



# Compartment Review Presentation

## Grayling Forest Management Unit

Compartment 72280

Entry Year 2019

Acreage: 1,823

County Crawford

Management Area: AuSable Outwash

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**Revision Date:** 2017-09-06

**Stand Examiner:** Joan Charlebois

### Legal Description:

T26N R01W Sections 5-8; South Branch Township  
T27N R01W Section 31; Lovells Township

### Identified Planning Goals:

To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management. And in addition, for Section 31, to provide an area that allows for National Guard training.

### Soil and topography:

Grayling sand is the typical soil on the outwash plains north of Conners Flat Road. South of there, the terrain transitions into a mosaic of upland and lowland ground. Several well-drained soil series are represented on the uplands there, including Graycalm-Grayling, Kellog, Rubicon, Kinross and Croswell-AuGres sands. Poorly drained soils underlay the lowland complexes and the AuSable River floodplain. Tawas, Leafriver, Lupton, and AuSable-Bowstring mucks are typical organic soils there.

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

Section 31 is under a long term lease (L-1479) with the Michigan National Guard, DMA to provide for military usage with no permanent buildings or improvements to be erected (Act 154, P.A. 1935). Several parcels along the AuSable River were purchased from Consumers Power Company. Those lands interface with several private parcels and seasonal residences.

### Unique Natural Features:

The Dyer (Crawford) Red Pines was identified by the Michigan Natural Features Inventory as a high quality example of the Dry Northern Forest natural community type and has been designated as an Ecological Reference Area (ERA). There is the potential for rare plants and animals to be associated with the Dyer Red Pine as well as the compartment's swamps, wetlands and riparian corridors.

### Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

### Special Management Designations or Considerations:

Section 31, under long term lease to the Military, is part of the Military Special Conservation Area (SCA) where military training takes precedence over resource management activities. The DNR will coordinate all prescribed activities with the National Guard to ensure compatibility with their training needs on those Military SCA lands. The Dyer Red Pine ERA is a type of High Conservation Value Area (HCVA) nested within the Military SCA. The AuSable River is also a designated HCVA.

### Watershed and Fisheries Considerations:

The compartment is bordered on the south side by the AuSable, a designated Natural River and high priority cold water trout stream. Several intermittent streams flow through the compartment and empty into the AuSable. Past beaver activity well upstream on two of those segments had flood-killed several acres of cedar.

### Wildlife Habitat Considerations:

State Game Funds were used to purchase several parcels along the AuSable River. The primary focus of management on lands acquired with those funds is wildlife habitat improvement. The compartment's diverse mix of upland pine, oak and aspen, and mosaic of lowland cover provides good opportunities for managing both game and non-game wildlife species.

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

Gravel pits are not located in the area, and sand and gravel potential appears to be limited within the compartment. There are currently no active mineral leases within the compartment. There are active oil and gas leases located just to the north and east associated with Prairie du Chien (St. Peter Sandstone) production. There are additional active leases to the west, but there has been no production (or wells drilled) associated with these leases to date. These leases are held by Marathon, who has indicated they are leaving the state and have been in the process of releasing all of their remaining leases. There is no known metallic mineral potential in this part of the state.

#### **Vehicle Access:**

County road access includes Dyer Truck Trail and Conners Flat Road. State Forest roads following the sections lines provide additional access between the County roads. Access south of Conners Flat Road consists of short spur roads that end at low ground or private property. Polly Trail east of Payne Road is not a County Road and it crosses private property before reaching the compartment. An easement for construction of an access roadway was granted to the State of Michigan as part of the land acquisition from Consumers Power Company, but it has not been developed. Low ground along the described route through section 12 would limit road construction.

#### **Survey Needs:**

Corner code #5 in section 31 could not be located.

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

The only state designated facility within the compartment is the White Pine Rustic Campground, managed by Parks and Recreation Division, with canoe-in only camper access on the Au Sable River. Opportunities for dispersed recreation such as hunting and wildlife viewing are good throughout the compartment, with uses such as trapping, fishing and canoeing being associated with the AuSable River and its tributaries.

#### **Fire Protection:**

Access to the compartment's north half is generally good. South of Conners Flat Road, the mosaic of marshes, bogs, swamps and streams would serve as fuel breaks but also limit access for fire suppression equipment.

#### **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**

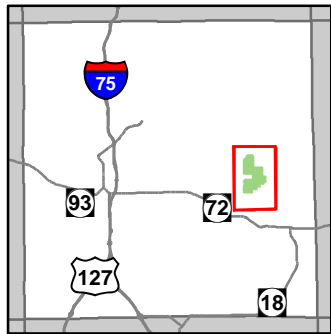
#### **The following information is displayed, where pertinent, on the attached compartment maps:**

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

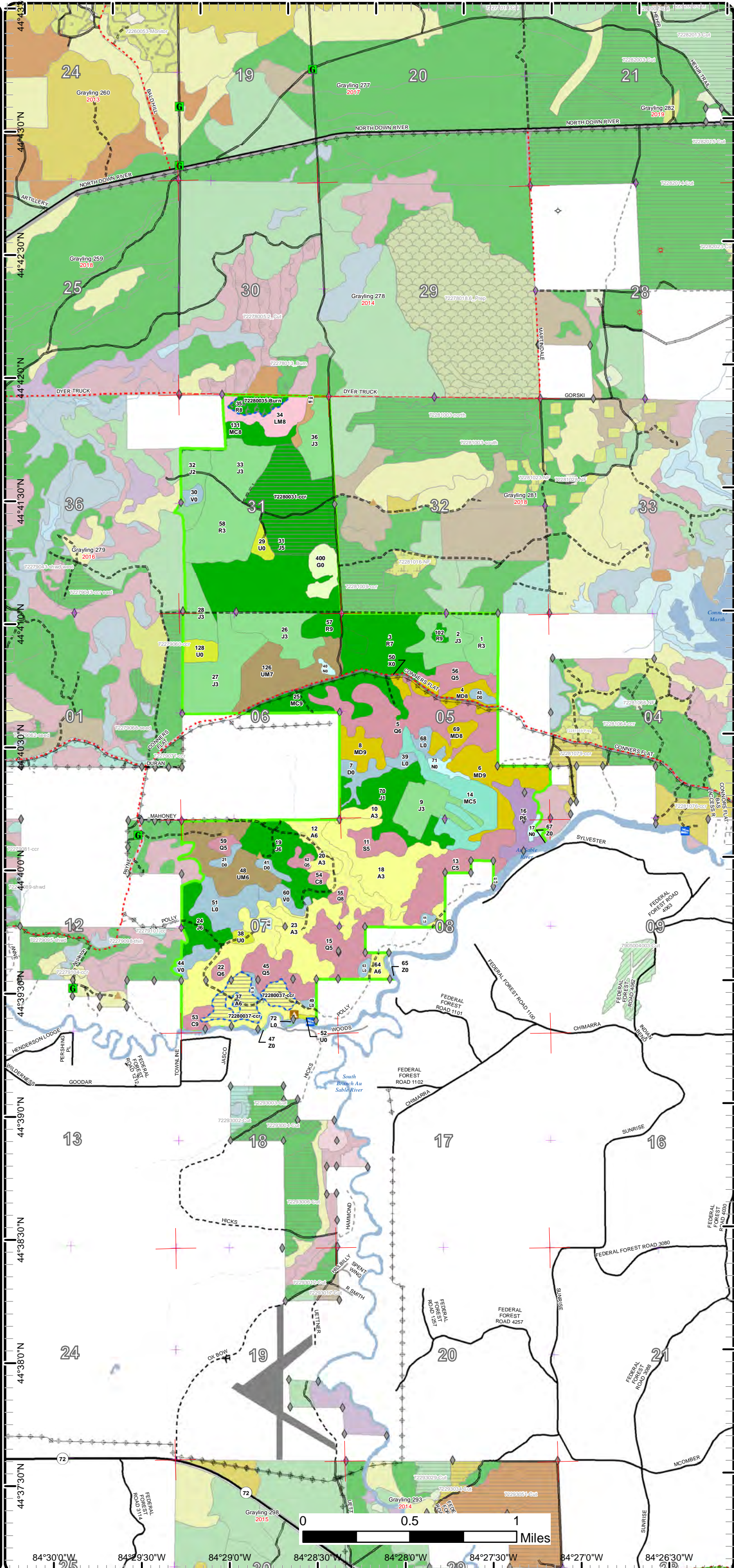


# Cover Type & Treatments Map

Compartment: 280  
 T27N,R01W, Sec. 31  
 T26N,R01W, Sec. 05-08  
 County: Crawford  
 Unit: Grayling  
 Mgmt Area: AuSable Outwash  
 YOE: 2019  
 Acres: 1,823 GIS Calculated  
 Examiner: Joan Charlebois  
 Map Revised: 7/30/2018  
 Map Phase: Post-Review



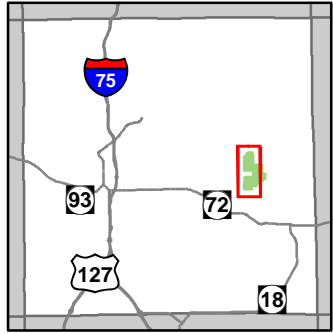
- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- ▭ Counties
- DNR - Secondary Forest Road
- - - DNR - Forest Access Route
- Federal / State / County - Paved Road
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- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- ▲ Berms
- Gate
- Boating Access Site
- Culvert
- Campground
- Pipeline
- Powerline
- Airports
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Prescribed Burn
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 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
- ★ Natural Gas
- ▲ Brine Disposal
- ◆ Dry Hole



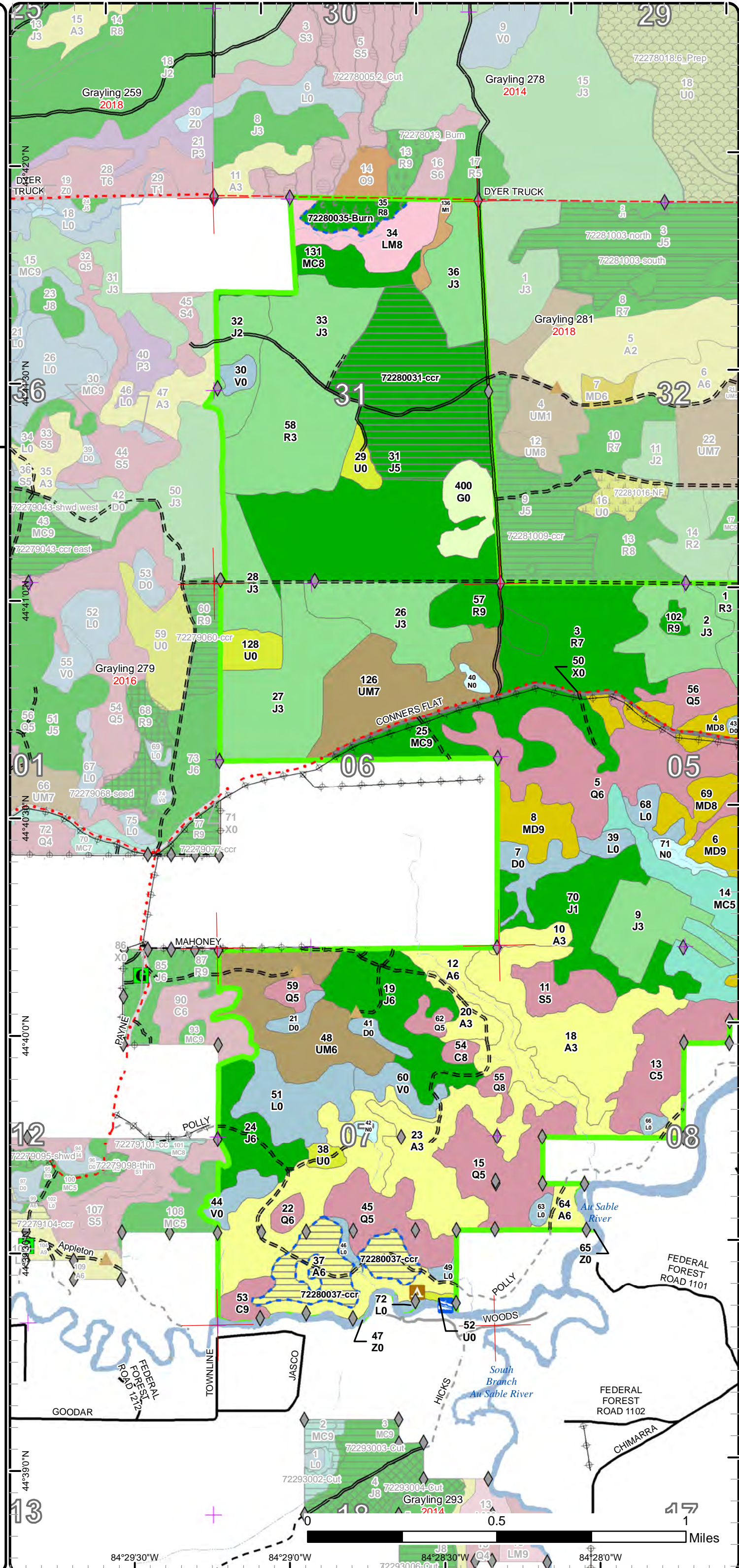


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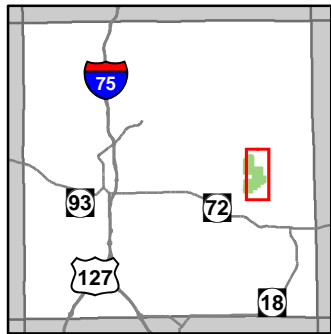
44°39'0"N  
 84°29'30"W  
 84°29'0"W  
 84°28'30"W  
 84°28'0"W

0.5  
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 Miles

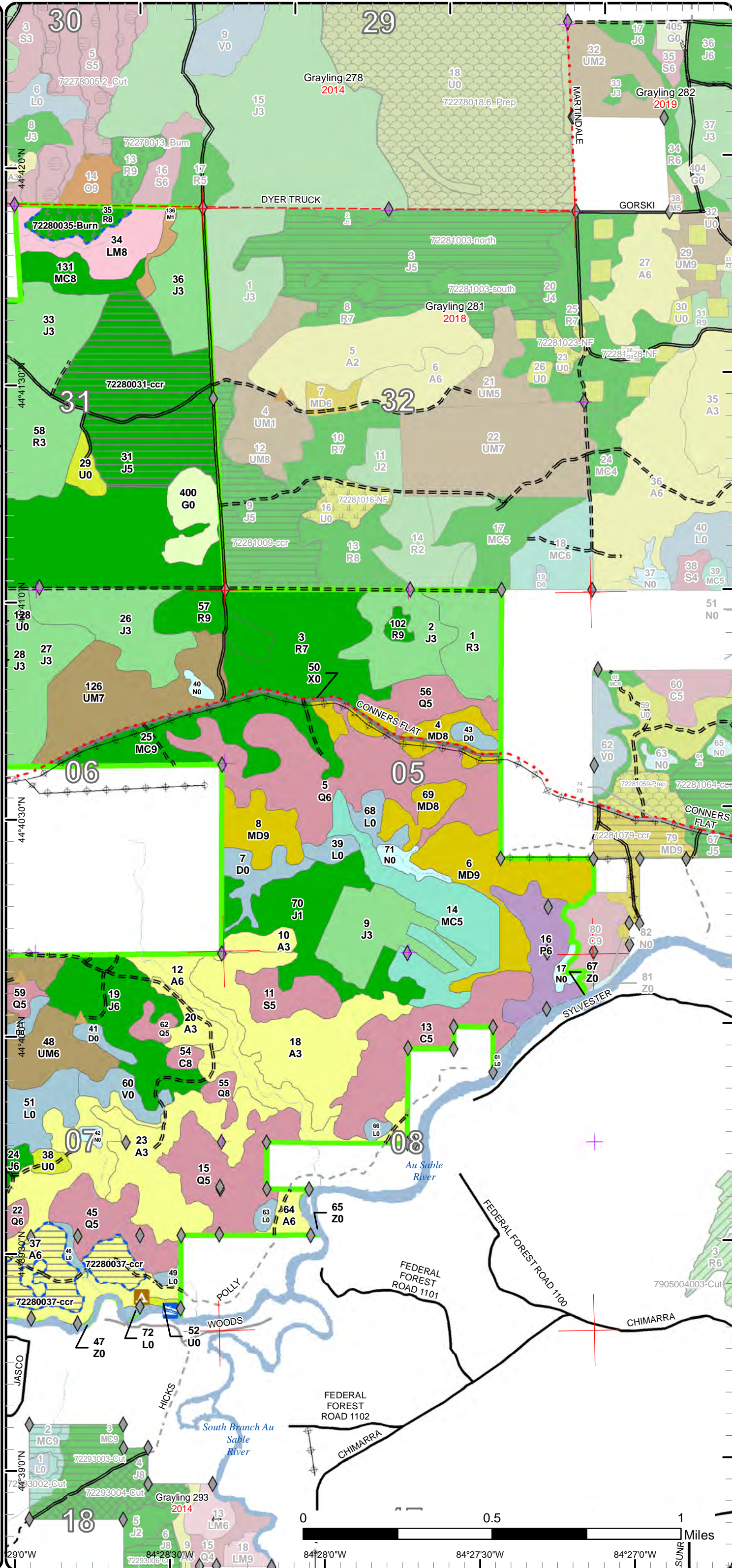


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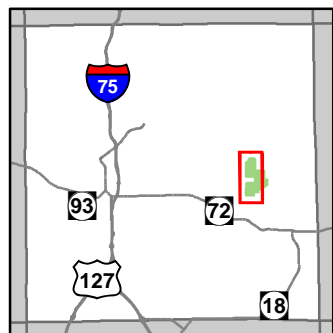
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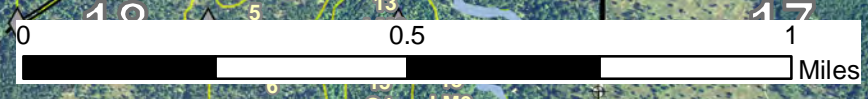
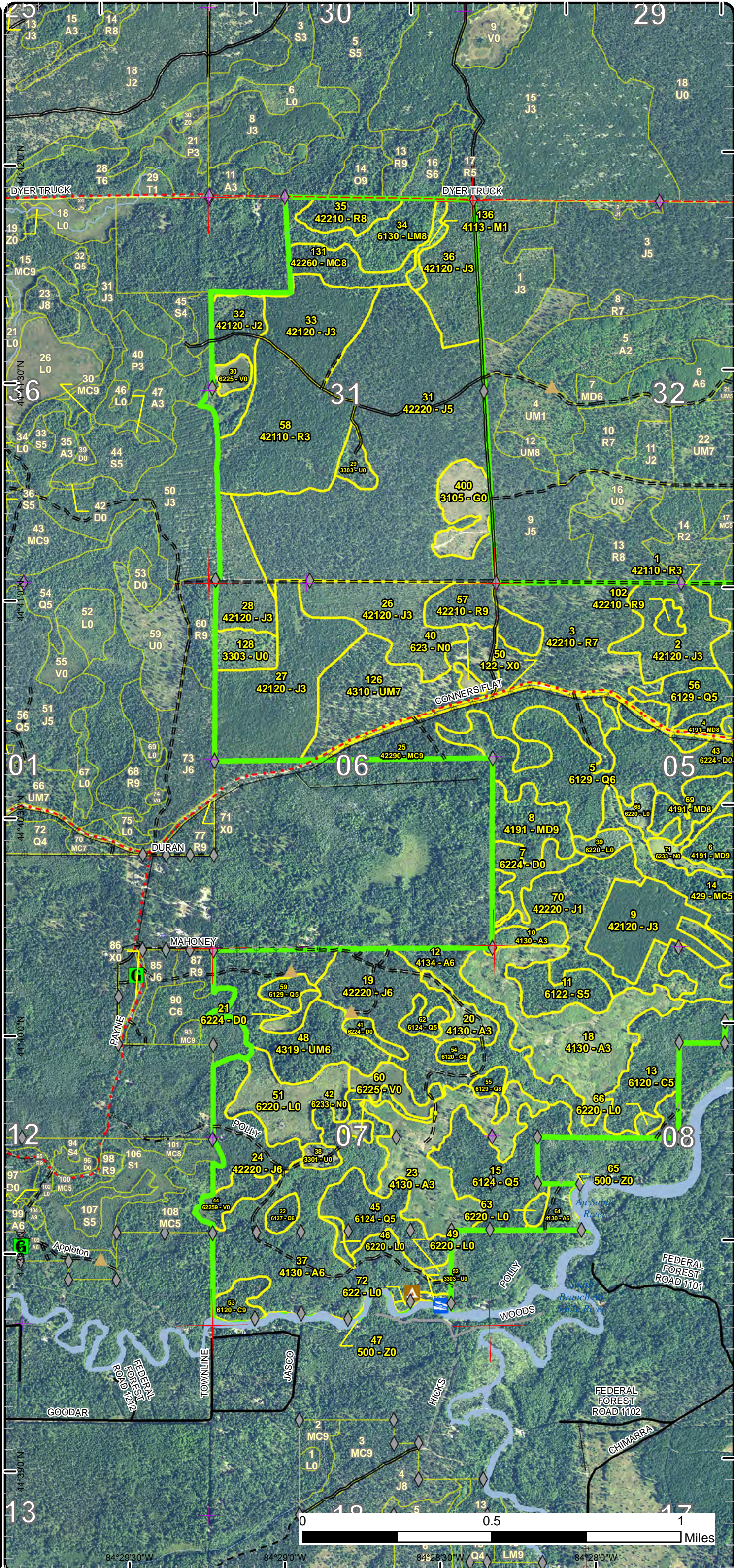


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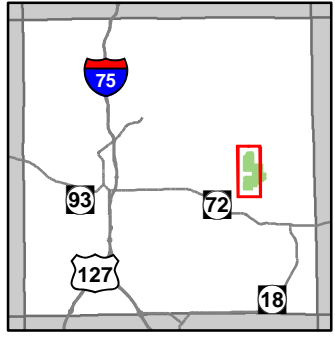




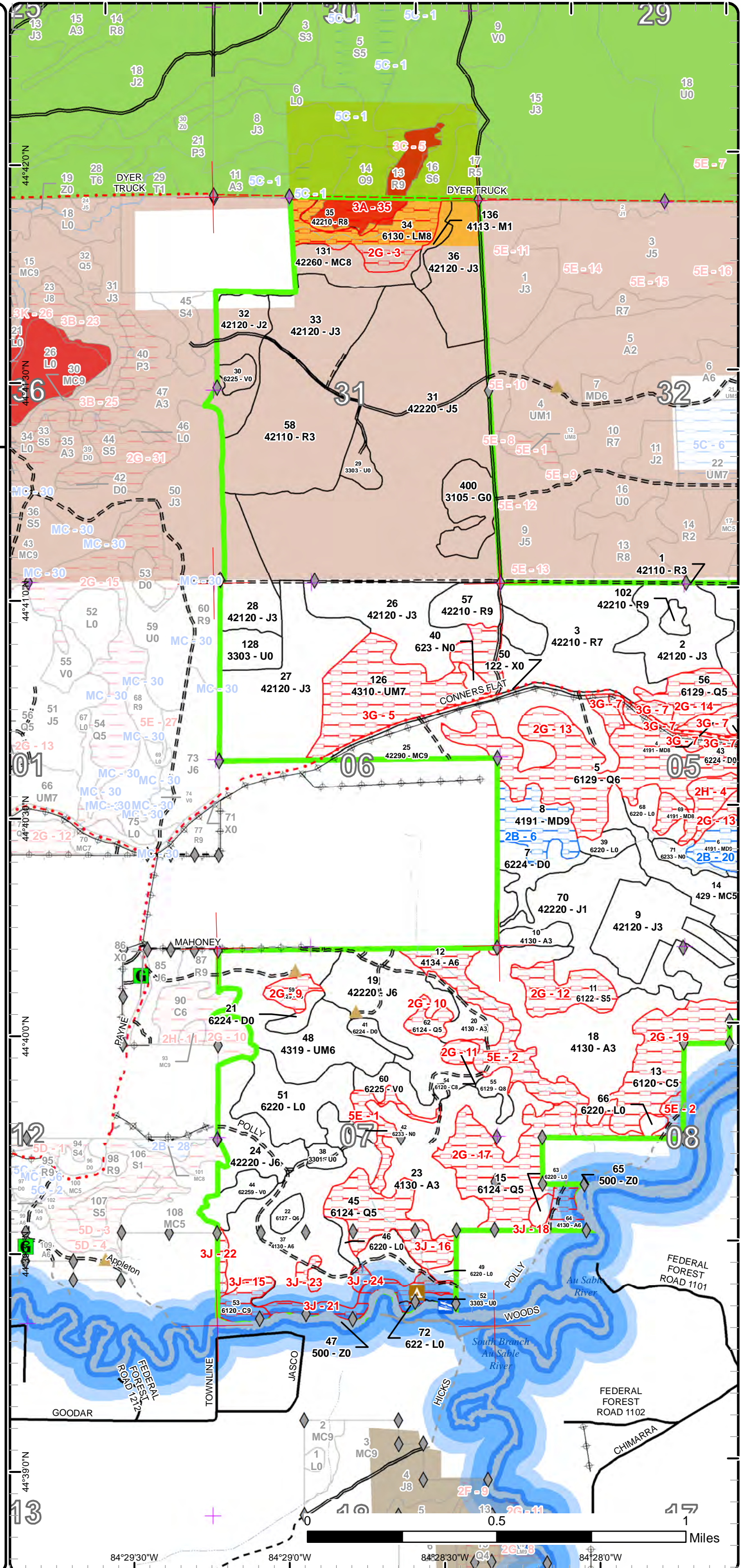


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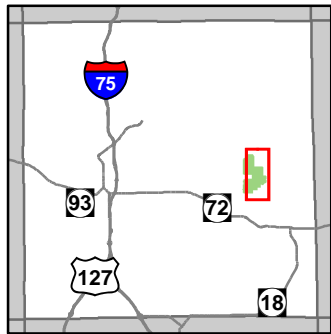
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- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Conservation Values incompatible with harvest at this time
- 3G: Other Influence zones - See comments
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Kirtland Warbler Habitat
- Dedicated Management Areas
- Cold Water Streams
- Cold Water Lakes
- Non-Dedicated Natural Areas and National Natural Landmarks
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands
- State Forest Campground
- Possible Type 1 Old Growth



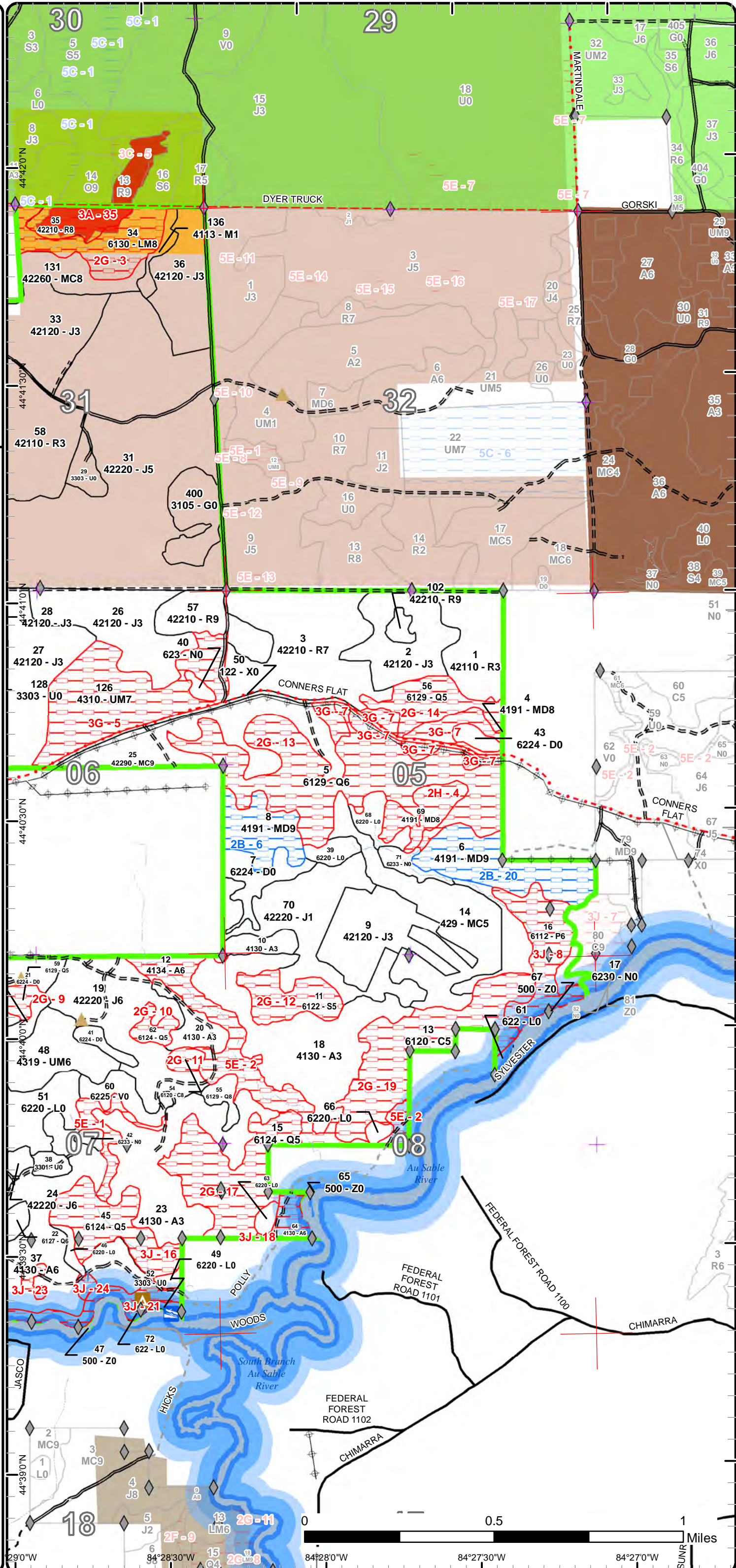


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- △ Brine Disposal
- Dry Hole



29°0'W 84°28'30"W 84°27'30"W 84°27'0"W



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

Grayling Mgt. Unit

Compartment 280 Year of Entry 2019

Joan Charlebois : 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	118	0	7	0	99	44	0	0	0	0	0	0	0	0	0	0	0	267
Bog	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Cedar	0	0	0	0	0	0	0	0	0	0	3	0	57	0	0	0	0	0	60
Herbaceous Openland	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Jack Pine	0	0	121	199	0	71	187	0	0	0	0	0	0	0	0	0	0	0	578
Low-Density Trees	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Aspen/Balsam Poplar	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	26
Lowland Conifers	0	0	0	0	0	0	18	85	31	0	10	41	5	0	0	0	0	0	189
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	25
Lowland Shrub	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	16
Marsh	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	64	32	0	0	0	0	0	0	0	95
Natural Mixed Pines	0	0	0	0	0	0	16	0	0	0	42	0	0	0	0	0	0	0	58
Northern Hardwood	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Red Pine	0	0	0	88	0	0	3	80	0	0	0	0	0	0	0	0	12	0	182
Treed Bog	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Upland Conifers	0	0	0	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	49
Upland Mixed Forest	0	0	0	0	0	52	0	0	0	0	0	55	0	0	0	0	0	0	106
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Water	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
<b>Total</b>	<b>166</b>	<b>118</b>	<b>121</b>	<b>299</b>	<b>0</b>	<b>297</b>	<b>268</b>	<b>165</b>	<b>31</b>	<b>64</b>	<b>112</b>	<b>113</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>1821</b>





## Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2019

Acres of Harvest

Compartment 280

Total Compartment Acres: 1,823

Commercial Harvest - 96  
 Harvests with Site Condition - 30  
 Next Step Harvest - 12  
 Habitat Cut - 12

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	30	0	0	0	0	0	0	0	0	30
Jack Pine	96	0	0	0	0	0	0	0	0	96
<b>Total</b>	<b>126</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>126</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	126	0	0	0	12	0	0	0	0	138
Next Step	12	96	96	0	0	108	234	0	0	545
<b>Total</b>	<b>138</b>	<b>96</b>	<b>96</b>	<b>0</b>	<b>12</b>	<b>108</b>	<b>234</b>	<b>0</b>	<b>0</b>	<b>683</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
31	72280031-ccr	95.6	42220 - Natural Jack Pine	Poletimber Medium	53	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Final harvest with standard retention. Consider retaining the white oak and supercanopy RP. Potential green-up concern with 72281009 adjacent prescribed treatment. Add to the Military's mapped restricted areas in order to limit training that would negatively impact the planting investment.

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, Skidder/Mechanical; Monitoring, Artificial Regen(3yr)  
Treatments:

Acceptable Full stocking in planted RP.  
Regen:

Other Site prep and plant RP. Herbicide may be used to control competing vegetation.  
Comment:

Proposed Start Date: 10/01/2018

35	72280035- Burn	12.1	42210 - Natural Red Pine	Sawtimber Medium	163	81-110	Burn	Understory	42210 - Natural Red Pine	Two-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition: Conservation Values**

Prescription Periodically burn to set back the competing red maple and balsam fir understory and to expose mineral soil for red pine seedling establishment.  
Specs: Exclude pockets of established red pine regen from the burns.

Next Step Monitoring, Prescribed Burn  
Treatments: ; Pesticide, Hand Application; Harvest, Other - Specify

Acceptable Cutting and herbicide may also be used to control the RM & fir understory competition if burning alone cannot meet that objective. Herbicide  
Regen: may also be used to control invasive plants within the Dyer Red Pine ERA.

Other  
Comment:

Proposed Start Date: 10/01/2018

37	72280037-ccr	30.4	4130 - Aspen	Poletimber Well	49	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition: Long-Term Retention**

Prescription Final harvest with retention, excluding the 150' Natural Rivers restricted cutting zone, ephemeral drainage swales, non-forested wetland  
Specs: inclusions, and supercanopy RP & WP. The treatment boundary has been edited to approximate the intended exclusions.

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

Acceptable Moderate stocking in aspen with mixed deciduous and conifer components, with lower stocking in areas that were sparse pre-harvest.  
Regen:

Other Winter harvest and haul when the roads are frozen. Apply Dead & Down Creation spec for grouse and hare. The harvest encompasses lands  
Comment: partially purchased through the State Game Fund. The primary purpose of the treatment is to establish a new age class of aspen for wildlife habitat.

Proposed Start Date: 10/01/2018

**Total Treatment  
Acreage Proposed: 138.1**



## Report 4 – Site Conditions

Grayling Mgt. Unit

Joan Charlebois : Examiner

Compartment: 280

Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions									
		With Condition	Not Available		2B	5C	2G	2H	3A	3C	3G	3J	5E	
267	125	0	143	Aspen									26	116
23	23	0	0	Bog										
60	0	0	60	Cedar			52						8	
18	18	0	0	Herbaceous Openland										
578	549	0	29	Jack Pine						29				
22	22	0	0	Low-Density Trees										
26	0	0	26	Lowland Aspen/Balsam Poplar									26	
189	9	0	181	Lowland Conifers			154						27	
25	0	0	24	Lowland Mixed Forest		0	24		0	0				
52	51	0	1	Lowland Shrub									1	0
16	0	0	16	Lowland Spruce/Fir			16							
12	12	0	0	Marsh										
95	11	52	32	Mixed Upland Deciduous	52			13			20			
58	58	0	0	Natural Mixed Pines			0							
4	0	0	4	Northern Hardwood						4				
183	171	0	12	Red Pine		0	0		12	0				
24	24	0	0	Treed Bog										
49	49	0	0	Upland Conifers										
106	52	0	54	Upland Mixed Forest							54			
7	7	0	0	Urban										
8	4	0	4	Water									0	4
1,823	1,184	53	587	Total Forested Acres	52	0	247	13	12	34	74	87	120	
	65%	3%	32%	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	5E: Long-Term Retention	9	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retention excluded from the 2014 harvest (#038-09), consisting mostly of buffers along a stream and wetlands.							



## Report 4 – Site Conditions

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2	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	37	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retention excluded from the 2014 harvest (#038-09). Includes riparian buffers along intermittent and perennial streams, a portion within the AuSable's Natural Rivers zone, and steep slopes.							
3	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	24	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Saturated ground across most of the stand and the stream in the west half would limit operations.							
4	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Islands of high ground in the swamp.							
5	<b>Unavailable</b>	<b>3G: Other Influence zones - See comments</b>	55	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Mature oak and RP left within visual depth zone of county road. Was not designated as long-term retention, but to address visual concerns while the stand regenerated.							
6	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	19	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand is isolated by low ground on the state sides and private property to the west.							
7	<b>Unavailable</b>	<b>3G: Other Influence zones - See comments</b>	20	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small multi-poly stand flanking the county road and hemmed in by swamp on the back sides.							



## Report 4 – Site Conditions

Grayling Mgt. Unit

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8	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	26	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified
<b>Comments:</b> A perennial stream flows through the stand's west side in a steep valley. The stand's south end is within the AuSable's Natural Rivers zone. Access to the dry ground in the north end would require a stream crossing from the west or permission to cross private property from the north.							
9	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground.							
10	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground.							
11	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground.							
12	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground.							



## Report 4 – Site Conditions

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13	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	85	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground.							
14	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground.							
15	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Hillside cedar stand with mucky seeps, extends down into the AuSable's Natural Rivers zone.							
16	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	27	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> A perennial stream flows the length of the stand and most of the stand is on saturated ground.							
17	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	41	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground.							
18	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small aspen stand on a former Consumers lease parcel. Most of it is within the AuSable's Natural Rivers zone.							



## Report 4 – Site Conditions

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19	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	49	5A: Not able to obtain desirable regeneration	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
<b>Comments:</b> Core of swamp on saturated ground. Cutting the cedar would accelerate conversion to spruce-fir. Southeast end of stand is within the AuSable's Natural Rivers zone.							
20	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	33	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access to the portion north of the stream would require permission to cross private property.							
21	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	14	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Mostly Natural Rivers restricted cutting zone, also wetland exclusion.							
22	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Ephemeral drainage in valley							
23	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small non-forested wetlands.							
24	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Intermittent stream and non-forested wetland							



## Report 4 – Site Conditions

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Compartment: 280

Year of Entry: 2019

35	Unavailable	3A: Conservation Values incompatible with harvest at this time	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Dyer Red Pine ERA.							



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
<b>Comments</b>				





**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	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
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	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.
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
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.





**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
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	Sapling Well	27.1	23	Immature	Was final harvested in 1990 (#020-89), cutting stems 2"+ DBH. Was then trenched and planted to RP and a minor amount of JP in 1995 (C72-269). Significant amounts of naturally-recruited JP and NPO stump sprouts are mixed into the plantation. Sub-acre uncut inclusion on the east-center edge has small JP poles and wetland inclusions.
2	42120 - Planted Jack Pine	Sapling Well	29.9	13	Immature	Was final harvested in 2002 (#037-00), cutting merch stems. Most of the stand was then trenched in 2004 and planted to JP in 2005 (C72-505), weaving through a fair amount of large sap/small pole RP-JP-WP residual. Areas of concentrated residual (largest is in the southeast corner), were avoided by the trencher. The residual now-pole JP had to be rolled into the planted JP canopy record, but kept age set to the regen.
3	42210 - Natural Red Pine	Sawtimber Poor	60.5	66	1-50	Was shelterwood harvested in 2012 (#037-09), cutting merch stems except RP-WP-Oak (cruised residual BA sq ft: 34 RP, 14 Oak, 2 WP). The residual is unevenly distributed across the stand, so cover ranges from LDT to R9. Multiple age & size classes of RP seeded in from well-distributed supercanopy seed trees. Mature NPO is poor-quality, declining. JP-RP-NPO seedlings established in openings, heaviest on landings & skid routes. Areas with thinning-level residuals have sparse regen. Low ground in the southeast corner of stand has traces of aspen & spruce regen.
4	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	19.9	85	51-80	Stand is made up of six small patches of high ground along Conners Flat Road, backed by swamp. Poor-quality mature NPO with cull RM, aspen (mature & overmature), JP (overmature), balsam fir, WP, RP, and black spruce. Cull, decadence and DWD are common. Higher canopy closure and more aspen south of the road.
5	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	85.2	69	81-110	Variable lowland conifer cover; ranges from solid black spruce to cedar to tamarack and all gradations in between, on mostly sphagnum-covered saturated ground. Either full balsam fir, full tag alder or leatherleaf bog below. Non-forested wetland inclusions (D, L3) common. Stocking ranged from 40 to 180 sq ft, with the lower BA swings on the west and east ends. Beaver activity on the S-center edge of the stand flood-killed a few acres of cedar (shifted to L3 stands). Harvests were recorded in the early 1960's across the north half of the stand (#18-60, #2-61 & #34-61), cutting spruce and fir bolts and a minor amount of cedar.
6	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	43.9	84	81-110	Stand is broadly two-aged across all species except the NPO (mature to overmature). WP and balsam fir continue to fill in canopy gaps as the overmature components senesce. Access across state land would require a stream crossing. Previous SI: 70-1912-51
8	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	19.1	95	81-110	Supercanopy WP-RP scattered above the main canopy of cull RM-A-NPO and younger WP-RP. Low ground inclusions occur within the stand. Stand is isolated by lowlands on state land and private property to the west.
9	42120 - Planted Jack Pine	Sapling Well	34.1	25	Immature	Was final harvested in 1990 (#008-89), cutting stems 2"+ DBH. Was then trenched & planted to JP in 1993 (C72-310). Minor gall rust.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	4130 - Aspen	Sapling Well	6.5	28	Immature	Was final harvested in 1990 (#008-89), cutting stems 2"+ DBH. Aspen with scattered WP, RP, BC.
11	6122 - Black Spruce	Poletimber Medium	16.5	100	51-80	Saturated leatherleaf/sphagnum bog with small-diam spruce and tamarack with WP. PARVCo ground inclusions. Horizontal cover on A3 edge from windthrow and harvest rabbitat spec. 27-1923-30
12	4134 - Aspen, Spruce/Fir	Poletimber Well	36.9	50	51-80	Most of the stand is on the steep side-slopes and floodplain of a narrow (3' wide) perennial stream, left as a riparian buffer when the bulk of stand 12 was harvested in 2014. Aspen and balsam fir, with large NWC scattered along the stream edge, cull RM, and xlog WP & RP. North half of stand was within an area where merch JP, spruce, balsam fir, aspen & oak were cut between 1973 & 1976 (#14-73A), and all RP-WP left. Old comments for the remainder when in Consumers Power ownership: "cut over in 1968 . . . Scattered mature A-O-M & J were left".
13	6120 - Lowland Cedar	Poletimber Medium	49.1	114	51-80	Cedar over small spruce and tamarack poles. Southern portion of the stand has areas with extensive cedar die-back and mortality; the spruce-fir subcanopy is becoming the canopy there. Tag alder swale inclusions.
14	429 - Mixed Upland Conifers	Poletimber Medium	48.8	49	51-80	Was final harvested in 1990 (#008-89), cutting stems 2"+ DBH. This portion of the larger harvest area had heavier slash. It was roller-chopped fall 1993 in preparation for seeding (C72-310), but documentation confirming that the seeding occurred could not be located. Cover is primarily pole-saw WP with BF, patches of aspen, and JP regen from the harvest. U/G inclusions common, as well as low ground along the perimeter.
15	6124 - Lowland Spruce- Fir	Poletimber Medium	40.5	100	51-80	On core saturated ground: low density black spruce, tamarack & cedar over dense spruce and fir regen. Dense spruce-fir pole cover on perimeter transition ground Has inclusions of trembling aspen & bam, sparser low areas.
16	6112 - Lowland Aspen	Poletimber Well	25.6	49	81-110	A-RM-Fir stand starts on the uplands at the north end, then transitions onto low ground moving south, with a dry hilltop supporting BTA in the middle. Was harvested when in Consumers Power ownership, focusing on the accessible aspen. Cored aspen poles indicate a late 1960's harvest. There is overmature aspen (did not core) on the steeper side-slopes down to the perennial stream and AuSable River floodplain. Other residual includes cull RM stump-origin clumps (second age), NPO and super-canopy WP.
18	4130 - Aspen	Sapling Well	60.5	4	Immature	Was final harvested with retention by early 2014 (#038-09), cutting stems 2"+ DBH except oak, cedar and boundary-excluded riparian buffer retention. Regenerated well to aspen on the upland ground. Low swales that had spruce-fir-RM canopy are filling in slowly with spruce seedlings and colonizing aspen saps. Heavy browse on RM stump sprouts kept part of that regen in the seedling height category. The residual NPO continues to die back; some windthrow in that component and within the adjacent swamp edges.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42220 - Natural Jack Pine	Poletimber Well	45.6	43	51-80	Most of the stand was final harvested between 1973 & 1976 (#014-73A), cutting merch JP, spruce, balsam fir, aspen & oak. The RP-WP-RM were left, as well as some of the poorer-quality oak. Main canopy of small pole JP & oak stump sprouts regenerated from the harvest, with residual RP & NPO saw scattered above. A couple acres at the south end were final harvested in 1991 (#026-89), cutting stems 2"+ DBH; that patch has younger JP pole/sapling cover.
20	4130 - Aspen	Sapling Well	9.1	4	Immature	Was final harvested with retention by early 2014 (#038-09), cutting stems 2"+ DBH except oak and boundary-excluded riparian buffer retention. Regenerated well to aspen. Heavy browse on RM stump sprouts kept part of that regen in the seedling height category. The mature residual NPO continues to decline.
22	6127 - Lowland Pine	Poletimber Well	4.1	76	81-110	Lowland stand with sphagnum/leatherleaf groundcover is dry enough to support majority RP-WP cover.
23	4130 - Aspen	Sapling Well	48.6	4	Immature	Was final harvested with retention by early 2014 (#038-09), cutting stems 2"+ DBH except oak, cedar and boundary-excluded riparian buffer retention. Regenerated well to aspen on the upland ground. Low swales that had spruce-fir-RM canopy are filling in slowly with spruce seedlings and colonizing aspen saps. Heavy browse on the RM stump sprouts kept it in the seedling height category. The residual NPO continues to die back; some windthrow in that component and within the adjacent swamp edges. Former U-type was merged into this stand post-harvest after the aspen regen colonized all but sub-acre patches.
24	42220 - Natural Jack Pine	Poletimber Well	25.1	44	51-80	Most of the stand was final harvested between 1973 & 1976 (#014-73A), cutting merch JP, spruce, balsam fir, aspen & oak. Regenerated to JP with stump-origin NPO, WP, a few small aspen clones, balsam fir, and black spruce along the lowland edge. Oak & WP heaviest in the north peninsula. Widely-scattered residual RP saw. Old borrow pit along Polly Trail. JP excessively stocked in SW.
25	42290 - Natural Mixed Pine	Sawtimber Well	41.5	93	81-110	Long stand bordering Connors Flat Road, with narrow peninsulas extending into the swamp. Harvests were recorded across most of the stand around 1960 (#53-59, #092-60 & #018-62), cutting merch aspen and marked JP. The stand has multiple age and size classes of naturally-established RP & WP, mature JP & NPO, and minor amounts of aspen, fir, spruce and RM. The NPO & JP have been breaking up. The stand boundary has extensive lowland interface and picks up a couple-acre inclusion of swamp edge along the private property.
26	42120 - Planted Jack Pine	Sapling Well	37.8	13	Immature	Was final harvested in 2000 (#045-99), cutting merch stems in the north half and only the merch JP-NPO in the south half. Was then trenched in 2004 and planted to JP in 2005 (C72-505), weaving around the residual RP-WP-JP (heaviest in the south half). An acre of R8 in the south-center was avoided by the trencher. Gall rust present in the planted JP; approximately 10% of stems infected. Oak stump sprouts doing well.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	42120 - Planted Jack Pine	Sapling Well	61.8	24	Immature	Was final harvested in 1990 (#021-89), cutting stems 2"+ DBH. Was then trenched and planted to JP in three stages in 1993, 1994 & 1995 (C72-270). Full stocking in planted JP with oak stump sprouts above it and small patches of aspen. Deformity & breakage on the JP stems with heavy gall rust infection.
28	42120 - Planted Jack Pine	Sapling Well	24.6	13	Immature	Was final harvested in 2002 (#037-00), cutting merch stems. Most of the stand was then trenched in 2004 and planted to JP in 2005 (C72-505). The JP was planted around a fair amount of residual RP-WP-JP that is now pole-sized (second age). The older residual JP could not be recorded separately from the planted JP. Some oak stump sprouts from the cut recruited. Gall rust present in the planted JP.
31	42220 - Natural Jack Pine	Poletimber Medium	187.4	53	51-80	Most of the stand had merch JP removed under a series of "salvage & improvement" permits in 1969 (#3, 5, 8, 12 & 17-69). Old fire plow lines common. The result of those past treatments & wildfires is a multiple-age JP stand, along with declining NPO that seeded in localized O3, and scattered supercanopy RP with sapling-to-saw progeny circa. Uneven RP distribution, from trace to 60% of the canopy. Traces of cull BTA & RM. Canopy opening up as the overmature NPO & JP components decline and break up. RP SI 53
32	42120 - Planted Jack Pine	Sapling Medium	22.1	24	Immature	Was final harvested in 1990 (#006-89), cutting merch stems. Most of it was then roller-chopped in 1993 and seeded in 1994 (C72-242), avoiding the wetland inclusions and areas with WP-RP residual. Cover is a mosaic of J3, U & WP-RP.
33	42120 - Planted Jack Pine	Sapling Well	34.0	25	Immature	Was final harvested in 1990 (#006-89), cutting merch stems. Most of it was then trenched and planted to JP in 1993 (C72-242), weaving around residual RP-WP and avoiding areas with natural regen (JP & NPO). Gall rust common on the planted JP, with poor form & breakage on heavily infected stems. North edge of stand was left unplanted; had more pine residual & natural regen (oak stump sprouts).
34	6130 - Fir, Aspen, Maple	Sawtimber Medium	24.7	94	51-80	Patchy E/Q cover on saturated to intermediate ground. Narrow stream with feeders and diffuse flow drain out of the flooded east half. Stand surrounds the south half of the Dyer Red Pine (ERA).
35	42210 - Natural Red Pine	Sawtimber Medium	12.2	163	81-110	Signed "Crawford Red Pines Natural Area (Dyer Red Pines) origin circa 1814 - Camping & motor vehicles prohibited." Identified by MNFI as an Ecological Reference Area (ERA). Their survey recorded RP 155-168 years old (used ave 162 as the dominant age). The ERA extends north into compt 278. Marked oak was salvaged across 10 acres of the stand in 1995 (#033-94). Six acres in the east end of the stand were underburned in 2005 (C72-506). Stand of supercanopy RP with RM & NPO reaching into the bottom of the canopy. Misc species are concentrated along the swamp edge. Heavy RM regen in the stand's east half, and balsam fir on the perimeter. Younger pole-saw RP had to be listed as a split category with the supercanopy RP, but kept age set to the older majority xlog RP.
36	42120 - Planted Jack Pine	Sapling Well	28.9	13	Immature	Was final harvested in 2000 (#005-99), cutting stems 2"+ DBH. Was then trenched and planted to JP in 2005 (C72-434), avoiding areas with heavier residual. Full stocking in planted JP, with NPO stump sprouts and now pole-sized residual RP-WP-JP. Gall rust present in the JP.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4130 - Aspen	Poletimber Well	99.0	49	81-110	The northwest edge of the stand (~20 acres total within the NESW and SWNE) were final harvested between 1973 & 1976 (#014-73A), cutting merch JP, spruce, balsam fir, aspen & oak. The rest of the stand was noted to have been cut in 1969 (during Consumers Power Company ownership) except for a chain-wide strip of aspen on the west boundary line that was cut off by a seasonal drain. Most of the overmature aspen in that strip has broken up. There is also a band of residual overmature BTA around the former lease cabin sites and on the steep sideslope down to the AuSable River. The DNR & CPC harvests left now log-sized NPO, RP & WP, scattered and in small pockets. The NPO continues to die back. The stand is dotted with small wetland inclusions.
45	6124 - Lowland Spruce-Fir	Poletimber Medium	26.8	78	81-110	Black spruce and cedar stand with inclusions of aspen on "higher" ground. Stand is generally on black muck soils with seeps & near-surface water table. West side sparser, with standing water, diverse forb fern layer. Stream runs through it.
48	4319 - Mixed Upland Forest	Poletimber Well	51.7	43	81-110	Most of the stand was final harvested between 1973 & 1976 (#014-73A), cutting merch JP, spruce, balsam fir, aspen & oak. The RP-WP-RM were left, as well as some of the poorer-quality oak. Variable mixed stand with now small-pole regen from the harvest (small aspen clones, NPO stump sprouts, JP & BF), and significant amounts of saw-sized residual (cull RM clumps, mature NPO & RP saw). Could not list the mature NPO separately from the harvest-origin NPO due to a current MiFI rule; had to roll them into one canopy record, but set the age to the younger component.
53	6120 - Lowland Cedar	Sawtimber Well	7.6	110	111-140	Hillside cedar stand grading down to the AuSable River. The black muck soils have good drainage, and the cedar is healthy and vigorous. There are black spruce patches on the north end and E-type mixed in on the drier ground (paper birch, red maple, & large cull trembling aspen). A dry ridge near the river has WP-RP. Hillside seeps common.
54	6120 - Lowland Cedar	Sawtimber Medium	3.4	98	81-110	Cedar, BS & tamarack on sphagnum bog. Core saturated ground has sparser cover, mortality. Transition ground edge has denser healthier cover.
55	6129 - Mixed Coniferous Lowland Forest	Sawtimber Medium	4.6	111	81-110	Large WP scattered across leatherleaf/labrador tea bog with low density Q poles. Drier transition ground perimeter has dense spruce-fur cover. Q-WP filling in below. Black spruce age carried forward from previous inventory.
56	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	17.7	54	51-80	Black spruce with NWC, mixed Q & E, and non-forested wetland inclusions (D, V, L3). Sphagnum groundcover mostly flooded, with some drier transition ground. A few supercanopy WP & RP. A 1961 harvest (#034-61) was recorded in the forty, cutting spruce and fir bolts and a minor amount of cedar.
57	42210 - Natural Red Pine	Sawtimber Well	18.8	63	81-110	RP stand established over time from well-distributed supercanopy seed trees. Overmature JP & NPO components have been dropping out. Traces of canopy WP & BTA present. RP & oak regen average toward the low end of moderate stocking. Dominant age was from the median RP saw; did not average in the minority large saw RP or core any supercanopy stems.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	42110 - Planted Red Pine	Sapling Well	61.1	25	Immature	Was final harvested in 1990 (#006-89), cutting merch stems. Most of it was then trenched and planted to RP in 1993 (C72-242), weaving around the scattered residual RP-WP and avoiding 1- to 2-acre patches of naturally-established JP. Planted RP partially transitioned into the pole class. Oak stump sprouts & JP mixed in. Shallow valley arcs across south third of stand; was trenched through but had poor RP survivorship. Small wetland inclusion at west end of that valley. The scattered residual RP couldn't be listed separately from the planted RP in the canopy.
59	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	5.5	99	51-80	Black spruce, NWC & tamarack on saturated sphagnum bog ground. Cover varies from high-density NWC to barely above treed bog. Best growth on drier transition ground edge.
62	6124 - Lowland Spruce-Fir	Poletimber Medium	4.9	97	51-80	Q/E stand on ground ranging from saturated sphagnum bog to PARVCo. Larger RM on the intermediate ground.
64	4130 - Aspen	Poletimber Well	6.6	50	51-80	Mixed stand of QA, overmature JP (dying out), balsam fir, and spruce increasing along the swamp edge. Stand was part of Lease A-38, on former Consumers Power property. Cabin was removed after 2011 lease expiration. Wetland inclusion on the river floodplain. Used stand 12's age.
69	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	12.5	91	51-80	Stand occupies a pair of islands in the swamp. Supercanopy WP-RP are scattered above the main canopy of poor quality NPO, cull RM clumps, overmature aspen, and younger WP-RP. WP & balsam fir are filling in from below as the oak and aspen break up. The two islands are separated by a flooded swale. Black spruce is concentrated along the swamp edge. Cull, decadence and DWD are common.
70	42220 - Natural Jack Pine	Sapling Poor	46.8	28	Immature	Was final harvested in 1990 (#008-89), cutting stems 2"+ DBH. This portion of the larger harvest area had heavier slash. It was roller-chopped fall 1993 in preparation for seeding (C72-310), documentation confirming that the seeding occurred could not be located. JP recruited after the harvest along with oak stump sprouts, and balsam fir along the lowland edges. WP & RP residual is now pole-saw sized. A lot of BC brush, U/G inclusions. Stand has small wetland inclusions and a sub-acre patch of swamp in the southeast. Second age estimate drawn from adjacent stand residual WP current age (same harvest).
102	42210 - Natural Red Pine	Sawtimber Well	3.1	59	111-140	Was final harvested in 2002 (#037-00), cutting merch stems except RP. The NPO stump sprouted well. Stand has a wide range of age/size classes of RP with a multi-layered canopy. Seeded in over time from a few super-canopy RP (SCRIP). Cannot reflect two-aged condition under current MIFI rule.
126	4310 - Pine, Oak Mix	Sawtimber Poor	54.5	100	1-50	Was harvested in 2000 (#045-99), cutting only the merch JP, except in the north 11 acres of the stand where merch NPO was spec'd to be cut also. The RP-NPO residual was left for visual management along Conners Flat Road. The stand's far SW corner had a strip left entirely uncut opposite a residence on Conners Flat Road. The mature oak is distributed fairly uniformly across the stand, but much of the RP is concentrated in patches along the perimeter. Understory averages to medium cover in unevenly distributed JP saplings. The poor quality mature NPO continues to decline.



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Grayling Mgt. Unit

Report 7 – Forested Stands

Compartment: 280  
Year of Entry: 2019



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
131	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	16.4	57	51-80	Originally part of stand 33 in 1989 and prescribed for final harvest; it was excluded from the sale boundary, with tsale prep notes indicating "leave strip along deer yard". This excluded portion has variable distribution in pine, aspen & oak. Significant amounts of DWD from the overmature JP, aspen & NPO breaking up. Set first age to the median RP saw component. Second age on the overmature JP is also reflective of the older (but not the supercanopy) RP. The stand's north edge grades into the adjacent swamp.
136	4113 - R.Maple, Conifer	Sapling Poor	4.5	26	Immature	Originally part of stand 36, was harvested in 2000 (#005-99), but was excluded from the planting due to amount of advanced regen, residual, and low ground in the north end. The harvest released patches of RM, balsam fir & JP regen, and left now pole-saw WP. South end has more U-type & JP. Second age estimate on the WP drawn from adjacent stand 36.



Stand	Cover Type	Acres	Managed Site	General Comments:
7	6224 - Treed Bog	12.1	No	Leatherleaf & sphagnum groundcover with bog birch and colonizing tamarack, spruce & pine. Patches of solid tag alder over marsh on the margins. South fingers were within a larger area final harvested in 1990 (#008-89), cutting stems 2"+ DBH.
17	6230 - Cattail	3.1	No	Cattail meadow with scattered balsam poplar and balsam fir, and snags (cedar and black ash).
21	6224 - Treed Bog	4.1	No	Leatherleaf bog with colonizing pine & spruce. Open water at west end.
29	3303 - Mixed Low Density Trees	6.3	No	Dead and dying oak were salvaged by 2001 (#049-99-02), leaving half a dozen green-marked oak & all pine. Cherry brush with low-density tree cover: oak stump sprouts from the cut, a patch of RM saplings, and open-grown residual RP, JP & NPO. Single wild crab apple.
30	6225 - Bog	4.7	No	Leatherleaf bog with slowly colonizing pine & spruce. Rimmed with emergent sedge.
38	3301 - Low Density Deciduous Tree	3.7	No	Large Woody Debris pull site (F72-596). Entire trees were tipped over, then lifted and placed in-stream by helicopter for fish habitat improvement on the AuSable mainstream in 2009/2010.
39	6220 - Alder/willow	5.1	No	Tag alder below flood-killed cedar snags and scattered live trees.
40	623 - Emergent Wetland	2.1	No	Emergent marsh with colonizing JP, salix & leatherleaf.
41	6224 - Treed Bog	3.9	No	Leatherleaf bog with colonizing pine & spruce.
42	6233 - Wet Meadow	2.0	No	Marsh with sedge, grass & cattail, rimmed with tag alder.
43	6224 - Treed Bog	3.7	No	Treed bog: flooded leatherleaf & sphagnum groundcover with colonizing pine, spruce & tamarack.
44	62259 - Bog (OI)	8.7	No	Leatherleaf bog with colonizing pine & spruce.
46	6220 - Alder/willow	2.3	No	Tag alder with scattered spindly Q.
47	500 - Water	3.8	No	AuSable mainstream, a designated Natural River.
49	6220 - Alder/willow	1.8	No	Tag alder over marsh grass with scattered QA & balsam poplar. Narrow (1-3' wide) stream runs through it. Tag alder top-dying interior.
50	122 - Road/Parking Lot	7.1	No	Connors Flat Road. Buried cable in south ditch.





Stand	Cover Type	Acres	Managed Site	General Comments:
51	6220 - Alder/willow	29.0	No	Tag alder & willow established following drawdown of the flooding that had killed several acres of NWC.
52	3303 - Mixed Low Density Trees	1.6	No	White Pine State Forest Campground. Canoe-in camper access only. Stand encompasses the mowed & maintained portion of the campground, with scattered trees and shrubs, including a row of planted WS.
60	6225 - Bog	9.8	No	Leatherleaf bog with minor amount of colonizing pine & spruce, and a sub-acre inclusion of lowland conifer on the east end.
61	622 - Lowland Shrub	1.3	No	Likely tag alder with marsh. Walked through when locating survey corners but can't remember the cover type specifics.
63	6220 - Alder/willow	2.4	No	Tag alder bog being filled in from edges with swamp conifers.
65	500 - Water	0.7	No	AuSable mainstream, a designated Natural River.
66	6220 - Alder/willow	2.1	No	Tag alder and willow with encroaching aspen, WP and swamp conifers.
67	500 - Water	3.0	No	AuSable mainstream, a designated Natural River.
68	6220 - Alder/willow	6.9	No	Tag alder bordering beaver meadow and narrow drain. North four acres has flood-killed cedar snags above the tag alder.
71	6233 - Wet Meadow	5.1	No	Beaver meadow, small area of water ponded against the largest breached dam.
72	622 - Lowland Shrub	1.0	No	Lowland shrub with marsh on the AuSable River floodplain.
128	3303 - Mixed Low Density Trees	10.8	No	Was final harvested in 2002 (#037-00), cutting merch stems. Cherry brush with low density tree cover: oak stump sprouts from the harvest, RM sapling patches, and open-grown pine.
400	3105 - Mixed Upland Herbaceous	18.1	No	Grassy opening with sweetfern & sand cherry, colonizing JP & NPO on the margins. Old comments noted: "WAS NATIONAL GUARD HELICOPTER PAD".