



# Compartment Review Presentation

## Gwinn Forest Management Unit

Compartment 32234

Entry Year 2019

Acreage: 1,308

County Marquette

Management Area: Chain Lakes Moraine

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**Revision Date:** 2017-08-01

**Stand Examiner:** Jason Caron

**Legal Description:**

T45N-R29W, Sections 8, 10 and 11.

**Identified Planning Goals:**

Perform timber harvests within older stands of pine, aspen, spruce and fir to promote a healthy, sustainable forest.

**Soil and topography:**

Ranging from relatively level wetlands to upland areas which are rolling to moderately hilly.

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

State ownership borders roughly half of the compartment boundary. The west half consists of corporate ownership, the east consists of a private hunt club. The remainder of ownership consists of private non-industrial owners.

**Unique Natural Features:**

The unique natural features include the numerous un-named ponds and wetlands. Not to mention Helen Lake and the Michigamme River within section 8.

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

Various old logging roads and rail grades exist throughout this compartment. Some are currently used for access roads and snowmobile trails.

**Special Management Designations or Considerations:**

No special management designations or considerations for this compartment.

**Watershed and Fisheries Considerations:**

**Wildlife Habitat Considerations:**

Compartment 234 is found within the Chain Lakes Moraine Management Area; on a Disintegration Moraine in Southwestern Marquette County. The dominant Natural Communities are dry mesic northern forests, poor conifer swamps, and mesic northern forests. This management area offers opportunities to increase diversity and perhaps long-term oak sustainability through under planting white and red pine. Another priority is to maintain or increase wildlife corridors especially along riparian corridors. Wildlife management issues in the management area are: mast (hard and soft); habitat fragmentation; mature forest conditions; mesic conifer; coarse woody debris; and retention or development of large living and dead standing trees (for cavities). This management area represents approximately ¼ of the oak resource on WUP state forest.

The following have been identified as featured species for Chain Lakes Management Area: black bear, gray jay, pileated woodpecker, Northern goshawk, red crossbill.

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

Sections 8, 10, & 11 T45N R29W, Marquette County

Sand/gravel pits are not located in the area, but there appears to be some sand and gravel potential within the compartment. The abandoned Republic iron mine is located six miles to the northwest. There has been no known metallic mineral exploration in the area (through direct sampling) and metallic mineral potential within the compartment is unknown, but there has been past leasing activity in Sec 8 and elsewhere in the vicinity. There is no economic oil and gas production in the UP.

**Vehicle Access:**

County road FNN, the Casey Lake Road, provides the primary access to the compartment. Poor dirt two tracks exist throughout the compartment to provide vehicle access. Snowy Owl Lane provides access off of M-95 for the small parcel within section 8.

**Survey Needs:**

No survey needs for this YOE.

**Recreational Facilities and Opportunities:**

The main recreational feature within this compartment would be the groomed snowmobile trail that passes east-west through sections 10 & 11. Other recreational activities include hunting, trapping, fishing, hiking, berry picking and ORV riding.

**Fire Protection:**

Fire protection is good within this compartment given the road network throughout. Most of the compartment contains aspen which is not as fire prone as other forest types.

**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**

Report 1 – Total Acres by Cover Type and Age Class



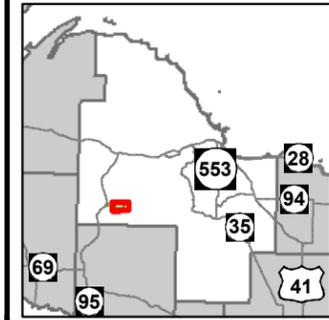
Age Class

	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	146	72	182	0	342	5	0	0	0	0	0	0	0	0	0	0	0	747
Bog	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
Herbaceous Openland	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Jack Pine	0	0	0	17	0	6	0	0	4	0	0	0	0	0	0	0	0	0	27
Low-Density Trees	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Conifers	0	0	0	0	4	0	0	0	105	0	0	0	0	0	0	0	0	0	109
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	15
Mixed Upland Deciduous	0	0	26	0	0	0	14	0	12	0	0	0	0	0	0	0	0	0	52
Northern Hardwood	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	22
Oak	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
Paper Birch	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9
Red Pine	0	0	0	0	0	0	42	0	0	16	67	11	0	0	0	0	0	0	136
Tamarack	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	24
Treed Bog	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Upland Conifers	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	11
Upland Mixed Forest	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Upland Spruce/Fir	0	17	11	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	35
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
<b>Total</b>	<b>111</b>	<b>163</b>	<b>109</b>	<b>199</b>	<b>4</b>	<b>355</b>	<b>58</b>	<b>14</b>	<b>142</b>	<b>61</b>	<b>16</b>	<b>67</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1309</b>

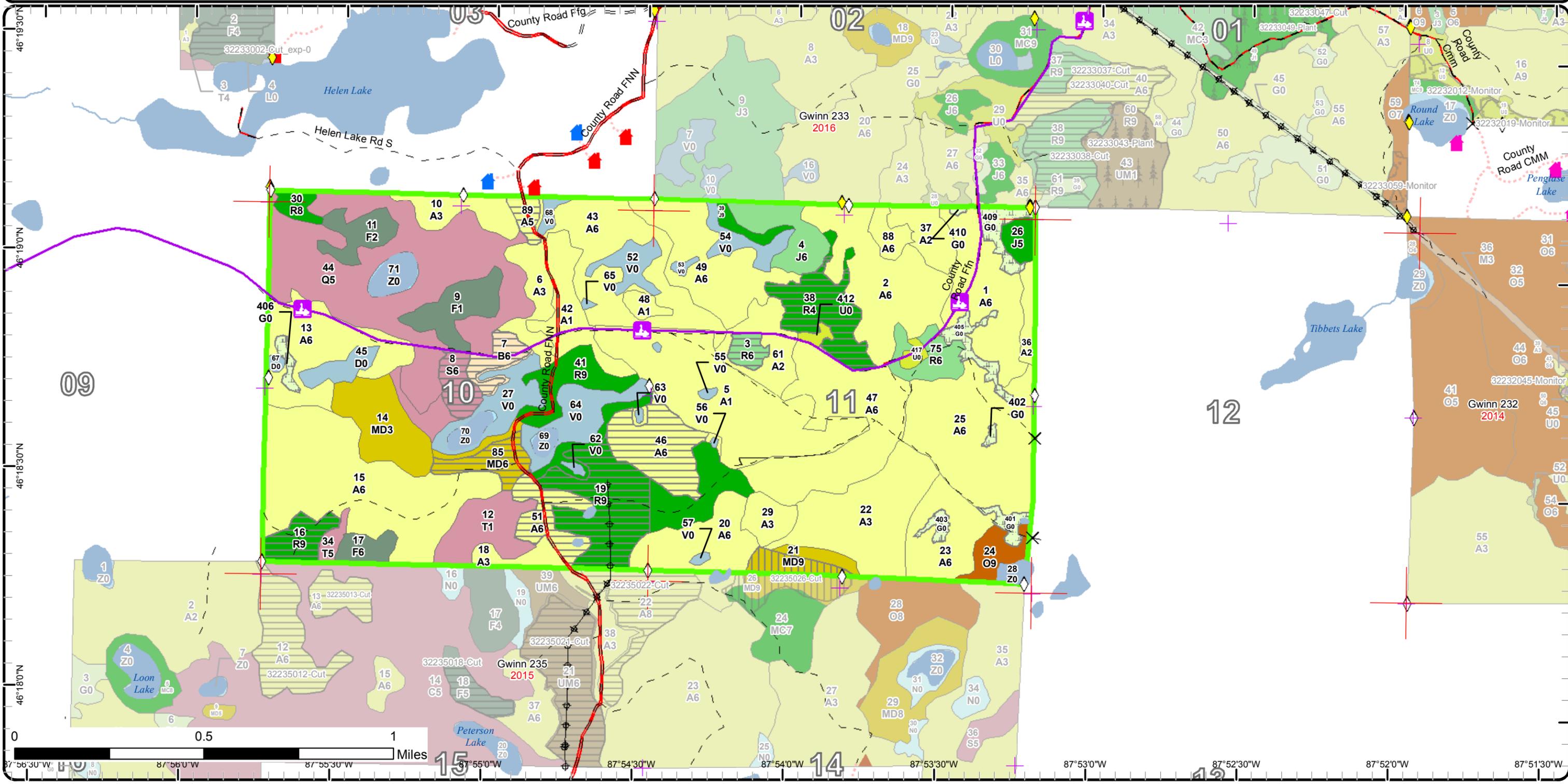


# Cover Type & Treatments Map

Compartment: 234  
 T45N, R29W, Sec: 08, 10, 11  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2019  
 Acres: 1308.1 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 1/11/2018  
 Map Phase: Post-Review

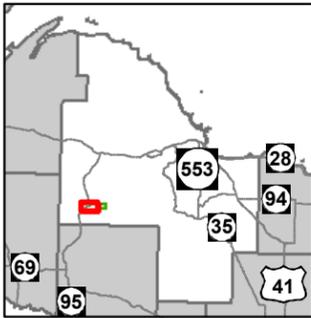


- |                                |                                  |                                 |
|--------------------------------|----------------------------------|---------------------------------|
| — Miris Corners                | — County Paved Roads             | 414 - Other Upland Deciduous    |
| + Remonumented Section Corners | — County Gravel Roads            | 419 - Mixed Upland Deciduous    |
| ◆ Survey Grade GPS Corners     | — Gravel Roads                   | 421 - Planted Pines             |
| ◇ Field Grade GPS Corners      | — County Poor Dirt Roads         | 422 - Natural Pines             |
| □ Counties                     | — Poor Dirt Roads                | 423 - Other Upland Conifers     |
| ✕ Gate                         | ... Closed                       | 612 - Lowland Coniferous Forest |
| ▲ Berms                        | — Streams                        | 310 - Herbaceous Openland       |
| 🏠 Cabin                        | — Lakes and Rivers               | 330 - Low Density Trees         |
| 🏠 House                        | ⚡ Powerline                      | 500 - Water                     |
| 🏠 Structure, Seasonal Dwelling | 🟩 Compartment Boundary           | 622 - Lowland Shrub             |
| 🏠 Snowmobile Trails            | 🏠 Other Treatment - See Comments | 🟩 Lakes                         |
| — Designated Snowmobile Trails | 🏠 Clearcut (w/Reserves)          |                                 |
|                                | 🏠 Shelter Wood (w/Reserves)      |                                 |
|                                | 🟩 412 - Oak Types                |                                 |
|                                | 🟩 413 - Aspen Types              |                                 |

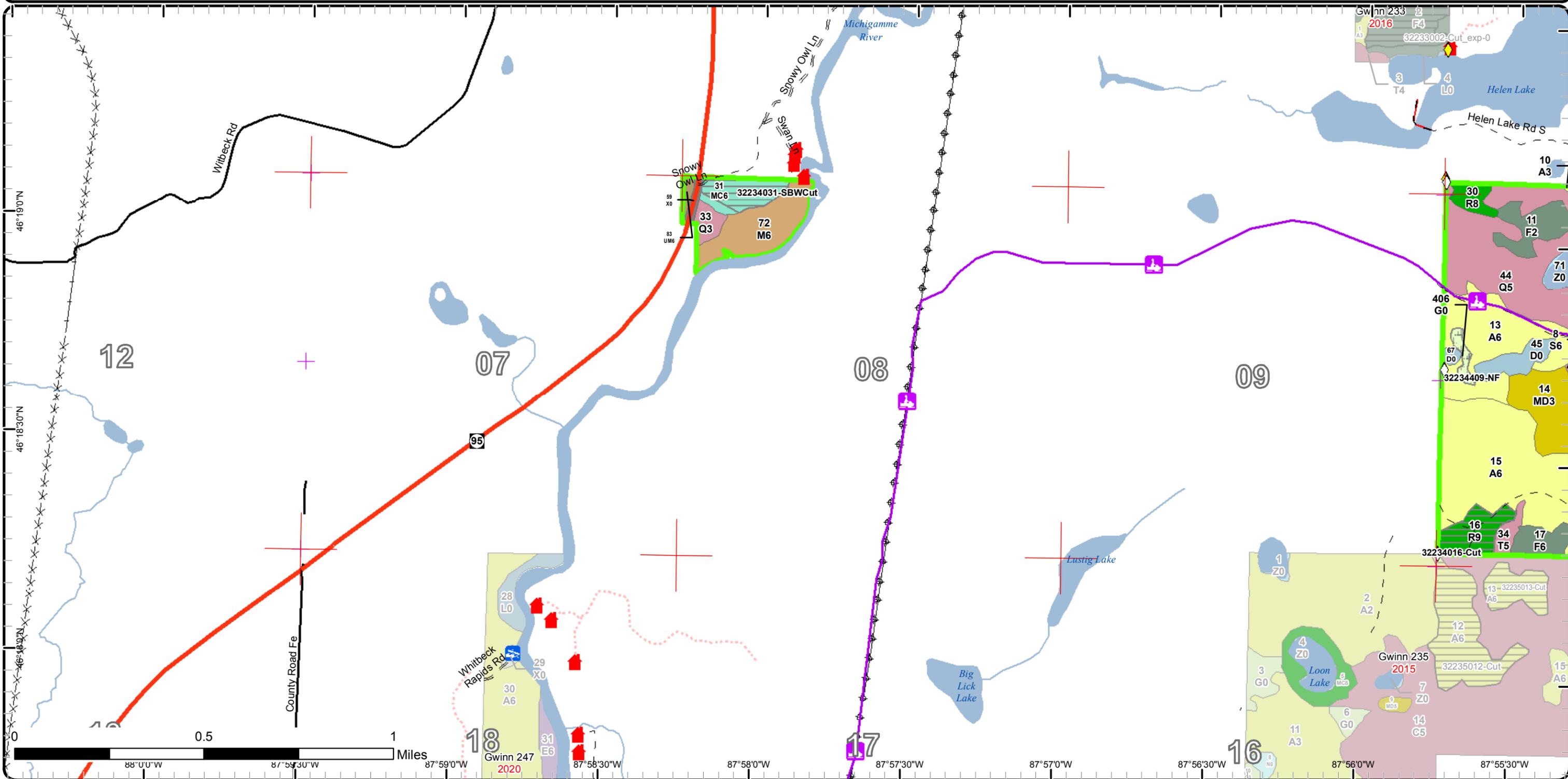


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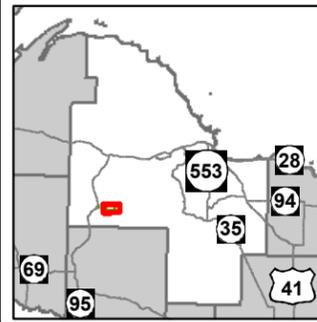


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- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Counties
- ▲ Cabin
- 🚤 Boating Access Site
- 🚙 Snowmobile Trails
- Designated Snowmobile Trails
- Highway
- Paved Roads
- Gravel Roads
- County Poor Dirt Roads
- - - Poor Dirt Roads
- - - Closed
- Active Railroads
- x - Abandoned Railroads
- Streams
- Lakes and Rivers
- Powerline
- Compartment Boundary
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- Lakes

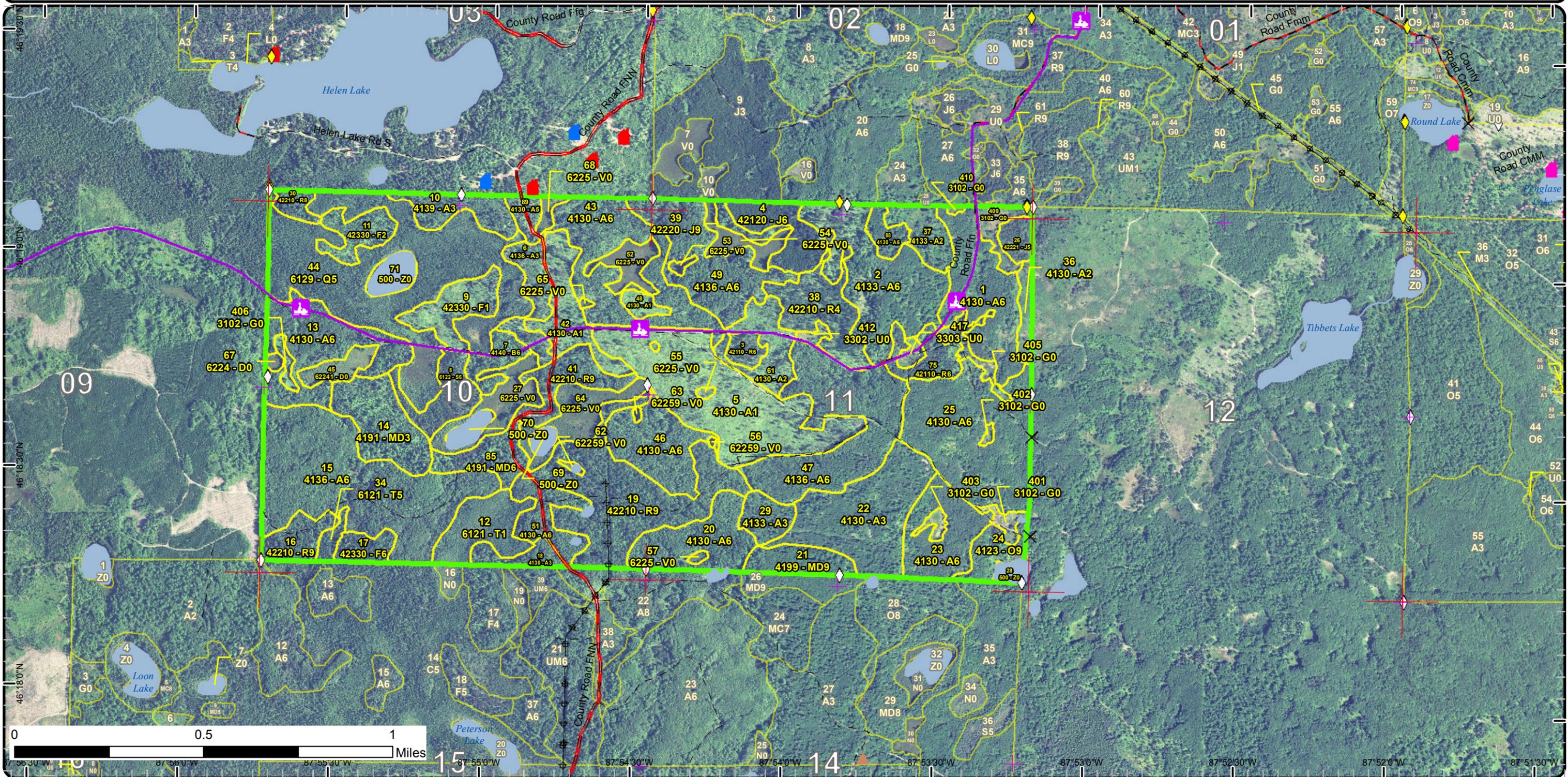


# Stand Boundary Map

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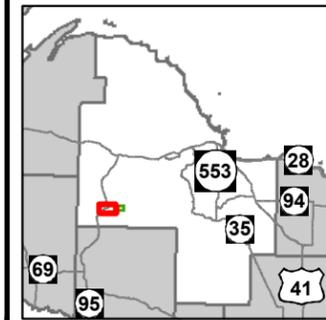


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- Stand Boundaries
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- 413 - Aspen Types
- 414 - Other Upland Deciduous
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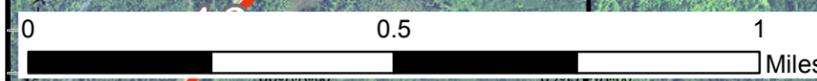
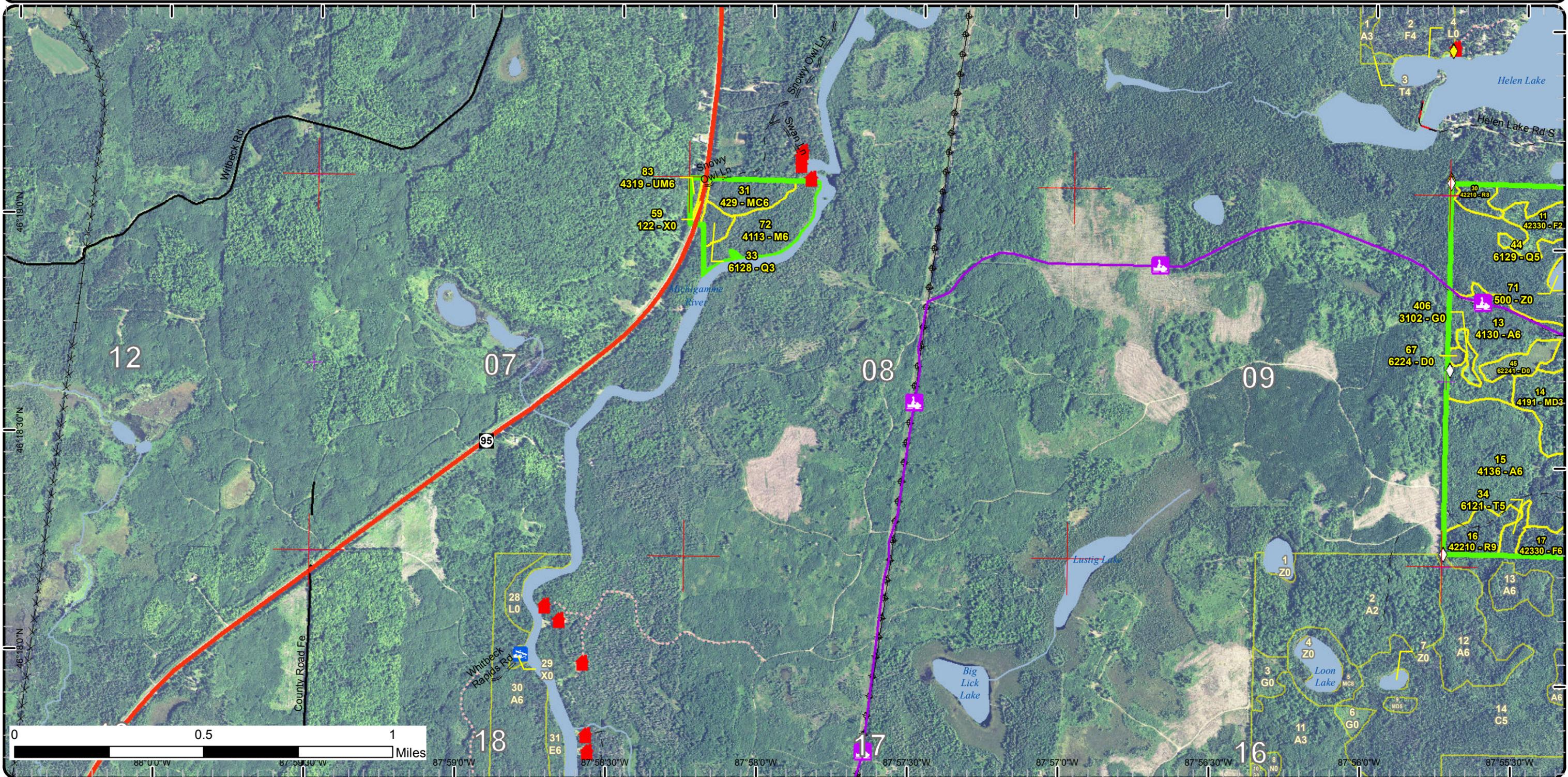


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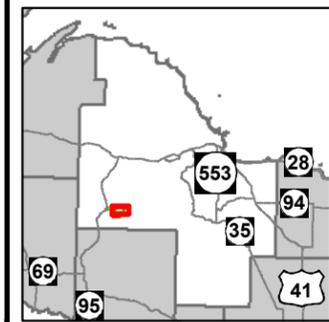
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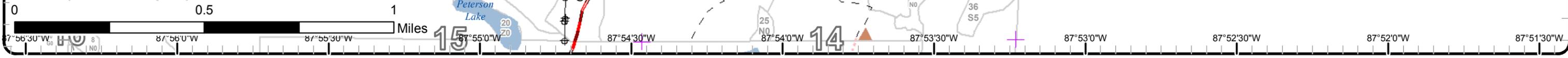
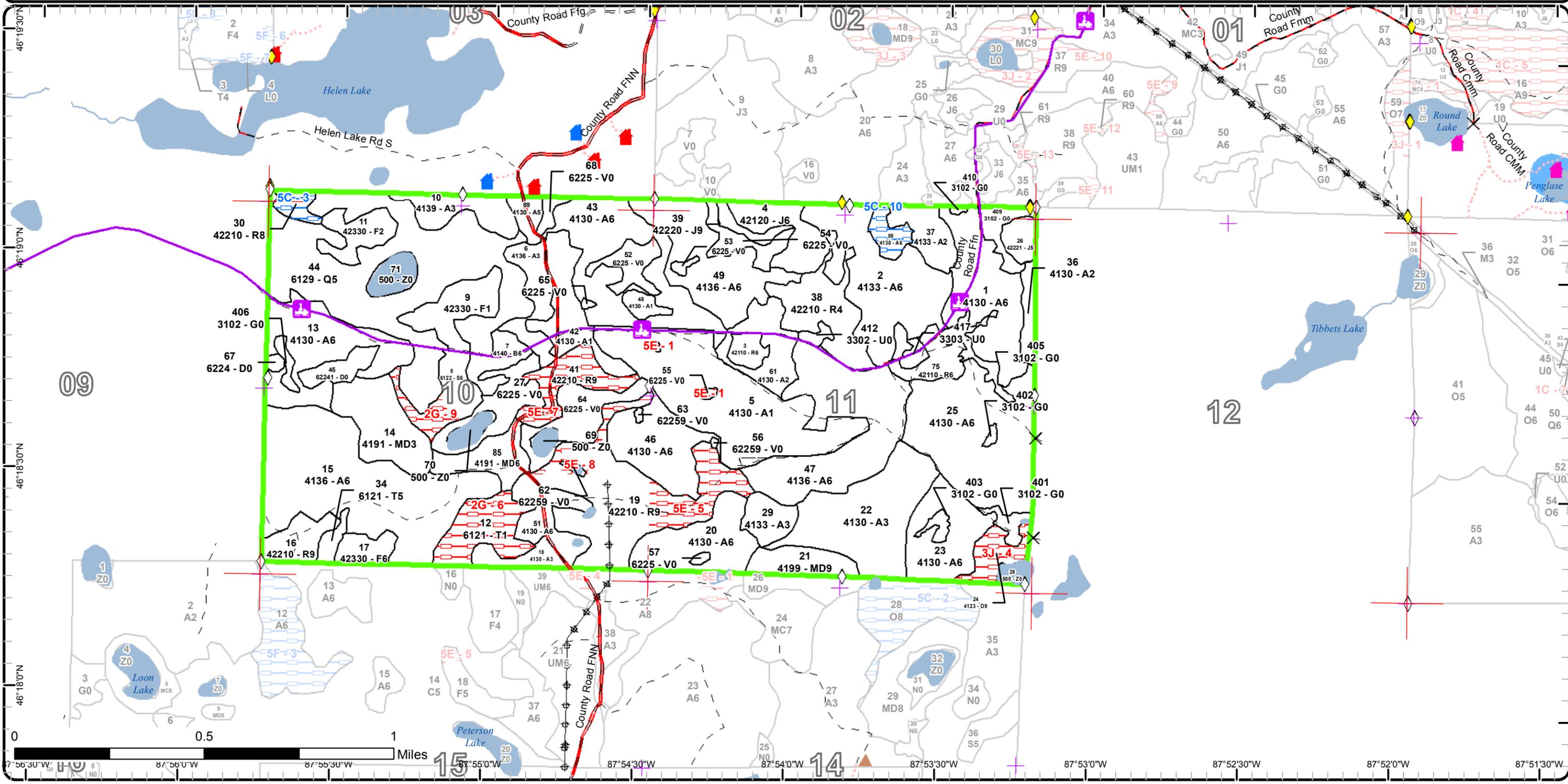
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# Special Conservation Areas & Site Conditions Map

Compartment: 234  
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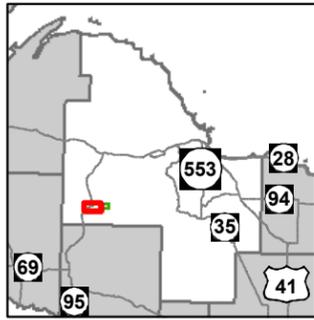


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- - - Poor Dirt Roads
- - - Closed
- Streams
- Lakes and Rivers
- Powerline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- High Priority Trout Stream Buffer

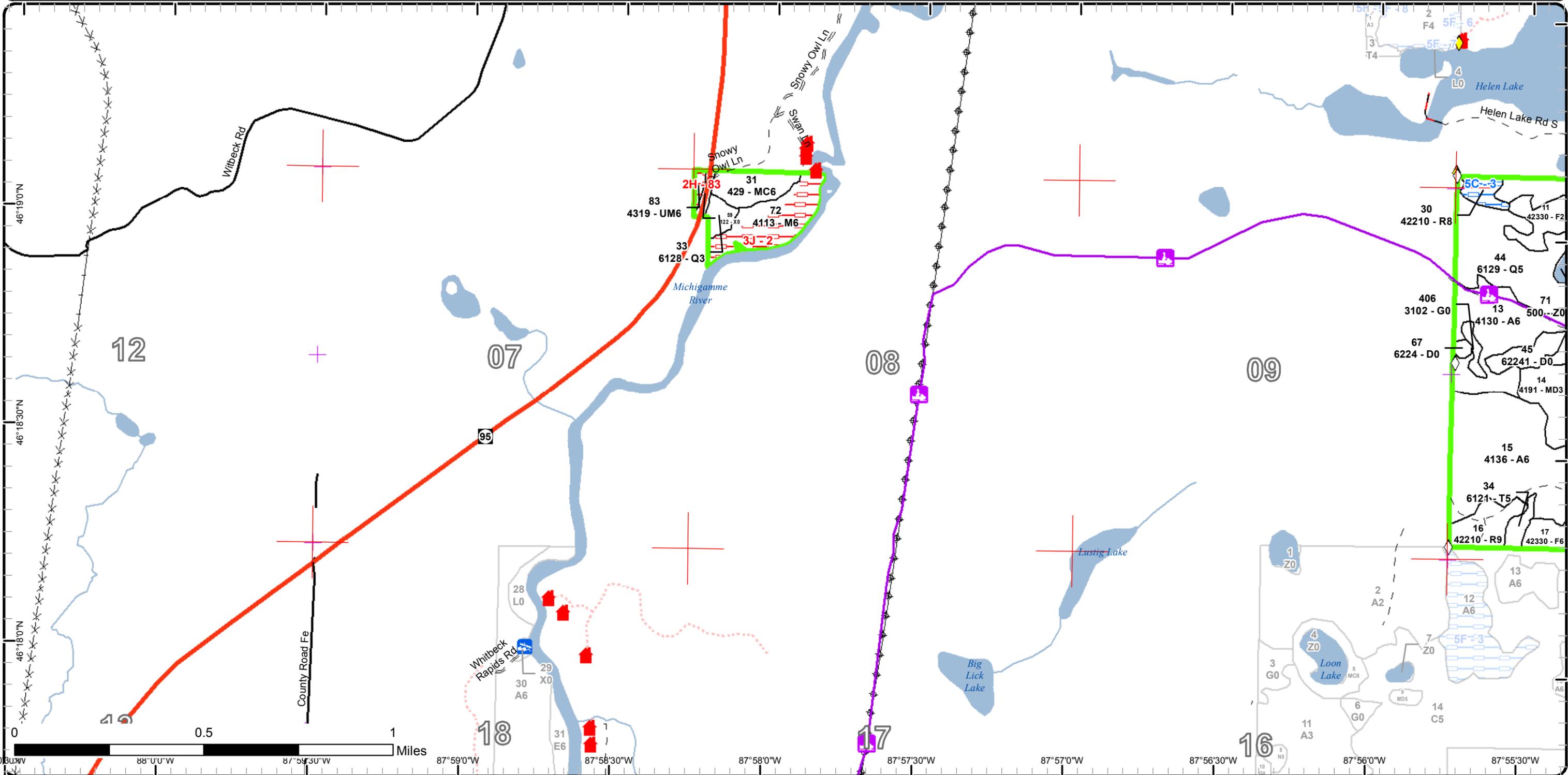


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- County Poor Dirt Roads
- Poor Dirt Roads
- Closed
- Active Railroads
- x Abandoned Railroads
- Streams
- Lakes and Rivers
- Powerline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Cold Water Streams
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)





## Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2019

Acres of Harvest

Compartment 234

Total Compartment Acres: 1,308

Commercial Harvest - 168  
 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	46	0	0	0	0	0	0	0	0	46
Lowland Spruce/Fir	9	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	11	0	0	0	8	0	0	0	0	19
Paper Birch	8	0	0	0	0	0	0	0	0	8
Red Pine	76	0	0	0	0	0	0	0	0	76
Upland Conifers	10	0	0	0	0	0	0	0	0	10
<b>Total</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>168</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	168	0	0	0	0	0	0	23	0	190
Next Step	0	89	60	0	0	60	168	0	23	399
<b>Total</b>	<b>168</b>	<b>89</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>168</b>	<b>0</b>	<b>45</b>	<b>589</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
3	32234003-Cut	5.0	42110 - Planted Red Pine	Poletimber Well	55	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut the stand. Do not harvest white pine, oak, and legacy tree red pine.											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Roller Chopping; Monitoring, Natural Regen (Intermediate)											
<u>Treatments:</u>											
<u>Acceptable</u> Spruce, fir, aspen, maple, pine, birch, and oak.											
<u>Regen:</u>											
<u>Other</u> WLD - Agree with Treatment (black bear, red crossbill) (State Game Fund)											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
7	32234007-Cut	7.6	4140 - Other Upland Deciduous	Poletimber Well	72	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut the stand. Red line out any reserve trees along the edges of the stand.											
<u>Specs:</u>											
<u>Next Step</u> Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Red pine											
<u>Regen:</u>											
<u>Other</u> WLD - In addition: Retain all over-sized Red Pine (cavity nesters, gray jay)											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
8	32234008-Cut	9.1	6122 - Black Spruce	Poletimber Well	80	81-110	Harvest	Clearcut	613 - Lowland Mixed Forest	Even-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut. Do not harvest red & white pine.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Intermediate)											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen, spruce, fir, maple, pine.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
16	32234016-Cut	10.8	42210 - Natural Red Pine	Sawtimber Well	110	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut with reserves. Do not cut white pine. Retention includes a buffer along southern and eastern edge which contains a wetland. Also left a											
<u>Specs:</u> few large (24"+ dbh) red pine within the stand.											
<u>Next Step</u> Monitoring, Natural Regen (Intermediate)											
<u>Treatments:</u>											
<u>Acceptable</u> red pine, white pine, aspen, fir, spruce, maple, and paper birch.											
<u>Regen:</u>											
<u>Other</u> Stand was added due to SBW. The fir within the understory has an infestation of budworm. Due to proximity to stand 12 & 13 in C-235 it was											
<u>Comment:</u> decided to harvest this stand as well. I spoke with wildlife biologist Brian Roell regarding the cutting of red pine and he was ok with it.											
<u>Proposed Start Date:</u> 03/16/2016											



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
19	32234019-Cut	37.0	42210 - Natural Red Pine	Sawtimber Well	106	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

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

Prescription Clearcut the stand. Retain any oak that may exist. The treatment boundary has been adjusted in the NW to buffer wet areas. Place another retention pocket along the edge of the stand, if it makes sense.

Specs:

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

Treatments:

Acceptable Red pine.

Regen:

Other WLD - In addition: Retain the eastern side of this stand as Type-2 old growth; Many over-sized White Pine and Red Pine (cavity nesters, gray jay, black bear, red crossbill) (Eastern part of stand is State Game Fund)

Proposed Start Date: 10/01/2018

21	32234021-Cut	7.7	4199 - Other Mixed Upland Deciduous	Sawtimber Well	88	81-110	Harvest	Shelterwood	4131 - Aspen, Oak	Even-Aged	Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Shelterwood harvest to promote regeneration. Leave 30-50 square feet of oak within the stand.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable oak, aspen, maple, birch, pine, fir, and spruce.

Regen:

Other

Comment:

Proposed Start Date: 06/06/2015

31	32234031- SBWCut	9.6	429 - Mixed Upland Conifers	Poletimber Well	58	81-110	Harvest	Clearcut with Retention	42330 - Upland Fir	Even-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest, removing all merchantable trees except pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fir, spruce, maple, aspen, pine.

Regen:

Other SBW-Stand needs to be checked on the ground.

Comment:

Proposed Start Date: 10/01/2017

38	32234038-Cut	23.5	42210 - Natural Red Pine	Poletimber Poor	55	1-50	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut the red pine within stand. Do not harvest oak, white pine, or legacy red pine trees. The treatment boundary was adjusted in the north half to exclude a couple of pine islands for retention purposes.

Specs:

Next Step SitePrep, Roller Chopping; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Aspen, pine, maple, oak, fir, and spruce.

Regen:

Other WLD - In addition: Agree with Treatment; Retention islands should be on the high side of normal retention (red crossbill and gray jay) (State Game Fund)

Proposed Start Date: 10/01/2018



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
46	32234046-Cut	25.9	4130 - Aspen	Poletimber Well	43	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

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

Prescription Clearcut with reserves. Reserves will be red lining (buffering) out the wet areas within the stand that exist.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, maple, fir, spruce and pine.

Regen:

Other WLD - In addition: Retention around wet should include some aspen as well (pileated woodpecker and other cavity nesters) (East half of this stand is State Game Fund)

Proposed Start Date: 10/01/2018

51	32234051-Cut	15.5	4130 - Aspen	Poletimber Well	44	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Do not cut oak and pine within the stand. Red line out a small pocket of mature timber along the west edge of the stand

Specs: for retention purposes.

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

Treatments:

Acceptable Spruce, fir, aspen, maple, birch and pine.

Regen:

Other Include the east half of this stand into the adjacent FTP (stand 19) to be planted back to red pine. Everything east of the Casey Lake Road should be part of the FTP. Delineate this out on the FTP map.

WLD - In addition: Retention should include Paper Birch (pileated woodpecker)

Proposed Start Date: 10/01/2018

85	32234085-Cut	11.1	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	64	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Do not harvest under-represented trees such as oak and pine within the stand. Retention also includes the buffer along the north edge of the sale, along the wet edge.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Spruce, fir, aspen, maple, pine, and oak.

Regen:

Other WLD - In addition: Retain all over-sized Red Pine (cavity nesters, gray jay), and some wind firm White Spruce (wildlife cover).

Comment:

Proposed Start Date: 10/01/2018

89	32234089-Cut	4.8	4130 - Aspen	Poletimber Medium	53	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Do not cut pine within the stand. Retention will be along the wetland edge on the east side of the stand.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, spruce, fir, maple and pine.

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
409	32234409-NF	22.6	3102 - Grass	Nonstocked			NonForestMgt	Other - Specify	3102 - Grass		Draft Field Boundary

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

Prescription Plant scattered mast producing trees as appropriate and cover crops in herbaceous openings according to local site conditions to promote forage for specified wildlife species. Hand/mechanical removal of brush/vegetation from the opening will be used to maintain the openings and hunter walking trails--current and future; disking, mowing, cultipacking, pesticide application may be used as necessary to accomplish wildlife goals. Partial completion reports will be completed annually for the duration this FTP is valid, describing completed work.

Next Step NonForestMgt, Other - Specify

Treatments:

Acceptable Site to be maintained as opening.

Regen:

Other Site to be maintained as opening. If adjacent stands are to be harvested, please consult with Wildlife Technician Caleb Eckloff for practices to maintain the opening. Examples include roller-chopping, herbicide, minimum harvest spec., etc. to clear encroaching vegetation.

Proposed Start Date: 10/01/2018

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**Total Treatment  
Acreage Proposed: 190.2**

## Report 4 – Site Conditions

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 234  
Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions				
		With Condition	Not Available		5C	2G	2H	3J	5E
746	740	6	0	Aspen	6				0
58	57	0	1	Bog					1
23	23	0	0	Herbaceous Openland					
26	26	0	0	Jack Pine					
4	4	0	0	Low-Density Trees					
109	109	0	0	Lowland Conifers					
15	9	0	6	Lowland Spruce/Fir		6			
52	52	0	0	Mixed Upland Deciduous					
22	0	0	22	Northern Hardwood				22	
10	0	0	10	Oak				10	
9	9	0	0	Paper Birch					
136	90	5	41	Red Pine	5				41
24	3	0	20	Tamarack		20			
8	8	0	0	Treed Bog					
11	11	0	0	Upland Conifers					
2	0	0	2	Upland Mixed Forest			2		
35	35	0	0	Upland Spruce/Fir					
2	2	0	0	Urban					
16	16	0	0	Water					
1,308	1,196	11	101	Total Forested Acres	11	27	2	32	42
	91%	1%	8%	Relative Percent					

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 234  
Year of Entry: 2019

2	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Riparian area along the Michigamme River.							
3	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> A 5 acre stand that would take a fair amount of road to re-open to get into. Hold the stand for diversity/wildlife values. Combine with stand 11 in the future for a harvest.							
4	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	10	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand acts both as a buffer to the adjacent wetland and as a patch of mature timber for Long Term Retention. There is a plethora of young aspen within this compartment, having a patch of mature timber provides some value for wildlife.							
5	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Discussed at pre-review that a portion of stand 19 should be retained due to the large diameter red and white pine that exist. In time this stand will be a Type 2 old growth stand. It was decided to use the east half of the stand as it was purchased with state game fund dollars.							
6	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	20	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stagnant stand of tamarack.							
7	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	16	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand acts as a buffer for the adjacent wetland and serves as Long Term Retention for stand 5 to the east.							

## Report 4 – Site Conditions

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 234  
Year of Entry: 2019

8	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	6	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Buffer against the adjacent wetland and long term retention for adjacent timber sale.							
9	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet ground along with sub-merchantable timber due to the wet conditions.							
10	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> A small patch of mature aspen. Harvest with stand 2 in the future.							
83	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> A small 1.5 acre stand next to M-95. Too small to consider a harvest.							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
<b>Comments</b>				



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

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

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

Conservation Area	Type	Description
SCA	Cold Water 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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Poletimber Well	37.6	40	51-80	Stand resulted from a prescribed burn in 1977. Stand consists of poorer quality aspen. The east half of the stand contains decent diameter aspen whereas the west half contains smaller diameter. Hold this stand for 10 years and manage.
2	4133 - Aspen, Mixed Pine	Poletimber Well	49.2	26	Immature	Stand was cut in 1990-91. TS# 17-89-01. Stand contains decent quality aspen and red maple stump sprouts. Scattered mature oak exists throughout the stand.
3	42110 - Planted Red Pine	Poletimber Well	5.0	55	51-80	Red pine was not harvested during the last treatment. Stand contains a mix of spruce, red and white pine. Clearcut to promote the aspen.
4	42120 - Planted Jack Pine	Poletimber Well	16.7	23	Immature	Stand was cut in 1989, Spring of 1990 . TS# 17-89-01. Stand was herbicided in Spring of 1992, then disk trenched and contract hand planted in May of 1994. FTP C31-255. 2017-Jack Pine is in good condition. Stem quality is poor on some trees.
5	4130 - Aspen	Sapling Poor	72.4	2	Immature	Stand was cut after a blowdown event in 2013. Stand was cut in 2014 under TS# 301-13. The stand has regenerated back to sparse, poor quality aspen. The stand should fill in more over time. Soil consists of rocky cobble which makes for a poorer quality aspen site.
6	4136 - Aspen, Mixed Conifer	Sapling Well	14.3	7	Immature	Stand harvested in 2010. Red pine areas were thinned to approx. 80 ft/ac. The windstorm of 2013 took down a fair amount of these pines. Currently the stand consists of decent aspen with scattered mature red pine. Most of the blowdown red pine was salvaged from this stand in 2014.
7	4140 - Other Upland Deciduous	Poletimber Well	9.0	72	81-110	Stand consists of poorer quality paper birch and a few red maple. The paper birch is falling apart due to age.
8	6122 - Black Spruce	Poletimber Well	15.4	80	81-110	Stand of black spruce and aspen. Aspen is in poor condition due to age.
9	42330 - Upland Fir	Sapling Poor	16.9	7	Immature	Stand harvested summer 2010. TS #32-104-09-01. Stand currently consists of poor regeneration post harvest. Fir is starting to fill in but it will take awhile. All birch seed trees have died.
10	4139 - Aspen, Mixed Deciduous	Sapling Well	14.5	16	Immature	Stand was harvested in 2001. TS#108-99-01. Stand currently consists of a mix of aspen and red maple. A few clumps of mature red pine exist within the stand.
11	42330 - Upland Fir	Sapling Medium	11.4	15	Immature	Stand was harvested in the winter 2001-02. TS#108-99. Stand consists of mixed conifer. Balsam is a mix of older and younger, the older balsam must of been the former understory before the last harvest. Red pine regeneration is decent along the former road edges within the stand.
12	6121 - Tamarack	Sapling Poor	20.3	85		Stand consists of a treed bog. A high water table exists throughout the stand and the timber is therefore small diameter.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	4130 - Aspen	Poletimber Well	37.0	25	Immature	Was cut in 1991, TS#12-89. Stand contains decent quality aspen with scattered mature oak throughout.
14	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	26.3	15	Immature	Stand was harvested in the summer of 2002. TS#108-99. Stand contains a mix of aspen, red maple, and fir. A clump of mature oak exists in the southern part of the stand. Clumps of older fir exist which must of been the sub-merchantable fir pre-harvest. The north part of the stand contains decent regeneration, while the southern part contains poorer regen.
15	4136 - Aspen, Mixed Conifer	Poletimber Well	86.9	43	51-80	Stand was harvested in the summer of 1974 under TS #2/74. Stand contains decent quality aspen with pockets of mature pine scattered throughout the stand. The stand still contains a fair amount of sub-merchantable aspen. Consider prescribing this stand during the next YOE.
16	42210 - Natural Red Pine	Sawtimber Well	10.8	110	81-110	Stand contains good quality pine. Stand is currently under contract. TS# 107-15.
17	42330 - Upland Fir	Poletimber Well	7.2	43	51-80	Stand contains dense fir that is mostly within the sub-merchantable category. A small pocket on the north side of the stand is merchantable but the remainder is not. Scattered large white pine exist within the stand.
18	4130 - Aspen	Sapling Well	7.2	27	Immature	Stand was harvested in 1990 under TS# 25-89. Stand contains decent quality aspen regeneration.
19	42210 - Natural Red Pine	Sawtimber Well	62.2	106	81-110	The stand was last managed in 1974 under TS# 12/73A. Currently the stand consists of mature red pine mixed with white pine. Scattered legacy trees of white pine and red pine throughout the stand.
20	4130 - Aspen	Poletimber Well	26.8	47	51-80	Cut in 1974-75. TS# 12/73A. Currently, the stand consists of poorer quality aspen. Hold for 10 years due to the adjacent treatments.
21	4199 - Other Mixed Upland Deciduous	Sawtimber Well	12.1	88	81-110	Stand contains a mix of aspen, red maple, and oak. The stand is currently under contract. TS# 107-15.
22	4130 - Aspen	Sapling Well	48.1	16	Immature	Was cut in the fall of 2001. TS#109-99. Stand of decent quality aspen. Mature pine and oak scattered throughout. Some blowdown exists within the stand from the 2013 storm.
23	4130 - Aspen	Poletimber Well	25.2	27	Immature	Stand was harvested in the summer of 1990. TS# 07-89-01. The stand is very similar to stand 25 but the aspen is slightly larger diameter. Pockets of off-site aspen still exist within the stand.
24	4123 - Red Oak	Sawtimber Well	9.9	85	81-110	This stand was previously left to buffer the small pond to the east. Stand contains poorer quality oak. Paper birch is falling out of the stand due to age. Pine regeneration is decent within the southwest corner of the stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4130 - Aspen	Poletimber Well	63.5	27	Immature	OPIC - FMD: Was commercially cut in summer of 1990 by Charlie Dillon from Witch Lake under permit # 07-89-01, "Murph's Camp Block". On the entire sale (which also includes stand 23) 470 oak were marked with green paint to save for wildlife, primarily around grass openings. Also 72 aspen were marked with orange paint as potential wildlife den trees, and aspen/pine mix acreage (now stand #35) was excluded from the sale on the north side of the sale to meet grouse habitat needs.
26	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Medium	5.8	40	1-50	Stand resulted from a prescribed burn in 1977. Stand contains decent quality jack pine with poor quality aspen mixed within it. Manage with stand 1 to the west.
29	4133 - Aspen, Mixed Pine	Sapling Well	9.1	12	Immature	Was cut in Fall of 2004. TS# 109-99. Stand currently consists of aspen with a heavy residual of mature red pine throughout. Too much red pine was left during the 2004 cut silviculturally speaking. To cut it now however would lead to excessive damage to the regeneration below. Manage the stand for aspen.
30	42210 - Natural Red Pine	Sawtimber Medium	4.9	108	81-110	Stand was harvested in 2001-02. TS #108-99. Stand consists of good quality red and white pine sawlog trees. Aspen and fir exist within the understory. Decent pine regeneration exists within patches of the stand, mostly on the east side.
31	429 - Mixed Upland Conifers	Poletimber Well	11.0	58	81-110	Stand was harvested in 1970. TS# 8/69A. The stand currently consists of poor quality fir and smaller diameter aspen. Large diameter white and red pine are scattered throughout the stand.
33	6128 - Lowland Coniferous, Mixed Deciduous	Sapling Well	4.0	31	Immature	Stand consists of fir and tamarack with some bam and tag alder mixed in. Ground is low. Average diameter is small.
34	6121 - Tamarack	Poletimber Medium	3.5	88	1-50	A small lowland stand that contains a mix of tamarack and black spruce. Timber is of poorer quality due to a high water table. Mature black spruce within the stand are infected with dwarf mistletoe.
36	4130 - Aspen	Sapling Medium	6.1	5	Immature	OPIC - FMD: I believe this stand resulted from Murph's Camp Inc. following an old trail road when they erected their double strand twisted wire fence. Fence is actually some distance west (a chain or more) of the road. When stand #1 was prescribed burned in 1977, the tractor-plow operator stayed west of the fenceline. In any event, we'd like to hold this stand for wildlife purposes for now - for budding grouse, etc. Much of the aspen is of rather poor quality.
37	4133 - Aspen, Mixed Pine	Sapling Medium	11.9	6	Immature	Stand was harvested in 2010. TS# 105-09. Stand consists of aspen and red maple regeneration of poorer quality. Large red pine exist throughout the stand. Silviculturally speaking, more red pine should of been harvested during the last cut to allow the regeneration a better chance to grow.
38	42210 - Natural Red Pine	Poletimber Poor	24.8	55	1-50	Stand harvested December 2010 by Holli Forest Products, Inc. TS# 105-09. Stand consists of mature red pine with aspen regeneration within the understory due to the harvest in 2010.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
39	42220 - Natural Jack Pine	Sawtimber Well	4.0	73	81-110	Stand acts as a buffer to adjacent bog. Valuable for wildlife (provides potential den & nest trees as individual trees die out), as well as aesthetics.
41	42210 - Natural Red Pine	Sawtimber Well	16.3	97	81-110	Stand was thinned in 1974. TS# 12/73A. Stand consists of mature red pine with a pocket of aspen within the northeast corner. Stand acts as a good buffer to the adjacent bog types to the west and east.
42	4130 - Aspen	Sapling Poor	20.6	2		This stand suffered blow down and was salvaged in the summer of 2014. TS# 301-13. Stand is regenerating back to aspen. Aspen is poorer quality. Scattered large diameter pine throughout the stand. Red maple stump sprouts have been heavily browsed.
43	4130 - Aspen	Poletimber Well	45.8	43	51-80	Stand was cut in 1975 under TS# 12/73A. Former inventory notes mention interplanting that occurred in the '60's with only marginal success.
44	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	105.3	71	51-80	A large treed bog stand that contains a mix of conifer and tamarack. Ground is very wet (stagnant) in most areas. Stand contains numerous age classes of all species due to the poor stocking and wet ground.
46	4130 - Aspen	Poletimber Well	27.2	43	51-80	Stand was commercially cut in summer of 1974 through the winter of 1974-75 under TS# 12/73A. Stand currently consists of poorer quality aspen. Smaller diameter aspen with a few conks here and there on the trees. Hold for 10 years and manage with nearby aspen stands (20, 46, 47).
47	4136 - Aspen, Mixed Conifer	Poletimber Well	57.6	43	51-80	Was cut in 1974 under TS# 12/73A. Stand currently consists of poorer quality aspen due to sandy soils. The balsam understory is poor quality as well due to budworm. Large diameter pine exists throughout the stand.
48	4130 - Aspen	Sapling Poor	3.8	2		The stand suffered blow down and was salvaged in the summer of 2014. TS# 301-13
49	4136 - Aspen, Mixed Conifer	Poletimber Well	38.0	43	51-80	Stand was cut in summer of 1974 through the winter of 1974-75. TS# 12/73A.
51	4130 - Aspen	Poletimber Well	15.5	44	51-80	Stand was cut in 1973 under two different sales. The stand currently contains poorer quality aspen with a mix of red maple and fir.
61	4130 - Aspen	Sapling Medium	16.7	6	Immature	Stand was harvested in 2010. TS# 105-09. Stand contains mostly aspen with a few scattered pine throughout, mostly in the southern half of the stand. Aspen regeneration is decent quality in some spots, poor quality in others.
72	4113 - R.Maple, Conifer	Poletimber Well	21.7	70	51-80	Stand acts as a riparian buffer to the Michigamme River. Rather poor quality red maple but valuable for aesthetics. Birch is mostly declining - significant mortality. Trace species in this stand are yellow birch, cherry, white pine, quaking aspen, cedar, & hemlock. Do not harvest this stand, maintain as a buffer.

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Gwinn Mgt. Unit

## Report 7 – Forested Stands

Compartment: 234  
Year of Entry: 2019

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
<b>75</b>	42110 - Planted Red Pine	Poletimber Well	11.6	55	51-80	No planting records for this stand. Stand consists of pine mixed with aspen. Aspen is poor quality.
<b>83</b>	4319 - Mixed Upland Forest	Poletimber Well	1.5	76	51-80	Stand is similar to the stand east of the hwy (stand 31). Too small to harvest given it's location.
<b>85</b>	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	13.9	64	81-110	Stand consists of a mix of deciduous and conifer. Stand is of poor quality. Paper birch is in decline due to age, as well as spruce and fir due to budworm.
<b>88</b>	4130 - Aspen	Poletimber Well	6.1	48	51-80	Small patch of mature aspen that was excluded from previous harvests. I am guessing it was left as a retention pocket.
<b>89</b>	4130 - Aspen	Poletimber Medium	5.4	53	51-80	Stand of poor quality aspen due to poor quality soils. Stand was hit with some blowdown in 2013. Harvest this stand.



Stand	Cover Type	Acres	Managed Site	General Comments:
27	6225 - Bog	16.0	No	Scenic bog that has an approx 4 acre pond within its boundaries.
28	500 - Water	2.5	No	Small 2 acre bog pond. Section corner is just south of this pond on high ground.
45	62241 - Treed Bog (OI)	7.0	No	A treed bog that is filling in with pine seedlings and saplings.
52	6225 - Bog	8.7	No	A bog that does have some sapling sized white pine filling in.
53	6225 - Bog	1.1	No	Small bog.
54	6225 - Bog	8.2	No	A typical leatherleaf bog, this one is generally long & narrow.
55	6225 - Bog	1.1	No	Depression like stand that contains water during the wet seasons.
56	62259 - Bog (OI)	0.3	No	A tiny leatherleaf bog.
57	6225 - Bog	0.8	No	A tiny leatherleaf bog.
59	122 - Road/Parking Lot	1.9	No	Casey Lk Rd.
62	62259 - Bog (OI)	0.8	No	A tiny leatherleaf bog, somewhat elongated east-west.
63	62259 - Bog (OI)	0.5	No	A tiny leatherleaf bog.
64	6225 - Bog	17.3	No	A larger leatherleaf bog with both a pond & a tiny island of jack pine within it.
65	6225 - Bog	0.5	No	OPIC - FMD: A tiny leatherleaf bog.
67	6224 - Treed Bog	1.2	No	A small bog that is filling in with pine saplings.
68	6225 - Bog	2.6	No	A small bog.
69	500 - Water	2.4	No	Small pond.
70	500 - Water	3.8	No	A 4 acre pond west of the Casey Lake Road. There was a beaver lodge on the edge of this pond when visited in Feb 2007.



Stand	Cover Type	Acres	Managed Site	General Comments:
71	500 - Water	7.1	No	A pond located within the swamp.
401	3102 - Grass	3.6	Yes	Some openings maintenance work was done on this stand in August of 1994 under FTP W31-298.
402	3102 - Grass	0.8	No	Some encroachment within opening by conifers.
403	3102 - Grass	2.3	Yes	Some openings maintenance work was done on this stand in August of 1994 under FTP W31-298.
405	3102 - Grass	6.1	Yes	Some openings maintenance work was done on this stand in August of 1994 under FTP W31-298.
406	3102 - Grass	2.5	Yes	Some openings maintenance work was done on this stand in August of 1994 under FTP W31-298.
409	3102 - Grass	6.8	No	Some openings maintenance work was done on this stand in August of 1994 under FTP W31-298.
410	3102 - Grass	0.5	No	
412	3302 - Low Density Conifer Trees	1.9	No	Stand is seeding in with some conifer, mostly jack pine, some red pine. Still fairly open however. FTP #W31-278 applies to this opening. Notes indicate it was Tordoned in 1992.
417	3303 - Mixed Low Density Trees	2.4	No	Possibly a natural frost pocket or "bowl". It appears from old furrows that this stand was planted to pine at one time but was a failure.