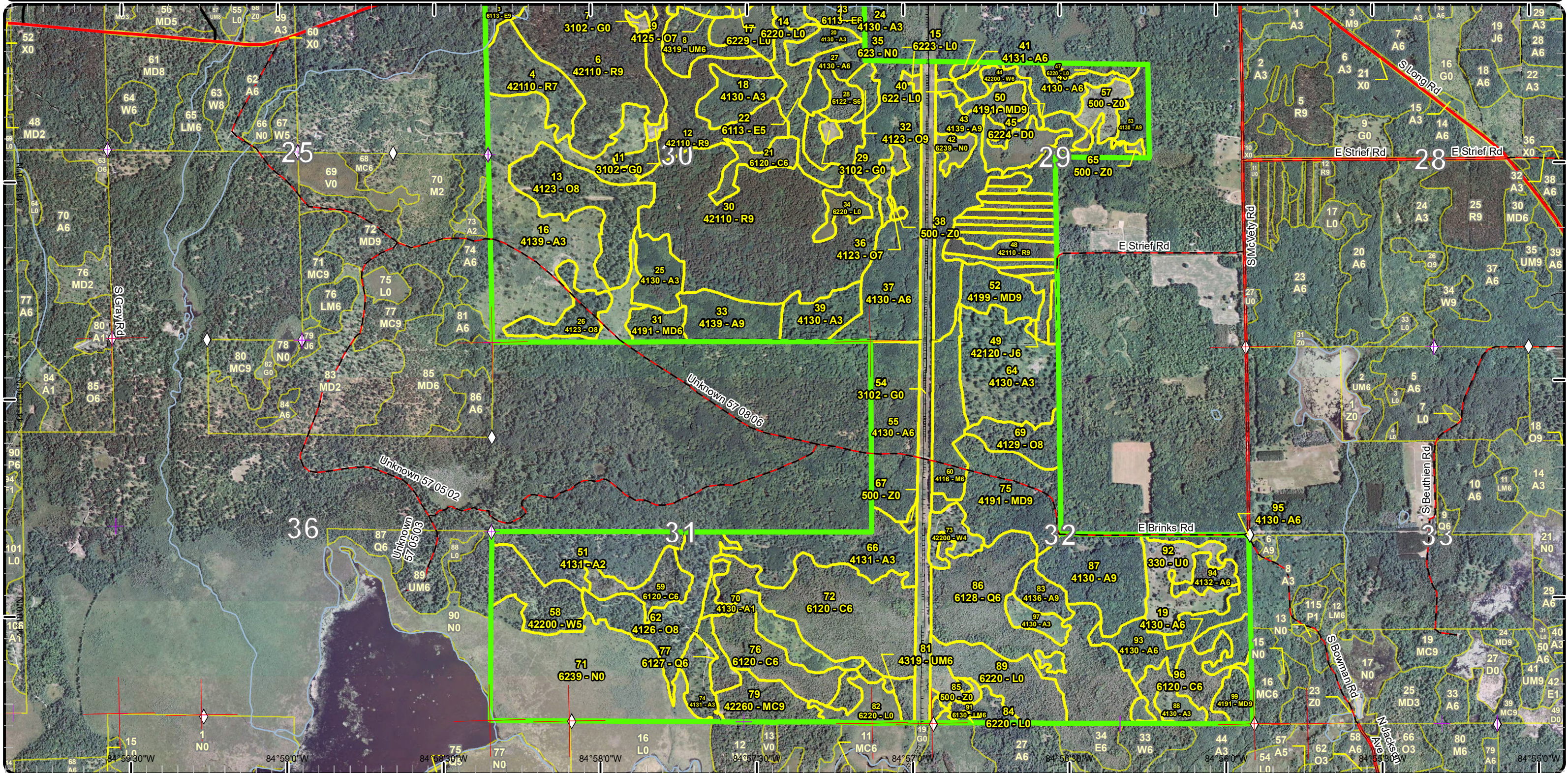


# Stand Boundary Map

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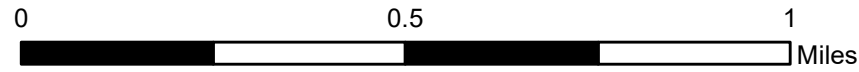
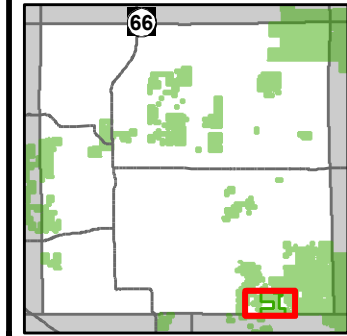
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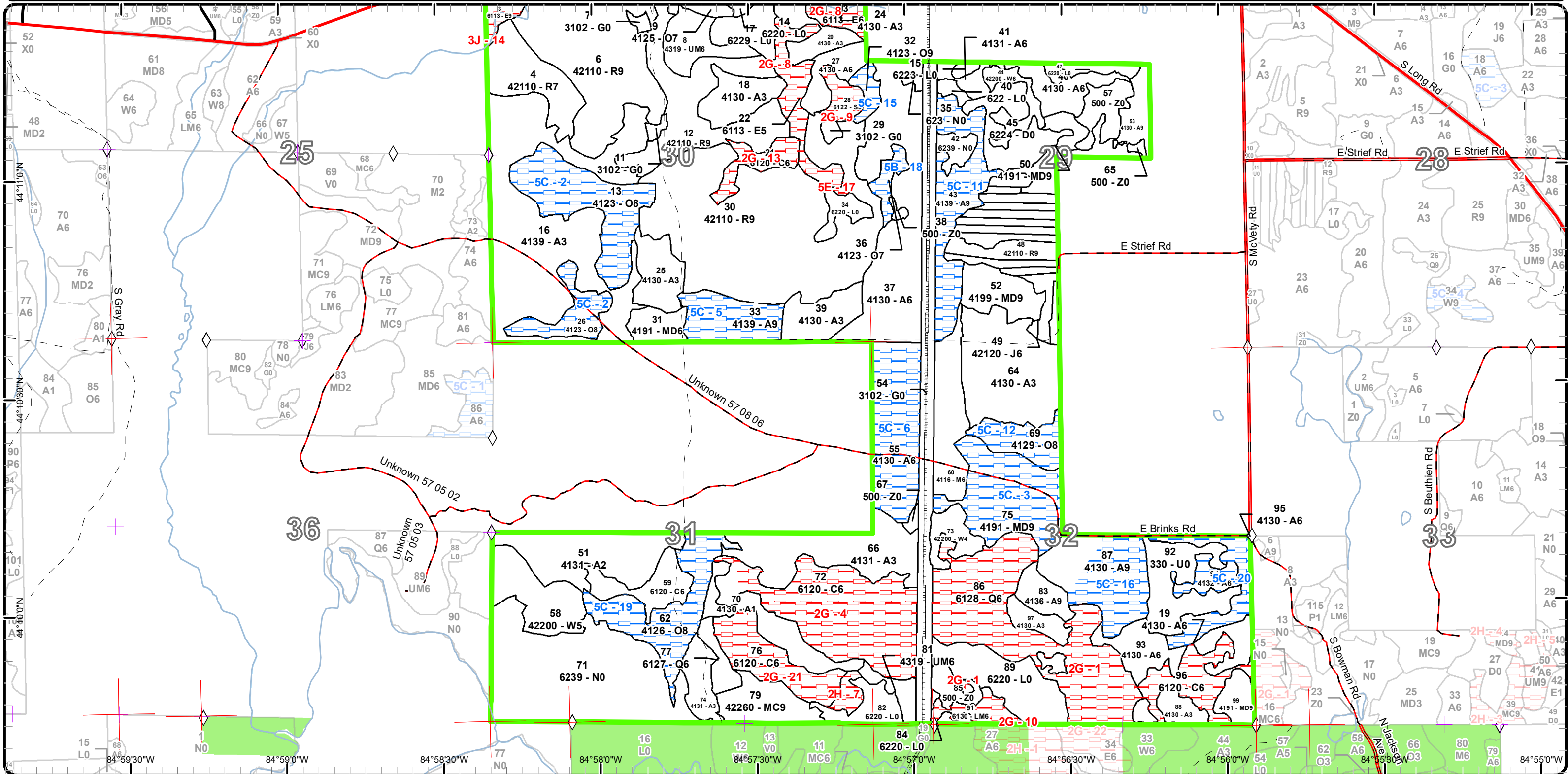
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- Stand Boundaries
- Kirtland Warbler Habitat
- Cold Water Streams



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	167	118	103	12	88	100	8	0	0	0	0	0	0	0	0	0	0	596
Cedar	0	0	0	0	0	0	0	0	0	0	23	18	83	0	0	0	0	0	124
Herbaceous Openland	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Jack Pine	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	19
Low-Density Trees	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Lowland Conifers	0	0	0	0	6	0	0	0	0	0	0	74	0	0	0	0	0	0	80
Lowland Deciduous	0	0	0	0	0	0	0	16	11	0	10	0	0	0	0	0	0	0	37
Lowland Mixed Forest	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Shrub	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	7
Marsh	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
Mixed Upland Deciduous	0	0	0	0	0	39	0	13	15	0	7	0	0	0	0	0	0	0	73
Natural Mixed Pines	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	20
Northern Hardwood	0	2	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	24
Oak	0	0	0	0	0	0	0	0	9	75	0	32	0	0	0	0	0	0	116
Red Pine	0	0	0	0	0	0	0	78	223	0	0	0	0	0	0	0	0	0	301
Treed Bog	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Upland Mixed Forest	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	19
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Water	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
White Pine	0	0	0	0	0	0	0	30	0	9	0	0	0	0	0	0	0	0	39
<b>Total</b>	<b>263</b>	<b>169</b>	<b>118</b>	<b>103</b>	<b>18</b>	<b>149</b>	<b>107</b>	<b>184</b>	<b>284</b>	<b>84</b>	<b>40</b>	<b>124</b>	<b>83</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1725</b>





## Report 2 – Treatment Summary

Cadillac Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 104

Total Compartment Acres: 1,724

Commercial Harvest - 216  
 Harvests with Site Condition - 0  
 Next Step Harvest - 0  
 Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Oversory Removal	Salvage	Other	Total Acres
Aspen	39	0	0	0	0	0	0	0	0	39
Mixed Upland Deciduous	7	0	0	0	0	0	0	0	0	7
Red Pine	121	0	0	0	49	0	0	0	0	170
<b>Total</b>	<b>167</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>216</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	216	0	0	0	0	0	0	25	0	241
Next Step	0	241	121	0	0	121	336	0	0	818
<b>Total</b>	<b>216</b>	<b>241</b>	<b>121</b>	<b>0</b>	<b>0</b>	<b>121</b>	<b>336</b>	<b>0</b>	<b>25</b>	<b>1059</b>



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
6	63104006-Cut	76.1	42110 - Planted Red Pine	Sawtimber Well	76	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Final harvest to a 1 inch spec. Replant to red pine.											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Roller Chopping; Planting, Initial Plant; Pesticide, Skidder/Mechanical; 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> 10/01/2017											
12	63104012-Cut	49.1	42110 - Planted Red Pine	Sawtimber Well	60	111-140	Harvest	Shelterwood with Retention	4122 - Oak, Pine	Two-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Remove the majority of Red Pine. Retaining 40-50 BA to nurse along the oak understory that has developed.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Oaks, red maple, red pine, white pine, and aspen.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
19	63104019-Cut	20.8	4130 - Aspen	Poetimber Well	51	81-110	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Final harvest using a 2 inch spec on deciduous species and a 4 inch spec on conifers. Put in island retention and leave any cedar that may be growing in the stands. Any larger pines bordering the lowland should be retained also.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen and mixed deciduous with a mixed conifer component											
<u>Regen:</u>											
<u>Other</u> Include a grouse and hare spec in sale.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
29	63104029-NF	1.6	3102 - Grass	Nonstocked		Unspecified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Cut brush and trees to keep open. Possibly plant forage and/or mast species.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u>											
<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
48	63104048-Cut	44.4	42110 - Planted Red Pine	Sawtimber Well	64	171-200	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal

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

Prescription Final harvest all trees to a 1" spec. Leave some oak for mast.

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Skidder/Mechanical; Monitoring, Artificial Regen(1yr)

Treatments:

Acceptable Planted red pine

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

83	63104083-Cut	18.2	4136 - Aspen, Mixed Conifer	Sawtimber Well	63	51-80	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest to a 2 inch spec. Buffer low wet pocket and create a retention island around the small stand of larger pines that border the habitat cut.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen with a mix of other deciduous species and mixed conifers.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

92	63104092-NF	23.3	330 - Low-Density Trees	Nonstocked			NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Maintain apple trees. Pick some more open areas to open up and maintain the balance in a semi open state.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

99	63104099-Cut	7.3	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	96	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest using a 2 inch spec. Leave all cedar, hemlock and large pines. buffer lowland pockets this will serve as retention.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Red maple, aspen, other mixed deciduous and any mixed conifers.

Regen:

Other

Comment: There are several small drainages that will need to be crossed to access this stand from the north. Crossings locations should be located when the sale is set up. Using mats to cross these areas should be sufficient.

Include grouse and hare specs in sale.

Proposed Start Date: 10/01/2017

**Total Treatment  
Acreage Proposed: 240.8**



## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Derek Cross : Examiner

Compartment: 104  
Year of Entry: 2018

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions						
		With Condition	Not Available		5B	5C	2G	2H	3J	5E	
597	463	<b>134</b>	0	Aspen		<b>134</b>					
124	17	<b>0</b>	108	Cedar			108				
46	46	<b>0</b>	0	Herbaceous Openland							
19	19	<b>0</b>	0	Jack Pine							
23	23	<b>0</b>	0	Low-Density Trees							
80	6	<b>0</b>	74	Lowland Conifers			74				
37	0	<b>0</b>	37	Lowland Deciduous			27		10		
7	0	<b>0</b>	7	Lowland Mixed Forest			7				
72	72	<b>0</b>	0	Lowland Shrub							
7	0	<b>0</b>	7	Lowland Spruce/Fir			7				
84	84	<b>0</b>	0	Marsh							
73	35	<b>39</b>	0	Mixed Upland Deciduous		<b>39</b>					
20	16	<b>0</b>	4	Natural Mixed Pines				4			
24	24	<b>0</b>	0	Northern Hardwood							
114	9	<b>105</b>	0	Oak	<b>5</b>	<b>100</b>					
301	300	<b>0</b>	1	Red Pine							1
18	18	<b>0</b>	0	Treed Bog							
19	19	<b>0</b>	0	Upland Mixed Forest							
1	1	<b>0</b>	0	Urban							
19	19	<b>0</b>	0	Water							
39	39	<b>0</b>	0	White Pine							
1,724	1,210	<b>277</b>	237	Total Forested Acres	<b>5</b>	<b>272</b>	223	4	10		1
	70%	<b>16%</b>	14%	Relative Percent							

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	93	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Derek Cross : Examiner

Compartment: 104  
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2	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	50	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>	39	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
4	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	58	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<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>							
6	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	37	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
7	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

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8	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	27	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
9	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
10	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	7	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>	31	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Hold this stand to give the bordering red pine an opportunity to get established after harvest.							
12	<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>							
13	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Derek Cross : Examiner

Compartment: 104  
Year of Entry: 2018

14	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
15	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Very Small stand wait until surrounding stands are being treated to access this stand.							
16	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	25	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
17	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Maintain as retention and travel corridor between two low wet areas.							
18	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> The regeneration was lacking from previous harvest, Consider planting to RP with stand 30.							
19	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	32	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Allow the surrounding stands to mature for another cycle before harvesting this stand.							

**Report 4 – Site Conditions**

**Cadillac Mgt. Unit**  
**Derek Cross : Examiner**

**Compartment: 104**  
**Year of Entry: 2018**

20	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Hold this aspen for another rotation. There are multiple stands adjoin this that are being harvested this entry period.							
21	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

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.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4119 - Mixed Northern Hardwoods	Sapling Medium	1.7	5	Immature	Red pine that was final harvested the stand is coming back to a mix of hardwoods.
3	6113 - Lowland Maple	Sawtimber Well	9.7	90		Low hardwoods with stream running through it.
4	42110 - Planted Red Pine	Sawtimber Poor	23.2	76	51-80	This stand is Currently low ba red pine with a full stocking of aspen regeneration underneath.
5	4130 - Aspen	Poletimber Well	5.2	24		Good looking Aspen Pole stand
6	42110 - Planted Red Pine	Sawtimber Well	73.7	76	111-140	Large acreage. Has been thinned twice, red pine now to utility pole size in spots. Areas of thick subcanopy of aspen and red maple.
8	4319 - Mixed Upland Forest	Poletimber Well	13.8	74	51-80	This stand is Mostly upland with a low wet pocket that contains Jack Pine, tamarack, Spruce, and Some mixed deciduous.
9	4125 - Black, N. Pin Oak	Sawtimber Poor	8.9	77	1-50	Very scattered oak that is filling in with aspen Clones. Will Probably Convert to aspen next rotation.
12	42110 - Planted Red Pine	Sawtimber Well	52.7	60	111-140	Thick understory is going to be a hindrance to future Management.
13	4123 - Red Oak	Sawtimber Medium	36.5	80	51-80	Cut 2 entry periods ago, left large oak over regen aspen. The regen looks good and this Stand Should Convert next entry period. Aspen is 3 inches now.
16	4139 - Aspen, Mixed Deciduous	Sapling Well	97.1	4	Immature	Treated with sale # 63-024-08-01 Good looking regeneration with remnant oaks and pines . There is a Considerable amount of deer browse in this stand.
18	4130 - Aspen	Sapling Well	13.6	26	Immature	
19	4130 - Aspen	Poletimber Well	7.9	51	81-110	This stand was split out of the adjoining cedar stand. The balsam is falling down and the aspen is ready to be harvested.
20	4130 - Aspen	Sapling Well	11.9	15		Good looking aspen regeneration.
21	6120 - Lowland Cedar	Poletimber Well	9.6	90	171-200	Inoperable
22	6113 - Lowland Maple	Poletimber Medium	16.3	65	51-80	Stream running through stand. Some dead ash in the Stand.
23	6113 - Lowland Maple	Poletimber Well	10.7	73	81-110	There is a Small stream meandering through this Stand.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	4130 - Aspen	Sapling Well	7.1	15	Immature	Cut 2 entry periods ago. Regenerated nicely
25	4130 - Aspen	Sapling Well	14.0	26	Immature	Regeneration looks good at this time.
26	4123 - Red Oak	Sawtimber Medium	13.4	80	81-110	Cut 2 entry Periods ago, left large oak over regen. Aspen and other regeneration looks good at this time. Aspen DBH is 3 inches and it is still in the understory. This stand should convert in the next entry period.
27	4130 - Aspen	Poletimber Well	9.6	26	Immature	Good looking aspen regeneration.
28	6122 - Black Spruce	Poletimber Well	6.6	73	Unspecified	wet black spruce stand
30	42110 - Planted Red Pine	Sawtimber Well	126.2	76	141-170	Red Pine plantation, been thinned twice.
31	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	8.2	65	81-110	There are Some nice Single Stem red maple in this stand.
32	4123 - Red Oak	Sawtimber Well	4.7	80	141-170	Small acreage, nice oak with red maple some large remnant aspens along edge.
33	4139 - Aspen, Mixed Deciduous	Sawtimber Well	19.5	55	111-140	Very open stand little to no vertical structure.
36	4123 - Red Oak	Sawtimber Poor	5.5	80	1-50	old cut with Retained Oaks and cherry Scrub
37	4130 - Aspen	Poletimber Well	60.8	26	Immature	Good looking aspen pole stand.
39	4130 - Aspen	Sapling Well	14.5	16	Immature	Cut 2 entry periods ago left large oak over regen. Regeneration looks good. This stand has become an aspen Sapling
41	4131 - Aspen, Oak	Poletimber Well	4.5	44	81-110	Hilly and higher than surrounding stands. Small stream Between the 2 lobes of the Stand.
43	4139 - Aspen, Mixed Deciduous	Sawtimber Well	30.9	58	141-170	Stand is growing well, will hold 1 More rotation. Stems all look good with no evident disease issues.
44	42200 - Natural White Pine	Poletimber Well	8.0	62	51-80	White pine and Red pine supercanopy trees. Narrow Strip between bog and aspen.
46	4130 - Aspen	Poletimber Well	12.4	34		Mostly upland with Some low wet spots
48	42110 - Planted Red Pine	Sawtimber Well	25.3	64	171-200	Thinned red pine stand. Sub-canopy occurs only in pockets. 14" dbh average



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
49	42120 - Planted Jack Pine	Poletimber Well	19.1	64	81-110	Stand is beginning to fall apart some strips are worse than others. Red maple beginning to encroach into overstory.
50	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	4.3	60	81-110	Stand is an arm between two non-forested lowland areas of leatherleaf bog and open water.
51	4131 - Aspen, Oak	Sapling Medium	32.4	14	Immature	final harvested in 2002. Left scattered Oak seed trees. Nice aspen regen.
52	4199 - Other Mixed Upland Deciduous	Sawtimber Well	14.8	77	81-110	Stand is a good mix of large log sized oaks but has a thick understory of red maple stump sprout Poles and log size Red Maple.
53	4130 - Aspen	Sawtimber Well	19.1	57	81-110	Some old pine stumps still present.
55	4130 - Aspen	Poletimber Well	36.5	49	111-140	Nice aspen stand. Some pockets of advanced oak regen.
58	42200 - Natural White Pine	Poletimber Medium	21.6	68	51-80	White pines and oak with scattered pockets of aspen regen Clones.
59	6120 - Lowland Cedar	Poletimber Well	13.5	95		Cedar & hemlock mix with Standing water.
60	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	22.2	42	81-110	Red maples occur in clumps. Aspen is growing well. Nice oak advanced regen.
62	4126 - White, Black, N. Pin Oak	Sawtimber Medium	31.5	100	81-110	Oak is in good shape. Some oak seedlings under 3 feet tall. Small drain flowing out of the Cedar and toward Cranberry lake.
64	4130 - Aspen	Sapling Well	43.9	5	Immature	Stand harvested in fall of 2010 sale # 63-021-08-01. Aspen with a remnant of Oak from the previous stand.
66	4131 - Aspen, Oak	Sapling Well	35.8	14		Scattered wet areas with marsh grass and cattails. Good looking aspen regeneration.
69	4129 - Mixed Oak	Sawtimber Medium	13.7	83	1-50	Stand is sparse with scattered large oaks, and a small amount of pine and red maple as an understory.
70	4130 - Aspen	Sapling Poor	16.7	14	Immature	Stand harvested in 2001. Did not regenerate very well. Scattered clones of A3 and U type.
72	6120 - Lowland Cedar	Poletimber Well	60.8	115		Cedar swamp. Low and wet.
73	42200 - Natural White Pine	Poletimber Poor	8.9	84	1-50	This stand was harvested fall of 2010 with sale # 63-021-08-01 Stand slopes down toward the lowland and gets wetter as you approach the southeast edge. Aspen Regenerating Nicely under Retained white Pine.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
74	4131 - Aspen, Oak	Sapling Well	10.0	6	Immature	Harvested with sale #63-021-08-01
75	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	38.6	43	81-110	Stand is a mixture of older and younger aspen clones, oaks, and red and white pines. The majority of the pines are found in the southern half of the stand.
76	6120 - Lowland Cedar	Poletimber Well	22.2	116	51-80	low wet northern white cedar stand. Denser to the north with Better thermal Cover.
77	6127 - Lowland Pine	Poletimber Well	6.0	32	81-110	white pine, Jack pine and mixed deciduous growing in and around a low wet draw.
79	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	19.9	65	51-80	Natural white pine stand with red maple, oak and some jack pine. The jack pine is dying out. Low wet Pockets scattered throughout the stand.
81	4319 - Mixed Upland Forest	Poletimber Well	5.6	79	51-80	Red maple stand with mix of Balsim fir. Stand is very isolated.
83	4136 - Aspen, Mixed Conifer	Sawtimber Well	8.3	63	51-80	Good access to stand. Some spots are thick with balsam fir.
86	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	74.4	107		WET!
87	4130 - Aspen	Sawtimber Well	34.5	48	81-110	Small component of old red and white Pine.
88	4130 - Aspen	Sapling Well	7.6	5	Immature	Regenerating Habitat Cut. 10-20ft aspen
91	6130 - Fir, Aspen, Maple	Poletimber Well	7.2	59	Unspecified	Age estimated not able to reach Stand through water. Stand looks to be a mix of swamp hardwoods and conifers based on previous inventory data.
93	4130 - Aspen	Poletimber Well	12.9	49	51-80	
94	4132 - Aspen, Jack Pine	Poletimber Well	6.8	53	81-110	Stand is overstory aspen with jack pine mixed in. This stand is currently providing good wildlife cover but is slowly spreading into the surrounding open areas.
95	4130 - Aspen	Poletimber Well	15.4	51	111-140	Aspen stand that is growing well. A3 on East Edge 10-20' tall in adjacent Cut.
96	6120 - Lowland Cedar	Poletimber Well	18.3	105	Unspecified	This is a nice cedar stand that has some higher ground but is mostly low and wet.
97	4130 - Aspen	Sapling Well	8.2	6	Immature	This stand was habitat cut last entry period

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Cadillac Mgt. Unit

Report 7 – Forested Stands

Compartment: 104  
Year of Entry: 2018



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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
99	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	7.3	96	81-110	Ridge within lowland area. Has large diameter Red maple and upland Cedars and hemlock.

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Stand	Cover Type	Acres	Managed Site	General Comments:
2	122 - Road/Parking Lot	0.8	No	Stoney Corners Road
7	3102 - Grass	1.3	No	Shrub present is Autumn Olive
11	3102 - Grass	1.3	No	Opening that has been used as a landing shrub is Autumn Olive.
14	6220 - Alder/willow	7.5	No	
15	6223 - Inundated Shrub Swamp	1.7	No	Low pocket that extends into the stand off private to the north.
17	6229 - Mixed lowland shrub	13.4	No	Mostly alder and willow there are a few trees Scattered and Some standing dead
29	3102 - Grass	1.6	No	Looks like old well pad-site
34	6220 - Alder/willow	5.7	No	
35	623 - Emergent Wetland	1.1	No	
38	500 - Water	1.0	No	
40	622 - Lowland Shrub	2.1	No	
42	6239 - Mixed Emergent Wetland	4.6	No	willow, Cattails, and other shrub species.
45	6224 - Treed Bog	18.3	No	
47	6220 - Alder/willow	4.7	No	
54	3102 - Grass	41.8	No	Pipeline
57	500 - Water	10.1	No	nice pond, has a beaver lodge on the North side
65	500 - Water	1.0	No	The 2 parts of this stand are connected by a small drainage, There is another small drainage connecting them to stand 57.
67	500 - Water	1.1	No	Small Pond



Stand	Cover Type	Acres	Managed Site	General Comments:
71	6239 - Mixed Emergent Wetland	78.1	No	
82	6220 - Alder/willow	9.6	No	
84	6220 - Alder/willow	1.8	No	
85	500 - Water	5.7	No	
89	6220 - Alder/willow	25.3	No	low wet stand. No Commercial Value. lots of Standing dead.
92	330 - Low-Density Trees	23.3	No	This opening is currently filling in with woody species. Without treatment this stand will probably convert to forested by the next entry period. There is also a small old apple orchard that could use some pruning before the trees completely die. They are in rough shape at this time.