



# Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32270

Entry Year 2017

Acreage: 997

County Marquette

Management Area: Chain Lakes Moraine

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**Revision Date:** 2015-07-16

**Stand Examiner:** Jason Caron

**Legal Description:**

T45N-R28W. Sections 35 & 36.

**Identified Planning Goals:**

Promote northern hardwood cover types by way of single tree selection management. Promote aspen, spruce, and fir cover types by way of clearcuts.

**Soil and topography:**

Glacial moraines form topography that is nearly level to moderately steep. Soils are predominately well drained loams to sandy loams.

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

This compartment is part of a large block of state ownership. Private ownership exists to the north and west of this compartment however. Land use consists of timber harvesting, fishing, mushroom & berry picking, snowmobiling, and trapping.

**Unique Natural Features:**

A large portion of this compartment consists of northern hardwoods and is part of a larger hardwood complex within this area.

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

None found during this inventory cycle. Former notes mention remnants of old logging camps however.

**Special Management Designations or Considerations:**

Bark slippage restrictions are put on single tree selection harvests to reduce damage to residual timber. Winter harvesting is mandatory on lowland types to reduce soil disturbance.

**Watershed and Fisheries Considerations:**

**Wildlife Habitat Considerations:**

Compartment 270 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**

Surface sediments consist of medium-textured glacial till and minor coarse-textured till. The glacial drift thickness varies between 10 and 100 feet. Archean granite/gneiss subcrops below the glacial drift. This rock could be used as dimension stone. There are no gravel pits in the area, but there may be some potential. The compartment is relatively far from the historical iron mining districts. There were previous metallic mineral leases in this area. There is no economic oil and gas production in the UP.

**Vehicle Access:**

The Tower Road is a two track that cuts through the center of the compartment and then heads south. Small two tracks

head off of the Tower Road and provide access to different portions of the compartment.

**Survey Needs:**

A survey will be needed within the west part of section 35 and the north part of section 36 for timber harvesting.

**Recreational Facilities and Opportunities:**

A hunter walking trail exists within this compartment and has been maintained by wildlife staff. Recreational opportunities consists of hunting, fishing, mushroom & berry picking, snowmobiling, and trapping.

**Fire Protection:**

Fire occurrence is low within this compartment due to the amount of northern hardwood cover type.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

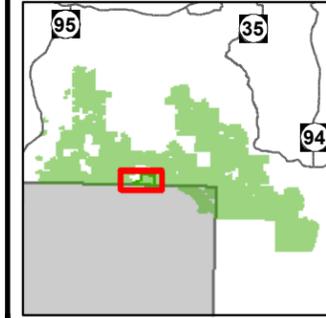
- Total Acres by Cover Type and Age Class
- Cover Type by Harvest Method
- Proposed Treatments – No Limiting Factors
- Proposed Treatments – With Limiting Factors
- Stand Details (Forested and Nonforested)
- Dedicated and Proposed Special Conservation Areas
- Site Condition Details

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

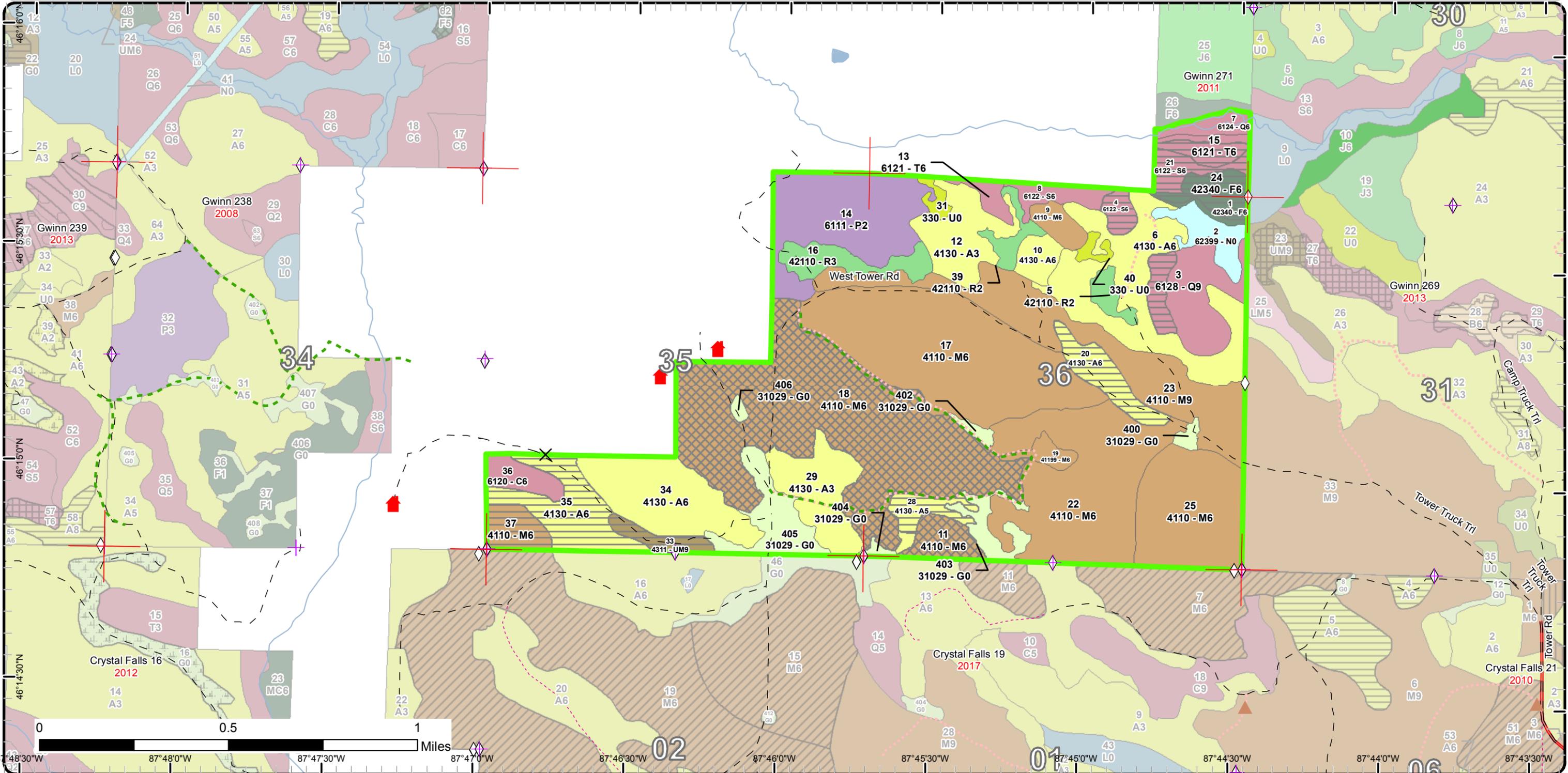
- Base feature information, stand boundaries, cover types, and numbers
- Proposed treatments
- Site condition boundaries
- Details on the road access system

# Cover Type & Treatments

Compartment: 270  
 T45N,R28W, Sec. 35, 36  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2017  
 Acres: 997 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 7/1/2015  
 Map Phase: Pre-Review

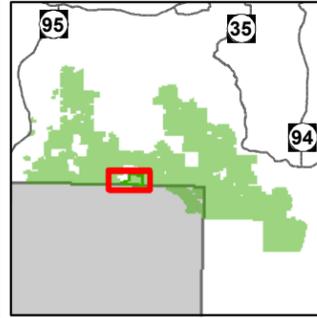


- ✚ Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- County Gravel Roads
- - Poor Dirt Roads
- - - Trail (Non-Recreation)
- ⋯ Closed Roads
- - - Designated Hiking Pathways
- ✕ Gate
- ▲ Berms
- Rivers
- Lakes
- ⊠ Selection (Group, Single Tree)
- ▭ Clearcut (w/Reserves)
- Forest Covertype
- 411 - Northern Hardwood
- 413 - Aspen
- 421 - Planted Pines
- 423 - Other Upland Conifers
- 430 - Upland Mixed Fores
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- Non-Forest Covertype
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 623 - Emergent Wetland

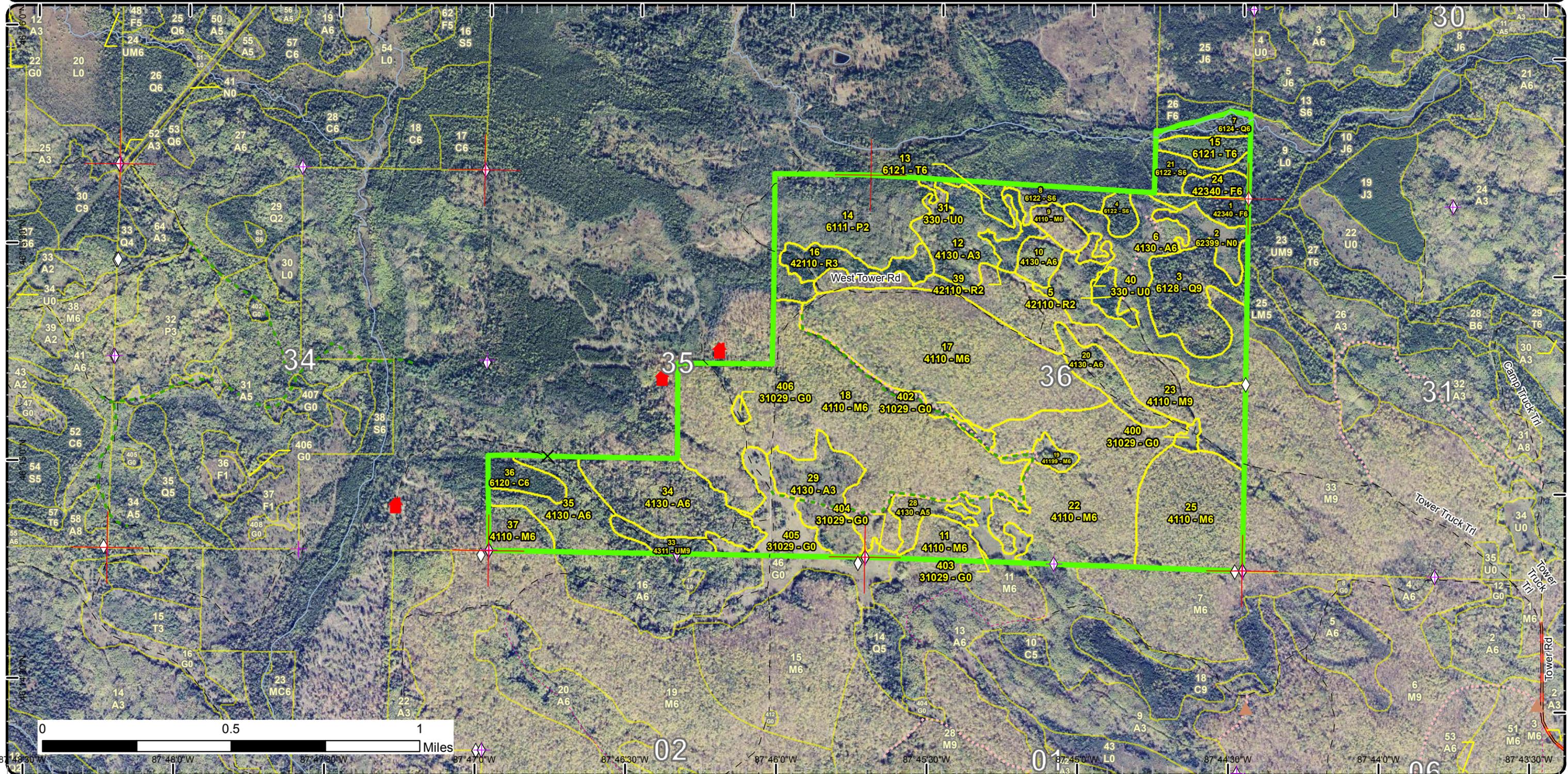


# Stand Boundary Map

Compartment: 270  
 T45N,R28W, Sec. 35, 36  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2017  
 Acres: 997 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 7/1/2015  
 Map Phase: Pre-Review

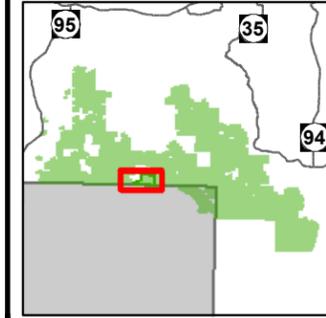


- ✚ Remonumented Section Corners Forest Covertypes
  - ◇ Field Grade GPS Corners
  - Miris Corners
  - County Gravel Roads
  - - Poor Dirt Roads
  - - - Trail (Non-Recreation)
  - ⋯ Closed Roads
  - - - Designated Hiking Pathways
  - ✕ Gate
  - ▲ Berms
  - Rivers
  - Stand Boundaries
- |                                 |
|---------------------------------|
| 411 - Northern Hardwood         |
| 413 - Aspen                     |
| 421 - Planted Pines             |
| 423 - Other Upland Conifers     |
| 430 - Upland Mixed Fores        |
| 611 - Lowland Deciduous Forest  |
| 612 - Lowland Coniferous Forest |
- Non-Forest Covertypes
- |                           |
|---------------------------|
| 310 - Herbaceous Openland |
| 330 - Low Density Trees   |
| 623 - Emergent Wetland    |

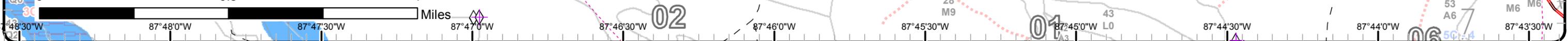
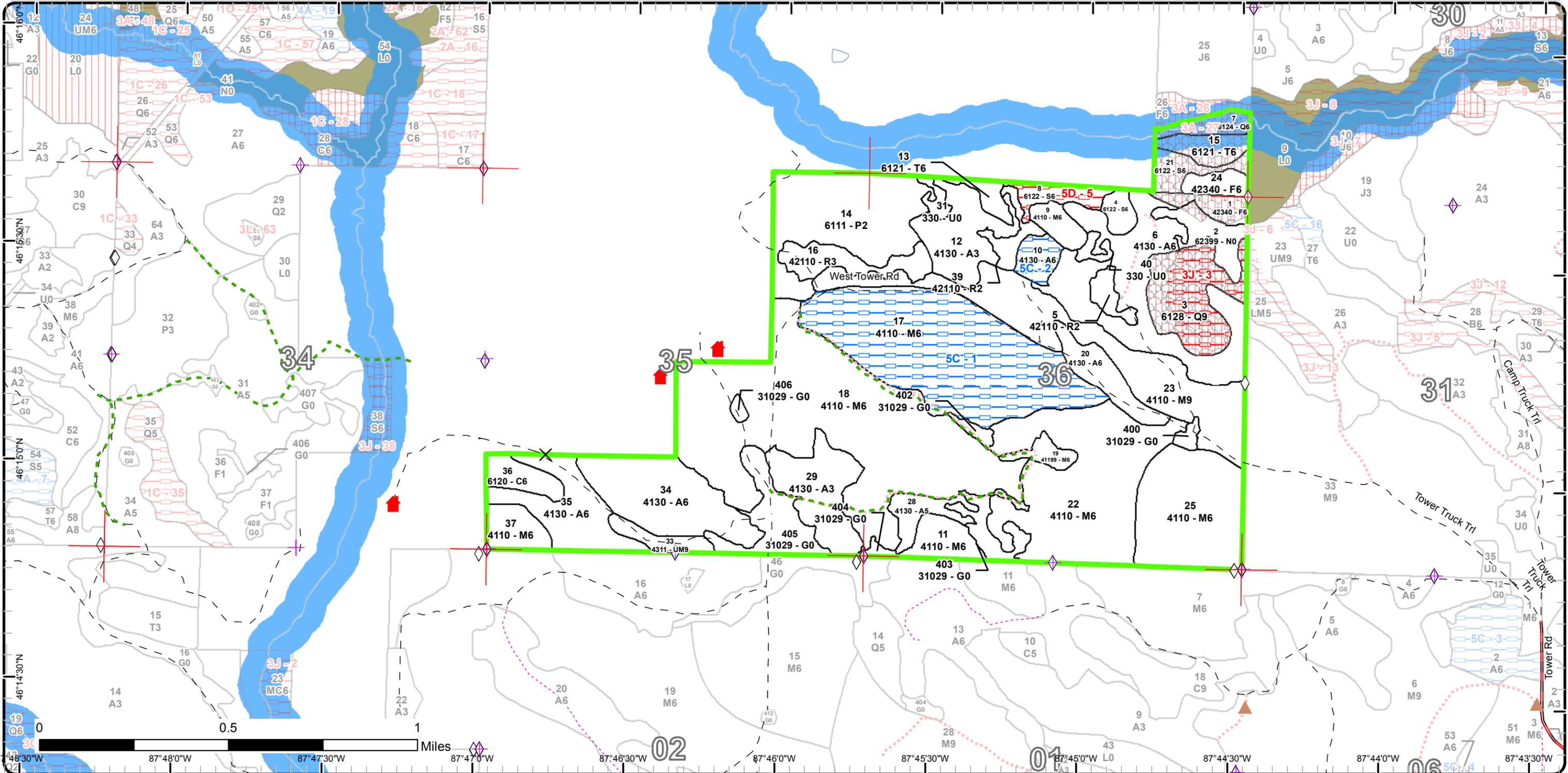


# Special Conservation Areas & Site Conditions Map

Compartment: 270  
 T45N,R28W, Sec. 35, 36  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2017  
 Acres: 997 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 7/1/2015  
 Map Phase: Pre-Review



- ✚ Remonumented Section Corners
  - ◇ Field Grade GPS Corners
  - Miris Corners
  - County Gravel Roads
  - - Poor Dirt Roads
  - - - Trail (Non-Recreation)
  - ⋯ Closed Roads
  - - - Designated Hiking Pathways
  - ✕ Gate
  - ▲ Berms
  - Rivers
  - Stand Boundaries
- Reviewable SCAs (dq)
  - Recommendation
  - Site Condition
  - Available w/ Constraints
  - Unavailable
  - Available Factors W/ Constraints
  - 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
  - 3J: Water quality / BMPs (stream, river, or lake)
  - 5D: Unproductive Forest Land Special Conservation Areas
  - Cold Water Streams
  - High Priority Trout Stream Buffer



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

Gwinn Mgt. Unit

Compartment 270 Year of Entry 2017

Jason Caron : Examiner



## Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	29	132	0	0	62	0	0	0	0	0	0	0	0	0	0	0	223
Cedar	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
Herbaceous Openland	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Low-Density Trees	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Aspen/Balsam Poplar	0	0	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Lowland Conifers	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	41
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	5	0	9	0	8	0	0	0	0	22
Marsh	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	303	7	0	0	0	0	0	212	522
Red Pine	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Tamarack	0	0	0	0	0	0	5	0	0	10	0	0	0	0	0	0	0	0	15
Upland Mixed Forest	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Upland Spruce/Fir	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	15
<b>Total</b>	<b>57</b>	<b>0</b>	<b>56</b>	<b>189</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>8</b>	<b>15</b>	<b>56</b>	<b>303</b>	<b>26</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>212</b>	<b>997</b>



## Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2017

Acres of Harvest

Compartment 270

Total Compartment Acres: 997

Commercial Harvest - 290  
 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	53	0	0	0	0	0	0	0	0	53
Lowland Conifers	7	0	0	0	0	0	0	0	0	7
Lowland Spruce/Fir	14	0	0	0	0	0	0	0	0	14
Northern Hardwood	0	188	0	0	0	0	0	0	0	188
Tamarack	7	0	0	0	0	0	0	0	0	7
Upland Mixed Forest	8	0	0	0	0	0	0	0	0	8
Upland Spruce/Fir	12	0	0	0	0	0	0	0	0	12
<b>Total</b>	<b>101</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>290</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	290	0	0	0	0	0	0	0	0	290
Next Step	0	0	0	0	0	177	290	0	0	467
<b>Total</b>	<b>290</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>177</b>	<b>290</b>	<b>0</b>	<b>0</b>	<b>756</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	32270001-Cut	5.8	42340 - Upland Spruce/Fir	Poletimber Well	78	Unspec ified	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut with reserves. Do not cut pine. Buffer along wetland edge will serve as retention. Treatment boundary has been adjusted.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Spruce, fir, pine, aspen, birch											
<u>Regen:</u>											
<u>Other</u> Producer will have to freeze across a tag alder area then place a few crane mats across a small flowage to access this stand and the others to											
<u>Comment:</u> the north. A DEQ permit will be required. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											
3	32270003-11- New	7.4	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	85	Unspec ified	Harvest	Clearcut with Retention	611 - Lowland Deciduous Forest	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut with reserves. Treatment area reduced significantly due to wet areas and seeps within the parent stand. No cut on pine and cedar.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Bam, spruce, fir, aspen, birch, pine and tamarack.											
<u>Regen:</u>											
<u>Other</u> Red line placement may vary greatly due to wet areas and seeps within the stand. Keep these areas excluded from sale. To see these drainages											
<u>Comment:</u> and seeps set up the sale in snow free conditions. Old next step comments:											
<u>Proposed Start Date:</u> 10/1 /2016											
4	32270004-Cut	5.3	6122 - Black Spruce	Poletimber Well	80	Unspec ified	Harvest	Clearcut with Retention	6124 - Lowland Spruce-Fir	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Clearcut with reserves. Leave a small patch of timber for retention purposes. Do not cut cedar.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> spruce, fir, tamarack, cedar.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
11	32270011-Cut	11.7	4110 - Sugar Maple Association	Poletimber Well	90	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Selection system harvest to 80 BA. Open up around red oak to try to promote regeneration. Open up 1 chain beyond drip line around the oak. Do											
<u>Specs:</u> not mark yellow birch. Mark basswood where basswood basal area is high. Do not cut pine. Regeneration is a concern. a lot of ironwood and											
<u>leatherwood</u> in the understory.											
<u>Next Step</u> Pesticide, Hand Application; Monitoring, Natural Regen (Intermediate)											
<u>Treatments:</u>											
<u>Acceptable</u> Maple, oak, basswood, birch and pine.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /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
15	32270015.10_ Cut	6.7	6121 - Tamarack	Poletimber Well	84	Unspec ified	Harvest	Clearcut with Retention	6121 - Tamarack	Even-Aged	Proposal

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

Prescription Clearcut with reserves. Leave a patch of mature timber for retention purposes. Large stream buffer will serve as retention for this stand.

Specs:

Next Step

Treatments:

Acceptable Tamarack, spruce, fir.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

18	32270018-Cut	165.5	4110 - Sugar Maple Association	Poletimber Well	90	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Selection system harvest to 80 BA. Open up around red oak to try to promote regeneration. Do not mark under-represented trees such as yellow birch. Mark basswood where basswood basal area is high. Do not cut conifer. A few aspen clones exist within the stand, mark some and leave some of the aspen. Regeneration is a concern. A lot of ironwood and leatherwood in the understory.

Specs:

Next Step Pesticide, Hand Application; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Maple, oak, basswood, birch and pine.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

20	32270020-Cut	15.0	4130 - Aspen	Poletimber Well	52	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Leave a patch or island of mature timber for retention purposes.

Specs:

Next Step

Treatments:

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

21	32270021.13_ Cut	8.7	6122 - Black Spruce	Poletimber Well	102	Unspec ified	Harvest	Clearcut with Retention	6124 - Lowland Spruce-Fir	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Retain a patch of mature tamarack.

Specs:

Next Step

Treatments:

Acceptable Spruce, fir, pine, birch and tamarack.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /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
24	32270024.12_ Cut	6.7	42340 - Upland Spruce/Fir	Poletimber Well	79	81-110	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Draft Field Boundary

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

Prescription Clearcut with reserves. Make sure retention includes some larger white birch and aspen. Do not cut pine.

Specs:

Next Step

Treatments:

Acceptable Spruce, fir, pine, aspen, birch.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

28	32270028-Cut	8.3	4130 - Aspen	Poletimber Medium	54	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Leave under-represented trees such as pine and oak if it exists. Leave a patch of basswood and sugar maple as part of the retention patch.

Specs:

Next Step

Treatments:

Acceptable Maple, oak, aspen, basswood.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

33	32270033-Cut	7.7	4311 - Pine, Aspen Mix	Sawtimber Well	60	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Leave a patch of mature timber to meet retention guidelines. Retention patch should contain some mature red pine.

Specs:

Next Step

Treatments:

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

35	32270035-Cut	29.7	4130 - Aspen	Poletimber Well	56	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves. Leave a patch or two of mature timber to meet retention guidelines. If available, include some large healthy white spruce within the retention patch. Do not cut under-represented trees within the stand such as oak, pine, yellow birch.

Specs:

Next Step

Treatments:

Acceptable Aspen, spruce, fir, pine, maple, oak, basswood

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
37 32270037-Cut	11.3	4110 - Sugar Maple Association	Poletimber Well	95	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Selection system harvest to 80 BA. Open up around red oak to try to promote regeneration. Do not mark yellow birch. Mark basswood where  
Specs: basswood basal area is high. Do not cut pine. Regeneration is a concern. a lot of ironwood and leatherwood in the understory.

Next Step

Treatments:

Acceptable Maple, pine, oak, basswood and birch.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

**Total Treatment  
Acreage Proposed: 289.6**

## Report 5 – Site Conditions

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 270  
Year of Entry: 2017

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions			
		With Condition	Not Available		5C	3A	3J	5D
223	215	8	0	Aspen	8			
10	10	0	0	Cedar				
39	39	0	0	Herbaceous Openland				
6	6	0	0	Low-Density Trees				
57	57	0	0	Lowland Aspen/Balsam Poplar				
41	7	0	34	Lowland Conifers		7	26	
22	14	0	8	Lowland Spruce/Fir				8
12	12	0	0	Marsh				
522	413	109	0	Northern Hardwood	109			
27	27	0	0	Red Pine				
15	15	0	0	Tamarack				
8	8	0	0	Upland Mixed Forest				
15	15	0	0	Upland Spruce/Fir				
997	838	117	42	Total Forested Acres	117	7	26	8
	84%	12%	4%	Relative Percent				

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	109	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Holding this stand for 10 years due to the amount of treatments within this compartment in this YOE.							
2	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand of aspen that is smaller diameter and is in good condition. Hold for another 10 years and treat with stand 9 to the north.							

## Report 5 – Site Conditions

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 270  
Year of Entry: 2017

3	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	27	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Numerous seeps and drainages throughout the stand. Do not manage.</p>							
5	<b>Unavailable</b>	<b>5D: Unproductive Forest Land</b>	8	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Stand of stagnant black spruce. Ground is very low and wet.</p>							



## Report 6 – 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>One</b>	Other SCA		<b>SCA Removal</b>	9
<b>Comments</b> SCA = Buffer to the Camp Eleven Creek.				
<b>Sca Removal 1</b>	Other SCA		<b>SCA Removal</b>	5
<b>Comments</b> This small stand is an island inside a wetland complex.				
<b>Sca Removal 2</b>	Other SCA		<b>SCA Removal</b>	3
<b>Comments</b> A creek flows through this small stand.				
<b>Sca Removal 3</b>	Other SCA		<b>SCA Removal</b>	20
<b>Comments</b> Upland that contains a spring creek and other seeps that feed the surrounding wetlands.				
<b>Sca Removal 4</b>	Other SCA		<b>SCA Removal</b>	14
<b>Comments</b> Potential old growth. Acts as a riparian buffer to creek. Contains eastern larch inclusions.				
<b>Three</b>	Other SCA		<b>SCA Removal</b>	10
<b>Comments</b> SCA = Buffer to the Camp Eleven Creek.				
<b>Two</b>	Other SCA		<b>SCA Removal</b>	7
<b>Comments</b> SCA = Bottom lands and flood plains of the Camp Eleven Creek.				



## Report 7 – 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.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42340 - Upland Spruce/Fir	Poletimber Well	7.8	78	Unspecified	Upland stand of spruce and fir. Budworm damage is severe.
3	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	33.9	85	Unspecified	Old stand of timber with numerous seeps and flowages throughout. Do not manage due to ground issues.
4	6122 - Black Spruce	Poletimber Well	5.3	80	Unspecified	Stand of mixed tamarack and black spruce with a few large cedar scattered. Spruce is holding up well. Tamarack is in good condition currently but I notice the budworm is eating the needles on it.
5	42110 - Planted Red Pine	Sapling Medium	5.6	17	Immature	Stand was cut in 1993. TS# 26-87. Hand planted in spring of 1998. Note: per FTP #C31-362 site was sprayed with herbicide on 6/7/2001 to chemically release the planted red pine.  Stand of red pine. Some opening exist that consist of raspberry (possibly failed areas)?
6	4130 - Aspen	Poletimber Well	62.3	22	Immature	Stand was cut in 1993. TS# 26-87. Nice stand of dense aspen. Good quality.
7	6124 - Lowland Spruce-Fir	Poletimber Well	7.0	80	Unspecified	Bottom lands and flood plains of the Camp Eleven Creek.
8	6122 - Black Spruce	Poletimber Well	8.4	122	Unspecified	Stand of stagnant black spruce with a few large cedar mixed in. Very slow growth due to high water table. Do not manage.
9	4110 - Sugar Maple Association	Poletimber Well	7.2	100	81-110	Small stand of pole-sized hardwood. Basal area is still low. Do not manage in this YOE. Sugar maple is decent quality, but many double stems. Paper birch is present but dying out.
10	4130 - Aspen	Poletimber Well	7.8	50	Unspecified	Healthy stand of dense aspen. Stand looks young and healthy. Hold for another 10 years and cut. Thin hardwood stand to the north at the same time.
11	4110 - Sugar Maple Association	Poletimber Well	11.7	90	111-140	Pole stand with basswood well represented. Some large red oak scattered throughout the stand. Regeneration layer mostly leatherwood and ironwood. Sedge is evident throughout the stand. Balsam fir saplings are in isolated scattered pockets on the north slope. Some white spruce mixed in.
12	4130 - Aspen	Sapling Well	26.3	22	Immature	Stand was cut in 1993. TS #26-87. Nice stand of regenerated aspen. Small openings within the stand are filling in. Aspen regeneration looks good, denser.
13	6121 - Tamarack	Poletimber Well	5.0	50	Unspecified	Nice stand of tamarack that has regenerated back from a former cut. Good stem quality.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	6111 - Lowland Balsam Poplar	Sapling Medium	56.8	22	Immature	Stand was cut in 1993. TS #26-87. CEDAR LEFT. A highly variable stand on marginal ground. Drier areas and some large knobs are upland with a quaking aspen/balsam fir mix with pockets of pure white spruce and balsam fir that are 4-5" dbh. Wetter areas are predominately bam with scattered balsam fir and tamarack. Budworm present especially where there are dense balsam and spruce pockets.
15	6121 - Tamarack	Poletimber Well	9.6	84	Unspecified	Stand of pole sized tamarack. Tamarack is good quality.
16	42110 - Planted Red Pine	Sapling Well	15.2	17	Immature	Stand was hand planted in spring of 1998. Young red pine plantation which becomes more mixed as you go east. Balsam fir mixed throughout. Red pine is highly variable in height and diameter. There are some scattered pockets of quaking aspen within the stand.
17	4110 - Sugar Maple Association	Poletimber Well	109.3	90	141-170	Decent quality pole stand with basswood well represented. Poorly developed understory. Sub-canopy of sugar maple and ironwood are mostly suppressed saplings. Some leatherwood and sedge on ground layer. Scattered oversized quaking aspen. Ironwood dominating the understory.
18	4110 - Sugar Maple Association	Poletimber Well	165.5	90	111-140	Pole stand with basswood well represented. Regeneration layer mostly leatherwood and ironwood. Sedge is evident throughout the stand. Balsam fir saplings are in isolated scattered pockets on the north slope. Some white spruce mixed in.
19	41199 - Northern Hardwood (OI)	Poletimber Well	5.5	90	81-110	
20	4130 - Aspen	Poletimber Well	15.0	52	Unspecified	Stand contains aspen of poorer quality. I've noticed some individual stems that are dead. Maple regeneration underneath is impressive.
21	6122 - Black Spruce	Poletimber Well	8.7	102	Unspecified	Stand of black spruce mixed with tamarack.
22	4110 - Sugar Maple Association	Poletimber Well	89.7	90	81-110	Stand was selectively cut in 2000: TS#114-97-01. Decent pole stand, heavier to sugar maple. The understory is thick and brushy with ironwood and mixed leatherwood. Scattered white spruce saplings are more dense in isolated pockets. Yellow birch are very rare but present within the stand.
23	4110 - Sugar Maple Association	Sawtimber Well	68.0	105	51-80	Stand consists of a mix of basswood and sugar maple of decent quality. Regeneration underneath is poor, mostly ironwood and raspberry. Only few sugar maple seedlings and saplings. Stand was selectively thinned in 2009.
24	42340 - Upland Spruce/Fir	Poletimber Well	6.7	79	81-110	Stand of poor quality fir and spruce. Budworm has caused extensive damage to both.
25	4110 - Sugar Maple Association	Poletimber Well	54.0	90	51-80	A very open canopy within the stand. Thick brushy ground level regeneration consisting of ironwood and rubus from 1-6'. Some areas of the stand have a very low basal area. Stand was thinned in 2009.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	4130 - Aspen	Poletimber Medium	9.6	54	Unspecified	Over-mature quaking aspen mixed heavily with poor quality sugar maple and basswood, especially around the edges. Ironwood saplings have dominated the canopy gaps. A fair amount of sugar maple exists underneath the ironwood. Areas where the canopy is still intact contains a carpet of sugar maple seedlings. Some red oak in adjacent stand has seeded in as well.
29	4130 - Aspen	Sapling Well	28.9	12	Immature	Harvested in 2003; TS# 124-02-01. Young stand of aspen regeneration, very thick. Scattered larger spruce/fir likely left as retention from previous harvest. Budworm present within the stand. Leatherwood and cherry also present in the understory, but in lower density.
33	4311 - Pine, Aspen Mix	Sawtimber Well	7.7	60	51-80	Nice stand of red pine with poorer quality aspen and conifer mixed in. Conifer has bad budworm damage.
34	4130 - Aspen	Poletimber Well	43.1	22	1-50	Nice stand of diverse regen. Stand looks healthy. Stand was cut in 1993. TS# 26-87
35	4130 - Aspen	Poletimber Well	29.7	56	Unspecified	Stand of decent quality aspen, but needs treatment. Balsam fir and white spruce have bad budworm damage and will likely fall out of the stand in the next few years.
36	6120 - Lowland Cedar	Poletimber Well	9.7	103	201+	Nice stand of quality pole sized cedar with scattered white spruce and a few deceased trees. No young regeneration present. Scattered balsam fir in the understory.
37	4110 - Sugar Maple Association	Poletimber Well	11.3	95	141-170	Decent stand of hardwood, although sugar maple is poorer quality. Basswood is good quality. Scattered large red oak throughout the stand. Sugar maple borer present.
39	42110 - Planted Red Pine	Sapling Medium	6.7	17	Immature	Stand was cut in 1993. TS #26-87. Hand planted to red pine in spring of 1998. Red pine is stubby due to wide spacing. Some void areas within the stand that are filled with raspberry.



Stand	Cover Type	Acres	Managed Site	General Comments:
2	62399 - Marsh (OI)	12.2	No	OI Notes: Beaver flooding and meadow.
31	330 - Low-Density Trees	3.3	No	
40	330 - Low-Density Trees	2.7	No	Former grass opening that is filling in with aspen.
400	31029 - Grass (OI)	2.3	No	
402	31029 - Grass (OI)	2.5	No	
403	31029 - Grass (OI)	10.3	No	
404	31029 - Grass (OI)	1.7	No	
405	31029 - Grass (OI)	21.3	No	
406	31029 - Grass (OI)	1.4	No	