



Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 52127

Entry Year 2019

Acreage: 1,971

County Emmet

Management Area: Chandler Hills

Revision Date: 2017-04-21

Stand Examiner: Tricia St. Pierre

Legal Description:

Emmet County

T34N R04W Sections 29: W1/2, S1/2NE, NENE; 30: E1/2, NW, N1/2N1/2SW; 31: all except NWNW; 32: NW, N1/2SW, W1/2SE, SWNE.

T34N R05W Section 25: E1/2NE

Identified Planning Goals:

To provide for the protection, integrated management, and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan and its residents. There also exist targets for establishing and maintaining red pine across the landscape within this Management Area and compartment, in particular.

Soil and topography:

Topography in this compartment is especially hilly, in some cases steep and rugged, predominately AFO/AFOCa type. The southeast portion of the compartment is generally flat, a depression off the moraines, supporting water courses and lowland habitat. These fluvial-associated types have very small inclusions or perimeters of PARVVb/AFO, PARVHa, and PARVCo habitat types. The vast majority of the hilly moraines are dominated by Leelanau Loamy Sands: well drained with low erosion risk, and to a lesser extent, Blue Lake Loamy Sand and Kalkaska Sand along carved out channels, draining towards deposits of Tawas Muck, Greenwood Peat, and Rubicon Sand. These peat and muck dominated soils support a fairly diverse composition of lowland vegetation while the moraines support decent hardwood, aspen, and pine.

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

The perimeter of this compartment is highly variable, with many corners and property lines abutting private parcels. The interior core of the compartment is whole and entire. Urban sprawl is becoming very apparent in the area with further parcelization and rural development, converting agriculture to pastures and yards, and contiguous forests into private woodlots. Land use is transitioning more to rural housing, though there are many intact state-owned tracts of land preserving the continuity of forestland and wildlife habitat.

Unique Natural Features:

There are two known occurrences for species of concern. While there are two confirmed occurrences, the potential exists for others in and around the area. General surveys should be conducted during proposed and active management activity, if only to confirm that there are no MNFI concerns present.

Archeological, Historical, and Cultural Features:

There are two archaeological hits within and surrounding this compartment. It will need to be confirmed that management activities will not disturb these sites.

Special Management Designations or Considerations:

The Red Pine Project has set objectives for maintaining red pine across the Management Area and this compartment, in particular. These guidelines should be adhered to wherever reasonable to do so.

Emerald Ash Borer and Beech Bark Disease have greatly affected the health of ash and beech, respectively. As BBD continues to stress and kill beech, management should be careful not to promote dense beech regeneration, as is occurring in some areas with higher stocking of beech in the canopy.

Portions of this compartment contain a significant red oak component. All management activity, regardless of management objective, should be cognizant of the potential for oak and, therefore too, oak wilt.

Examiners should be alert to the potential for Heterobasidion Root Disease in red pine.

Watershed and Fisheries Considerations:

Emmet County

T34N, R04W, Sec. 29-33

Some of this compartment is in Central Lake Michigan Management Unit. The portion within the Northern Lake Huron

Management Unit includes the headwaters of Minnehaha Creek, a designated trout stream with Type 1 trout stream regulations. No management actions are prescribed for the riparian zone of this stream, so Fisheries has no comments.

Wildlife Habitat Considerations:

This compartment is primarily northern hardwoods with more aspen and pine in the south. Areas with aspen should be maintained for diversity and benefits to wildlife. Featured species include wild turkey, deer, and ruffed grouse.

Mineral Resource and Development Concerns and/or Restrictions

Sections 19 & 29-32, T34N R4W and Section 25, T34N R5W, Emmet County

This area has been leased for oil and gas exploration in the recent past as part of the Collingwood lease play. While the Collingwood has produced some hydrocarbons elsewhere, the formation has not proven to be an economically viable resource play to date. Therefore, oil and gas potential within the compartment is considered low at this time. Metallic and bedrock non-metallic mineral potential is considered minimal. No active sand/gravel pits are located in the area, but sand and gravel potential within the compartment appears to be good.

Vehicle Access:

Vehicle access is somewhat limited throughout this compartment, especially seasonally. The hilly terrain limits road infrastructure, except in the flat southeast where the ground is too wet for any sort of intrusive activity. While there are roads and the occasional two-track through the interior hills, these are largely unimproved and utilized for forest management activities. With the exception of the exterior roads, the roads through this compartment are seasonal and are generally also designated snowmobile trail.

Survey Needs:

There are a few questionable property boundaries where it appears that the adjacent landowner might be in trespass. While there are no existing survey needs for forest management activities, it might serve the State and the private landowners well to establish certain property corners.

Recreational Facilities and Opportunities:

This compartment is widely used for motorized recreational activities. There are many ORV, ATV, and snowmobile trails that meander throughout this compartment. The North Country Trail also runs the width of the compartment. Otherwise, it appears to be a rather popular area for hunters and trappers. I would also suppose that mushroom hunting is a popular activity in the spring.

Snowmobile Trails 760, 761, and 765 run through portions of this compartment, as well as the Tomahawk Motorcycle Trail B Loop and the North Country Trail.

Fire Protection:

There are very few volatile fuel types, with the exception of red pine and grass stands. Although dominated by hardwood, fire would be difficult to access and contain considering the terrain and limited roads. Minnehaha Creek is the nearest water source, in the northeast. While narrow and shallow, there should be enough room to get a pump under water.

Additional Compartment Information:

The following reports from the Inventory are attached:

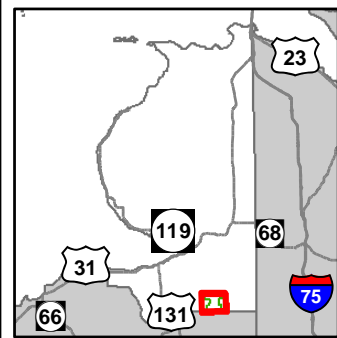
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

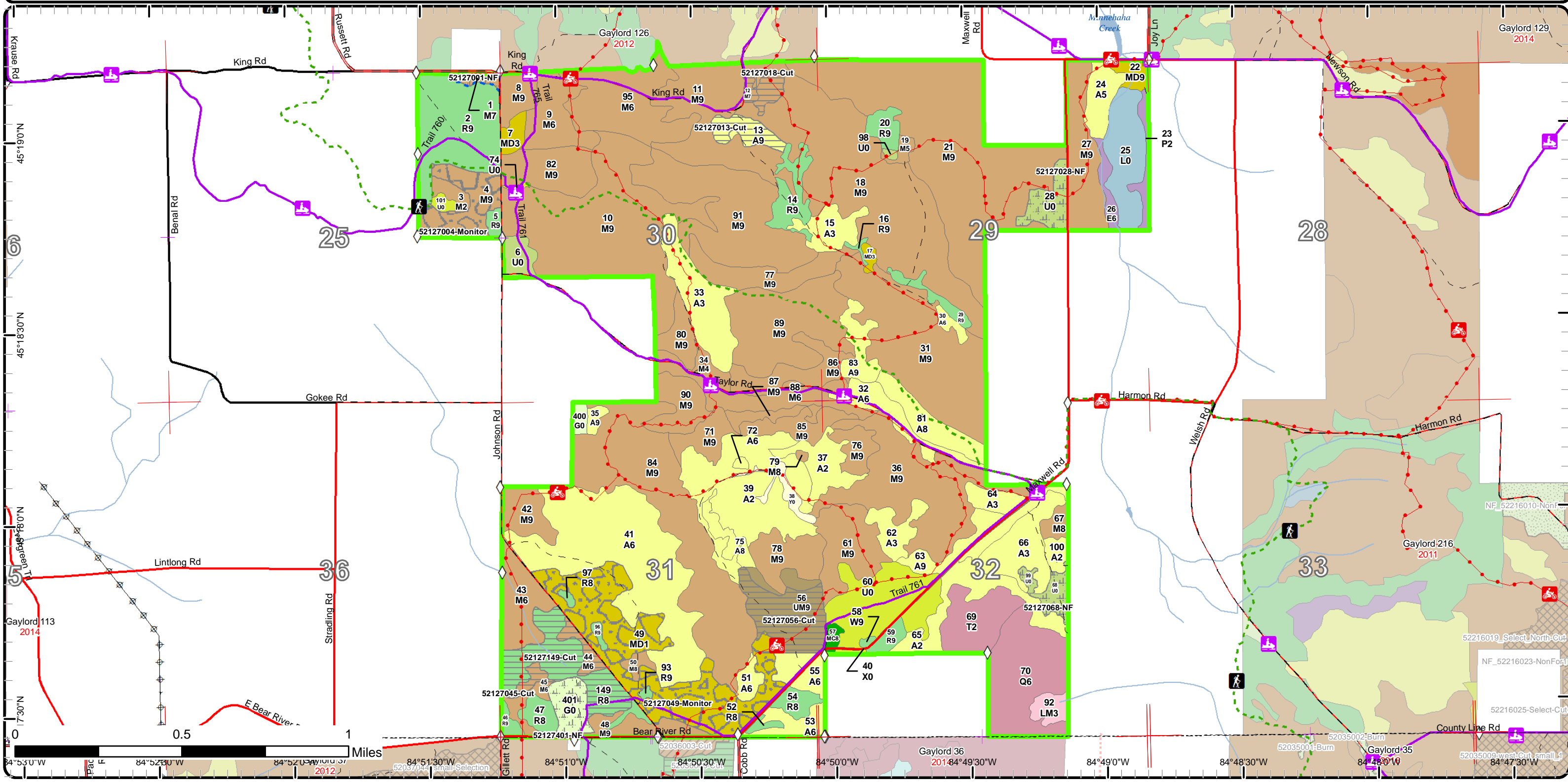
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 127
 T34N, R04W, Sec. 29-32
 County: Emmet
 Unit: Gaylord
 Mgmt Area: Chandler Hills
 YOE: 2019
 Acres: 1970.6 GIS Calculated
 Examiner: Tricia St. Pierre
 Map Revised: 9/13/2017
 Map Phase: Post-Review



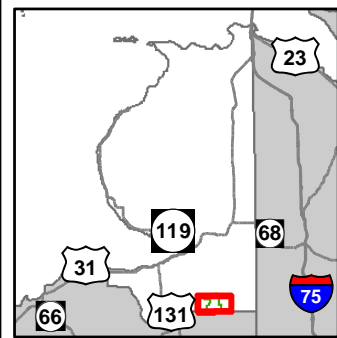
- Miris Corners
- + Remonumented Section Corners
- Field Grade GPS Corners
- Counties
- Motorcycle Trails (DNR License)
- Hiking Trails
- Snowmobile Trails
- - - Designated Hiking Trails
- - - ORV License & Trail Permit
- - - Designated Snowmobile Trails
- County Paved Roads
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- County Gravel Roads
- - - County Poor Dirt Roads
- - - Poor Dirt Roads
- - - Closed
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- Regeneration Survey
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 710 - Sand/Soil
- Lakes



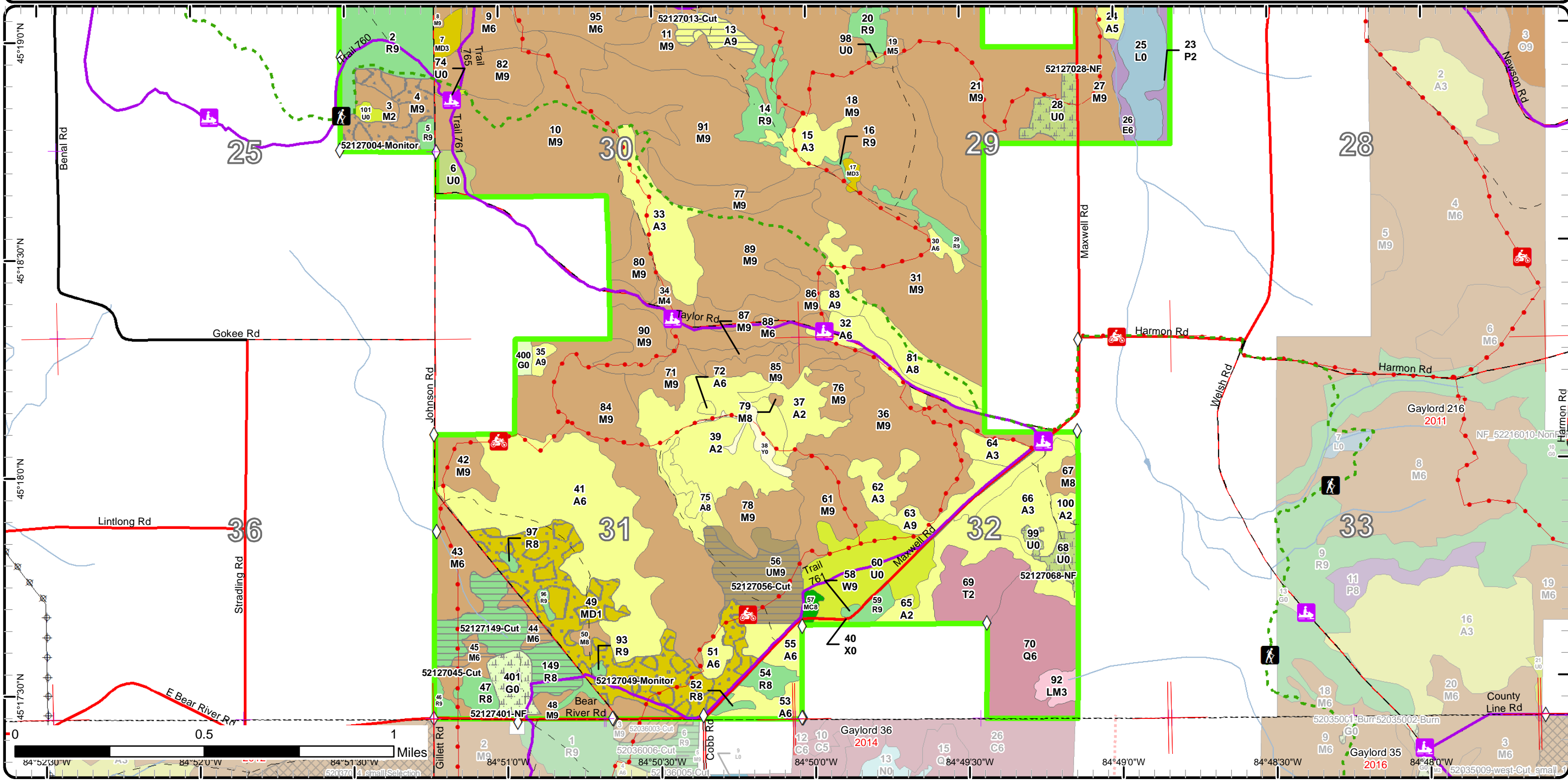
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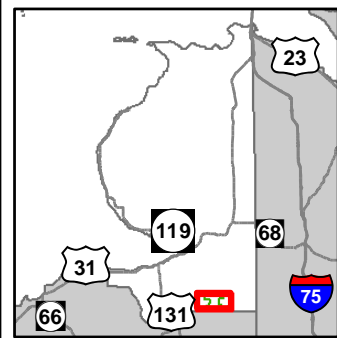


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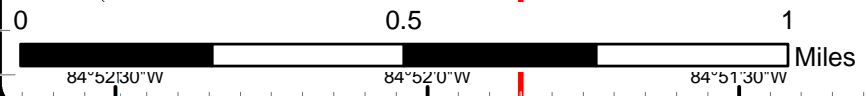
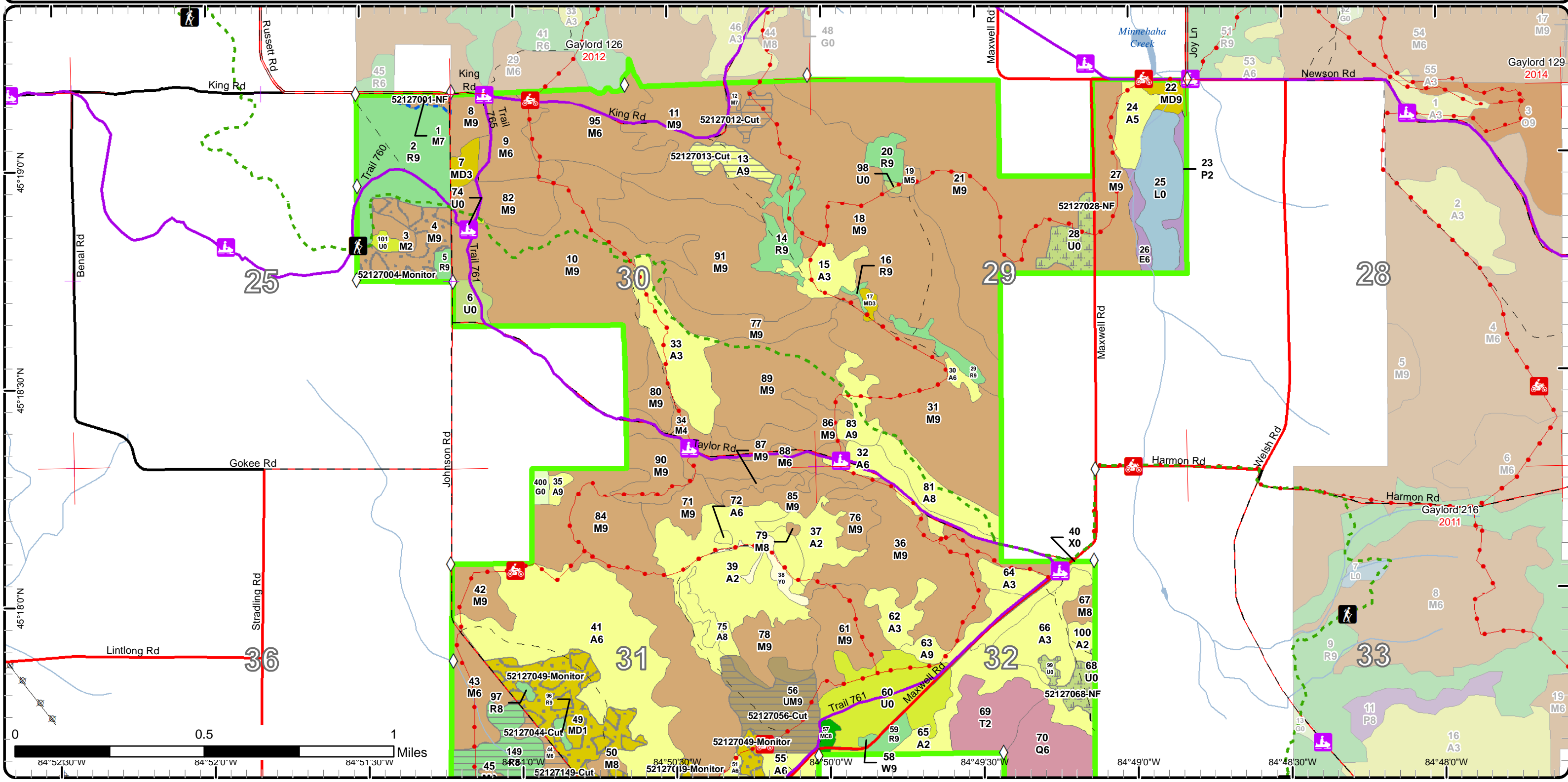


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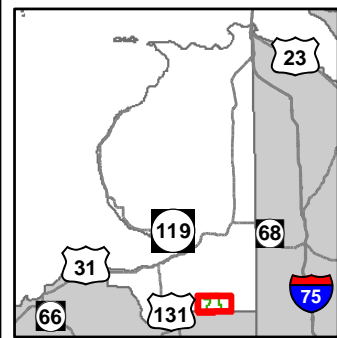


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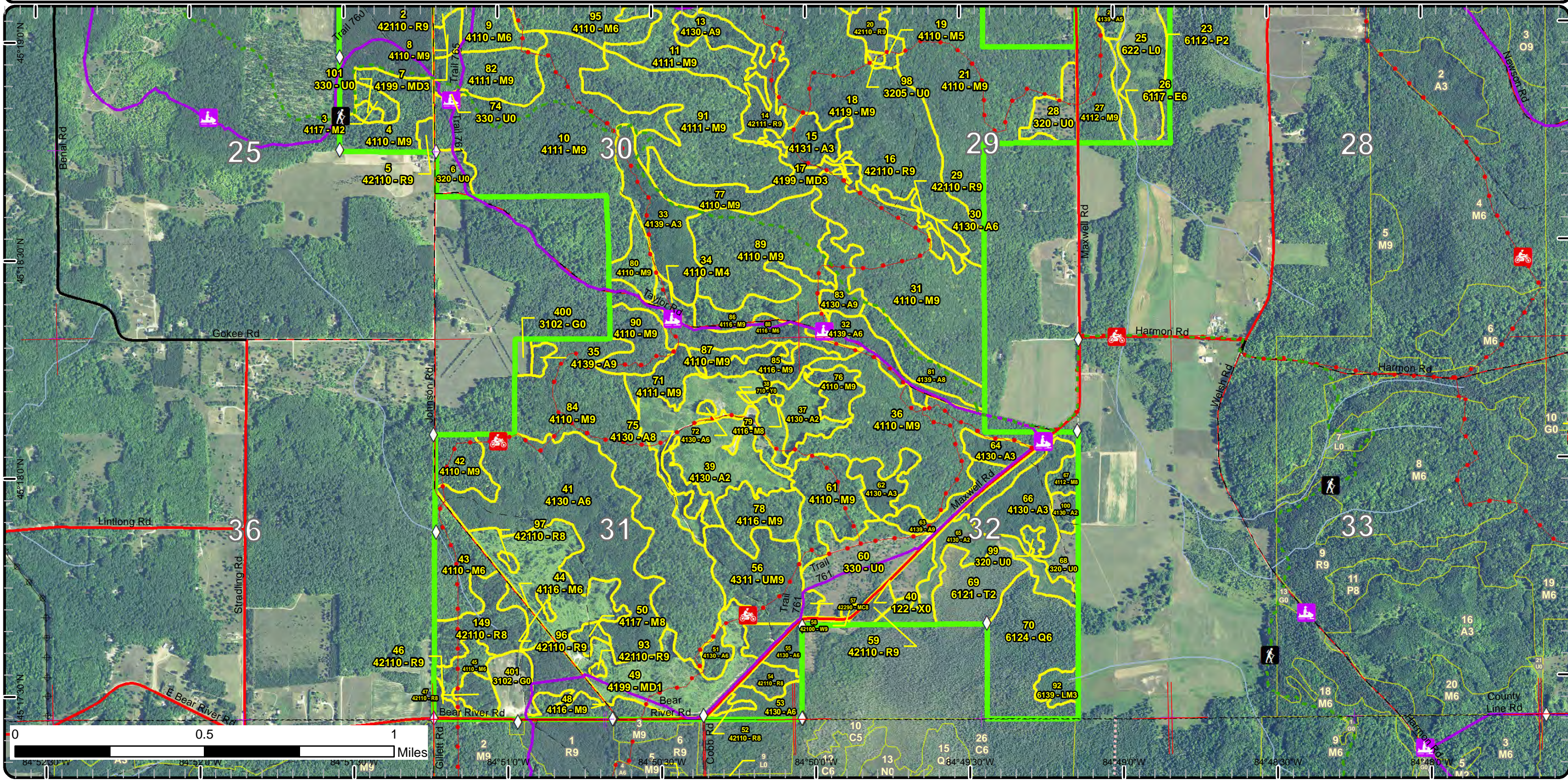


Stand Boundary Map

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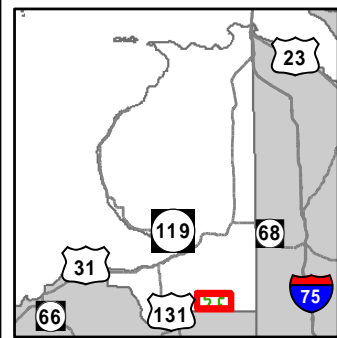


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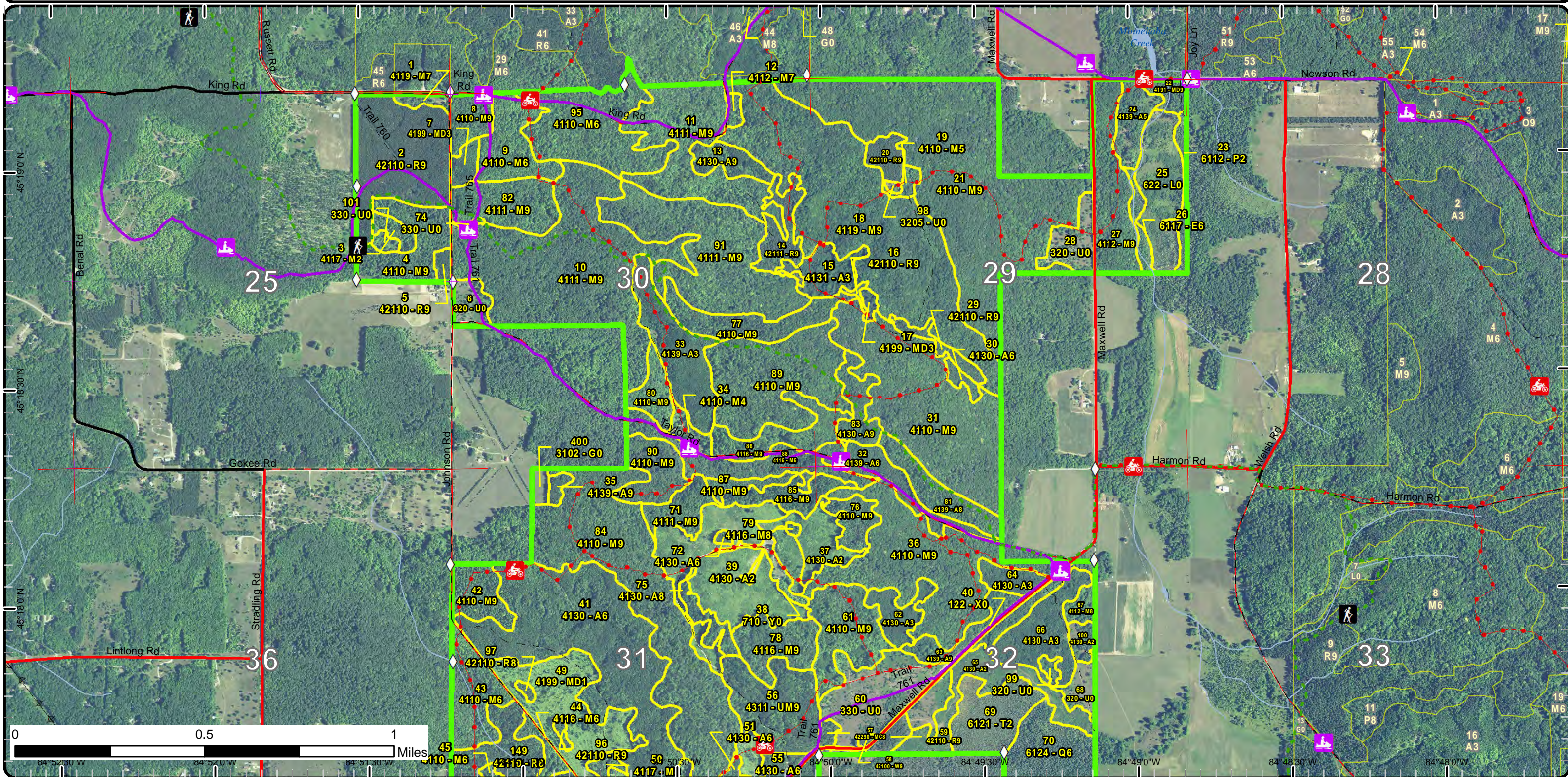


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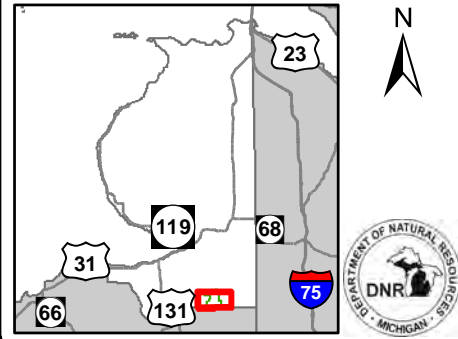


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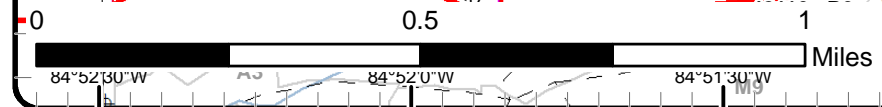
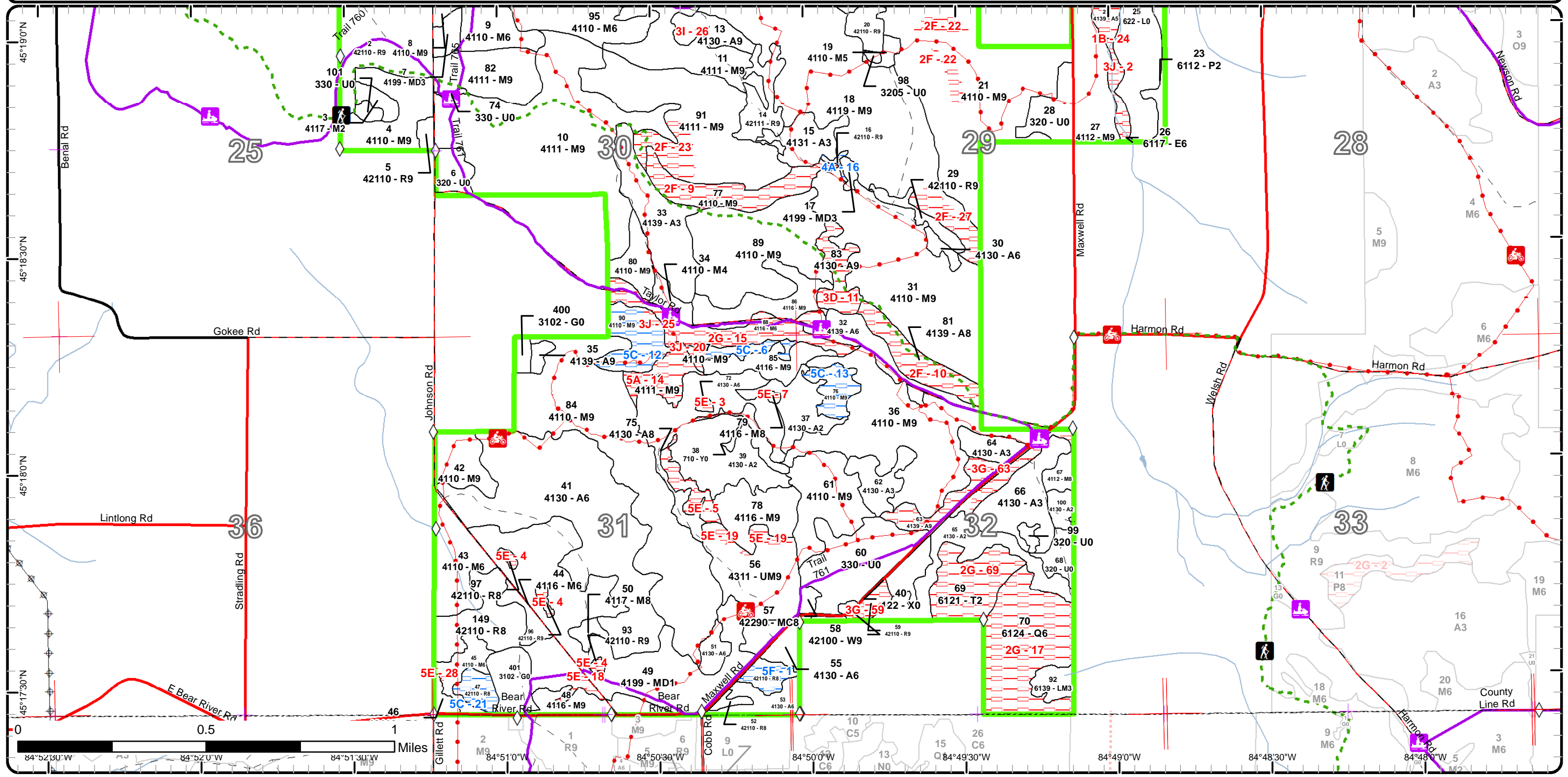


Special Conservation Areas & Site Conditions Map

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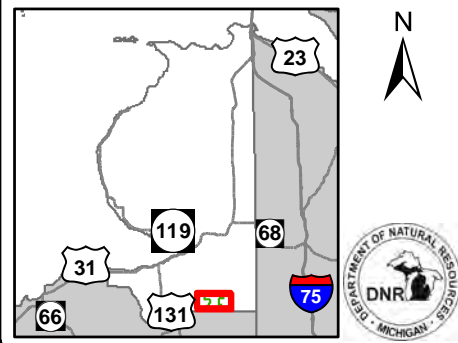


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- Available w/ Constraints
- Unavailable
- 4A: No Markets Available for these Forest Products
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1B: Non-DNR agency concerns (e.g. USFS)
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 3D: Recreational / Scenic values
- 3G: Other Influence zones - See comments
- 3I: Historical / archeological (add locked comments)
- 3J: Water quality / BMPs (stream, river, or lake)
- 5A: Not able to obtain desirable regeneration
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams

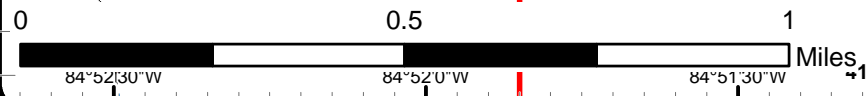
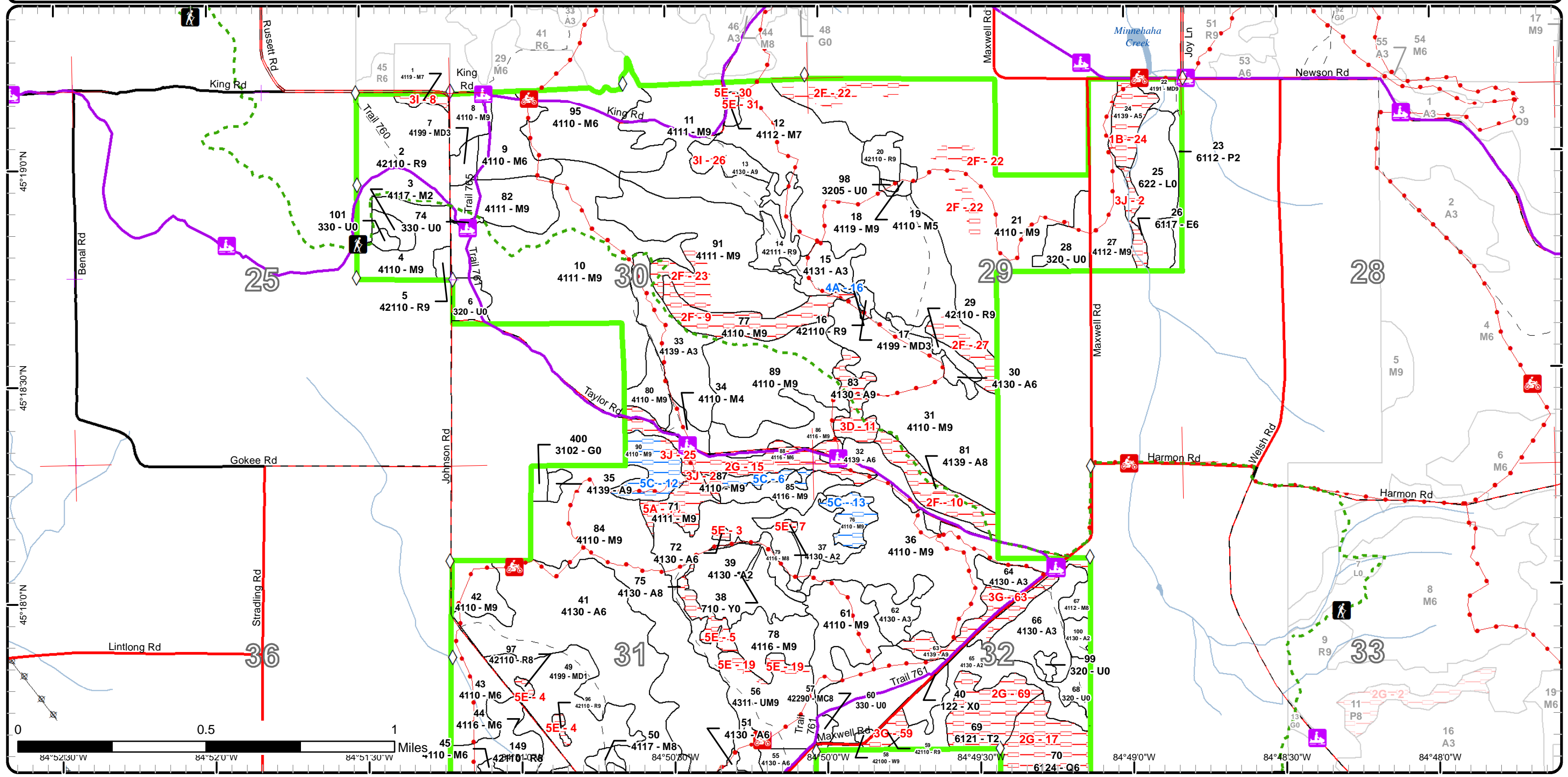


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Age Class

	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	95	82	16	118	0	11	0	1	45	15	0	0	0	0	0	0	0	382
Herbaceous Openland	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Low-Density Trees	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Lowland Aspen/Balsam Poplar	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Conifers	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	45
Lowland Deciduous	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
Lowland Mixed Forest	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Shrub	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Mixed Upland Deciduous	0	77	2	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	88
Natural Mixed Pines	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Northern Hardwood	0	0	4	0	0	8	20	41	99	448	385	9	0	0	0	0	0	122	1135
Red Pine	0	0	0	0	0	0	73	0	0	52	4	0	0	0	0	0	0	0	127
Sand, Soil	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Tamarack	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	22
Upland Mixed Forest	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	30
Upland Shrub	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
White Pine	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	118	172	88	21	130	10	104	46	197	550	405	9	0	0	0	0	0	122	1967



Report 2 – Treatment Summary

Gaylord Mgt. Unit

Year of Entry: 2019

Acres of Harvest

Compartment 127

Total Compartment Acres: 1,971

Commercial Harvest - 79
 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	9	0	0	0	0	0	0	0	0	9
Northern Hardwood	15	0	0	0	0	0	0	0	0	15
Red Pine	30	0	0	0	0	0	0	0	0	30
Upland Mixed Forest	26	0	0	0	0	0	0	0	0	26
Total	79	0	0	0	0	0	0	0	0	79

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	79	0	0	0	0	99	0	34		212
Next Step	0	128	128	0	0	128	143	0	0	527
Total	79	128	128	0	0	128	242	0	34	739



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	52127001-NF	3.0	4119 - Mixed Northern Hardwoods	Sawtimber Poor	59	1-50	NonForestMgt	Pruning	330 - Low-Density Trees		Draft Field Boundary

Habitat Cut: No **Site Condition: Historical/Archaeological**

Prescription Planting of hard and soft mast. Pruning of soft mast shrubs.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

4	52127004-Monitor	21.5	4110 - Sugar Maple Association	Sawtimber Well	81	51-80	Monitoring	Natural Regen (Intermediate)	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription Intermediate regeneration check for adequate hardwood.

Specs:

Next Step

Treatments:

Acceptable Acceptable regen will meet minimum stocking for northern hardwoods.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2020

12	52127012-Cut	1.8	4112 - Maple, Beech, Cherry Association	Sawtimber Poor	86	1-50	Harvest	Clearcut with Retention	411 - Northern Hardwood	Two-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription Clearcut all trees to 2" dbh, except do not cut any oak or any XL trees except those needed for equipment maneuverability. This stand will be used as a landing for the adjacent clearcuts. Require oak wilt spec in contract. Retention has been identified in the northeast in conjunction with retention from the adjacent clearcut. Sign and protect Snowmobile Trail 765 during harvesting activities. Do not cut any trees with trail markers. Harvest in snow-off conditions to minimize conflict with snowmobile trail.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Acceptable regeneration will meet minimum stocking requirements for mixed hardwood. Any inclusion of aspen will be acceptable.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

13	52127013-Cut	8.6	4130 - Aspen	Sawtimber Well	84	141-170	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription Clearcut all trees to 2" dbh, except do not cut any oak, yellow birch, or XL sugar maple. Mark to leave any obvious cavity/wildlife trees. Use oak wilt spec in contract. Retention will be acreage left around known archaeological site, requiring a 50' minimum buffer. Sign and protect Snowmobile Trail 765 during harvesting activities. Do not cut any trees with trail markers. Harvest in snow-off conditions to minimize conflict with snowmobile trail.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Acceptable regeneration will meet minimum stocking requirements for aspen. The addition of mixed hardwood will be acceptable in any density.

Regen:

Other

Comment: Access is difficult. It might make more sense to forward to stand 12 though stand 18. There is a concentration of aspen in stand 18 near stand 12 that could be clearcut also. Stand 12 will become a landing.

Proposed Start Date: 10/01/2018



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
18	52127018-Cut	4.7	4119 - Mixed Northern Hardwoods	Sawtimber Well	86	81-110	Harvest	Clearcut with Retention	4116 - Mixed N. Hardwood - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clearcut all trees 2" dbh and greater. Do not cut any yellow birch, oak, or XL sugar maple. Require oak wilt spec in contract. Retention has been identified in the northwest, intended to protect oak. Identify and mark a skid trail between this clearcut and the clearcut to the south. Stand 12 will serve as a landing. Mark to leave any obvious den/wildlife trees. Sign and protect the Tomahawk Motorcycle Trail B Loop during harvesting activities. Consider a re-route and work with the Rec Specialist prior to harvesting operations. Do not cut any trees with trail markers unless the trail is to be permanently re-routed. Harvest in snow-off conditions to minimize conflict with snowmobile trail.

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

Acceptable Acceptable regeneration will meet minimum stocking requirements for aspen and mixed hardwood.
Regen:

Other
Comment:

Proposed Start Date: 10/01/2018

28	52127028-NF	11.1	320 - Upland Shrub	Nonstocked	Unspec ified	NonForestMgt	Other - Specify		310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Mow, plant, burn, brush, prune, or herbicide to maintain openings. Plant hard and soft mast
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/01/2018

44	52127044-Cut	4.8	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	45	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut all trees, regardless of merchantability. Combine with red pine harvest to west. Require 6" stump height. Require oak wilt spec. No retention due to small stand size and objectives. Sign and protect Snowmobile Trail 761, as affected by sale. Do not cut any trees or posts with trail markers.

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

Acceptable Acceptable stocking will meet guidelines for planted red pine.
Regen:

Other Regeneration aspen clones may be free to grow following harvest; exempt from site prep and planting operations.
Comment:

Proposed Start Date: 10/01/2018

45	52127045-Cut	3.5	4110 - Sugar Maple Association	Poletimber Well	86	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut all species, regardless of merchantability. Require oak wilt spec in contract. Require 6" stump height. Sign and protect Tomahawk Motorcycle Trail B Loop, as affected by harvest. Long-term retention has been identified just outside of the treatment area and can be adjusted as necessary.

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

Acceptable Acceptable regeneration will meet stocking requirements for planted red pine.
Regen:

Other
Comment:

Proposed Start Date: 10/01/2018



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
49	52127049-Monitor	77.4	4199 - Other Mixed Upland Deciduous	Sapling Poor	3	Immature	Monitoring	Natural Regen (Intermediate)	411 - Northern Hardwood	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription MO of M-type. Intermediate monitor for successful regeneration of desirable species.

Specs:

Next Step

Treatments:

Acceptable Acceptable regeneration will meet minimum stocking for northern hardwood.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2020

56	52127056-Cut	25.6	4311 - Pine, Aspen Mix	Sawtimber Well	78	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut all trees, regardless of merchantability. Require 6" stump height. Require oak wilt spec. Sign and protect Snowmobile Trail 761 and the Tomahawk Motorcycle Trail B Loop, as affected by harvest. Consider a re-route of the Motorcycle trail and discuss with Rec specialist prior to harvesting activities. Do not cut any trees marked with trail markers unless the trail is to be permanently re-routed. Retention will be hilly portions of stand in the north.

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

Treatments: Pesticide, Skidder/Mechanical; Monitoring, Artificial Regen(3yr); Planting, Interplant

Acceptable Acceptable regeneration will meet stocking requirements for planted red pine.

Regen:

Other Regenerating aspen clones may be free to grow following harvest; exempt from site prep and planting operations.

Comment:

Proposed Start Date: 10/01/2018

68	52127068-NF	6.4	320 - Upland Shrub Nonstocked	Unspecified		NonForestMgt	Other - Specify		310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Mow, plant, burn, brush, prune, or herbicide to maintain openings. Plant hard and soft mast.

Specs: Protect Carpinus caroliniana during any maintenance operations.

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

99	52127099-NF	1.7	320 - Upland Shrub Nonstocked	Unspecified	0	NonForestMgt	Other - Specify		310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Mow, plant, burn, brush, prune, or herbicide to maintain openings. Plant hard and soft mast

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018



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
149	52127149-Cut	30.1	42110 - Planted Red Pine	Sawtimber Medium	80	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clearcut all species, regardless of merchantability. Require oak wilt spec in contract. Require 6" stump height. Remove all slash. Sign and protect Snowmobile Trail 761 and the Tomahawk Motorcycle Trail B Loop, as affected by harvest. Long term retention is intended to be placed in the southernmost portion of the stand and adjacent to the snowmobile trail, as indicated.
Specs: Consult Land Use Specialist regarding sale design and old gravel pit use.

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

Acceptable Regen: Acceptable regeneration will meet stocking requirements for planted red pine.

Other Comment: Aspen clones may be free to grow, exempt from site prep and red pine planting.

Proposed Start Date: 10/01/2018

401	52127401-NF	11.3	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast. Pruning of soft mast shrubs.
Specs:

Next Step
Treatments:

Acceptable Regen:

Other Comment:

Proposed Start Date: 10/01/2018

Total Treatment Acreage Proposed: 211.5

Report 4 – Site Conditions

Gaylord Mgt. Unit

Compartment: 127

Tricia St. Pierre : Examiner

Year of Entry: 2019

Availability for Management

Total Acres	Acres Available	Acres Avail With Condition		Acres Not Available	Dominant Site Conditions												
					4A	5C	5F	1B	2F	2G	3D	3G	3I	3J	5A	5E	
383	323	0	61		Aspen				11	15		11	15	0			8
14	14	0	0		Herbaceous Openland												
40	40	0	0		Low-Density Trees												
6	6	0	0		Lowland Aspen/Balsam Poplar												
45	0	0	45		Lowland Conifers						45						
5	0	0	5		Lowland Deciduous										5		
6	6	0	0		Lowland Mixed Forest												
25	25	0	0		Lowland Shrub												
89	89	0	0		Mixed Upland Deciduous												
2	2	0	0		Natural Mixed Pines												
1135	1013	27	95		Northern Hardwood		27			55	23			3	2	10	2
127	106	12	9		Red Pine	1	6	6					4				5
5	5	0	0		Sand, Soil												
22	0	0	22		Tamarack						22						
30	26	0	5		Upland Mixed Forest												5
27	27	0	0		Upland Shrub												
7	5	0	2		Urban			0					2				
1	1	0	0		White Pine												
1,971	1,688	39	243		Total Forested Acres	1	33	6	11	71	90	11	21	3	7	10	19
	86%	2%	12%		Relative Percent												

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5F: Evaluated for Forest Health Considerations	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
Red Pine stand with balsam understory. No reason to harvest this stand now.							

Report 4 – Site Conditions

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Tricia St. Pierre : Examiner

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2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
Comments: Adjacent to Minnehaha Creek.							
3	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention from clearcut plantation. Clearcut (stand 49) is being converted to hardwood/aspen.							
5	Unavailable	5E: Long-Term Retention	7	2F: Too steep	Unspecified	Unspecified	Unspecified
Comments: Hillside was unharvested - too steep; considered long-term retention.							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Basal area is still a little low, averaging just above 110. Areas with 130.							
7	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	3I: Historical / archeological (add locked comments)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Needs verification.							

Report 4 – Site Conditions

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Tricia St. Pierre : Examiner

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9	Unavailable	2F: Too steep	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2F: Too steep	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3D: Recreational / Scenic values	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Delay treatment. Loss of ash and beech and technical challenges on hillsides makes harvesting impractical at this time.							
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand will be difficult to access without coming through aspen to the west, and that would require skidding uphill. Some steep slopes - operational challenges. Treat stand when/if surrounding hardwood becomes available.							
14	Unavailable	5A: Not able to obtain desirable regeneration	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand should not be permanently unavailable, but reevaluate when new research becomes available for managing beech regeneration. Concern over reducing diversity through treatment (with already prolific beech regen).							

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15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Many seeps and low, wet areas; evaluate in summer to see if it can dries out. If manageable, delay treating stand until next entry, when adjacent hardwood has better basal area and can be thinned at the same time. West portion of this stand might be better thinned; east could reasonably be clearcut.							
16	Available	4A: No Markets Available for these Forest Products	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	45	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Very active water table. Sensitive soils and good potential for rare plants.							
18	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Seep in hillside							

Report 4 – Site Conditions

Gaylord Mgt. Unit

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Compartment: 127

Year of Entry: 2019

21	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Unavailable	2F: Too steep	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Unavailable	2F: Too steep	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Unavailable	1B: Non-DNR agency concerns (e.g. USFS)	11	3G: Other Influence zones - See comments	Unspecified	Unspecified	Unspecified
Comments:							
25	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Seep in hillside							
26	Unavailable	3I: Historical / archeological (add locked comments)	0	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments:							
27	Unavailable	2F: Too steep	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

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28	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
30	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Intended as long-term retention for stand 12.							
31	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long-term retention for clearcut portion of stand 18 (will become new stand after treatment).							
59	Unavailable	3G: Other Influence zones - See comments	4	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							
63	Unavailable	3G: Other Influence zones - See comments	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
69	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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



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.

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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4119 - Mixed Northern Hardwoods	Sawtimber Poor	3.0	59	1-50	Old orchard. See site condition notes. Far east and far west are open, non-forested inclusions with scarce sugar maple, white ash, juniper, red pine, and black cherry. OPIC - FMD: OPEN GROWN STAND OF CHERRY AND HARDWOOD THAT IS FILLING IN AN OPENING. THERE ARE ALSO SOME APPLE TREES THAT WILDLIFE DIVISION INDICATED THEY MIGHT WANT TO PRUNE.
2	42110 - Planted Red Pine	Sawtimber Well	45.7	54	111-140	Planted in 1963. Third row thinned in 1996, marked thinning in 2010 (King Red Pine, 52-141-09-01, PUs 1 (portion) and 2). Great crowns; room to grow. Nice plantation. Snowmobile trail and North Country Trail run through stand. Trace hardwood in canopy in far south.
3	4117 - Mixed N. Hardwood - Pine	Sapling Medium	4.1	17	Immature	Trace white pine, scotch pine. Log sugar maple present.
4	4110 - Sugar Maple Association	Sawtimber Well	21.5	81	51-80	Stand does not pass regen check. Canopy gaps were not readily identifiable. Either more time is needed or we need to intervene. Suggested maintaining regen treatment and surveying in snow- off conditions. Few uncut trees on steeper slopes, hilltops. The northeast portion of this stand is by far superior quality compared to the rest. Trace balsam fir. More red maple, hemlock in southwest. Beech bark disease.
5	42110 - Planted Red Pine	Sawtimber Well	2.3	54	111-140	Trees are not quite to the 12" class yet. Some are, but largely in the 10" class. Stand was planted in 1963, third row thinned in 1996, and marked in 2010 (King Red Pine, 52-141-09-01, portion of PU 1). Good quality pine with dense beech regeneration underneath.
7	4199 - Other Mixed Upland Deciduous	Sapling Well	4.5	27	Immature	Clearcut in 1990. Trace balsam fir and yellow birch (saw one of each). Aspen is overtopping hardwood where present. Hardwood is pretty dense, still small diameters.
8	4110 - Sugar Maple Association	Sawtimber Well	9.4	104	81-110	Stand was thinned in 1990. Trace red maple, hemlock, yellow birch, balsam fir. Large diameter trees, especially in the south. White ash is affected by EAB, dead and dying. BBD is very advanced with not a lot of mortality, but prolific scale. Dense beech understory. More white ash in the south; pocket of dense basswood in the northeast. Few white ash, sap, 5-10', regenerating along snowmobile trail (north) - likely due to sunlight and disturbed soil.
9	4110 - Sugar Maple Association	Poletimber Well	20.3	77	51-80	Rather low quality hardwood stand. Trace quaking aspen scattered. Trace yellow birch and paper birch. Most of the white ash is dead standing. EAB and BBD present.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	4111 - S.Maple, Hard Mast Association	Sawtimber Well	99.3	70	81-110	<p>Pockets of sapling in canopy gaps in south, dominated by beech; few ironwood and white ash mixed in. Small gap cuts with skid trails marked between them.</p> <p>Interesting mix of diameters. Pockets of pole timber, pockets of log, regen gaps with sap. Trace elm, paper birch. Band in south of red maple, yellow birch, sugar maple, beech mix. Trace hemlock in s/sw. 1.1 ac aspen inclusion (63 yr old) in northwest. OPIC - FMD: THE PORTION OF THE STAND NORTH OF THE PRIVATE PARCEL WAS THINNED IN 1990. THE PORTION EAST OF THE PRIVATE PARCEL WAS ILLEGALLY THINNED IN 2005 BY THE ADJACENT LANDOWNER. THIS IS NOT BAD HARDWOOD BUT THERE ARE NOT MANY LOGS YET. IT OCCUPIES FAIRLY FLAT GROUND THAT IS EASILY OPERABLE. ***IF STEEP TERRAIN IS ENCOUNTERED NEXT TIME THIS STAND IS THINNED, AVOID MARKING ANY AREAS OF EXCESSIVELY STEEP SLOPES***</p>
11	4111 - S.Maple, Hard Mast Association	Sawtimber Well	45.5	80	81-110	<p>Trace amounts of paper birch and quaking aspen in the canopy. Trace sapling hemlock in subcanopy. Multi-stemmed hardwood, especially basswood, sugar maple, and red maple. Trace red pine, white pine in the northwest. Trace XL beech, sugar maple, and basswood. Red oak in far southeast. Areas with heavy porcupine damage. Lower quality hardwood; decent red pine where present. OPIC - FMD: STAND HAS NOT BEEN THINNED RECENTLY. IT IS OF LOW GENERAL QUALITY. LOTS OF CLUMPY BASSWOOD AS WELL AS A SIGNIFICANT BEECH COMPONENT. SOME SLOPES WOULD POSE A CHALLENGE AND POSSIBLY LIMIT LOGGING OPORTUNITIES.</p>
12	4112 - Maple, Beech, Cherry Association	Sawtimber Poor	2.3	86	1-50	Log, XL maple, filling in with saps.
13	4130 - Aspen	Sawtimber Well	8.9	84	141-170	<p>Scattered XL sugar maple. Scattered nests, likely squirrel. Porcupine presence. Occasional pole ironwood. BAs range 90-190.</p> <p>OPIC - FMD: NICE SMALL STAND OF MATURE ASPEN/HARDWOOD MIX. SHOULD REGENERATE QUITE WELL TO A MIXTURE OF ASPEN AND HARDWOOD REGENERATION IF CUT.</p>
14	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	12.2	57	111-140	<p>Trace beech in canopy. Hardwood is mostly multi-stemmed. Sparse red pin saps, <1'. RM, SM, WA, IW regenerating under QA pocket.</p> <p>Lower stocking in southeast. Larger diameters as you progress south. One pocket of mortality/blowdown. BAs range 70-190, average 141 RP, 12 deciduous.</p> <p>OPIC - FMD: THIS STAND HAS NEVER BEEN THINNED. LOTS OF HARDWOODS ARE INTERMIXED BUT SOME PORTIONS ARE VERY HEAVILY STOCKED PINE. DUE TO THE AMOUNT OF HARDWOODS IN THE STAND, A ROW THINNING MIGHT NOT BE PRACTICAL. MAY NEED TO SELECTIVELY MARK. DO NOT SPECIFICALLY TARGET THE HARDWOODS FOR REMOVAL BUT ELIMINATE AS NEEDED TO IMPROVE OPERABILITY.</p>
15	4131 - Aspen, Oak	Sapling Well	11.7	17	Immature	<p>Trace yellow birch, paper birch in canopy. Residual red oak. Barely any aspen making pole grade.</p> <p>OPIC - FMD: STAND WAS CUT BACK IN 2000. VERY HEAVY AMOUNT OF BLACKBERRY AND RASPBERRY. SOME PORTIONS OF THE STAND ARE ACTUALLY HEAVIER TO HARDWOOD INSTEAD OF ASPEN.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	42110 - Planted Red Pine	Sawtimber Well	0.9	57	141-170	Trace paper birch, aspen. Most hardwood is on the perimeter of this stand.
17	4199 - Other Mixed Upland Deciduous	Sapling Well	1.8	17	Immature	Residual RO. Snow damage. Awesome oak regeneration under fallen top. More aspen in north, more sugar maple in south. Trace RP seedlings. Heavily browsed, but good oak regeneration. Look at sale history - timeline.
18	4119 - Mixed Northern Hardwoods	Sawtimber Well	119.2	86	81-110	Advanced EAB and BBD. Oak wilt would be devastating to this stand. Trace paper birch, black cherry. One very sad balsam fir. Oak is consistent throughout, though some areas are dominated by sm/bw/ab with few XL RO. Far north/northwest, around stand 12, is dominated by beech and bigtooth aspen. Few red oak, maple scattered. Trace quaking aspen. Anomaly too small (approx. 1ac) to delineate. OPIC - FMD: MODERATE QUALITY STAND OF HARDWOOD THAT OCCUPIES STEEP SLOPES. LOGGING CHANCES WOULD BE SEVERELY RESTRICTED DUE TO TOPOGRAPHY. THIS STAND IS UNIQUE DUE TO THE OAK COMPONENT. MANY NICE QUALITY LOG SIZED OAK ARE PRESENT.
19	4110 - Sugar Maple Association	Poletimber Medium	2.5	45	1-50	Big sapling component to stand. Decided to split stand into forested and non-forested.
20	42110 - Planted Red Pine	Sawtimber Well	6.2	57	111-140	Red pine saps in skid trail along south edge. Trace black cherry in canopy.
21	4110 - Sugar Maple Association	Sawtimber Well	134.9	86	81-110	EAB has almost totally killed the ash in this stand. BBD is getting just as devastating. Some multi-stemmed sugar maple, beech, basswood. Oak is present in the south and east only. Trace yellow birch, elm, black cherry, quaking aspen. One paper birch in east (6"). Trace amount of XL sugar maple, beech. Very steep slopes in the northeast - inoperable. Other rather steep slopes throughout, though most are going to be operable. Concerning mortality in a small area (<1ac) of sugar maple, sapling and pole. Unclear culprit. Very nice hardwood in the far east, flatter portion of the stand: higher basal areas (110-120), and will be a good candidate for thinning in the future. OPIC - FMD: BY FAR THE BEST HARDWOOD STAND IN THIS COMPARTMENT. STAND GENERALLY OCCUPIES STEEP EAST AND NORTH FACING SLOPES. TOPOGRAPHY WOULD MAKE OPERATIONS IN THE MAJORITY OF THIS STAND EXTREMELY DIFFICULT. THERE IS ESSENTIALLY NO ASPEN IN THIS STAND BUT THERE IS A GOOD REPRESENTATION OF WHITE ASH. BEST LOGGING CHANCE WOULD BE COMING IN FROM THE EAST THROUGH STAND #28. BY DOING THIS WE MIGHT BE ABLE TO THIN SOME OF THE LOWER SLOPES. COULD ALSO GET SOME OF THE UPPER SLOPES THAT ARE ADJACENT TO STANDS #19 AND #20 BY UTILIZING THE SKID TRAIL THAT LEADS TO THOSE STANDS.
22	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	4.9	67	81-110	Minnehaha meanders through stand. White cedar along SMZ. Species composition varies depending on soil, hydrology, exposure (i.e. road, stand edge), etc. Trace paper birch in west. Trace red oak in east. OPIC - FMD: THIS IS MOST LIKELY A SEASONALLY WET STAND THAT IS SITUATED ON BOTH SIDES OF THE MINNEHAHA. DO NOT TREAT DUE TO THE STREAM INFLUENCE.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	6112 - Lowland Aspen	Sapling Medium	5.7	31	Immature	Higher stocking, some more pole timber in south portion of stand. Better canopy closure. OPIC - FMD: STAND WAS COMMERCIALY CUT IN 1986 AND THEN WILDLIFE DIVISION DID A FOLLOW-UP RESIDUAL CUT IN 1987. THE RESULT WAS SOME NICE REGNERATION THAT IS FEEDING A LOT OF BEAVERS.
24	4139 - Aspen, Mixed Deciduous	Poletimber Medium	11.4	58	1-50	Trace hemlock, yellow birch, red pine, white pine, red oak. NFO gradually filling in. OIPC COMMENTS: SEMI-OPEN STAND WITH ASPEN CLONES INTERSPERSED WITH UPLAND BRUSH. VERY LOW QUALITY. FISHERIES DIVISION REQUESTED THAT THE STAND REMAIN UNHARVESTED DUE TO CLOSE PROXIMITY TO THE STREAM AND ENCOURAGING BEAVER DAMAGE. FISHERIES DIVISION DOES NOT WANT TO GROW YOUNG ASPEN HERE.
26	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	4.8	85	51-80	Trace paper birch, black ash. Very wet in most spots. OPIC - FMD: THIS IS MOST LIKELY A SEASONALLY WET STAND THAT IS SITUATED ON BOTH SIDES OF THE MINNEHAHA. DO NOT TREAT DUE TO THE STREAM INFLUENCE.
27	4112 - Maple, Beech, Cherry Association	Sawtimber Well	28.6	77	81-110	Lowland tendencies (increased red maple, yellow birch) in the north and south extremes, especially in the southeast corner. Couple lockets of hemlock regen in the north, also in south. Northeast tip is all red maple, black cherry in the canopy. Trace serviceberry, sugar maple understory, few yellow birch. East half is stocked with pole/saps, lesser quality. Trace ash with EAB (pole/log). Trace balsam fir in canopy (pole/log). Trace elm, paper birch. 2 red pine, 1 white pine sap. OPIC - FMD: STAND WAS SELECTIVELY THINNED IN 1981 REMOVING PRIMARILY ASPEN LOGS. IT WILL BE SOMETIME YET BEFORE IT IS READY FOR A FOLLOW-UP TREATMENT.
29	42110 - Planted Red Pine	Sawtimber Well	5.2	57	111-140	EAB, some dead ash. South half was missed during thinning (marked, uncut), part of PU4 of King Red Pine, 52-141-09-01. Basal areas are 110-170 in thinned portion, 170-230 in uncut portion.
30	4130 - Aspen	Poletimber Well	2.7	26	Immature	1% red oak XL/L in canopy (supercanopy). Residual from harvest. Unable to represent in canopy.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
31	4110 - Sugar Maple Association	Sawtimber Well	77.1	96	81-110	<p>Trace yellow birch, black cherry, elm in canopy. Couple of pole red oak. Heavy to sugar maple pole timber. RO confined to northwest. Aspen and beech are clumpy, inconsistent throughout stand. Declining white ash (EAB), some are very healthy yet. Regen is variable. Pockets heavy to beech, sugar maple to ironwood; some pockets of nothing.</p> <p>OPIC - FMD: NOT A BAD STAND OVERALL IN FACT IT IS ALMOST AS NICE AS STAND # 21 TO THE NORTH. WHITE ASH MAKES AN OCCASSIONAL APPEARANCE. ASPEN IS THROUGHOUT THE STAND BUT NOT NEARLY IN THE AMOUNT FOUND IN STAND # 36 TO THE SOUTH. LOGGING OPPORTUNITIES WILL BE SEVERELY RESTRICTED IN LARGE PORTIONS OF THIS STAND DUE TO STEEP TERRAIN. THERE IS A BEECH BARK RESEARCH PLOT IN THE SOUTHERN PORTION OF THIS STAND JUST TO THE EAST OF STAND #33 AND JUST TO THE NORTH OF THE BOUNDARY WITH STAND #36. ***IF THIS STAND IS TO BE THINNED IN THE FUTURE, AVOID MARKING AREAS OF EXCESSIVELY STEEP SLOPES***</p>
32	4139 - Aspen, Mixed Deciduous	Poletimber Well	13.7	24	Immature	<p>Residual hardwood in canopy, unable to represent in canopy data: sugar maple (14" log) 1%, red maple (14" log/xlog) 1%, red oak (14" log/xlog) 1%, beech (14" log) trace. Trace yellow birch (7" pole).</p> <p>Smaller diameters in hardwood pockets.</p> <p>OPIC - FMD: STAND WAS HARVESTED IN 1993. ORIGINAL SALE BOUNDARIES WENT TO THE TOP OF THE RIDGE TO THE NORTH BUT NOBODY BID ON THE SALE MOST LIKELY DUE TO THE STEEP SLOPES. SALE WAS REDUCED IN SIZE BY STAYING OFF OF THE SLOPES ENTIRELY. RESULTING REGENERATION IS VERY NICE.</p>
33	4139 - Aspen, Mixed Deciduous	Sapling Well	27.5	17	Immature	<p>Harvest left all yellow birch and red oak. Highly variable BTA diameters. Occasional striped maple, paper birch, ironwood, white ash in canopy. A lot of beech in the south tip. Stand is beginning to stratify; bigtooth with outcompete sugar maple by next cycle. Hardwood dominated pockets will continue to grow slowly.</p> <p>OPIC - FMD: STAND WAS CUT IN 2000. HEAVY AMOUNT OF BLACKBERRY AND RASPBERRY. MANY PORTIONS OF THE STAND ARE ACTUALLY HEAVIER TO HARDWOOD REGENERATION.</p>
34	4110 - Sugar Maple Association	Poletimber Poor	4.9	47	1-50	<p>One sad white pine, pole. 1 balsam fir log. sugar maple also present in log and pole, but unable to represent in canopy. Trace quaking aspen on edge, encroaching. Trace red pine, sap/pole, on edges.</p> <p>OPIC - FMD: OPEN GROWN STAND OF CHERRY AND HARDWOOD ADJACENT TO A RECENTLY HARVESTED STAND OF ASPEN..</p>
35	4139 - Aspen, Mixed Deciduous	Sawtimber Well	2.3	82	111-140	<p>BA is variable, 90-170. Some clumpy hardwood, though dominated by aspen. Smaller diameter aspen in south acreage.</p> <p>OPIC - FMD: POOR QUALITY HARDWOODS IN GENERAL WITH QUITE A BIT OF ASPEN MIXED IN. COULD CONSIDER CLEARCUTTING IF ASPEN IS THE DESIRED MANAGEMENT OBJECTIVE. OTHERWISE THIS WOULD EVENTUALLY BECOME PART OF THE ADJACENT HARDWOOD STAND AS THE ASPEN SLOWLY DIES OUT.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
36	4110 - Sugar Maple Association	Sawtimber Well	64.7	94	81-110	Trace black cherry, quaking aspen, yellow birch in canopy. Yellow birch in far north (L/P/X). One paper birch, one elm. EAB, BBD present. Steeper slopes in north and west. Clones of aspen throughout stand, especially common on ridge tops. Quality and composition varies quite a lot, influenced by topography (especially aspect and slope). Couple pockets in southwest, southeast of 50-55 year old pole timber, dominated by sugar maple (79% 6" P/S), ironwood (10% 4" S/P), basswood (8% 10" L/P), white ash (2% 6" P), and beech (1% 5" P/S); trace red maple, junberry, quaking aspen. OPIC - FMD: LARGE STAND OF MODERATE QUALITY HARDWOOD. ASPEN IS REPRESENTED CONSISTANTLY THROUGHOUT THIS STAND. DUE TO THE LARGE SIZE OF THIS STAND VARIOUS SLOPE EXPOSURES ARE INCLUDED WITH SIGNIFICANT QUALITY DIFFERENCES. ASPEN TENDS TO BE MORE PREVALENT ON THE UPPER WEST OR SOUTH FACING SLOPES. HARVEST OPPORTUNITIES ARE GOING TO BE SEVERELY RESTRICTED DUE TO STEEP TERRAIN. ***IF THIS STAND IS TO BE THINNED IN THE FUTURE, AVOID MARKING AREAS OF EXCESSIVELY STEEP SLOPES***
37	4130 - Aspen	Sapling Medium	14.0	3	Immature	Snow-off conditions will hopefully produce more diversity, better coverage. Quite a lot of blow-down along north edge into adjacent stand. Raspberry is prolific, inhibiting regen, along with browsing.
39	4130 - Aspen	Sapling Medium	58.1	3	Immature	<1% ironwood, black cherry, red maple, and white ash component to stand. Heavily browsed. Hopeful that there might be more diversity under the snow. Maxwell Aspen, 52-118-09-01. Completed in 2014. Steeper terrain was excluded from sale boundary. Hopeful for a better hardwood component during the next inventory cycle, that some stems might make it above browse height.
41	4130 - Aspen	Poletimber Well	94.2	34	Unspecified	Clearcut in 1983. Mixed aspen and hardwood with scattered residual hardwood from original stand. These pockets of mature hardwood (SM, BW, BE, WA, BTA) are on hillsides with steeper, but not inoperable, terrain. Occasional conifer, especially red pine (clumps) in south, 16-18" dbh. EAB, BBD, DED. Some snow damage. Trace yellow birch near seep/intermittent stream. Few pockets of BTA have advanced to log-sized. Tiny, 1/4 ac non-forested inclusion in southeast with red pine (s/p), jack pine (p), black cherry (p/s), ironwood, and basswood. OPIC - FMD: VERY NICE REGENERATION. NEXT TIME AROUND THIS WILL BECOME AN A6 STAND. SOME STEEP SLOPES HAD TIMBER LEFT ON THEM. I THOUGHT ABOUT MAPPING THEM AS SEPARATE STANDS BUT DECIDED THAT THEY WERE NOT LARGE ENOUGH IN SIZE.
42	4110 - Sugar Maple Association	Sawtimber Well	12.7	86	81-110	Trace elm. Some dead standing white ash. Thinned in 2013 (52-142-09-01, Mad Hatter Hardwood, PU 2). Producer harvested additional ash. Residual basal area is 70-100. OPIC - FMD: THIS IS NOT GREAT QUALITY HARDWOOD BUT IT SHOULD STILL BE THINNED. WILL STRICTLY BE A LOW VALUE TSI SALE.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4110 - Sugar Maple Association	Poletimber Well	20.6	74	51-80	Stand occupies a valley (wide, slight incline), southeast and southwest facing parallel slopes. Mostly operable, though some areas too steep. Nice plateau in southwest of decent quality pole hardwood. Far north plateau also has some decent log hardwood. East ridge is lesser quality as you head southeast. Scattered red pine. Trace elm. EAB: most ash are dead or dying. There is a trail through the stand that should be GPS'd.
44	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	4.8	45	51-80	North half of stand is mostly on a southeast facing slope, gradually dropping into south half of stand (relatively flat). North half is dominated by pole beech, quaking aspen, and sugar maple. South half of stand is dominated by log basswood and quaking aspen, and pole/log sugar maple. Multi-stemmed red maple in southwest, log sized. Trace red oak along road. Lesser quality stand; lends itself to even-aged management in the future. Heavy beech scale (BBD).
45	4110 - Sugar Maple Association	Poletimber Well	8.7	86	51-80	Tough site; low productivity. Lot of multi-stemmed hardwood. Trace elm, quaking aspen, black cherry, red pine, and red oak in canopy. Low end of 75% canopy closure. Stand appears to have filled in over the years. OI comments recommended selective management due to the travel influence zone. Basal area is around 70, but ranges from 50 to 100.
46	42110 - Planted Red Pine	Sawtimber Well	2.6	80	111-140	Planted in 1937 to red pine and jack pine mix. Stand exists as a red pine plantation with aspen and mixed hardwood, jack pine snags. Smaller diameters in the south near the road, especially in the southwest. EAB. Witness trees in stand. BAs range from 60-170, averaging <130.
47	42110 - Planted Red Pine	Sawtimber Medium	6.0	80	111-140	Red pine and jack pine planted in 1937. JP snags scattered throughout stand. Old road bed through south portion of stand. Trace ironwood in canopy (in gaps), Lower basal areas, larger diameter red pine, more hardwood in south, some more hardwood again in northeast. BAs range 90-180.
48	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	10.9	85	81-110	Interesting stand with changes in soil. Transitions from 110 BA of SM/BW decent quality mix in east to lower quality 40 BA of SM/QA/RM. Understory changes significantly as well: east has sm, bf, iw, qa (yes, quaking aspen sprouts, browsed), and hemlock. West has hazelnut, leatherwood, maple leaved viburnum, hawthorn, and witch hazel. Trace black cherry, jack pine.
49	4199 - Other Mixed Upland Deciduous	Sapling Poor	77.4	3	Immature	Stand needs more time to regenerate. Snow depth might also be covering acceptable regeneration. Suggest a summer evaluation/survey. Thistle and mullein present. Trace jack pine in canopy. Some residual whips 10-20' tall. Ridiculous browsing on regen. Red Pine was clearcut and left to convert naturally to mixed upland deciduous/hardwood. Johnson Pine, 52-117-09-01. Completed August 2014.
50	4117 - Mixed N. Hardwood - Pine	Sawtimber Medium	2.9	80	81-110	Trace black cherry and jack pine. Well developed sapling/pole understory. OPIC - FMD: AN ISOLATED POCKET OF HARDWOODS. LEAVE AS IS FOR DIVERSITY SAKE.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
51	4130 - Aspen	Poletimber Well	4.7	34	51-80	Pockets of residual log hardwood, aspen. Not well represented by stand data. Trace black cherry. OPIC - FMD: STAND WAS CUT IN 1983 AND HAS JUST RE-ENTERED COMMERCIAL SIZE CLASS. QUITE A BIT OF HARDWOOD IS MIXED IN BUT IT IS MUCH SMALLER IN DIAMETER THAN THE ASPEN.
52	42110 - Planted Red Pine	Sawtimber Medium	1.7	80	81-110	Included pole/sap bigtooth into canopy, although there's still quite a bit of canopy height difference. Aspen is part of adjacent clearcut. OPIC - FMD: STAND HAS A HEAVY FIR UNDERSTORY. NOT ENOUGH RED PINE BASAL AREA TO WARRANT A THINNING.
53	4130 - Aspen	Poletimber Well	9.3	34	51-80	Rather wet stand, especially in the east and south central. Fewer balsam fir and less dense quaking aspen in these lower areas. More red maple and sugar maple saplings >20' here too. OPIC - FMD: THIS IS REALLY NICE REGENERATION. QUITE A BIT OF FIR IS COMING INTO THE STAND BENEATH THE ASPEN.
54	42110 - Planted Red Pine	Sawtimber Medium	5.6	80	111-140	Trace paper birch in canopy. Slightly smaller diameters in more densely stocked areas, generally with BA >110. Variable basal area (70-160); large gap in east/central - likely used as a landing. OPIC - FMD: STAND HAS A HEAVY FIR UNDERSTORY. NOT ENOUGH RED PINE BASAL AREA TO WARRANT A THINNING.
55	4130 - Aspen	Poletimber Well	9.7	34	Unspecified	Trace jack pine, red pine on west edge/private. Trace balsam fir in canopy. 1 XL sugar maple, trace basswood, elm. Trail and road bisect stand.
56	4311 - Pine, Aspen Mix	Sawtimber Well	30.3	78	81-110	RP/JP planted in 1939. Few different age classes. Not the most impressive red pine, but the site has potential to produce good quality if planted and maintained properly. OPIC - FMD: STAND HAD THE HARDWOOD AND ASPEN REMOVED PRESUMABLLY BACK IN 1983. THE ASPEN IS NOW ABOUT 4 INCHES IN DBH BUT THE HARDWOOD IS ONLY 2 - 3 INCHES. MY SUGGESTION IS TO LET THIS GO UNTIL THE UNDERSTORY JUST REACHES MATURITY AND THEN COMPLETELY CLEARCUT THIS STAND. ALTERNATIVE IS TO REMOVE THE PINE OVERSTORY NOW BEFORE IT GETS TOO LARGE IN DIAMETER. THE HARVESTING WILL MAKE A MESS THOUGH OUT OF THE REGENERATION.
57	42290 - Natural Mixed Pine	Sawtimber Medium	2.4	40	51-80	Interesting stand. Trace red maple and sugar maple. Lot of scattered apple, some dead, others relatively young, and everything in between. Weeviled, stunted white pine. Red pine is a bit younger in general. Kind of a strange stand. SOUTH OF ROAD: South of road is planted, overlapping from private plantation. Private parcel was cut in 2015 or 2016. Canopy is WP 90% 12" LPX; RP 10% 12" LP. Subcanopy: Beech (trace, sap, variable), balsam fir (medium, sap, variable), sugar maple (low, sap, variable), ironwood (low, sap, variable), and white pine (low, sap, variable).



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	42100 - Planted White Pine	Sawtimber Well	0.7	91	111-140	Trace elm (sap), one apple sap in far east. OPIC - FMD: THIS IS A VERY SMALL STAND THAT STICKS OUT DUE TO IT'S LOCATION ON A CURVE IN THE ROAD. I BELIEVE THAT THIS WAS PLANTED WHEN THE PROPERTY WAS STILL PRIVATELY OWNED. THE BACK PORTION OF THIS SMALL STAND IS ACTUALLY ALMOST ALL JACK PINE.
59	42110 - Planted Red Pine	Sawtimber Well	4.0	91	141-170	Trace black cherry in canopy (L/P); trace pole beech and sapling white pine in understory. BA ranges 100-180, variable. South edge along private has some blowdown, mostly balsam fir, from wind exposure after private clearcut. OPIC - FMD: THIS STAND WAS PLANTED WHILE THE LAND WAS STILL PRIVATELY OWNED. FOR SOME REASON THOUGH IT HAS NEVER BEEN THINNED SINCE WE TOOK OVER OWNERSHIP. THERE IS A FAIRLY HEAVY FIR UNDERSTORY. DECIDED TO LEAVE THIS STAND UNTREATED DUE TO THE LARGE AMOUNT OF HARVESTING THAT WILL ALREADY BE TAKING PLACE ALONG MAWELL ROAD DURING THIS Y.O.E.
61	4110 - Sugar Maple Association	Sawtimber Well	25.3	78	81-110	Kind of an odd stand. Grazing permit in 1960 and '61 - I suspect that grazing occurred within this stand, at least in the draws (flat and wide). Likely TSI'd in the 70s. Aspen clones were removed from stand in 2000 under Maxwell Road Aspen, 52-131-99-01, resulting in a patchwork of mature hardwood and young aspen. Stand lacks any sort of development in the subcanopy (saplings or poles >20'), save some ironwood and white ash, few sugar maple. BTA patch cuts will probably mix with canopy during next cycle. Hilly but operable terrain. Advanced beech scale; ash mortality due to EAB. Trace log black cherry and log/pole elm.
62	4130 - Aspen	Sapling Well	10.1	17	Immature	Lower stocking, larger diameters in south. Trace quaking aspen, white ash, and red maple in canopy. PU 3 of Maxwell Road Aspen, 52-131-99-01.
63	4139 - Aspen, Mixed Deciduous	Sawtimber Well	16.3	87	51-80	Multi-stemmed red maple and sugar maple. Trace white pine on west edge of stand, south of road. Trace quaking aspen. Decent quality red maple. Stand has an inclusion of pole bigtooth and mixed hardwood in the far south (west) on edge of opening. Acreage to the north of that is log aspen, nearly pure. Rest of stand is mixed well with red maple and sugar maple. OPIC - FMD: THE IMPACT ON THE TRAVEL INFLUENCE ZONE THOUGH WOULD BE DRAMATIC ESPECIALLY IF STAND #65 ON THE OTHER SIDE OF THE ROAD IS ALSO CUT. THIS STAND OCCUPIES THE LOWER SLOPES SO IT WOULD BE OPERABLE. THE OTHER OPTION IS TO LET THE ASPEN DIE OUT AND THEN MANAGED THIS LONGTERM FOR HARDWOODS ALONG WITH THE ADJACENT STAND #36.
64	4130 - Aspen	Sapling Well	6.7	17	Immature	Stand is converging on pole timber. More white ash regen, 1 log wp, 1 sap red oak in far west. Small ironwood, black cherry, sugar maple, beech inclusion in west; saplings 1-2" dbh. Few scattered QA clones. PU 2 of Maxwell Road Aspen, 52-131-99-01. OPIC - FMD: STAND WAS CUT IN 2000. SCATTERED RESIDUAL CHERRY WERE LEFT. A SIGN EXPLAINING THE HARVEST WAS PUT UP ALONG THE ROAD.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
65	4130 - Aspen	Sapling Medium	22.4	2	Immature	1% residual quaking aspen, log 10". Trace ironwood, sugar maple, white ash next to Maxwell, a little protected from browse. Hardwood in stand is heavily browsed. Hopefully better regen under snow, including more larch and black/white spruce. (I think it's bulrush...some sort of rush.) Small clump of residual balsam fir, quaking aspen, larch, white pine.
66	4130 - Aspen	Sapling Well	22.0	17	Immature	PU 1 of Maxwell Road Aspen, 52-131-99-01. Trace Red oak (XL, L), black cherry (L), white ash (sap) in canopy. Raspberry in skid trails, on road edge. Pockets of quaking aspen. Areas with high witch hazel. OPIC - FMD: STAND WAS CUT IN 2000. SCATTERED RESIDUAL CHERRY WERE LEFT. THIS IS NOT AS NICE AS STAND #64 ACROSS THE ROAD TO THE NORTH.
67	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	4.2	73	1-50	Multi-stemmed hardwood. More ironwood, red maple understory in north tip. Trace pole ironwood. All witch hazel in south half.
69	6121 - Tamarack	Sapling Medium	22.3	73	1-50	Likely classified as an ombrotrophic tamarack swamp with deep peat and acidifying sphagnum moss. Transitions more to pole/sap stand (rather than sap/pole) along the eastern boundary. Few "high" hummocks of pole/log black spruce and white pine. OPIC - FMD: ADJACENT TO STAND #70 A FEW STEMS ACTUALLY APPROACH MERCHANTABLE SIZE BUT THE MAJORITY OF THE STAND IS ONLY 2- 3 INCHES IN DBH.
70	6124 - Lowland Spruce- Fir	Poletimber Well	45.0	73	51-80	Stand could be fragmented multiple times into many different stands. North is dominated by black spruce and larch with few white pine. Less densely stocked areas as seen on imagery are typically dominated by larch. Smaller diameter quaking aspen and red maple occur in the east central region. Southwest becomes a mix of cedar, larch, black spruce. Very few pockets actually dominated by cedar. Pockets of very dense balsam fir (sap/pole); sparse in other areas. RO Dogwood present under white cedar in s/sw. Charred stumps support a disturbance regime dependent on fire for re-establishment. Few tip-ups throughout stand. Very active water (flowing) and water table throughout this stand. Trace beech in subcanopy in north, not worth including in inventory. Willow is generally associated with black ash, quaking aspen, balsam fir saplings, and paper birch. Trace black cherry (pole/sap) in northeast. Nannyberry in north/northeast only. Probably a lot more diversity in understory under the snow.
71	4111 - S.Maple, Hard Mast Association	Sawtimber Well	10.3	92	111-140	BBD - Advanced beech scale. Regen is not desirable. Trace white ash and red maple in canopy. EAB.
72	4130 - Aspen	Poletimber Well	0.9	74	81-110	Retention pocket from Maxwell Aspen 52-118-09-01.
75	4130 - Aspen	Sawtimber Medium	6.7	88	81-110	Nicely developing hardwood understory. EAB, BBD. There will likely be more hardwood that reaches the canopy by the next cycle. Trace black cherry, balsam fir in subcanopy.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
76	4110 - Sugar Maple Association	Sawtimber Well	8.4	91	111-140	No XL SM or BW. Trace ironwood and elm in canopy. Ash is mostly dead; EAB. Few yellow birch, 12". Probably some seeps in this stand. Trace elderberry in draw.
77	4110 - Sugar Maple Association	Sawtimber Well	19.5	96	81-110	Advanced BBD, EAB. Trace yellow birch (in west) and red maple. Few pole ironwood in far east reaching canopy. The majority of this stand will be too steep for management.
78	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	17.7	84	81-110	Continuation of stand to the east (61), just a bit more strange. Ridge divides decent quality hardwood log timber (east half) from log/pole west half. A lot of pole timber. Multi-aged, highly variable. It will be difficult to manage selectively in the future with the variety of diameters (TSI work might be possible), topography, BBD/EAB mortality, and aspen clones. Intense QD would be helpful in determining true composition and management objectives.
79	4116 - Mixed N. Hardwood - Aspen	Sawtimber Medium	0.6	86	81-110	No XL sugar maple. One sad pole black cherry.
80	4110 - Sugar Maple Association	Sawtimber Well	9.2	87	51-80	No XL red maple. Trace yellow birch and paper birch. A lot of pole timber (especially sugar maple) ~70 years old; stump sprouts. Could have a grazing history. Top of hill has been thinned. Could easily go with a pole stand. Trace striped maple on north tip.
81	4139 - Aspen, Mixed Deciduous	Sawtimber Medium	15.3	95	51-80	EAB. Red oak in the east, mostly. Various ages, scattered saw and pole timber. BAs range from 50-90, on average. Hillside took a while to become reforested. Attempted harvest but was too steep for equipment. NCT runs through stand.
82	4111 - S.Maple, Hard Mast Association	Sawtimber Well	21.8	96	81-110	A lot of multi-stemmed, lesser quality stock in east 1/4, transition to much better quality timber the further west you go. EAB and BBD; lot of dead white ash (few, if any, alive in the canopy). Trace log ironwood, yellow birch.
83	4130 - Aspen	Sawtimber Well	10.6	85	141-170	Trace black cherry, quaking aspen. Ages vary, 66-85+. XL bigtooth are probably closer to 100. South end would have challenging terrain and access. North end is a bit flatter, but access is still questionable. Very nice sugar maple in the north along with L/XL BTA. South bubble is more of a bigtooth/red maple mix. There are two trails intersecting the stand: NCT and dirtbike trail, further complicating management activity. Dirtbike trail has snowmobile use and NCT has ski/snowshoe activity during the winter months.
84	4110 - Sugar Maple Association	Sawtimber Well	94.9	92	81-110	Pockets of dense beech regeneration; white ash regen is mostly in the south. One small pocket of striped maple. Stand has been suppressed over the last 40-50 years with minimal growth. Sap/pole SM/IW/WA is generally 45 years old; pockets of this stand are dominated by pole timber. Most ash is affected by EAB. Porcupine damage to hardwood and red pine tops in areas. Red pine is decent; nice crowns, somewhat limby boles. Ridgelines and plateaus are dominated by hardwood sawtimber and red pine. Hillside, draws are more pole-sized with a greater mix of aspen (log). A lot more aspen clones in the narrow stretch.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
85	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	11.5	89	81-110	Dead white ash (EAB) in canopy. BBD. Occasional pole ironwood. BAs range from 70-130.
86	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	17.0	56	51-80	Transition to mostly beech, bigtooth aspen in west end. Trace white ash, ironwood, black cherry, yellow birch in canopy. Beech regen density varies, high in places, lower in others.
87	4110 - Sugar Maple Association	Sawtimber Well	5.5	89	111-140	Trace yellow birch, white ash, beech, and bigtooth aspen in canopy. Stand occupies a consistent north aspect.
88	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	22.6	95	111-140	Canopy closure varies, especially in lower, wetter areas (mostly parallel to road). Bigtooth and red maple dominate the east portion of the stand, transitioning to sugar maple/basswood towards the center; basswood/sugar maple dominate the west. Trace black cherry, paper birch.
89	4110 - Sugar Maple Association	Sawtimber Well	50.8	98	81-110	Log trees were released in the late 1940s.. A lot of pole timber mixed in. Few XL sugar maple. EAB. BBD. Regen is rather variable.
90	4110 - Sugar Maple Association	Sawtimber Well	14.9	95	111-140	EAB, BBD. Some pockets of very dead ash; not all are dead. Seeps in stand. Two somewhat parallel roads through stand. The upper (southern) has some steep grades. Trace elderberry in west draw. Probably more WA regen under snow. Beech and white ash are generally clumpy. Some basswoods beginning to sprout from declining logs.
91	4111 - S.Maple, Hard Mast Association	Sawtimber Well	62.5	86	81-110	Small 1ac +/- inclusion in southwest on hillside. Strange sapling/pole timber, appearance of a clearcut with no evidence of previous disturbance. 18 years old. 85% SM (S/P 1"), 10% IW (S/P 1"), 3% BC (P/S 6"), 2% WA (S/P 3") with sm (trace, sap, variable), beech (medium, sap, variable), ironwood (low, sap, variable), and white ash (trace, sap, variable) understory. EAB/BBD. Dead/dying ash. Living white ash have not necessarily escaped EAB. Few pockets dominated by sap/pole timber (IW/AB dominated). Serious beech snap in northeast. One pole RO by red pine in NE. Beech snap all around red pine peninsula in east. Red maple, beech in southeast. Trace elm. Bigtooth canopy density includes trace amounts of quaking aspen (12" dbh). Basal area is fairly low, just above 80, ranging 60-100, occasionally upwards of 120.
92	6139 - Mixed Lowland Forest	Sapling Well	5.9	37	1-50	Stand is a result of diversion ditch and drainage from farmed field to the east.
93	42110 - Planted Red Pine	Sawtimber Well	0.8	80	81-110	Planting record for JP and RP from 1937. Red Pine clearcut. Johnson Pine, 52-117-09-01.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
95	4110 - Sugar Maple Association	Poletimber Well	40.9	60	51-80	<p>Cutting records from 1953 support the age of this stand, ~63 years old. Scattered log/XLog sugar maple, basswood, beech, about 80 years old **RECORDED UNDER BASSWOOD, BUT REPRESENTS LARGER LOGS (12"+) THROUGHOUT THE STAND**. Few pockets of sapling/pole (sm, iw, be). BTA is mostly in a clone by the road.</p> <p>OPIC - FMD: STAND HAS NOT BEEN THINNED RECENTLY. IT IS OF LOW GENERAL QUALITY. LOTS OF CLUMPY BASSWOOD AS WELL AS A SIGNIFICANT BEECH COMPONENT. SOME SLOPES WOULD POSE A CHALLENGE AND POSSIBLY LIMIT LOGGING OPORTUNITIES.</p>
96	42110 - Planted Red Pine	Sawtimber Well	1.3	80	81-110	<p>Well developed sugar maple understory. BA range in the 100-120 range, mostly. Planting record of JP and RP from 1937. Retention island from Red Pine clearcut, Johnson Pine, 52-117-09-01.</p>
97	42110 - Planted Red Pine	Sawtimber Medium	1.0	80	141-170	<p>JP/RP planted in 1937. Retention island from Red Pine clearcut. Johnson Pine, 52-117-09-01.</p>
100	4130 - Aspen	Sapling Medium	4.1	17	1-50	<p>Portions were harvest with adjacent aspen stand. Pockets of pole/log; could go with pole stand.</p>
149	42110 - Planted Red Pine	Sawtimber Medium	32.2	80	81-110	<p>Much higher basal area in the far north, 140-150. Trace elm and red maple; some jack pine snags. Stand is a bit stagnant, but has another growing cycle in it. This could also allow for more hardwood to reach merchantability.</p> <p>OPIC - FMD: THIS STAND WAS ORIGINALLY PART OF STAND #49 WHICH LIES TO THE EAST OF JOHNSON ROAD. STAND #49 WAS BROKEN APART TO REDUCE THE NEGATIVE IMPACT OF SUCH A LARGE FINAL HARVEST AREA. RECOMMEND FINAL HARVESTING THIS STAND IN TEN YEARS AND ALLOWING IT TO CONVERT TO NORTHERN HARDWOODS. THIS RED PINE STAND IS GROWING ON A HARDWOOD SITE AND TRYING TO RE-ESTABLISH RED PINE HERE WOULD INVOLVE A CONSIDERABLE EFFORT IN ORDER TO CONTROL THE COMPETING HARDWOOD REGENERATION.</p>



Stand	Cover Type	Acres	Managed Site	General Comments:
6	320 - Upland Shrub	7.2	No	Pine and deciduous present in sapling and pole classes. Few log BC. Scotch pine should be removed. Couple feet of snow. Probably more juniper and honeysuckle than what was witnessed. Likely more hardwood saplings too. OPIC - FMD: PRIMARILY OPEN GROWN CHERRY WITH SOME JUNIPER.
25	622 - Lowland Shrub	25.3	No	Dead cedar, trace juniper. Flooding has expanded since the last inventory cycle. OPIC - FMD: THIS IS A WIDE OPEN STAND WITH A LOT OF DEAD STANDING TIMBER. ONLY SCATTERED LIVE MAPLE, BLACK ASH AND SPRUCE OCCUR. I BELIEVE THAT THIS WAS FLOODED IN RECENT YEARS DUE TO INCREASED BEAVER ACTIVITY FOLLOWING THE ASPEN HARVEST IN STAND # 23.
28	320 - Upland Shrub	11.1	No	Hunting blind on private overlooks the southwest corner of the field. Trace pole red pine, log black cherry. OPIC - FMD: WIDE OPEN STAND OF PRIMARILY CHERRY BRUSH. VERY SIMILAR IN APPEARANCE TO STAND #6. THE SOUTH PROPERTY LINE IS IN QUESTION. THE LANDOWNER TO THE SOUTH MAY BE STRAYING NORTH.
38	710 - Sand, Soil	5.2	No	Road/trail through stand. Used as landing during harvesting operations. Recommend rehab, closure at some point. OPIC - FMD: WIDE OPEN STAND OF PRIMARILY CHERRY BRUSH. ORV'S ARE USING THIS AS A SCRAMBLE AREA.
40	122 - Road/Parking Lot	7.0	No	Maxwell and Bear River Road
60	330 - Low-Density Trees	37.4	No	Variable diameters: BC P/S/L; WP P/S/L; Apple - S/P; RP - P/S. I'd expect full knapweed and deciduous saplings under the snow. OPIC - FMD: THIS IS PRIMARILY A FIELD OF OPEN GROWN WHITE PINE "BUSHES" ALONG WITH QUITE A FEW APPLE TREES. WILDLIFE DIVISION INDICATED THAT THEY MIGHT WANT TO PRUNE THESE APPLE TREES.
68	320 - Upland Shrub	6.4	No	Very cool musclemwood (<i>Carpinus caroliniana</i>) in a dense shrub form. Not known to be in northern Michigan, according to USDA records. Trace elm, apple.
74	330 - Low-Density Trees	0.8	No	Forest roads and trails intersect in this non-forested opening. XL, wolfy sugar maple on the perimeter.
98	3205 - Mixed Upland Shrub	0.7	No	Big sapling component to stand. Decided to split stand into forested and non-forested.
99	320 - Upland Shrub	1.7	No	Non-forested inclusion of surrounding timber sale (PU 1 of Maxwell Road Aspen, 52-131-99-01). Trace log black cherry, sap paper birch, sap beech.
101	330 - Low-Density Trees	1.9	No	Multiple size classes of cherry, pine, maple.
400	3102 - Grass	2.7	No	Spruce and maintenance in trespass. Actually has the appearance of being part of an old air strip. Recommended survey.



Stand	Cover Type	Acres	Managed Site	General Comments:
401	3102 - Grass	11.3	No	<p>Probably full knapweed. East side was likely used as landing when adjacent red pine what thinned - dense sap/pole red pine there now. Mud hole in south - ORV damage. Difficult to determine shrub/herbaceous layer with snow conditions. Used for target practice.</p> <p>OPIC - FMD: THIS IS AN OLD GRAVEL PIT THAT HAD BEEN USED BY THE ROAD COMMISSION. THE PIT WAS REHABILITATED BY THE ROAD COMMISSION IN THE FALL OF 2005. THE ROAD LEADING THROUGH THE PIT WILL BE CLOSED IN SPRING OF 2007 AFTER THE ORV TRAIL IS RE-ROUTED OUT OF THE PIT.</p>