



# Compartment Review Presentation

## Grayling Forest Management Unit

Compartment 72214

Entry Year 2020

Acreage: 1,303

County Crawford

Management Area: Grayling Ice Contact

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**Revision Date:** 2018-07-11

**Stand Examiner:** Scott McClarren

### Legal Description:

T28N R3W Sections 8, 9 and 17  
Maple Forest Township

### Identified Planning Goals:

To maintain species diversity while also addressing sustainability, forest health, productivity, wildlife habitat requirements, aesthetics, best management practices and recreational opportunities throughout the compartment.

### Soil and topography:

Topography within this compartment is gently rolling in most places with some more significant topographical features found in varied locations, most notably in the eastern portions of section 17. Soils are somewhat variable however the majority of this compartment is dominated by Kalkaska sand. Two small bogs lie within the compartment and these are described by Dawson Loxley peats as the predominant soil type. Kalkaska sands are commonly associated with flats and low knolls on outwash plains and moraines and are characterized as being somewhat excessively drained with very rapid permeability. Hazard of water erosion is slight while hazard of soil blowing is severe where vegetative cover is light or nonexistent. Major management concerns on this soil type include equipment limitation and seedling mortality. Dawson-Loxley peats are commonly associated with low flats and closed depressions on outwash plains and are characterized as being very poorly drained with moderately slow permeability. Major management concerns for this soil type include equipment limitation, seedling mortality, windthrow hazard and plant competition.

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

The majority of the three sections included in this compartment are comprised of state owned land. Private land exists along Babbitt, Sherman and Roberts roads with the majority lying in the southern half of section 9. Oil and gas development has occurred somewhat extensively within this compartment with wells and pipelines located throughout sections 8 and 9. Section 17 has not had any oil and gas development as of yet.

### Unique Natural Features:

This compartment does not have any water bodies and for the most part is forested with moderate quality northern hardwood stands along with extensive aspen blocks. There is also a fair amount of red pine plantations scattered throughout the compartment. Two unique stands do exist within the compartment and lie in the southeastern portion of section 17. They are bog/pothole stands that are currently treed with tamarack, white pine and other swamp conifer species.

### Archeological, Historical, and Cultural Features:

None

### Special Management Designations or Considerations:

None

### Watershed and Fisheries Considerations:

Aside from the two small bogs mentioned above, no watershed or fisheries concerns exist within the compartment.

### Wildlife Habitat Considerations:

A multitude of wildlife species abound in this area due to the diverse forest types present along with plentiful sources of food.

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

The state-owned Kolka Creek Pit (currently leased to the county road commission) is located three miles to the west, and sand & gravel potential appears to be very good within the compartment. Sections 8 & 9 are leased and have been developed for Antrim Shale gas. There may be additional Antrim potential as well as Niagaran (Guelph) reef potential within the compartment. No known metallic mineral potential exists in this part of the state. The state does not own the mineral

rights beneath some of the compartment. Private mineral rights owners must be allowed reasonable access to the surface should they choose to explore and/or develop the minerals.

**Vehicle Access:**

Access to this compartment is good. Forest roads and two tracks extend from county roads and meander throughout the entire compartment.

**Survey Needs:**

No survey needs are required at this time.

**Recreational Facilities and Opportunities:**

The compartment does not contain any designated recreational trails. This area provides abundant hunting and wildlife viewing opportunities. Extensive aspen stands along with areas of diverse cover and food sources make this compartment extremely valuable for grouse as well as whitetail deer and turkey habitat.

**Fire Protection:**

Northern hardwood stands are the dominant forest type within this compartment, therefore fire danger is minimal. Protection for this area is provided throughout the year by FMFM.

**Additional Compartment Information:**

Beech bark disease is present in all the hardwood stands in this compartment.

**The following reports from the Inventory are attached:**

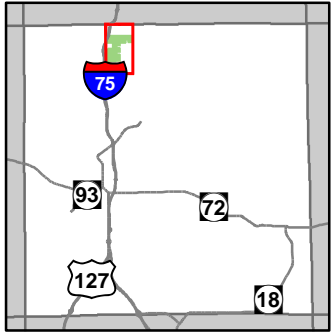
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

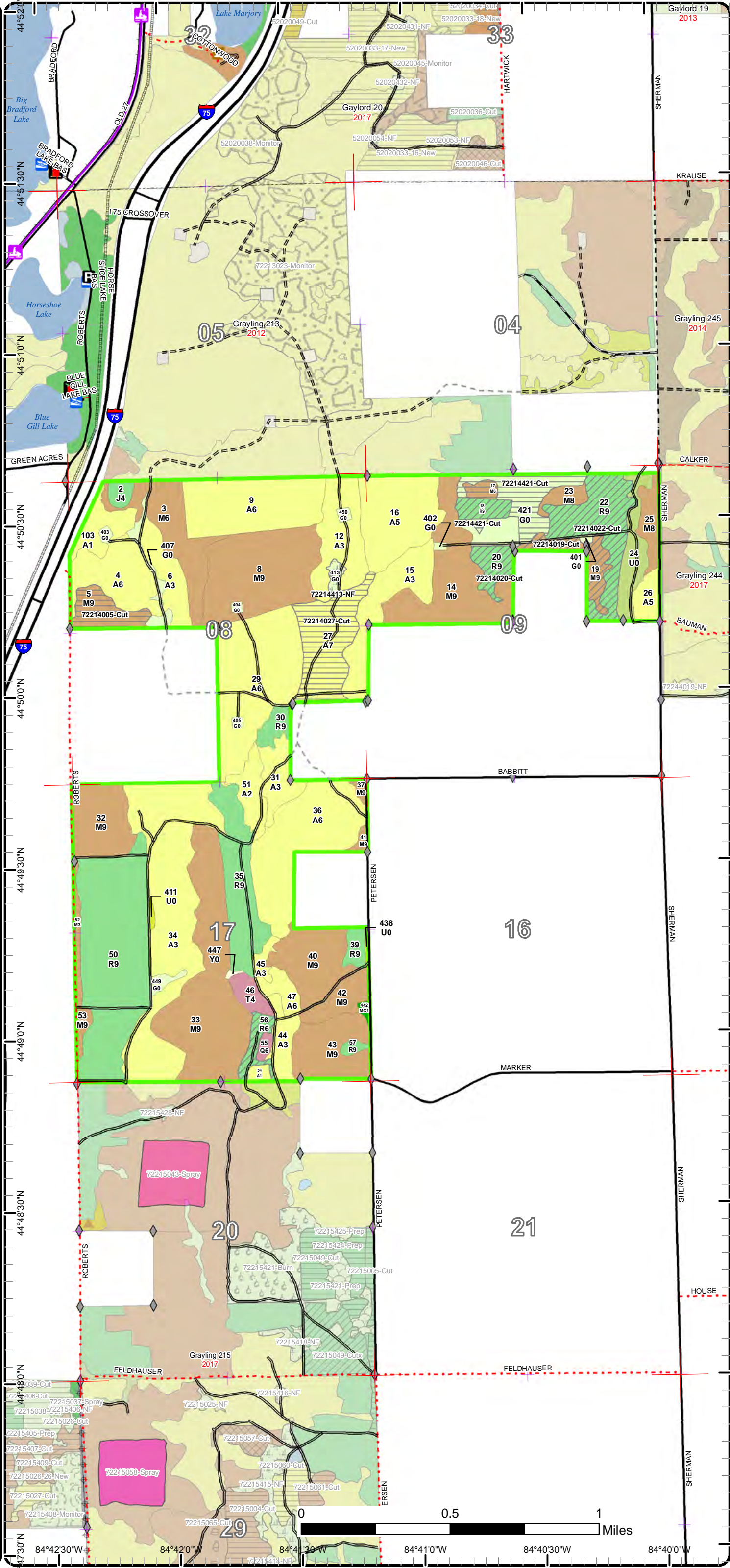
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

**Cover Type & Treatments Map**  
 Compartment: 214  
 T28N, R03W, Sec. 8, 9, 17

County: Crawford  
 Unit: Grayling  
 Mgmt Area: Grayling Ice Contact  
 YOE: 2020  
 Acres: 1,303 GIS Calculated  
 Examiner: Scott McClarren  
 Map Revised: 2/5/2019  
 Map Phase: Post-Review



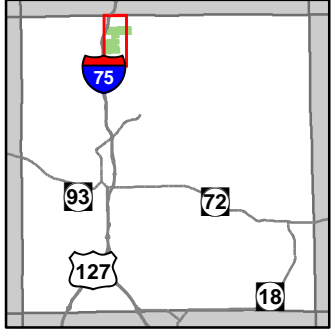
- Miris Corners
- Remonumented Section Corners
- Field Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State Highway
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- Berms
- Boating Access Site
- Parking Lot
- Structures
- Pipeline
- Powerline
- Compartment Boundary
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen
- 421 - Planted Pines
- 422 - Natural Pines
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 710 - Sand/Soil
- Lakes



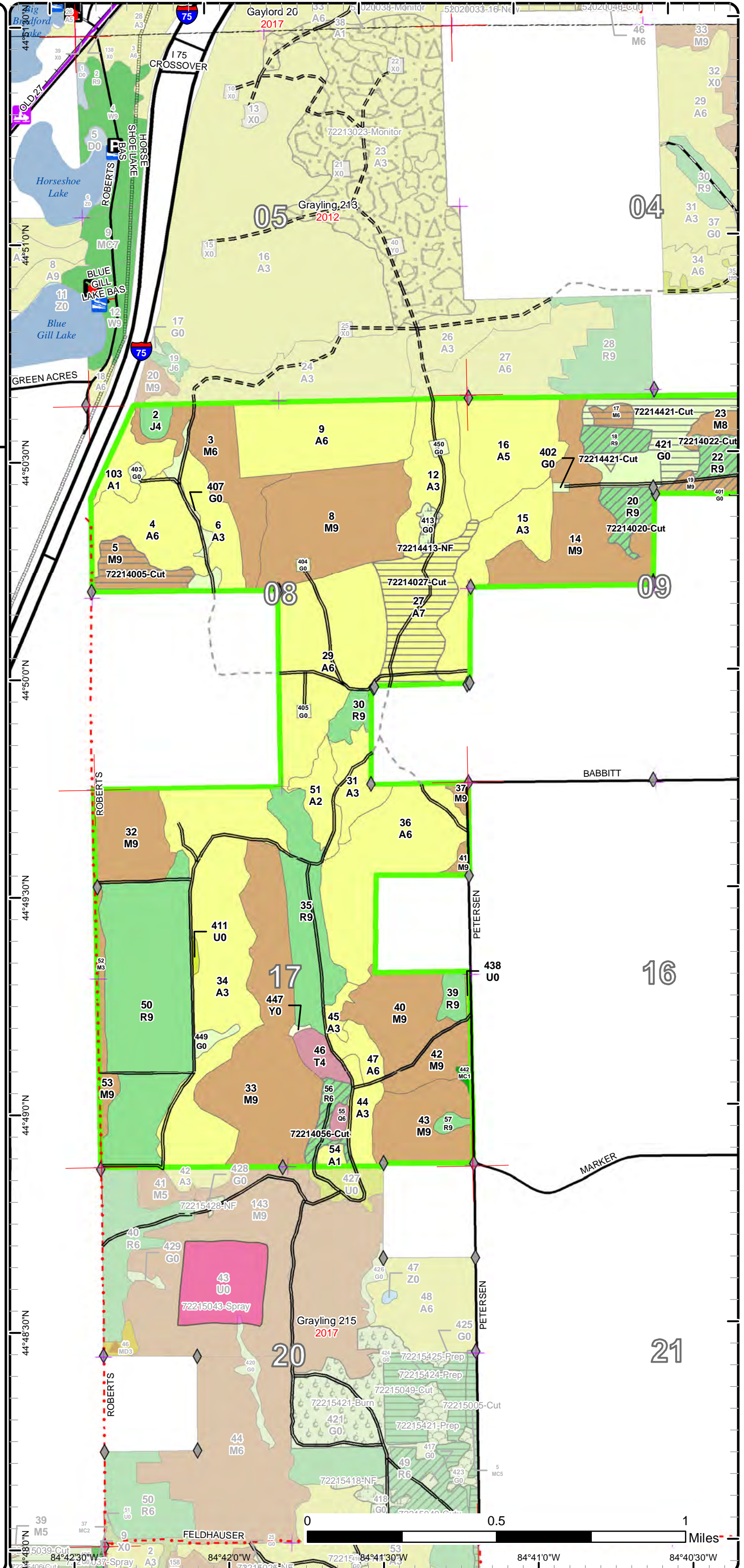
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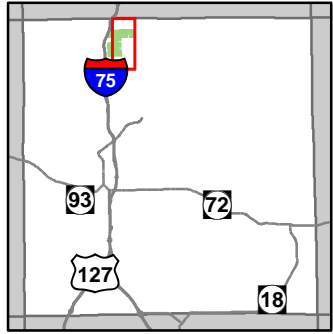
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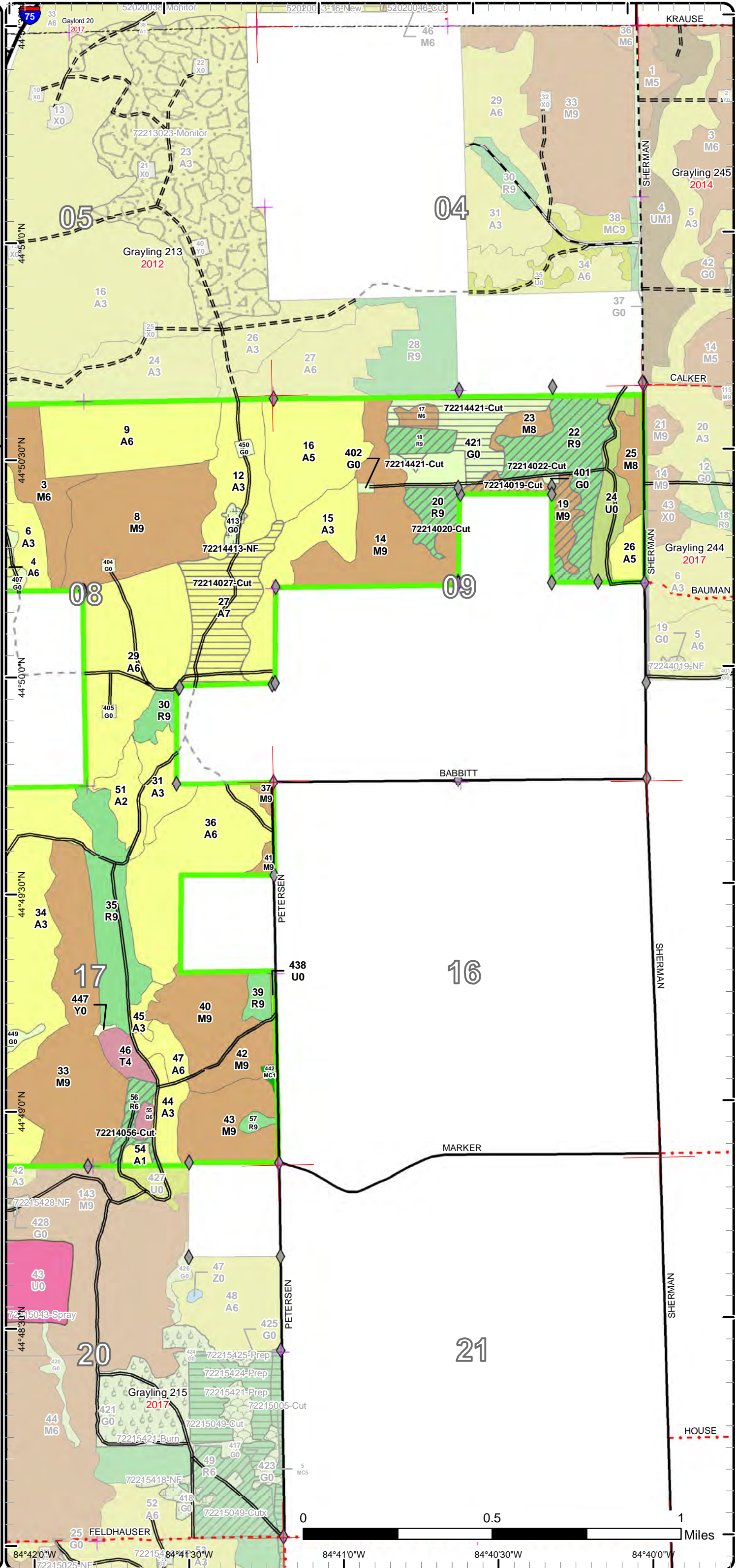
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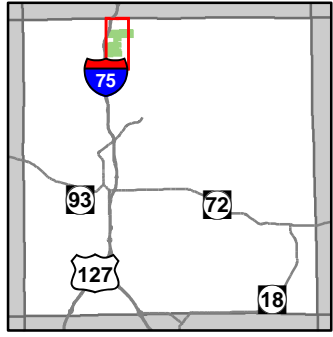
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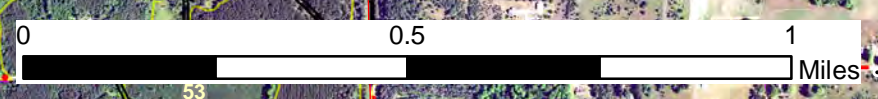
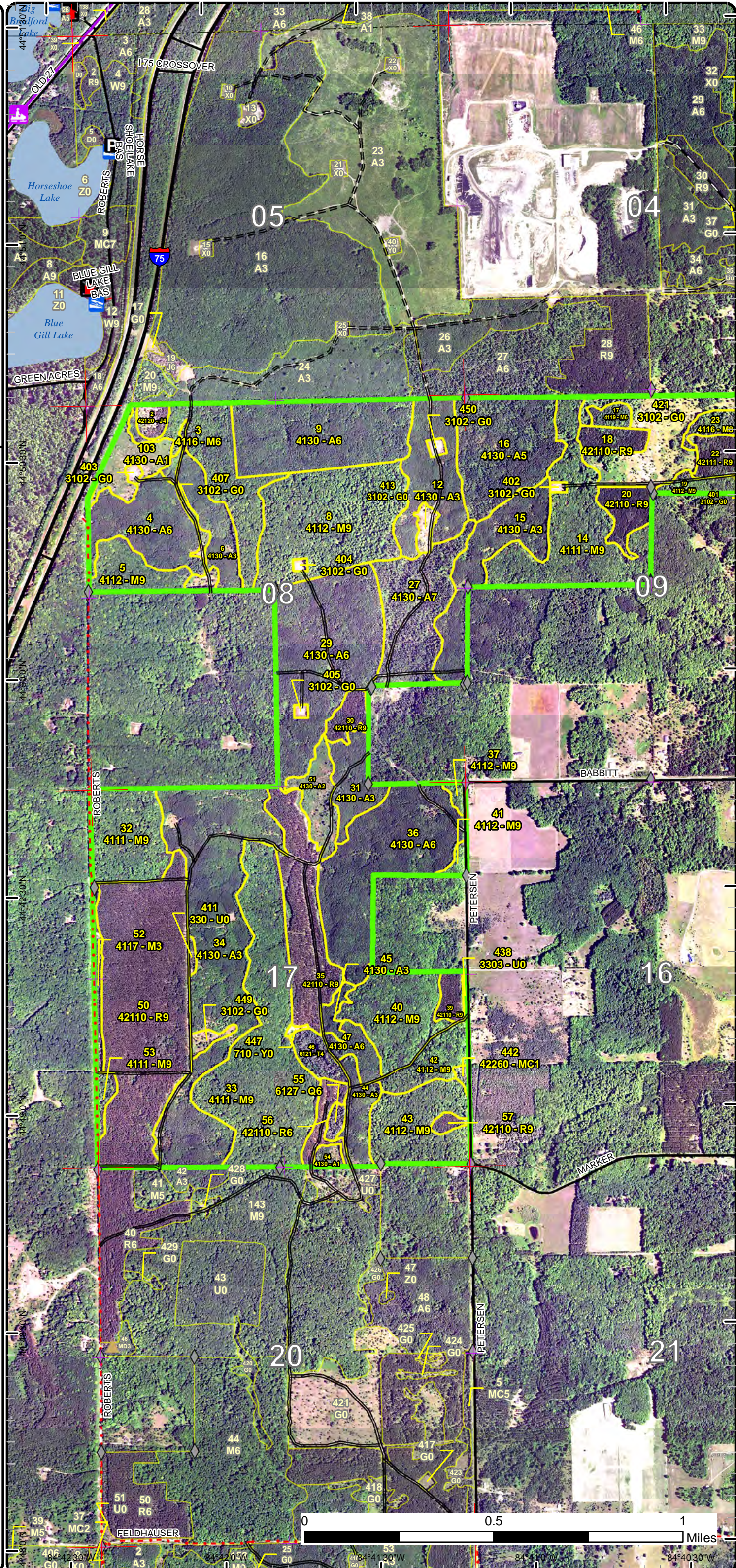
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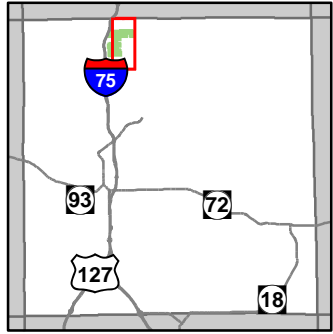


44°48'30"N 84°42'30"W 44°49'30"N 84°42'00"W 44°50'30"N 84°41'30"W 44°51'30"N 84°41'00"W

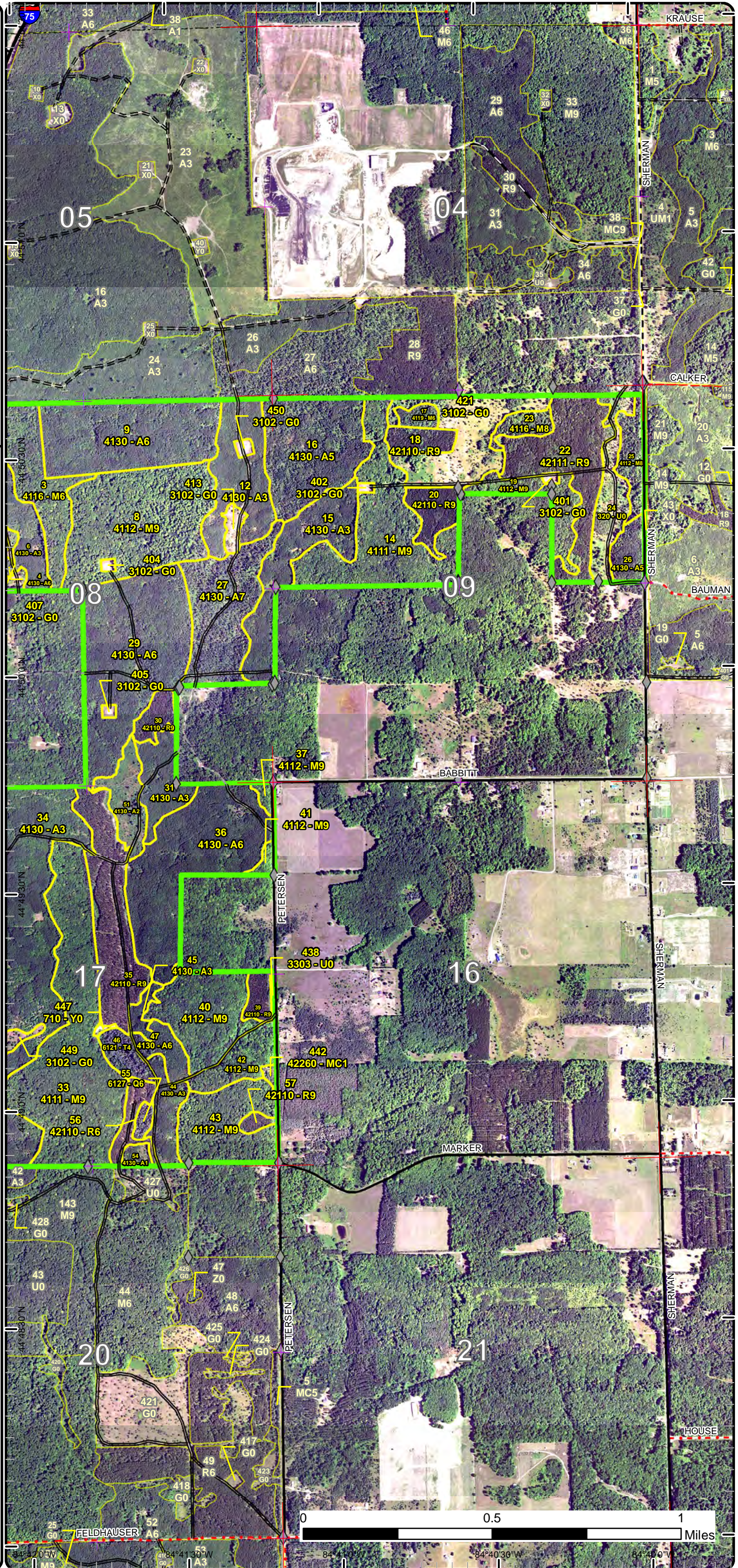
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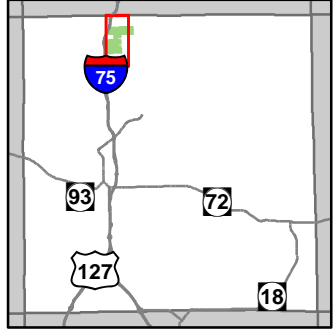
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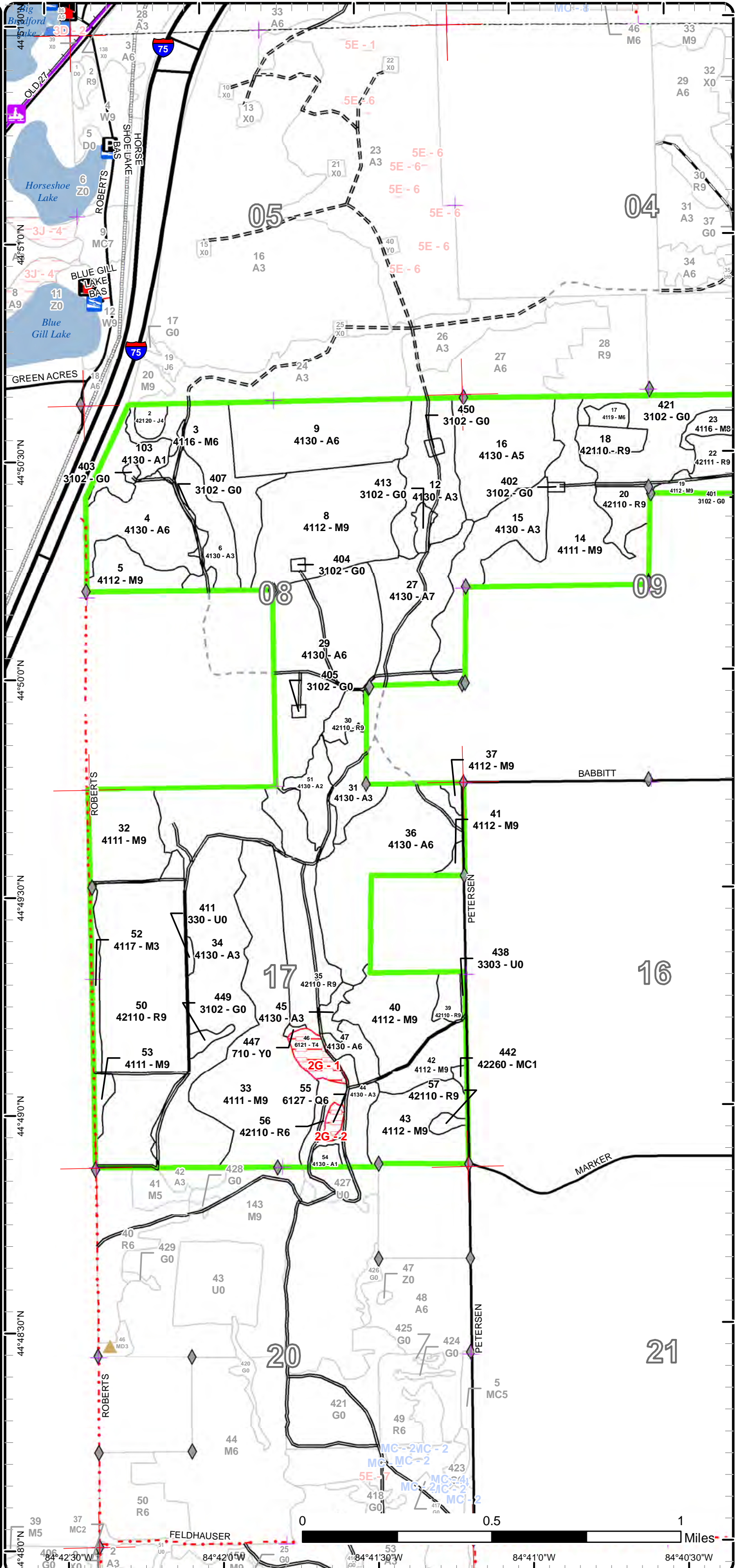
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- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- ▲ Boat Access Site

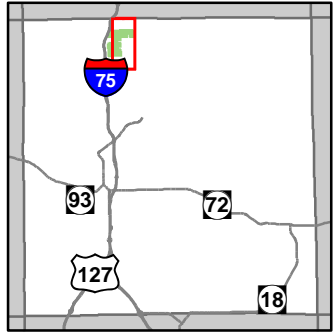




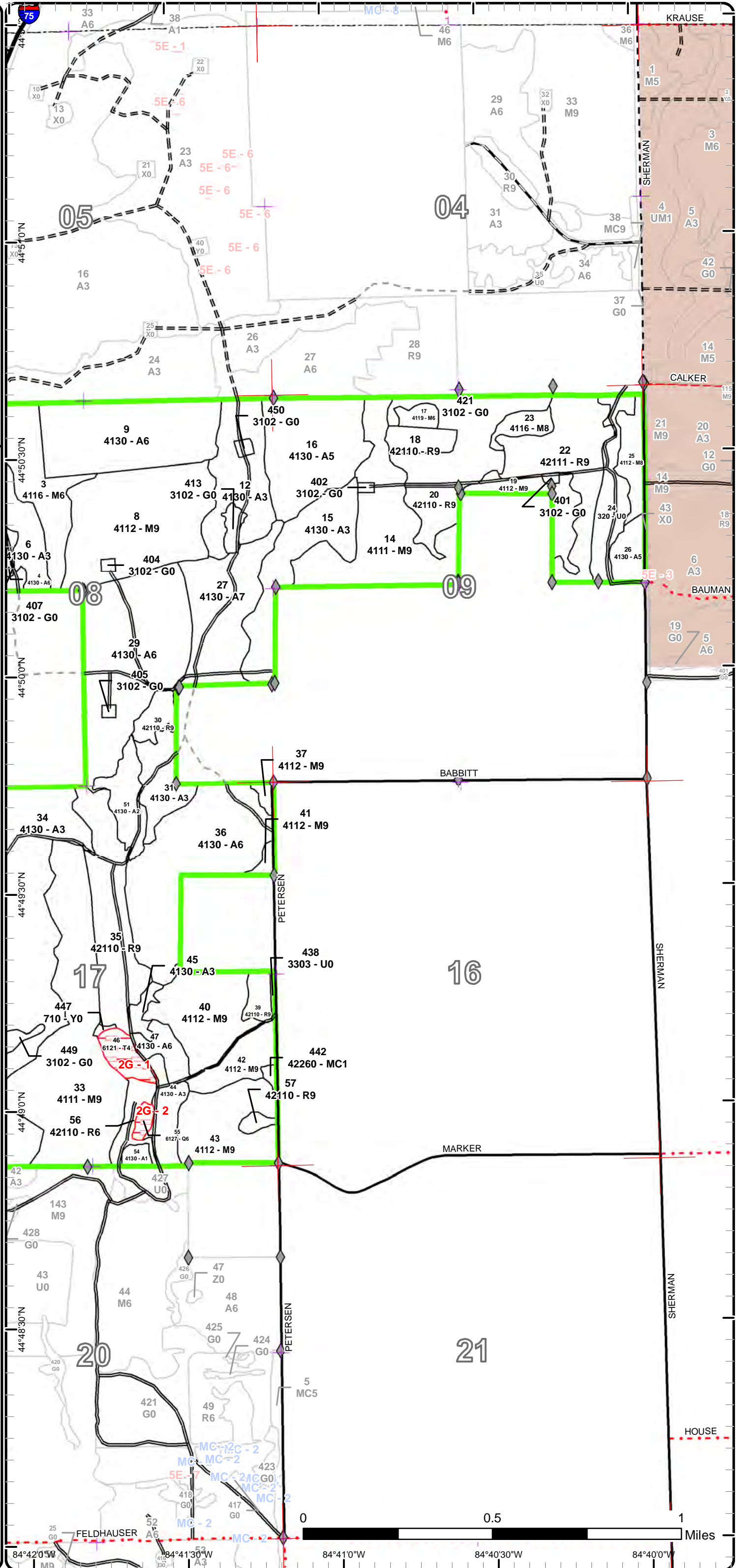
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- Compartment Boundary
- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- Stand Boundaries
- Research, Development, and Military Lands



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	28	127	201	180	0	40	0	0	0	0	0	0	0	0	0	0	0	576
Herbaceous Openland	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
Jack Pine	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Conifers	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Natural Mixed Pines	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Northern Hardwood	0	0	0	6	0	0	0	0	134	88	141	16	31	0	0	0	0	0	416
Red Pine	0	0	0	0	58	0	62	102	0	0	0	0	0	0	0	0	0	0	222
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Tamarack	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Upland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
<b>Total</b>	<b>74</b>	<b>28</b>	<b>127</b>	<b>208</b>	<b>238</b>	<b>0</b>	<b>106</b>	<b>110</b>	<b>134</b>	<b>88</b>	<b>143</b>	<b>16</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1302</b>



## Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2020

Acres of Harvest

Compartment 214

Total Compartment Acres: 1,303

Commercial Harvest - 165  
 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	40	0	0	0	0	0	0	0	0	40
Herbaceous Openland	25	0	0	0	0	0	0	0	0	25
Northern Hardwood	19	0	0	0	15	0	0	0	0	34
Red Pine	0	0	0	0	66	0	0	0	0	66
<b>Total</b>	<b>84</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>165</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	165	0	0	0	0	0	0	13	0	177
Next Step	0	25	25	0	0	109	0	0	0	159
<b>Total</b>	<b>165</b>	<b>25</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>109</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>336</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
5	72214005-Cut	15.5	4112 - Maple, Beech, Cherry Association	Sawtimber Well	104	111-140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Clear cut with standard retention.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix hardwood/conifer.

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

17	72214017-Cut	3.9	4119 - Mixed Northern Hardwoods	Poletimber Well	87	81-110	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut without retention due to small size of stand.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of hardwoods or aspen.

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

18	72214018-Cut	7.7	42110 - Planted Red Pine	Sawtimber Well	36	171-200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Row thin, take 1 leave 2 or take 2 leave 4.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

19	72214019-Cut	15.0	4112 - Maple, Beech, Cherry Association	Sawtimber Well	79	111-140	Harvest	Crown Thinning	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Identify hard maple crop trees and mark to release crown on 1-3 sides. Thin remaining stems to a residual BA of 80 sqft/ac. Target diseased

Specs: beech, poor formed hard and soft maple, and aspen for removal. Retain yellow birch and mast/cull trees for diversity and wildlife.

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
20	72214020-Cut	10.6	42110 - Planted Red Pine	Sawtimber Well	39	201+	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Row thin take 1 leave 2 or take 2 leave 4 to allow for a minimum of 12 feet in the cut rows.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Row spacing should facilitate take 1 leave 2.

Comment:

Proposed Start Date: 10/1 /2019

22	72214022-Cut	39.4	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	39	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Row thin where needed, take 1 leave 2 or take 2 leave 4 to allow a minimum 12 feet width for cut rows.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Patchy red pine with large pockets of brushy immature/pole sized hardwoods. Consider utilizing these brushy hardwood pockets as landings.

Comment:

Proposed Start Date: 10/1 /2019

27	72214027-Cut	39.8	4130 - Aspen	Sawtimber Poor	55	1-50	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Low quality quaking aspen. Clearcut with standard retention. Add drumming log spec. Add shrub protection specs.

Specs:

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

Acceptable Aspen  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

56	72214056-Cut	7.8	42110 - Planted Red Pine	Poletimber Well	59	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription 2nd thinning. Thin from below to a residual BA of 120sqft/ac.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
413	72214413-NF	3.3	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing,  
Specs: brushing, tree and shrub planting and herbicide application.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

421	72214421-Cut	24.9	3102 - Grass	Nonstocked		Unspec ified	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Convert opening to red pine. Cut all stems in opening greater than 2" DBH. Retention may want to be focused in north east corner in patch of  
Specs: pole/saw sized quaking aspen. Protect hawthorn.

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

Acceptable Fully stocked planted red pine.  
Regen:

Other Include low stump and chipping specs to facilitate planting. Piccolo want's to reserve the south west 7 acres of stand to convert to a maintained  
Comment: WL opening. Only about 20 acres of this stand will be planted to red pine. Consider requiring logger to cut this stand first.

Proposed Start Date: 10/1 /2019

421	72214421-NF	9.2	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing,  
Specs: brushing, tree and shrub planting and herbicide application.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/1 /2019

**Total Treatment  
 Acreage Proposed: 177.1**

## Report 4 – Site Conditions

Grayling Mgt. Unit  
Scott McClarren : Examiner

Compartment: 214  
Year of Entry: 2020

### Availability for Management

Total Acres	Acres Available	Acres Avail With Condition	Acres Not Available
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### Dominant Site Conditions

2G

Total	Acres	Acres Avail	Acres	Dominant Site Conditions	2G
Acres	Available	With Condition	Not Available		
575	575	0	0	Aspen	
53	53	0	0	Herbaceous Openland	
4	4	0	0	Jack Pine	
2	2	0	0	Low-Density Trees	
2	0	0	2	Lowland Conifers	2
1	1	0	0	Natural Mixed Pines	
416	416	0	0	Northern Hardwood	
222	222	0	0	Red Pine	0
1	1	0	0	Sand, Soil	
8	0	0	8	Tamarack	8
18	18	0	0	Upland Shrub	
1,303	1,292		10	Total Forested Acres	10
	99%		1%	Relative Percent	

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

Site No.	Dominant Site Cond	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable		<b>2G: Too wet (sensitive soils, does not include access issues)</b>	8	3K: Rare or unique landforms	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Bog with sensitive soils, multiple age classes, and unique species composition adds diversity to the landscape.								
2	Unavailable		<b>2G: Too wet (sensitive soils, does not include access issues)</b>	2	3K: Rare or unique landforms	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Bog with sensitive soils, multiple age classes, and unique species composition adds diversity to the landscape.								

Mgt. Unit

Compartment: #Type!

Year of Entry:



### Report 5 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments

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**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area  
 HCVA = High Conservation Value Area  
 SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	42120 - Planted Jack Pine	Poletimber Poor	4.4	57	111-140	Jack pine BA ranges from 0 sqft/ac in the borrow pit to 140 sqft/ac along the uphill edge. Significant mortality in the bottom of the pit (SM 5/3/18). Old comment-OPIC - FMD: Small JP stand, old borrow pit that was planted. Jack pine is variable in size and density. Short height in places, somewhat low site index. Near I-75 and adjacent to northern compartment boundary. Could final harvest next YOE and replant. (old comment) Planted borrow pit for I-75, if need more some day you could take out the ridge to the east.
3	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	35.3	93	81-110	A few large hybrid red/black oaks along edge of jp plantation (STD 02). Heavier aspen component on the north half of the stand. Quantitative data did not accurately represent actual big toothed aspen. North half of stand consists of around 50% aspen, south half of stand has very little aspen and more hardwoods/white pine. Beech bark disease present (SM 5/3/18). Old comment-OPIC - FMD: Low quality hardwood stand with significant aspen component. Heavy to red maple/beech. Aspen is descent quality, the remainder is clumpy in growth form and has a fair amount of decay/poor form. Recommend holding 10 years then do a species removal of aspen or final harvest with a goal of getting mixed regeneration of hardwoods/aspen. White pine is scattered throughout stand. DBH seems to lessen in north, as does density. Much greater amount of aspen. Stand was split this YOE to delineate area where aspen seems to become more dominant. Area is concentrated around gas well and to the west, however this line is subjective and may fluctuate slightly upon stand examiners on the ground analysis. (old comment) Some WP patches in the south end. Half aspen half maple NE corner. Thin out aspen next time.
4	4130 - Aspen	Poletimber Well	32.7	28	51-80	Well stocked aspen stand. Most aspen are 5"-7" with scattered aspen in 8" d-class (SM 4/30/18). Old comment-OPIC - FMD: A3 stand responding well to final harvest that was conducted in 2001. Relatively pure aspen with descent height at this point. Some birch are scattered into stand with some hardwoods present as well. (no old comment)
5	4112 - Maple, Beech, Cherry Association	Sawtimber Well	15.5	104	111-140	Large aspen snags >12" dbh through most of stand. Some large wolfy beech scattered. Beech bark disease present (SM 4/30/18). Old comment-OPIC - FMD: Variance requested March 2011 to drop currently harvest prescription and re-evaluate next YOE has been approved 3-21-11). previously prescribed in last OI YOE. Looked at stand but did not update OI database, was uncertain of status of past prescription. 4/3/09 Gas well was placed in SW corner of stand. (old comment) HEAVY BEECH REGENERATION. WOLF BEECH TREES. ONLY MERCHANTABLE FOR FIREWOOD SALE. COULD MARK IF STAND 32 IS THINNED, OTHERWISE NOT MUCH VOLUME FOR A SALE.
6	4130 - Aspen	Sapling Well	17.4	18	Immature	OPIC - FMD: A3 stand growing well, again, responding well to final harvest in 2001. Some openings scattered throughout stand. Hardwood species are present, mainly concentrated along edges. (old comment) Final harvest in 2001 contract # 72-015-00 Babbitt 5 Aspen sale.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
8	4112 - Maple, Beech, Cherry Association	Sawtimber Well	65.0	89	81-110	Basal area is lower towards the east side of stand with large pockets of aspen regen. Very brushy understory consisting of mostly beech. Small pocket of hard maple regen. Beech bark disease present (SM 5/4/18). Old comment-OPIC - FMD: This stand is now a combinations of stand 8 and 10. Slight variations in this area, however it seems to occur over the bulk of both stands, not a definitive line. Descent hardwood stand dominated by sugar maple with beech a major component. Red maple is present, larger individuals. Some clump gron individuals and some decrease in overall quality around edges. Lots of DWD along with a great deal of wildlife activity throughout stand. Quality seems to decrease slightly in north and eastern portions of stand, as does stocking. Definitely more variable in these locations of stand. Thin again next YOE. (old comment) Beech regeneration, not FDF quality. Thinned in 2001 contract # 72-051-00 Could Be Nice Hardwoods
9	4130 - Aspen	Poletimber Well	54.0	38	81-110	Well stocked aspen dominates stand. Aspen has quite a bit of defect. No gas well in stand, see old comment (SM 4/30/18). Old comment-OPIC - FMD: Nice A3 stand, right on the cusp of becoming A4/5 stand. Unusually high amount of porky damage within stand, mainly concentrated on hardwood component of stand. Will be merchantable next YOE, because of descent height growth may want to consider treating early with a final harvest. 4/3/09 gas well and road are proposed within stand. (no old comment)
12	4130 - Aspen	Sapling Well	32.0	18	Immature	Well stocked quaking aspen (SM 5/4/18). Old comment-OPIC - FMD: A3 stand, some hardwoods throughout. Growing well, stand is relatively dense with lots of wildlife use, some browse. Scattered white pine mainly concentrated along western edge add nicely to diversity. (old comment) WHITE PINE UNDERPLANTING UNSUCCESSFUL. HYPOX CANCKER. Final harvest in 2001 contract # 72-015-00 Babbitt 5 Aspen sale.
14	4111 - S.Maple, Hard Mast Association	Sawtimber Well	55.4	96	81-110	South west part of stand has more soft maple than hard maple. Beech bark disease present (SM 5/7/18). Old comment-OPIC - FMD: Moderate quality hardwood stand. PARVVb on kotar scale as is common in this area. Red maple dominant with low quality sugar maple and beech. Beech dominates advanced understory with sugar maple present as well, mainly low ground regen. Scattered aspen, seem to be concentrated along western edge in central portions of stand. Sugar maple density/quality improves slightly in more northern reached, just south of pipeline/wellsite. Some good sugar poles in this area. Red maple is quite large in size and has clumpy growth form. Recommend thinning stand, or portions of stand next YOE to remove aspen and large clumpy red maple. Favor single poles and sugar maple in general. Bulk of large wolfy beech should be removed with spaces utilized as canpy gaps within stand. Some should be left for wildlife. Possibly girdle a few in pockets to develop large standing snags and also enhance large DWD. Overall density seems slightly low to thin this YOE. (old comment) HOLD 10 YEARS. POST AND ONE INCH PIPE 22 FT SOUTH OF OLD FENCE.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4130 - Aspen	Sapling Well	34.3	18	Immature	Heavy beaked hazel and beech along mature hardwoods edge (SM 5/4/18). Old comment-OPIC - FMD: Nicely regenerating stand. Seems to be developing into quite a mixed stand with areas dominated by hardwoods and some by aspen. Overall it seems as though aspen is most numerous. White pine remains a significant component albeit scattered. There is heavy deer browse in some areas, most notably along stand edges. (old comment) Red maple clumps, openings in canopy, cut and convert to aspen. Final harvest in 2001 contract # 72-015-00 Babbitt 5 Aspen sale.
16	4130 - Aspen	Poletimber Medium	44.9	39	1-50	OPIC - FMD: A3 stand growing well. Birch along with early successional hardwoods present as well. Will be A4/5 next YOY. Tall in height however DBH is slightly smaller than merchantable. (old comment) Height varies from 18 to 30 ft tall.
17	4119 - Mixed Northern Hardwoods	Poletimber Well	3.9	87	81-110	Larch under planted in hardwoods. Larch was more successful around edges of stand. Beech bark disease in stand and canker present in some sugar maples (SM 5/7/18). Old comment-OPIC - FMD: Small hardwood stand. Unique quality as previously mentioned in OI, has some European larch in understory. Overall stand is poor quality with sugar maple being ok/poles. Thick understory in places typical of area, beech... Some aspen, mainly concentrated on southern edge. (old comment) EUROPEAN LARCH IN THE UNDERSTORY, 3 TO 5 INCHES DBH AND 16 FT TALL.
18	42110 - Planted Red Pine	Sawtimber Well	7.7	36	171-200	Red pine plantation never been thinned. Small hardwood inclusions in a couple spots. (SM 5/7/18). Old comment-OPIC - FMD: Similar to stand 20. Growing fairly well. Some large wolfy hardwoods throughout stand. Red pine is not self pruning very well however it seems as though this is picking up. Eastern edge still R3 in places. Some hawthorn in areas of understory. Bracken fern is present in low numbers, more open areas. (no old comment)
19	4112 - Maple, Beech, Cherry Association	Sawtimber Well	15.0	79	111-140	See old comment (SM 5/8/18). Old comment-OPIC - FMD: Fair quality hardwood stand made up of sugar maple, beech and aspen with some scattered red maple. Some fair quality sugar maple poles with open understory in places. Yellow birch present in low #'s. (no old comment)
20	42110 - Planted Red Pine	Sawtimber Well	10.6	39	201+	Red pine never been treated. Most trees are 3-4 sticks (SM 5/7/18). Old comment-OPIC - FMD: Young red pine stand, short in height. Lower branches are beginning to prune, slowly. Overall, trees are typically 1 stick with occasional taller trees. Some single log trees present, low numbers. Open understory, little groundcover. (no old comment)
22	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	39.4	39	141-170	Large pockets of sapling/pole sized aspen/hardwoods mixed through red pine plantation. Sugar maple dominates sub-canopy cover under red pine (SM 5/8/18). Old comment-OPIC - FMD: Descent red pine, slightly better height/form than stands 18/20. Doesn't seem to be self-pruning very well in places. Thick hardwood understory in places along with areas dominated by aspen/hardwood regen. Some open pockets along pipeline. Recommend thinning after field review next YOY. (old comment) RELEASED RED PINE IN 1992.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	4116 - Mixed N. Hardwood - Aspen	Sawtimber Medium	6.2	95	51-80	Beech bark disease present. No red pine in understory (refer to old comments). Hardwoods through east half of stand and aspen on the west side of stand (SM 5/8/18). Old comment-OPIC - FMD: Hardwood stand, descent quality. Dominated by sigar maple with aspen and red maple common throughout. Red pine in understory is struggling and being outcompeted on hardwood site. (old comment) MANAGE FOR NORTHERN HARDWOODS - RED PINE UNDERPLANTING DEAD OR DIEIN
25	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	11.1	88	81-110	More red maple and aspen on west edge of stand. See old comment for more stand details (SM 5/8/18). Old Comment-OPIC - FMD: Poor quality red maple stand. Looks to have been grazed in the past. Large WP stumps in places. Clump form with lots of defect. Scattered birch with a few oak mixed in. One large oak in particular is seeding and is surrounded by fair quality poles. Sugar maple is also present, more common along sherman road, as is oak. (old comment) Visual Management along Sherman Rd, scotch pine on the north end.
26	4130 - Aspen	Poletimber Medium	8.5	39	51-80	Aspen stand with some oak and maple mixed in on a west facing slope (SM 5/8/18). Old comment-OPIC - FMD: A3 stand. Scattered WP in over/understory. Aspen is moderate/low quality although quite dense in terms of stocking. Some other early successional species are present, growing fairly well. Hardwood also present as is typical of this region. (no old comment)
27	4130 - Aspen	Sawtimber Poor	39.8	55	1-50	Open stand with low quality quaking aspen and red maple in understory (SM 5/4/18). Old comment-OPIC - FMD: Sparse aspen stand with hardwood and some aspen in understory. Somewhat poor quality overall. WP/fir mixed in in places. Some DWD, lots of wildlife activity. Aspen is short in height, aside from pocket in northern reaches of stand. Small pocket of red pine in north along with a couple oak stems along western edge. A1/3 understory in more open areas of stand. Recommend final harvest with reserve species next YOE. Majority of aspen should hold until this time. (no old comment)
29	4130 - Aspen	Poletimber Well	72.7	39	81-110	Well pad and gas line run through stand. Paper birch is more prevalent in northeast corner of stand (SM 3/13/18). Old comment-OPIC - FMD: A3 stand with hardwood componenet throughout. Paper birch present in high #'s in some spots. PB is regenerating in these areas. Will be A4/5 next YOE. (no old comment)
30	42110 - Planted Red Pine	Sawtimber Well	6.7	59	141-170	Has been row thinned take 1 leave 2. Rows run north south (SM 3/13/18). Old comment-OPIC - FMD: Descent red pine stand with some hardwoods in understory as well as aspen within rows near edges. Growth is somewhat small, seems to be a limiting site for red pine, although form is fair and density is recovering well after thinning in 2001. Recommend thinning next YOE by removing a 1/3 of volume. (old comment) Third row thin. Thinned in 2001 contract # 72-034-00 Rainy Day Red Pine.
31	4130 - Aspen	Sapling Well	16.1	18	Immature	See old comment (SM 3/13/18). Old comment-OPIC - FMD: A3 stand doing well after final harvest in 2000. Pure aspen with some cherry/hardwoods scattered. Occasional WP at edges provide nice diveristy. Some red pine regeneration adjacent to stand 30. (old comment) Final harvest in 2001 contract # 72-015-00 Babbitt 5 Aspen sale.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4111 - S.Maple, Hard Mast Association	Sawtimber Well	30.5	96	81-110	Beech bark disease present. Small pocket (<1 ac) of sugar maple mortality on north side of stand unknown cause. Very few "quality" logs found. See old comments (SM 4/25/18). Old comment-OPIC - FMD: Thick understory of mostly beech. Fair quality hardwoods, however lots of defect and clumpy form overall. Size variation is quite large within stand. Some descent quality sugar maple poles/logs. Scattered elm poles exist adding to diversity. Some large aspen remain along road. Scattered porcupine damage within stand. (old comment) CULL BEECH AND MAPLE. YOUNG BEECH AND MAPLE SHOWS PROMISE. ENOUGH HARD MAPLE ON THE SOUTH END TO CONSIDER IMPROVING THE STAND. GX NOT FDF. Thinned 2002 contract #72-050-00-01 Roberts Road Hardwood.
33	4111 - S.Maple, Hard Mast Association	Sawtimber Well	86.6	77	81-110	Decent hardwoods stand, more beech on east side (50/50 beech/hard maple). A couple of patches of dense sugar maple regen 10-20 feet tall scattered on west side of stand. Parts of east side of stand inoperable due to steep slope. Beech bark disease present (SM 4/23/18). Old comment-OPIC - FMD: Nice hardwood stand, dominated by sugar maple and beech. Yellow birch present in low numbers. Thick understory in places. Some steep topography facing east. Lots of wildlife sign within stand. Significant porcupine damage in spots. Recommend thinning again during next YOE. (old comment) FDF. LAND WAS OBTAINED BY TR. SALE #720490001 THINNING 2002 LEFT APPROX. 70BA
34	4130 - Aspen	Sapling Well	103.7	27	1-50	Aspen stand with pole size timber in some areas and sapling sized in most others. North side of stand has more of a hardwood component. Size and spp. composition variable through stand. Openings in aerial photos appear to be old landings (SM 4/23/18). Old comment-OPIC - FMD: A3 stand with some open spots. Hardwood species mixed in along with jack pine, mostly at edge. Overall stand is dominated by aspen, growing very well. Some scattered pockets dominated by hardwoods, mostly beech and cherry with some red and sugar maple throughout. (no old comment)
35	42110 - Planted Red Pine	Sawtimber Well	39.8	59	111-140	See old comments (SM 2/12/18). Old comment-Stand was harvested under contract 72-001-10-01. Stand has considerable damage done to the residual stand from the timber harvest. OPIC - FMD: Nice red pine in valley. Growing fairly well, not as high of a site index as stand 50. A few WP scattered along with variable hardwood understory in places, mainly concentrated along edges. Opening/road runs down the center of the stand. Overall the stand is responding well to thinning. Becoming crowded in spots. Red pine are slightly larger/denser in the northern reaches of the stand. Recommend thinning 1/3 of volume by focusing removal on poor quality, suppressed or otherwise poorly formed individuals with the goal of increasing overall stand quality. Use 2-track in center of stand linked to 2-track that heads west to Roberts road as access to stand. Mark stand boundary 1-2 chains back from tree'd bog at the southern edge of the stand. (old comment) Third row thin. Far west rows on a slope. Thinned in 2001 contract # 72-034-00 Rainy Day Red Pine.
36	4130 - Aspen	Poletimber Well	65.0	28	1-50	Fully stocked aspen. Steeper slopes along west side of stand. Aspen is in the 5-6 inch DBH range with lots of saplings in the 3-4 inch range (SM 3/13/18). Old comment-OPIC - FMD: Stand that is thick and growing quite well. Some hardwoods mixed in as is typical within aspen stands of this area. Height and form are good, will be merchantable next YOE. (no old comment)



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4112 - Maple, Beech, Cherry Association	Sawtimber Well	2.2	88	51-80	Beech bark disease present (SM 3/13/18). Old comment-OPIC - FMD: Low quality hardwood stand with aspen mixed in. Clumpy form, some mortality. Understory is thick with beech and some maple, both red and sugar. Nice for visual along road and private to the north. (old comment) Leave for visual along Babbitt Rd.
39	42110 - Planted Red Pine	Sawtimber Well	5.4	59	141-170	Been thinned twice (SM 3/5/18). Old comment-Stand was harvested under contract 72-001-10-01. Stand has considerable damage done to the residual stand from the timber harvest. OPIC - FMD: Red pine growing well with some defect/poorly formed individuals throughout. Thin 1/3 by removing poorly formed, suppressed trees with the goal of improving overall stand quality. Has been thinned once and is now becoming slightly crowded. Thinning should really give residual trees excellent growing conditions following treatment. Minimal hardwood understory to deal with when marking. Will most likely advance following thinning. (old comment) Thinned in 1992, still growing strong.
40	4112 - Maple, Beech, Cherry Association	Sawtimber Well	32.2	71	81-110	Stand has a 2 aged appearance in some place. Lots of poles with sawlog size beech and maple mixed in. Big tooth aspen is patchy and over mature. Beech bark disease has affected beech overstory (SM 3/12/18). Old comment-OPIC - FMD: Fair quality hardwood stand with significant topography in the western portions. Aspen is a component throughout but seems to increase in the western areas of the stand. Scattered pockets of white pine, some fir in understory. In the further west portions of the stand, quality and BA seem to increase while DBH may decrease slightly. More sugar maple poles of descent quality with less clumpy growth and fewer wolfy sugar maple and beech. Scattered basswood in higher elevations. Next YOE thin by focusing on improving/enhancing sugar maple individuals and removing aspen and majority of red maple. (old comment) HEAVY BEECH REGEN - FAIR TO POOR QUALITY HDWDS. HILLY WITH SOME ASPEN.
41	4112 - Maple, Beech, Cherry Association	Sawtimber Well	2.4	88	81-110	Beech bark disease present. See old comment for description of stand (SM 3/13/18). OPIC - FMD: Overall poor quality hardwood stand. Yellow birch present in low numbers. Clumpy growth form on sugar maple. Heavy beech understory with some areas of sugar maple as low ground regen. (old comment) Leave for visual along Babbit Rd.
42	4112 - Maple, Beech, Cherry Association	Sawtimber Well	14.0	94	81-110	Beech bark disease present in stand (SM 3/2/18). Old Comment-OPIC - FMD: Overall poor quality hardwood stand. Stand is on a north facing slope adjacent to stand 40. Clumpy form, lots of birch with occasional aspen. Some nice stems in southern portion of stand and scatted pockets. White pine present in understory. (old comment) Leave for visual along Babbit Rd.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4112 - Maple, Beech, Cherry Association	Sawtimber Well	31.3	111	81-110	Beech bark disease is present in stand. A couple of yellow birch and black cherry were scattered through stand. Red maple and beech are a heavier component on the west side of stand. (SM-2/28/18). OPIC - FMD: Descent hardwood stand, thick beech regeneration throughout. Typed to be an M9 stand but there is a significant number of poles present. Right on the edge of M9/6. Sugar maple is well formed, not great. Red maple present in low numbers, fairly well formed. Yellow birch and black cherry are present also. Lots of large wolfy beech creating plenty of habitat. Conifer component at western edge of white pine. Also some hemlock present, mainly concentrated near stand 57, a small red pine pocket at eastern edge of stand. Stand was not updated in comments from Babbitt Hardwood sale#720620101. (old comment) GOOD QUALITY HARDWOODS IN SPOTS, THINNED IN 1980, LOOKS LIKE THE ASPEN WAS GIRDLED. SOME HEMLOCK SAPS.
44	4130 - Aspen	Sapling Well	12.0	18	Immature	Fully stocked aspen with a lesser component of red maple. See old comment (SM 3/2/18). OPIC - FMD: A3 stand creating eastern side of valley. Steep slopes exist within stand. Heavy hardwood component, mainly beech and red maple. Stand is growing well, responding great to harvest conducted in 2001. Looks to have a very similar makeup to the A3 stand directly to the north. (old comment) SOME VERY STEEP PORTIONS. Final harvest in 2001 contract # 72-015-00 Babbitt 5 Aspen sale. A couple acres left uncut on the steep slopes.
45	4130 - Aspen	Sapling Well	3.9	18	Immature	Fully stocked aspen stand on mostly west facing slope (SM 3/12/18). Old comment-OPIC - FMD: A3 stand, close to A4 status. Nice aspen stand overall with some topography throughout. Hardwood component remains significant within this stand. Some hawthorn at edges. WP as well near edges and in interior of stand in places. Scattered elm add to diversity of stand. (no old comment)
46	6121 - Tamarack	Poletimber Poor	7.7	61	1-50	Steep drop into bog from upland. Variable densities and canopy cover. X-log size white pine inside perimeter of stand with log size tamarack scattered also. Seems to be 2 a distinct age classes but could possibly call uneven aged. Closer to center of bog, tamarack are sapling and pole size. Old comment-OPIC - FMD: Tree'd bog with tamarack concentrated in center of stand and large white pine around edges with swamp brush and tamarack mixed in these perimeter portions as well. Great stand overall adding diversity and cover to the area. Hawthorn on banks leading to lowland. Some dogwood species in lower portions, silky and red-osier, where overstory is slightly more open. Inventory of stand was done in winter but dug and found other wetland indicators including pitcher plants. (old comment) T1 center, W7T4 around the edge, some pitcher plants.
47	4130 - Aspen	Poletimber Well	8.3	18	81-110	Uncut portion of stand, close to 1 acre on west side due to inoperable slope comprised of approximately 150ba of white pine and over mature aspen. Beech bark disease present on beech pole size and greater (SM 3/5/18). Old comment-OPIC - FMD: A3 stand on par with stand 36. Aspen growing fairly well with hardwood component present. Lots of beech with some red maple and occasional sugar maple. (no old comment)





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	42110 - Planted Red Pine	Sawtimber Well	101.8	61	111-140	Basal area ranges from 90-170 sqft/ ac (SM 4/20/18). Old comment-Stand was harvested under contract 72-001-10-01. OPIC - FMD: Overall stand is very good quality. Some defect in the form of forked stems, deformed boles, however majority is very nice. The stand is becoming quite crowded with tall height and larger crowns becoming common. Understory is M2/3 in places is very thick, mainly concentrated around perimeter of stand. Interior is more open and more of an x-type understory, typical of red pine plantations in the area. Lots of squirrel activity throughout stand. Recommend thinning 1/3 by removing poorly formed, suppressed individuals with the goal of increasing overall stand quality, size and tree spacing. (old comment) Thinned in 1992, still growing good, 12 rings to last inch, hold till next time, the fortys are GX
51	4130 - Aspen	Sapling Medium	13.8	4	Immature	Fully stocked aspen with black cherry intermixed. A clump of white pine were left as leave trees near middle of stand. Red maple and aspen are 50/50 mix in western lobe (SM 3/13/18). Old comment-stand harvested in winter of 2015 under contract 72-001-10-01.
52	4117 - Mixed N. Hardwood - Pine	Sapling Well	6.1	28	Immature	Hardwoods with dense patches of jack pine. Jack pine mortality on south side of stand. Closed 2 track runs north/south separating stands 52 and 50 (SM 4/20/18). Old comment-OPIC - FMD: Stand is a mixture of J3/M3 along Roberts road. Actually J3 mixed with significant component of hardwood regeneration of equal or more density in places. Jack pine is extremely crowded by M3 component. Pocket of sumac at northern edge providing nice diversity and wildlife habitat, mainly for birds. Some red pine mixed in along with some pole sized hardwood species directly adjacent to road. (old comment) Strip clear cut in 1991, scotch pine has reseeded itself.
53	4111 - S.Maple, Hard Mast Association	Sawtimber Well	3.7	89	81-110	Low quality hardwoods. Beech bark disease present (SM 4/20/18). Old comment-Stand harvested under contract 72-001-10-01. OPIC - FMD: Hardwood stand just south of stand 52. Small stand. Scattered yellow birch and black cherry throughout stand. Descent hardwood stand with thick hardwood understory dominated by beech. Beech and maple are dominant in overstory as well. Scattered aspen in southern portions of stand. Recommend thinning stand with stand 50. Mark to 80 BA removing poorly formed individuals and large wolfy beech trees. Favor sugar maple where possible while maintaining each species to enhance diversity and aesthetics of stand.
54	4130 - Aspen	Sapling Poor	2.6	18	Immature	See old comment (SM 3/2/18). Old comment-OPIC - FMD: Small pocket of aspen, growing well. Small area of retention that was not cut on the western edge. Very similar to stand 44, not quite as dense at edges because of small size of stand. (old comment) Final harvest in 2001 contract # 72-015-00 Babbitt 5 Aspen sale. Cut all of the hill except the west side.
55	6127 - Lowland Pine	Poletimber Well	2.4	96	51-80	Forested lowland stand, see old comment (SM 3/2/18). Old Comment-[OPIC - FMD: Small bog just south of stand 46. More tree growth within this stand, as opposed to stand 46. Again, large WP around perimeter with some wet-site aspen present as well. Nice stand, lots of wildlife activity, DWD, added diversity. Lots of shrubs including hawthorn, dogwood and some witchhazel on banks of stand used heavily by wildlife. (no old comment)]



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	42110 - Planted Red Pine	Poletimber Well	7.8	59	171-200	Has been row thinned, take 1leave 2. No understory except some beech along edges and a pocket of white pine in the north east corner (SM 3/2/18). Old comment-OPIC - FMD: Somewhat of a hilly stand, bogs on the east and north sides of stand. Red pine growing fairly well, responding to thinning in 2001. Similarly to stand 35, the red pine are somewhat short in height and limited on this site. Overall a nice stand, descent quality. Thin next YOE when stocking is higher. (old comment) Hilly and on the edge of a bog. Thinned in 2001 contract # 72-034-00 Rainy Day Red Pine.
57	42110 - Planted Red Pine	Sawtimber Well	2.3	59	141-170	Free thinned in 2001. Sugar maple comprises a lot of the subcanopy, but has heavy browse damage (SM 3/2/18). Old Comment-Stand was harvested under contract 72-001-10-01. Stand has considerable damage done to the residual stand from the timber harvest. OPIC - FMD: Descent RP stand with light hardwood understory. Growing fairly well, tall with some defect. Hemlocks at edges add to diversity and make a nice transition zone between this stand and the adjacent hardwood type. Has been row thinned. Recommend thinning by removing 1/3 of the volume. Thin by removing poorly formed, defected and forked individuals. Favor the finest quality individuals while focusing on improving spacing and releasing residual to enhance growth. Do not cut any hemlock which may fall within stand boundary. Protect hardwood regeneration near perimeter of stand. (old comment) Marked for a third row thin in 1991 and was not cut.
103	4130 - Aspen	Sapling Poor	13.7	4	Immature	Overall fully stocked aspen (moderately stocked in a few small areas). Aspen getting above browse height. Some scattered white pine left as reserve trees (SM 5/3/18). Old comment-Stand was harvested in 2015 under contract 72-001-10-01.
442	42260 - Natural Pine, Mixed Deciduous	Sapling Poor	1.3	29	1-50	White pine has super canopy position compared to the rest of the stand. Diverse assortment of saplings and poles with lots of scotch pine. Transitioning to forested stand (SM 3/2/18). Old comment-OPIC - FMD: small grassy opening at the northeast corner of stand 43. Nice grassy stand along road with some brushy species throughout. Maintain as opening.



Stand	Cover Type	Acres	Managed Site	General Comments:
24	320 - Upland Shrub	18.3	No	Maple and aspen encroaching on opening. 2-track and gas line run through south half of stand (SM 5/8/18). Old comment-OPIC - FMD: Grassy opening/u-type with A4/5 status in places. Mainly occupied by cherry brush with the occasional merchantable cherry tree along with aspen, mainly concentrated along edges. (old comment) SCATTERED CHERRY AND PATCHES OF ASPEN-OLD PINE STUMPS-BRACKEN FERN.
401	3102 - Grass	0.8	No	See old comment (SM 5/4/18). Old comment-OPIC - FMD: Well-site adjacent to private and surrounding hardwood/red pine stands. Two wells on this pad: PMT-43111 and PMT-43120
402	3102 - Grass	0.7	No	See old comment (SM 5/4/18). Old comment-OPIC - FMD: Well site within hardwood stand, adjacent to aspen stand to the west. PMT-43119 and PMT-43110.
403	3102 - Grass	1.1	No	See old comment (SM5/4/18). Old comment-OPIC - FMD: Well-site within aspen/hardwood stands.
404	3102 - Grass	0.8	No	See old comment (SM 5/4/18). Old comment-OPIC - FMD: Well-site within hardwood stand, lots of wildlife activity within stand.
405	3102 - Grass	0.8	No	OPIC - FMD: Well-site within young aspen stand.
407	3102 - Grass	6.9	No	Road and gas pipeline run through stand (Linn Operating, 231-922-7302). See old comments (SM 4/30/18). Old comment-OOPIC - FMD: Long, narrow grassy opening with some aspen and upland brush beginning to encroach. Seems to be converting to more of a u-type in places, however still typed as a grassy opening. (old comment) LONG, THIN OPENING ALONG VALLEY CLOSING IN WITH ASPEN CLONES. HAS CHERRY BRUSH, FERNS, GRASS, AND DRY MOSS.
411	330 - Low-Density Trees	1.1	No	Some open grown jack pine, red pine, red maple, black cherry and aspen. Changed cover type to low density trees (SM 4/23/18). Old comment-OPIC - FMD: Small grassy opening at eastern edge of stand 50. Adjacent A3 is beginning to encroach on stand but still open enough to warrant typing as grassy opening. 2-track passes through stand, possibly a past landing site when stand 34 was harvested. Some jack pine mixed in. (no old comment)
413	3102 - Grass	3.3	No	See old comments (SM 5/4/18). Old comment-OPIC - FMD: Grassy opening with some large stumps scattered around. Cherry/aspen beginning to encroach on stand near edges. Similar to other G0 stands in this compartment, this stand seems to be converting to a u-type stand. (old comment) POOR SOILS - POVERTY GRASS AND OLD PINE STUMPS
421	3102 - Grass	34.1	No	Patch of quaking aspen in north east finger. Small island of mature hardwoods south of red pine stand 18. See old comments (SM 5/7/18). Old comment-OPIC - FMD: Large grassy opening with cherry brush throughout. Bordered by conifer/hardwood stands creating a secluded feel. Rolling terrain with a few small valleys. Lots of wildlife activity, 2-track at southern edge. Private property near southern edge. (old comment) ASPEN AND MAPLE ENCHROACHMENT.



Stand	Cover Type	Acres	Managed Site	General Comments:
438	3303 - Mixed Low Density Trees	0.9	No	A few saw trees (white pine, beech, and sugar maple) located on the north side of stand. Scotch pine saplings and poles in stand. Switched stand type from grass to mixed low density trees (SM 3/12/18). Old comment-OPIC - FMD: Narrow grassy opening adjacent to peterson road and stand 39. Nice opening along road buffering stand. Some shrub species in pockets. Do not enter during thinning of stand 39. Use old 2-track at southern edge of stand 39 for landing purposes. (no old comment)
447	710 - Sand, Soil	0.6	No	Erosion on hill likely the result of illegal atv use but difficult to see under snow (SM 3/12/18). Old comment-OPIC - FMD: small grassy opening adjacent to stands 46 and 33. Maintain as opening, provides nice opening within densely forested portion of compartment. (no old comment)
449	3102 - Grass	2.8	No	Scattered open grown black cherry, red pine, jack pine, and serviceberry (SM 4/18/23). Old comment-OPIC - FMD: Old landing site adjacent to stands 50 and 34. 2-track runs at edge of stand. Bulk of slash has broken down at this point, still pretty rough ground through stand. (old comment) Tops and slash and rough terrain.
450	3102 - Grass	1.2	No	See old comment (SM 5/4/18). Old comment-OPIC - FMD: Well site within A3 stand, directly adjacent to 2-track heading north through stand 12. Well site was put in after OI of this compartment was completed.