



# Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63118

Entry Year 2020

Acreage: 2,168

County Missaukee

Management Area: Manistee River Valley

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**Revision Date:** 2018-06-14

**Stand Examiner:** Joe Ventimiglia

**Legal Description:**

T24N, R8W, Sections. 7, 18-20, 30

**Identified Planning Goals:**

Vegetation management in the Manistee River Valley Management Area will provide timber products; maintain or enhance wildlife habitat; protect areas of unique character including the Manistee River and its tributaries, a designated natural river; threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year planning period includes continuing aspen management to maintain early successional habitat for hunting and other wildlife-related recreational opportunities; increasing regeneration of oak; focusing on balancing the red pine age class structure through final harvests and re-planting; and on improving red pine quality through partial harvests. Expected trends within this 10-year planning period are increased recreational pressure, especially on the established trails and along the Manistee River and its tributaries; an increased wildland/urban interface and a need to restore barrens communities through prescribed fire; and invasive plant control.

**Soil and topography:**

Rubicon Sand, Manistee Loamy Sand, Loxley and Tawas Mucky Peat. Terrain: Level to rolling upland, some lowland along water courses.

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

Blocks of private land in the southern part of the compartment. These are contiguous and contain seasonal and year round homes. Two smaller parcels of private ownership occur along the southern bank of the Manistee River. Land in the northern portion the compartment was acquired from Consumers Power since the last entry in 1998. Hopkins Creek Trail Camp is located in the eastern portion of the compartment. Land use is mostly recreation as the Miss-Kal snowmobile Trail and the North Missaukee ORV trail run through the middle of the compartment. Hunting is also a popular activity in this compartment.

**Unique Natural Features:**

Manistee River, Hopkins Creek, Golden Creek, and Voice Creek; All fall under the Natural Rivers Program and are subject to the rule of the program.

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

None known.

**Special Management Designations or Considerations:**

Manistee River, Hopkins Creek, Golden Creek, and Voice Creek; All fall under the Natural Rivers Program and are subject to the rule of the program.

**Watershed and Fisheries Considerations:**

The Manistee River, Hopkins Creek, Golden Creek, and several small tributaries to Hopkins Creek flow through Compartment 118. All are Designated Trout Streams, and the Manistee River and Hopkins Creek are also under Natural Rivers jurisdiction in the Upper Manistee River Natural Rivers plan. The Manistee River in Compartment 118 is stocked with brown trout by Fisheries Division, and also maintains good fisheries for walleye and rainbow trout. Fisheries Division maintains an index station on Hopkins Creek in Stand 11, and that station was surveyed each year from 2005-2007. In this area, Hopkins Creek supports populations of naturally reproducing brown, brook, and rainbow trout. Hopkins Creek is a very high-quality trout stream, with cold temperatures and excellent habitat. Hopkins Creek in Compartment 118 is very popular with trout anglers and is fished heavily. Natural Rivers riparian buffers will need to be followed for timber operations in any stands near the rivers and streams in this compartment.

**Wildlife Habitat Considerations:**

Featured wildlife species in this Management Area are diverse reflecting the wide range of habitat types present. Featured Species of wildlife include american bittern, american woodcock, beaver, black bear, eastern massasuga rattlesnake,

golden-winged warbler, mallard, pileated woodpecker, ruffed grouse, snowshoe hare, white-tailed deer, and wood duck. Most of these species benefit from young forest and open types while some require some old trees for foraging and nest/den sites. Maintaining the opening types and balancing harvests with a diverse assortment of age classes in the timber types will meet the goals for these species.

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

Active sand/gravel pits are located in the area, and there is sand & gravel potential within the compartment. The abandoned Springfield gas field is located two miles to the northeast, but there is no active production nearby. There are no active mineral leases in the area. There is no known metallic mineral potential in this part of the state. The state does not own all of the mineral rights within Sec 7. Private mineral rights owners must be allowed reasonable access to the land should they choose to explore and/or develop the minerals.

### **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:**

Survey to determine boundaries against private land in southern portion of the compartment (Sections 19 & 30) Also survey to redefine boundary with two private pieces along Manistee River in Section 7.

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

Miss-Kal Snowmobile Trail, North Missaukee ORV Trail and ORV Route, Shore to Shore Riding/Hiking Trail, Hopkins Creek Trail Camp and Hopkins Creek non-equine camp. (stand 27)

### **Fire Protection:**

There are areas of fuels within the compartment that would allow for large fire growth. Many areas are converting to grass areas, which will allow for rapid fire spread. This compartment has several recreation activities which will allow for possible human caused fires. Some areas within the compartment may hamper fire suppression equipment from accessing some areas. BET 6-4-2018

### **Additional Compartment Information:**

None at this time.

### **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**

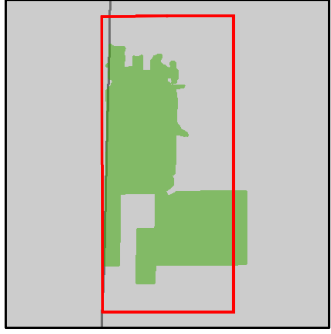
### **The following information is displayed, where pertinent, on the attached compartment maps:**

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

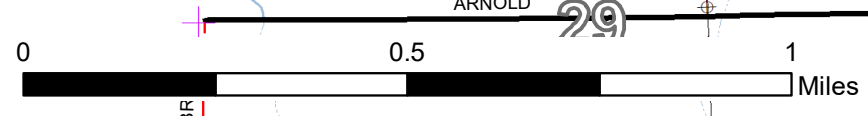
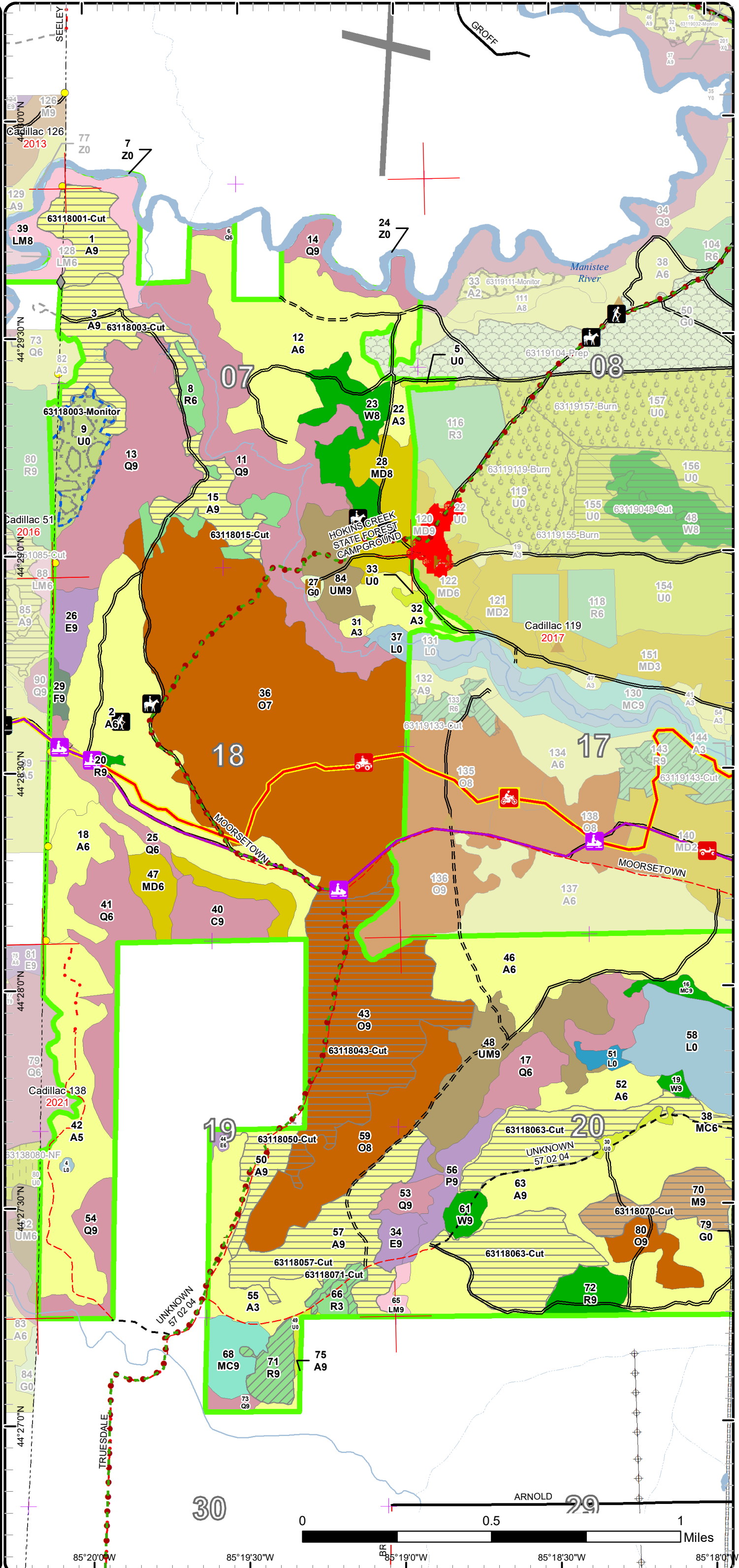
# Cover Type & Treatments Map

Compartment: 118

County: Missaukee  
 Unit: Cadillac  
 Mgmt Area: Manistee River Valley  
 YOE: 2020  
 Acres: 2,168 GIS Calculated  
 Examiner: Joe Ventimiglia  
 Map Revised: 10/23/2018  
 Map Phase: Post - Review



- Miris Corners
- Remonumented Section Corners
- Survey Grade Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- == DNR - Forest Access Route
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- Perennial River
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- ⚡ Powerline
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- Treatments with Site Conditions
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- Thinning (Crown, Low, Systematic)
- Regeneration Survey
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
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- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland
- Lakes

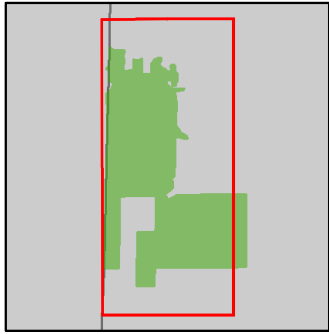


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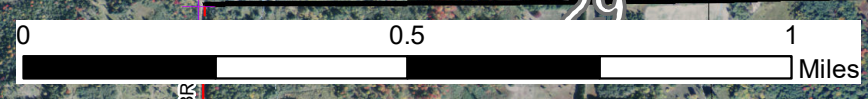
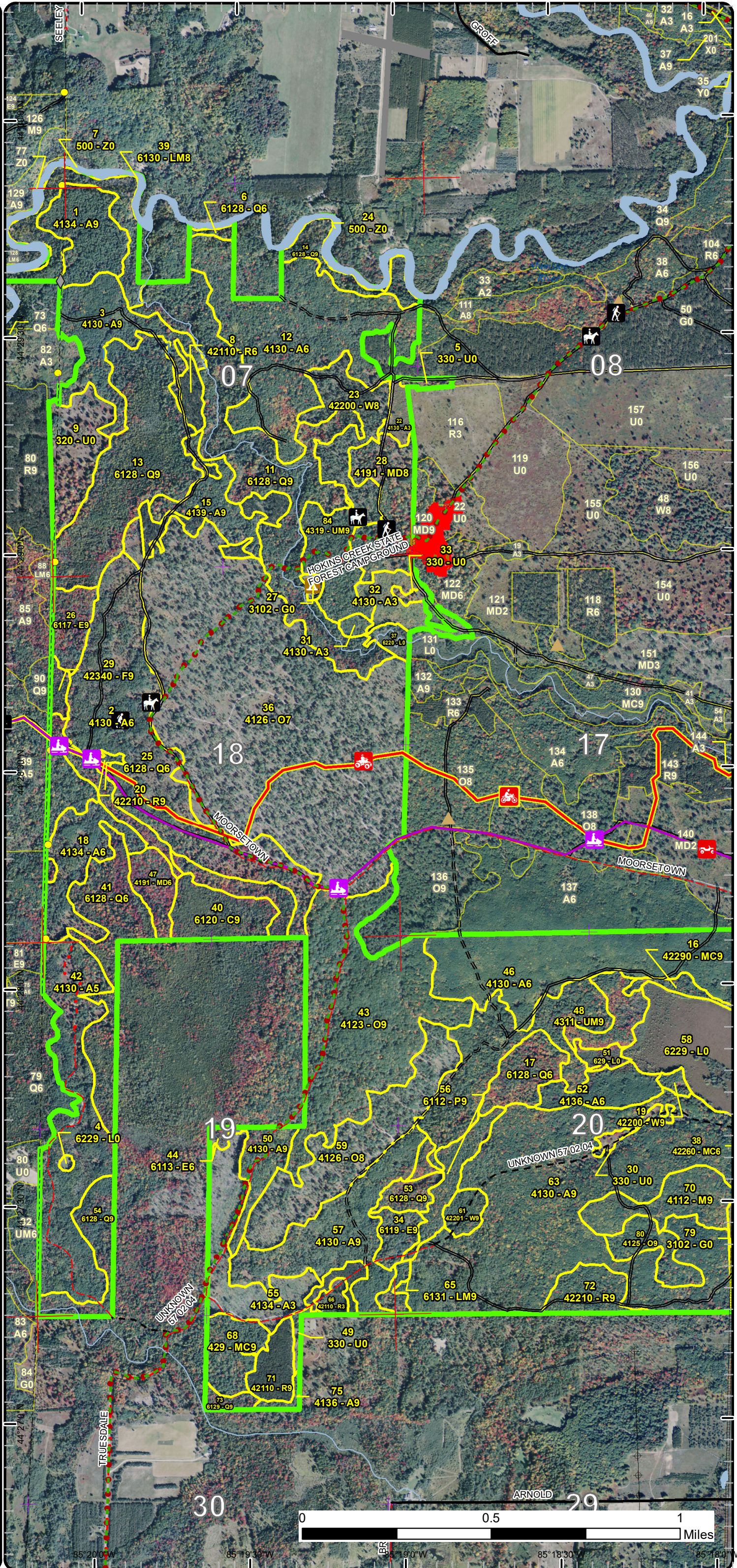
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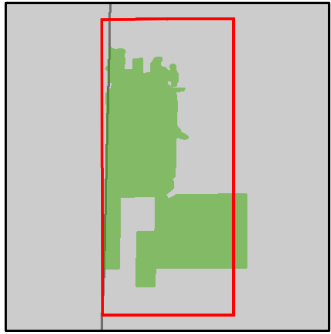


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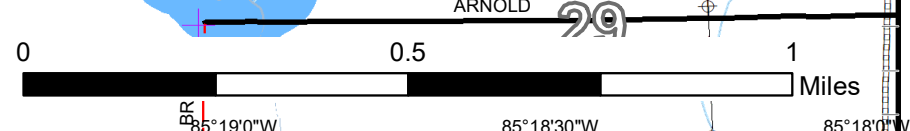
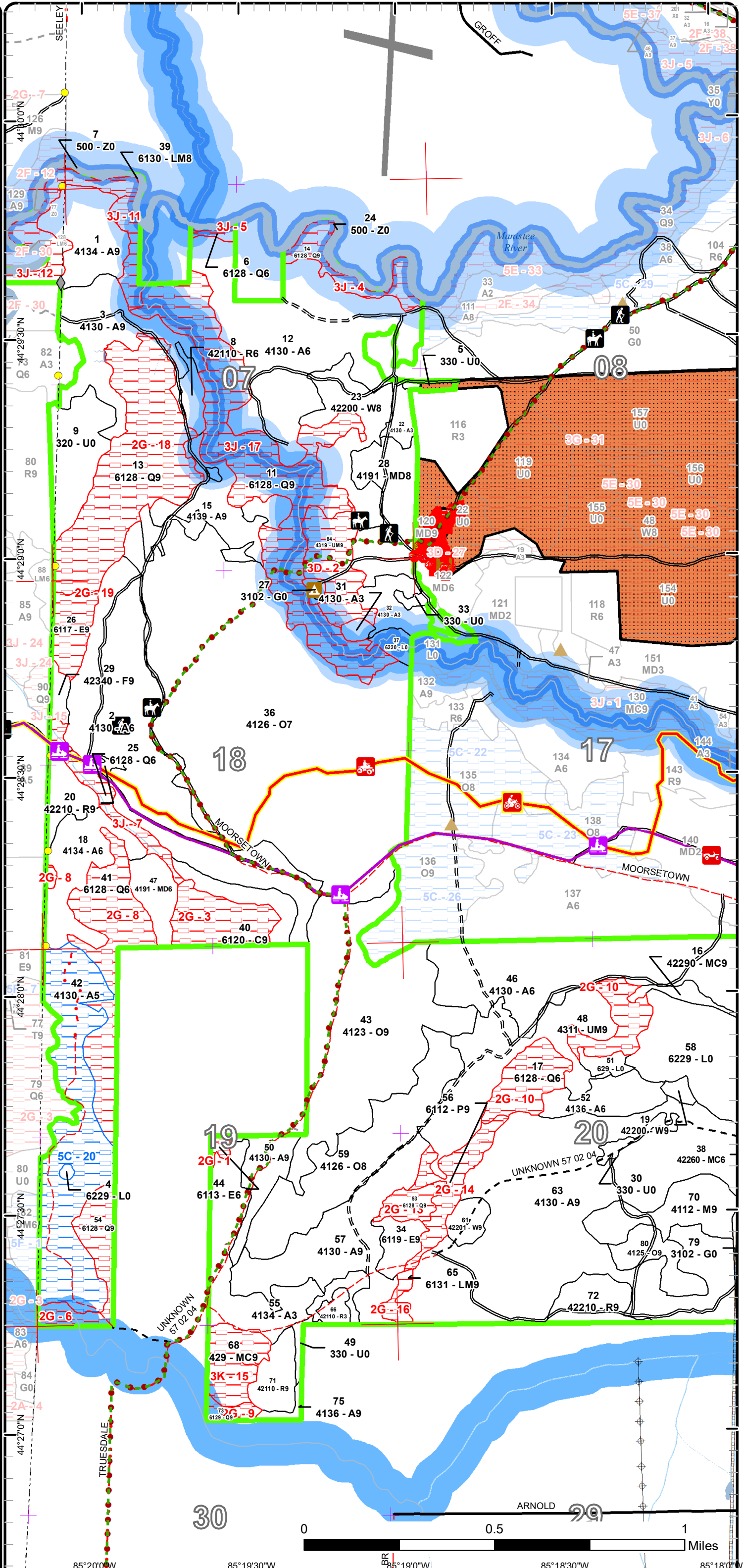
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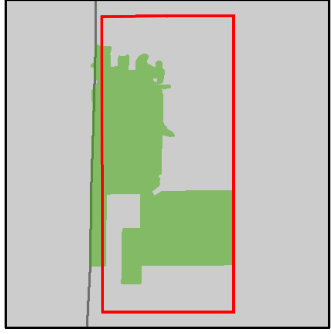
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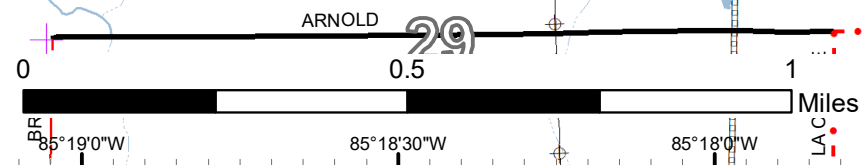
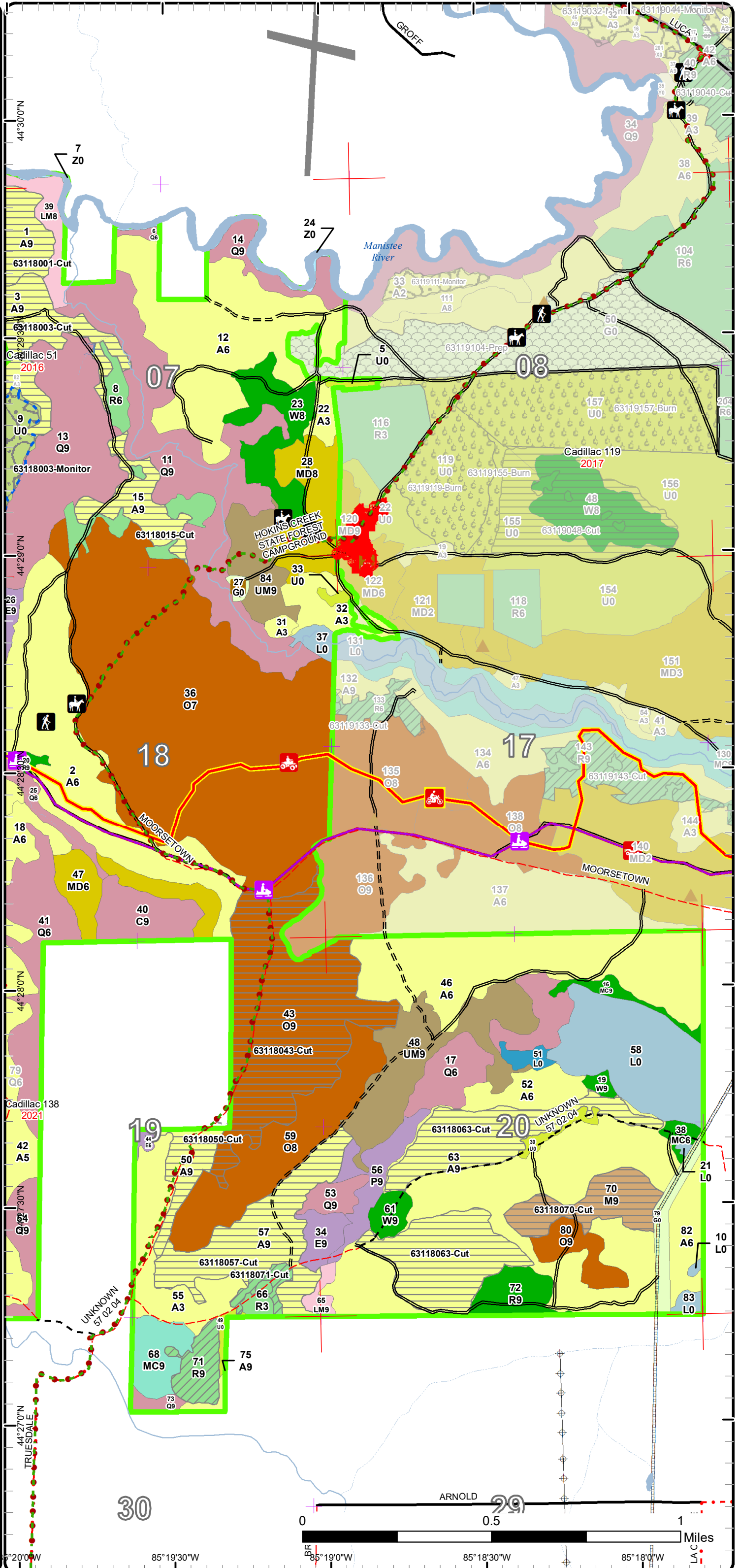
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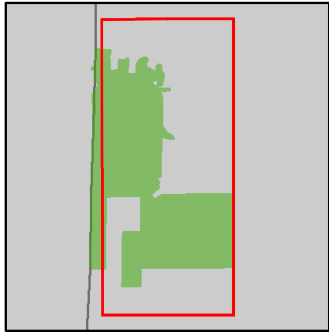
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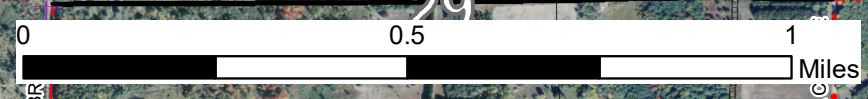
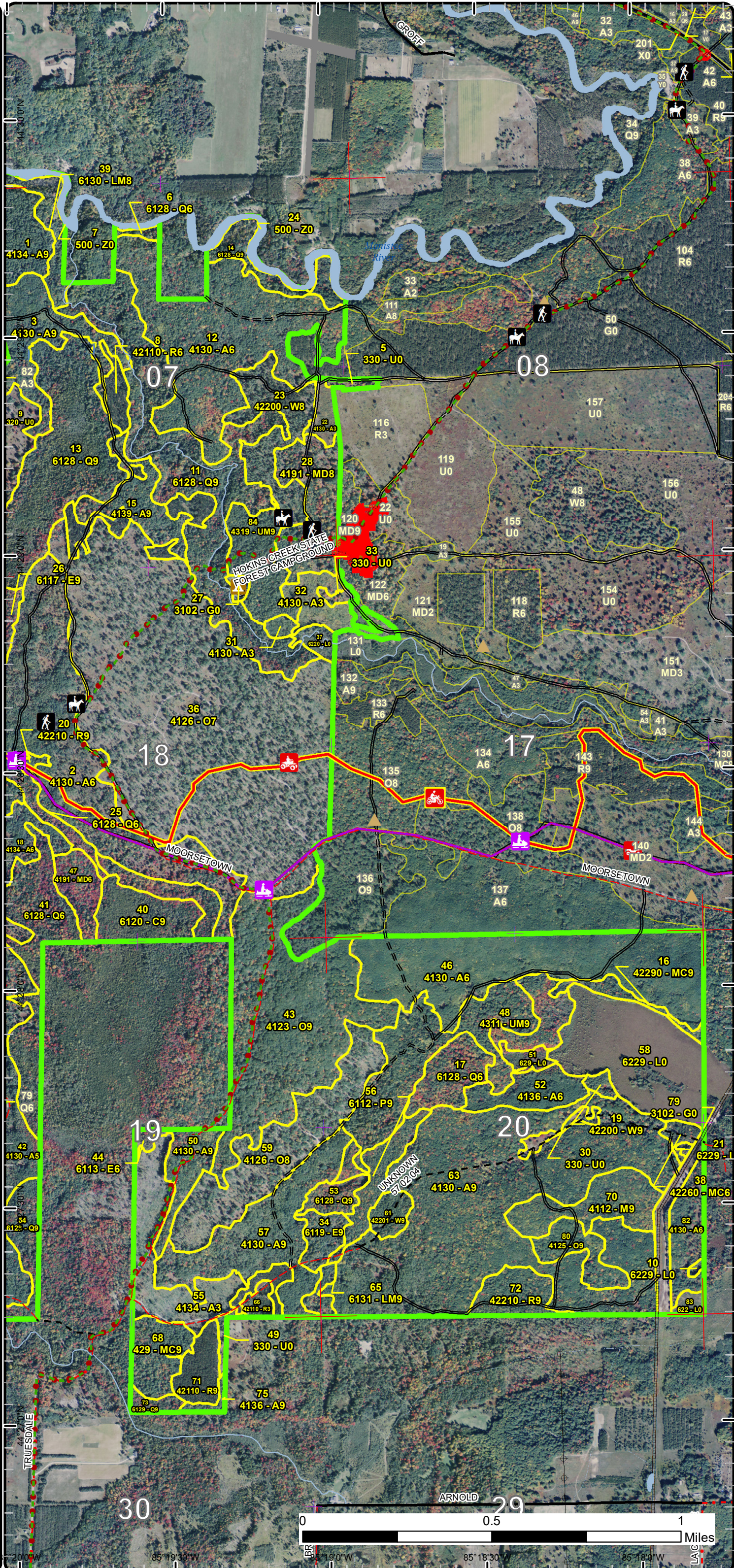
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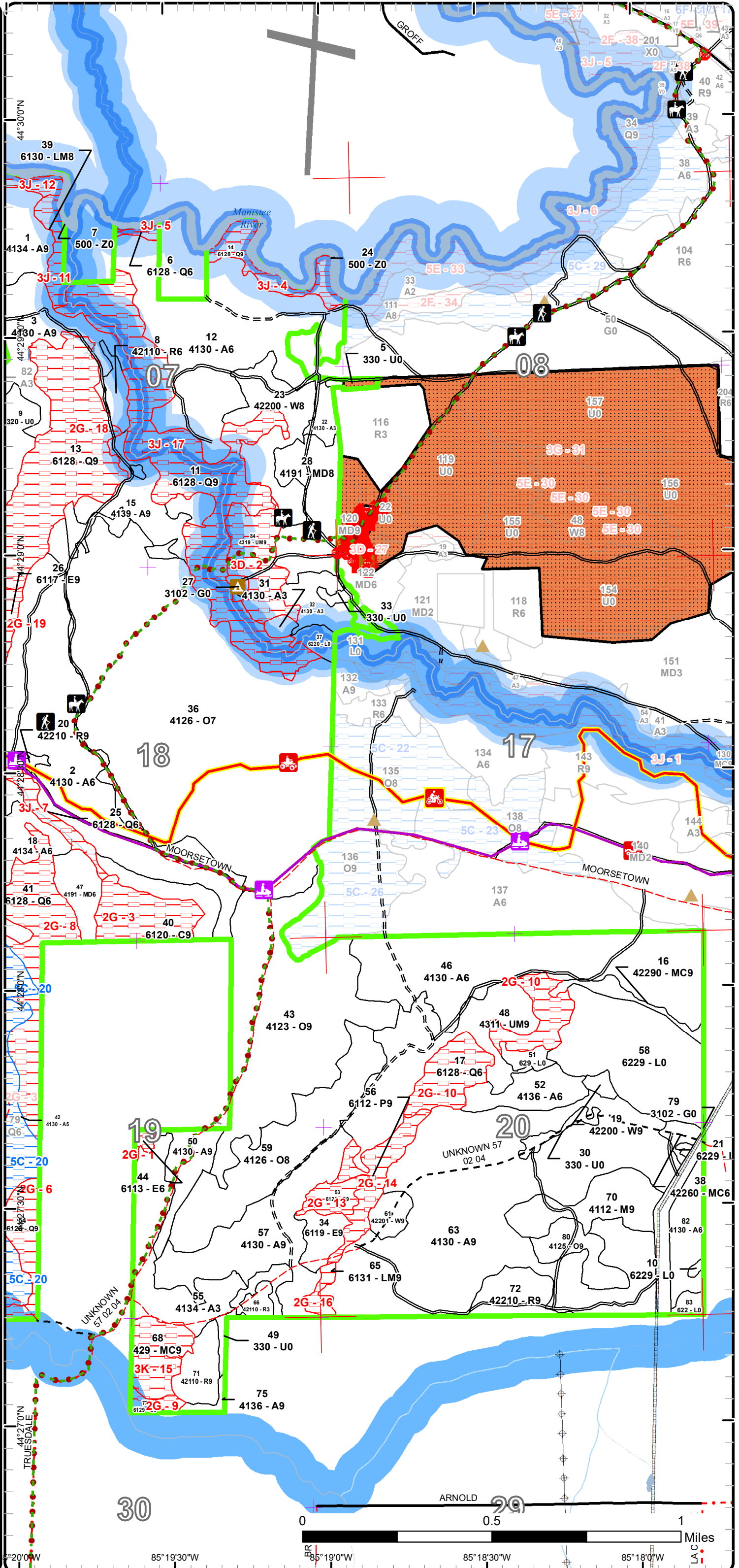


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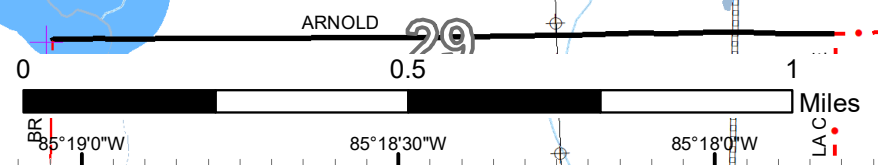
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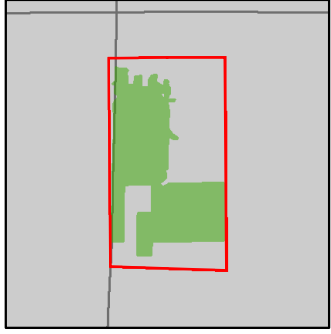




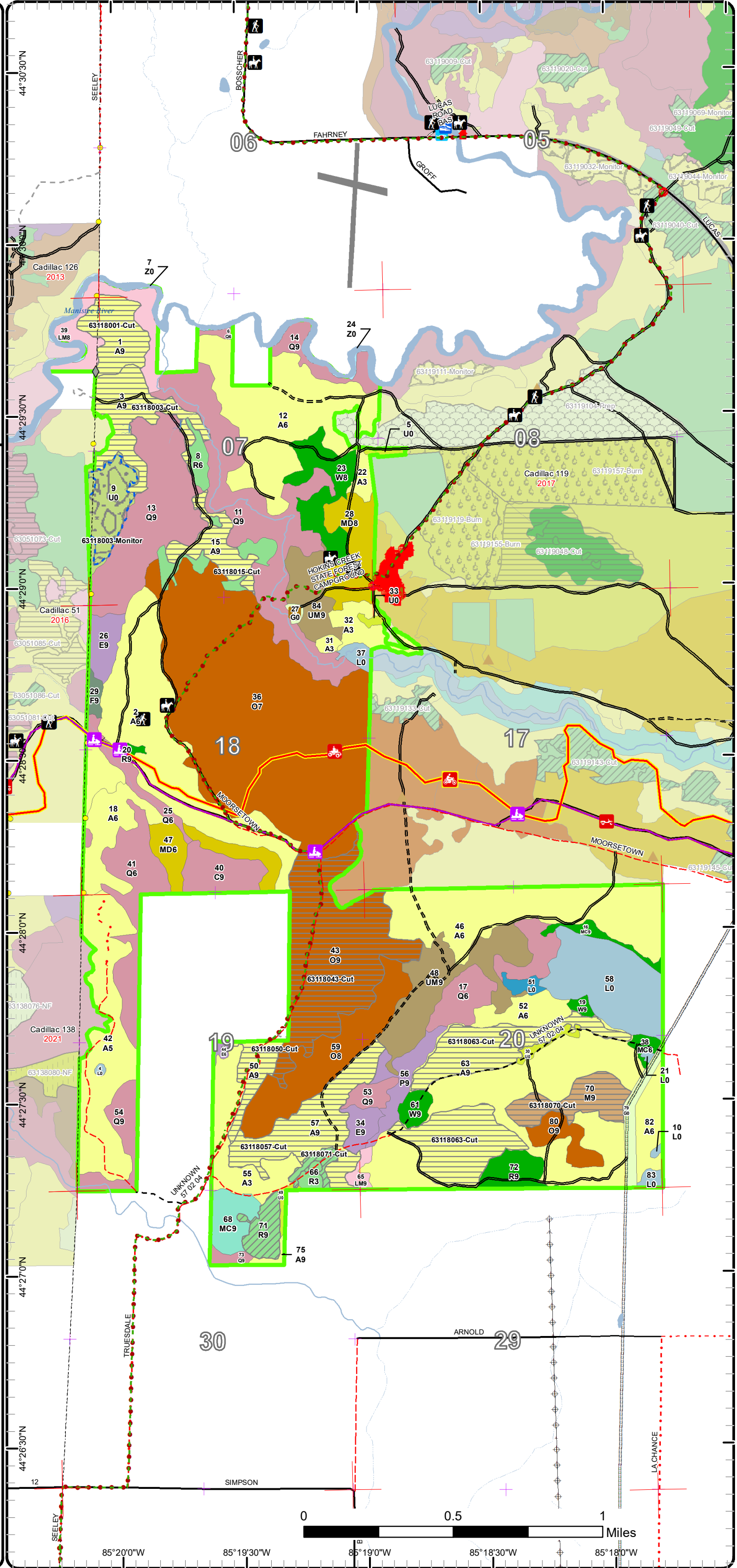
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# Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Compartment 118 Year of Entry 2020

Joe Ventimiglia : Examiner



## 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	57	3	143	0	313	315	47	0	0	0	0	0	0	0	0	0	0	877
Cedar	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	22
Herbaceous Openland	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Low-Density Trees	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	17
Lowland Conifers	0	0	0	0	0	0	0	0	0	38	33	237	0	0	0	0	0	0	308
Lowland Deciduous	0	0	0	0	0	0	0	2	13	9	0	0	0	0	0	0	0	0	24
Lowland Mixed Forest	0	0	0	0	0	0	0	0	26	0	4	0	0	0	0	0	0	0	30
Lowland Shrub	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
Mixed Upland Deciduous	0	0	0	0	0	31	0	25	0	0	0	0	0	0	0	0	0	0	55
Natural Mixed Pines	0	0	0	0	0	4	0	0	6	0	0	0	0	0	0	0	0	0	10
Northern Hardwood	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	25
Oak	0	0	0	0	0	0	0	0	0	185	0	0	0	285	0	0	0	0	469
Red Pine	0	0	4	0	0	0	19	18	0	15	2	0	0	0	0	0	0	0	58
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	17
Upland Mixed Forest	0	0	0	0	0	0	0	0	52	0	0	23	0	0	0	0	0	0	75
Upland Shrub	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Upland Spruce/Fir	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Water	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
White Pine	0	0	0	0	0	0	0	7	3	0	0	30	0	0	0	0	0	0	39
<b>Total</b>	<b>135</b>	<b>57</b>	<b>7</b>	<b>143</b>	<b>0</b>	<b>348</b>	<b>334</b>	<b>116</b>	<b>129</b>	<b>247</b>	<b>39</b>	<b>312</b>	<b>17</b>	<b>285</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2165</b>



## Report 2 – Treatment Summary

Cadillac Mgt. Unit

Year of Entry: 2020

Acres of Harvest

Compartment 118

Total Compartment Acres: 2,168

Commercial Harvest - 397  
 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	Overstory Removal	Salvage	Other	Total Acres
Aspen	240	0	0	0	0	0	0	0	0	240
Northern Hardwood	25	0	0	0	0	0	0	0	0	25
Oak	114	0	0	0	0	0	0	0	0	114
Red Pine	0	0	0	0	0	18	0	0	0	18
<b>Total</b>	<b>379</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>397</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	397	0	0	0	0	0	23	0	0	420
Next Step	0	0	0	0	0	0	379	0	0	379
<b>Total</b>	<b>397</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>403</b>	<b>0</b>	<b>0</b>	<b>800</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
1	63118001-Cut	26.8	4134 - Aspen, Spruce/Fir	Sawtimber Well	65	81-110	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	Proposal

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

Prescription Final Harvest. Leave retention island/corridor 3 to 5 percent of total acreage. Leave any cedar or Legacy White pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen with mix of fir and maple accepted.

Regen:

Other Grouse log spec. Buffer Manistee river at appropriate distance with red line. Winter or dry summer cut only.

Comment:

Proposed Start Date: 10/1 /2019

3	63118003-Cut	38.8	4130 - Aspen	Sawtimber Well	52	81-110	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest. Leave retention corridor or edge. Map retention in MIFI. Retention should be 3 to 5 percent of total.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen with mixed fir and maple.

Regen:

Other Add Grouse spec. Winter or dry summer only. Protect culvert.

Comment:

Proposed Start Date: 10/1 /2019

9	63118003-Monitor	23.2	320 - Upland Shrub	Nonstocked		Unspecified	Monitoring	Artificial Regen(3yr)	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition: Too Wet**

Prescription

Specs:

Next Step

Treatments:

Acceptable Planted red pine with mixed hardwood cherry as well.

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/31/2017

15	63118015-Cut	20.4	4139 - Aspen, Mixed Deciduous	Sawtimber Well	65	51-80	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest, leave all white oak. Make retention island 3 percent of total acreage. Buffer creek at appropriate distance.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen with some maple/oak and pine.

Regen:

Other Add grouse spec.

Comment:

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
43	63118043-Cut	113.6	4123 - Red Oak	Sawtimber Well	85	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal

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

Prescription Final harvest leave all white oak, pine and hemlock. As well leave a few retention pockets as wildlife refuge and to break up large cut. (5 to 10 percent of total acreage).

Next Step Monitoring, Natural Regen (Intermediate)  
Treatments:

Acceptable Mix of Oak, aspen, red maple and pine.  
Regen:

Other Oak wilt spec should be applied, oak in the area. No mature red oak being left as a result of forest health concerns and oak decline concerns of  
Comment: leaving older red oak after cut.

Proposed Start Date: 10/1 /2019

50	63118050-Cut	15.0	4130 - Aspen	Sawtimber Well	55	81-110	Harvest	Clearcut	4133 - Aspen, Mixed Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest no retention as a result of small size. Leave all pine under 4 inches in diameter.

Specs:

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

Acceptable Aspen with some pine mixed in.  
Regen:

Other Add grouse spec.  
Comment:

Proposed Start Date: 10/1 /2019

57	63118057-Cut	52.8	4130 - Aspen	Sawtimber Well	55	111- 140	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest, leave all pine under 4 inches. Leave retention corridor 3 to 5 percent of total acreage.

Specs:

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

Acceptable Aspen mixed pine and maple.  
Regen:

Other Grouse Spec.  
Comment:

Proposed Start Date: 10/1 /2019

63	63118063-Cut	86.5	4130 - Aspen	Sawtimber Well	51	111- 140	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final Harvest. Leave retention corridor 3 to 5 % of total acreage.

Specs:

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

Acceptable Aspen with mixed pine and maple accepted as well.  
Regen:

Other Follow treatment as shows, breaking up large stand. Add grouse spec. Sale will need to be performed in winter most likely. Road work will need  
Comment: to be factored into sale price and significant mud hole will need to be fixed for access. Private access potential as well.

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
70	63118070-Cut	25.4	4112 - Maple, Beech, Cherry Association	Sawtimber Well	72	111- 140	Harvest	Clearcut	4112 - Maple, Beech, Cherry Association	Even-Aged	Proposal

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

Prescription Final harvest. Green Mark a few beech to leave as future wildlife snags. As well Green mark a few scattered sugar maple for seed source and structural diversity.

Next Step Monitoring, Other - Specify  
Treatments:

Acceptable Mix of maple, aspen, beech and cherry.  
Regen:

Other Interest in stand stems from beech. Monitor regeneration closely to see if any further site prep may be needed to ensure proper regeneration.

Comment: Leave secondary option open to plant red pine in event beech overtakes site following harvest.

Proposed Start Date: 10/1 /2019

71	63118071-Cut	17.9	42110 - Planted Red Pine	Sawtimber Well	63	111- 140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Thin planation down to 110 to 120 BA. Take poor form and suppressed first then trees needed for spacing.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

**Total Treatment  
Acreage Proposed: 420.4**

## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Joe Ventimiglia : Examiner

Compartment: 118  
Year of Entry: 2020

### Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available	Dominant Site Conditions	Dominant Site Conditions				
		With Condition				5C	2G	3D	3J	3K
878	801	<b>77</b>		0	Aspen	<b>77</b>				
22	0	<b>0</b>		22	Cedar		22			
13	13	<b>0</b>		0	Herbaceous Openland					
11	11	<b>0</b>		0	Low-Density Trees					
17	0	<b>0</b>		17	Lowland Aspen/Balsam Poplar		17			
307	0	<b>0</b>		307	Lowland Conifers		183		125	
24	9	<b>0</b>		15	Lowland Deciduous		15			
30	0	<b>0</b>		30	Lowland Mixed Forest		4		26	
73	73	<b>0</b>		0	Lowland Shrub					
56	56	<b>0</b>		0	Mixed Upland Deciduous					
10	10	<b>0</b>		0	Natural Mixed Pines					
25	25	<b>0</b>		0	Northern Hardwood					
469	469	<b>0</b>		0	Oak					
58	58	<b>0</b>		0	Red Pine					
17	0	<b>0</b>		17	Upland Conifers					17
75	52	<b>0</b>		23	Upland Mixed Forest			23		
27	27	<b>0</b>		0	Upland Shrub					
4	4	<b>0</b>		0	Upland Spruce/Fir					
11	11	<b>0</b>		0	Water				0	
40	40	<b>0</b>		0	White Pine					
2,168	1,659	<b>77</b>		432	Total Forested Acres	<b>77</b>	241	23	151	17
	77%	<b>4%</b>		20%	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)	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Joe Ventimiglia : Examiner

Compartment: 118  
Year of Entry: 2020

2	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	23	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Some of the Hopkins creek campground sites fall within stand, hiking trails from campground come through stand.							
3	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
4	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	19	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
7	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Joe Ventimiglia : Examiner

Compartment: 118  
Year of Entry: 2020

8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	43	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	32	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	9	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
12	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Joe Ventimiglia : Examiner

Compartment: 118  
Year of Entry: 2020

14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
15	Unavailable	3K: Rare or unique landforms	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Unique hemlock stand with legacy white pine. Rare stand for state land in this area consider leaving as future old growth stand.							
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
17	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	98	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	77	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Cadillac Mgt. Unit  
Joe Ventimiglia : Examiner

Compartment: 118  
Year of Entry: 2020

20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	77	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.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.

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## Cadillac Mgt. Unit

## Report 7 – Forested Stands

Compartment: 118  
Year of Entry: 2020

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4134 - Aspen, Spruce/Fir	Sawtimber Well	26.8	65	81-110	Over mature aspen, some of which has already fell apart, with thick fir and white pine component filling in. Some wet pockets overall upland stand. Aspen is past prime, but still commercially viable.
4130 - Aspen	Poletimber Well	120.7	41	51-80	Savana aspen for most part some better clones but overall very poor quality aspen. Open in pockets.
4130 - Aspen	Sawtimber Well	39.0	52	81-110	Nice stand of aspen, a few wet pockets along edges and where culverts cross along road.
6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	1.8	85	51-80	Slope boarding Manistee River
42110 - Planted Red Pine	Poletimber Well	19.3	57	111-140	Scattered planted red pine. Third row thinned in 2011, any aspen was cut within plantation.
6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	98.0	103	81-110	Stand is the riparian area of the Hopkins Creek. Mixed mostly lowland conifer swamp.
4130 - Aspen	Poletimber Well	98.5	45	81-110	Large block of aspen. Overall medium quality aspen some pine and oaks mixed in.
6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	76.6	103	81-110	Stand is a large swamp complex that extends along the west edge of the compartment. Age is on a cedar log
6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	13.4	95	81-110	Stand borders the Manistee River. Mix of white pine and hardwoods. Some scattered hemlocks
4139 - Aspen, Mixed Deciduous	Sawtimber Well	20.4	65	51-80	Mixed stand of aspen. Aspen past prime, but still holding together. A few legacy pine.
42290 - Natural Mixed Pine	Sawtimber Well	6.4	78	81-110	Large red and white pine grove thinned in 1988. Acts as nice buffer to bog and nice small sliver of mature pine. Good site for future legacy trees.
6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	32.3	85	111-140	Mixed lowland mostly conifer swamp.
4134 - Aspen, Spruce/Fir	Poletimber Well	28.4	27	Immature	Stand was final harvested in 1991, all oak, cedar and hemlock was left.
42200 - Natural White Pine	Sawtimber Well	2.5	74	111-140	Small stand off small bluff of white pine.
42210 - Natural Red Pine	Sawtimber Well	2.0	95	51-80	Small grove of log red pine.
4130 - Aspen	Sapling Well	6.1	7	Immature	Stand was cut in 2010 with salvage sale to the east.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	42200 - Natural White Pine	Sawtimber Medium	30.2	109	1-50	Stand was cut in 2013, Pine was thinned with all aspen, maple and fire taken by spec.
25	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	11.7	95	51-80	Buffer stand to creek. Mostly cedar with a small pocket of red pine included that was too small to map on its own.
26	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	13.2	75	51-80	Stand is wet maple and aspen with some balsam and cedars. Aspen fallen out in spots being replaced by maple in the understory.
28	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	31.4	48	51-80	Falling apart aspen ,oak and maple filling in with oak and maple in underscore. Trail camp surrounds this stand.
29	42340 - Upland Spruce/Fir	Sawtimber Well	4.1	77	141-170	Stand of older spruce, most has fallen out with maple and aspen mixed in.
31	4130 - Aspen	Sapling Well	2.5	19	Immature	Small old habitat cut.
32	4130 - Aspen	Sapling Well	15.4	8	Immature	Stand was final harvested in 2010, with all white pine less then 4 inches dbh left. Stand was treated with sale 63-051-07-01.
34	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	9.1	85	81-110	Small pocket of hardwood. Not the best quality and spacing. Wet standing water and saturated soils in much of the stand. Upland ridge in middle with rest being wet.
36	4126 - White, Black, N. Pin Oak	Sawtimber Poor	284.5	124	1-50	Mix of Oak with aspen clones and scattered small openings. -- Stand was treated in 2013 all aspen and maple was final harvested, with all the oak being marked to cut. Close to considering the understory as the canopy. Snowmobile trail borders stand. Stand should regenerate to a mix of oak and aspen.
38	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	3.8	45	81-110	Small stand of jack, red, white pine with some oak. Wet along edges.
39	6130 - Fir, Aspen, Maple	Sawtimber Medium	25.9	75	81-110	Lowland hardwood and conifer off the small bluff of the Manistee River. Not suitable for management. Wet seeps throughout.
40	6120 - Lowland Cedar	Sawtimber Well	22.1	105	81-110	Large cedar swamps most of which is on private property.
41	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	43.3	107	51-80	Mix of cedar, fir, red maple, mostly low with a few ridges that are a little more upland.
42	4130 - Aspen	Poletimber Medium	77.0	49	51-80	Low quality aspen stand, very poor in spots others just poor. A few wet areas otherwise upland.
43	4123 - Red Oak	Sawtimber Well	113.6	85	81-110	Red oak rolling ridge with some white oak, aspen and a few pines mixed in. Rolling to steep in a few spots, limited understory. Quality of oak is medium to low, soils look to be poor. Old burned pine stumps scattered.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
44	6113 - Lowland Maple	Poletimber Well	1.9	65	1-50	Small sliver of lowland hardwood.
46	4130 - Aspen	Poletimber Well	97.6	29	Immature	Stand was final harvested in 1989. Came back well to aspen.
47	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	24.5	65	51-80	Transition area, mostly upland with mix of maple, spruce, fir and aspen.
48	4311 - Pine, Aspen Mix	Sawtimber Well	51.6	75	111-140	Variable mixed natural pine with aspen, oak and maple mixed in.
50	4130 - Aspen	Sawtimber Well	15.0	55	81-110	Sliver of decent aspen with some pine and a few oak.
52	4136 - Aspen, Mixed Conifer	Poletimber Well	16.6	26	Immature	Stand final harvested in 1991, all cedar, fir and white pine was left be spec.
53	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	7.5	92	51-80	Small hemlock mixed pine lowland stand with upland ridge running through stand .
54	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	18.8	102	51-80	Stand is a mix of cedars, fir and aspen off small bluff to creek. Wet and hummocky, with standing water in spring. North edge is more lowland maple compared to rest of stand.
55	4134 - Aspen, Spruce/Fir	Sapling Well	35.9	4	1-50	Stand was final harvested in 2013. White pine less than 6 inches dbh was left along with any cedar and hemlock.
56	6112 - Lowland Aspen	Sawtimber Well	17.1	65	51-80	Lowland aspen with some red maple pockets. Standing water.
57	4130 - Aspen	Sawtimber Well	52.8	55	111-140	Medium to low quality aspen. Variable stand with smaller diameter and lower quality to east side of stand.
59	4126 - White, Black, N. Pin Oak	Sawtimber Medium	56.9	85	51-80	Stand was cut in 2013, oak was marked to cut while all aspen and maple was cut by spec.
61	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	6.8	62	81-110	variable white pine no records on planting, appears natural, some aspen and red maple mixed in.
63	4130 - Aspen	Sawtimber Well	205.5	51	111-140	Stand is a mix of aspen clones and white pines. Various quality and size in clones from poles to sapling. Some scattered oaks throughout.
65	6131 - Hemlock, White Pine, Maple, Birch	Sawtimber Well	4.3	95	51-80	Lowland stand with mix of red maple, hemlock and white pine.
66	42110 - Planted Red Pine	Sapling Well	3.9	18	Immature	Red pine planted in 2000 in what appears was old opening. A few log red pine mixed in.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
<b>68</b>	429 - Mixed Upland Conifers	Sawtimber Well	16.9	116	111-140	Nice stand of large log white pine and hemlock. Unique stand with some super canopy legacy white pine.
<b>70</b>	4112 - Maple, Beech, Cherry Association	Sawtimber Well	25.4	72	111-140	Ridge of hardwood with beech being the primary component. Otherwise mostly red maple. Some scale on the beech, most beech still looks sound.
<b>71</b>	42110 - Planted Red Pine	Sawtimber Well	17.9	63	111-140	Stand was third row thinned in 1989.. Stand was marked second thinned in 2012.
<b>72</b>	42210 - Natural Red Pine	Sawtimber Well	15.1	85	81-110	Large red and white pine, no planting records found appears natural.
<b>73</b>	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	3.9	85	81-110	Lowland cedar and hemlock primarily. Too wet for commercial management plus a buffer to the stream.
<b>75</b>	4136 - Aspen, Mixed Conifer	Sawtimber Well	2.5	56	51-80	Sliver of aspen/maple along private boundary. Not likely worth chasing on its own.
<b>80</b>	4125 - Black, N. Pin Oak	Sawtimber Well	13.9	88	1-50	Scattered large oak, filling in with aspen, maple and oak.
<b>82</b>	4130 - Aspen	Poletimber Well	17.0	42	51-80	Variable lower quality aspen with some hills and a small chunk of red pine in the north end, too small to map on its own. Stand falls apart in the east edge and is more open. Small vernal pond in north end.
<b>84</b>	4319 - Mixed Upland Forest	Sawtimber Well	23.3	104	111-140	Some of the Hopkins creek campground sites fall within stand, hiking trails from campground come through stand. Some groves of pine bigger to north.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	6229 - Mixed lowland shrub	0.8	No	
5	330 - Low-Density Trees	2.1	No	
7	500 - Water	5.3	No	Manistee River
9	320 - Upland Shrub	27.3		Site was a opening that was trenched by DNR staff with bull dozer in 2014 and was planted in 2015. Regen check was performed in 2016. Failed regen check. Replanted in 2017. Accept mixed stand at this point.
10	6229 - Mixed lowland shrub	0.8	No	
21	6229 - Mixed lowland shrub	0.6	No	Small wet pocket along pipeline, some black spruce on edges.
24	500 - Water	5.7	No	Manistee River
27	3102 - Grass	1.9	No	Hopkins Campground. Managed by PRD.
30	330 - Low-Density Trees	3.8	No	
33	330 - Low-Density Trees	2.3	No	
37	6220 - Alder/willow	4.6	No	A few scattered trees in a low wet riparian area along the Hopkins Creek. Seems to flood interdentally.
49	330 - Low-Density Trees	2.5	No	A few aspen on north end otherwise open.
51	629 - Mixed non-forested wetland	4.0	No	
58	6229 - Mixed lowland shrub	59.4	No	
79	3102 - Grass	11.2	No	Pipeline.
83	622 - Lowland Shrub	2.9	No	