



Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63116

Entry Year 2018

Acreage: 2,563

County Missaukee

Management Area: Upper Muskegon

Revision Date: 2016-06-10

Stand Examiner: Steve Eisele

Legal Description:

T24N, R7W, Secs. 24,25,26,27,34,35,36

T24N, R6W, Secs. 19,30

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:

Kalkaska, rubicon sands.

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

Four miles west of Moorestown, this compartment is a mixture of private and state land in and around the compartment. Private land has both permanent and seasonal residents. Land use in the compartment is hunting, trapping, snowmobiling and cross-country skiing.

Unique Natural Features:

Potential listings for great blue heron rookery, osprey, eagle, goshawk, red-shouldered hawk, massasauga, wood turtle, and Blanding's turtle.

Archeological, Historical, and Cultural Features:

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

A number of small unnamed tributaries to the West Branch of the Muskegon River and Haymarsh Creek flow through Compartment 116. The West Branch of the Muskegon River and Haymarsh Creek are both Designated Trout Streams with self-sustaining populations of brook trout.

Wildlife Habitat Considerations:

Featured wildlife species are deer, bear, pileated woodpecker, and ruffed grouse. Management emphasis will be on maintenance of large, contiguous blocks of northern hardwoods for landscape composition, promotion of vertical structure and shrub layer with stands, retention of large diameter trees, and maintenance of aspen and openings. (Victory, 5/24/16)

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact outwash sand and gravel and coarse-textured till. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift are the Pennsylvanian Saginaw Formation and Mississippian Bayport Limestone and Michigan Formation. The Saginaw is quarried for clay, the Bayport for Limestone and the Michigan Formation for gypsum in other areas of the State. Gravel pits are located to the north and potential is good. The compartment is located just south of Cannon Creek Field. The field has produced from the Stray Sandstone. Most of the Compartment 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:

A survey request has been submitted.

Recreational Facilities and Opportunities:

No facilities. Local landowners use the trails throughout the compartment for cross-country skiing and snowmobiling. There are several illegal ski trails on the east side of the compartment. There are no designated recreational trails within this compartment. (T.N. 1/29/16)

Fire Protection:

This compartment primarily hardwoods, with a few small areas of spruce and jack pine. Access would be fairly good for suppression equipment. There are numerous areas of private property, which increases the urban interface concerns.

Additional Compartment Information:

The following reports from the Inventory are attached:

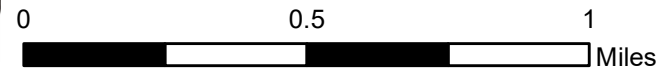
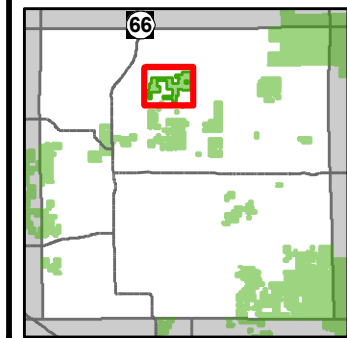
- Total Acres by Cover Type and Age Class
- Cover Type by Harvest Method
- Proposed Treatments – No Limiting Factors
- Proposed Treatments – With Limiting Factors
- Stand Details (Forested and Nonforested)
- Dedicated and Proposed Special Conservation Areas
- Site Condition Details

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

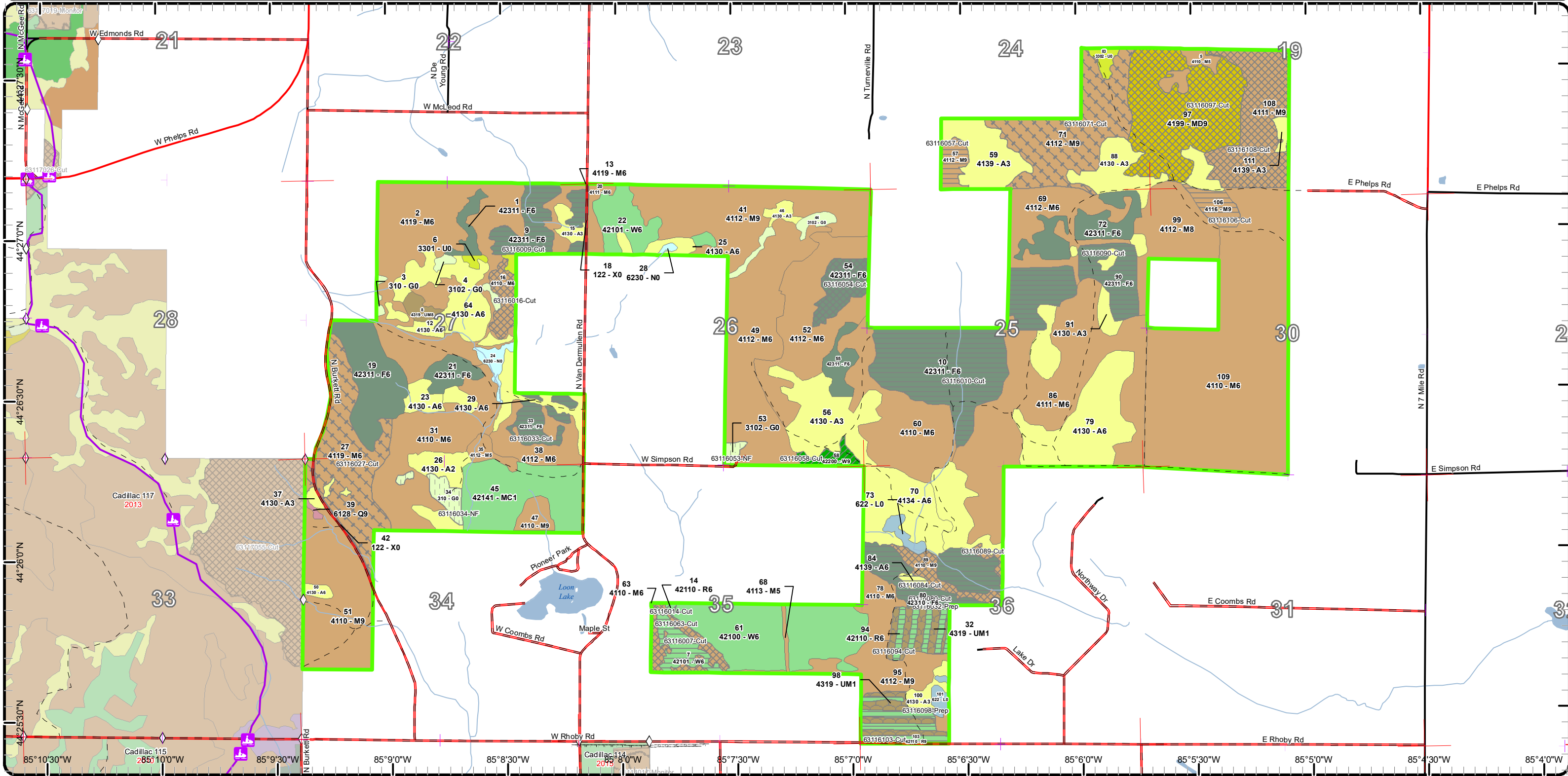
- Base feature information, stand boundaries, cover types, and numbers
- Proposed treatments
- Site condition boundaries
- Details on the road access system

Cover Type & Treatments Map

Compartment: 116
 T24N R06W Sec. 19, 30
 T24N R07W Sec. 24-27, 34-36
 County: Missaukee
 Unit: Cadillac
 Mgmt Area: Upper Muskegon
 YOE: 2018
 Acres: 2563 GIS Calculated
 Examiner: Steve Eisele
 Map Revised: 7/6/2016
 Map Phase: Web - Post

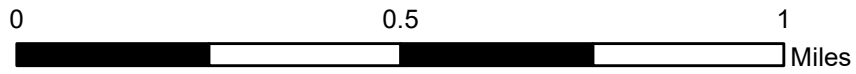
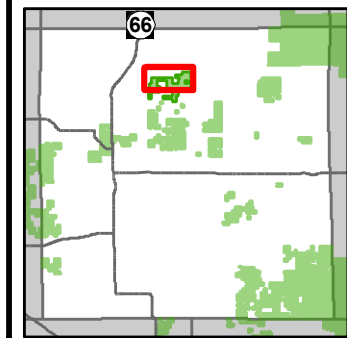


- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| — Miris Corners | □ Clearcut (w/Reserves) | ■ 622 - Lowland Shrub |
| + Remonumented Section Corners | ⊗ Salvage | ■ 623 - Emergent Wetland |
| ◇ Field Grade GPS Corners | □ Opening Maintenance | ■ Lakes |
| 🏠 Snowmobile Trails | ▨ Thinning (Crown, Low, Systematic) | |
| — Designated Snowmobile Trails | ■ 411 - Northern Hardwood | |
| — County Paved Roads | ■ 413 - Aspen Types | |
| — Paved Roads | ■ 419 - Mixed Upland Deciduous | |
| — County Gravel Roads | ■ 421 - Planted Pines | |
| — Poor Dirt Roads | ■ 422 - Natural Pines | |
| — Rivers | ■ 423 - Other Upland Conifers | |
| — Pipeline | ■ 430 - Upland Mixed Forest | |
| — Compartment Boundary | ■ 612 - Lowland Coniferous Forest | |
| ⊗ Site Prep | ■ 122 - Roads/Parking Lot | |
| ⊗ Selection (Group, Single Tree) | ■ 310 - Herbaceous Openland | |
| | ■ 330 - Low Density Trees | |

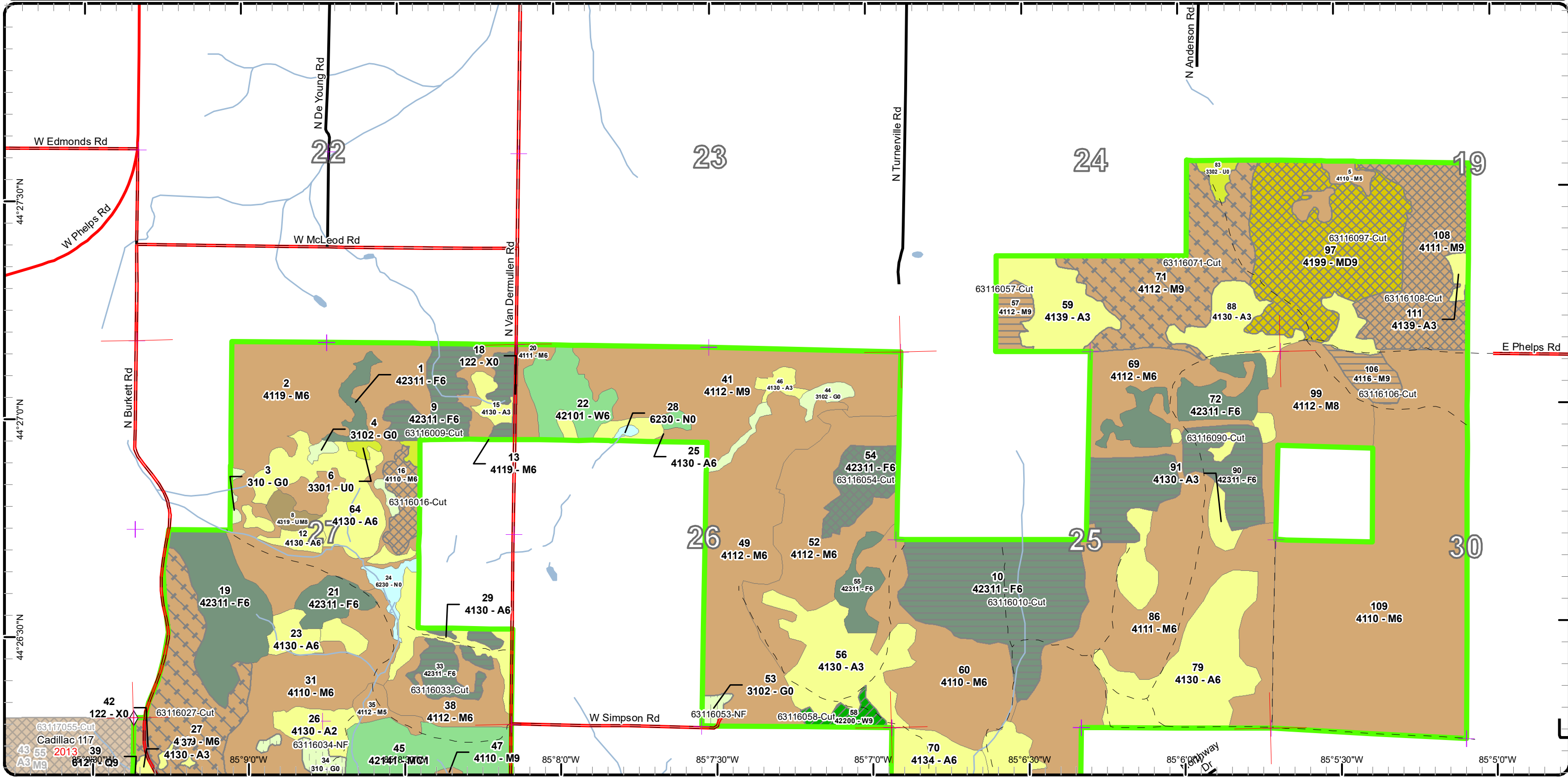


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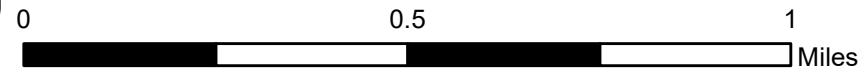
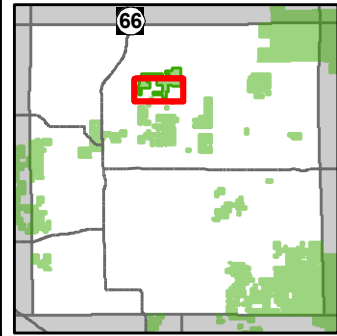


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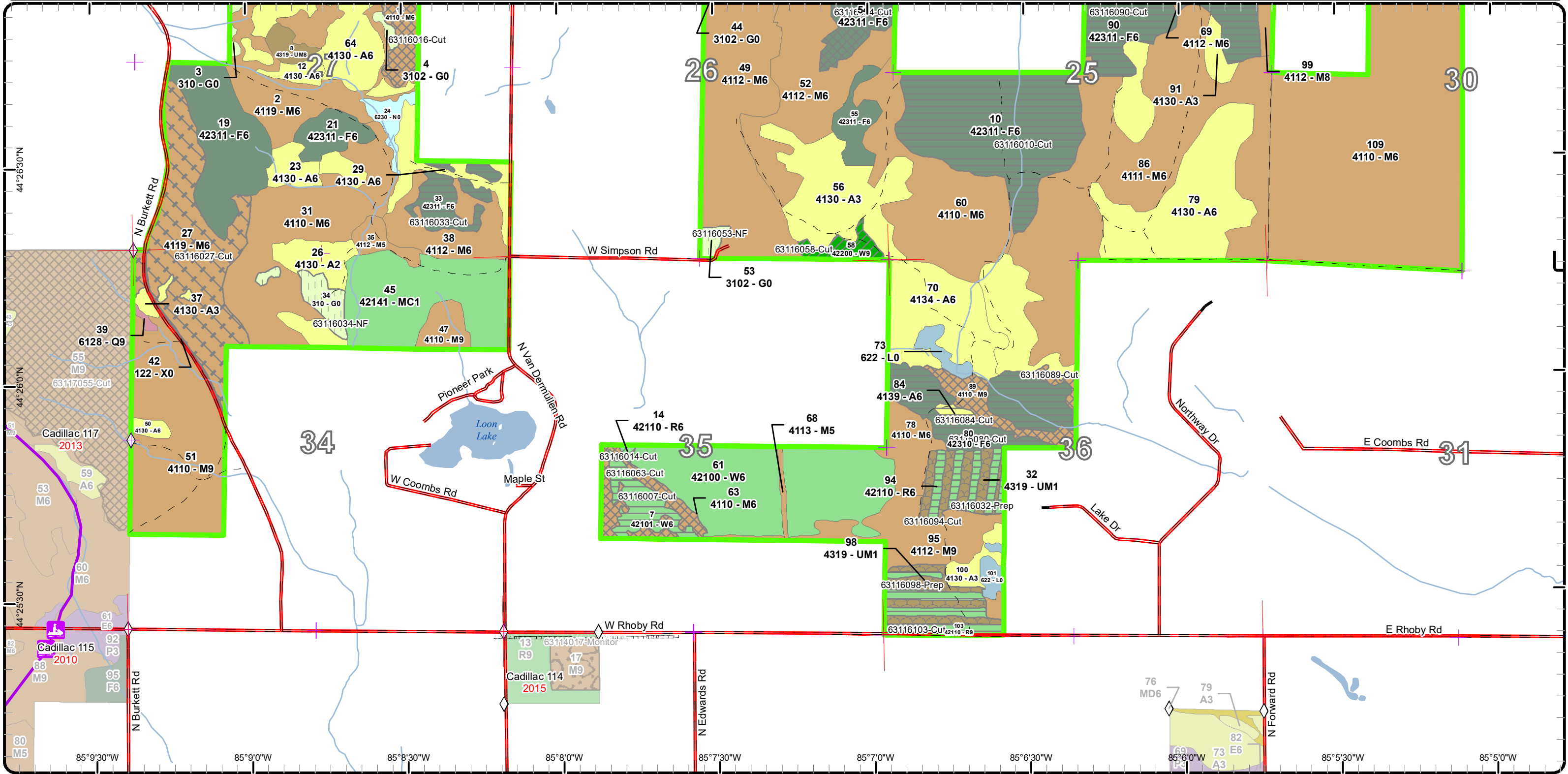


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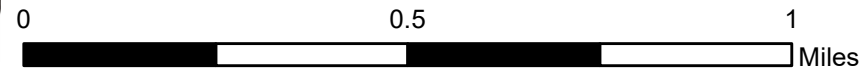
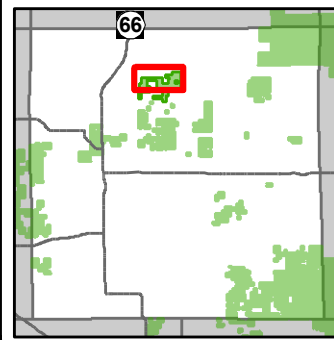


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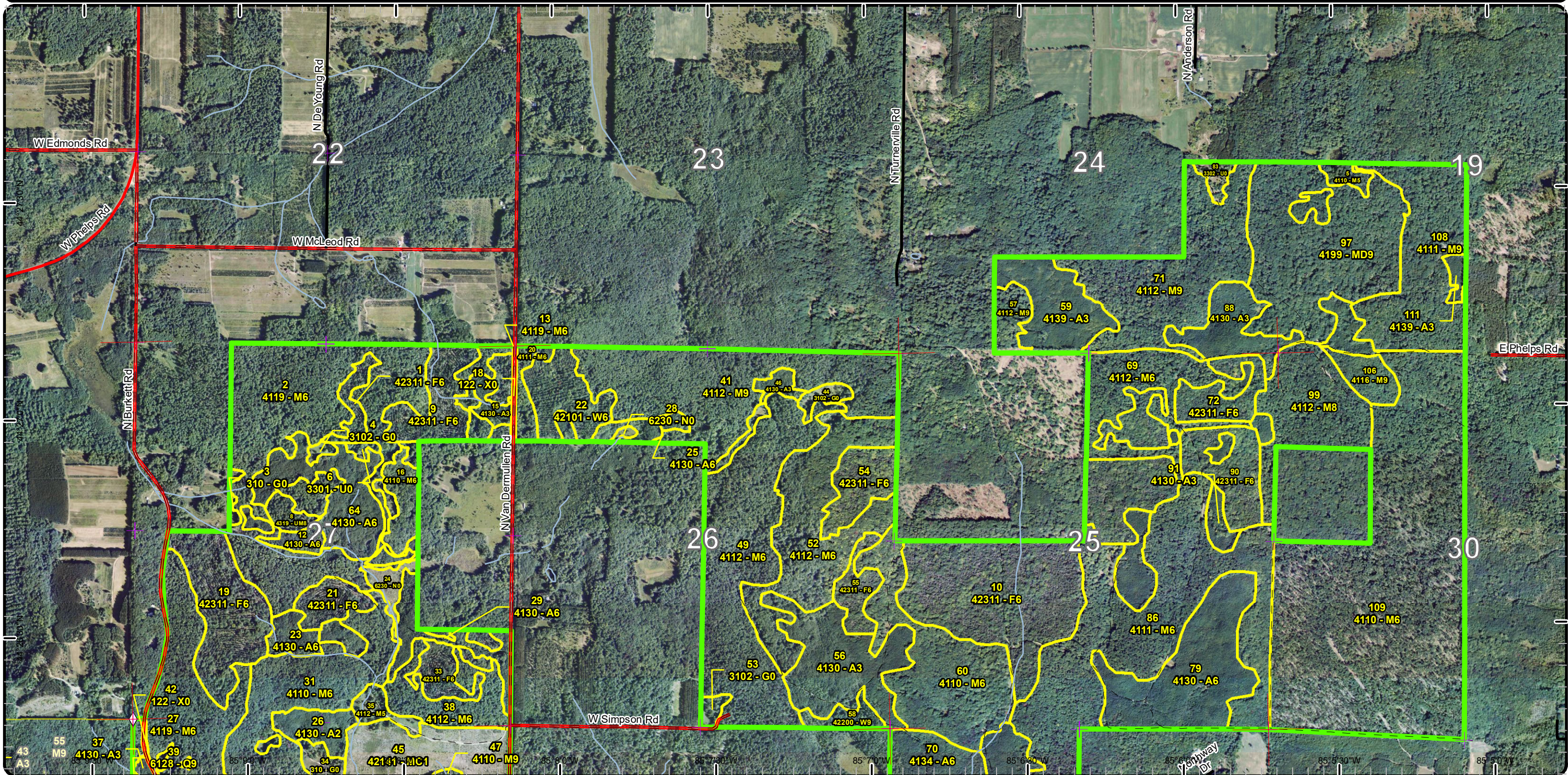


Stand Boundary Map

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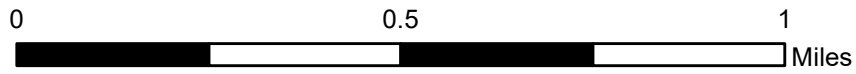
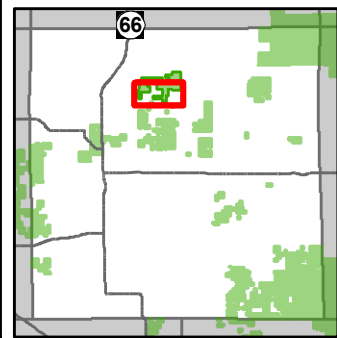


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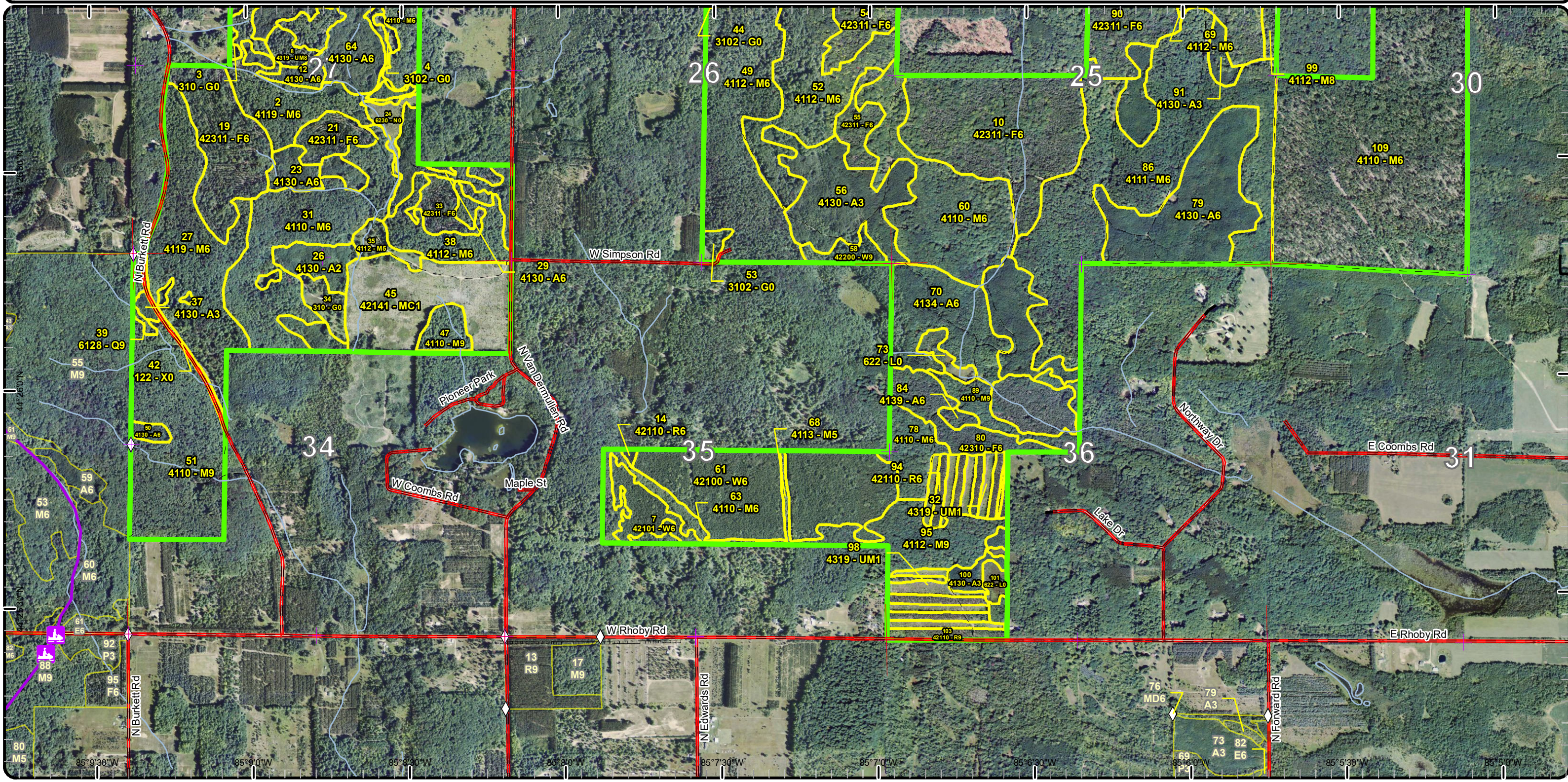


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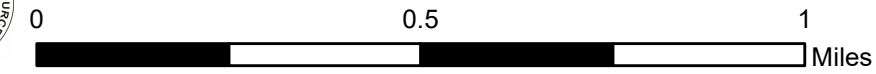
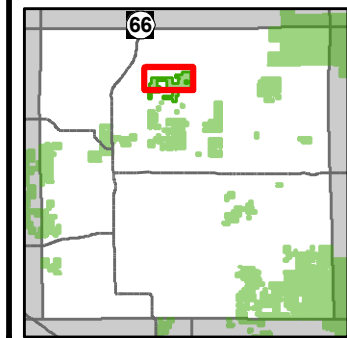


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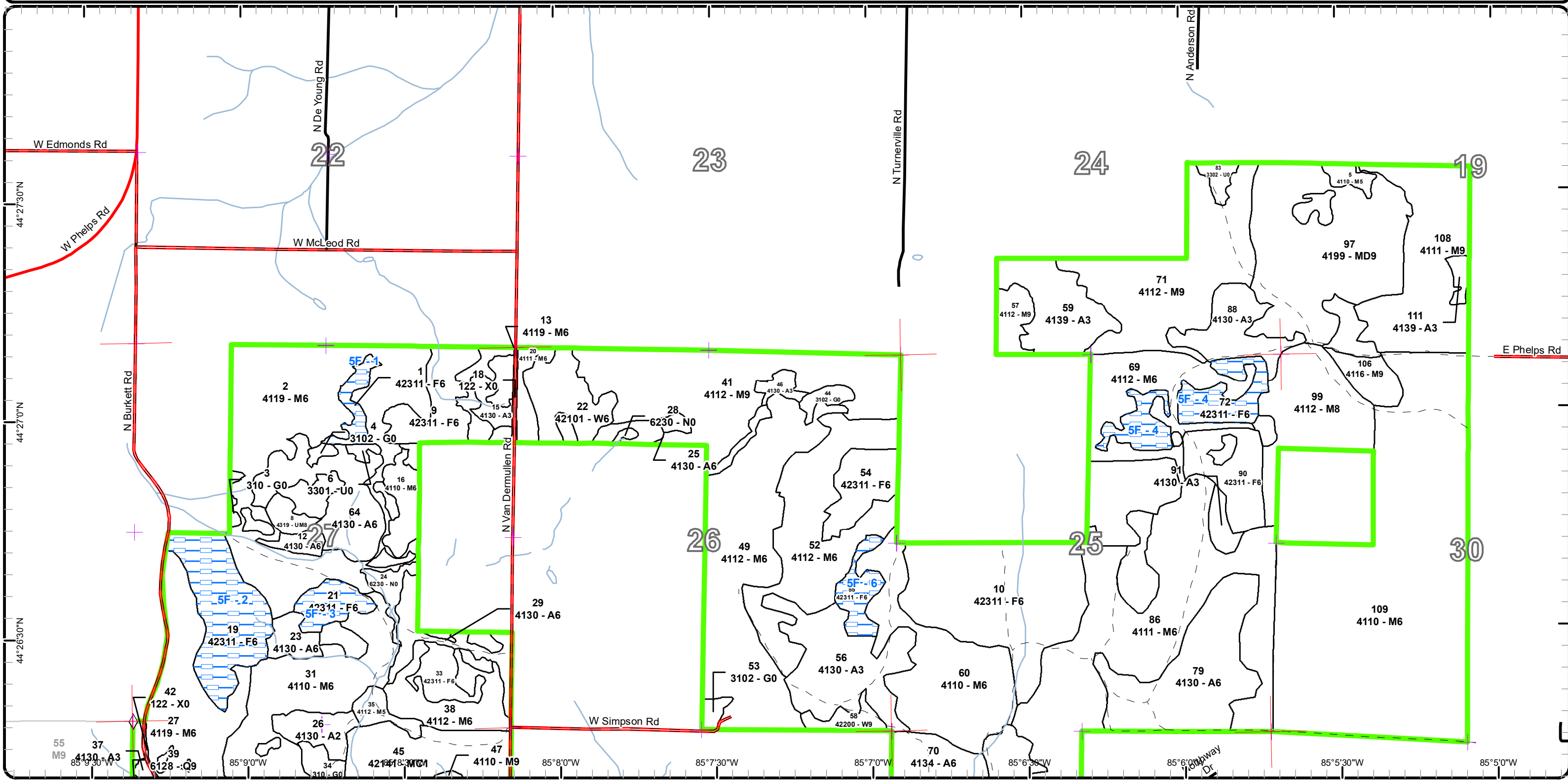


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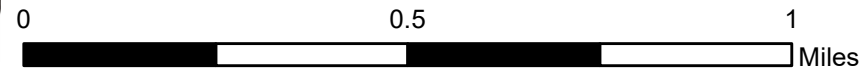
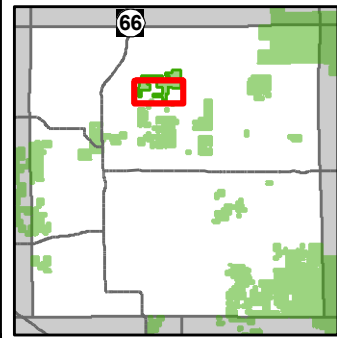


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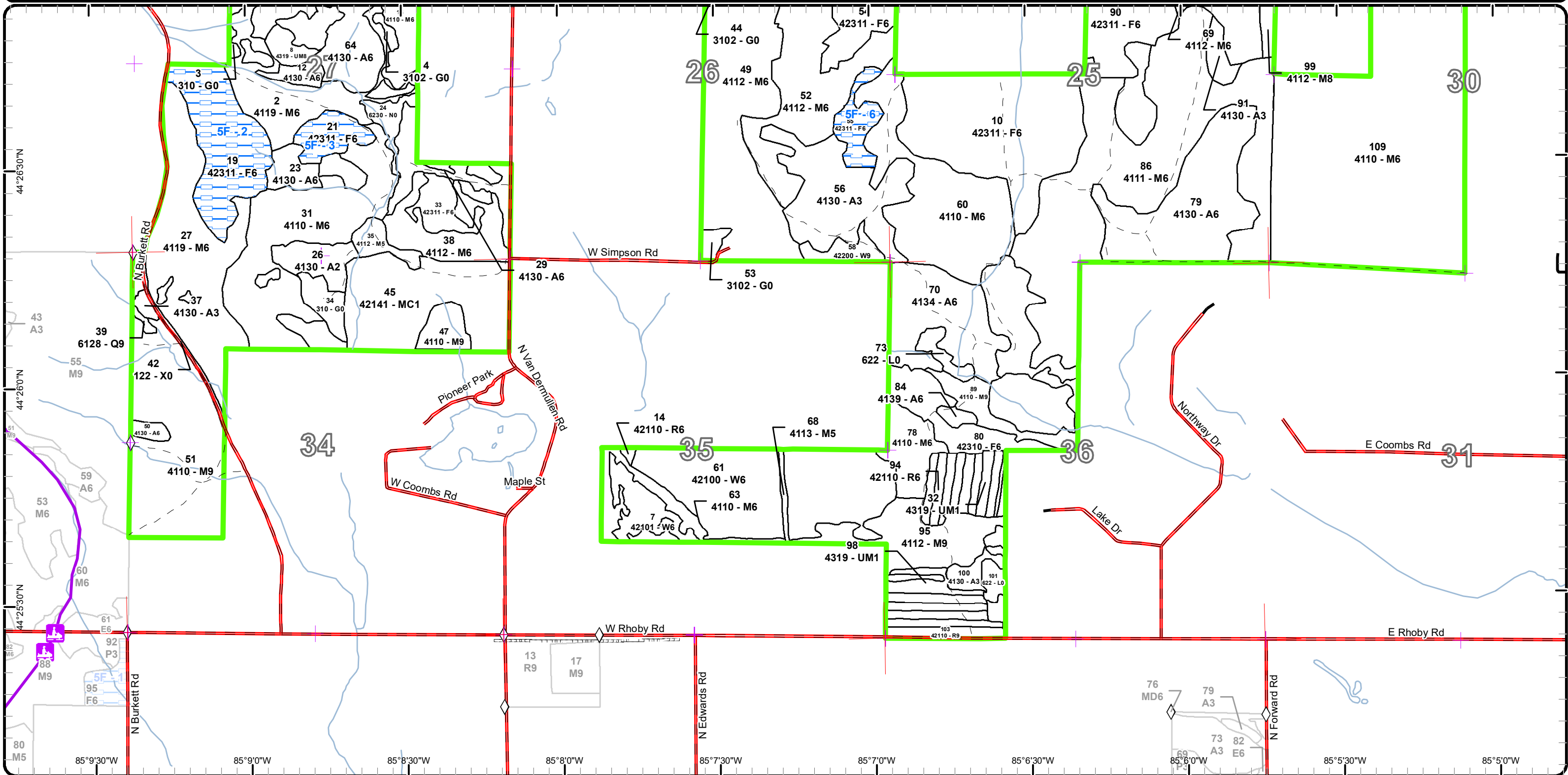


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Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit
Steve Eisele : Examiner

Compartment 116 Year of Entry 2018



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	0	107	212	42	16	3	0	0	0	0	0	0	0	0	0	0	0	379
Herbaceous Openland	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Low-Density Trees	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Conifers	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Lowland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Marsh	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	94	0	0	0	0	0	0	0	94
Northern Hardwood	0	0	2	0	0	8	0	18	130	1149	148	0	0	0	0	0	0	0	1455
Planted Mixed Pines	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Red Pine	0	0	0	0	0	0	1	27	0	0	0	0	0	0	0	0	0	0	28
Upland Mixed Forest	0	25	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	30
Upland Spruce/Fir	0	0	0	0	0	0	336	0	0	0	0	0	0	0	0	0	0	0	336
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	0	0	0	121	0	0	7	0	0	0	0	0	0	0	0	128
Total	53	84	109	212	42	24	461	50	130	1157	242	0	0	0	0	0	0	0	2563



Report 2 – Treatment Summary

Cadillac Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 116

Total Compartment Acres: 2,563

Commercial Harvest - 650
 Harvests with Site Condition - 0
 Next Step Harvest - 11
 Habitat Cut - 11

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	3	0	0	0	0	0	0	0	0	3
Mixed Upland Deciduous	0	94	0	0	0	0	0	0	0	94
Northern Hardwood	20	105	0	0	0	0	146	0	0	272
Red Pine	27	0	0	0	0	1	0	0	0	28
Upland Spruce/Fir	215	19	0	0	0	0	0	0	0	234
White Pine	14	0	0	0	0	7	0	0	0	20
Total	279	218	0	0	0	8	0	146	0	650

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	650	25	0	0	0	0	0	12	0	687
Next Step	11	166	91	0	0	91	502	0	0	861
Total	661	192	91	0	0	91	502	0	12	1548



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
7	63116007-Cut	13.6	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	54	111- 140	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Remove only white pine, let hardwoods fill in.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Mixed deciduous/coniferous											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
9	63116009-Cut	28.6	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	55	81-110	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Remove all remaining spruce. Let stand convert to a mixed deciduous											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Mix upland deciduous											
<u>Regen:</u>											
<u>Other</u> Previous cut resulted in high mortality of remaining spruce.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
10	63116010-Cut	83.2	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	54	141- 170	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Remove all spruce and aspen. Let convert to hardwoods.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> mixed deciduous											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
14	63116014-Cut	0.8	42110 - Planted Red Pine	Poletimber Well	54	141- 170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> do a first thin, remove every third row											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Red Pine											
<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
16	63116016-Cut	11.9	4110 - Sugar Maple Association	Poletimber Well	80	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Remove beech and any remaining ash. Mark to cut the rest down to a BA of 70-80											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Mix of northern hardwood deciduos											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
27	63116027-Cut	70.9	4119 - Mixed Northern Hardwoods	Poletimber Well	80	51-80	Harvest	Salvage	4199 - Other Mixed Upland Deciduous	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Remove remaining ash and beech still left from recent cut. Ash is dead, beech is scaled heavy											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> mixed deciduous											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
32	63116032- Prep	11.9	4319 - Mixed Upland Forest	Sapling Poor	5	Unspec ified	SitePrep	Roller Chopping	4211 - Planted Red Pine	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Roller chop and trench, plant to red pine when adjacent stand is harvested											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Hand Application											
<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											
33	63116033-Cut	15.0	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	54	111- 140	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> cut all spruce and let hardwoods fill in											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Mix deciduous											
<u>Regen:</u>											
<u>Other</u> OR Final all, prep and plant to red.											
<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
34	63116034-NF	8.8	310 - Herbaceous Openland	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Keep open. May plant forage species.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

53	63116053-NF	2.9	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Keep open. May plant forage species.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

54	63116054-Cut	18.7	42311 - Planted Spruce, Mixed Deciduous	Poetimber Well	55	81-110	Harvest	Group Selection	4199 - Other Mixed Upland Deciduous	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remove all spruce

Specs:

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable mix of deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

57	63116057-Cut	9.6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	96	51-80	Harvest	Clearcut with Retention	429 - Mixed Upland Conifers	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear cut, leave a few oak for mast. Monitor to see if the beech/ironwood regen can be defeated.

Specs:

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mixed deciduous

Regen:

Other

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
58	63116058-Cut	6.8	42200 - Natural White Pine	Sawtimber Well	88	111- 140	Harvest	Crown Thinning	4220 - Natural White Pine	Two-Aged	Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Mark log size white pine to remove.

Specs:

Next Step

Treatments:

Acceptable Mix of pine and deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

63	63116063-Cut	14.4	4110 - Sugar Maple Association	Poletimber Well	84	111- 140	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remark this stand, some marks remain from last time. Remove all beech and ash. Target around 70 ba

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mixed deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

71	63116071-Cut	75.5	4112 - Maple, Beech, Cherry Association	Sawtimber Well	90	81-110	Harvest	Salvage	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remove all ash and beech. Mark some log size maple and cherry down to approx.70 ba

Specs:

Next Step

Treatments:

Acceptable Mixed deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

80	63116080-Cut	38.7	42310 - Planted Spruce	Poletimber Well	55	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear cut and plant to red pine. This should need minimum prep as there is little to no regeneration at this time under the spruce.

Specs:

Next Step SitePrep, Trenching; Planting, Replant; Pesticide, Hand Application; SitePrep, Roller Chopping

Treatments:

Acceptable Planted Red Pine

Regen:

Other

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
84	63116084-Cut	2.5	4139 - Aspen, Mixed Deciduous	Poletimber Well	50	Unspec ified	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Clear cut, winter only leave some cherry and maple, wet areas with seeps

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen mixed deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

89	63116089-Cut	15.7	4110 - Sugar Maple Association	Sawtimber Well	85	111- 140	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remove all ash and beech. Mark some log size maple, target approx. 80 ba

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mixed deciduous

Regen:

Other

Wet areas on east end of stand

Comment:

Proposed Start Date: 10/01/2017

90	63116090-Cut	49.9	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	55	111- 140	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remove all spruce beech and aspen. Let hardwoods move in.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Mixed hardwoods.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

94	63116094-Cut	11.2	42110 - Planted Red Pine	Poletimber Well	61	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear cut, trench and plant to red pine

Specs:

Next Step Harvest, Clearcut; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Hand Application; SitePrep, Roller Chopping

Treatments:

Acceptable Planted red pine

Regen:

Other

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
97	63116097-Cut	93.7	4199 - Other Mixed Upland Deciduous	Sawtimber Well	90	81-110	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Even-Aged	Approved Proposal

Habitat Cut: No**Site Condition:**

Prescription Look for areas of oak decline to remove. Cut all ash and beech

Specs:

Next Step Monitoring, Natural Regen (Re-Inventry)

Treatments:

Acceptable Mixed deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

98	63116098- Prep	13.5	4319 - Mixed Upland Forest	Sapling Poor	5	Unspec ified	SitePrep	Roller Chopping	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Roller chop after adjacent stand is cut. Trench and plant red pine

Specs:

Next Step SitePrep, Roller Chopping; Planting, Initial Plant; Pesticide, Hand Application; SitePrep, Trenching

Treatments:

Acceptable Planted red pine

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

103	63116103-Cut	15.5	42110 - Planted Red Pine	Sawtimber Well	65	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear cut trench and plant to red pine

Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant; Pesticide, Hand Application

Treatments:

Acceptable Planted red pine

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

106	63116106-Cut	10.7	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	65	51-80	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Approved Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear cut leave some oak for mast leave a couple of islands for retention

Specs:

Next Step Monitoring, Natural Regen (Re-Inventry)

Treatments:

Acceptable Aspen mixed deciduous

Regen:

Other

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
108	63116108-Cut	63.1	4111 - S.Maple, Hard Mast Association	Sawtimber Well	90	81-110	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Even-Aged	Approved Proposal

Habitat Cut: No

Site Condition:

Prescription Remove all ash and beech mark some maple target ba around 70

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mixed deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 687.1

Report 4 – Site Conditions

Cadillac Mgt. Unit
Steve Eisele : Examiner

Compartment: 116
Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions	
379	379	0	0	Aspen	
24	24	0	0	Herbaceous Openland	
8	8	0	0	Low-Density Trees	
1	1	0	0	Lowland Conifers	
9	9	0	0	Lowland Shrub	
7	7	0	0	Marsh	
94	94	0	0	Mixed Upland Deciduous	
1456	1456	0	0	Northern Hardwood	
59	59	0	0	Planted Mixed Pines	
27	27	0	0	Red Pine	
31	31	0	0	Upland Mixed Forest	
336	234	102	0	Upland Spruce/Fir	102
5	5	0	0	Urban	
128	128	0	0	White Pine	
2,563	2,462	102		Total Forested Acres	102
	96%	4%	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	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5F: Evaluated for Forest Health Considerations	8	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Planted white spruce with pockets of northern hwd. Narrow rows. Has been thinned. Now filling in with hardwoods. Leave as is. Some mortality but hardwoods will take over.								
2	Available	5F: Evaluated for Forest Health Considerations	43	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Planted white spruce with pockets of northern hwd. Narrow rows. Thinned last yoe. This one is holding well with little mortality. Hold as is let hardwoods fill in.								

Report 4 – Site Conditions

Cadillac Mgt. Unit
Steve Eisele : Examiner

Compartment: 116
Year of Entry: 2018

3	Available	5F: Evaluated for Forest Health Considerations	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Planted white spruce with pockets of northern hwd. Narrow rows. Thinned last yoe. This one is holding well with little mortality. Hold as is let hardwoods fill in.							
4	Available	5F: Evaluated for Forest Health Considerations	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5F: Evaluated for Forest Health Considerations	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Planted spruce has not been treated, appears healthy, being used for cover. Leave it for now.							

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

Mgt. Unit

Compartment:

Year of Entry



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
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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	7.5	55	51-80	Planted white spruce with pockets of northern hwd. Narrow rows. Has been thinned. Now filling in with hardwoods. Leave as is. Some mortality but hardwoods will take over.
2	4119 - Mixed Northern Hardwoods	Poletimber Well	123.1	80	81-110	West side of stand contains some wet seeps. Treated with sale 63-037-08-01 Will be high quality nest time
5	4110 - Sugar Maple Association	Poletimber Medium	8.4	45	51-80	This was a salvage sale in 2015 of dead and declining oak.#63- 014-15-02
7	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	13.6	54	111-140	Remove only white pine, let hardwoods fill in
8	4319 - Mixed Upland Forest	Sawtimber Medium	5.4	65	51-80	Very mixed stand lo quality small acre ash is dead
9	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	28.6	55	81-110	
10	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	83.2	54	141-170	Some scattered mortality of spruce. Remove all spruce and aspen. Let it naturally convert to hardwoods.
12	4130 - Aspen	Poletimber Well	4.9	40	Unspecified	
13	4119 - Mixed Northern Hardwoods	Poletimber Well	7.8	85	51-80	
14	42110 - Planted Red Pine	Poletimber Well	0.8	54	141-170	Although this stand is less than 1 acre it is different than surrounding stands and needs a treatment.
15	4130 - Aspen	Sapling Well	5.5	14	Unspecified	Cut in 2002
16	4110 - Sugar Maple Association	Poletimber Well	11.9	80	81-110	Do a select cut remove beech and any ash left. Mark to cut down to BA of 70
19	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	43.1	55	51-80	Planted white spruce with pockets of northern hwd. Narrow rows. Thinned last yoe. This one is holding well with little mortality. Hold as is let hardwoods fill in.
20	4111 - S.Maple, Hard Mast Association	Poletimber Well	7.5	78	51-80	Treated with sale 63-047-08-01
21	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	11.5	55	51-80	Thinned last yoe doing well for now with hardwoods moving in. Hold
22	42101 - Planted White Pine, Mixed Deciduous	Poletimber Well	25.2	54	81-110	Planted white pine with pockets of northern hardwood. treated with sale #63-046-08



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	4130 - Aspen	Poletimber Well	8.1	40	Unspecified	
25	4130 - Aspen	Poletimber Well	7.0	24	Unspecified	
26	4130 - Aspen	Sapling Medium	21.9	16	Unspecified	Final harvested in 2000.
27	4119 - Mixed Northern Hardwoods	Poletimber Well	70.9	80	51-80	Some american chestnut trees are located in the north west corner of stand. Treated with sale 630160801
29	4130 - Aspen	Poletimber Well	16.0	24	Unspecified	
31	4110 - Sugar Maple Association	Poletimber Well	68.2	85	81-110	Thinned in 1998. Trees are healthy but no regen to speak of. Beech and ironwood
32	4319 - Mixed Upland Forest	Sapling Poor	11.9	5	Unspecified	
33	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	15.0	54	111-140	Looks like beetle mortality. Cut all spruce and let go to hardwoods. OR Final harvest all and plant to red. May take a lot of prep though with all the competition.
35	4112 - Maple, Beech, Cherry Association	Poletimber Medium	6.7	60	1-50	Old G type area used as landing in the past, now filling in with open grown trees.
37	4130 - Aspen	Sapling Well	3.1	14	Unspecified	
38	4112 - Maple, Beech, Cherry Association	Poletimber Well	24.7	73	51-80	Treated with sale 63-016-08-01 Opened up too much with previous sale. Very full sub canopy of beech brush. Remaining ash is dead, beech trees scaled. Visually looks bad.
39	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	1.1	85	111-140	Wet run low area deer cover
41	4112 - Maple, Beech, Cherry Association	Sawtimber Well	88.9	85	81-110	Treated with sale 63-047-08-01 Trees doing well, regen. not so good, mostly beech brush.
45	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Poor	58.8	3	Immature	This was a jp plantation clear cut and planted to red pine. The natural jack has over topped the red as well as black cherry maple and aspen. It was sprayed with herbicide, fall of 2015. Monitor to see if that knocks back the competition from the deciduous trees.
46	4130 - Aspen	Sapling Well	4.2	14	Unspecified	Cut on 2002
47	4110 - Sugar Maple Association	Sawtimber Well	8.5	85	51-80	Thinned in 1989 and 1999. Sugar maple regen on edges of stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
49	4112 - Maple, Beech, Cherry Association	Poletimber Well	98.2	75	81-110	Treated with sale 63-047-08-01 last year of entry. Maple looks good, but no regen to speak of mainly beech and ironwood.
50	4130 - Aspen	Poletimber Well	2.8	40	Unspecified	
51	4110 - Sugar Maple Association	Sawtimber Well	74.9	85	81-110	Some scattered white ash in stand. Treated with sale 63-016-08-01. Maple doing well, will be some high quality next time. Very little regen. except beech brush. and ironwood
52	4112 - Maple, Beech, Cherry Association	Poletimber Well	69.2	85	51-80	This stand looks terrible! Beech brush sub canopy too thick to even walk through. Remaining beech overstory scaled, red maple low quality and "clumpy". Options? Clear cut the whole thing or remove all beech and log size maple and see what comes back. Or just leave it for now.
54	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	18.7	55	81-110	Remove all spruce let stand convert to hardwoods.
55	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	11.3	55	111-140	Planted spruce has not been treated, appears healthy, being used for cover. Leave it for now.
56	4130 - Aspen	Sapling Well	46.5	24	Unspecified	Illegal ORV Use on north edge of stand. ORVs are being used to travel to hunting blinds.
57	4112 - Maple, Beech, Cherry Association	Sawtimber Well	9.6	96	51-80	This stand is a good candidate to consider clearcutting and monitor. The BA is somewhat low but the trees are mature and the regen right now is mostly beech and iron wood. Could mark a few mast oak to leave.
58	42200 - Natural White Pine	Sawtimber Well	6.8	88	111-140	Natural white pine stand. This stand is marked from last time but was not cut. Do the treatment this time but re mark and take out log size white pine down to 50-60 ba.
59	4139 - Aspen, Mixed Deciduous	Sapling Well	30.8	14	Unspecified	Final harvested in 2002. Mix of bigtooth and quaking aspen.
60	4110 - Sugar Maple Association	Poletimber Well	65.6	80	81-110	ORV Hillclimb located in stand. Close with timber sale. Treated in the past. Usual beech and ironwood understory
61	42100 - Planted White Pine	Poletimber Well	82.0	54	141-170	Leave for thermal cover.
63	4110 - Sugar Maple Association	Poletimber Well	14.4	84	111-140	
64	4130 - Aspen	Poletimber Well	37.9	18	Immature	
68	4113 - R.Maple, Conifer	Poletimber Medium	2.1	15	51-80	Originally a fire break now filling in



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
69	4112 - Maple, Beech, Cherry Association	Poletimber Well	42.2	80	51-80	thinned in 2011 All beech is scaled all ash is dead. Not sure if its worth it to try a salvage or just let it go...
70	4134 - Aspen, Spruce/Fir	Poletimber Well	41.8	39	Unspecified	some wet areas along edge. Small area on south edge of cedar hemlock
71	4112 - Maple, Beech, Cherry Association	Sawtimber Well	75.5	90	81-110	Thinned in 2000. Could do it again right now and salvage remaining beech and ash. Mark some log maple and cherry
72	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	28.1	55	111-140	Pretty solid stand still healthy leave for now.
78	4110 - Sugar Maple Association	Poletimber Well	16.4	83	81-110	Ash is dead and beginning to rot. Beech is scaled. Understory of beech brush and ironwoold
79	4130 - Aspen	Poletimber Well	94.9	24	Unspecified	Illegal ski trail passes thru stand.
80	42310 - Planted Spruce	Poletimber Well	38.7	55	111-140	Has not been treated, holding and looking healthy at this point
84	4139 - Aspen, Mixed Deciduous	Poletimber Well	2.5	50	Unspecified	Wet on east side of stand. Some white ash in stand. Clear cut winter only. Leave some cherry and maple for retention. Wet areas with seeps.
86	4111 - S.Maple, Hard Mast Association	Poletimber Well	148.3	80	81-110	Illegal ski trail crosses through stand. Some trees are marked with orange paint along trail. Treated with sale 63-013-08-01. Beech brush understory
88	4130 - Aspen	Sapling Well	30.9	24	Unspecified	Harvested in 1992. Came back solid
89	4110 - Sugar Maple Association	Sawtimber Well	15.7	85	111-140	Springs comming out of hill on east side of stand.
90	42311 - Planted Spruce, Mixed Deciduous	Poletimber Well	49.9	55	111-140	Patchy spruce areas with various diameters. Some mortality. Remove all spruce beech and aspen. Let hardwoods take over.
91	4130 - Aspen	Sapling Well	10.4	24	Unspecified	
94	42110 - Planted Red Pine	Poletimber Well	11.2	61	111-140	
95	4112 - Maple, Beech, Cherry Association	Sawtimber Well	35.8	85	51-80	Thinned in 2000.
97	4199 - Other Mixed Upland Deciduous	Sawtimber Well	93.7	90	81-110	Thinned in 2000. Thin again. Look for areas of oak decline remove all beech and ash.
98	4319 - Mixed Upland Forest	Sapling Poor	13.5	5	Unspecified	

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Cadillac Mgt. Unit

Report 7 – Forested Stands

Compartment: 116
Year of Entry: 2018

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
99	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	45.3	85	51-80	Treated with sale 63-013-08-01
100	4130 - Aspen	Sapling Well	6.6	24	Unspecified	
103	42110 - Planted Red Pine	Sawtimber Well	15.5	65	81-110	thinned 2011
106	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	10.7	65	51-80	
108	4111 - S.Maple, Hard Mast Association	Sawtimber Well	63.1	90	81-110	
109	4110 - Sugar Maple Association	Poletimber Well	242.1	85	81-110	Treated with sale 63-013-08-01 North part of stand had beech left in it. Mid to south part had most beech removed. Beech scale was just being discovered as sale was being harvested.
111	4139 - Aspen, Mixed Deciduous	Sapling Well	3.4	14	Unspecified	Some red pine seedlings in stand. Under 3 feet in height.



Stand	Cover Type	Acres	Managed Site	General Comments:
3	310 - Herbaceous Openland	1.5	No	Starting to fill in with sumac. Edge areas wet. North area used as turn around during previous sale.
4	3102 - Grass	3.4	No	Grass and ferns with some aspen moving in on edge from recent cuts
6	3301 - Low Density Deciduous Trees	3.4	No	Scattered open grown wolfy sugar maple and beech. Whole area is starting to fill in with beech.
18	122 - Road/Parking Lot	1.8	No	Van Dermullen Road
24	6230 - Cattail	6.1	No	Marsh with cattails and reed type weeds/grass. Wet flow in the middle old beaver dam
28	6230 - Cattail	1.0	No	Marshy area with cattails, very little water.
34	310 - Herbaceous Openland	8.8	No	Kind of a bowl area with orv and snowmobile activity
42	122 - Road/Parking Lot	3.2	No	Burkett Road
44	3102 - Grass	7.4	No	G areas along valley bottom between hardwood stands. North end of 44 used for landing during last sale.
53	3102 - Grass	2.9	No	
73	622 - Lowland Shrub	5.0	No	
83	3302 - Low Density Conifer Trees	4.3	No	Open hilltop filling in with some scattered trees. Edge is part of a red pine plantation on private.
101	622 - Lowland Shrub	4.3	No	Has water in middle mostly during spring runoff